A CONVERGEONE SOLUTION FOR

STATE OF WEST VIRGINIA

RFP FOR MANAGED AND HOSTED VOICE SERVICES
CRFP 0212 SWC1900000001 – TECHNICAL RESPONSE

Presented By:

Steve Murphy
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November 27, 2018

Company Headquarters:

3344 Highway 149
Eagan, MN 55121
Tel 1-888-321-6227
Fax 651-994-6801

Signature: _____

ConvergeOne

C1 ConvergeOne

November 27, 2018

Mark Atkins
State of West Virginia
Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, West Virginia 25305-0130

Dear Mr. Atkins,

Thank you for the opportunity to participate in the State of West Virginia RFP for Managed and Hosted Services CRFP 0212 SWC1900000001. We understand that the State of West Virginia ("State") is ready to invest in the future and the systems that will enable new ways of conducting business and serving their staff, residents and businesses.

C1 is the leading independent integrator of best-in-class communications, collaboration, and customer interaction solutions – offering a visionary approach to managing costs and service delivery while simultaneously improving capabilities and reliability. We achieve success by working closely with multiple technology innovators to integrate the latest hardware, software, and applications into end-to-end multivendor solutions to meet the unique needs of our clients. We then deliver the solution in an easy-to-consume financial model with full ongoing service capabilities. This provides risk mitigation as we continue to see changes in the vendors supplying technology components in the market and keeps government entities from perpetually investing in administrative training and service delivery vehicles.

As part of our response to the State of West Virginia, you will also note that we are not only focusing on your current Cisco telephony deployment but also providing the State an option to move to Skype for Business Voice Online as well. In our discussions with Microsoft and information from this RFP, we understand that Skype of Business is key collaboration component within the State and your business partners. As a Microsoft Gold Collaboration Partner, we would enjoy providing the State options for their users and how this can directly tie into the C1CX Cisco Cloud.

- NOTE: Our solution includes the ability to test, POC and or migrate to Microsoft Teams (at no additional cost). This can be a great solution for various business units needing to collaborate on projects.

Your C1 team asserts with confidence that our many years of success with local, state and federal governments combined with our in-depth technical knowledge and dedication to customer service provide the highest value to the State. We welcome the opportunity to demonstrate our commitment and determination in contributing to the State's success.

Sincerely,

Steve Murphy
National Account Manager
925-490-1052
Smurphy@convergeone.com

Table of Contents

C1 Attachments

EXECUTIVE SUMMARY

ConvergeOne is honored and excited to respond to the State of West Virginia Request for Proposal for Managed and Hosted Voice Services. The requirements, as described in this RFP, are very similar to other ConvergeOne clients. The critical element is determining the details that make you and your situation unique. ConvergeOne believes that building and growing customer partnerships is the best way to create success – for the State of West Virginia (State) and for ConvergeOne (C1). Partnerships begin by understanding your needs and challenges and drawing on our expertise to find solutions and transfer this knowledge for your continued success.

About ConvergeOne:

ConvergeOne fills the role of trusted systems integrator for many companies nationwide. We are the partner of choice for more than 11,000 customers ranging in size from small businesses to Fortune 500 companies. We've spent decades building upon our technology offerings which span the core technology markets- customer experience, cybersecurity, data center, enterprise networking, and unified communications. We deliver these solutions across a number of delivery models including on-premise, and in private, hybrid, and public clouds as well as the proprietary ConvergeOne Cloud (C1CX), regardless of our customers' existing infrastructure.

When you work with ConvergeOne, you're working with a full-service provider. We are focused on supporting our customers throughout the project lifecycle, from consultation and design to implementation, optimization, and ongoing management. Our comprehensive portfolio provides one of the broadest and deepest solution offerings in the industry and is backed by a nationwide team of highly trained and certified technicians.

ConvergeOne is your partner for achievement. We have selected more than 300 technology partnerships to customize specific business outcomes including Avaya, **Cisco**, IBM, Genesys, and **Microsoft**. These partners recognize ConvergeOne's world-class expertise and continue to award us their "Partner of the Year".

ConvergeOne and Cisco

ConvergeOne is a Gold Partner with Cisco and has built the Collaboration and Data Center Practices' around the vision and strategy to become our customers' most strategic business partner by delivering Business Collaboration Architectures that are built on "best of breed" integrated voice, video and data products, services and software platforms that enable our customers' success and profitability. Our Team consists of Video Solutions Architects, Collaboration, Voice and Storage Networking CCIEs. *ConvergeOne is one of only 16 of Cisco's almost 12,000 U.S. partners to hold all four Master Certifications.*

Below are just a few of our Cisco Advanced Technology Partner, Master and Advanced Certifications.

Master Partner in:

- Cloud Builder Specialization
- Collaboration Specialization
- Cloud and Managed Services
- Security Specialization

Advanced Technology Partner in:

- Cisco Application Centric Infrastructure
- Cisco Voice Portal (CVP)
- IP Interoperability and Collaboration Systems
- Cisco TelePresence Video Master
- Identity Services Engine
- Unified Contact Center Enterprise

Advanced Partner in:

- Borderless Network Architecture Specialization
- Content Security Specialization
- Enterprise Networks Architecture Specialization
- Security Architecture Specialization
- Unified Computing Technology Specialization
- Video Specialization
- Collaboration Architecture Specialization
- Data Center Architecture Specialization
- Routing + Switching
- Security
- Unified Fabric Technology Specialization

...and some of our Cisco Awards:

- Cisco Americas Collaboration Partner of the Year – 2017
- Cisco Outstanding Customer Satisfaction Partner of the Year: Americas US Central – 2017
- Cisco SLED Partner of the Year: Americas US West – 2017
- Cisco SMB Market Partner of the Year: Americas US East – 2017
- Security Partner of the Year: Central Partner Organization – 2017
- Regional Partner of the Year: Prairie States Operation – 2017

- Cisco Security Partner of the Year: Americas West – 2016, 2015
- Cisco Meraki Partner of the Year: West Area – 2015

ConvergeOne and Microsoft

Why Microsoft on this RFP? Well why not? During our time at the Bidders Conference we found out that the State of West Virginia's primary instant messaging and meetings platform is Skype of Business Online. As part of our offering, we will provide the state and option of enabling PSTN dialing from their Skype client (while using their existing DID) and 100% managed by ConvergeOne!

Oh ya, and if Microsoft Teams is an interest to the State – ConvergeOne has your "team" covered! Our goal as your partner is to enable those investments the State has made and maximize them to their fullest.

As a Microsoft Gold Partner for Communications & Cloud Productivity, ConvergeOne holds the highest level of Cloud solutions and Microsoft Skype for Business Support accreditation, providing ConvergeOne engineers direct access to level 3 and level 4 Microsoft engineers.

Microsoft Gold Partner

- Cloud Productivity
- Cloud Platform
- Enterprise Mobility Management
- Windows and Devices
- Communications

We also realize that the State has standardized on the Skype for Business intelligent communication solution as part of the overall O365 productivity stack. We highly advise that any proposed solution integrate directly into that product stack. We do not encourage putting additional applications on the desktop that will deprecate the overall user experience with the Skype for Business Intelligent Communication stack. This includes any products that move voice, video, and collaboration workloads away from the native O365 stack or use additional application plugins to communicate with the native O365 stack.

ConvergeOne Maintenance and Managed Services

C1's Managed Services offer a comprehensive, growing portfolio of services that keep multi-vendor solutions reliable and performing their best. In a business climate where you need to strike a balance between investing in technology and spending money wisely, there's a lot riding on the performance of your communications solution. You need to know you're always getting the best value for every communications dollar you've invested.

ConvergeOne has included managed services and support, which provides 24-hour proactive monitoring via C1 One Vision, remote telephone support, remote diagnostics, troubleshooting,

problem resolution, software maintenance and software release management, patching and cumulative updates, and any on-site support C1 deems necessary to resolve a fault. One Vision establishes key metrics to be monitored so that you know about changes to network performance before they affect your users and your business.

ConvergeOne Achieves Service Organization Control (SOC) 2 Type II Certification

C1 is proud of our successful completion of the Service Organization Control (SOC) 2 Type II audit. Completion of the audit indicates that the policies, communications, procedures and monitoring of controls have been implemented by C1 and tested by an independent certified public accounting firm.

This third-party validation confirms our commitment to protecting customer data and ensures our security program meets the standards of the AICPA's trust principles. The achievement is attestation that C1 exceeds the security, compliance and safety-related requirements for controls and safeguards when hosting our customers' data.

Net Promoter Score

Our Client-Centric Approach Is Evidenced By A Leading NPS of 61. 86% of ConvergeOne's clients indicated that they are "highly likely" to recommend ConvergeOne to other businesses and organizations. We are maniacal about our customers' success!

Conclusion

The end result of selecting C1 and the C1CX solution as your partner and product of choice is that the State will be able to deliver the best service and support to your customers throughout your enterprise, along with an assurance of having a platform which will grow and adjust to the ever-changing requirements of your business. The incredible flexibility of our proposed solution will exceed your project initiatives and fuel your growth well into the future.

Bottom line, when you choose ConvergeOne as your communications solution provider, you not only work with one of the most experienced Business Partners in the industry — you gain a partner who is dedicated to the relationship and committed to adding value to your business.

Thank you once again for allowing C1 to present our solution to the State of West Virginia.

ConvergeOne

SECTION 1: GENERAL INFORMATION

1.1. Introduction:

The West Virginia Department of Administration, Purchasing Division (hereinafter referred to as the "Purchasing Division") is issuing this solicitation as a request for proposal ("RFP"), as authorized by W. Va. Code §5A-3-10b, for the West Virginia Office of Technology (hereinafter referred to as the "Agency") to provide Managed Voice Services for the State's Legacy VoIP Environment, while working to migrate those Legacy Environments to a Hosted VoIP Platform, included Hosted Contact Center Services.

The RFP is a procurement method in which vendors submit proposals in response to the request for proposal published by the Purchasing Division. It requires an award to the highest scoring vendor, rather than the lowest cost vendor, based upon a technical evaluation of the vendor's technical proposal and a cost evaluation. This is referred to as a best value procurement. Through their proposals, vendors offer a solution to the objectives, problem, or need specified in the RFP, and define how they intend to meet (or exceed) the RFP requirements.

C1 Response:

Understood.

1.2. RFP Schedule of Events:

RFP Released to Public 08/29/2018
Mandatory Pre-bid Conference ....09/26/2018 @ 2:30pm EDT
Vendor's Written Questions Submission Deadline...........10/05/2018 by 2:00pm EDT
Addendum Issued ....TBD
Technical Bid Opening Date.. 10/24/2018 at 1:30pm EDT
Technical Evaluation Begins 10/24/2018
Oral Presentation ....TBD
Cost Bid Opening ....TBD
Cost Evaluation Begins ....TBD
Contract Award Made ....TBD

C1 Response:

Understood.

C1 ConvergeOne

SECTION 2: INSTRUCTIONS TO VENDORS SUBMITTING BIDS

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

1. **REVIEW DOCUMENTS THOROUGHLY**: The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

C1 Response:

Understood.

2. **MANDATORY TERMS**: The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

C1 Response:

Read and understood.

3. **PREBID MEETING**: The item identified below shall apply to this Solicitation.

☐ A pre-bid meeting will not be held prior to bid opening

☐ A **NON-MANDATORY PRE-BID** meeting will be held at the following place and time:

☑ A **MANDATORY PRE-BID** meeting will be held at the following place and time:
DATE: 09/26/2018
TIME: 2:30pm EDT
LOCATION: West Virginia Office of Technology
1900 Kanawha Blvd. E.,
Building 5, 10th Floor
Charleston, WV 25305

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one person attending the pre-bid meeting may represent more than one Vendor.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. The State will not accept any other form of proof or documentation to verify attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-

Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in, but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

C1 Response:

Understood.

4. **VENDOR QUESTION DEADLINE:** Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below in order to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are nonbinding.

Submitted e-mails should have solicitation number in the subject line.
Question Submission Deadline: October 05, 2018 due by 2:00pm EDT

Submit Questions to: Mark Atkins, Senior Buyer
2019 Washington Street, East
Charleston, WV 25305
Fax: (304) 558-4115 (Vendors should not use this fax number for bid submission)
Email: Mark.A.Atkins@wv.gov

C1 Response:

Understood here and as amended in subsequent addendums.

5. **VERBAL COMMUNICATION:** Any verbal communication between the Vendor and any State personnel is not binding, including verbal communication at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

C1 Response:

Understood.

6. **BID SUBMISSION:** All bids must be submitted electronically through wvOASIS or signed and delivered by the Vendor to the Purchasing Division at the address listed

below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via e-mail. Acceptable delivery methods include electronic submission via wvOASIS, hand delivery, delivery by courier, or facsimile.

The bid delivery address is:
Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

A bid that is not submitted electronically through wvOASIS should contain the information listed below on the face of the envelope or the bid may be rejected by the Purchasing Division.:

SEALED BID: VOIP Hosted Services
BUYER: Mark Atkins
SOLICITATION NO.: CRFP 0212 SWC1900000001
BID OPENING DATE: 10/24/2018
BID OPENING TIME: 1:30pm EDT
FAX NUMBER: 304-558-3970

The Purchasing Division may prohibit the submission of bids electronically through wvOASIS at its sole discretion. Such a prohibition will be contained and communicated in the wvOASIS system resulting in the Vendor's inability to submit bids through wvOASIS. Submission of a response to an Expression or Interest or Request for Proposal is not permitted in wvOASIS.

For Request For Proposal ("RFP") Responses Only: In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus Five (5) convenience copies of each to the Purchasing Division at the address shown above. Additionally, the Vendor should identify the bid type as either a technical or cost proposal on the face of each bid envelope submitted in response to a request for proposal as follows:

BID TYPE: (This only applies to CRFP)
☑ Technical
☑ Cost

C1 Response:

Read and complied.

7. **BID OPENING**: Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when confirmation of delivery is provided by wvOASIS (in

the case of electronic submission) or when the bid is time stamped by the official Purchasing Division time clock (in the case of hand delivery).

Bid Opening Date and Time: October 24, 2018 at 1:30pm EDT

Bid Opening Location: Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

C1 Response:

Understood and complied with the updated bid opening date via addendum.

8. **ADDENDUM ACKNOWLEDGEMENT:** Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

C1 Response:

Understood, please see attached completed form.

9. **BID FORMATTING:** Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

C1 Response:

Understood.

10. **ALTERNATE MODEL OR BRAND:** Unless the box below is checked, any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

☐ This Solicitation is based upon a standardized commodity established under W. Va. Code § 5A-3-61. Vendors are expected to bid the standardized commodity identified. Failure to bid the standardized commodity will result in your firm's bid being rejected.

C1 Response:

Understood.

11. **EXCEPTIONS AND CLARIFICATIONS**: The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

C1 Response:

Read and complied, please see the balance of this response for these statements.

12. **COMMUNICATION LIMITATIONS**: In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

C1 Response:

Understood.

13. **REGISTRATION**: Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the $125 fee, if applicable.

C1 Response:

Understood.

14. **UNIT PRICE**: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

C1 Response:

Understood.

15. **PREFERENCE**: Vendor Preference may be requested in purchases of motor vehicles or construction and maintenance equipment and machinery used in highway and other infrastructure projects. Any request for preference must be submitted in writing with the bid, must specifically identify the preference requested with reference to the applicable subsection of West Virginia Code § 5A-3-37, and should include with the bid any information necessary to evaluate and confirm the applicability of the requested preference. A request form to help facilitate the request can be found at: http ://www.state.wv.us/admin/purchase/vrcNen pref.pdf.

C1 Response:

Understood.

15A. **RECIPROCAL PREFERENCE**: The State of West Virginia applies a reciprocal preference to all solicitations for commodities and printing in accordance with W. Va. Code § 5A-3-37(b). In effect, non-resident vendors receiving a preference in their home states, will see that same preference granted to West Virginia resident vendors bidding against them in West Virginia. A request form to help facilitate the request can be found

at: http://www.state.wv.us/admin/ purchase/vrcNen pref.pdf.

C1 Response:

Understood.

16. **SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES**: For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women- owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.

C1 Response:

Understood. C1 is not certified as such.

17. **WAIVER OF MINOR IRREGULARITIES**: The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.

C1 Response:

Understood.

18. **ELECTRONIC FILE ACCESS RESTRICTIONS**: Vendor must ensure that its submission in wvOASIS can be accessed and viewed by the Purchasing Division staff immediately upon bid opening. The Purchasing Division will consider any file that cannot be immediately accessed and viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires, and are therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening to make a file viewable if those documents are required with the bid. A Vendor may be required to provide document passwords or remove access restrictions to allow the Purchasing Division to print or electronically save documents provided that those documents are viewable by the Purchasing Division prior to obtaining the password or removing the access restriction.

C1 Response:

Understood.

19. **NON-RESPONSIBLE:** The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1- 5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform, or lacks the integrity and reliability to assure good-faith performance."

C1 Response:

Understood.

20. **ACCEPTANCE/REJECTION**: The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b."

C1 Response:

Understood.

21. YOUR SUBMISSION IS A PUBLIC **DOCUMENT**: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 50-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

C1 Response:

Understood.

22. INTERESTED PARTY DISCLOSURE: West Virginia Code § 6D-1-2 requires that the vendor submit to the Purchasing Division a disclosure of interested parties to the contract for all contracts with an actual or estimated value of at least $1 Million. That disclosure must occur on the form prescribed and approved by the WV Ethics Commission prior to contract award. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. This requirement does not apply to publicly traded companies listed on a national or international stock exchange. A more detailed definition of interested parties can be obtained from the form referenced above.

C1 Response:

Please see the ConvergeOne completed Ethics Disclosure Interested Parties document attached with this response.

23. **WITH THE BID REQUIREMENTS**:   In instances where these specifications require documentation or other information with the bid, and a vendor fails to provide it with the bid, the Director of the Purchasing Division reserves the right to request those items after bid opening and prior to contract award pursuant to the authority to waive minor irregularities in bids or specifications under W. Va. CSR § 148-1-4.6. This authority does

not apply to instances where state law mandates receipt with the bid.

C1 Response:

Understood.

SECTION 3: GENERAL TERMS AND CONDITIONS

1. **CONTRACTUAL AGREEMENT**: Issuance of a Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

C1 Response:

Understood.

2. **DEFINITIONS**: As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

2.1. "**Agency**" or "**Agencies**" means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

2.2. "**Bid**" or "**Proposal**" means the vendors submitted response to this solicitation.

2.3. "**Contract**" means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.

2.4. "**Director**" means the Director of the West Virginia Department of Administration, Purchasing Division.

2.5. "**Purchasing Division**" means the West Virginia Department of Administration, Purchasing Division.

2.6. "**Award Document**" means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.

2.7 "**Solicitation**" means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

2.8. "**State**" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

2.9. "**Vendor**" or "**b**" means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

C1 Response:

Understood.

3. CONTRACT TERM; RENEWAL; EXTENSION: The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

☑**Term Contract**

Initial Contract Term: **Initial Contract Term:** This Contract becomes effective on Upon award and extends for a period of Four (4) year(s).

Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be delivered to the Agency and then submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Unless otherwise specified below, renewal of this Contract is limited to see below successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed the total number of months available in all renewal years combined. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

> ☑ **Alternate Renewal Term** - This contract may be renewed for Two (2) successive Two (2) year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

Delivery Order Limitations: In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

☐ **Fixed Period Contract:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within _____ days.

☐ **Fixed Period Contract with Renewals:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within_____days. Upon completion of the work covered by the preceding sentence, the vendor agrees that maintenance, monitoring, or warranty services will be provided for __ year(s) thereafter.

☐ **One Time Purchase:** The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will

this Contract extend for more than one fiscal year.

☐ **Other:** See attached.

C1 Response:

Understood.

4. **NOTICE TO PROCEED**: Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Award Document will be considered notice to proceed.

C1 Response:

Understood.

5. **QUANTITIES**: The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

☑ **Open End Contract**: Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

☑ **Service**: The scope of the service to be provided will be more clearly defined in the specifications included herewith.

☐ **Combined** Service and Goods: The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

☐ **One Time Purchase**: This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

C1 Response:

Understood.

6. **EMERGENCY PURCHASES**: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute of breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.

C1 Response:

Understood.

> 7. **REQUIRED DOCUMENTS**: All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.
>
> ☐ **BID BOND (Construction Only)**: Pursuant to the requirements contained in W. Va. Code § 5-22-1(c), All Vendors submitting a bid on a construction project shall furnish a valid bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.
>
> ☐ **PERFORMANCE BOND**: The apparent successful Vendor shall provide a performance bond in the amount of 100% of the contract. The performance bond must be received by the Purchasing Division prior to Contract award.
>
> ☐ **LABOR/MATERIAL PAYMENT BOND**: The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be delivered to the Purchasing Division prior to Contract award.
>
> In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under $100,000. Personal or business checks are not acceptable. Notwithstanding the foregoing, West Virginia Code § 5-22-1 (d) mandates that a vendor provide a performance and labor/material payment bond for construction projects. Accordingly, substitutions for the performance and labor/material payment bonds for construction projects is not permitted.
>
> ☐ **MAINTENANCE BOND**: The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.
>
> ☐ **LICENSE(S) / CERTIFICATIONS / PERMITS**: In addition to anything required under the Section of the General Terms and Conditions entitled Licensing, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits prior to Contract award, in a form acceptable to the Purchasing Division.
>
> The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications prior to Contract award regardless of whether or not that requirement is listed above.

C1 Response:

Understood.

8. INSURANCE: The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below and must include the State as an additional insured on each policy prior to Contract award. The insurance coverages identified below must be maintained throughout the life of this contract. Thirty (30) days prior to the expiration of the insurance policies, Vendor shall provide the Agency with proof that the insurance mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies, including but not limited to, policy cancelation, policy reduction, or change in insurers. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed in this section.

Vendor must maintain:

☑ **Commercial General Liability Insurance** in at least an amount of: $1,000,000.00 per occurrence.

☑ **Automobile Liability Insurance** in at least an amount of: $1,000,000.00 per occurrence.

☐ **Professional/Malpractice/Errors and Omission Insurance** in at least an amount of: _____ per occurrence.

☐ **Commercial Crime and Third Party Fidelity Insurance** in an amount of: _____ per occurrence.

☑ **Cyber Liability Insurance** in an amount of: $3,000,000.00 per occurrence.

☐ **Builders Risk Insurance** in an amount equal to 100% of the amount of the Contract.

☐ **Pollution Insurance** in an amount of: _____ per occurrence.

☐ **Aircraft Liability** in an amount of: _____ per occurrence.

Notwithstanding anything contained in this section to the contrary, the Director of the Purchasing Division reserves the right to waive the requirement that the State be named as an additional insured on one or more of the Vendor's insurance policies if the Director finds that doing so is in the State's best interest.

C1 Response:

Regarding the first sentence of the first paragraph above, C1 has read and refers to the attached sample certificate of liability insurance for levels of insurance coverage. Cyber Liability coverage is included in our Professional Liability policy.

Regarding the remainder of the first paragraph above:

- Variance: While C1 realizes the State requires proof that the insurance is being renewed 30 days prior to the renewal, C1 does distribute hard copies of the renewal certificates at the time of renewal, but it unlikely these would go out 30 days in advance. C1 will distribute renewal certificates as expeditiously as possible at the time of renewal.

- Variance: C1 can agree to add 30 days' notice of cancellation to policies, but the insurance carriers and C1 cannot provide immediate notice for any changes to the policies. Many changes, however, would not be applicable to this project.

- Exception: C1 does not agree to leave open the insurance requirement. C1 looks forward to identifying these requirements, if any, prior to commencement of project.

9. **WORKERS' COMPENSATION INSURANCE:** The apparent successful Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

C1 Response:

Understood and will comply.

10. **[Reserved]**

11. **LIQUIDATED DAMAGES:** This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

☐ _____ for _____

☐ Liquidated Damages Contained in the Specifications

C1 Response:

Clarification: Liquidated damages are not offered by Vendor. C1 looks forward to discussing this further with the State as needed.

12. **ACCEPTANCE:** Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

C1 Response:

Clarification: ConvergeOne has read and states that it only agrees to the terms and conditions not taken exception to within this response. C1 looks forward to discussing this further with the State during the contract negotiations process.

> **13. PRICING**: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification.

C1 Response:

Read and understood.

> **14. PAYMENT IN ARREARS**: Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears.

C1 Response:

Read and understood.

> **15. PAYMENT METHODS**: Vendor must accept payment by electronic funds transfer and P-Card. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)

C1 Response:

Read and understood.

> **16. TAXES**: The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

C1 Response:

Clarification: Each party shall be responsible to pay all applicable taxes. The following provision shall be included in the Agreement, "If the State is exempt from tax, the State shall provide to the Contractor a valid tax exemption certificate at the time that this Agreement is executed."

> **17. ADDITIONAL FEES**: Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.

C1 Response:

Read and understood.

18. FUNDING: This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.

C1 Response:

The State will use its best efforts to ensure that sufficient appropriations are made available to the State to pay for any products or services ordered under this Agreement before placing such order.

19. CANCELLATION: The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-5.2.b.

C1 Response:

Variance: C1 requires a 30 opportunity to cure prior to cancellation.

20. TIME: Time is of the essence with regard to all matters of time and performance in this Contract.

C1 Response:

Read and understood.

21. APPLICABLE LAW: This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, **West Virginia Code** or West Virginia Code of **State Rules is void and of no effect.**

C1 Response:

Read and understood.

22. **COMPLIANCE WITH LAWS**: Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.

SUBCONTRACTOR COMPLIANCE: Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to comply with all applicable laws, regulations, and ordinances. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

C1 Response:

Read and understood.

23. **ARBITRATION**: Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

C1 Response:

Clarification: C1 can delete the arbitration clause, but C1 feels it is important to include some form of dispute resolution clause in the agreement. C1 suggests replacing arbitration with the following:

DISPUTE RESOLUTION. - If a dispute arises that cannot be resolved by the personnel directly involved, the dispute shall be referred jointly to the responsible area senior management for C1 and State. The senior management shall exercise good faith efforts to settle the dispute within thirty (30) days (or an extended period, if they so agree). In the event that the dispute is not resolved within such a period, the Parties reserve the right to seek other relief as the Party deems appropriate.

24. **MODIFICATIONS**: This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.

C1 Response:

Read and understood.

25. **WAIVER**: The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

C1 Response:

Read and understood.

26. **SUBSEQUENT FORMS**: The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

C1 Response:

Exception: It is C1's belief that once the response is submitted, if C1 is awarded the business, there may be further discussions between the parties to streamline the sale based on the response. By incorporating the RFP and the response into a binding contract, there may be products and/or services that are not ultimately purchased or are modified by the parties following those further discussions. It is C1's position that a separate contract should be entered into between the parties which documents only those terms and conditions which pertain to the final sale and agreed upon by both parties.

27. **ASSIGNMENT**: Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments.

C1 Response:

Read and understood.

28. **WARRANTY**: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

C1 Response:

Exception: C1 states it is a reseller and cannot agree to warrant products to be merchantable or fit for a particular purpose. The OEM warranty will apply.

29. **STATE EMPLOYEES**: State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

C1 Response:

Read and understood.

30. **PRIVACY, SECURITY, AND CONFIDENTIALITY**: The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in http://www.state.wv.us/admin/purchase/privacy/default.html.

C1 Response:

Read and so agreed.

31. **YOUR SUBMISSION IS A PUBLIC DOCUMENT**: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the

contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 50-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

C1 Response:

Read and understood.

32. **LICENSING**: In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

SUBCONTRACTOR COMPLIANCE: Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to be licensed, in good standing, and up-to-date on all state and local obligations as described in this section. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

C1 Response:

Variance: C1 cannot agree to include certain customer specific provisions in our contracts with our subcontractors as we already have a master agreement with our subs and to add every one of our customer's specific requirements like this would be difficult to manage. C1 will agree to remain fully liable and responsible for the acts and omissions of our subs in performing the services.

33. **ANTITRUST**: In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to

all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

C1 Response:

Exception: Blanket assignment of ConvergeOne's antitrust claims is too broad of an assignment. Should any such claim arise that directly effects the State, the Parties will discuss proper resolution at that time.

34. **VENDOR CERTIFICATIONS**: By signing its bid or entering into this Contract, Vendor certifies (1) that its bid or offer was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid or offer for the same material, supplies, equipment or services; (2) that its bid or offer is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this Solicitation in its entirety; understands the requirements, terms and conditions, and other information contained herein.

Vendor's signature on its bid or offer also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency. The individual signing this bid or offer on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or offer or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

C1 Response:

Read and so certifies and affirms.

35. **VENDOR RELATIONSHIP**: The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms,

and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

C1 Response:

Read and understood.

36. INDEMNIFICATION: The Vendor agrees to indemnify, defend, and **hold harmless** the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

C1 Response:

Variance: C1 agrees to include an indemnification provision however; the provision shall be mutual in nature as both parties should be responsible for their respective negligence. C1 suggests the following language in addition to the language stated above, "The State and the Agency shall indemnify, defend and hold harmless the C1, including its officers, agents and employees, from and against any and all claims, liabilities, losses, damages, costs and expenses to the extent caused or arising out of the negligent acts, reckless conduct, or errors or omissions of the State and the Agency, its officers, employees, agents or representatives in the performance of this Agreement." In addition, C1 must include the following infringement provision as well as limitation of liability in the Agreement:

"Intellectual Property Infringement Indemnification. With respect to each Product that C1 provides to the State and the Agency hereunder, C1 will provide to the State and the Agency an intellectual property infringement indemnity to the extent, and only to the extent, that C1 receives an intellectual property infringement indemnity from the respective manufacturer for such Product. The terms and provisions of each intellectual property infringement indemnity that apply to the respective Products that C1 provides to the State and the Agency hereunder are available at www.convergeone.com.

Because C1 is not the manufacturer of any of the Products, C1 provides no indemnity with respect to any claim that arises from a combination of (i) a Product manufactured by one (1) manufacturer with a Product manufactured by a different manufacturer; or (ii) a Product that C1 provides to the State and the Agency with any product that C1 has not provided to the State

and the Agency. Notwithstanding the preceding sentence, however, with respect to each individual Product involved in the aforementioned combinations, Contractor will still provide to the Authority the intellectual property infringement indemnity to the extent, and only to the extent, that C1 receives an intellectual property infringement indemnity from the respective manufacturer for each Product.

Limitation of Liability. - THE ENTIRE LIABILITY OF C1 (AND C1'S OWNERS, OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, AND AFFILIATES) AND THE AUTHORITY'S EXCLUSIVE REMEDIES FOR ANY DAMAGES CAUSED BY ANY PRODUCT DEFECT OR FAILURE, OR ARISING FROM THE PERFORMANCE OR NON-PERFORMANCE OF ANY SERVICE, REGARDLESS OF THE FORM OF ACTION (WHETHER IN CONTRACT, TORT, OR OTHERWISE), SHALL BE (i) FOR FAILURE OF PRODUCTS DURING THE WARRANTY PERIOD, THE REMEDIES STATED IN SECTION 3; (ii) FOR DELAYS IN DELIVERY OR INSTALLATION (WHICHEVER IS APPLICABLE), C1 SHALL HAVE NO LIABILITY UNLESS THE DELIVERY DATE OR THE INSTALLATION DATE (WHICHEVER IS APPLICABLE) IS DELAYED BY MORE THAN THIRTY (30) DAYS BY CAUSES NOT ATTRIBUTABLE TO EITHER THE AUTHORITY OR FORCE MAJEURE CONDITIONS STATED IN SECTION 7, IN WHICH CASE THE STATE AND THE AGENCY'S SOLE REMEDY SHALL BE TO TERMINATE THE AGREEMENT WITHOUT INCURRING CHARGES FOR SUCH TERMINATION AND, WITHIN THIRTY (30) DAYS AFTER SUCH TERMINATION, RECEIVE A REFUND OF ALL MONIES PAID HEREUNDER; OR (iii) FOR C1'S FAILURE TO PERFORM ANY OTHER MATERIAL TERM OF THIS AGREEMENT, IF C1 DOES NOT CORRECT SUCH FAILURE WITHIN THIRTY (30) DAYS AFTER RECEIPT OF WRITTEN NOTICE ADDRESSING SUCH FAILURE, THE STATE AND THE AGENCY'S SOLE REMEDY SHALL BE TO TERMINATE THE AGREEMENT WITHOUT INCURRING CHARGES FOR SUCH TERMINATION AND, WITHIN THIRTY (30) DAYS AFTER SUCH TERMINATION, RECEIVE A REFUND OF ALL MONIES PAID HEREUNDER. C1 SHALL IN NO CASE BE LIABLE FOR PUNITIVE, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LOST SAVINGS, OR LOST REVENUES OF ANY KIND; LOST, CORRUPTED, MISDIRECTED, OR MISAPPROPRIATED DATA; CHARGES FOR COMMON CARRIER TELECOMMUNICATIONS SERVICES; COST OF COVER; OR CHARGES FOR FACILITIES ACCESSED THROUGH OR CONNECTED TO THE PRODUCTS ("TOLL FRAUD")). THE PREVIOUS SENTENCE APPLIES REGARDLESS OF WHETHER CONTRACTOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES."

37. **PURCHASING AFFIDAVIT**: In accordance with West Virginia Code § § 5A-3-10a and 5-22-I(i), the State is prohibited from awarding a contract to any bidder that owes a debt to the State or a political subdivision of the State, Vendors are required to sign, notarize, and submit the Purchasing Affidavit to the Purchasing Division affirming under oath that it is not in default on any monetary obligation owed to the state or a political subdivision of the state.

C1 Response:

Read and understood, please see the ConvergeOne completed Purchasing Affidavit attached with this response.

38. **ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE:** This Contract may be

utilized by other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts ("Other Government Entities"), provided that both the Other Government Entity and the Vendor agree. Any extension of this Contract to the aforementioned Other Government Entities must be on the same prices, terms, and conditions as those offered and agreed to in this Contract, provided that such extension is in compliance with the applicable laws, rules, and ordinances of the Other Government Entity. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.

C1 Response:

Exception: C1 cannot agree to sell additional products and services to other governmental agencies under the same terms as the State. Because the unique requirements of another governmental entity will most likely not match those that were reviewed by C1 when preparing this Response, it is simply not feasible to commit that C1 can provide the same products and services to another governmental agency pursuant to the same pricing, terms and provisions being offered to the State of West Virginia.

39. **CONFLICT OF INTEREST**: Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

C1 Response:

Read and understood.

40. **REPORTS**: Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

☑ Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

☑ Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.requisitions@wv.gov.

C1 Response:

Variance: C1 will be happy to provide certain reports through its customer internet portal, which the State can run upon demand. For additional requested reports, C1 will need a better understanding what those reports may entail before committing to providing them ad hoc or on a recurring basis. C1 looks forward to discussing this further with the State during the contract negotiations process.

41. **BACKGROUND CHECK:** In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision. The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

C1 Response:

Clarification: C1 will conduct and provide the pass/fail results of the background investigation to the State, according to the background criteria required by the State, but C1 will not provide detailed results of the investigation to protect the privacy of the C1 employees.

42. **PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS:** Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

   a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.

   b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:

   c. The cost for each contract item used does not exceed one tenth of one percent

(.1%) of the total contract cost or two thousand five hundred dollars ($2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or

d. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

C1 Response:

C1 is a reseller and not a manufacturer. To the best of our knowledge there will be no steel products used in this project for the State.

43. **PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL:** In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars ($50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a "substantial labor surplus area", as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or

offer prices, will be reevaluated in accordance with this rule.

C1 Response:

C1 is a reseller and not a manufacturer. To the best of our knowledge there will be no traditional aluminum, glass, or steel products used in this project for the State.

44. INTERESTED PARTY SUPPLEMENTAL DISCLOSURE: W. Va. Code § 6D-I -2 requires that for contracts with an actual or estimated value of at least $1 million, the vendor must submit to the Agency a supplemental disclosure of interested parties reflecting any new or differing interested parties to the contract, which were not included in the original pre- award interested party disclosure, within 30 days following the completion or termination of the contract. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. This requirement does not apply to publicly traded companies listed on a national or international stock exchange. A more detailed definition of interested parties can be obtained from the form referenced above.

C1 Response:

Read and understood. Please see the ConvergeOne completed Ethics Disclosure Interested Parties form included with this proposal.

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Steve Murphy, National Account Manager
(Name, Title)

Steve Murphy, National Account Manager
(Printed Name and Title)

3344 Highway 149, Eagan, MN 55121 (corporate HQ)
(Address)

408-789-6016
(Phone Number) / (Fax Number)

smurphy@convergeone.com
(email address)

C1 ConvergeOne

State of West Virginia
RFP For Managed and Hosted Voice Services
CRFP 0212 SWC19000000001
Section 3: General Terms and Conditions

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

C1 Response:

Clarification: The below certification affirms that C1 understands the requirements, terms and conditions, and other information contained as stated herein.

ConvergeOne, Inc.
(Company)

_____ Regional Vice President
(Authorized Signature) (Representative Name, Title)

Klaus Hillmann   Regional Vice President
(Printed Name and Title of Authorized Representative)

11/20/2018
(Date)

651-994-6800   651-994-6801
(Phone Number) (Fax Number)

DEFINITIONS, ABBREVIATIONS, ACRONYMS:

1. ANI, Automatic Number Identification
2. CoS, Class of Service
3. DID, Direct Inward Dial
4. DNIS, Dialed Number Identification Service
5. E.164, the international public telecommunication numbering plan
6. High Security, any use case where the Vendor's solution requires a higher security baseline standard. High security use cases are either the result of regulatory or legal compliance requirements and/or risk assessment indicates a higher level of security is warranted.
7. ID, Identification
8. IP, Internet Protocol
9. LAN, Local Area Network
10. LMS, Learning Management System
11. M/S, Millisecond
12. MACD, Move, Add, Change, Delete
13. Microsoft 0365, Microsoft Office 365
14. MPLS, Multiprotocol Label Switching
15. MWI, Message Waiting Indicator
16. PHI, Protected Health Information
17. PII, Personally Identifiable Information
18. PMBOK, Project Management Body of Knowledge
19. PMO, Project Management Office
20. POTS, Plain Old Telephone Service
21. PRI, Primary Rate Interface
22. PS/ALI, Private Switch/Automatic Location Identifier
23. PSAP, Public Safety Answering Point
24. PSTN, Public Switched Telephone Network
25. QoS, Quality of Service
26. SIP, Session Initiation Protocol
27. SOW, Statement of Work
28. SRST, Survivable Remote Site Telephony
29. Standard Security, any use case where the Vendor's solution does not require heightened security baseline standards. The standard security use case is delineated to provide the State a potentially lower cost option when a standard level of security provides an appropriate level of protection.
30. TCR, Telecommunications Change Request
31. UCaaS, Unified Communications as a Service
32. UCCaaS, Unified Communications and Collaborations as a Service
33. VCC, Virtual Contact Center
34. VLAN, Virtual Local Area Network
35. VoIP, Voice over Internet Protocol
36. WAN, Wide Area Network
37. WBS, Work Breakdown Structure
38. WVOT, West Virginia Office of Technology

C1 Response:

Read and understood.

ConvergeOne

SECTION 4: PROJECT SPECIFICATIONS

4.1.   **Background and Current Operating Environment:** As outlined in the West Virginia State Code §5A-6-4e "the Chief Technology Officer shall oversee telecommunications services used by state spending units for the purpose of maximizing efficiency to the fullest possible extent". Additionally, per State Code §5A-6-4a (11), the Chief Technology Officer develops a "unified and integrated structure for information systems for all executive agencies." In pursuance of those objectives, the West Virginia Office of Technology is seeking proposals from Vendors to establish an open-end, Statewide Contract for Managed Voice Services and Hosted Voice over Internet Protocol ("VoIP") Services, encompassing Unified Communications as a Service ("UCaaS"), and Hosted Contact Center Services.

It is the State's intent to establish a contract with a single Vendor to provide maintenance, management, and support for the State's current IP Telephony platforms while working to migrate those telephony services to a fully managed and hosted VoIP solution. Additionally, the Vendor will be expected to provide daily management and operational support for multiple Contact Centers while working to migrate those Contact Centers to its hosted solution.

Currently, the State of West Virginia has an estimated 10,000 phones on multiple Cisco VoIP solutions - 3x Cisco Unified Call Manager and Unity Express, 4x Cisco Unified Call Manager and Unity, 7x Cisco Unified Call Manager and Unity Connection, 10x Cisco Unified Call Manager and Unity Connection, Cisco Call Manager Express, ten (10) Cisco Contact Center Version 7 sites, and a Hosted VoIP Solution with Verizon Business Solutions (UCCaaS and Contact Center); it is anticipated all of those sites currently utilizing a VoIP solution will be migrated to the Vendor's proposed hosted solution. In addition to the current VoIP Agencies, the State also requires the flexibility to implement a VoIP solution at sites where one does not currently exist. Potentially, the State may leverage the awarded contract to implement another estimated 10,000 users where traditional telephony services exist.

The State of WV's current environments consist of the following:

- Cisco Unified Messaging
- Cisco Unity
- Cisco Unity Connection
- Cisco Unity Express
- Cisco Call Manager Express
- Cisco Contact Center Express
- Cisco Expressway C&E
- Cisco Presence
- Cisco Jabber
- Cisco Gateways using VoIP Session Initiation Protocol ("SIP") Trunks, Primary Rate Interface ("PRIs") Circuits, and Analog POTS ("Plain Old

Telephone Service") lines
- Microsoft Skype for Business 2016
- Microsoft Active Directory
- Microsoft Office 365
- Cisco Survivable Remote Site Telephony ("SRST")
- Bridge Communications Operator Console
- Singlewire Informacast Paging
- Verizon hosted solution - Unified Communications and Collaborations as a Service (UCCaaS)
- Verizon hosted solution - Virtual Contact Center (VCC)

More information regarding the State's current telephony infrastructure can be found in **Appendix A.**

Meanwhile, the State's current Wide Area Network ("WAN") is undergoing a conversion from Switched Ethernet to Multiprotocol Label Switching ("MPLS") services, which may impact how the Vendor's proposed solution will be implemented. The WVOT is working with Verizon Business to migrate an estimated 500 data circuits across the State with a projected completion of December 2018. Thus far, approximately 275 circuits have been migrated, meaning that the proposed VoIP solution may be implemented at those sites using MPLS circuits to ensure quality of service. The State has deployed Cisco routers for WAN communications. Local Area Networks ("LANs") are comprised of various switches manufactured by Cisco, Hewlett Packard, Brocade, and Extreme.

C1 Response:

Read and understood.

4.2. **Project Goals and Mandatory Requirements:** The State of West Virginia is seeking to establish a contract with a Vendor for the management of the State's current Legacy Environment and to migrate its Legacy Environment to a Hosted VoIP Solution, including Contact Center Services. Vendor should describe its approach and methodology to providing the service or solving the problem described by meeting the goals/objectives identified below. **Vendor's response should include any information about how the proposed approach is superior or inferior to other possible approaches as well as identify areas where the proposed solution exceeds the project expectations.**

C1 Response:

Read and understood.

Please note: for the following section where appropriate, C1 will split its answers into two categories:

- C1CX Solution: the proposed Cisco-powered hosted C1CX solution supporting the State's Cisco needs.

- Microsoft Solution: During the Bidders Conference C1 noticed that the State utilizes Microsoft Skype Online. Your Microsoft investment is not cheap and something that should be taken seriously during this deployment. As an option, we will be providing the State the ability to add dialing services to their Skype deployment along with interop with the current Cisco phone system. This will provide the State even more options for their users and business owners.
  - This is an optional platform that the state could utilize during or after the complete Cisco migration into our C1CX environment.

4.2.1.   **Goals and Objectives** - The project goals and objectives are listed below.
4.2.1.1   **Voice Services**
4.2.1.1.1   **Managed Voice Services - Support of State's Legacy IP Environment**

4.2.1.1.1.1   The State's goal is to contract with a single Vendor for all application, hardware, and MACD management, maintenance, and support of its current IP Telephony platforms (as described in **Appendix A**), with the goal of the Vendor migrating the State's current IP telephony infrastructure, excluding network infrastructure, to a unified, hosted IP platform within 24 months. The State further desires an economical monthly per phone cost for these support services. As such:

The State is proposing the following division of duties for the support of its Legacy IP Environment:

Vendor Duties:
1. Create an operational plan of the State's Legacy IP Environment for the State's review and approval
2. Daily management, operational support, and ongoing maintenance of the State's current telephony environment, as outlined in Appendix A.
3. MACD changes to the State's current telephony infrastructure.
4. Replacement of failed parts where feasible, outdated telephony equipment, or other telephony components. If the Vendor is unable to furnish parts or replace equipment, the State expects the Vendor to migrate that site to the Vendor's Hosted VoIP platform.
5. Set-up mutually agreed upon standing meetings with the State to address concerns, changes, service interruptions, and project progress.
6. The Vendor should alert the State points of contact after being notified of any service interruptions, in writing, that exceed sixty (60) minutes. The Vendor should provide updates to the State every sixty (60) minutes thereafter until the issue is resolved.
7. The Vendor should have a 24x7x365 operations center that includes Tier 1 support to receive trouble tickets and onsite operational support for critical failures.

State Duties:
1. Management of State's LAN/WAN Network Infrastructure

2. Ordering, disconnecting, and billing services

C1 Response:

Understood.

C1 uses wholly-owned, non-outsourced Customer Success Centers (CSCs/NOCs) that are available and staffed 24x7x365. Reporting on troubles can be customized to your preference via the Run Book, which is created during onboarding. Root Cause Analysis (RCA) will also be provided where necessary and agreed upon.

> **4.2.1.1.1.2** The State desires the Vendor provide the State with its proposed Operations Plan within 30 calendar days of contract effective date, outlining its plan for managing, supporting, and maintaining the State's current IP telephony infrastructure. The Vendor's Operations Plan should include a strategy for assuming its duties, as outlined above. Please describe your company's experience and strategy in developing operations plans for supporting legacy environments.

C1 Response:

As part of these kick off calls, ConvergeOne will be reviewing the operational plan for the next 30, 60, 90 days and beyond. For more information about our implementation and project processes, please see the attached sample implementation overview included with this response.

ConvergeOne has extensive experience in developing operations plans for supporting legacy environments and migrating into our C1CX Cloud. Upon contract award, C1 will start working with the State's team to start developing timelines and next steps. Our goal is to start migrating day to day activities from the State's IT staff to ConvergeOne.

Transition / Onboarding Plan

ConvergeOne has a simple but effective transition process to bring contract customers on-board coverage. Upon Agreement execution, ConvergeOne's On-Boarding Project Manager will collect pertinent names and contact information for your representatives to schedule a kick-off meeting/call. This call will be attended by all interested parties from ConvergeOne and the State's authorized representatives. The purpose of the meeting/call is to introduce all interested parties, discuss particulars of the maintenance package selected, set expectations for the process, provide the On-Boarding workbook of transition documents, and establish a "go-live" date.

Information provided and gathered will include, but not be limited to, contact information and methodology for the ConvergeOne MSSC, pertinent customer contact information for escalations, ConvergeOne and MSSC leadership hierarchy and contact information, your company representative's contact information and escalation processes and a transition project plan. ConvergeOne resources utilized throughout the on-boarding process will include, but not

be limited to the MSSC On-Boarding team members, ConvergeOne's transition Project Manager and Director Maintenance Operations.

ConvergeOne's goal during the first 30 days is to start migrating the State's day to day support active into ConvergeOne. During the initial call(s), the following items will be covered:

- Project Kick Off
- Team Introductions and Responsibilities
- Review RFP, Project Assumptions, etc.
- Begin identifying key dates for the State and ConvergeOne

> **4.2.1.1.1.3** The State desires that the State and Vendor finalize and agree upon an Operations Plan within 60 calendar days of contract effective date for the management, support, and maintenance of the State's current telephony infrastructure. Please describe your company's ability to deliver the finalized Operations Plan to the State within 60 calendar days of contract effective date with scheduling the appropriate meetings, making changes after State input, and meeting deadlines.

C1 Response:

ConvergeOne will be reviewing the operational plan for the next 30, 60, 90 days and beyond with the State during the project kick-off call, which will occur immediately after conclusion of contract negotiations. For more information about our implementation and project processes, please see the attached sample implementation overview included with this response.

> **4.2.1.1.1.4** The State desires the Vendor to be fully managing its Legacy Environment within 90 calendar days of contract effective date and until all sites wishing to adopt these services have been migrated to a Hosted VoIP solution. Please describe your company's experience in providing support of a Legacy Environment, its experience in taking over existing infrastructure, and provide a plan showing how this goal can be met.

C1 Response:

ConvergeOne will be reviewing the operational plan for the next 30, 60, 90 days and beyond with the State during the project kick-off call, which will occur immediately after conclusion of contract negotiations. For more information about our implementation and project processes, please see the attached sample implementation overview included with this response.

> **4.2.1.1.1.5** It is the State's desire that the awarded Vendor of this contract will establish a local support system to continue support and maintenance of the State's Legacy IP systems. Please describe your company's ability to provide maintenance and support of the State's Legacy Environment.

C1 Response:

ConvergeOne plans to deliver full maintenance and support to the State's Legacy Environment. Our Managed Services solution delivers the following elements.

Managed Services

Service Desk

- Service Desk is a centralized function serving as a single point-of-entry for all Customer requests

- Service Desk is accessible during Service Hours by Customer's Help Desk or authorized personnel with a working knowledge of the Customer's technical environment as it relates to the solution provided under this SOW

- Service Desk supports the following tasks and workflows:
    - Receipt of Customer's service requests and trouble reports
    - Event assessment and assignment of incident classification according to agreed incident prioritization criteria,
    - Update status of service requests and/or trouble tickets based on agreed intervals or with change in status
    - Review, validation, and closure of tickets.

- Tickets may be submitted to the Service Desk via the following methods:
    - Phone call placed during Service Hours
    - Request submitted via ConvergeOne's web portal
    - Events received from ConvergeOne's element monitoring system

Proactive Monitoring

- ConvergeOne will monitor pre-defined events and system generated alerts for the solution provided under this SOW, to include those products to be supported under this SOW, but that are deployed outside of the ConvergeOne's Data Center Facilities ("Managed Products").

- ConvergeOne will support the following event management tasks and workflows:
    - Event filtering and categorization according to criticality
    - Event authentication and notification via pre-defined time based correlation rules
    - Event correlation, automated Ticket creation and assignment

Service Request Fulfillment

- ConvergeOne will fulfill Service Requests for Simple Software Changes as submitted by Customer, in support of users of the solution to include any Managed Products.

- Service Request Fulfillment supports the following tasks and workflows:

    o Service Request acceptance

    o Completion of Service Request according to defined Service Levels

    o Service Request fulfillment monitoring, updates, and reporting

- Service Requests may be submitted to the Service Desk via the following methods:

    o Request submitted via ConvergeOne's web portal

Release Management

- ConvergeOne will implement updates to include any Managed Products. All updates will be implemented during a Standard Maintenance Window or as otherwise scheduled with Customer.

Configuration Management

- ConvergeOne will manage a process for backing up the solution.

Governance

- ConvergeOne will deliver service level management, service reporting and communications to ensure services are delivered in accordance with agreed guidelines:

    o Communicate customer-specific SLAs to all delivery personnel

    o Review SLA performance reports and monitor conformance with contracted SLAs

    o Communicate actual performance against SLAs through regular Customer reviews

    o Conduct Root Cause Analysis into any SLA breach and present remediation plan to Customer

    o Ensure change orders conform to contracted SLAs

4.2.1.1.1.6 The State desires all application, hardware, and MACD support for the State's current telephony infrastructure will be entered via the Vendor's self-service web portal and/or a Vendor-provided toll-free number within 90 calendar days from contract effective date. If the Vendor determines that an issue or problem falls within the State's purview, the Vendor should notify the State's points of contact in writing within one hour of reaching this determination. Please describe your company's support offerings or its ability/plan to accomplish this.

C1 Response:

Comply.

C1's Enterprise Vendor Management (EVM) provides the State with a single point of contact for the proposed enterprise solution. With EVM, the State will contact the C1 CSC for support, advanced IT support and vendor management for IT products, applications, and services included in our enterprise solution. Support includes logging of events, notifying appropriate vendors and customer contacts, incident and problem management, and performing escalation management until resolution.

The C1 CSCs are staffed with industry certified technical resources located in our three NOCs. The C1 redundant CSC design provides the State with a business continuity support model with 24x7x365 support. All calls are answered by a live person — NEVER a pager or answering service!

Customer requests are received by the C1 CSC in several ways:

- Toll Free call directly from customer

- Customer Created Incident via the Web Portal

- Alarm receipt notification from Cisco Servers into the C1 monitoring system

After the initial triage, all support issues are handed off to one of the C1 certified engineers. All C1 certified engineers have the ability to perform level 1 through level 3 support.

If ConvergeOne deems an issue is part of the State's IT realm and not part of the agreed upon support contract, the assigned engineer will reach out to the State's point of contact to discuss. Once that conversation has taken place and the parties agree, the C1 engineer will close that ticket or case number.

4.2.1.1.2 Transition from the State's Legacy IP Environment to the Vendor's Hosted Solution

4.2.1.1.2.1 The State desires all sites listed in **Appendix A** be migrated to a Hosted VoIP solution within 730 calendar days from contract effective date. The State reserves the right to reprioritize this list as necessary. Please describe your company's plan to accomplish these migrations.

C1 Response:

C1CX Solution

See ConvergeOne's Sample Implementation Plan.

Upon contract approval, ConvergeOne will immediately start working with the State to build the migration plan along with prioritizing sites. This would include reviewing each site and gathering (and confirming) information provided in the RFP. Upon agreement with the State, any changes to prioritization by the State could impact timelines.

Microsoft Solution

During this 24-month migration, if at any point the State is interested in migrating current Cisco to Office 365 Skype Online, ConvergeOne has a plan for implementing and supporting those users.

4.2.1.1.2.2 The Vendor should include site preparation and coordination services to implement a turn-key solution at various State locations, including simultaneous deployments to the Vendor's hosted solution. These services should be provided by Vendor personnel knowledgeable in both the Vendor's solution and legacy public switched telephone services. The State desires the Vendor perform site assessment and readiness work for the implementation of its hosted solution, at no additional cost, including a proposed division of duties (Vendor, State), which results in a Statement of Work for each site, as follows:

VENDOR duties:
- Gather site's end-user data in order to get site ready for Vendor's hosted solution;
- Provide list of equipment/specifications needed for site readiness, including cabling infrastructure requirements;
- Conduct review to move, at a minimum, existing telephony system to new environment;
- Provide the State with necessary ordering information for TCRs;
- The State owns all data gathered under the scope of the contract and is able to obtain copies of all configuration files gathered as part of this contract. The Vendor should update, maintain the data repository in a manner negotiated with the State upon award, and provide information upon request in an Excel or csv format;
- Configure, tag, label, and drop-ship phones to site;

STATE duties:
- Confirm site readiness;
- Coordinate between the Agency, Vendor, and other applicable parties;
- Purchase, configure, update and refresh network hardware;
- Prepare, process, and submit TCR to Vendor based on information provided;
- Place physical phones.

The Vendor should describe its solution's capability to meet or exceed each of these objectives.

C1 Response:

C1CX Solution

Read and understood, please see the pricing section for all requested costing information.

Microsoft Solution

Prior to implementing the Skype for Business solution, C1 will perform a network QAR. This network validation test will evaluate the existing LAN's ability to support VoIP between our Data Centers and your sites. The VoIP readiness test looks for common, network problems that are "IP Telephony-killing impairments" and would prevent a successful IP Telephony deployment. The purpose is to identify those problems and recommend actions to resolve the identified impairments. It is a snapshot in time that will help ensure success; however, it is not a guarantee of a successful deployment, nor is it a certificate of fitness. This service provides the Customer with a cost-effective review of its existing IP network's ability to support VoIP in association with the pending implementation of a converged solution.

Generally, a customer must provide a layer 3 switched data network including VLANs isolated for voice devices and applications, DHCP server(s) for allocation of addresses and site-specific information, security to prevent unauthorized access to the voice VLANs, and QoS and power requirements to support voice. QoS configurations (tags) are to be provided by the Customer for identifying voice traffic isolated by signaling and media streams. The Customer's network must adhere to strict guidelines to support voice including less than 1% packet loss, less than 100 ms one-way delay, less than 20% jitter, and less than 10% broadcast traffic. If multicast is to be used, the switch must support IGMP snooping or CGMP, and the router must support PIM if multicast needs to cross VLANs.

C1 will work with the State to improve VLAN segmentation policies and QoS to best support the Skype for Business Enterprise Voice solution.

Additionally, C1 will work with the State to modify any firewall rules or routing as needed to optimize the environment. We will help identify zones for E911 and make recommendations best on best practices.

4.2.1.1.3   Hosted Voice Services

The State's goal is to obtain a reliable, customizable, and scalable UCaaS solution providing hosted voice-over-IP (VOIP) services for an estimated 10,000 state employees located at various sites throughout the State. The State desires these services be provided at no additional cost, except where noted in this section. To that end:

4.2.1.1.3.1   The Vendor's solution should offer four voice packages. These packages should include: A Basic Package with at least Ad Hoc Conferencing, Call Forwarding, Call History, Call Hold, Call Waiting, Caller ID, and Do Not Disturb; an Enhanced Package including at least all features in the Basic package plus Voice Mail (including Immediate Divert to Voicemail and Message Waiting Indicator); a Premium Package including at least all of the features in the Enhanced Package plus Extension Mobility; and an Analog line option. All packages should be available with high and standard security options. Equipment for the analog line package will not be required for this contract. Please describe your Company's offerings.

C1 Response:

C1CX Solution

The C1 Public Cloud is comprised of three bundles. The following table summarizes the standard and optional features available within each offer.

C1CX Public Cloud Core UC Bundles			
Features	**UC Bundles**		
Carrier Features	**Essential**	**Mobility**	**Collaboration**
Local Direct Inward Dialing (DID)	●	●	●
Local Calling	●	●	●
Long Distance Calling	●	●	●
Number Porting	●	●	●
Caller Name (CNAM)	●	●	●
Directory Listing	●	●	●
E911 Support	●	●	●
Hosted PBX & Call Management Services			
Device Registration	1	10	10
Auto Attendant		●	●
Dial by Extension	●	●	●
Call Forwarding	●	●	●
Call Park	●	●	●
Call Transfer	●	●	●
Multiple Call/Call Waiting	●	●	●
Incoming Caller ID	●	●	●
Music on Hold	●	●	●
Hunt Groups	●	●	●
LDAP Directory Synchronization	●	●	●
Extension mobility		●	●
Single Number Reach		●	●
Ad Hoc Audio Conferencing		●	●
Voicemail & Unified Messaging			
Voicemail	⭘	●	●
Voicemail to Email	⭘	●	●
Visual Voicemail	⭘	●	●
Voicemail Greetings	⭘	●	●
Voicemail Transcription to Text	⭘	●	●
UC Call Recording	⭘	⭘	⭘
IM & Presence			

Enterprise Instant Messaging		●	●
Group Chat		●	●
Presence		●	●
Additional Services			
VPN-less connectivity		●	●
UC Soft Client		●	●
Conferencing & Collaboration			
Team Formation		●	●
Business Messaging		●	●
Screen Sharing		●	●
File storage		●	●
Video Chat		●	●
Audio Conferencing		φ	●
Web Conferencing		φ	●
Video Conferencing		φ	●
Personal Room		φ	●

Note: φ designates add-on features, additional charge may apply.

Unified Essential

The Unified Essential bundle delivers basic IP Voice services. Carrier services enabling inbound and outbound calling capabilities are included along with full PBX and call management feature suite.

This bundle has been developed for public or shared use cases such as lobbies and meeting rooms. Voicemail features can be added as an option to expand the supported use case to general business users with basic communication needs.

The package supports a single handset and does not have an option to add a soft client. Supported phones include the following:

- Cisco Unified SIP Phone 3905

- Cisco Unified IP Phones 6901, 6911, 6921, 7821

- Other SIP phones (3rd party conference phones, etc.) are supported on a "best efforts" basis and may not support all Cisco features

This bundle may also be used for H.323 phones via supported gateway or analog devices such as analog phones, fax machines, and paging systems in conjunction with an Analog Terminal Adaptor (ATA). Customer premise based gear such as a gateway or ATA must be certified by C1 prior to use and may incur additional support and management fees.

Unified Mobility

The Unified Mobility bundle combines all elements of the Essentials bundle and adds in core UC features such as voicemail and unified messaging, IM & Presence, and mobility features such as single number reach and UC soft clients for desktop and mobile devices.

This bundle has been developed for knowledge workers and mobile employees that require access to UC tool sets across multiple devices in whatever location they may be working at.

The package supports up to 10 registered devices and comes standard with the latest supported version of the Cisco Jabber client for Windows, iOS, and Android devices. Supported devices include the following:

- Cisco Unified IP Phones: 6900 Series, 7900 Series, 8900 Series, 9900 Series
- Cisco Wireless IP Phones: 792xG and 7925G-EX models
- Cisco Unified Softphones : Cisco Unified Personal Communicator, Cisco UC Integration for Lync, Cisco UC Integration for Connect, and Cisco IP Communicator
- Jabber clients (Jabber for Mac, Jabber for Windows, Jabber for iPhone, Jabber for Android, Jabber for iPad, and Jabber SDK)
- Cisco TelePresence System EX Series (EX60 and EX90)
- Cisco Desktop Collaboration Experience DX Series
- Other SIP phones (3rd party conference phones, etc.) are supported on a "best efforts" basis and may not support all Cisco features

Unified Collaboration

The Unified Collaboration bundle combines all elements of the Mobility bundle and adds in WebEx conferencing and collaboration.

This bundle has been developed for knowledge workers as well as mobile workers that require access to audio, web, and video conferencing to conduct scheduled or on demand meetings with internal or external constituents.

The package supports the same number of registered devices, phones, and soft clients available within the Essentials package.

Carrier Services Features

All standard packages include the latest feature sets:

- Local Direct Inward Dialing (DID) - each user is provided with a dedicated local phone number
- Local Calling - unlimited local inbound and outbound calling minutes
- Long Distance Calling - unlimited inbound and outbound calling minutes within the US or Canada

- Toll Free Calling – Toll Free DIDs are available for an additional fee. Toll free usage is charged by the minute and varies by country

- International Calling – International DIDs are available for an additional fee.

- International local and long distance usage is charged by the minute and varies by country

- Number Porting – Services to port a client's existing phone numbers to the C1 Public Cloud service is available at no additional fee

- Caller Name (CNAM) - user's local number displayed as outbound Caller ID information from any registered device

- Directory Listing - Complimentary publication of company information in local directory assistance services

- E911 Support - Users located in fixed office locations in the US & Canada have access to 911 service

Hosted PBX & Call Management Features

All standard packages include the latest feature sets:

- Device Registration – one or more devices may be registered to the C1 Public Cloud Service for basic telephony or more advanced UC functions. Supported devices include approved hard phones, soft clients, mobile clients, or third-party SIP devices

- Auto Attendant – The auto attendant/IVR feature allows callers to a main number to be automatically transferred to an extension without the intervention of an operator.

- Standard auto attendant/IVR configuration features include dial by extension or dial by name; custom greetings and schedules (e.g., business hours, holidays), or the option to transfer callers to hunt groups, calling queues, or voicemail

- Dial by Extension – Ability to make intra-company calls by extension. Standard dial plan includes e.164 dialing with 4 digit internal dialing

- Call Forwarding – ability to forward inbound calls to voicemail or another number

- Call Park – ability to retrieve a call on hold from any other telephone within the system.

- Call Transfer – Transfer call to any other extension

- Multiple Call/Call Waiting – Enables user to place callers on hold while accepting an incoming call or placing an outbound call

- Incoming Caller ID – Display telephone number of the calling party on your registered device

- Music on Hold – Play recorded music or marketing content while callers are on hold

- Hunt Group – ability to distribute inbound phone calls from a single telephone number to a group of several phone lines

- LDAP Directory Synchronization – enables access to common enterprise directory and search experience for UC services

- Extension mobility – ability to log into phone extension from any device on the network

- Single Number Reach – Calls to your extension will ring all your registered devices simultaneously

- Audio Conferencing – Create an ad-hoc multiparty audio conferencing call for up to 8 people.

Voicemail & Unified Messaging Features

All Unified Mobility and Unified Collaboration packages include the latest feature sets:

- Voicemail – user's receive a voicemail for their assigned extension to capture, play, and manage voice messages

  - Standard configuration includes Unity Connection, however external storage via Microsoft Exchange or Office 365 is supported.

  - Each individual mailbox is provisioned with 30MB storage

  - Standard message retention of 90 days prior to deletion

- Voicemail to Email – voicemail notification via email and the ability to listen, respond, and forward voicemail from your e-mail. Email clients leveraging IMAP4 are supported.

- Visual Voicemail – ability for users to access and manage voicemail from their desktop application

- Voicemail Greetings – ability for users to record multiple personal greeting messages for use cases like out of office or holiday hours

- Voicemail Transcription to Text – ability to transcribe voicemail messages to text

  - Voicemail messages once transcribed are emailed to the voicemail subscriber along with a streaming link to listen to the message

  - Voicemail status is retained with the transcription (e.g., message marked urgent, private, etc.)

- UC Call Recording (Optional) – Automated call recording for inbound/outbound calls

  - Requires client to already have purchased WFO for Contact Center

  - Each UC recording user is allocated 1GB of storage. Storage is aggregated and shared across all UC recording users. Client's may add additional storage capacity in 1GB increments and select between immediate and archival options.

○ Call recordings are managed by user via web portal. Web portal is bespoke element of the associated Contact Center solution

Instant Messaging and Presence Features

All Unified Mobility and Unified Collaboration packages include the latest feature sets:

- Enterprise Instant Messaging – ability to send and receive instant messages with individuals and groups, conduct ongoing conversations, and retain conversation history

- Group Chat – enables users to create an instant IM enterprise chat room and invite internal and external colleagues to the chat room to join an IM conference

- Presence – provides a user's the availability and status whether in the office or working remotely

Desktop and Mobile Clients

The Cisco Jabber is the standard desktop and mobile client deployed for Unified Mobility and Unified Collaboration Clients. Jabber provides a single client for instant messaging with individuals and groups, voice and video calls, visual voicemail, voice and web conferencing, communication history, and integrated directories.

The Jabber client is available for the following desktop and mobile platforms:

- Android
- iOS
- Microsoft Windows
- MacOS

Additional Mobility Features

For Unified Mobility and Collaboration users, the following features mobility features are available:

- Simultaneous Ring – enables users to answer incoming calls to their extension on any desktop or mobile device

- VPN-less Connectivity – users outside the network can access voice, video, content, instant messaging, and presence without establishing a VPN connection.

Conferencing & Collaboration Features

For Unified Mobility and Collaboration users, the following team collaboration features are available thru WebEx Teams (formerly Cisco Spark). WebEx Teams is hosted and supported by Cisco. C1 will assist the customer with associating their WebEx Teams account with their Jabber client for Mobility and Collaboration users only.

WebEx Teams is hosted by Cisco and will be delivered in accordance with their current terms of service. Any changes or modifications made to Cisco service terms are at the sole discretion of Cisco and are beyond the control of C1. Client will be held accountable to WebEx Teams terms and conditions published by Cisco.

- Team Formation – ability to create and manage team spaces
- Business Messaging – Subscribers can exchange messages and share files with another person or a group of people
- Screen Sharing – Screen and file sharing
- File storage/sharing – up to 5GB per user
- Voice Conferencing – Up to 3 people over VoIP
- Video Chat – One-to-one and group video chat for up to 3 people via native apps

Unified Collaboration users are also provided access to integrated audio, web, and video conferencing via WebEx Conferencing. Features include:

- Personal Room – each user will be provided with a personalized room with unique URI that can host up to 200 participants
- Outlook Scheduling – ability to schedule video meetings thru online portal or via Outlook plug-in
- Audio Conferencing – unlimited HD call-in audio conferencing over VoIP. Includes host controls to mute participants
- Web Conferencing – includes power point presentation mode, desktop and application sharing, discussion window, roster display and active speaker identification, white boarding, shared control
- Video Conferencing – VMR capability is included within personal room for point to point and multi-point video conferencing. Users may join from mobile devices, web, phone via Public Switched Telephone Network (PSTN), Microsoft Skype for Business endpoint, or third-party standards-based video system. NOTE: 3rd party standards based endpoints are limited to 25 devices.

CC Bundles

The C1 Public Cloud Contact Center portfolio is comprised of a Base Agent Bundle, plus a series of three optional bundles (Self-Service, Outbound, and Omni Channel) and other add-on applications that allow tailoring of the offer to the customer's needs.

The following table summarizes the standard and add-on features available within each bundle:

ConvergeOne

Feature	Agent	Outbound	Self-Service	Omni-Channel
UC Essentials feature set	●			
Unlimited local + long distance	●			
Contact Center SIP trunking	●			
Toll-free 800 usage (per-min. charge)	●			
ACD with skills-based routing	●			
Standard agent desktop client	●			
Mobile supervisor application	●			
Standard voice CC reporting	●			
APOC IT integration	●			
C1-AS CRM Connectors	add-on			
C1-AS Agent Services Desktop	add-on			
Calabrio Audio Recording	add-on			
Calabrio Quality Management Bundle	add-on			
Calabrio Workforce Management	add-on			
Calabrio Recording Analytics	add-on			
Calabrio Recording Analytics with Transcription	add-on			
Calabrio Full Suite Bundle	add-on			
Integrated outbound routing functionality		●		
Agent preview dialing		●		
Predictive/progressive dialing		●		
Blending + skills-based agent assignments		●		
Campaign management		●		
Agent Scripting		●		
Outbound reporting + compliance functionality		●		
Agentless outbound		●		
Touch tone IVR (additional ports beyond std)			●	
IVR scripting functionality			●	
APIs for custom IVR applications			●	
Comprehensive IVR reporting			●	
Natural Speech Bundle			add-on	
Cisco Courtesy Callback application			add-on	
Cisco Post-Call Survey application			add-on	
Integrated multi-channel routing				●
Email + chat channels				●
SMS text + IM channels				●
Multi-channel reporting				●

Agent Bundle

The Agent Bundle is the baseline offer for adding Contact Center functionality to the C1CX UC Public offer, so it is tightly integrated and leverages some shared infrastructure elements with UC. Its per-user pricing is designated as per-Agent per month, with size-sensitive tiers.

The base Agent pricing includes an allocation of one (1) IVR port per subscribed agent.

Additional feature bundles providing Self-Service/IVR beyond the standard 1:1 allocation, Outbound Dialing, Omni-Channel, and other add-on applications build on this core bundle in a modular fashion.

The following describes the standard features within the Agent bundle:

UC Feature set

- Our Agent pricing reflects the policy that each contact center agent must also purchase a UC seat, and takes into account the portion of the core C1CX infrastructure elements that are shared between UC and CC.

Contact Center SIP Trunking

- SIP Trunking capacity configured to support 1;1 Trunk to agent ratio

- Includes Cisco CUBE CC User, CC User HA, CC Trunkside, and HA for CC Trunkside applications

- Inbound Toll-free/DID, and Outbound calling via IntelePeer, charged on per-minute basis.

ACD with skills-based routing

- All features and functionality of core Cisco Contact Center application with Intelligent/precision contact routing. Core Agent bundle also includes one IVR port per agent.

Agent/Supervisor Desktop Application

- All standard features and functionality of Cisco Finesse® Agent desktop that provides flexibility, with administrable layout for agents and supervisors, and superior expandability, acting as a web gadget container that can encompass all applications Agents need in a single interface.

Standard CC Reporting and Management Platform

- All features and functionality of Cisco Unified Intelligence Center (CUIC) reporting platform, providing as set of customizable real-time and historical reporting on all activities in the contact center.

API's for CTI/adjunct Integrations

- Ability to integrate with 3rd party Call Recording, wallboards, WFM, CRM, and database integrations.
    - Note: 3rd party providers may need to be consulted for specific integration requirements, and any 3P integration will trigger the need for a "Private Cloud" quote for that portion of the solution until such time as the 3P integration has been certified to integrate with the C1CX Public Cloud reference architecture.

C1-AS Agent Bundle Add-ons

C1-AS CRM Connectors

Provides a CRM connection framework for five industry-leading CRM platforms, including Salesforce.com, Oracle CRM, Microsoft Dynamics, Zendesk, and ServiceNow.

- Provides Softphone Telephony Controls in the business application User Interface
- Facilitates a screen pop of critical customer data upon call delivery to the user, using ANI, DNIS, or CED data
- Enables the making of calls by dialing a number in the CRM client/softphone, choosing a number in an online directory, or clicking on a phone number on any standard business application screen
- Writes pre-determined call information to the CRM application and makes it available for reporting
- Software developed by C1 Advanced Services

C1-AS Agent Services Desktop

- Componentized Agent user interface engineered for Cisco, supporting "single pane of glass" initiatives as well as web components (widgets) for cross-messaging, and web-based UX access facilitating remote working and BYOD.
- Software developed by C1 Advanced Services

Outbound Bundle

Provides all the features and functionality of Cisco CCX/CCE Outbound application, including:

Standard Agent-Based Outbound Dialing Features

- Preview, Progressive, and Predictive dialing capabilities
- Skills-based agent inbound/outbound for agent blending and pacing
- Outbound Campaign Management
- Comprehensive agent scripting support
- Real-time outbound call status monitoring

- Reporting on Outbound campaigns, disposition, and completion codes
- Outbound agent productivity tools
- Outbound policy and compliance features
- Agentless Outbound, for making/dialing outbound voice calls not attended by an Agent

Self Service /IVR Bundle

Provides add-on CVP/IVR ports, if required by the customer, to support additional agentless self-service applications requiring additional ports beyond the 1:1 Agent bundle IVR port allowance supporting basic IVR touch tone functionality.

Self Service Bundle Add-ons

Nuance Speech Bundle:

- Natural voice Automated Speech Recognition (ASR)
- Text-to-Speech (TTS)
- Standard price is for Tier 3/ 1 language. Additional languages available for extra charge.

Cisco Courtesy Callback Application: (for CCE deployments (>251 Agents)

- Cisco Courtesy Callback is an integrated application within the Cisco Contact Center Enterprise (CCE) platform, enabling callers to request an automatic call back when an agent becomes available, instead of waiting in queue for a long period of time. This allows customers to use their time more productively than they would waiting in queue.

Cisco Post-Call Survey: (for CCE deployments (>251 Agents)

- Cisco Post-Call Survey is an integrated application within Cisco Contact Center Enterprise (CCE) platform, providing an automated "Voice of Customer" Survey application for contact center callers.

Microsoft Solution

Microsoft's Skype for Business Online is 100% managed by Microsoft will offer all services that enabled by Microsoft in Office 365.

4.2.1.1.3.2   The State desires six handset options for use under this contract: a 2-line phone, a 5-line phone with sidecar capabilities, a conference phone, a softphone, a wireless phone, and an ADA-compliant hardware option. The State further desires a leasing option for all handsets on this contract, by which the State will pay a monthly lease price to be added to the price of the monthly voice package. In the event that a phone is broken or stops functioning, the State desires the Vendor replace that phone, at no additional cost. Additionally, the State desires that the Vendor refresh equipment in-line with the Original Equipment Manufacturer's refresh program, at no additional cost. At the end of the contract, the State will own all of the phones. Please describe your company's leasing

options, refresh programs, and ability to meet this goal.

C1 Response:

C1CX Solution

C1 is proposing the following telephone sets. For more information about these sets, please see the attached Cisco IP phone portfolio brochure.

Soft Phone	Cisco Type
2-Line Phone	CP-7821
6-Line Phone	CP-7861
Conf. Phone	CP-7832
Wireless Phone	CP-8821
ADA Compliant Phone	CP-7811

Microsoft Solution

C1 is proposing the following telephone sets for a Microsoft Solution. For more information about these handsets, please see the attached IP phone portfolio brochure.

Soft Phone	Skype Client
2-Line Phone	405HD
6-Line Phone	450HD
Conf. Phone	UC-HRS-458
Wireless Phone	SpectraLink 8440
ADA Compliant Phone	405HD

4.2.1.1.3.3 The State utilizes Cisco SRST and local voice services in case of data network failure. At the initial deployment of the site to the Vendor's hosted solution, if requested, the Vendor should work with an Agency to implement call control and PSTN connectivity, in case the data network fails at a State location. This should include the provisioning of at least one local phone line for 911 calling. The Vendor should include the provisioning of one failover line in the cost of its monthly package. If the site requests more than one failover line, the State understands there may be additional charges for that work. Please describe your solution's ability to meet this goal and any additional costs.

C1 Response:

C1CX Solution

The ConvergeOne C1CX solution provides 911 function based on the SIP service numbers from the carrier. The Carrier will be provided detail that identifies a set of number and where they

are located. The service is part of our SIP trunk offering. If required The State can add the function of Survivable Remote Site Telephony (SRST), ConvergeOne can assumed that the State will continue to use the existing SRST gateways that they have in place and ConvergeOne will connect them to the C1CX solution to allow for the SRST functionality. If a site needs a new SRST gateway and set it can be added to the solution, when required.

Microsoft Solution

Skype for Business Online does maintain location information for endpoints. When a number is assigned, proper location information is also configured.

> **4.2.1.1.3.4** The Vendor's solution should support station-to-station calling that remains "on-net" (on the State's private data network) at no additional cost. Please describe your solution's ability to meet this goal.

C1 Response:

The proposed solution will support this based on customer networking between sites. Our assumption is that the stable networking exists between sites. If it does not, C1 will be happy to discuss upgrades with the State at any point.

> **4.2.1.1.3.5** The Vendor's solution should provide at least two PSTN connections via SIP Trunks over secure private connections engineered for voice quality of service. These PSTN connections should adhere to the industry standard of 150 m/s latency or better, and jitter of 40 m/s or better. Please describe your network engineering architecture and your practices to continuously achieve these standards.

C1 Response:

C1CX Solution

The proposed solution complies, pending State WAN services provided.

Microsoft Solution

If the State is interested in moving some users to Skype Online with telephony services, below are some of the recommended latency numbers.

Metric	Target	
Latency (One way)	< 50ms	
Latency (Rtt or Round Trip Time)	< 100ms	
Burst Packet Loss	< 10% during any 200ms interval	
Packet Loss	< 1% during any 15s interval	

Packet inter-arrival Jitter	< 30ms during any 15s interval	
Packet reorder	< 0.05% out of order packets	

End Point Traffic Marking- Differentiated Services Control Point (DSCP)

Differentiated Services (DiffServ) is referred to as a "coarse grained" mechanism for classifying and managing network traffic and providing QoS in IP networks. Routers and other devices that implement Layer 3 functions use the DiffServ Control Point (DSCP) to define the packet's priority. QoS is implemented by inserting a 6-bit DSCP value in the Differentiated Services field (formerly the "Type of Service" field) in the IP header; 6-bits allows for 64 different priority levels. The priority levels are typically defined as shown here.

Recommended DSCP settings:

Traffic Class	Treatment (DSCP Marking)	Teams GCC Workloads	
Voice	EF (46)	Teams GCC and Lync Voice	
Interactive	AF41 (34)	Video	
	AF21 (18)	Application Sharing	
Default	AF11 (10)	File Transfer	
	CS0 (0)	Anything else	

The network performance metrics targets or thresholds are required for a connection from your company's network to the Microsoft network Edge. This segment of the network includes your internal network and includes all Wi-Fi and Ethernet connections, any company site-to-site traffic over a WAN connection – for example Multiprotocol Label Switching (MPLS) – as well as the Internet or ExpressRoute partner connections to the Microsoft network Edge.

4.2.1.1.3.6   The Vendor's solution should provide a MPLS network connection to Verizon's MPLS core to reduce and/or eliminate the backhaul of traffic to the State's core network. The State has provided a column on the Pricing Page for both one-time installation costs and for monthly recurring costs for these connections. Please describe your ability to meet this goal.

C1 Response:

C1CX Solution

The proposed solution complies. Please see the pricing section for cost details. A letter of authorization will be required in order for C1 to receive the current Verizon rate. C1 believes rates would be identical to what the State receives today.

4.2.1.1.3.7 As an option for small sites with non-private network handoffs, the State desires a solution utilizing public networking with the ability to securely transmit sensitive data. Please describe any offerings to support this goal.

C1 Response:

C1CX Solution

The proposed solution can provide up to 5,000 endpoints. If more is needed by the State, C1 can modify the scope of the solution.

Microsoft Solution

All data transmitted between endpoints and servers is encrypted with Skype for Business and Skype for Business Online.

4.2.1.1.3.8 The Vendor's solution should include Caller ID services (inbound traffic) and custom number and naming (outbound traffic) that State Agencies may utilize to customize their displayed information. The Vendor should provide this capability at no additional cost. Please describe your solution's ability to provide these services.

C1 Response:

C1CX Solution

The proposed solution can support these features. C1 looks forward to discussing this further with the State as needed.

Microsoft Solution

The proposed solution supports these features. C1 looks forward to additional discussions as to the State's needs.

4.2.1.1.3.9 The Vendor's solution should include unlimited local and nationwide calling at no additional charge. Please describe your no cost offerings.

C1 Response:

C1CX Solution

Clarification: The proposed solution can support unlimited local calling. C1 looks forward to discussing this further with the State as needed. C1 is more than happy to review the current contracts that are in place with the State.

Microsoft Solution

The proposed solution can support unlimited local calling.

4.2.1.1.3.10 The Vendor's solution should provide international calling. The State understands fees may be associated with international calling. The Vendor should provide the per minute international calling rates for Mexico, Canada, and

Jamaica. The Vendor should also attach an appendix of its international calling rates for all countries. The State will allow for quarterly Change Orders to updates these international rates. Please describe your solution's international calling offerings.

C1 Response:

Please see the International Long Distance Rates documents covering both the C1CX and Microsoft solutions attached to the cost proposal portion of this response, submitted in electronic format only due to size. Please note that C1 considers Canada to be within the proposed domestic dialing plan for C1CX only.

4.2.1.1.3.11 The Vendor's solution should provide comprehensive site coverage to meet the State's local and long-distance IP-based calling requirements. Please describe your coverage, as well as how you plan to meet the State's coverage needs.

C1 Response:

C1 provides centralized trunking that provides unlimited local coverage. Additional discussion with the State will be required to understand what "site coverage" entails.

4.2.1.1.3.12 The Vendor's solution should provide load balancing for all traffic inbound from the PSTN. Please describe your solution's ability to meet this goal.

C1 Response:

C1CX Solution

The proposed solution complies. Incoming traffic will overflow from side A to side B upon congestion and failure.

Microsoft Solution

Microsoft's Skype for Business Online service manages all PSTN load balancing.

4.2.1.1.3.13 The Vendor's solution should ensure 911 call delivery to the appropriate local PSAPS. Additionally, the State desires support for Private Switch / Automatic Location Identification (PS/ALI) services for 911 calls. Please describe your process for ensuring the accuracy of 911 call delivery, as well as the process to support PS/ALI.

C1 Response:

C1CX Solution

The proposed solution complies via proposed centralized SIP service.

Enhanced 911 Support Services

- Any telephone number provisioned and associated with a fixed office locations in the US and Canada will have access to 911 services. Users relying solely on mobile devices are excluded.

- Calls to 911 will be transmitted with emergency dispatch information either automatically or manually

- Telephone numbers will be associated with a location listed in the Managed Sites list in Attachment B ("Registered Address"). The Telephone Number and Registered Address will automatically be routed to the appropriate Public Service Answering Point (PSAP) with emergency dispatch information and call-back information

- Telephone numbers that have not been provisioned with a registered address will be routed to a 24x7 Emergency Call Center (ECC) and manually routed to the appropriate PSAP

- Note: Any manual call routing may incur an additional cost per call.

Microsoft Solution

Solution requires 911 location information be configured when a number is assigned. Microsoft ensures calls are routed to proper PSAP.

> **4.2.1.1.3.14** The Vendor's solution should support the following industry standard protocols: G.711 (uncompressed), G.729 (compression), and T.38 (fax). Please describe the protocols supported by your solution.

C1 Response:

C1CX Solution

The proposed solution complies.

Microsoft Solution

The proposed solution complies with G.711 and G.729 for voice traffic. C1 is happy to discuss faxing requirements to further determine a solution.

> **4.2.1.1.3.15** The Vendor's solution should have the ability to scale the number of simultaneous concurrent calls on a monthly and/or seasonal basis at the State's request. Please describe your solution's ability and your process to accomplish this, including division of duties.

C1 Response:

The proposed solution can comply, at a potential additional charge. C1 requests that the State notify us of this need with as much lead time as possible.

> **4.2.1.1.3.16** The Vendor's solution should include interoperability with the following: IPv4 addressing (RFC 791), RFC 1918 for private IP addressing, and support SIP over TCP or UDP. Carrier grade NAT (RFC 6598), link-local IP addresses

(RFC 3927), and Multicast addresses (RFC 3171) will not be accepted. Please describe your solution's interoperability to accomplish this goal.

C1 Response:

Both C1CX and Microsoft Solutions

The proposed solution complies.

> **4.2.1.1.3.17**   The Vendor's solution should provide the following quality and reliability standards: QoS tagging IEEE 802.1Q2011; not rewriting, marking, or remarking any VLAN tags affixed to packets by the State, without the State's expressed consent; at a minimum, one Class of Service (COS) marking per Ethernet service. Please describe your solution's ability to meet this goal.

C1 Response:

C1CX Solution

The proposed solution complies. Please note, this is dependent on the reliability of the existing LAN.

Microsoft Solution

AudioCodes IP Phones support the use of 802.1x to pre-authenticate phones onto the network before they can be assigned an IP address. The Phones also forwards any EAP frames between a PC or laptop that is bridged through the phones Ethernet interfaces in order that the PC/Laptop may negotiate its own authentication onto the network.

> **4.2.1.1.3.18**   The State desires a Unified Messaging solution; therefore, the Vendor's solution should fully integrate with Microsoft O365, allowing users to listen, forward, and delete voicemails from both O365 and the hosted environment. Voicemails should be retained in the solution for 15 days or longer. In addition, the Vendor's solution should be provisioned to fully integrate with the State's Active Directory and Active Directory Federated Services. Please describe your abilities to meet these goals.

C1 Response:

C1CX Solution

Comply via the Unified Mobility and Unified Collaboration packages. Storage via Microsoft O365 is supported along with integration with Active Directory. Please note: further discussions are required between C1 and the State to fully define full integration expectations with Microsoft O365.

Microsoft Solution

Comply.

> **4.2.1.1.3.19**   Some State Agencies utilize paging and notification to the PC desktop,

over-head paging, or through-the-phone-speaker paging. The Vendor's solution should include an option for providing, maintaining, and supporting a paging solution, including any associated hardware, software, and licenses, and if requested by Agency, or integrate with an existing or Agency-owned paging solution. The State understands there may be fees associated with this offering. Please describe your offerings with respect to these deployments.

C1 Response:

C1CX Solution

Comply with clarification: The proposed solution can deploy adapters and support paging via paging equipment (via the Unified Essential feature) and through the phone, but doing so depends on the paging system in use and via additional on-premise equipment. All customer premise-based gear such as the current overhead paging system must be certified by C1 prior to use and may incur additional support and management fees.

> **4.2.1.1.3.20** The State desires an option for Agencies with high call volume and receptionist personnel that will utilize an Operator Console for fast and efficient call control. The State understands there may be fees associated with this offering. Please describe your solution's Operator Console offerings.

C1 Response:

Comply with clarification: Operator consoles can be supported, depending on the preferred State console. C1 looks forward to discussing this further with the State.

> **4.2.1.1.3.21** If requested by an Agency, the State desires the ability to integrate a third-party call recording solution with the Vendor's hosted solution. Please describe your solution's ability to meet this goal.

C1 Response:

Comply with clarification: While the proposed system can support third party call recording solutions, the call recording solution must be certified by C1 prior to use and may incur additional support and management fees.

> **4.2.1.1.3.22** The State desires that the Vendor use currently-owned State IP telephony handsets where the handset is still supported on the Vendor's solution. Please describe your company's ability to use the State's current handsets and its ability to meet this objective.

C1 Response:

C1CX Solution

The proposed solution can comply utilizing the still supported handsets as required by the State.

Microsoft Solution

Not supported. If the State is interested in utilizing Skype Online for PSTN dialing,

4.2.1.1.4   Hosted Contact Center Services

4.2.1.1.4.1   The State's goal is to obtain a reliable, customizable, and scalable solution to provide hosted contact center services for an estimated twenty-five (25) individual contact center sites that works in conjunction with the Vendor's proposed Hosted VoIP solution. Certain sites require the capability to transmit and/or store call recordings that may contain sensitive data (such as PHI or PII). For ease of deployment and maintenance, the State prefers the contact center solution be web-based. The solution should provide the following capabilities:

- Ability for a simple, drag-and-drop, easy-to-understand interface to create customized call routing and role- based queues that can be deployed to sites with non-technical administration
- Should provide chat capabilities
- Should provide live data reporting
- If requested by an Agency, the solution should have the ability to interface with an Agency's database to populate information based on data provided by the caller
- If requested by an Agency, the solution should provide the flexibility for agents to use a public-switched- telephone-network (PSTN) phone to utilize the solution
- Should provide scalability for up to 800 agents and the ability to expand in the future

Please describe your solution and identify any areas in your solution that exceed the items requested above.

C1 Response:

C1CX Solution

Clarification: The proposed solution complies with the need to clarify the chat feature, as this license for this feature is available via purchase of UC Mobility or UC Collaboration bundles. There may be additional fees to configure and maintain the chat feature based on the number of chat users. This fee can be clarified with additional detail from the State regarding the projected number of chat users.

C1 can scale the proposed solution should the State require it, providing the same features. C1 is also providing email capability inherent within the system, and can be configured to support up to 1,500 users. Additional information from the State will be necessary to determine additional features.

4.2.1.1.4.2   Some of the State's call centers operate on a 24x7x365 basis, delivering critical services to the communities. As such, the State prefers the Vendor's solution have inherent redundancy and survivability characteristics that will

ensure minimal service disruptions, such as data centers in geographically diverse regions allowing for failover, equipment and power redundancies in those data centers, etc. Please describe your solution's redundancy and its ability to meet and/or exceed this goal.

C1 Response:

Both C1CX and Microsoft Solutions

The proposed solutions comply, with these features built into the proposed system.

4.2.1.1.4.3   The Vendor's solution should include enhanced features for Administrators, Supervisors, and Agents to effectively meet the needs of their customers. As such, the solution should provide the following capabilities:
- Agent and Supervisor client that provides Blended agents: Inbound and outbound capability
- Ability to monitor critical performance metrics allowing managers to coach, train, and encourage agent behavior
- Ability for Supervisors to change an agent's status
- Ability for Supervisors to silently monitor inbound and outbound calls
- Ability to interrupt an agent's call to interact with both the caller and the agent
- Ability for Supervisors to remove an agent from a call
- Ability to change an agent's skill profile in real time

Please describe your solution and identify any areas in your solution that exceed the items requested above.

C1 Response:

C1CX Solution

The proposed solution complies. All required contact center users can be training to perform these functions, training that is being proposed by C1 with this solution. See the pricing for details.

4.2.1.1.4.4   Some State agencies require the ability to utilize call recording, both on-demand and session-initiated. Certain call recordings will contain sensitive data (PHI, PII, etc.) and will require proper security protocols when transmitting or storing this information, with role-based access as defined by the State. Please describe your solution's call recording capabilities, and any additional requirements for the State in order to utilize these features.

C1 Response:

C1CX Solution

Comply with clarification: The proposed solution complies via session-initiated call recording. The on-demand feature is available for configuration as required, with possible associated additional fees.

4.2.1.1.4.5   The State may utilize an outbound predictive dialing campaign, at an

Agency's request. Please describe your solution's capabilities in providing predictive dialing campaigns.

C1 Response:

C1CX Solution

Clarification: The proposed solution can comply. However, beyond the initial price for licenses, additional fees may be required for setting up and maintaining a predictive dialing system. This potential fee can be clarified with additional information from the State regarding predicted usage.

4.2.1.2 Security for Vendor's Hosted Solution

The State's goal is to ensure the Vendor's solution adheres to industry standard security practices and provides for sensitive data protection (where required) as it relates to cloud-based services. As such, the Vendor should:

4.2.1.2.1 Describe how its solution leverages high security standards associated with regulated data and/or high availability requirements, but also offers a cost-effective, standard-security solution option to the state.

C1 Response:

As a standard, the proposed solution can encrypt traffic over WAN services to establish a baseline level of security. To enhance the security, the solution can establish encryption to endpoints from system application for an additional fee. The fee is outlined in the providing cost attachments.

4.2.1.2.2 Describe its policies and procedures for conducting sub-contractor assurance, validating both the capability of the vendor to fulfill contracted responsibilities and adhere to all applicable to security & privacy policies and controls of all parties.

C1 Response:

All of C1's selected subcontractors undergo a vetting process to ensure the services they provide fall in line with C1's high standards, including background checks, submission of valid insurance information, and other proof of competency such as manufacturer certifications. C1 will coordinate any need for subcontractor involvement with this solution and will remain fully liable and responsible for the acts and omissions of our subs in performing the services.

4.2.1.2.3 Describe its company's cyber security and privacy management program including an overview of the governance structure, cyber security strategy, and the experience of personnel in key security and privacy roles.

C1 Response:

C1CX Solution

Security

ConvergeOne is proud of our successful completion of the Service Organization Control (SOC) 2 Type II audit. Completion of the audit indicates that the policies, communications, procedures and monitoring of controls have been implemented by ConvergeOne and tested by an independent certified public accounting firm. This third-party validation confirms our commitment to protecting customer data and ensures our security program meets the standards of the AICPA's trust principles. The achievement is attestation that ConvergeOne exceeds the security, compliance and safety-related requirements for controls and safeguards when hosting our customers' data. We have provided our Information Security Framework.

As a Gold Certified Partner for many IT manufactures, we have achieved advanced specializations and certification in Data Center Networking and Infrastructure, Security, Data Center storage, Unified Communications, and Wireless LAN.

Our Cisco Master Certifications include Master Cloud & Managed Services Partner, Master Collaboration Partner, Master Security Partner and Master Cloud Builder Partner. Only 16 of Cisco's almost 12,000 U.S. partners hold all four Master certifications!

Please see the attached ConvergeOne Info Security Framework document for additional information.

Governance Framework

Customer Success Manager

A Customer Success Manager (CSM) will be assigned to your account to provide a consistent management focal point responsible for the overall delivery of the services committed under the final Statement of Work. Your CSM will proactively implement service level monitoring processes and interface with each of the delivery teams to drive to a high level of execution and ensure the expected level of service is provided to your users.

Support from the CSM includes:

- Coordinate escalation activities for significant service interruptions or chronic incidents,

- Ensures regular reviews of incidents are performed to identify trends or chronic conditions that may warrant a change to the covered equipment,

- Deliver regular services reporting on activities performed and performance against stated objectives,

- Conduct regular service reviews with your key contacts to assess the level of service provided,

- Track current open and pending projects,

- Develop service improvement plans as necessary and track to completion.

Quarterly Business Reviews

ConvergeOne will conduct Quarterly Business Reviews to include members of the ConvergeOne Account and Operations Teams, and key company stakeholders. During the QBR, the team will review the following topics as relevant:

- Review new service requirements of customer and/or new service offerings from ConvergeOne that offer increased value to customer.

- Product Roadmap discussion:

  - Review product lifecycle of current deployed products within customer's environment.

  - Provide information relative to new products, features, upgrades that may be of interest to customer for deployment within their environment.

  - Status of any current or planned projects.

Services Reporting

The Customer Success Manager will deliver regular reporting about the services provided as part of your ConvergeOne managed solution. Reports include:

- Incident Management Reporting – provide detail regarding active or closed incidents during the reporting period.

- System Administration Reporting – provide MAC orders completed during the period.

- Release Management Reporting – provide detail of the current revision level of the Covered Equipment, as well as, any product updates that were presented during the period and any action that was taken.

Reports will also include information on ConvergeOne's performance of the services against agreed services objectives.

Governance Staffing

The C1 staffing model is comprised of dedicated on-site resources that are fully supported by subject matter experts, program and executive support. Utilizing an efficient staffing model we are able to provide the right number of people, possessing the relevant skills to meet the critical business needs at the appropriate times. We have identified the critical skills and job roles needed to develop a baseline staffing level, made up of staff member's functions that provide the most significant impact and added value.

Governance Process

C1 will establish a hierarchy based Governance structure in support of this engagement, including an Escalation Flow, Proactive Reviews of Service Performance, Quarterly Business Reviews and Bi-Annual Senior Management Reviews (CEO Level Engagement). The

Governance Model below is proposed as an example for managing this engagement with the State.

Meeting	Purpose	Agenda/ Frequency	Attendees	Owner
Unplanned Operational Project or Issues Meetings	To address any issue or situations that requires immediate action or requires a discussion and decision	As needed	Affected / involved person(s) from C1 and State Operations	Requester
Joint Management Team Meeting	Review cross-functional performance, project status, operational issues, open items and action plans	Weekly	C1 and State Service Teams	C1 Customer Success Managers
Program Sponsor and Program Executive	Monthly performance dashboard, planned projects, continuous improvement, change management, service planning and action log	Monthly	Customer Success Manager and Regional Service Owner	C1 Account Executive
Quarterly Program Review Meetings	Review overall relationship, performance, and ongoing account development including: • Program status • Projects review • SLA review	Quarterly	C1 Customer Success Manager Account Executive, State officials and key personnel	C1 Account Executive
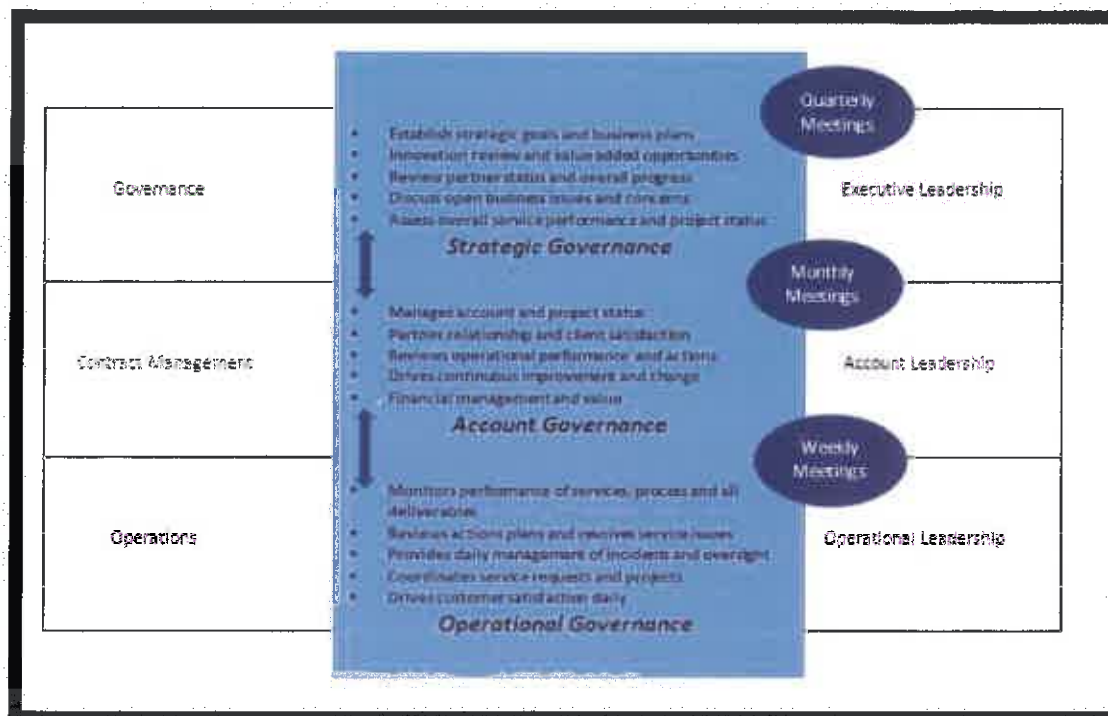
Microsoft Solution

Office 365 is a security-hardened service, covering physical security, logical security, data security, users and admin controls. Physical security includes 24-hour monitoring of datacenters, multi-factor authentication, role separation and redundant hardware.

Logical security includes servers that run only processes that are whitelisted, minimizing risk from malicious code; dedicated threat management teams monitor and mitigate malicious access.

Data security involves encryption of data both at rest and in flight, as well as security monitoring and file/data integrity validation to prevent or detect tampering of data.

User and admin controls include features such as Rights Management allowing for control over sensitive data; multi-factory authentication and mobile management allow administration from a multitude of locations and platforms.

4.2.1.3 Service and Support for Vendor's Hosted Solution

The State's goal is to partner with a Vendor whose service and support structures allow the State to focus on its core services, while ensuring telephony and contact center systems are available to State Agencies, with certain Agency sites (hospitals, jails, etc.) operating critical services 24x7x365. The State desires a Vendor to provide all levels of tiered support, including Tier 1 support for end-users. To this end, the Vendor's service and support structure for the Vendor's hosted solution should provide for the following:

4.2.1.3.1 Performance monitoring, capacity planning, and real-time surveillance of the Vendor's network to ensure 99.9% availability of services and provide network utilization reports upon request. Please describe your company's process and ability for providing this information upon request, including any lead times needed and how the State submits these requests.

C1 Response:

C1CX Solution

ConvergeOne OnGuard

OnGuard can take the management of your C1 Cloud HCS to a superior level of efficiency and reliability. Built on decades of expertise and successful customer engagement, OnGuard's capabilities are unmatched in the industry.

OnGuard is a 24×7 purpose built platform that offers state-of-the-art monitoring, management and maintenance support for every UC + CC solution we deliver. The predictive and proactive capabilities of OnGuard maximizes your uptime resulting in seamless operations and success for your customers at the same time.

Minimizing the risk of downtime can be achieved through preventive monitoring, which senses and prevents problems in your environment before they occur. A mix of preventive monitoring and the ability to find and resolve problems quickly are essential for keeping your communication and collaboration solutions up and running smoothly.

OnGuard is a foundational platform that provides services for all of your IT needs. It's not a mash up of third party products, but rather built from the ground up by our experts for:

- Resource utilization
- Proactive/preventive monitoring
- Continuous improvement + uptime
- Enterprise-wide communication
- End-user satisfaction

How do You Benefit?

- Increase uptime
- Maximize visibility to overall solution health
- Reduce repeat incidents by proactively identifying and resolving root cause
- Leverage user-sourced feedback loops to continuously improve the platform
- Promote sharing of on-the-job learning via user-sourced knowledge bases

With OnGuard you'll receive automated alerts and continuous updates on high-severity issues, access to a customizable Web portal that provides tools and reports and 24×7 access to certified engineers and technical resources that follow through, rather than follow the sun.

Our dedicated, multi-disciplinary teams harness analytics and logging technology and methodologies to maximize every opportunity to streamline your business:
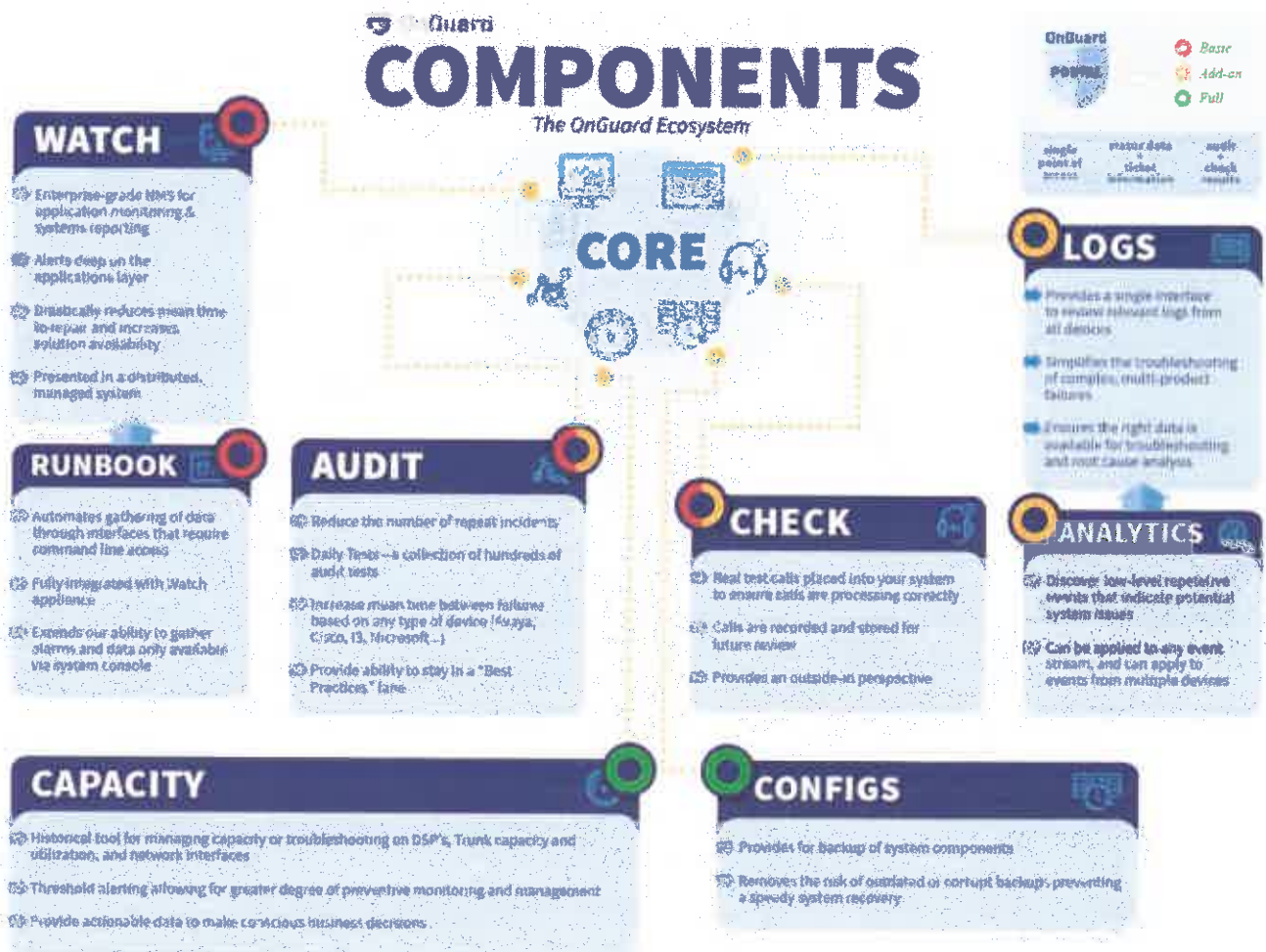
Logging:

- Leverage a single interface to review relevant logs from all devices we support

- Simplifies the troubleshooting of complex, multi-product failures

- Ensures the right data is available for troubleshooting and root cause analysis
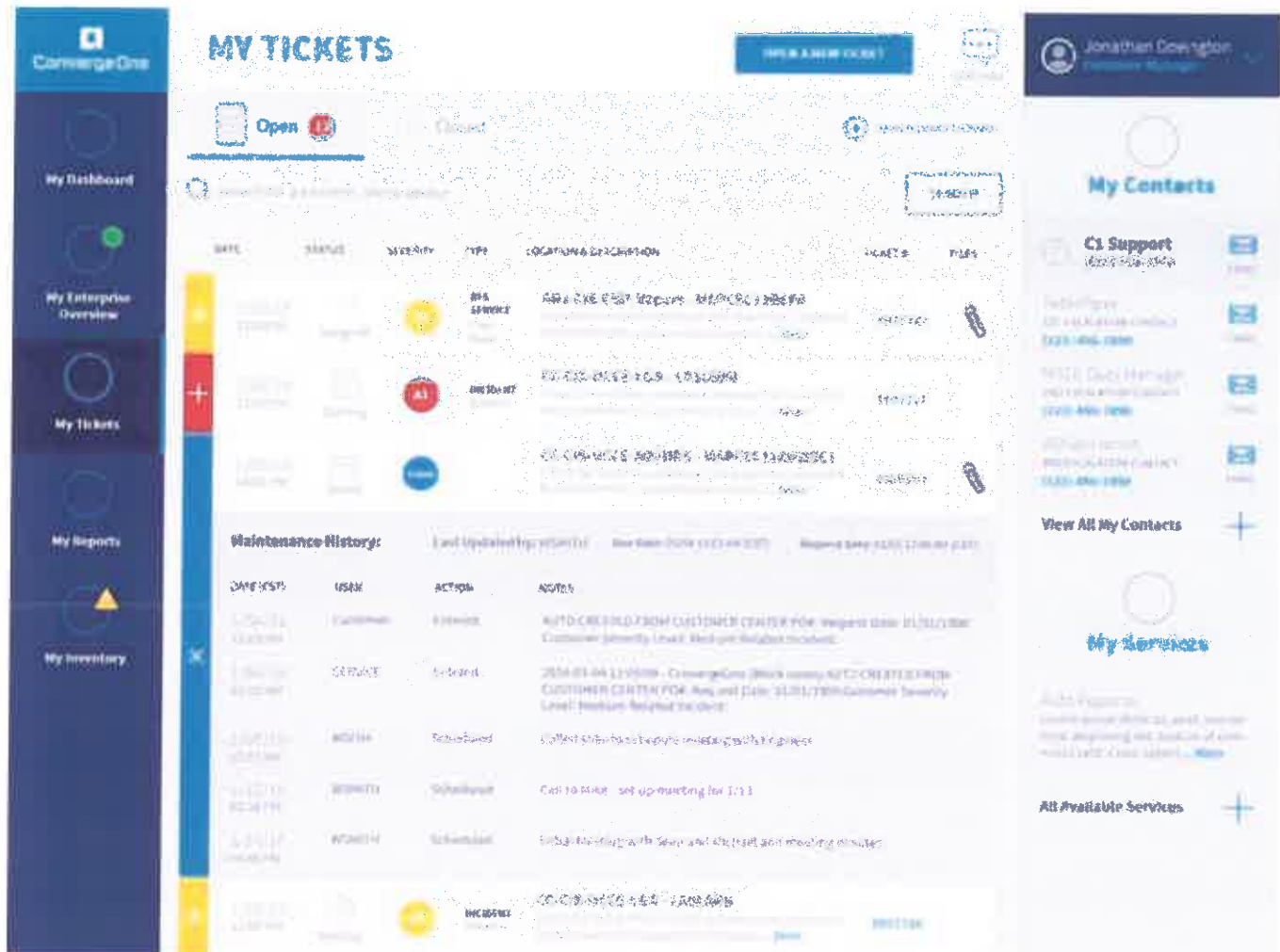
Analytics:

- Discover low-level repetitive events that indicate potential system issues

- Apply to any event stream from multiple devices

OnGuard will also provide proactive remote monitoring for covered equipment and includes:

- *Watch (Proactive Monitoring)* is an enterprise-grade application monitoring and systems reporting tool that is specifically designed to trigger alerts on Covered Products.

- *Audit (Preventive Monitoring)* is a solution element that provides preventive monitoring to identify issues. Schedule audit tests review configuration settings and create alerts, which generate incidents, if a discrepancy is identified.

- *Unified Logging* is a monitoring module that allows for C1 engineers to collect and analyze real-time log data from State of West Virginia Communications and Contact Center devices in one place.

COMPONENTS
The OnGuard Ecosystem

CORE

WATCH
- Enterprise-grade tools for application monitoring & systems reporting
- Alerts deep on the applications layer
- Drastically reduces mean time to repair and increases solution availability
- Presented in a distributed, managed system

RUNBOOK
- Automates gathering of data through interfaces that require command line access
- Fully integrated with Watch appliance
- Extends our ability to gather alarms and data only available via system console

AUDIT
- Reduce the number of repeat incidents
- Daily Tests—a collection of hundreds of audit tests
- Increase mean time between failure based on any type of device (Avaya, Cisco, I3, Microsoft...)
- Provide ability to stay in a "Best Practices" lane

CHECK
- Real test calls placed into your system to ensure calls are processing correctly
- Calls are recorded and stored for future review
- Provides an outside-in perspective

LOGS
- Provides a single interface to review relevant logs from all devices
- Simplifies the troubleshooting of complex, multi-product failures
- Ensures the right data is available for troubleshooting and root cause analysis

ANALYTICS
- Discover low-level repetitive events that indicate potential system issues
- Can be applied to any event stream, and can apply to events from multiple devices

CAPACITY
- Historical tool for managing capacity or troubleshooting on DSP's, Trunk capacity and utilization, and network interfaces
- Threshold alerting allowing for greater degree of preventive monitoring and management
- Provide actionable data to make conscious business decisions

CONFIGS
- Provides for backup of system components
- Removes the risk of outdated or corrupt backups preventing a speedy system recovery

OnGuard

- Basic
- Add-on
- Full

single point of access | sensor data + ticket information | audit + check results

Microsoft Solution

C1 proactively monitors 24x7x365. To monitor Microsoft products C1 uses an industry leading platform from our partner, Nectar, which is called One Vision. One Vision will continuously remotely monitor all State devices and sends all SNMP alerts back to the C1 CSCs where actionable alerts are converted to Incidents and routed to the C1 Engineering team for remediation.

4.2.1.3.2   The State desires regularly scheduled meetings and/or calls to discuss the following areas:
- Architecture and Design
- Implementation
- Ordering and Billing
- Service and Support

- Project Management

Please describe your company's ability to hold regular meetings on each of these topics, as well as your company's implementation plans for starting these discussions.

C1 Response:

C1 can hold regularly scheduled meetings with the State to discuss all listed areas, likely via audio and video conference calls. Please see the attached sample project plan for more information.

> **4.2.1.3.3** Vendor should contact the State's engineering points of contact by phone within 30 minutes of a Vendor network outage that affects multiple sites on the State's network. This verbal notification should be followed with a written report that provides an explanation of the problem, the cause of the problem, the solution to the problem, the estimated time for recovery, and the steps taken or to be taken to prevent a reoccurrence. To that end, please describe your company's notification procedures in the case of an outage.

C1 Response:

The ConvergeOne notification process begins when a new incident is created from a toll free call to the C1 Help Desk, maintenance request through the customer web portal or receipt of an alarm in C1's monitoring tools. Electronic notifications are sent instantly when the incident is created. When the incident case is assigned to an engineer, they will begin efforts to remotely resolve the issue. If the engineer determines that an on-site dispatch is required or needs to speak with one of the State representative(s), they will contact the authorized contacts represented on the "Customer Contacts and Escalation list". During the case resolution process, the engineer will post updates to the case notes. Update notifications are sent automatically every four hours for cases that are classified as Major; while notifications for cases classified as Minor are sent every 24 hours. The update notification is only sent if there is a change in status or an update to the case notes. Once the incident case is resolved, either remotely or onsite, the engineer will close the case. The closed notification is sent instantly indicating that the case has been resolved. Alarm and incident notification can be setup to automatically deliver to any number of designated email addresses, PDA, or Text Pager.

> **4.2.1.3.4** Vendor should provide written notification of ten (10) business days or more in advance of any planned upgrades, modifications, etc. that may affect the State's customers to the State's engineering points of contact. Please describe your company's notification process for planned maintenance.

C1 Response:

ConvergeOne's Change Management process and methodology for planned upgrades includes a written notification ten (10) business days before the activity.

> **4.2.1.3.5** Vendor should provide notification of three (3) business days or more in

advance of emergency maintenance. While the State understands emergency outages and/or unplanned maintenance windows occur, it is expected that these situations are kept to a minimum. Please describe your company's notification process for emergency maintenance and outages.

C1 Response:

ConvergeOne's Change Management process and methodology for emergency upgrades includes a notification three (3) business days in advance of the maintenance window. C1 will make every effort to comply with that timeline.

4.2.1.3.6　　If the Vendor's work requires them to be at a State site, the Vendor should provide Agency at least 72 hours' notice before arriving at the site and comply with State law and all Agency policies, including but not limited to background checks for contractors, vendors, and visitors. Please describe your approach and methodology in your solution/response.

C1 Response:

If the ConvergeOne work requires a technician to be at a State site, C1 will document and track the requirement, tasks and progress updates in an incident logged into the C1 IT Service Management system. The State will be notified at least 72 hours before the technician is scheduled to be on-site.

4.2.1.3.7　　The Vendor's network operation support center should provide: all tiers of support, including end-user support, advanced technical expertise, be staffed with resources that are proficient in spoken and written English, maintain and take responsibility for trouble tickets reported by the State until resolved, and provide a tiered support escalation process. Please describe your network operation support center's structure, processes, and procedures for handling trouble tickets, resolving those tickets, and reporting back to the State's point of contacts.

C1 Response:

ConvergeOne Service Desk

For supported products and configurations, ConvergeOne delivers Tier 1, Tier 2, and Tier 3 resources to provide assistance and support to designated client contacts, including:

- Diagnose and correct issues, errors and faults too complex to be resolved by the client's own helpdesk.

- Assist in identifying mitigation strategies.

- Document and managing the case and severity level in the ConvergeOne incident management system.

- Remain engaged with all resources engaged in an incident, providing updates through incidents resolution.

Designated client contacts, including system administrators and customer end-user support personnel, may contact the ConvergeOne Technical Service Center (TSC) to report incidents by toll-free telephone call or email.

Level-1 Service Desk is ordinarily provided in conjunction with Level-2 and Level-3 Service Desk activity for supported configurations, as outlined below.

Support Level	Definition	Responsibility	
		ConvergeOne	Customer
End-User Support	Support to end-users and basic troubleshooting / isolation of technical incidents	No	Yes
Level-1 Service Desk	ConvergeOne support provided to designated client personnel for troubleshooting and incident management	Primary	Supporting
Level 2 Service Desk	ConvergeOne advanced troubleshooting personnel from the ConvergeOne Technical Support Center (TSC)	Primary	Supporting
Level-3 Manufacturer Support	Manufacturer engineering personnel for advanced product troubleshooting and support	Yes	Yes

Attributes

- Coverage Hours: **24x7**.

ConvergeOne Responsibilities

Provide remote support through ConvergeOne Technical Service Center (TSC), including:

- Remotely access supported products to help isolate, diagnose and troubleshoot reported service interruptions and functional outages.
    - Analyze problems, anomalies, configuration errors, and the conditions under which they occur.
    - Determine whether a supported products is are working in accordance with the manufacturer's documentation, application notes and configuration notes.
- Perform Incident Response activities:
    - Ascertain incident severity and create an incident record in the ConvergeOne incident management (aka "service ticketing") system, and appropriately set the incident severity.
    - Diagnose issues too complex for the client's end-user helpdesk to resolve without assistance.

- o If a specific product is identified as defective and is covered by a valid support agreement, initiate parts replacement by the manufacturer or ConvergeOne.

- o If the TSC determines that on-site service is required to resolve the incident, and if on-site service is covered by contract, dispatch a ConvergeOne technician to the client site.

- o If more advanced troubleshooting is required, contact and engage ConvergeOne and manufacturer technical engineering personnel, as available and covered by contract.

- o If the cause of the incident is not covered by a Support Agreement, offer to provide remediation activities on a time-and-materials (T&M) basis, subject to client pre-approval.

- Perform Case Management activities:

  - o Engage and ensure accountability among all parties engaged in the incident.

  - o Drive incident response until the incident is closed.

  - o Document activity and communicate changes in incident status to the client.

  - o Provide progress updates every four (4) hours, or based on a mutually agreed action plan.

  - o Advise the client upon incident resolution.

- Answer questions regarding product performance issues.

- Help identify resources to assist with requests that fall outside the scope of the client's service agreement.

Service Level Agreement

ConvergeOne defines the following standard service level agreements as objectives for incident response:

Severity	Description	Response Objective
Severity Level-1 (Critical)	Supported product is totally out of service with no work-around, affecting all users at a site.	30 minutes
Severity Level-2 (Major)	Supported product is operating with reduced functionality, causing significant impact to business operations. Loss of service affecting more than 25% of users at a single site Loss of access to system administration	One hour

Severity	Description	Response Objective
Severity Level 3 (Minor)	Supported product is operating with reduced functionality, causing little to no impact to business operations. Loss of service to less than 25% of users at a single site Occasional dropped calls or sessions Intermittent degradation of signal quality	Next business day
Severity Level 4 (Low)	Non-maintenance support requests.	Two business days

Errors will be considered resolved when, for example:

- A workable solution that permanently corrects a reported error is identified.

- An error and its cause have been identified, but the client and ConvergeOne jointly agree that a correction may cause serious or unknown errors.

- Client and ConvergeOne agree that the product is conforming to design specifications and need not be changed

- Client and ConvergeOne agree that the incident will be handled as a request for new features, functionality, or enhancements, to be considered in future implementations.

- Client and ConvergeOne agree that the error cannot be reproduced.

- A workaround is delivered and accepted as a final solution.

- Client and ConvergeOne jointly concur that further effort is not warranted.

Service Incident Flow
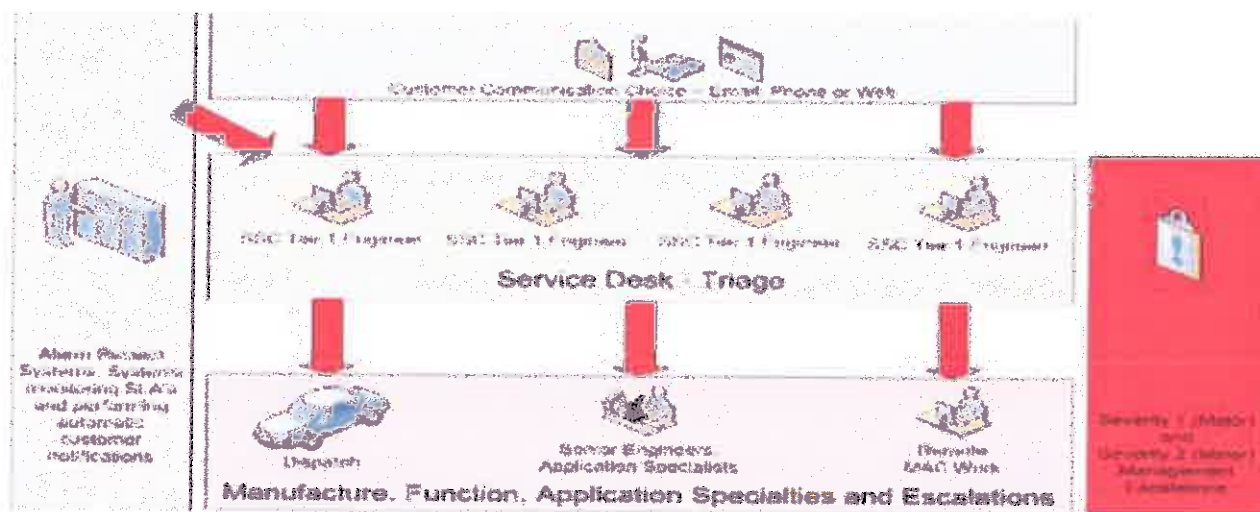
Escalation Process

When the CSC receives a notification, an incident is created and the severity level is determined. Once engineers are assigned to an incident, they work the issue through to completion unless escalation is required to a higher tier. If escalation to the manufacturer is required, the engineer escalates that as well and manages all work between the customer and the manufacturer. If replacement parts are required, the assigned engineer makes the determinations of what is needed, orders the parts and will work with the dispatchers to coordinate those activities.

4.2.1.3.8 The Vendor's solution should include a documented support and escalation structure to address outages. The State prefers the severity of the issue/support problem to determine the average problem resolution response time, as outlined below:

- Severity Level 1 is defined as an urgent situation, where the customer's services are unavailable and the customer is unable to use/access the network. The Vendor should resolve Severity Level 1 problems as quickly as possible, which on average should not exceed two (2) business hours. If repair inside the 2-hour window is not feasible, then regular 1-hour updates are desired.

- Severity Level 2 is defined as significant outages and/or repeated failures resulting in limited effective use by the customer. The service may operate but is severely restricted (i.e. slow response, intermittent but repeated inaccessibility, etc.). The Vendor should resolve Severity Level 2 problems as quickly as possible, which on average should not exceed four (4) business hours. If repair inside the 4-hour window is not feasible, then regular 2-hour updates are desired.

- Severity Level 3 is defined as a minor problem that exists with the service, but most of the functions are still usable, and some circumvention may be required to provide service. The Vendor should resolve Severity Level 3

problems as quickly as possible, which on average should not exceed ten (10) business hours. If repair inside the 10-hour window is not feasible, then updates are desired at the start of the next business day and every day thereafter until repairs are complete.

Please describe your company's severity level structure, as well as your documented procedures for handling outages, including escalation processes, notification methods, and resolution times.

C1 Response:

C1CX Solution

Service Levels and Reporting

This following sets forth the applicable Service Levels Agreements (SLAs) for the C1 Cloud Services included in the standard terms of service. The SLAs detail the objectives to be measured and circumstances under which C1 will be responsible for Performance Credits for failure to achieve specified SLAs.

System Availability

C1 will track and report to Customer the achieved System Availability on a monthly basis.

Service	Service Level	Performance Credit
Call Processing	99.99%	2% of Monthly Service Fees for each .25% below the System Availability Service Level, not to exceed 5% of Monthly Service Fees
Voice Messaging	99.99%	2% of Monthly Service Fees for each .25% below the System Availability Service Level, not to exceed 5% of Monthly Service Fees
IM & Presence	99.99%	2% of Monthly Service Fees for each .25% below the System Availability Service Level, not to exceed 5% of Monthly Service Fees

Calculation	
	Availability % = $\dfrac{\text{Total Available Minutes in the Month}}{\text{Total Minutes in the Month}} \times 100$
Available Minutes	Available Minutes are determined by the aggregated service uptime as reported by the guest OS plus Excluded Downtime.

Excluded Downtime	Total minutes in the month that can be attributed to Scheduled Downtime or Downtime caused by factors outside of C1's reasonable control (see Service Level Exceptions below)

Service Hours

Service Desk	24x7x365; English Language Only)
Proactive Monitoring	24x7x365; Events received from C1's element monitoring system
Service Request Fulfillment	8x5 M-F; Excludes weekends and C1 holidays
Standard Maintenance Window	Time reserved daily from 2:00 AM to 4:00 AM eastern time, Sundays from Midnight to 6:00 AM eastern time, during which time C1 may perform maintenance activities such as updates, patching, etc.

Incident Response

C1 will track and report to Customer the achieved remote response time on a monthly basis per the service commitment defined in the table below.

SLA	Service Measure	Performance Target	Minimum Service Performance
Remote Response	Elapsed time from alarm receipt or Customer report of a trouble to the C1's Voice Service Desk until electronic notification of Customer (e-mail)	15 minutes	90.0%
	Formula	Number of requests completed within Performance Target / Total number of all requests during Measurement Interval = "Percent (%) attained"	
	Measurement Period	Measure Monthly	
	Reporting Interval	Report Service Monthly	
	Data Source	C1 Ticketing System	

Service Request Fulfillment

C1 will track and report to Customer the achieved Service Requests completion time on a monthly basis per the service commitment defined in the table below. Service Level requires Customer to create ticket within C1's ticketing system and submit all required information to process the Service Request.

Definitions	Simple Software MAC: System administration work performed within the application software (remotely) that affects only a particular user. An example is changing a feature for a particular user.

SLA	Service Measure	Performance Target (from ticket open)	Minimum Service Performance
Simple Software MAC (the number of activities per day to be supported within this SLA will be less than or equal to the included monthly volume of Simple Software MACs for the relevant billing month for which the services are provided, divided by the number of business days in the month)	Elapsed time from C1's receipt of a Service Request with complete information to the time the Service Request activity (MAC) is completed	1 business day	95.0%
	Formula	Number of requests completed within Performance Target / Total number of all requests during Measurement Interval = "Percent (%) attained"	
	Measurement Period	Measure Monthly	
	Reporting Interval	Report Service Monthly	
	Data Source	C1 Ticketing System	

Severity Level Definitions

The following table provides the guidelines for the severity levels assigned to trouble tickets associated with the services delivered under the standard terms of service.

Severity Level	Definition	Examples

Severity 1 (S1)	Supported system is totally out of service with no work-around	▫ No power to or from system or its components
Severity 2 (S2)	Supported system is operating with reduced functionality, causing significant impact to business operations. Loss of service affecting more than 25% of users	▫ Intermittent ability to make or receive calls ▫ Unable to make and/or receive calls ▫ No Dial Tone ▫ Calls are busy coming in and/or Fast Busy going out
Severity 3 (S3)	Supported system is operating with reduced functionality, causing little to no impact to business operations. Loss of service to less than 25% of users	▫ Single station is not working ▫ Occasional dropped calls or sessions ▫ Intermittent degradation of signal quality
Severity 4 (S4)	Little or no impact to the Customer's system.	▫ Informational alarms/requests

Microsoft Solution

Comply.

Incident Management provides lifecycle management; including escalation through the various levels of remote resolution ensuring that service objectives are achieved. C1 will remotely perform event assessment and correlation for incidents that occur on Supported Products identified through proactive monitoring.

C1 will be responsible for the following Incident Management activities:

- Create trouble ticket for final resolution as applicable

- Provide case management of trouble tickets referred to C1 until incident resolution. This includes:

  - Management of the event assessment and correlation process with engineers within the CSC

  - Escalation management within C1 and State's organizations

- Confirm resolution of incident and close trouble ticket with supporting vendor

Problem Management

The primary objective of Problem Management is to reduce failures to an acceptable risk at an acceptable cost and to ensure that service levels are consistently achieved. C1 will provide a

Problem Management solution that will work to understand the underlying cause of an incident, subsequent resolution and prevention. As part of our Problem Management process, C1 will:

- Identify recurrent incidents and root causes

- Work with third parties (vendors, application owners, etc.) to develop such solutions

- Provide an intermediate work-around that allows State users to continue working while appropriate resolutions are developed

- Ensure the right resources are allocated to resolving each problem

- Develop or modify processes to prevent the occurrence or reoccurrence of such problems.

- Document the root cause and resolution

- Monitor the process to ensure that the problem is resolved

- Ensure that vendors comply with the terms of their contracts when involved in problem resolution

Escalation Process

As part of the transition process, C1 will provide the Cloud and Customer Success Centers contact and escalation list to the State's authorized representatives involved in the transition to C1. The escalation list begins with the Customer Success Manager, escalates to the Directors, and includes the VP, Maintenance and Managed Services.

Service Level Objectives

Please see the following Service Level Objectives based on the components of the proposed solution.

All Data Center Hardware and Software

Level 1 – Critical

The Supported Product is totally out of service with no acceptable work around, resulting in a loss of service affecting all users at a single site.

- Response: 30 minutes

Level 2 – Major

The Supported Product is operating with severely reduced functionality causing significant impact to the Customer's business operations, the loss of service impacting more than twenty-five percent (25%) of all users at a single site or inability to access System Administration.

- Response: 1 hour

Level 3 – Minor

The Supported Product is operating with reduced functionality causing little or no impact to the Customer's business operations, or the loss of service to less than twenty-five percent (25%) of all users at a single site. May also include occasional dropped calls or intermittent voice quality degradation.

- Response: 8 Hours

Level 4 – Informational

Requests for general feature information or other non-maintenance related support requests. Includes Moves, Adds and Changes.

- Response: 2 Business Days

* Response objective applies to remote service desk support only and does not apply to on-site services. On-site support dispatch is next business day.

AudioCodes Telephone Endpoints

- Next Business Day

> **4.2.1.3.9** The State desires the ability to place initial service orders, any changes with an associated charge, or to disconnect services, electronically and receive confirmation of receipt and subsequent order detail. The State desires details including the following data elements:
> - Telecommunications Change Request (TCR) Form Number
> - Date order was received
> - Customer Name
> - Customer on-site address
> - Projected due date
> - Rate element identifier (circuit ID or other)
> - Additional order details
>
> Additionally, the State prefers the Vendor's solution has a web portal for Agencies to enter moves, add, and changes that do not contain billing elements. MACD changes should be resolved by the same or next business day. Please describe your company's ability to accept, process, and report on electronic order submissions, as well as any requirements from the State needed to implement such a program.

C1 Response:

Partial Comply. ConvergeOne has a web portal available for Agencies to enter moves, adds, and changes that do not contain billing elements. These electronic order submissions are logged as service requests within the ConvergeOne ITSM system and processed by our technicians within one business day.
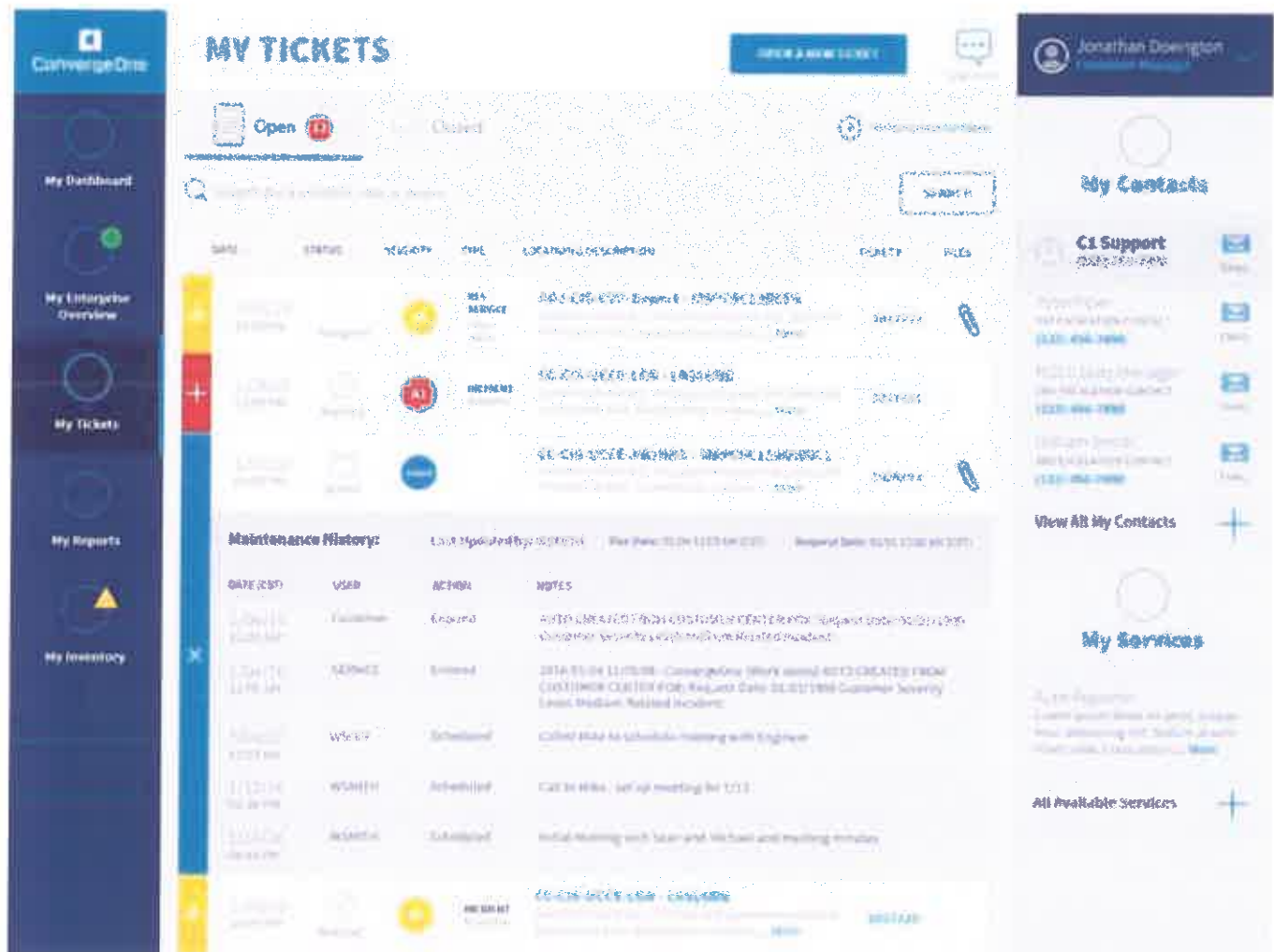
4.2.1.3.10 The State maintains a Learning Management System (LMS) for training purposes. The State desires web-based training and training materials for all services offered under this contract. The State desires the Vendor to provide materials that can be uploaded into its LMS, initial Train the Trainer session(s), and documentation/reference materials that can be distributed to and used by end-users. The State intends to incorporate these materials into its LMS, as well. Additionally, the State desires training sessions, if requested by the Agency, and the Vendor should include a professional services rate for training that would be above and beyond the initial training included in the site deployment. The expects the Vendor's training materials to be updated as necessary. The training services for the hosted voice services should be included in the monthly per package cost. Please provide information regarding your training program.

C1 Response:

C1CX Solution

ConvergeOne will provide customer specific documentation and training to access and utilize all services offered under this contract. This training will include training materials and Train the Trainer sessions.

Microsoft Solution

User training can be provided by C1 via train-the-trainer or online training programs including relevant electronic documentation that is periodically updated. For formal training beyond this (i.e. technical training), C1 can work with the State staff to identify recommended third-party learning providers.

> **4.2.1.3.11** The State desires an hourly rate for Hosted Contact Center Training Services in the instance the State desires training sessions beyond the training provided at initial implementation. The training at initial implementation should be built into the one-time costs for the Contact Center. These training services should include training for all contact center roles and should be provided at the State's request. Please describe your Contact Center training offerings and your solution's ability to meet this goal.

C1 Response:

C1CX Solution

ConvergeOne will conduct standard contact center training sessions which are focused around the "Train the trainer" methodology for both agents and supervisors. This type of training refers to training specifically tailored for individuals who will in turn train others on the relevant topics. ConvergeOne will perform remote "train the trainer" training on your system, typically for up to four (4) consecutive days for:

- Train the Trainer:
    - Finesse Agent training (up to 3 students)
    - Finesse Supervisor training (up to 3 students)
    - CUIC Administration (up to XX students)
    - CUIC Supervisor training (up to XX students)
- End User
    - Finesse Agent training (up to 10 students)
    - Finesse Supervisor training (up to 10 students)
    - CUIC Administration (up to XX students)
    - CUIC End User training (up to XX students)

o The State will provide training room facilities as agreed upon by the project teams.

If onsite training is desired, C1 can offer classroom training. The State will be responsible for the scheduling and attendance.

Please see the previous response for additional details.

4.2.2. Mandatory Project Requirements -The following mandatory requirements relate to the goals and objectives and must be met by the Vendor as a part of its submitted proposal. Vendor should describe how it will comply with the mandatory requirements and include any areas where its proposed solution exceeds the mandatory requirement. Failure to comply with mandatory requirements will lead to disqualification, but the approach/methodology that the vendor uses to comply, and areas where the mandatory requirements are **exceeded**, will be included in technical scores where appropriate. The mandatory project requirements are listed below.

4.2.2.1 Managed Voice Services

4.2.2.1.1 The Vendor must provide a turnkey technical support solution that ensures the continued operations and MACD needs of the State's existing telephony infrastructure, as defined in Appendix A, through the migration period to a Hosted VoIP solution. Additionally, the Vendor must, at the State's discretion, migrate any site to the hosted solution.

C1 Response:

Comply.

4.2.2.2 Hosted Voice Services

4.2.2.2.1 The Vendor must agree the State owns all data gathered under the scope of this contract and the Vendor must produce and/or return the data upon the State's request in an editable format.

C1 Response:

Comply.

4.2.2.2.2 Vendor's solution must provide support for local failover and/or survivability services, if requested by Agency, in the event the hosted service becomes inaccessible.

C1 Response:

C1CX Solution

Clarification: The proposed solution can provide this feature, but this is not included in the proposed cost at this time. Please see page 58 of this response C1's discussion about Cisco SRST. C1 looks forward to discussing this further with the State at any point.

Microsoft Solution

ConvergeOne will need to review the design considerations with the State if the State is interested in porting numbers to Office365.

4.2.2.2.3   Vendor's solution must provide local telephone numbers in West Virginia.

C1 Response:

Comply.

4.2.2.2.4   Vendor's solution must support inbound Automatic Number Identification (ANI).

C1 Response:

Comply.

4.2.2.2.5   Vendor's solution must include inbound Caller ID, outbound custom telephone number, and outbound custom name display.

C1 Response:

Comply.

4.2.2.2.6   Vendor's solution must support Dialed Number Information Services (DNIS) on 800 # toll-free telephone services.

C1 Response:

Comply, as long as the correct information is provided by the State's chosen carrier.

4.2.2.2.7   Vendor's solution must support rerouting of calls to an alternate site at the State's directive.

C1 Response:

C1CX Solution

Variance: The configuration of the system will allow this feature to be available, but clarification is needed from the State regarding this statement to determine ultimate feature availability and cost.

Microsoft Solution

Variance: Clarification is needed from the State regarding this statement to determine ultimate feature availability and cost.

4.2.2.2.8   Vendor's solution must support 900/976 blocking.

C1 Response:

Comply.

4.2.2.2.9   Vendor's solution must support x11 services (currently 211, 411, 511,

611, 811, 911).

C1 Response:

Comply.

> **4.2.2.2.10** Vendor's solution must include Direct Inward Dial (DID) feature and service.

C1 Response:

Comply.

> **4.2.2.2.11** Vendor's solution must support Operator services.

C1 Response:

Both C1CX and Microsoft Solutions

Clarification: The proposed solution can comply, pending further clarification from the State as to the exact nature of these services.

> **4.2.2.2.12** Vendor's solution must support local number portability.

C1 Response:

Both C1CX and Microsoft Solutions

Clarification: The proposed solution can comply with this request, as it is understood that the carrier will have to perform a porting function with the number(s) in question. Further discussion is needed with the State to determine the breadth of this feature.

> **4.2.2.2.13** Vendor's solution must provide unlimited free local and long-distance calling.

C1 Response:

Clarification: The proposed solution can provide unlimited local and long distance dialing within the United States and Canada. For additional international calling, please see the attached international rate card for details.

> **4.2.2.2.14** Vendor's hosting center(s) must be located within the continental United States.

C1 Response:

Comply.

> **4.2.2.2.15** Vendor must provide Train the Trainer sessions for Hosted Voice Services implementations.

C1 Response:

ConvergeOne will conduct standard contact center training sessions which are focused around the "Train the trainer" methodology for both agents and supervisors. This type of training refers to training specifically tailored for individuals who will in turn train others on the relevant topics. ConvergeOne will perform remote "train the trainer" training on your system, typically for up to four (4) consecutive days for:

- Train the Trainer:

    o Finesse Agent training (up to 3 students)

    o Finesse Supervisor training (up to 3 students)

    o CUIC Administration (up to XX students)

    o CUIC Supervisor training (up to XX students)

- End User

    o Finesse Agent training (up to 10 students)

    o Finesse Supervisor training (up to 10 students)

    o CUIC Administration (up to XX students)

    o CUIC End User training (up to XX students)

    o The State will provide training room facilities as agreed upon by the project teams.

If onsite training is desired, C1 can offer classroom training. The State will be responsible for the scheduling and attendance.

Please see the response for section 4.2.3.1.10 for details.

> 4.2.2.2.16   The State recognizes the need for the inclusion of certain fees and charges mandated by the federal government or Public Service Commission, including but not limited to, Universal Service Fund Fees and 911 Fees. As such, the Vendor must include the latest published version of such fees with its cost response. The State will allow for quarterly Change Orders to care for changes in these fees.

C1 Response:

Comply.

4.2.2.3 Hosted Contact Center Services

Vendor's Contact Center solution must support:

4.2.2.3.1   Automatic Call Distributor (ACD)

C1 Response:

C1CX Solution

Comply through Unified Contact Center Enterprise component.

Microsoft Solution

Comply. Phone System call queues include greetings that are used when someone calls in to a phone number for your organization, the ability to automatically put the calls on hold, and the ability to search for the next available call agent to handle the call while the people who call are listening to music on hold. You can create single or multiple call queues for your organization.

Phone System call queues can provide:

An organizational greeting.

Music while people are waiting on hold.

Redirecting of calls to call agents in mail-enabled distribution lists and security groups.

Making settings for call queue maximum size, timeout, and call handling options.

When someone calls in to a phone number that is set up with a call queue, they will hear a greeting first (if any is set up), and then they will be put in the queue and wait for the next available call agent. The person calling in will hear music while they are on hold waiting, and the calls will be offered to the call agents in the First In, First Out (FIFO) manner.

All calls waiting in the queue will be distributed using an attendant routing mode or serial routing mode:

With attendant routing, the first call in the queue will ring all agents at the same time.

With serial routing, the first call in the queue will ring all call agents one by one.

Note

Call agents who are Offline, have set their presence to Do Not Disturb, or have opted out of the call queue won't be called.

Only one incoming call notification (for the call at the head of the queue) at a time will be sent to the call agents.

After a call agent accepts the call, the next incoming call in the queue will start ringing call agents

You can have 50 agents per queue serving up to 200 calls in queue.

4.2.2.3.2   Computer telephony integration (CTI)

C1 Response:

C1CX Solution

Comply through Communications Manager components.

Microsoft Solution

PC based Skype for Business client gives full control of all call controls, as well as other enabled features including IM/presence, audio/video conferencing, desktop sharing & collaboration, contact list management, etc.

If the State is interested in porting user numbers to Office 365 Skype Online, ConvergeOne provide Train the Trainer training and/or provide the State with training resources for their end users.

4.2.2.3.3   Call control

C1 Response:

C1CX Solution

Comply through Communications Manager components.

Microsoft Solution

Comply. Users and DIDs that are moved to Skype Online.

4.2.2.3.4   E.164

C1 Response:

Comply.

4.2.2.3.5   Interactive voice response (IVR)

C1 Response:

C1CX Solution

Comply through Customer Voice Portal components.

Microsoft Solution

Comply through Call Queue feature of Skype for Business Online. Additional discussion will be needed to determine exact requirements.

4.2.2.3.6   Voice Recording

C1 Response:

C1CX Solution

Comply through Calabrio component.

4.2.2.3.7   High Availability with load balancing and built-in redundancy

C1 Response:

C1CX Solution

Comply through complete C1CX solution.

Microsoft Solution

Comply through Skype for Business Online platform.

> **4.2.2.3.8** Vendor must provide Train the Trainer sessions, encompassing all Hosted Contact Center roles -Administrator, Supervisor, and Agents.

C1 Response:

C1CX Solution

ConvergeOne will conduct standard contact center training sessions which are focused around the "Train the trainer" methodology for both agents and supervisors. This type of training refers to training specifically tailored for individuals who will in turn train others on the relevant topics. ConvergeOne will perform remote "train the trainer" training on your system, typically for up to four (4) consecutive days for:

- Train the Trainer:
    - Finesse Agent training (up to 3 students)
    - Finesse Supervisor training (up to 3 students)
    - CUIC Administration (up to XX students)
    - CUIC Supervisor training (up to XX students)
- End User
    - Finesse Agent training (up to 10 students)
    - Finesse Supervisor training (up to 10 students)
    - CUIC Administration (up to XX students)
    - CUIC End User training (up to XX students)
    - The State will provide training room facilities as agreed upon by the project teams.

If onsite training is desired, C1 can offer classroom training. The State will be responsible for the scheduling and attendance.

Please see the response for section 4.2.3.1.10 for details.

4.2.2.4 Security

4.2.2.4.1 The proposed solution must adhere to the security and privacy baseline standards in accordance to the high-security and standard-security use-case requirements.

C1 Response:

Variance: While the proposed solution exceeds industry-standard security guidelines, additional detail is needed from the State to confirm the solution meets security expectations.

4.2.2.4.2 Must adhere to the State of West Virginia's Cyber Security & Privacy policies, procedures, and standards; these can be viewed at the following link: https://technology.wv.gov/security/Pages/policies-issued-by-the-cto.aspx

C1 Response:

Variance: While the proposed solution exceeds industry-standard security guidelines, additional detail is needed from the State to confirm the solution meets security expectations.

4.2.2.4.3 Must adhere to all applicable security and privacy standards and provide compliance for components and network segments that are subject to the following:
- Health Insurance Portability and Accountability Act (HIPAA) requirements as outlined in the attached Business Associate Addendum (BAA);
- Federal Information Security Management Act (FISMA), National Institute of Standards Technology's Special Publication (NIST SP) 800-53, NIST SP 800-17 which serve as the baseline;
- Family Education Rights and Privacy Act (FERPA) requirements;
- Criminal Justice Information System (CHS) requirements;
- Payment Card Industry Data Security Standards (PCI-DSS) requirements;
- Federal tax Information (FTI) and Internal Revenue Service publication 1075 (IRS 1075) requirements;
- Centers for Medicare & Medicaid (CMS) Services Information Security Policy requirements.
- Ensure network boundary and access control protection such as dual session boundary controllers and firewalls.
- Data-at-rest and data-in-transit encryption.
- Role-based access control for all applications which process and/or store sensitive data, to ensure need-to-know policies are enforceable.

C1 Response:

C1CX Solution

C1 is proud of our successful completion of the Service Organization Control (SOC) 2 Type II audit. Completion of the audit indicates that the policies, communications, procedures and monitoring of controls have been implemented by C1 and tested by an independent certified public accounting firm.

This third-party validation confirms our commitment to protecting customer data and ensures our security program meets the standards of the AICPA's trust principles. The achievement is attestation that C1 exceeds the security, compliance and safety-related requirements for controls and safeguards when hosting our customers' data. C1 is also HIPAA compliant.

<u>**Microsoft Solution**</u>

See above for ConvergeOne compliancy.

If the State is interested in moving towards Skype Online telephony service, ConvergeOne can provide the State Microsoft's security and compliancy information.

> **4.2.2.4.4** Vendor must draft a cyber risk management plan outlining the process, by which, cyber risk management activities are conducted to identify, assess, communicate, and manage shared cyber risk. The Vendor must provide this prior to the first implementation on the Vendor's hosted solution.

C1 Response:

Clarification: C1 has read and will work with the State to create a mutually-satisfactory cyber risk management plan as part of the overall implementation plan creation process, to start with the initial kick-off immediately after conclusion of contract negotiations. This plan will address the issues listed here in a commercially-reasonable fashion, and C1 looks forward to discussing it further with the State.

> **4.2.2.4.5** Vendor must draft an incident management plan aligned with NIST SP 800-61rev2, whereas both the State and Vendor must mutually approve. The plan must include the outlined scope, responsibility matrix, communications plan, procedures, and deliverables associated with cyber security incident response. In addition, the plan must outline incident reporting requirements, semiannual security reports, and cyber threat intelligence sharing. The Vendor must provide this prior to the first implementation on the Vendor's hosted solution.

C1 Response:

Clarification: C1 has read and will work with the State to create a mutually-satisfactory incident management plan as part of the overall implementation plan creation process, to start with the initial kick-off immediately after conclusion of contract negotiations. This plan will address the issues listed here in a commercially-reasonable fashion, and C1 looks forward to discussing it further with the State.

> **4.2.2.4.6** The Vendor must adhere to personnel security requirements for background checks in accordance with state law. The vendor is liable for all costs associated with ensuring staff meets all requirements.

C1 Response:

Comply.

> **4.2.2.4.7** Vendor must agree to drafting an audit management plan designed to

assist the state with conducting internal and external compliance audits when the vendor-supplied solution is within the audit scope. At minimum, the plan must include:

- How the vendor will provide a NIST 800-53 security controls report, outlining organizational responsibilities (State, Vendor, or Shared), per each applicable control for each major application/information system within the audit scope.
- Plan of Action & Milestone documentation for non-compliant security & privacy controls when the vendor holds primary or shared control responsibility.

The Vendor must provide this prior to the first implementation on the Vendor's hosted solution.

C1 Response:

Clarification: C1 has read and will work with the State to create a mutually-satisfactory audit management plan as part of the overall implementation plan creation process, to start with the initial kick-off immediately after conclusion of contract negotiations. This plan will address the issues listed here in a commercially-reasonable fashion, and C1 looks forward to discussing it further with the State.

4.2.2.5 Service and Support

4.2.2.5.1   Vendor must provide a network operation support center(s) for all tiers of support, including end-user support, that is available 24x7x365 and is accessible via a toll-free number.

C1 Response:

Comply.

4.2.2.5.2   The successful Vendor must assign an experienced and skilled Project Manager who will provide a high-level project management plan including key components such as a project charter, issue tracking, statements of work (SOW), work breakdown structures (WBS), implementation schedules, etc. in accordance with the Project Management Body of Knowledge (PMBOK) or other industry standard project management methodology stated in West Virginia State Code (§5A-6-4b). The link can be found at: http://www.legis.state.wv.us/WVCODE/Code.cfm?chap=05a&art=6#06. The project management plan must be submitted to and approved by the WVOT Project Management Office (PMO) prior to engaging the first agency for VoIP services implementation.

C1 Response:

C1 has read and will comply.

4.2.2.5.3   The successful Vendor's Project Manager must track and report (via written status reports) the following: schedule, scope, budget, issues, risks, specified performance indicators, and other metrics determined appropriate throughout the project and each site implementation.

C1 Response:

C1 has read and will comply.

> **4.2.2.5.1** Vendor must work with the WVOT using the established Telecommunications Change Request (TCR) procedures for ordering and implementing these telecommunications services.

C1 Response:

C1 has read and will comply.

> **4.2.2.5.1** Vendor billing errors must be credited back to the State from the effective date of the error. The State reserves the right to withhold payment until credit is received.

C1 Response:

Clarification: C1 has no issue with refunding amounts invoiced in error. However, we would like to request the above be limited to "disputed" amounts.

> **4.2.2.5.2** For auditing, billing, and support purposes, the State requires any service with an associated rate to be identified on its monthly bill. As such, the State must be provided, at a minimum, the following:
> - Billing Month
> - Billed Entity Name
> - Customer Name/Account (if different from billed entity)
> - Service Location
> - Service Period
> - Itemized Cost for Individual Billing Components
> - Itemized Call Detail
> - Itemized Cost for Any One-Time or Non-Recurring Charges
> - Itemized Cost for Any Surcharges and Total Cost
>
> The cost identified in the bill must match the contract rates for the specified services. The Vendor must provide the State's monthly bill in an editable format such as Excel and/or csv.

C1 Response:

Read and understood.

> **4.2.2.5.3** The Vendor must invoice on a consistent monthly billing cycle across all services. Services installed or disconnected for a partial month must be prorated based on the date the service is activated/accepted or disconnected. The Vendor must not bill the State of services until the services have been activated and accepted as functional. The Vendor shall not bill the State for services after the disconnect due date listed on the submitted TCR.

C1 Response:

Read and understood.

4.2.2.5.4 The Vendor must provide and update a weekly status report and/or order log for submitted TCRs.

C1 Response:

ConvergeOne will provide governance of the services which will include weekly status reports on incidents and submitted TCRs.

4.2.2.5.5 If, as part of its proposal, the Vendor submits appendices or other supplemental materials, the Vendor must denote specifically in those materials where the relevant information is located.

C1 Response:

Comply.

4.2.2.5.6 The State expects full, complete, and timely cooperation in disentangling the relationship in the event that the Agreement expires or terminates for any reason. In the event of expiration or termination, the State expects that the Vendor shall, among other things: return all State data and documentation to the State, including but not limited to configuration information; transfer ownership of all leased equipment at no cost to the State (other than the payments already received by the Vendor under the Agreement); and, allow the State or the replacement provider(s) continued access to all billing, ordering, and trouble ticketing systems, and processes that have been employed in servicing the State, in accordance with methods and procedures to be agreed upon and established in the Agreement. Please acknowledge your acceptance of this.

C1 Response:

Clarification: While C1 will be happy to provide full, complete, and timely cooperation in disentangling any relationship C1 has with the State should this situation arise, but C1 needs to discuss expectations further prior to acknowledging acceptance of this term, especially the part about transferring of ownership of all leased equipment to the State at no cost. C1 looks forward to discussing this further at any point with the State.

4.3. **Qualifications and Experience:** Vendor should provide information and documentation regarding its qualifications and experience in providing services or solving problems similar to those requested in this RFP. Information and documentation should include, but is not limited to, copies of any staff certifications or degrees applicable to this project, proposed staffing plans, descriptions of past projects completed (descriptions should include the location of the project, project manager name and contact information, type of project, and what the project goals and objectives where and how they were met.), references for prior projects, and any other information that vendor deems relevant to the items identified as desirable or mandatory below.

C1 Response:

Exception: Regarding detail information about our employees, C1 has read and states that at this early stage in the RFI process, and with the proliferation of RFIs, it would be a disservice to our employees to list such information about them we consider to be confidential. Once the State has made initial determinations for a "short list" of candidate vendors, we will be happy to provide this information.

Otherwise, please see the following.

4.3.1. Qualification and Experience Information: Vendor should describe in its proposal how it meets the desirable qualification and experience requirements listed below.

4.3.1.1. Vendor should provide three (3) examples demonstrating at least three (3) years of experience in providing a Hosted VoIP solution of a similar size and scope - 15,000 users across 200 sites with one example being a public entity. Vendor should provide a summarization of each project including goals and objectives, total number of phones deployed per site, length of time deployment took, if still in service, and reference for each example.

C1 Response:

Many of our clients do not permit us to share confidential data in RFP responses, and in many instances we are bound by contractual obligations to not share client information. At this early stage in the RFI process, and with the proliferation of RFIs, it would be a disservice to our customers to list them as a reference and be subject to frequent interruptions, a situation that we believe the State of West Virginia would prefer not to experience. Once the State has made initial determinations for a "short list" of candidate vendors, we will be happy to provide reference information.

4.3.1.2. Vendor should provide at least one (1) example demonstrating at least three (3) years of experience in providing single/multiple Hosted Call Center solutions of a similar size and scope - 500 users across 20 sites. Vendor should provide a summarization the project including goals and objectives, total number of agents per site, length of time deployment took, if still in service, and reference for the example.

C1 Response:

Many of our clients do not permit us to share confidential data in RFP responses, and in many instances we are bound by contractual obligations to not share client information. At this early stage in the RFI process, and with the proliferation of RFIs, it would be a disservice to our customers to list them as a reference and be subject to frequent interruptions, a situation that we believe the State of West Virginia would prefer not to experience. Once the State has made initial determinations for a "short list" of candidate vendors, we will be happy to provide reference information.

4.3.1.3 The State desires an Account Team (including Account Support Representative, Technical Support Representative, Solution Implementation Support

Representative, Contract Manager, Billing Support Representative, Security/Compliance Specialist, and Project Manager) for the winning solution and life of the contract. Vendor should describe in detail the responsibilities of key roles and staff s experience in working in these roles.
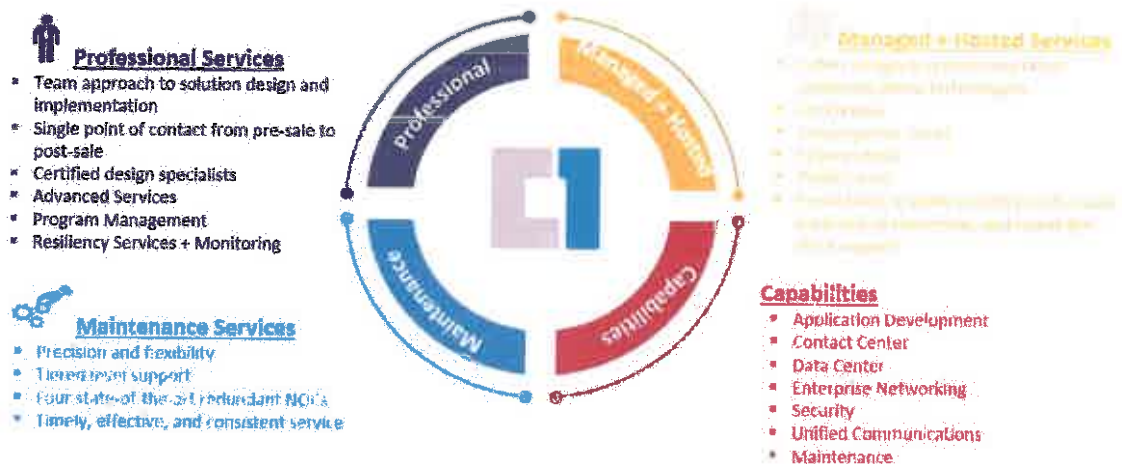
C1 Response:

Clarification.

C1 specialists average more than 21 years of experience and are responsible for the design and implementation of thousands of communications systems for companies in all industries. Their extensive experience covers the full spectrum of voice and data systems and a range of proven vendors.

END-TO-END, TOTAL SOLUTIONS
DESIGN, BUILD, IMPLEMENT + SUPPORT

Professional Services
* Team approach to solution design and implementation
* Single point of contact from pre-sale to post-sale
* Certified design specialists
* Advanced Services
* Program Management
* Resiliency Services + Monitoring

Maintenance Services
* Precision and flexibility
* Tiered reset support
* Four state-of-the-art redundant NOCs
* Timely, effective, and consistent service

Capabilities
* Application Development
* Contact Center
* Data Center
* Enterprise Networking
* Security
* Unified Communications
* Maintenance

Many of our product and design specialists have earned certifications from industry leaders such as Avaya, Cisco, Genesys, IBM and Microsoft. In fact, our staff has garnered more than 2,600 active, industry-recognized certifications. C1 continues to invest heavily in ongoing training and development to ensure that our professionals are always current on new technologies. C1 is here to be YOUR partner.

Strategic Partners	Accreditations + Certifications + Awards
AVAYA	974 Avaya Diamond Partner Certifications including: Implementation Specialists, Support Specialists, Implementation Professional Specialists, Professional Design Specialists, Professional Sales Specialists, Support Professional Specialists & Product Authorized. 11 time Avaya Overall Partner of the Year, Services Partner of the Year – 2016, 2017.
CISCO	913 Cisco Gold Partner Certifications. These certifications span all of the Cisco architectures: Collaboration, Security, Data Center and Enterprise including: CCDA (DU), CCDP (20), CCIE (26), CCNA (143) and CCNP (73), Cisco ATP Master Service Provider, Master Collaboration Partner, Master Security Partner, Master Cloud Builder Partner. Cisco Geographical Region Americas Collaboration Partner of the Year – 2017.
DELL EMC	Dell EMC Master Partner: Avamar, Data Domain, Isilon, RecoverPoint, Source One, VNX, XtremIO, Status Deployed – VNX and Data Domain.
Genesys	Genesys Gold Partner with full spectrum of specifies from: Pure-Cloud, PureConnect, and PureEngage. 34 certifications across 4 specialty areas and over 200 technical training certifications including: MK, IC Core, 2.4 Core, RCE, IC Handling/Development, Optimizer & Optimizer Application Support, Interaction Center Dialer & Dialer Application Support.
HP	HP authorized service provider and reseller.
IBM	IBM Platinum Partner and a multi-time IBM Beacon Award winner. Three Power and Storage Technology Specialty Elite Certifications including Mid Storage Technical Support Specialists (2) and SV Storage System Technical Specialists.
intel Technology Partner	Intel Gold Technology Provider and Intel Partner of the Year for Public Sector, 2015.
Microsoft	97 Microsoft Gold Partner Certifications including: Cloud Platform, Cloud Productivity, Enterprise Mobility, Windows and Devices, and Communications. Multiple Microsoft Certified Solutions Masters. Microsoft MVPs (Most Valuable Professionals), and specialized Microsoft FastO on staff. Office 365 High-touch Partner and Surface Hub Authorized Device Reseller.
Polycom	70 Polycom Certifications including: Installed Voice Sales, RealPresence Platinum, Voice/Video Endpoints, RealPresence Immersive, SoundStation IP, Microsoft Optimized CX Devices, and Microsoft Video Endpoints.
vmware	291 VMware Certifications including: VCA (15), VSP (69), VTSP-CP (3), VSP-CP (3) and VMware Technical Sales Professionals (29).
Other Accreditations	• PMI; ENA; Telecom Project Management Associates, Project Management Professionals • Arbor, AVST, CompTIA, Extreme Networks, NetApp, SAFE Systems, SpectraLink, etc.

Proposed Staffing:

ConvergeOne structures our Global Account Team around the National Account Manager (NAM). The NAM, Steve Murphy, will be the primary point of contact for the State, with responsibility for the overall relationship. The NAM has a vast number of resources within ConvergeOne that can be leveraged to support the State including Design Specialists, Sales Engineers, Contact Center Architects, SIP Engineers, UC Specialists, Managed Services Directors, and more. ConvergeOne's approach to supporting customers is to create a team dedicated to the customer to ensure consistent and timely support. ConvergeOne is very focused on providing abundant resources to support our accounts with the best possible customer service.

ConvergeOne is dedicated to superior customer service and our account team structure has a proven track record. Client satisfaction, loyalty, and advocacy are at the center of the ConvergeOne corporate culture and are critical components in meeting our long-term objectives. Improving the ConvergeOne client experience in all areas of our business is our ultimate goal.

Key Roles:

ConvergeOne team members can include:

- National Account Manager
- Program Executive, Managed Services
- National Manager, Program Management
- Senior Director of Service Delivery (Network)
- Director of Service Delivery (Voice)
- Technical Lead (Network)
- Technical Lead (Voice)
- Solution Architect (Network)
- Solution Architect (Voice)
- Practice Director (Enterprise Networks)
- Practice Director (Cisco Collaborations Solutions)
- Vice President of Outsourcing and Managed Services
- Vice President of Outsourcing and Managed Services Operations

While due to confidentiality concerns C1 cannot provide specifics of potential C1 employees that may be assigned to this project, C1 looks forward to providing these details after award of contract.

> **4.3.1.4** Vendor should describe its experience and process in conducting cyber risk management ensuring shared risk is identified, assessed, communicated, and managed.

C1 Response:

C1 has the experience to provide the State with end-to-end cybersecurity solutions and services to both thwart the bad guys and keep them from getting in, as well as provide the State with some good guys of our own to make sure you've got the right risk mitigation plan in place. For more information please visit www.convergeone.com/cybersecurity.

> **4.3.1.5** Vendor should describe its experience and process for conducting NIST SP 800-53 security assessment and authorization control families' activities, designed to ensure each vendor-provided solution implementation adheres to security and privacy requirements before being placed into production.

C1 Response:

C1 has detailed experience operating within the NIST Sap 800-53 framework, recommending it to our customers, and conducting related assessments on customer networks. For more information please visit www.convergeone.com/cybersecurity.

4.3.1.6 Vendor should list all government or standards organization security certifications it currently holds that apply specifically to the vendor's proposal, as well as those in process at time of response. Specifically include HIPAA, CMS, FERPA, CJIS Security Policy, PCI Data Security Standards (DSS), IRS Publication 1075, FISMA, NIST 800-53, NIST SP 800-171, and FIPS 200 if they apply.

C1 Response:

Compliance and certifications include:

- PCI – Self Certification
- HIPAA – Self Certification
- NIST – Security policies are aligned with NIST

We continuously review and update our capabilities.

4.3.1.7 Vendor should provide a detailed list of the third-party attestations, reports, security credentials (e.g., FedRamp), and certifications relating to cybersecurity and privacy controls.

C1 Response:

ConvergeOne is also proud of our successful completion of the Service Organization Control (SOC) 2 Type II audit. Completion of the audit indicates that the policies, communications, procedures and monitoring of controls have been implemented by ConvergeOne and tested by an independent certified public accounting firm. This third-party validation confirms our commitment to protecting customer data and ensures our security program meets the standards of the AICPA's trust principles. The achievement is attestation that ConvergeOne exceeds the security, compliance and safety-related requirements for controls and safeguards when hosting our customers' data.

4.3.1.8 Vendor should describe its experience and capabilities in supporting their customers concerning compliance audits when the vendor-supplied solution is within the scope of audit.

C1 Response:

C1 stands behind our solutions and is willing to make commercially reasonable efforts to cooperate with and support any C1-supplied customer solution undergoing any compliance audit. When such an audit occurs the customer can contact C1 to open a support case and C1 will work the issue until resolution. Depending on the scope and depth of the audit, some additional fees may be required.

4.3.1.9 Vendor should describe its experience and provide an overview of their incident

management process and cyber threat intelligence sharing process for incidents associated with the vendor provided solution.

C1 Response:

The ConvergeOne incident management process includes the following activities.

Provide remote support through ConvergeOne Technical Service Center (TSC), including:

- Remotely access supported products to help isolate, diagnose and troubleshoot reported service interruptions and functional outages.

  - Analyze problems, anomalies, configuration errors, and the conditions under which they occur.

  - Determine whether a supported products is are working in accordance with the manufacturer's documentation, application notes and configuration notes.

- Perform Incident Response activities:

  - Ascertain incident severity and create an incident record in the ConvergeOne incident management (aka "service ticketing") system, and appropriately set the incident severity.

  - Diagnose issues too complex for the client's end-user helpdesk to resolve without assistance.

  - If a specific product is identified as defective and is covered by a valid support agreement, initiate parts replacement by the manufacturer or ConvergeOne.

  - If the TSC determines that on-site service is required to resolve the incident, and if on-site service is covered by contract, dispatch a ConvergeOne technician to the client site.

  - If more advanced troubleshooting is required, contact and engage ConvergeOne and manufacturer technical engineering personnel, as available and covered by contract.

  - If the cause of the incident is not covered by a Support Agreement, offer to provide remediation activities on a time-and-materials (T&M) basis, subject to client pre-approval.

- Perform Case Management activities:

  - Engage and ensure accountability among all parties engaged in the incident.

  - Drive incident response until the incident is closed.

  - Document activity and communicate changes in incident status to the client.

- Provide progress updates every four (4) hours, or based on a mutually agreed action plan.
- Advise the client upon incident resolution.

- Answer questions regarding product performance issues.

- Help identify resources to assist with requests that fall outside the scope of the client's service agreement.

For more information please visit www.convergeone.com/cybersecurity.

4.4. **Oral Presentations:** The Agency will require oral presentations of all Vendors participating in the RFP process. The date of the presentations will be determined at a later time and all vendors will be notified in advance. During oral presentations, Vendors may not alter or add to their submitted proposal, but only clarify information. A description of the materials and information to be presented is provided below:

Materials and Information Requested at Oral Presentation:

4.4.1. Summary of solution, including product and support offerings, ability to deliver the solution in the specified timeframes, and experience in providing managed and hosted voice solutions.

4.4.2. The State will ask clarifying questions regarding the Vendor's submitted technical response.

4.4.3. Contact Center Presentation to see a live demonstration of Vendor's offering.

C1 Response:

Read and understood.

SECTION 5: VENDOR PROPOSAL

5.1 Economy of Preparation: Proposals should be prepared simply and economically providing a concise description of the items requested in Section 4. Emphasis should be placed on completeness and clarity of the content.

C1 Response:

Complied.

5.2 Incurring Cost: Neither the State nor any of its employees or officers shall be held liable for any expenses incurred by any Vendor responding to this RFP, including but not limited to preparation, delivery, or travel.

C1 Response:

Understood.

5.3 Proposal Format: Vendors should provide responses in the format listed below:

5.3.1 **Two-Part Submission:** Vendors must submit proposals in two received submitted in two distinct parts: technical and cost. Technical proposals must not contain any cost information relating to the project. Cost proposal must contain all cost information and must be sealed in a separate envelope from the technical proposal to facilitate a secondary cost proposal opening.

C1 Response:

Complies. Please see the separate Cost response for all cost information.

5.3.2 **Title Page:** State the RFP subject, number, Vendor's name, business address, telephone number, fax number, name of contact person, e-mail address, and Vendor signature and date.

C1 Response:

Please see page 1 of this response for this information.

5.3.3 **Table of Contents:** Clearly identify the material by section and page number.

C1 Response:

Please see the supplied Table of Contents on page i of this response.

5.3.4 **Response Reference:** Vendor's response should clearly reference how the information provided applies to the RFP request. For example, listing the RFP number and restating the RFP request as a header in the proposal would be considered a clear reference.

C1 Response:

Complied, please see the balance of this response.

5.3.5 **Proposal Submission:** All proposals must be submitted to the Purchasing Division **prior** to the date and time stipulated in the RFP as the opening date. <u>All submissions must be in accordance with the provisions listed in Section 2: Instructions to Bidders Submitting Bids.</u>

C1 Response:

Complied.

SECTION 6: EVALUATION AND AWARD

6.1. **Evaluation Process:** Proposals will be evaluated in two parts by a committee of three (3) or more individuals. The first evaluation will be of the technical proposal and the second is an evaluation of the cost proposal. The Vendor who demonstrates that it meets all of the mandatory specifications required, attains the minimum acceptable score and attains the highest overall point score of all Vendors shall be awarded the contract.

C1 Response:

Understood.

6.2. **Evaluation Criteria:** Proposals will be evaluated based on criteria set forth in the solicitation and information contained in the proposals submitted in response to the solicitation. The technical evaluation will be based upon the point allocations designated below for a total of 70 of the 100 points. Cost represents 30 of the 100 total points.

Evaluation Point Allocation:

Project Goals and Proposed Approach

- Approach & Methodology to Goals/Objectives .... **55 Points Possible**
  - 4.2.1.1 Voice Services .... (40 Points Possible)
  - 4.2.1.2 Security of Solution's Services .... (5 Points Possible)
  - 4.2.1.3 Service and Support of Hosted Solution ... (10 Points Possible)
- Approach & Methodology to Compliance with .... 0 Points Possible
  Mandatory Project Requirements

Qualifications and experience

- Qualifications and Experience Generally .... **10 Points Possible**
  - 4.3 Vendor Qualifications and Experience
- Exceeding Mandatory Qualification/Experience .... 0 Points Possible
  Requirements

Oral Presentation .... 5 Points Possible

Total Technical Score: .... 70 Points Possible

Total Cost Score: .... 30 Points Possible

    Total Proposal Score: **100 Points Possible**

C1 Response:

Understood.

6.3. Technical Bid Opening: At the technical bid opening, the Purchasing Division will open and announce the technical proposals received prior to the bid opening deadline. Once opened, the technical proposals will be provided to the Agency evaluation committee for technical evaluation.

C1 Response:

Understood.

6.4. Technical Evaluation: The Agency evaluation committee will review the technical proposals, assign points where appropriate, and make a final written recommendation to the Purchasing Division.

C1 Response:

Understood.

6.5. Proposal Disqualification:

6.5.1. Minimum Acceptable Score ("MAS"): Vendors must score a minimum of 70% (49 points) of the total technical points possible in order to move past the technical evaluation and have their cost proposal evaluated. All vendor proposals not attaining the MAS will be disqualified.

6.5.2. Failure to Meet Mandatory Requirement: Vendors must meet or exceed all mandatory requirements in order to move past the technical evaluation and have their cost proposals evaluated. Proposals failing to meet one or more mandatory requirements of the RFP will be disqualified.

C1 Response:

Understood.

6.6. Cost Bid Opening: The Purchasing Division will schedule a date and time to publicly open and announce cost proposals after technical evaluation has been completed and the Purchasing Division has approved the technical recommendation of the evaluation committee. All cost bids received will be opened. Cost bids for disqualified proposals will be opened for record keeping purposes only and will not be evaluated or considered. Once opened, the cost proposals will be provided to the Agency evaluation committee for cost evaluation.

The Purchasing Division reserves the right to disqualify a proposal based upon deficiencies in the technical proposal even after the cost evaluation.

C1 Response:

Understood.

6.7. Cost Evaluation: The Agency evaluation committee will review the cost proposals, assign points in accordance with the cost evaluation formula contained herein and make a final recommendation to the Purchasing Division.

Cost Evaluation Formula: Each cost proposal will have points assigned using the following formula for all Vendors not disqualified during the technical evaluation. The lowest cost of all proposals is divided by the cost of the proposal being evaluated to generate a cost score percentage. That percentage is then multiplied by the points attributable to the cost proposal to determine the number of points allocated to the cost proposal being evaluated.

Step 1: Lowest Cost of All Proposals / Cost of Proposal Being Evaluated = Cost Score Percentage

Step 2: Cost Score Percentage X Points Allocated to Cost Proposal = **Total Cost Score**

Example:

Proposal 1 Cost is $1,000,000
Proposal 2 Cost is $1,100,000
Points Allocated to Cost Proposal is 30

Proposal I: Step 1 - $1,000,000 / $1,000,000 = Cost Score Percentage of 1 (100%)
    Step 2 - 1 X 30 = Total Cost Score of 30

Proposal 2: Step 1-$1,000,000 I $1,100,000 = Cost Score Percentage of 0.909091 (90.9091%)
    Step 2 - 0.909091 X 30 = Total Cost Score of 27.27273

C1 Response:

Understood.

6.8. **Availability of Information:** Proposal submissions become public and are available for review immediately after opening pursuant to West Virginia Code §5A-3-11(h). All other information associated with the RFP, including but not limited to, technical scores and reasons for disqualification, will not be available until after the contract has been awarded pursuant to West Virginia Code of State Rules §148-1-6.3.d.

C1 Response:

Understood.

ConvergeOne

By signing below, I certify that I have reviewed this Request for Proposal in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

C1 Response:

Clarification: The below certification affirms that C1 understands the requirements, terms and conditions, and other information contained as stated herein.

ConvergeOne, Inc.
(Company)

_____ Regional Vice President
(Representative Name, Title)

___651-994-6800_____651-994-6801_____
(Contact Phone/Fax Number)

___11/20/2018_____
(Date)

A NOTE TO THE STATE

A quick thank you very much to the State for allowing ConvergeOne into your RFP process. We understand that the team will be reviewing a lot of information (from various organizations) and the process will take time. If there are any questions that we can answer regarding our information provided, please do not hesitate to call or email.

- The ConvergeOne Team!

Purchasing Divison
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Request for Proposal
35 — Telecomm

Proc Folder: 462803

Doc Description: ADDENDUM_5: RFP for Managed and Hosted Voice Services

Proc Type: Statewide MA (Open End)

Date Issued	Solicitation Closes	Solicitation No		Version
2018-11-16	2018-11-27 13:30:00	CRFP	0212 SWC1900000001	6

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON   WV   25305
US

VENDOR

Vendor Name, Address and Telephone Number:

FOR INFORMATION CONTACT THE BUYER
Mark A Atkins
(304) 558-2307
mark.a.atkins@wv.gov

gnature X _(signature)_   FEIN # 41-1763228   DATE November 20, 2018

All offers subject to all terms and conditions contained in this solicitation

ADDENDUM_5 Is issued for the following:
1. To move the Bid Opening date from 11/21/2018 to 11/27/2018 at 1:30pm EST.
2. To Publish revised Attachment_A Cost Sheet. (rev. 11-16-2018 Excel formatted) due to a calculation error.

ɔ other changes made.

The West Virginia Department of Administration, Purchasing Division (hereinafter referred to as the "Purchasing Division") is issuing this solicitation as a request for proposal ("RFP"), as authorized by W. Va. Code 5A-3-10b, for the West Virginia Office of Technology (hereinafter referred to as the "Agency") to provide Managed Voice Services for the State's Legacy VoIP Environment, while working to migrate those Legacy Environments to a Hosted VoIP Platform, included Hosted Contact Center Services per attached documents.

MANDATORY PRE-BID MEETING:
DATE: 09/26/2018
TIME: 2:30PM EDT
LOCATION: WV Office of Technology

NOTE: Online responses to this solicitation are prohibited. Please see the Instructions to Bidders in Section 2 for proposal submission.

INVOICE TO	SHIP TO
ALL STATE AGENCIES VARIOUS LOCATIONS AS INDICATED BY ORDER No City WV99999 US	STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER No City WV 99999 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Managed and Hosted Voice Services	0.00000	EA		

Comm Code	Manufacturer	Specification	Model #
1161700			

Extended Description :

See Attachment_A Cost Sheet for proposal pricing. (Revised 11-16-2018)

Vendor shall use the Attachment_A Cost Sheet for proposal pricing.

Note: online proposal submissions are prohibited.

Please see Section 5 Vendor Proposal Subsection 5.3 for further instructions.

Line	Event	Event Date
1	Mandatory Pre-Bid Meeting @ 2:30pm EDT:	2018-09-26
2	Technical Questions due by 2:00pm EDT:	2018-10-05
3	Technical Questions due by 2:00pm EDT:	2018-11-01

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

West Virginia Ethics Commission

Disclosure of Interested Parties to Contracts

Pursuant to *W. Va. Code* § 6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of $1 million or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

"Business entity" means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation, but does not include publicly traded companies listed on a national or international stock exchange.

"Interested party" or *"Interested parties"* means:

(1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
(2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
(3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

"State agency" means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education: Provided, that for purposes of W. Va. Code § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the contracting state agency prior to contract award and to complete another form within 30 days of contract completion or termination.

This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: ethics@wv.gov; website: www.ethics.wv.gov.

West Virginia Ethics Commission
Disclosure of Interested Parties to Contracts
(Required by *W. Va. Code* § 6D-1-2)

Name of Contracting Business Entity: ConvergeOne, Inc. **Address:** 3344 Highway 149

Eagan, MN 55121

Name of Authorized Agent: _____ **Address:** _____

Contract Number: CRFP 0212 SWC1900000001 **Contract Description:** RFP for Managed and Hosted Voice Services

Governmental agency awarding contract: Department of Administration, Purchasing Division

☐ **Check here if this is a Supplemental Disclosure**

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below *(attach additional pages if necessary)*:

1. **Subcontractors or other entities performing work or service under the Contract**

    ☑ Check here if none, otherwise list entity/individual names below.
    Please note: ConvergeOne does not intend to utilize subcontractors at this time, but depending on resource availability, may need to do so in the future. If so, C1 will make commercially reasonable efforts to notify the State prior to doing so.

2. **Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)**

    ☑ Check here if none, otherwise list entity/individual names below.

3. **Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)**

    ☑ Check here if none, otherwise list entity/individual names below.

Signature: _____ **Date Signed:** 11-15-2018

Notary Verification

State of __Minnesota__, County of __Dakota__

I, __Klaus Hillmann__, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this __15__ day of __November__, __2018__.
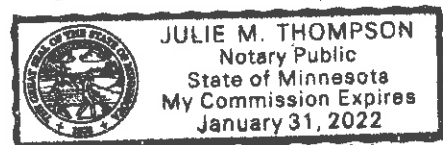
_____
Notary Public's Signature

To be completed by State Agency:
Date Received by State Agency: _____
Date submitted to Ethics Commission: _____
Governmental agency submitting Disclosure: _____

Revised June 8, 2018

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: ConvergeOne, Inc.

Authorized Signature: _____ Date: 11-15-2018

State of Minnesota

County of Dakota , to-wit:

Taken, subscribed, and sworn to before me this 15 day of November , 20 18

y Commission expires Jan. 31 , 20 22

AFFIX SEAL HERE

JULIE M. THOMPSON
Notary Public
State of Minnesota
My Commission Expires
January 31, 2022

NOTARY PUBLIC Julie Thompson
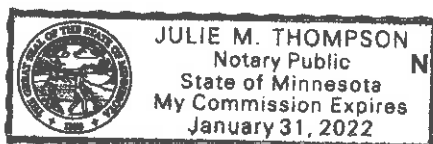
Purchasing Affidavit (Revised 01/19/2018)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CRFP 0212 SWC1900000001

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

[X] Addendum No. 1	[ ] Addendum No. 6
[X] Addendum No. 2	[ ] Addendum No. 7
[X] Addendum No. 3	[ ] Addendum No. 8
[X] Addendum No. 4	[ ] Addendum No. 9
[X] Addendum No. 5	[ ] Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

ConvergeOne, Inc.
_____
Company

_____
Authorized Signature

November 20, 2018
_____
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

ACORD® CERTIFICATE OF LIABILITY INSURANCE

	DATE (MM/DD/YYYY)
12/1/2018	9/25/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Lockton Companies 444 W. 47th Street, Suite 900 Kansas City MO 64112-1906 (816) 960-9000	CONTACT NAME:		
	PHONE (A/C, No. Ext):		FAX (A/C, No):
	E-MAIL ADDRESS:		
	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A : Berkley National Insurance Company		38911
INSURED 1442725 CONVERGEONE, INC. 3344 DODD ROAD EAGAN MN 55121-2316	INSURER B : Berkley Regional Insurance Company		29580
	INSURER C :		
	INSURER D :		
	INSURER E :		
	INSURER F :		

COVERAGES 1084700 CERTIFICATE NUMBER: 15252358 REVISION NUMBER: XXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR		TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X	COMMERCIAL GENERAL LIABILITY	N	N	TCP7010205-11	12/1/2017	12/1/2018	EACH OCCURRENCE	$ 1,000,000
		CLAIMS-MADE [X] OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 1,000,000
								MED EXP (Any one person)	$ 10,000
								PERSONAL & ADV INJURY	$ 1,000,000
		GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 3,000,000
	X	POLICY [ ] PRO-JECT [X] LOC						PRODUCTS - COMP/OP AGG	$ 3,000,000
		OTHER:							$
A B	X	AUTOMOBILE LIABILITY ANY AUTO	N	N	TCP7010205-11 TCA7012004-11 (MA)	12/1/2017 12/1/2017	12/1/2018 12/1/2018	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
		OWNED AUTOS ONLY [ ] SCHEDULED AUTOS						BODILY INJURY (Per person)	$ XXXXXXX
	X	HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY						BODILY INJURY (Per accident)	$ XXXXXXX
								PROPERTY DAMAGE (Per accident)	$ XXXXXXX
									$ XXXXXXX
A	X	UMBRELLA LIAB [X] OCCUR	N	N	TCP7010205-11	12/1/2017	12/1/2018	EACH OCCURRENCE	$ 25,000,000
		EXCESS LIAB [ ] CLAIMS-MADE						AGGREGATE	$ 25,000,000
		DED [ ] RETENTION $							$ XXXXXXX
A		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N		N	TWC 7005295-14	10/1/2018	10/1/2019	[X] PER STATUTE [ ] OTH-ER	
		ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [N] (Mandatory in NH)	N/A					E.L. EACH ACCIDENT	$ 1,000,000
								E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
		If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A		PROFESSIONAL LIABILITY	N	N	TEO7012388-11	12/1/2017	12/1/2018	$10,000,000 EACH CLAIM $10,000,000 AGGREGATE	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
INSTALLATION FLOATER - BERKLEY NATIONAL INSURANCE COMPANY, EFFECTIVE 12/1/2017 - 12/1/2018, POLICY # TCP7010205-11, $5,000,000 LIMIT; PRIVACY LIABILITY - BERKLEY NATIONAL INSURANCE COMPANY, EFFECTIVE 12/1/2017-12/1/2018, POLICY # TPL7012272-10, $10,000,000 LIMIT EACH CLAIM, $10,000,000 AGGREGATE.

CERTIFICATE HOLDER	CANCELLATION See Attachment
15252358 PROOF OF INSURANCE	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE *Joseph M Agnello*

ACORD 25 (2016/03)   The ACORD name and logo are registered marks of ACORD

NAMED INSUREDS

C1 INVESTMENT LLC

CONVERGEONE HOLDINGS, INC.

C1 INTERMEDIATE CORP.

C1 HOLDINGS CORP.

CONVERGEONE, INC

PROVIDEA CONFERENCING, LLC

ROLES PROPERTIES, LLC

ANNESE & ASSOCIATES, INC.

SPS HOLDCO, LLC

SPS-PROVIDEA LIMITED

CONVERGEONE GOVERNMENT SOLUTIONS, LLC DBA STRATEGIC PRODUCTS AND SERVICES

CONVERGEONE UNIFIED TECHNOLOGY SOLUTIONS, INC.

ALEXANDER OPEN SYSTEMS, INC.

CONVERGEONE MANAGED SERVICES, LLC

CONVERGEONE TECHNOLOGY UTILITIES, INC.

CONVERGEONE SYSTEMS INTEGRATION, INC.

CONVERGEONE DEDICATED SERVICES, LLC

CONVERGEONE ELECTRICAL SERVICES, LLC

WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE

ISSUED TO:
CONVERGEONE, INC.
3344 DODD RD
EAGAN, MN 55121-2316

BUSINESS REGISTRATION ACCOUNT NUMBER: **2349-3510**

This certificate is issued on: **11/28/2017**

This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code

The person or organization identified on this certificate is registered
to conduct business in the State of West Virginia at the location above.

This certificate is not transferrable and must be displayed at the location for which issued.

This certificate shall be permanent until cessation of the business for which the certificate of registration
was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new
certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them.
CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of
this certificate displayed at every job site within West Virginia.

atL006 v.4
L1222822592

CONVERGEONE, INC.
3344 DODD RD
EAGAN MN 55121-2316

Letter Id:	L1222822592
Issued:	11/28/2017
Account #:	2349-3510

RE: Business Registration Certificate

The West Virginia State Tax Department would like to thank you for registering your business. Enclosed is your Business Registration Certificate. This certificate shall be permanent until cessation of business or until suspended, revoked or cancelled. Changes in name, ownership or location are considered a cessation of business; a new Business Registration Certificate and applicable fees are required. Please review the certificate for accuracy.

This certificate must be prominently displayed at the location for which issued. Engaging in business without conspicuously posting a West Virginia Business Registration Certificate in the place of business is a crime and may subject you to fines per W.Va. Code § 11-9.

When contacting the State Tax Department, refer to the appropriate account number listed on the back of this page. The taxes listed may not be all the taxes for which you are responsible. Account numbers for taxes are printed on the tax returns mailed by the State Tax Department. Failure to timely file tax returns may result in penalties for late filing.

Should the nature of your business activity or business ownership change, your liability for these and other taxes will change accordingly.

To learn more about these taxes and the services offered by the West Virginia State Tax Department, visit our web site at www.tax.wv.gov.

Enclosure

atL006 v.4

Save a stamp and your time. You can now view, file and pay taxes at https://mytaxes.wvtax.gov
More taxes will be available for online access in the future.

TAX	FILING FREQUENCY	ACCOUNT NUMBER
Business Registration Tax		2349-3510
Withholding Tax	Withholding Quarterly	2349-3014

UNDERSTANDING THE INFORMATION SECURITY FRAMEWORK

Key	
R	The Control Standard is Required for the Data Classification by Regulation or Industry Standard
S	The Control Standard Is Suggested for the Data Classification, each instance of the Data Classification to be evaluated to assess suitability of the Control Standard and if it should be applied.
	The Control Standard is NOT required or suggested for the Data Classification

Data Class				Standard	Measurement / Artifact
1	2	3	4		
	S	S	R	The Control Standard being evaluated for each of the four data Classifications.	This is the Audit evidence that can be provided when requested by either internal or external assessors/auditors to show that the control standard has been implemented for the data class.

The Control Standard is not suggested or required for Data Classification 1

The Control Standard is suggested to be implemented for Data Classifications 2 & 3.

The Control Standard is required to be implemented for Data Classification 4

INFORMATION SECURITY FRAMEWORK:

#1:   To develop and maintain Information Security program with responsibility to ensure the confidentiality, integrity and availability of information assets.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	1.1 – ConvergeOne will establish an information security program with policies and assigned resources responsible for managing and maintaining the program.	Information Security Policy and associated standards are published.
R	R	R	R	1.2 - An Information Security Function is established to provide guidance over the security program.	Information Security Function Identified in Organizational Chart.
R	R	R	R	1.3 – Information Security mission, policies, standards, baselines and measurements are reviewed annually.	Annual Review process documentation.
R	R	R	R	1.4 - Develop operational procedures consistent with the standards for all information security policies.	Copy of information security procedure documentation.

#2: To ensure employees, contractors, and consultants are aware of ConvergeOne information security policies and practices.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	2.1- All employees receive basic information and information security training when they begin their employment. At minimum this training is to include: • All Current Information Security and Compliance Policies • Password Management Malicious Software • Incident reporting • Login Monitoring • Data Privacy Protection • L4 Data Handling	New employee orientation training processes and training decks.
R	R	R	R	2.2 - All employees receive annual information security awareness training.	Annual training deck and tracking process.
R	R	R	R	2.3 - All employees receive periodic information concerning information security, such as awareness bulletins or newsletters.	Quarterly bulletins or newsletters.
R	R	R	R	2.4 - Contractors and consultants receive the information security training consistent with their job responsibilities.	A sample of the training provided to contractors and consultants.

#3: To comply with policy and regulatory requirements.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	3.1 - Information System Custodians annually report on policy compliance.	Answering all questions for all applications and assets by the end of the compliance reporting cycle.
R	R	R	R	3.2 – Information Security Department annually reports on enterprise policy compliance to ConvergeOne executive leadership.	Leadership reports.
			R	3.3 – Payment Card Industry (PCI) signoff must be approved by the Executive Leadership team	Executive Leadership signoff on PCI Attestation
R	R	R	R	3.5 For public-facing web applications, ensure a privacy policy is displayed. For any privacy policies posted, ensure the policy provides notification that ConvergeOne is authorized to collect, process, use, store, or transmit the client's	Privacy Policy

Data Class				Standard	Measurement / Artifact
1	2	3	4		
				data when applicable to the services being provided to the client.	
		S	R	3.6 A representative of the Legal Department must authorize any agreement to process or use: Highly Restricted data (see Data Classification Policy) Personally Identifiable Information from outside the U.S., or the transmission of such data outside the country of origin.	Sign off from Legal Department indicating a review was completed

#4:   To perform an annual risk assessment.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	4.1 – Conduct an annual assessment of the threats and vulnerabilities that pose the highest information security risk.	Risk assessment documentation.
R	R	R	R	4.2 Prior to any changes in the environment a Data Privacy Impact (DPI) analysis must be conducted to evaluate impacts to data Privacy.	DPI assessment.

#5:   To timely respond to and resolve any information security incidents.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	5.1 - An information security incident response plan is maintained, implemented and communicated.	Incident response process documentation.
R	R	R	R	5.2 – Information security incidents are investigated, resolved, and reported as appropriate.	Quarterly report on incidents.
R	R	R	R	5.3 - Annually review and test the information security incident response plan.	Annual test results or documentation from an actual incident that included post-mortem discussion.
R	R	R	R	5.4 - Assign and train resources to monitor and respond to information security alerts, including alerts from intrusion detection, intrusion prevention, and file-integrity monitoring systems.	Incident Response Team Organization Charts and training plans or material.

ACCEPTABLE USE STANDARDS:

#6: *To ensure the secure disposal of paper and electronic forms containing non-public information when the information is no longer needed.*

Data Class				Standard	Measurement / Artifact
1	2	3	4		
	S	R	R	6.1 - All employees with access to non-public information must have access to and use shred bins or cross-cut shredding devices to securely dispose of the media and paper.	Sample of annual site assessments by ConvergeOne Information Technology (C1 IT) Department; Use of shred bins or cross-cut shredding devices communicated through annual awareness training.
	S	R	R	6.2 - Shred bins are physically secure and are emptied on a secure, periodic basis.	Process documentation by facility and/or contracts with third parties if used.
S	S	R	R	6.3 - Secure wiping or degaussing of hardware is performed prior to disposal, reuse or distribution outside the ConvergeOne.	Process documentation and/or contracts with third parties if used.
	R	R	R	6.4 - Store and dispose of information in accordance with defined records and information retention schedule.	Records Retention Schedule

#7: *To ensure that both paper documents and electronic media containing Restricted (level 3) and Highly Restricted (Level 4) information are secured during storage.*

Data Class				Standard	Measurement / Artifact
1	2	3	4		
	S	S	R	7.1 - When accessing the ConvergeOne network via remote access technologies users are prohibited from storing unencrypted Highly Restricted (Level 4) information onto local hard drives, flash drives or other external media.	Documentation showing this standard is implemented or has been communicated through annual security awareness training and/or the banner for remote access.
	S	S	R	7.2 - All paper-based or electronic media containing Highly Restricted (Level 4) information must be securely stored.	A report from a desktop audit or documentation from a site audit.
		S	R	7.3 - All paper-based and electronic media sent outside a ConvergeOne facility must be logged and authorized by management and sent via a secured courier or other delivery method that can be tracked.	Process for mailing media containing Highly Restricted data or process or statement attesting that media containing Highly Restricted data is not mailed.
		S	R	7.4 Employees practice "Clean Desk" principles for all Physical printouts containing Highly Restricted (Level 4) information when away from their desk.	A report from a desktop audit or documentation from a site audit.

PHYSICAL + IT ENVIRONMENT SECURITY FRAMEWORK STANDARDS:

#8: To control physical access to all ConvergeOne offices and datacenters.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	8.1 - Appropriate facility entry controls are used to limit and monitor physical access to ConvergeOne offices and datacenters. Keys, cardkeys, or codes are used to enter the computer room. Visitor access is logged and the log is maintained for at least 3 months. The log must include the name of the visitor, company he/she represents and the name of the employee authorizing the physical access. Access is restricted to appropriate personnel. Processes are in place to manage keys or access codes.	Documented physical access procedures including the following: Photographs of entry access control measures. Copy of visitor log. List of authorized personnel with access to the datacenter. Process documentation for key or code management.
R	R	R	R	8.2 - All servers, firewall, routers, wireless access points, communications equipment, and other devices that store, process, or transmit ConvergeOne information must be physically secured.	Mobile and Networking equipment physical security process documentation. Photographs of physical security measures.
R	R	R	R	8.3 - Publicly accessible network jacks must be logically restricted from the ConvergeOne network, restricted only to authenticated users or disabled by default.	Process documentation for enabling and disabling publically accessible network jacks which should include photographs of jacks and an explanation of their purpose. Annual review of publicly accessible network jacks.
R	R	R	R	8.4 - Visitors to ConvergeOne offices and datacenters must be escorted.	Visitor process documentation.
R	R	R	R	8.5 - Processes and procedures for assigning and revoking appropriate ConvergeOne office and datacenter entry controls to employees, contractors, and visitors must be established and maintained. All visitors must be handled as follows: Be authorized before entering non-public areas. Given a physical token (for example, a badge or access device) that expires and that identifies the visitors as non-employee. Asked to surrender the physical token before leaving the facility or at the date of expiration.	Documented standards for assigning and revoking appropriate entry controls. Quarterly sample review of personnel to assess the presence of appropriate entry controls.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	8.6 - Member lists of persons with access to ConvergeOne datacenters must be reviewed annually.	Annual review of datacenter access lists.
R	R	R	R	8.7 - Procedures are in place to document repairs and modifications to the physical components of a facility which are related to information security (for example, hardware, walls, doors, and locks).	Documentation showing procedures for documenting repairs and modifications to physical components of a facility which are related to information security.

#9: To ensure appropriate environmental controls exist in ConvergeOne datacenters.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	9.1 - ConvergeOne datacenters must have appropriate heating, cooling, fire suppression, water detection, and heat/smoke detection devices.	Report of annual self-assessment of physical access controls of each ConvergeOne datacenter.
R	R	R	R	9.2 – ConvergeOne Data Center environmental controls are tested annually.	Report of annual self-assessment of physical access controls of each ConvergeOne datacenter.

TECHNICAL SECURITY FRAMEWORK STANDARDS:

#10: To maintain an inventory of technology assets and securely manage those assets throughout their life cycle.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	10.1- Establish and maintain an inventory that includes all leased and purchased hardware (excluding peripheral equipment e.g. printers, fax, and keyboards), purchased software, and ConvergeOne developed software.	The authorization matrix inventory documentation or configuration management database.
R	R	R	R	10.2 - All individual assets must be associated with an employee. Systems must have a defined Business Owner and a System Custodian.	The authorization matrix inventory documentation or configuration management database.
	R	R	R	10.3 - Inventory all storage media that contains non-public data and make sure they are securely stored. The media inventory must occur at least annually.	Policy or process for controlling access to media containing non-public data and the results of the annual inventory.

#11: To establish, manage, and maintain system defenses.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	11.1 – Maintain a documented network architecture diagram which depicts the internal network, DMZs, firewalls and any wireless networks.	Network diagrams showing the logical topology.
R	R	R	R	11.2 - A formal process for approving and testing all network connections and changes to the firewall and router configurations must exist.	Process documentation and reports showing the process was followed.
R	R	R	R	11.3 - Every system that stores, processes or transmits ConvergeOne information must be protected by intrusion-detection and/or intrusion-prevention systems. This may be accomplished by deploying network intrusion detection/prevention systems (NIDS or NIPS or by deploying host intrusion detection/prevention systems (HIDS/HIPS) on the systems.	Documentation, as part of the inventory and network architecture: Showing functional NIDS at critical perimeter points. Inventory of systems mapped to HIDS devices and agents. Showing active monitoring is taking place. Showing that rule sets are being managed.
R	R	R	R	11.4a – Network system hardening configuration standards that are consistent with industry standards and address known vulnerabilities must be used. Further detailed standards are maintained within procedural documentation and operational run books. Utilize encryption for all non-console administrative access on firewalls, routers, and access points. Implement IP masquerading using PAT or NAT. Require stateful packet inspection on firewalls. Never permit direct public access to internal network components. Prohibit internal addresses from passing into the Internet. Change all default passwords. Ensure all firewalls and routers have a default deny setting, permit only "allowed" traffic. Disable all unnecessary or insecure protocols, ports and services on firewalls, routers, servers, and access points. Permit only protocols with a valid and approved business purpose and document justifications for future reference. Configure system security parameters to prevent unauthorized access.	Documentation in FW rule sets for evaluation. Documentation showing the make and type of FW (Part of the inventory). Network documentation and logical topology maps. Documentation in FW rule sets evaluation. Documentation in FW rule sets evaluation. Process documentation for the installation of new systems, either acquired or developed within ConvergeOne. Documentation in showing permitted protocols, ports and services and their business justification. Documentation that common security parameters are included in configuration standards. Documentation that no unnecessary functionality is in place.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
				Remove all unnecessary functionality, such as scripts, drivers, features, subsystems, file systems, and unnecessary web servers.	
R	R	R	R	11.4b – Server system hardening configuration standards that are consistent with industry standards and address known vulnerabilities must be used. Utilize encryption for all non-console administrative access on servers. Change all default passwords. Disable all unnecessary or insecure protocols, ports and services on servers. Permit only protocols with a valid and approved business purpose and document the justifications for future reference. Production servers handling Highly Restricted data should be implemented to address one primary function per server. (For example, web, database and DNS should be implemented on separate servers.) Configure system security to prevent unauthorized access. Remove all unnecessary functionality, such as scripts, drivers, features, subsystems, file systems, and unnecessary web servers.	Process documentation for the installation of new systems, either acquired or developed within ConvergeOne. Process documentation for the installation of new systems, either acquired or developed within ConvergeOne. Documentation in showing permitted protocols, ports and services and their business justification. Server documentation showing functions performed by the server. Documentation that common security parameters are included in configuration standards. Documentation that no unnecessary functionality is in place.
R	R	R	R	11.4c – Workstation system hardening configuration standards that are consistent with industry standards and address known vulnerabilities must be used Change all default passwords. Configure system security parameters to prevent unauthorized access. Remove all unnecessary functionality, such as scripts, drivers, features, subsystems, file systems, and unnecessary web servers.	Process documentation for the installation of new systems. Documentation that common security parameters are included in configuration standards. Documentation that no unnecessary functionality is in place.
R	R	R	R	11.4d – Application hardening configuration standards that are consistent with industry standards and address known vulnerabilities must be used. Change all default passwords. Configure system security parameters to prevent unauthorized access. Remove all unnecessary functionality, such as scripts, and features.	Process documentation for the installation of new applications, either acquired or developed within ConvergeOne. Documentation that common security parameters are included in configuration standards. Documentation that no unnecessary functionality is in place.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	11.5 - Firewall and router rule sets must be reviewed every six months to assess the security risk of each rule and to validate that each rule is supported by a business justification.	Bi-annual documentation showing rule sets are reviewed every six months.
R	R	R	R	11.6 - Patch management processes must be established to ensure the latest relevant vendor-supplied security patches are installed. Critical patches must be installed within one month of release. The remaining patches with a CVSS score of 4 or higher must be installed within 90 days.	Patch deployment process showing patch installation schedule.
R	R	R	R	11.7 - Usage of ConvergeOne supplied technologies (such as remote access technologies, wireless technologies, laptops, email usage, mobile devices, and Internet usage) must require the following: Explicit Management approval. Authentication for use of technologies An inventory of devices with an assigned owner and specify personnel with access. Placed in an acceptable network location. Automatically disconnecting remote access technologies after 15 minutes of inactivity. Activate remote access technologies for vendors (for maintenance/support purposes) only when needed, with immediate deactivation after use. Encrypt remote-access and wireless connections.	Documentation showing required process, required technology and/or required information are present (a-g).
	R	R	R	11.8 - Restrict outbound traffic from internal systems to IP addresses within the DMZ or approved external IP addresses.	Documentation showing internal systems are restricted to approved IP addresses.
R	R	R	R	11.9 - Description of groups, roles, and responsibilities for logical management of network components must exist.	Documentation showing that firewall and router configuration standards include a description of groups, roles, and responsibilities for logical management of network components.
R	R	R	R	11.10 - Secure and synchronize network configuration files. For example, running configuration files (for normal running of the firewalls) and start-up configuration files when machines are re-booted), have the same, secure configurations.	Documentation showing that router configuration files are secure and synchronized.
R	R	R	R	11.11 - There must be a firewall at each Internet connection and between any	Network diagram proving this standard.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
				demilitarized zone (DMZ) and the internal network zone.	
	S	S	R	11.12 - There must be firewalls between any wireless networks and any network that holds Highly Restricted (Level 4) information.	Network diagram proving this standard.
	R	R	R	11.13 - Databases containing non-public information must reside in the internal network zone.	Network diagram proving this standard.
S	R	R	R	11.14 - Inbound and outbound traffic must be limited to only protocols that are necessary and approved.	Network diagram proving this standard.
S	R	R	R	11.15 - Inbound Internet traffic must be limited to approved IP addresses.	Network diagram proving this standard.
S	S	R	R	11.16 - Install personal firewall on all workstations which are used to access the ConvergeOne network (i.e., the computer is assigned a ConvergeOne IP address).	Workstation builds; and process documentation for employee-owned computers.
		S	R	11.17 - Deploy file-integrity monitoring software to log and alert personnel to unauthorized modification of critical system files, configuration files, or content files; and configure the software to perform critical file comparisons at least weekly. (Examples of files that should be monitored: System executables Application executables Configuration and parameter files Centrally stored, historical or archived, log and audit files)	Inventory of FIM enabled systems.

#12: To mitigate information security vulnerabilities by performing regular vulnerability assessments, system reviews, and maintaining an active security patch management process.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	12.1 – Vulnerability assessments on the external perimeter and on internal servers that store, process or transmit ConvergeOne information must be performed quarterly and after any significant change in the network.	Quarterly vulnerability assessment reports and/or vulnerability assessment reports after a significant change.
R	R	R	R	12.2 - Process must be in place to identify any newly discovered vulnerabilities. Vulnerabilities must be addressed via an	Vulnerability threat Management, or similar process documentation and

Data Class				Standard	Measurement / Artifact
1	2	3	4		
				established process. The process must be designed to address all vulnerabilities with a CVSS score of 4 or higher.	patching schedule or a vulnerability remediation report.
R	R	R	R	12.3 - Perform an annual external and internal network penetration test and mitigate or remediate any identified vulnerabilities with a CVSS score of 4 or higher.	Penetration test results and a penetration test remediation plan.
	S	S	R	12.4 - Perform an annual external and internal application penetration test on applications and mitigate or remediate any identified vulnerabilities with a CVSS score of 4 or higher.	Penetration test results and a penetration test remediation plan.
R	R	R	R	12.5 - Test for the presence of wireless access points by using a wireless analyzer at least annually or deploying a wireless IDS/IPS to identify all wireless devices in use. Remove any unauthorized network equipment, including wireless access points, found.	a. Annual evidence of wireless scans or evidence of the presence of a wireless IDS/IPS deployed. b. Process documentation for removing any unauthorized access points.

#13: To establish and maintain logging capabilities of network, infrastructure devices, databases, and applications appropriate for the information classification.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
		S	R	13.1 – Logging at all layers (Network, OS, DB, and Application) is required to send logs to a secure logging service. Logging requirements include: A process to link all access to system components and to individual users. Automated audit trails showing: All individual access to information. All actions taken by those with admin or root privileges. This includes Creation of user accounts Deletions of user accounts Change to user accounts (Name, Password, etc.) Group Membership changes (creation, deletion, addition) Changes to any account or logging policies (e.g., password length, age, complexity, audit settings if configurable). These may only be completed through	Application documentation; Application log samples; Document log consolidation process including log samples; and/or Infrastructure configuration documentation as applicable.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
				database or coding changes and may not be applicable. Access to audit trails. Invalid logical access attempts. Initialization of the audit logs (e.g., clearing of log files). Creation and deletion of system-level objects. Record, at a minimum: User ID, Type of event, Date and time, Success or Failure Indication, Origination of event and Identity or name of affected information, system component or resource. Synchronize the clocks and times. Audit trail requirements include: Limiting view access to those with a job-related need to know. Protecting audit trails from unauthorized modifications. Promptly backing up Highly Sensitive (Level 4) information logs to a centralized log server or media that is difficult to alter. Review of logs (this can be automated and use alerting tools). For Highly Sensitive (Level 4) information systems, retain logs for 1 year, (with at least of 3 months immediately available for analysis) online, archived or restorable from back-up.	

#14: To establish and maintain malware defenses.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	14.1 - All systems commonly infected by malware (particularly workstations and servers) must have anti-malware software installed and capable of detecting, removing and protecting against all known types of malicious software.	Quarterly report showing counts of servers and workstations, and those without malware installed.
R	R	R	R	14.2a - Anti-malware software must be current, actively running and capable of generating audit logs. 14.2b – Workstations without current anti-malware software installed and running will not be permitted to connect to the ConvergeOne network.	a. Document showing signature file update process and a sample of the logs. b. Process or configuration documentation.

#15: To encrypt information in storage, in transmission and on portable media devices.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
		S	R	15.1 – Highly Restricted (Level 4) information must be encrypted in storage, in transmission and when on a portable device. Highly Restricted (Level 4) information must be encrypted in storage (including backup media and in logs). If disk encryption is used (rather than file or column-level database encryption), logical access must be managed independently of native operating system access control mechanisms (for example, by not using local user account databases). Decryption keys must not be tied to user accounts. (*PCI DSS Requirement) Highly Restricted (Level 4) information must be encrypted in transmission (when traversing an untrusted network) and on portable media devices. All laptops should be encrypted when possible to protect against information loss upon theft. The following encryption algorithms and minimum key strengths are required. In order to meet any encryption requirement, you must use one of these algorithms with at least the key strengths listed. Symmetric Keys: AES -256 bit 3DES - 160/168 bit Blowfish -128 bit TwoFish -128 bit IDEA – 128 bit Asymmetric Keys: RSA -1024 bit DSS -1024 bit Hashes: MD5 -128 bit SHA-1-160/168 bit Crypt - 128 bit Wireless: WPA2	Evidence showing Highly Restricted (Level 4) information is encrypted in storage. Documentation showing file or column-level encryption or evidence that logical access is managed separately for disk encryption. System or process documentation. Configuration documentation showing laptop encryption is enabled.
	R	R	R	15.2 Data transmissions containing information from client applications must be encrypted with current industry standards. (TLS or SFTP)	Evidence showing information is encrypted in transmission.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
			R	15.3 - Full magnetic stripe data, the payment card verification code or value (three-digit or four- digit number printed on the front or back of a payment card), PIN or an encrypted PIN block must never be stored after authorization (even if encrypted).	Documentation that the information is not collected or documentation showing that the data is not stored in any databases, logs, history files or trace files.
		S	R	15.4 - Unencrypted Highly Restricted (Level 4) information must never be stored on local hard drives, floppy disks, or other external, electronic media.	Awareness training and/or logon banner message
		S	R	15.5 – Strong encryption key management practices must be followed. These include: Restrict access to keys to the fewest number of custodians necessary. Store keys securely in the fewest possible locations and forms. Securely distribute keys. Change keys every 2 years or when compromised for systems housing Highly Restricted (Level 4) information. Securely dispose of old keys. Establish a process for creating keys and prevention of unauthorized substitution of cryptographic keys. Establish independent key management processes that require split knowledge and establishment of dual control of cryptographic keys. Custodians must sign a form stating that they understand and accept their key custodian responsibilities.	Documentation of encryption key management processes. This must include a list of custodians.

#16: To build integrity and security and privacy into system development and acquisition processes.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	16.1 - Secure coding practices in alliance with industry best practices must be followed. Industry best practices for vulnerability management can be found in the OWASP Guide, SANS CWE Top 25, CERT Secure Coding.	Annual vulnerability assessment of Highly Restricted (Level 4) information applications.
R	R	R	R	16.2 - Software applications based on industry best practices must be established	Documentation of development processes.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
				and must incorporate information security throughout the development cycle by: Testing all security patches and system and software configuration changes before deployment to production. Separate development/test, and production environments. Implement proper segregation of duties between development/test, and production environments. Do not use Highly Restricted (Level 4) information for testing or development. Remove all test information and accounts before production. Remove custom application accounts, user IDs, and passwords before applications become active or are released to customers. Perform (by a knowledgeable individual other than the author) security code reviews for custom code prior to release to a production environment.	
R	R	R	R	16.3 - Defined, documented, and systematic change management process must exist. The process must include an audit trail that documents: Impact Statement. IT Management Approval. Successful testing and approvals by the Business Owner. Back-out procedures. Emergency change process.	Documentation of change management process.
R	R	R	R	16.4 - For public-facing web applications, ensure these applications are protected against known attacks by either of the following methods: Annually review public-facing web applications via manual or automated application vulnerability security assessment tools or methods, and after any changes.	Application documentation showing implementation or use on application firewall or results from an application vulnerability security assessment.

#17: To establish and maintain system backup procedures.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
	R	R	R	17.1- A consistent backup process must be established and maintained.	Document the existing backup and tape handling process.
	R	R	R	17.2- The backup and restore process must be tested annually.	Process documentation showing the annual test results.
	R	R	R	17.3 - Store media backups in a secure location, preferably in an off-site facility, such as an alternate or backup site, or a commercial storage facility.	Document the existing backup and tape storage location.
	R	R	R	17.4- Annually review the backup location's security.	Annual security review documentation.

#18: To protect information by masking the display and printing of information.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
		S	R	18.1 - The display and printing of all Highly Restricted (Level 4) information must be masked so that the entire number is not displayed unless there is a valid, business need to display the entire number. For payment card masking, the maximum number of digits that may be displayed is the first six and the last four digits.	Application documentation. When displaying the entire field of Highly Restricted (Level 4) information, a valid business reason must be documented.

ACCESS MANAGEMENT POLICY STANDARDS:

#19: To ensure employees are suitable for the roles for which they are considered, and to reduce the risk of threat, fraud, or misuse of ConvergeOne information by employees.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	19.1 – Background checks must be performed on all employees, contractors, or consultants, where permitted by law, who come into contact with ConvergeOne information.	Documentation of the hiring process showing background checks, where permitted by law; A sample of completed background checks.

#20: To protect ConvergeOne information from disclosure.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
	S	S	R	20.1 - All employees must sign a non-disclosure agreement before accessing ConvergeOne networks.	New hire process documentation including a copy of Non-disclosure agreement. A sample of completed Non-disclosure agreements.

#21: To limit access to each system and data element to those with an absolute "need-to-know".

Data Class				Standard	Measurement / Artifact
1	2	3	4		
		R	R	21.1 - Business Data owners must annually assess system access roles and access lists to ensure the following: System access is limited based upon job responsibilities. Access to privileged user IDs is restricted and authorized. The access roles are designed to provide only that access needed to perform the job function.	Annual report of compliance by the Business Data Owner. This report should include the following : Data Owners. Systems. Roles. Review /Change date. Documentation showing access approvals by management.
	R	R	R	21.2 - An access control system must be in place for systems components with multiple users to restrict access. This system must include the following: Coverage of all system components. Assignment of privileges to individuals based on job classification and function.	Documentation listing all systems components and information about its access control system.

#22: To manage the life-cycle of access permissions.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
		R	R	22.1 - System access is only granted, modified or deleted when authorized by the Business Data Owner and/or the user's management.	Semi-annual representative sample of access request forms.
		R	R	22.2 - System access forms/requests and other documentation must be maintained for 12 months.	Semi-annual representative sample of access request forms.
		R	R	22.3 - Network, remote, and Restricted and Highly Restricted application access must be terminated within 2 business days of when an employee, contractor, or consultant leaves ConvergeOne.	Documentation proving access was removed.
R	R	R	R	22.4 - Employee/Contractor/Consultant user IDs must be disabled or removed after 90 days of inactivity.	Application and infrastructure configuration documents or semi-annual representative sample of user IDs.

#23: To maintain strong authentication for all remote access employees/ contractors/ consultants.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	23.1 - All employees, contractors, consultants, and other third parties requiring remote access to the ConvergeOne network must use two-factor authentication (e.g., something you know such as a password and something you have such as a certificate).	Documentation that shows configuration settings that enforce the use of two-factor authentication.

#24: To establish password standards for secure access to ConvergeOne systems: network, applications, databases, and infrastructure devices.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
	S	S	R	24.1 - For applications accessed by employees, contractors, and consultants, applications passwords must meet the following requirements: Length: At least 8 characters. Complexity: Must consist of at least three of the following four characteristics: Upper case letters. Lower case letters. Numbers. Special characters.	Configuration documentation.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
				Passwords must be changed at least every 90 days. Sessions re-authenticate after 15 minutes of inactivity. Do not reuse the last five passwords.	
	S	S	R	24.2 - For client participant, internet facing applications, passwords must meet the following requirements: Length: At least 8 characters. Complexity: Should consist of at least three of the following four characteristics: Upper case letters. Lower case letters. Numbers. Special characters. Sessions should re-authenticate after 15 minutes of inactivity (Highly Sensitive (Level 4) information systems only).	Configuration documentation.
	S	R	R	24.3 - Repeated access attempts must be blocked after no more than five (5) failed logon attempts within 30 minutes.	Configuration documentation.
	S	R	R	24.4 - The lockout duration must be set for at least 30 minutes or until an administrator re-enables the user ID.	Configuration documentation.
	S	R	R	24.5 Proxy or Service Account Passwords: Must be changed annually. Require passwords to contain upper case character, lower case character, numeric, and special symbols e.g., ($,%,&) and be a minimum of 15 characters long.	Configuration documentation.
	S	R	R	24.6 - First Use: Set one-time use passwords to a unique value for each user and change immediately after the first use when resetting passwords. (except for remote users)	Configuration documentation.
		R	R	24.7 - Passwords and PINs must be masked when displayed.	Configuration documentation.
R	R	R	R	24.8 - Passwords and PINs must be encrypted or hashed (made unreadable) in storage and transmission. One time use passwords do not have to be encrypted in transmission when being sent to the user.	Configuration documentation.
	R	R	R	24.9 - Administrators must verify the identity of the user prior to implementing a password or PIN change.	Process documentation.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
	R	R	R	24.10 - Must enter the old and new password or PIN when changing the password or PIN.	Configuration documentation.
R	R	R	R	24.11 - Exceptions to the password Standards must be tracked within the Risk Register and approved by Senior leadership and the Compliance Director	Risk Register entries for exceptions to the password policy.

#25: To identify information security risks associated with vendors coming into contact with sensitive ConvergeOne information.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
	S	R	R	25.1 - All vendors accessing Restricted (Level 3) and Highly Restricted (Level 4) information must be identified.	List of vendors accessing Restricted (Level 3) and Highly Restricted (Level 4).
	S	R	R	25.2 - Vendors handling Restricted (Level 3) and Highly Restricted (Level 4) information must be assessed according to the ConvergeOne vendor assurance program.	List of vendors indicating their assessment status.
	S	R	R	25.3 - Maintain a written agreement that includes an acknowledgement that the vendor is responsible for the security of ConvergeOne Restricted (Level 3) and Highly Restricted (Level 4) information in its possession or control.	Contract showing vendor acknowledgement of responsibility to secure ConvergeOne information.

#26: To ensure those with access to ConvergeOne information are uniquely identified.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
	R	R	R	26.1 - All users must have unique user IDs to access ConvergeOne information that employ at least one of the following: A password or passphrase. Two-factor authentication.	Configuration documentation or documentation proving that all users have unique IDs.
	R	R	R	26.2 - Do not use group, shared or generic accounts and passwords.	Process documentation and/or a user list.
	R	R	R	26.3 - User IDs should not contain or be derived from Highly Restricted (Level 4) information.	Process documentation and the current user list.
	S	R	R	26.4 - Authenticate all access to any database containing Highly Restricted (Level 4) or Restricted (Level 3) information. This includes access by	Database configuration and/or application documentation.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
				applications, administrators, and all other users.	

INFORMATION CLASSIFICATION POLICY STANDARDS

#27: To ensure information is classified and handled according to its sensitivity.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
		S	R	27.1 - All Highly Restricted (Level 4) information is identified.	List of Highly Restricted (Level 4) information assets and their business owner.
R	R	R	R	27.2 - Store information in accordance with the records retention policy. Dispose of the information according to the record retention schedule.	Documentation showing the records management and document retention policy has been implemented.

SOFTWARE LICENSING + DUPLICATION RESTRICTIONS POLICY STANDARDS:

#28:   To ensure all software installed or used on ConvergeOne equipment has been acquired lawfully.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	28.1 - All software installed or used on ConvergeOne Information Systems, including all desktops and laptops, must be lawfully acquired through license, internal or contractor development, or other lawful means.	License agreements and/or invoices.
R	R	R	R	28.2 - Maintain a list of approved software. All software must be approved by management and reviewed by the Architecture Review Board.	List of approved software.

#29:   To ensure that ConvergeOne does not make, acquire, use, or distribute unauthorized or illegal copies of software for any purpose.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
R	R	R	R	29.1 - ConvergeOne shall not make, acquire, use, or distribute unauthorized copies of software for any purpose. This includes open source, freeware, shareware and third party packaged software, where licensing restrictions apply.	Annual audits for unlicensed and illegal copies of software.

MOBILE DEVICE SECURITY POLICY STANDARDS:

#30: To maintain the confidentiality, integrity and availability of the ConvergeOne information transmitted to and stored on mobile devices.

Data Class				Standard	Measurement / Artifact
1	2	3	4		
	R	R	R	30.1 – An inventory management process must be established and maintained that includes approval for the storage of ConvergeOne information on mobile devices.	The inventory documentation completed.
	R	R	R	30.2 – Security settings for BYOD and corporate supplied mobile devices that are consistent with industry standards and address known vulnerabilities must be used. Owners of devices must establish the following: Minimum password length of 4 characters for phones and tablets, Password re-authenticated after a maximum of 15 minutes of inactivity, Device to be securely wiped or account locked after 10 invalid attempts, Device encryption required, The latest relevant vendor-supplied security patches / software updates must be installed, All backups secured	Awareness training messages, guidance document review and a sample of user population.
R	R	R	R	30.3 - Return ConvergeOne owned mobile devices or delete ConvergeOne information from personal mobile devices upon termination or when no longer needed.	Employee Separation Process

Revision History			
Version	Date	Notes	Editor
1.0	05/01/2014	Original	
2.0	6/18/2014	Fixed incorrect control standards boxes on page 1.	Sophia M Kiheri
3.0	10/31/2014	Added Revision History	Sophia M Kiheri
3.1	12/22/2014	Repeated Header Rows across tables.	Sophia M Kiheri
3.2, 3.3, 3.4	12/22/2014-12/31/2014	Table Formatting	Sophia M Kiheri
4.0	4/6/2015	Annual Review and Update. Added Section 7.4. Employees practice "Clean Desk" principles for all Physical printouts	Collin W. Buechler

		containing Highly Restricted (Level 4) information when away from their desk. Updated Section 24.1. For applications accessed by employees, contractors, and consultants, applications passwords must meet the following requirements: Length: At least 8 characters. Complexity: Must consist of at least three of the following four characteristics: Upper case letters. Lower case letters. Numbers. Special characters. Passwords must be changed at least every 90 days. Sessions should re-authenticate after 15 minutes of inactivity. Do not reuse the last five passwords Added Section 24.11. - Exceptions to the password Standards must be tracked within the Risk Register and approved by Senior leadership and the Compliance Director	
5.0	10/05/2015	Rebranding	Sophia M. Kiheri
5.1	10/6/2015	Annual Review 15.2 – changed SSL to TLS 24.1 Removed "Should" from Session Time Out Requirement	Collin W. Buechler
6.0	10/11/2016	Annual Review	Collin W. Buechler
6.1	10/06/2017	Annual Review	Collin W. Buechler

System Implementation Overview

ConvergeOne's Services Department manages each new system installation or system upgrade as a unique project.

Each project is comprised of three phases of activities: pre-cutover, cutover, and post-cutover. The project phases include the following activities:

Pre-Cutover Activities

Pre-cutover activities include planning, coordination, and testing functions essential to a successful project.

Cutover Activities

Cutover activities include those functions related directly to the actual placement of the new system in service. This includes the preparation of the cutover plan, identification of essential lines and services, the customer's coordination with local telephone companies and other common carriers, activation of the communications system, and installation testing activities.

Post-Cutover Activities

Post-cutover activities include establishment of the help desk, receipt and resolution of trouble reports, removal of old equipment (if appropriate), performance of final acceptance tests, and final hand-off of the system to the State.

The following tables provide an example of the various project activities and responsibilities:

Pre-Cutover Activities	
Task	**Responsibility**
System design finalized	ConvergeOne Account Team
Services Scope of Work finalized	ConvergeOne Account Team & Implementation Team
The ConvergeOne resources (project manager, software resources, contact center consultants, trainers, etc.) will deliver services remotely. If on-site support is requested, the cost of travel will be billed to the State. If requested ConvergeOne will present in advance an estimate or not to exceed amount of travel and living expenses for approval. Once approved, arrangements will be secured and actual charges or the not to exceed amount will replace the estimated costs and billed to the State.	State and ConvergeOne Implementation Team
Contract signed	State & ConvergeOne Account Team
Equipment ordered	ConvergeOne Account Team
Order assurance review of hardware, design and network software	ConvergeOne Account Team & Project Manager
Project kickoff meeting with the State	State & ConvergeOne Account/Implementation Team

Pre-Cutover Activities

Designate a single point of contact that understands business requirements and is authorized to make binding decisions	State
Ensure that demarcation (DMARC) and applicable wiring are identified and that DMARC points can be connected to ConvergeOne equipment with the cables that have been provided. Ensure circuits are fully extended, terminated and labeled and wall mounted within switch room. ConvergeOne PM is available to provide guidance.	State
Work with ConvergeOne to determine the following for each Communication Manager system: Direct inward dialing (DID) numbers, Listed directory numbers, Feature dial access codes, Station numbering plans, Work with ConvergeOne to finalize numbering plan, etc.	State/ ConvergeOne Implementation Team
Establish cutover date, freeze date, milestone dates Quality Assurance Review scheduled	State & ConvergeOne Project Manager
Establish cutover date, freeze date, milestone dates Quality Assurance Review scheduled	State & ConvergeOne Project Manager
Verify and arrange for installation of all applicable network connections and provide all circuit information (e.g., IP address, subnet mask, gateway, machine names, and modem numbers) including network diagrams prior to benching of equipment. Provide ConvergeOne with signaling, framing and network programming information compiled from the State's network vendor.	State & ConvergeOne Convergence Team
Equipment room preparations-including space, power and grounding	State
Inventory equipment at warehouse	ConvergeOne Warehouse Coordinator
Equipment is updated with the latest firmware, software and tested during burn-in period	ConvergeOne Performance Readiness Center
The State will be required to provide space in an existing appropriate size data rack and patch cords or provide new racks and patch cords for the Media Servers and gateways.	State
Provide if applicable marked floor plan of terminal locations and provide all station, riser, feeder and inter-building cable and wire to meet specifications provided by ConvergeOne. Verify, tag, tone, test and document the distribution system according to requirements provided by ConvergeOne project manager. Create spreadsheet documenting requirements including: Cable pair (including IDF closets), Jack number, Station number, Station type, Cube location	State & ConvergeOne PM
Ensure that a 7x24 dedicated remote-access line is installed no later than the date on which ConvergeOne begins work.	State

Pre-Cutover Activities

Activity	Responsibility
Obtain all necessary permits and/or licenses required prior to installation of equipment. These costs are not included in this SOW unless expressly stated.	State
Accept receipt of all equipment; retain shipping documentation; inventory shipments by box count, and report any obvious external damages. Internal inventory of Boxes will be the responsibility of ConvergeOne only.	State & ConvergeOne Implementation Team
Provide secured site for storage and installation of equipment, including all necessary electrical, wiring, # 6 grounding and HVAC.	State
Equipment shipped.	ConvergeOne Warehouse Coordinator
Provide floor plans for equipment-room configuration and related locations, if applicable.	State
Verify and arrange for installation of equipment provided by third-party vendors, including connectivity, if applicable. Ensure the performance of services provided by third-party vendors, if applicable.	State
Work with ConvergeOne to establish trouble-reporting procedures and logistics for use in connection with ConvergeOne cutover support, if applicable.	State & ConvergeOne
Providing a contact list for each location to assist the Program Manager with scheduling resources.	State
Installation of Integrated Management software on appropriate client PCs.	State & ConvergeOne Implementation Team
Loading the Voice Announcement Manager (VAM) applications, if applicable, under the Integrated Management Suite are the responsibility of the State. LAN integration of these applications and/or any other application residing under this product suite has not been included in this solution. The State is responsible for all announcement recording.	State
Conduct system software review	State & ConvergeOne Implementation Team
Receive station data sheets, build stations, mailboxes, print number cards if appropriate	ConvergeOne
Order network facilities	State
Order remote maintenance (INADS) line	State
Verify shipping dates	ConvergeOne Project Manager
Complete system administrator training*	State
Verify the State ready	State & ConvergeOne Project Manager
Costs incurred by ConvergeOne due to non-performance by the State or the State's vendor(s) may result in additional charges, which ConvergeOne will identify in writing for the State.	State
Any additional work requests must be approved and billed separately via the ConvergeOne Change Management Form.	State

Pre-Cutover Activities	
Additional responsibilities may appear in the statement of work (SOW).	State & ConvergeOne Implementation Team
Quality Assurance Review (QAR) • Review readiness checklist • Verify customer QoS is setup properly and endpoint PC's are prepared. • Testing involves simulation of VoIP traffic across all pertinent data network links under all possible traffic conditions. • Simulations of; • Voice calls • Data traffic conditions, heavy, light, small data packets, large data packets, small data files, large data files. • Analyze results to assure VoIP traffic meets customer quality standards. • Formal report is prepared including Topology diagram, hardware and firmware inventory of data network, protocol and application usage. • Report is registered and filed in the database and entitles the customer to maintenance protection for the VoIP deployment.	ConvergeOne Convergence Team
ConvergeOne will implement the network region design based on the following State requirements: • Available bandwidth between regions • Estimated call volumes between regions • QoS policy, as defined by the State • Failover/DR practices and policies • Complete IP address scheme provided by the State • VLAN settings • Port speed/duplex settings Although the network region configuration will be defined at the Communication Manager server, it will affect all IP phones, gateways and devices that register to the Communication Manager server.	State & ConvergeOne Implementation Team
ConvergeOne design and configure network software that touches all system hardware, peripherals and end user software.	ConvergeOne

Cutover Activities

Task	Responsibility
Accept equipment delivery	State
Work activities that do not affect service, excluding cutover support, will be performed and completed during Standard Service Hours.	ConvergeOne Implementation Team
Inventory equipment at State premise	ConvergeOne Implementation Team
Upgrades that affect service may take place outside Standard Service Hours for an additional charge. Otherwise, upgrades will be performed and completed during Standard Service Hours to minimize costs, unless otherwise stated in the statement of work (SOW).	State and ConvergeOne PM
Begin installation of system	ConvergeOne Technician(s)
Assess QAR results, identify & correct issues	ConvergeOne Convergence Engineer & State
Coordinate with service provider install and terminate and turn-up T-1 and local trunks and all network facilities. Install and test voice terminals. Establish connectivity thru modems, faxes, night bells and printers.	ConvergeOne Implementation Team ConvergeOne Technician(s)
Perform installation tests per the ConvergeOne test plan. Testing 911, incoming, outgoing, local, long distance, international, toll restrictions, operator access, blocked calls, connectivity to adjuncts.	ConvergeOne Implementation Team
Training room setup	ConvergeOne Technician(s) & End-User Trainer
Conduct end-user training	ConvergeOne Project Manager & State
Establish post-cutover help desk	State & ConvergeOne Implementation Team

Post-Cutover Activities

Task	Responsibility
Help desk staffing (first day of service)	ConvergeOne Technician(s)
Resolution of trouble reports	State & ConvergeOne Technician(s)
Remove old equipment (if appropriate)	ConvergeOne Technician(s)
Perform final install tests	ConvergeOne
Extinguish all major and minor alarms	ConvergeOne
Final register system equipment and Network Assessment (QAR) and initiate system warranty and maintenance process.	State & ConvergeOne Project Manager
Post-cutover acceptance agreement	ConvergeOne Implementation Team
Hand off system to the State	

System Implementation Team

Project Manager

The Project Manager (PM), who manages the overall implementation, will assemble a team of experts who will be responsible for various activities throughout the installation and cutover process. The PM has responsibility for:

- Developing project milestones
- Managing, coordinating, and monitoring project activities
- Scheduling resources to conduct the system software review
- Ensure Quality Assurance Review (QAR) performed (if needed)
- Identifying and escalating any project jeopardy
- Scheduling end-user training
- Monitoring cutover of the system
- Coordinating the post-cutover help desk

Technicians

The Technicians are dedicated to installing all phases of the system. The Service Manager will work closely with the Project Manager to make sure the technicians are scheduled to perform the work according to installation standards and technical specifications. The Technicians have responsibility for:

- Inventory of equipment
- Installing the system, system wall-field, cross-connects, adjuncts, and peripherals (if applicable)
- Preparation of training room with the End-User Trainer
- Installing terminals and button labels
- Verifying that all outside facilities are tested
- Identifying and clearing system troubles
- Disconnecting existing equipment (if appropriate)
- Troubleshooting end-user problems

End-User Trainer

The End-User Trainers are responsible for providing remote or on-site product training for the State's executives, console attendants, ACD agents, and end-users on station features, system functionality and use of voice terminals and voice mail. The Trainer will:

- Prepare end-user documentation
- Determine training room requirements
- Instruct end-user training sessions

Software Specialist and/or Services Engineer

The Software Specialist and/or Services Engineer provides consultation and support for advanced call processing applications. The Software Specialist and/or Services Engineer has responsibility for:

- Participating in the system software review, if necessary
- Preparing station information
- Develop and preparing system, network, and trunking (SNT) information

- Preparing adjunct information (CMS, AUDIX, etc.)
- Developing voice messaging software translations
- Developing Communications Manager™ software translations for stations, System Networking Trunking (SNT), and adjuncts
- Consulting with the State regarding advanced applications (ACD, DCS, Contact Center, CMS etc.)
- Developing Communication and voice messaging software translations for advanced applications
- Supporting the Project Manager and Technicians

Contact Center Consultant

The Contact Center Consultant provides consultation and support for advanced call center applications. The Contact Center Consultant is involved on the Implementation Team if the Call Processing Server has advanced call center features, such as complex vectoring, EAS, CMS, LAI, BSR, Virtual Routing, and CentreVu® Advocate. The Contact Center Consultant has responsibility for:

- Participating in the system software review, if necessary
- Consulting with the State regarding advanced call center applications
- Consulting with the State to prepare desired call flows
- Developing Communication Manager™ software translations for advanced call center applications
- Implementing CMS software
- Call Center Supervisor CMS training
- Supporting the Project Manager and Technicians

Design Specialist

The Design Specialist (DS) is a member of the Account Team. The DS is responsible for working with the National Account Manager to provide complex system design support, technical assurance and provides a Visio drawing of the system design. The DS also supports the Implementation Team as necessary.

Customer

Team members from the State are critical to a successful system implementation. The State's responsibilities are listed in the Pre-Cutover, Cutover and Post-Cutover portion of this document and in the Statement of Work and include, but are not limited to:

- Coordinate installation of network facilities
- Data collection in preparation for system software review
- Adherence to all milestone dates
- Equipment room preparation following provided guidelines
- Providing suitable space for end-user training following provided guidelines
- Other responsibilities as defined in this document and throughout the project
- Costs incurred by ConvergeOne due to non-performance by the State or the State's vendor(s) may result in additional charges, which ConvergeOne will identify in writing for the State.

Implementation Consultation & Project Milestones

During the project kickoff meeting, the ConvergeOne Implementation Team will consult with the State to determine special needs for installation and review the Services Scope of Work. These special needs may include, but are not limited to, the following:

- Additional material and labor charges associated with cable, wire, and termination fields.
- Additional material and labor charges associated with reusing existing facilities (wire, termination fields, network facilities, equipment room, peripherals, and adjuncts).
- Additional labor charges if an on-site survey by a Technician is required.
- Additional charges if additions or changes need to be made to the Services Scope of Work.
- Special shipping and delivery requirements, for example, if special hauling or hoisting is required or if a specific time of delivery is requested on the date of delivery.

Additional charges will be identified and communicated in writing upon completion of the project kickoff meeting. If additional changes to the Services Scope of Work are made after the project kickoff meeting, additional charges may apply.

The ConvergeOne Project Manager will work with the State to develop a mutually agreed upon list of milestone dates. Key activities will be performed by both ConvergeOne and the State on or before the designated dates to ensure successful implementation. Some of those activities include:

- The dates for system software reviews
- The date the equipment room must be ready
- The date by which network facilities must be installed and tested
- The date on which to expect delivery of the equipment
- The software / translation freeze date
- The system cutover date

System Software Reviews

ConvergeOne Implementation Team members, along with the State representative, will perform system software reviews. System software reviews involve collection of station details and system, network, and trunking data necessary to operate the system.

During the station detail gathering phase, the State, with guidance from the ConvergeOne Implementation Team, will be required to match voice terminals and data modules with users, define station classes of service and classes of restriction, determine button features, and define call coverage and call pickup operations.

It is recommended that the State use Department Coordinators to assist in gathering information about stations, including how each department uses its phones today, any new features they would like, and determination of set types and button features. To achieve uniform operations among departments, it is recommended that the State determine button feature models by job category for each voice terminal type. Subsequently, Department Coordinators can assign the models to users within each department.

In gathering the system, network, and trunking data, ConvergeOne must determine Direct Inward Dialing numbers, Listed Directory Numbers, Feature Access Codes, and station numbering plans for each system. If the system is part of a network, ConvergeOne will need additional information to coordinate numbering throughout the network. The ConvergeOne Implementation Team will work with the State to finalize a numbering plan and to determine connectivity of trunk facilities.

In gathering the call routing data, ConvergeOne will help to determine the system, network, and trunking data requirements for Automatic Route Selection (ARS) and Automatic Alternate Routing (AAR). The ConvergeOne Implementation Team will work with the State to determine the appropriate routing for outbound calls.

Freeze Date

The freeze date is the last date ConvergeOne can accept changes to the products ordered and system software for installation by the cutover date. The freeze date is a minimum of thirteen (13) business days prior to the cutover date. It is extremely important that ConvergeOne be advised of changes that will affect the hardware and/or software requirements after the contract has been signed.

The State and the ConvergeOne Project Manager will establish a freeze date to minimize the impact changes may have on the cost and scheduled installation of the system. Changes made after the agreed upon freeze date may incur a charge and may require rescheduling of the cutover date.

Help Desk Procedures

On the first day of service (defined as the first full day of system use after the cutover date), ConvergeOne will manage a help desk that will be staffed by one State representative and at least one ConvergeOne Implementation Team member. The ConvergeOne Project Manager will coordinate specific details and logistics for the help desk, including the number of hours required for your new communications system.

Normally, we will manage the help desk for up to four hours then hand off the system to you. If you require additional help desk coverage beyond the hours allotted, additional charges may apply.

The help desk will receive reports of trouble from end users or Department Coordinators. A trouble ticket will be filled out and given to the appropriate ConvergeOne personnel to resolve. Requests for feature/functionality changes from users will be referred to the State for resolution.

The procedures for the help desk need to be planned well. Items to consider include:

- At least One State representative needs to be assigned to staff the help desk. This will assist your company's staff with getting used to handling trouble reports and changes going forward. A ConvergeOne Implementation Team member works with the State on the help desk.
- In most projects four hours help desk time is allotted for help desk operations after cutover.
- The help desk should be located in the same location as the SAT, where possible, so help desk staffers can perform software updates quickly and easily.

The Help Desk normally flows as follows:

- The help desk number is determined and connected.
- The help desk information is distributed to the end-users during training.
- Help desk opens after cutover.
- End user calls in a trouble report. Trouble report is handled on-line, if possible. If not, the trouble report is passed to the appropriate party for resolution.
- The end user is informed when the trouble report is resolved.
- In the late stages of the help desk, the trouble-reporting procedures are discussed with the State.
- In the late stages of the help desk, the Project Manager reviews the installation with the State and logs open issues on a punch list. Open issues that can be resolved by the help desk will be cleared before ConvergeOne personnel are removed from the help desk.
- The ConvergeOne Project Manager will review the Certificate of Acceptance with the State and obtain the signature of an authorized State representative. The Certificate of Acceptance overviews the tests performed and will have a copy of the open issues punch list attached.
- The ConvergeOne personnel are removed from the help desk but remain on-site for a short time. If all is functioning properly, and the systems are running smoothly, the Project Manager releases the ConvergeOne personnel from the site at the committed time.
- The ConvergeOne Project Manager retains the original help desk trouble tickets.
- ConvergeOne will correct remaining items on the punch list as quickly as possible and escalate uncorrectable items to the appropriate resource.

ID	Task Name	Predecessors	Duration	Assigned To
1	Template_PROJECT NAME From CW System. Set line 3 to project booking date (UPDATE)		545d	
2	Project Initiation		6d	
3	SOW Signed and Returned to ConvergeOne		1d	
4	Project booking entered into ConvergeOne Systems		3 1d	
5	Project Manager Assigned		4 3d	
6	SE/AM submits "Sales Hand-off Document" to ConvergeOne Project Manager	5FF	1d	
7	ConvergeOne Project Manager Introductory Call		5 1d	
8	Project Resource Requests submitted and Project Resources Assigned		5 1d	
9	Plan Phase		465d	
10	Prepare Project Artifacts		3d	
11	Communication Plan Created		8 1d	C1 PM
12	Project Plan Base Created		8 3d	C1 PM
13	Action Item List Created		8 1d	C1 PM
14	Status Report Base Created		8 1d	C1 PM
15	Kickoff Presentation Created		8 2d	C1 PM
16	Internal Kickoff Call with Sales and Professional Services	5, 6, 8	1d	C1 PM
17	Communication Plan sent to Client and Kick Off Call Scheduled	11, 16	1d	C1 PM
18	External Project Kickoff Call	17FS +2d	1d	C1 PM
19	Client signs and returns Communications Plan	17FF +2d	2d	Client
20	Hardware/Software		172d	
21	Hardware/Software ordered		4 1d	Sales
22	Hardware delivered to ConvergeOne for staging	21FS +30d	50d	C1 PM
23	Circuits Ordered—MPLS		22 1d	Client
24	Circuits Delivered		23 90d	
25	Philadelphia		90d	Carrier
26	Minnetonka		49d	Carrier
27	Establish VPN Access		5d	
28	VPN Credential Criteria Delivered		1d	Client, Cloud Ops
29	Email to team for access and credential criteria		28 1d	Client, Cloud Ops
30	Credential Info sent to Client		29 1d	Mark, Greg, Michele
31	VPN Credentials delivered		30 1d	Client, Cloud Ops
32	Credentials tested by ConvergeOne		31 1d	Mark, Greg, Michele
33	Contact Center Survey		12d	
34	Deliver Contact Center Survey (CSS) to Client. Client to complete		~0	C1 Contact Center Engineer
35	Meeting to introduce the CSS to Client		34 ~0	C1 Contact Center Engineer
36	Client completes the CSS		2d	Client
37	UCM Requirements (Assumes different client resources than UCCE)		1d	
38	Dial Plan Review Meeting		1d	C1 Lead UC Engineer
39	Reporting Assessment		17d	
40	Schedule Onsite Reporting Assessment		5d	C1 PM
41	Conduct Onsite Reporting Assessment	#REF, 40	1d	C1 Reporting Expert
42	Document Reporting Assessment Findings		41 5d	C1 Reporting Expert
43	Delivery of Gap Analyis		42 1d	C1 Reporting Expert
44	Meeting to Review Gap Analysis		43 1d	C1 Reporting Expert
45	Custom Report Determination and Quote		44 3d	C1 Reporting Expert
46	Milestone: Close Reporting Assessment		45 1d	C1 PM
47	IP Addressing Spreadsheet		425d	
48	IP Addressing Spreadsheet Delivered to Client		18 1d	C1 Lead UC Engineer
49	Meeting to Review content required on IP Addressing Spreadsheet		48 1d	C1 Lead UC Engineer
50	Client completes IP Addressing Spreadsheet		49 5d	Client
51	IP Addressing Spreadsheet returned to ConvergeOne		1d	Client
52	ConvergeOne Reviews and approves IP Addressing Spreadsheet		51 2d	C1 Lead UC Engineer
53	Milestone: IP Addressing Spreadsheet Completed		52 1d	C1 PM
54	CSC Initiation		22d	
55	Customer Kick-Off Meeting		3d	
56	Issue/Review Transition Workbook		3d	Naveed Mustafa
57	Transition Workbook		5d	
58	Transition Workbook Completed & Returned		56 5d	Client
59	Data Collection		9d	
60	System Access Information Submitted		56 3d	Project Team
61	VPN Access Information Submitted		60 3d	Project Team
62	VPN Access Initiate & Test		61 3d	Cloud Ops
63	Records Build			
64	Customer Portal Access Set Up		59 5d	CSC
65	Customer Records Built		64 5d	CSC
66	Close Plan phase and ensure documents loaded to C1 Repository	REF#	1d	
67	Design Phase		353d	
68	Network Design		313d	
69	MPLS		1d	
70	Coordinate shipment of equipment to DC's		1d	C1 PM
71	SIP Trunks/IntelePeer		313d	
72	Determine # of UC Trunks		1d	C1 Sales Engineer
73	Determine # of Metered Trunks		1d	C1 Sales Engineer
74	SIP/SBC Trunking Design Sessions		5d	C1 Shared Services

ID	Task Name	Predecessors	Duration	Assigned To
75	Deliver Call Manager and CUBE IP's to Shared Svs (Dave R)		1d	C1 Lead UC Engineer
76	Minnetonka		15d	
77	SIP Trunks Ordered DC 1	26	5d	C1 Shared Services
78	Configure Network Facilities for DC 1	77	5d	C1 Shared Services
79	Test SIP Trunks/Network for DC 1	78	5d	C1 Shared Services
80	Minnetonka SIP Trunks Complete	79	0	C1 PM
81	Philadelphia	80	15d	
82	SIP Trunks Ordered DC 2	25	5d	C1 Shared Services
83	Configure Network Facilities for DC 2	82	5d	C1 Shared Services
84	Test SIP Trunks/Network for DC 2	83	5d	C1 Shared Services
85	Philadelphia SIP Trunks Complete	84	0	C1 PM
86	Provide invoice of usage/minutes			C1 Shared Services
87	Request CSR records from all carriers			C1 Carrier Services/MBG
88	Provide list of DID/TF numbers porting to SIP Trunks			
89	Phase 1			Client Telecom
90	Cross reference Client list with CSR from Carriers			C1 Carrier Services
91	Plan schedule to place order to port 15 days prior to cutover			C1 Carrier Services
92	Network Planning - Complete			
93	Station Device			
94	Station Worksheet Delivered to Client			
95	Client Workbook --See Site Launch Plan for site detail tasks below Client			Client Telecom Team
96	Phase 1			Client Telecom Team
97	Phase 2			Client Telecom Team
98	Phase 3			Client Telecom Team
99	Phase 4			Client Telecom Team
100	Business Design Document (BDD) and Call Flow Deliverables		22d	
101	Creation of first iteration of BDD and Call Flow Document	36	6d	C1 Contact Center Engineer
102	Business Design Meetings		1d	
103	Design Meeting 1		1d	C1 Contact Center Engineer
104	Walk through of First Iteration of BDD and Call Flow for Document Introduction	REF#	1d	C1 Contact Center Engineer
105	Updates to create second iteration of BDD and Call Flow	102	2d	C1 Contact Center Engineer
106	ConvergeOne Peer Review of BDD second iteration in conjunction with TDD	105	1d	C1 Contact Center Engineer
107	Second Iteration of BDD and Call Flow Delivered	106	1d	C1 Contact Center Engineer
108	Internal Client review of BDD and Call Flow	107	2d	Client
109	Business Design Meetings		1d	
110	Design Meeting 2	108	1d	C1 Contact Center Engineer
111	Review Second Iteration of BDD and Call Flow	108	1d	C1 Contact Center Engineer
112	Final version of BDD Created	109	2d	C1 Contact Center Engineer
113	Send final version of BDD to Client	112	1d	C1 Contact Center Engineer
114	Business Design Meetings			
115	Design Meeting 3 (Optional)	113	1d	C1 Contact Center Engineer
116	Review Final Iteration of BDD and Call Flow	113	1d	C1 Contact Center Engineer
117	Milestone: Final Business Design Document Delivered	114	1d	C1 Contact Center Engineer
118	Agent/Station Worksheet		4d	C1 Contact Center Engineer
119	Based upon accepted designs, ConvergeOne updates the Agent/Station Spreadsheet	100	1d	C1 Contact Center Engineer
120	Meeting to review Agent/Station Spreadsheet with Client	119FF	1d	C1 Contact Center Engineer
121	Client completed Agent/Station Spreadsheet	120	2d	Client
122	Meeting to review completed Agent/Station Spreadsheet	121	1d	C1 Contact Center Engineer
123	Design Phase Completion Certificate Delivered to Client	100, REF#, REF#, 118	1d	
124	Signed Design Phase Completion Certificate returned	123	2d	
125	UAT Testing Plan		10d	
126	Based upon design, Client creates UAT Test plan cases	REF#	10d	Client
127	Milestone: Design Phase Complete	124FF	~0	C1 PM
128	Close Design phase and ensure documents loaded to C1 Repository	127	1d	C1 PM
129	Implement Phase		412d	
130	Solution Staging/Build Tasks		23d	
131	Stand up the Client UC VLAN and the Client DMZ VLAN		1d	Cloud Ops
132	Stand up 2 Domain Controllers, one in each Datacenter		5d	Cloud Ops
133	Deploy OVA's		2d	C1 Lead UC Engineer
134	Configure Core Applications	133	2d	C1 Lead UC Engineer
135	UCM		2d	C1 Lead UC Engineer
136	IM&P		2d	C1 Lead UC Engineer
137	CUC		2d	C1 Lead UC Engineer
138	UCCX		2d	C1 Lead UC Engineer
139	Configure Edge Applications	138	10d	C1 Lead UC Engineer
140	VCUBE (SIP Trunks Termination)		10d	C1 Lead UC Engineer
141	Expressway C		10d	C1 Lead UC Engineer
142	Expressway E		10d	C1 Lead UC Engineer
143	Certificates		10d	C1 Lead UC Engineer
144	Milestone: Staging/Solution Tasks Complete	132, 133, 134, 131, 139	1d	
145	MPLS Configuration (Customer to C1 Datacenter Network)		392d	
146	Customer MPLS	24	1d	
147	Site		1d	

ID	Task Name	Predecessors	Duration	Assigned To
148	Equipment determined and ordered		1d	Client
149	Shipping—MUST BE COORDINATED WITH C1 PM		1d	C1 PM
150	Site			
151	MTKA Cloud - C1 to Customer Network Setup	26	30d	
152	MTKA Circuit Install (local loop installed)		30d	Cloud Ops
153	CenturyLink provides LOA/CFA		30d	Carrier
154	MPLS Circuit Cross Connected/Extended		30d	Cloud Ops
155	MTKA Switch/Router Racked and Installed (configured for Centurylink access)		30d	Cloud Ops
156	MTKA Switch/Router Configured		30d	Cloud Ops
157	MTKA MPLS (Tested / Turned Up)		30d	Cloud Ops
158	NMS device onboarding to network management--confirm with Steve and Jason Beck		30d	Cloud Ops
159	MTKA Cloud - C1 to Customer Network Setup		30d	Cloud Ops
160	Philadelphia Cloud - Network Setup	24	30d	
161	PHIL Circuit Install (local loop installed)		30d	Cloud Ops
162	CenturyLink provides LOA/CFA		30d	Carrier
163	MPLS Circuit Cross Connected/Extended		30d	Cloud Ops
164	MTKA Switch/Router Racked and Installed (configured for Centurylink access)		30d	Cloud Ops
165	MTKA Switch/Router Configured		30d	Cloud Ops
166	MTKA MPLS (Tested / Turned Up)		30d	Cloud Ops
167	NMS device onboarding to network management		30d	Cloud Ops
168	MTKA Cloud - C1 to Customer Network Setup - Complete		30d	Cloud Ops
169	MPLS Config Complete		0	
170	QAR		105d	
171	Planning		30d	
172	QAR KO/Planning Meeting		30d	Convergys
173	Test PC requirements information provided to customer		30d	Convergys
174	Test PC's obtained - configured		30d	Convergys
175	Test PC's configured		30d	Convergys
176	Client Change Controls for Changes			Client
177	QAR Test	169	15d	
178	QAR test conducted		15d	Convergys
179	QAR test results confirmed		15d	Convergys
180	QAR test results report created - provided to customer and Manufacturer		15d	Convergys
181	QAR Complete		15d	Convergys
182	Network Failover Placeholder	181	5d	Cloud Ops
183	Network UAT Placeholder		1d	Client
184	Minnetonka		15d	
185	SIP Trunks Ordered DC 1	26	5d	C1 Shared Services
186	Configure Network Facilities for DC 1	185	5d	C1 Shared Services
187	Test SIP Trunks/Network for DC 1	186	5d	C1 Shared Services
188	Minnetonka SIP Trunks Complete	187	0	C1 PM
189	Philadelphia	188	41d	
190	SIP Trunks Ordered DC 2	24	5d	C1 Shared Services
191	Configure Network Facilities for DC 2	190	5d	C1 Shared Services
192	Test SIP Trunks/Network for DC 2	191	5d	C1 Shared Services
193	Philadelphia SIP Trunks Complete	192	0	C1 PM
194	Provide Invoice of usage/minutes		1d	C1 Shared Services
195	Request CSR records from all carriers		1d	C1 Carrier Services/MBG
196	CSC Implementation		30d	
197	Watch Appliance Installed & Initiated		22d	
198	Watch Appliance requirement meeting	54	3d	C1 CSC
199	Watch Appliance Configuration	198	3d	C1 CSC
200	Watch Appliance (Firewall)	199	3d	C1 CSC
201	Watch Appliance Hardware Shipping & Installation	200	5d	C1 CSC
202	Watch Appliance Testing	201	3d	C1 CSC
203	Configuration Watch Appliance to monitor systems	202	5d	C1 CSC
204	Cisco Contract Link Process		30d	
205	CCO contract & license link request	54	10d	C1 CSC
206	C1 linked to Cisco contracts	205	10d	C1 CSC
207	Test case opened	206	10d	C1 CSC
208	Solution Implementation		331d	
209	Establish Test Numbers		3d	
210	Determine Dialed Numbers for Remote Testing		1d	
211	Minnetonka	80	1d	Carrier Services
212	Philadelphia			Carrier Services
213	Configure Dialed Numbers and Integrate	210	1d	
214	Validate Functionality	213	1d	C1 Lead UC Engineer
215	Solution Installation		21d	C1 Lead UC Engineer
216	MISC		5d	
217	Auto Attendant WAV Files Recorded and Delivered to C1		5d	Speech Talent
218	CUBE		5d	C1 Lead UC Engineer
219	Gateways		5d	C1 Lead UC Engineer
220	Analog		5d	C1 Lead UC Engineer
221	Contact Center		15d	

ID	Task Name	Predecessors	Duration	Assigned To
222	Record WAV Files		3d	Speech Talent
223	Build Contact Center Scripts (Routing and Queuing)		10d	C1 CC Engineer
224	Test Contact Center Scripts	223	5d	C1 CC Engineer
225	CUIC Templates Loaded	223	1d	C1 CC Engineer
226	Milestone: Solution Installation Complete	221	1d	C1 PM
227	Solution Configuration		50d	
228	QoS		2d	
229	QoS Settings completed by Client	127	1d	Client
230	QoS configuration verified by ConvergeOne	229	1d	
231	Webex		7d	
232	Ship Spark Boards, DX80's		1d	C1
233	Secure client URL's from Cisco		1d	C1
234	Client Config		1d	C1 Lead UC Engineer
235	ConvergeOne Peer Review of Solution Configuration		43d	
236	Technology Peer Review for applicable Technologies		4d	Senior UC Engineer
237	If UCCE, Separate Visible and Private network configuration	234	4d	UC Team
238	Milestone: Solution Configuration Complete	235FF	1d	C1 PM
239	Close Implement phase and ensure documents loaded to C1 Repository	236	1d	
240	Validate Phase		31d	
269	Launch		43d	
270	Office Roll Out Plan		43d	
271	Phase 1—DATES TBD		43d	
272	Client Corporate Office		43d	
273	DID and TF Number Porting Worksheet returned to C1 and Carrier Source		1d	Client
274	Generate LOA and RespOrg form	273	2d	Carrier Source
275	LOA/Resporg Signed and Returned	274	2d	Client
276	Port Request Entered with Intellipeer	275	1d	Carrier Source
277	TF/Local Port Interval	276	35d	
278	User List Due (Workbook)	273	1d	Client Telecom
279	Call Flow Q&A Due	273	1d	Client Telecom
280	Call Flow Design Call	273	1d	C1 Lead UC Engineer
281	Call Flow Design Completed	280	3d	C1 Lead UC Engineer
282	Contact Center	226	1d	
283	Call Flow Design & User List Approved	226	1d	
284	Design Sign Off	226	1d	
285	Send Design Complete Cert to Client	226	1d	Client
286	Design Complete Cert signed and returned to C1	285	3d	C1 PM
287	Create IPT Test Plans	226	3d	
288	Ship Devices	276FS +10d	1d	C1
289	Location Build		3d	
290	Smart Hands Activities	288	3d	Smart Hands Vendor
291	Device/Call Flow Build	273	1d	C1 Lead UC Engineer
292	Contact Center (UCCX; CVP) config completed	273	1d	C1 CC Engineer
293	Agent List Completed	273	1d	Client
294	Agents Loaded	273	1d	C1 Contact Center Engineer
295	UAT	291	5d	Client
296	Validation Complete; Authorization to Go Live Cert Delivered to Clien	295	5d	C1 PM
297	Validation Complete; Authorization to Go Live Cert returned to C1	296	1d	Client
298	Stakeholder Go/No Go Review	296	1d	All
299	User Training	300FS -5d	2d	
300	Go Live	277	0	All
301	911 Configured	300	1d	
302	Issue Log Management/Resolution	300	1d	
303	Document Lessons Learned Log / Transition to Support	302	1d	

Lync_EUM_Masterv2

ID		% Complete	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1		0%		**Planning**	1 day?	**Mon 2/2/15**	**Mon 2/2/15**		
2		0%		Review & Sign-off on Plan	1 day?	Mon 2/2/15	Mon 2/2/15		C1 PM,SSFCU
3		0%		**Design**	16 days	Tue 2/3/15	Tue 2/24/15		
4		0%		**Skype for Business Infrastructure**	6 days	Tue 2/3/15	Tue 2/10/15		
5		0%		Design Meetings (workshops)	2 days	Tue 2/3/15	Wed 2/4/15	2	C1 Solution Architet,S
6		0%		Topology Diagram Delivered	1 day	Thu 2/5/15	Thu 2/5/15	5	C1 Solution Architet
7		0%		Prepare detailed design document	1 day	Fri 2/6/15	Fri 2/6/15	6	C1 Solution Architet
8		0%		Detailed Design Document Review & Complete	1 day	Mon 2/9/15	Mon 2/9/15	7	C1 Solution Architet,S
9		0%		Client Sign-off on Design	1 day	Tue 2/10/15	Tue 2/10/15	6,8	SSFCU
10		0%		**Procurement**	9 days	Thu 2/12/15	Tue 2/24/15		
11		0%		**SSFCU**	9 days	Thu 2/12/15	Tue 2/24/15		
12		0%		Identify HW required	2 days	Thu 2/12/15	Fri 2/13/15	9FS+1 day	SSFCU
13		0%		Order Hardware	2 days	Mon 2/16/15	Tue 2/17/15	12	SSFCU
14		0%		Hardware Delivered	2 days	Mon 2/23/15	Tue 2/24/15	13FS+3 days	SSFCU
15		0%		**Infrastructure Preparation**	6.63 days	Tue 2/10/15	Wed 2/18/15		
16		0%		Provide ConvergeOne with remote access	2 days	Wed 2/11/15	Thu 2/12/15	9	SSFCU
17		0%		Provide IP Worksheets to SSFCU	1 day	Tue 2/10/15	Thu 2/12/15	9SS	C1 Solution Architet
18		0%		Confirm Lync 2013 readiness for upgrade	2 days	Fri 2/13/15	Mon 2/16/15	9FS+2 days	C1 Engineer
19		0%		Lync Forest/Domain Preparation	2 days	Fri 2/13/15	Mon 2/16/15	18SS	C1 Engineer
20		0%		**Primary Site SQL Servers**	3 days	Wed 2/11/15	Fri 2/13/15		
21		0%		OS Build	1 day	Wed 2/11/15	Wed 2/11/15	9	SSFCU
22		0%		SQL Configuration	1 day	Thu 2/12/15	Fri 2/13/15	21	C1 Engineer,SSFCU
23		0%		**DR SQL Servers**	4 days	Thu 2/12/15	Tue 2/17/15		
24		0%		OS Build	2 days	Thu 2/12/15	Fri 2/13/15	22SS	SSFCU
25		0%		SQL Configuration	2 days	Mon 2/16/15	Tue 2/17/15	24	C1 Engineer,SSFCU
26		0%		**Deploy File share and enable DFS**	2 days	Wed 2/11/15	Thu 2/12/15	9	
27		0%		Primary Site	2 days	Wed 2/11/15	Thu 2/12/15		C1 Engineer,SSFCU
28		0%		DR Site	2 days	Wed 2/11/15	Thu 2/12/15		C1 Engineer,SSFCU
29		0%		Configure internal & external network ports	1 day	Wed 2/11/15	Tue 2/17/15	9	C1 Engineer,SSFCU
30		0%		Deploy internal & external DNS entries	0.88 days	Tue 2/17/15	Wed 2/18/15	29	SSFCU
31									
32		0%		**Server Implementation**	728.5 days?	Mon 7/30/12	Thu 5/14/15		
33		0%		**Lync Topology**	1 day	Tue 2/17/15	Tue 2/17/15		
36		0%		**Front End Servers**	684.32 days?	Mon 7/30/12	Fri 3/13/15		
37		0%		**Primary Site S4B Front-end Servers**	673.33 days	Mon 7/30/12	Thu 2/26/15		
38		0%		Virtual server delivered and ready with O/S build	1 day	Wed 2/25/15	Wed 2/25/15	14	SSFCU
39		0%		Install local configuration store	0.33 days	Thu 2/26/15	Thu 2/26/15	38	C1 Engineer
40		0%		Install S4B server components	0.33 days	Mon 7/30/12	Mon 7/30/12		C1 Engineer
41		0%		Configure Certificates for server	0.33 days	Thu 2/26/15	Thu 2/26/15	40	C1 Engineer
42		0%		**DR Site Lync Front-end Servers**	7.99 days	Thu 2/26/15	Tue 3/10/15	23	
43		0%		Virtual server delivered and ready with O/S build	1 day	Thu 2/26/15	Fri 2/27/15	41	SSFCU
44		0%		Install local configuration store	0.66 days	Fri 2/27/15	Tue 3/3/15	43	C1 Engineer

ID	i	% Complete	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
45		0%		Install Lync server components	0.66 days	Tue 3/3/15	Thu 3/5/15	44	C1 Engineer
46		0%		Configure Certificates for server	0.66 days	Thu 3/5/15	Tue 3/10/15	45	C1 Engineer
47		0%		Verify on production host & storage	1 day?	Tue 3/10/15	Wed 3/11/15		
48		0%		Primary Site	1 day?	Tue 3/10/15	Wed 3/11/15	42	C1 Engineer,SSFCU
49		0%		DR Site	1 day?	Tue 3/10/15	Wed 3/11/15	42	C1 Engineer,SSFCU
50		0%		Certify Environment (Testing)	2 days	Wed 3/11/15	Fri 3/13/15		
51		0%		Run best practice analyzer	1 day	Wed 3/11/15	Thu 3/12/15	49	C1 Engineer
52		0%		Verify client connectivity	1 day	Thu 3/12/15	Fri 3/13/15	49	C1 Engineer
53		0%		Lync Core deployed	0 days	Fri 3/13/15	Fri 3/13/15	52	
54		0%		Lync Edge Servers	12 days	Fri 3/13/15	Mon 3/30/15		
55		0%		Load Balancer& Reverse Proxy Configuration	3.68 days	Fri 3/13/15	Wed 3/18/15		
56		0%		Primary Site Load Balancer Ready	1 day	Fri 3/13/15	Mon 3/16/15	36	C1 Engineer,SSFCU
57		0%		DR Site Load Balancer Ready	1 day	Mon 3/16/15	Tue 3/17/15	56,14	C1 Engineer,SSFCU
58		0%		Configure Load Balancers for Reverse Proxy	2 days	Tue 3/17/15	Wed 3/18/15		
59		0%		Primary Site Load Balancer Ready	1 day	Tue 3/17/15	Tue 3/17/15		C1 Engineer,SSFCU
60		0%		DR Site Load Balancer Ready	2 days	Tue 3/17/15	Wed 3/18/15		C1 Engineer,SSFCU
61		0%		Firewall	1 day	Fri 3/13/15	Fri 3/13/15		
62		0%		Configure Firewall Rules	1 day	Fri 3/13/15	Fri 3/13/15		C1 Engineer,SSFCU
63		0%		Install Lync Edge Servers	2 days	Wed 3/18/15	Thu 3/19/15		
64		0%		Primary Site S4B Edge Servers Delivered with O/S Ready	2 days	Wed 3/18/15	Thu 3/19/15	53,59	SSFCU
65		0%		DR Site S4BE dge Servers Delivered with O/S Ready	2 days	Wed 3/18/15	Thu 3/19/15	53,59	SSFCU
66		0%		Install Lync Edge Role	2 days	Fri 3/20/15	Mon 3/23/15		
67		0%		Primary Site Edge Role	1 day	Fri 3/20/15	Mon 3/23/15	63	C1 Engineer
68		0%		Secondary Site Edge Role	0.5 days	Mon 3/23/15	Mon 3/23/15	67	C1 Engineer
69		0%		Public SAN certificates	2.5 days	Tue 3/24/15	Thu 3/26/15		
70		0%		Primary Site	2.5 days	Tue 3/24/15	Thu 3/26/15		
71		0%		Request for certificates made	0.5 days	Tue 3/24/15	Wed 3/25/15	66	C1 Engineer
72		0%		Certificates Delivered	0.5 days	Wed 3/25/15	Thu 3/26/15	71	SSFCU
73		0%		DR Site	0.5 days	Tue 3/24/15	Tue 3/24/15		
74		0%		Request for certificates made	0.25 days	Tue 3/24/15	Tue 3/24/15	66	C1 Engineer
75		0%		Certificates Delivered	0.25 days	Tue 3/24/15	Tue 3/24/15	74	SSFCU
76		0%		Configure Remote Access Policies	0.5 days	Thu 3/26/15	Thu 3/26/15	72,75	C1 Engineer
77		0%		Certify Lync Edge Servers (Testing)	2 days	Fri 3/27/15	Mon 3/30/15		
78		0%		Run best practice analyzer	1 day	Fri 3/27/15	Fri 3/27/15	76	C1 Engineer
79		0%		Verify client connectivity	1 day	Mon 3/30/15	Mon 3/30/15	78	C1 Engineer,SSFCU
80		0%		Session Manager Integration	6 days	Wed 3/25/15	Wed 4/1/15		
81		0%		Provide documentation SIP Integration	2 days	Wed 3/25/15	Thu 3/26/15		C1 Solution Architet
82		0%		Primary Site Configuration	2 days	Fri 3/27/15	Mon 3/30/15	81	C1 Engineer
83		0%		DR Site Configuration	2 days	Fri 3/27/15	Mon 3/30/15	82SS	C1 Engineer
84		0%		Deploy Gateways	1 day	Tue 3/31/15	Tue 3/31/15	83	C1 Engineer
85		0%		Gateway Testing	1 day	Wed 4/1/15	Wed 4/1/15	84	C1 Engineer
86		0%		Enterprise Voice	9 days	Thu 4/2/15	Tue 4/14/15		

Lync_EUM_Masterv2

ID	ⓘ	% Complete	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
87		0%		Configure Dial plan	2 days	Thu 4/2/15	Fri 4/3/15	80	
88		0%		Provide DID Ranges	1 day	Thu 4/2/15	Thu 4/2/15		
89	◆	0%		Configure DID Ranges	1 day	Thu 4/2/15	Thu 4/2/15		SSFCU
90		0%		Configure Normalization Rules	1 day	Fri 4/3/15	Fri 4/3/15	89	C1 Engineer
91	◆	0%		Test Normalization Rules	0.5 days	Thu 4/2/15	Thu 4/2/15		C1 Engineer
92		0%		Configure voice policy	2 days	Mon 4/6/15	Tue 4/7/15		C1 Engineer
93		0%		Define voice route	1 day	Mon 4/6/15	Mon 4/6/15	90	C1 Engineer
94		0%		Define PSTN usage	1 day	Tue 4/7/15	Tue 4/7/15	93	C1 Engineer
95		0%		Configure calling features	0.5 days	Wed 4/8/15	Wed 4/8/15	94	
96	●	0%		Setup call forwarding policies	0.5 days	Wed 4/8/15	Wed 4/8/15	95	C1 Engineer
97		0%		Advanced Enterprise Voice	4.5 days	Wed 4/8/15	Tue 4/14/15		
98	●	0%		Create Network Region	1 day	Wed 4/8/15	Wed 4/8/15	94	C1 Solution Architet,C
99	●	0%		Create Site	1 day	Wed 4/8/15	Wed 4/8/15	94	C1 Engineer,C1 Soluti
100	●	0%		Define subnets by location	2 days	Thu 4/9/15	Fri 4/10/15	99	C1 Engineer,C1 Soluti
101		0%		Configure QOS	1 day	Mon 4/13/15	Mon 4/13/15	100	
102	●	0%		Configure group policy for workstation	1 day	Mon 4/13/15	Mon 4/13/15		SSFCU
103	●	0%		Configure server port ranges	1 day	Mon 4/13/15	Mon 4/13/15		C1 Engineer
104	●	0%		Configure network QOS policy	1 day	Mon 4/13/15	Mon 4/13/15		SSFCU
105		0%		Configure SQL reporting services	0.5 days	Tue 4/14/15	Tue 4/14/15	101	C1 Engineer
106		0%		Enterprise Voice-Certify Environment (Testing)	1 day	Tue 4/14/15	Tue 4/14/15		
107		0%		Run best practice analyzer	1 day	Tue 4/14/15	Tue 4/14/15		
108	●	0%		Verify client connectivity	1 day	Tue 4/14/15	Tue 4/14/15	104	C1 Engineer
109		0%		Deploy Conferencing	3 days	Wed 4/15/15	Fri 4/17/15		
110	●	0%		Configure dial-in conference number	0.5 days	Wed 4/15/15	Wed 4/15/15	108	C1 Engineer
111		0%		Configure Conference Policies	0.5 days	Wed 4/15/15	Wed 4/15/15	110	C1 Engineer
112		0%		Deploy Office WAP servers	2 days	Thu 4/16/15	Fri 4/17/15		
113	●	0%		Primary Site Office Webapp Server Delivered with O/S Ready	2 days	Thu 4/16/15	Fri 4/17/15	111	C1 Engineer
114	●	0%		DR Site Office Webapp Server Delivered with O/S Ready	0.5 days	Thu 4/16/15	Thu 4/16/15	111	C1 Engineer
115		0%		Install Office webapp	0.5 days	Thu 4/16/15	Thu 4/16/15	114	C1 Engineer
116		0%		Certify Conferencing environment (Testing)	1 day	Fri 4/17/15	Fri 4/17/15		
117	●	0%		Test internal conference participation	0.5 days	Fri 4/17/15	Fri 4/17/15	115	C1 Engineer,SSFCU
118	●	0%		Test external conference participation	0.5 days	Fri 4/17/15	Fri 4/17/15	117	C1 Engineer,SSFCU
119		0%		Configure Exchange UM	3 days	Mon 4/20/15	Wed 4/22/15		
120		0%		Deploy Exchange UM role on existing servers	1 day	Mon 4/20/15	Mon 4/20/15	118	C1 Engineer,SSFCU
121		0%		Integrate exchange UM with Skype for Business	1 day	Tue 4/21/15	Tue 4/21/15	120	C1 Engineer
122		0%		Exchange UM Testing	1 day	Wed 4/22/15	Wed 4/22/15	121	C1 Engineer
123		0%		Deploy Mobility	1.5 days	Thu 4/23/15	Fri 4/24/15		
124	●	0%		Configure mobility push notifications	0.5 days	Thu 4/23/15	Thu 4/23/15	122	C1 Engineer
125		0%		Certify mobility deployment	1 day	Thu 4/23/15	Fri 4/24/15		
126	●	0%		Test Android Device	0.34 days	Thu 4/23/15	Thu 4/23/15	124	C1 Engineer,SSFCU
127	●	0%		Test iPhone Device	0.33 days	Thu 4/23/15	Fri 4/24/15	126	C1 Engineer,SSFCU
128		0%		Test Windows Phone	0.33 days	Fri 4/24/15	Fri 4/24/15	127	C1 Engineer,SSFCU

Lync_EUM_Masterv2

ID	ℹ	% Complete	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
129		0%		**Lync 2013 to S4B Migration**	25.5 days	**Thu 4/9/15**	**Thu 5/14/15**		
130		0%		Define user classification for user migration	5 days	Thu 4/9/15	Thu 4/16/15	131SF-5 days	C1 Engineer,SSFCU
131		0%		Migrate pilot users to Skype for Business	0.5 days	Thu 4/23/15	Thu 4/23/15	122	C1 Engineer
132		0%		Migrate all users to Skype for Business	1 day	Mon 5/4/15	Mon 5/4/15	122FS+7 days	C1 Engineer
133		0%		Migrate Central Management Store	0.5 days	Tue 5/5/15	Tue 5/5/15	132	C1 Engineer
134		0%		Decommission Lync 2013 environment	2 days	Tue 5/12/15	Thu 5/14/15	133FS+5 days	C1 Engineer
135		**0%**		**Training**	3 days	**Fri 4/24/15**	**Wed 4/29/15**	128	
136		0%		Train the Trainer Sessions	1 day	Fri 4/24/15	Mon 4/27/15		C1 Trainer,SSFCU
137		0%		Admin Training	2 days	Mon 4/27/15	Wed 4/29/15	136	C1 Engineer,C1 Traine

Brochure

Contents

Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information

Cisco IP Phone Portfolio

Brochure

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Brochure

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

Contents

Leading the Way in Collaboration   The Right IP Phone Series For Your Business?   Which Cisco IP Phone Series Is Right For You?

Introduction

Leading the Way in Collaboration

Cisco® IP Phones empower your business with a new collaboration experience that connects you with the right people, with the right information at the right time, so you can accelerate team performance and maximize your business results.

Effective collaborative experiences among individuals and teams can help you:

- Harness the power of your busy professional staff by enabling them to collaborate confidently with customers, partners, colleagues, and suppliers.

- Maximize interaction with subject-matter experts (SMEs) by taking advantage of pervasive presence, team space escalation to calling and conferencing capabilities.

- Transform your business processes and reduce costs with interactive high-quality, business grade high-definition video communications.

- Get access to optional third-party endpoint applications and accessories to innovate new workflows.

Cisco began developing voice over IP (VoIP) communications and collaboration solutions in 1997 and has provided them longer than any other vendor in the industry. According to Synergy Research, Cisco is the number one overall voice and video communications equipment vendor in the world and the leader in most unified communications categories, including conferencing and voice messaging. Cisco leads the unified communications and collaboration market with:

- **More unified communications installations:** Cisco has more than 100,000 unified communications customers worldwide.

- **More IP endpoints:** Cisco has shipped 2.5 times more IP phones worldwide than its nearest competitor[1].

- **Competitive advantage:** More than 95 percent of Fortune 500 companies now use Cisco Collaboration Solutions to build competitive advantage.

In today's 24x7 global economy, your business must meet the needs of a wide range of users who can have different communications styles and preferences for how they conduct their work. Today's workforce is more geographically dispersed, spanning different time zones, which enable collaboration beyond traditional work hours. Use of conferencing is growing exponentially. Virtual team spaces, with the ability to escalate member exchanges to calling within the space, are becoming increasingly important to efficiently and effectively collaborate. Cisco IP Phones support these advanced forms of collaboration. Yet, media reports continue to postulate that the death of the desk phone has arrived.

[1] Source: Cisco Systems from Synergy Research reports for CY 2016.

Contents

Leading the Way in Collaboration   **The Right IP Phone Series For Your Business?**   Which Cisco IP Phone Series Is Right For You?

Surveys of actual users suggest this is far from the case. In fact, survey research of 505 knowledge workers published by CIO Online[2] indicated that 74% of professionals prefer to make calls from a desk phone often to very often and 65% preferred to take their business calls on a desk phone.

Thus, continued desktop investment to deliver simpler, more comprehensive, integrated and ultimately, more productive collaborative experiences should continue to be a business priority.

This brochure provides you with an overview of each Cisco IP Phone model to help in making your desktop investment decisions. Determining which Cisco IP phones would be the best fit for your organization and how they can help you maximize your return on investment for your business.

The Cisco IP Phone portfolio includes an impressive range of user-friendly, full-featured VoIP and HD video phones that can meet the needs of your entire organization, including:

- The company lobby to the desk of your busiest managers
- The hospital, retail or manufacturing floor to the executive suite
- The home office
- The campus mobile worker
- A branch-office site to a corporate headquarters

The Right IP Phone Series For Your Business

This brochure is designed to help you understand the different capabilities of the Cisco IP Phone portfolio, which include:

- Affordable, occasional-use and specialty VoIP communications:
  - Cisco Unified SIP Phone 3900 Series and Cisco Unified IP Phones 6900 Series
- General business VoIP communications:
  - Cisco IP Phone 7800 Series and Cisco Unified IP Phones 7900 Series
- Advanced HD video, VoIP and mobile communications
  - Cisco IP Phone 8800 Series
- Multiplatform Phones for third-party UC-as-a-Service Partners
- Multimedia applications for Cisco IP Phones
- Analog telephone adaptors and accessories

Whether you are new to the Cisco IP Phone portfolio, or are an existing customer having purchased Cisco phones before, Table 1 can assist you in where best to direct your future IP Phone investment.

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[2] CIO Online, "Is the Desk Phone Obsolete?" October 15, 2015.

Leading the Way in Collaboration   The Right IP Phone Series For Your Business?   **Which Cisco IP Phone Series Is Right For You?**

Which Cisco IP Phone Series Is Right For You?

Table 1.   Which Cisco IP Phone Series Is Right For You?

Use Case/Key Attribute	3900 Series	6900 Series	7800 Series	7900 Series	8800 Series
Occasional Use (Common Areas)	✓	✓	✓		
Knowledge Workers (On-Campus)			✓	✓	✓
Knowledge Workers (Remote)			✓		
Manager/Executives/Administrative Staff/Receptionists			✓	✓	✓
In-Campus Mobile Workers					✓
Conference Rooms			✓		✓
Hospitality Guest Rooms		✓	✓		
HD Video Collaboration					✓
Bluetooth (mobile device integration, 3rd-party headsets)					✓
High-Resolution Color Displays					✓
Gigabit Ethernet Switch Ports (for co-located PC)				✓	✓
Cloud Deployable (Cisco Spark)			✓	✓	✓
Latest Security Enhancements			✓		✓
Reduced Power Consumption (POE Class)	✓	✓	✓		

The remainder of this brochure addresses each IP Phone Series shown above and provides further details on the attributes and benefits of each phone model within a given series.

For a detailed specification comparison of each IP Phone model, please refer to the Collaboration Endpoint matrix that is available for download on the Cisco website.

The Cisco Collaboration Endpoint Team

Contents < 🏠 >

3900 Series

Figure 1. Compact, Simple, Single-Line Analog Replacement

Cisco Unified SIP Phone 3900 Series

☑ Enlarge

Occasional-Use VoIP Communications

The Cisco Unified SIP Phone 3900 Series is an entry-level VoIP endpoint that delivers basic telephony features at a very affordable price. The 3900 Series is fully localized for use around the world and well-suited for settings with occasional needs for VoIP communications, such as:

- Lobbies
- Classrooms
- Laboratories
- Hallways

It can also be used by knowledge workers at the desk who have occasional voice communications needs.

Cisco Unified SIP Phone 3905

The single-line Cisco Unified SIP Phone 3905 is an affordable, entry-level VoIP endpoint designed to grow with your organization (Figure 1).

A monochrome display supports caller ID, call history, and phone information to enhance its user experience. The 3905 is compact, can be wall-mounted, and includes a traditional handset and a standard 12-digit dial pad. A 2-way navigation button with a select key enables users to navigate up and down menus and text that is presented on the display.

IT administrators will find the Cisco Unified SIP Phone 3905 easy and less costly to administer, install, and maintain. It comes standard with an integrated Ethernet switch to support a co-located PC at a desk. Thus, it can be an option for customers seeking to deploy it at a desk for users with light voice communications needs. The phone reduces both cabling at the desk and initial installation costs.

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Brochure

Contents

| Introduction | **Cisco SIP Phones 3900 Series** | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

3900 Series

The Cisco Unified SIP Phone 3905 includes the following features:

- Full-duplex speakerphone for 2-way conversations
- Built-in IEEE 10/100 switch to reduce desktop clutter and installation costs for desktop deployments
- Support for 2 concurrent calls per line with a busy trigger
- Graphical monochrome 2-line display
- Message-waiting indicator (MWI) light
- Volume control rocker
- Fixed feature keys for one-touch access to redial, transfer, hold/resume, mute, and speakerphone
- Single-fold foot stand for optimal viewing and comfortable use of keys

The Cisco SIP Phone 3905 can be the ideal solution for:

- Occasional-to-light, cost-effective voice communications
- Deployments where a headset is not required
- Settings where basic telephony feature capabilities meet your needs
- Common areas like lobbies, cafeterias and conference centers where a basic level of endpoint security is sufficient given their less frequent use

Brochure

Contents

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

Specialty-Use VoIP Communications   For Specialty-Use Settings

6900 Series

Figure 2. Compact, Eco-Friendly, and Cost-Effective

Cisco Unified

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Specialty-Use VoIP Communications

Cisco Unified IP Phones 6900 Series The affordable Cisco Unified IP Phone 6900 Series delivers cost-effective VoIP communication services for specialty, occasional-use settings. It offers a very sleek, trim, and Earth-friendly, ergonomic design.

For Specialty-Use Settings

Cisco Unified IP Phone 6901

The single-line Cisco Unified IP Phone 6901 (Figure 2) is an entry-level endpoint that is ideal for occasional-use, specialty settings such as:

- Lobbies
- Cafeterias
- Hallways
- Elevators
- Conference centers
- Hotel and motel guestrooms

The Cisco Unified IP Phone 6901 delivers a simple, intuitive user experience that includes:

- Fixed keys for hold, redial, and call waiting
- Message-waiting and incoming-call indication LEDs on its handset
- Two concurrent incoming calls when using the call-waiting feature
- Transfer and conference capabilities through a hook switch (users simply tap the hook switch to transfer a call)
- Easy viewing angles on desks using a folding foot stand
- Option for wall-mounting with third-party wall-mount plates
- Seven user-adjustable ringtones

Brochure

Contents

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

General Business VoIP Communications   User Profiles for IP Phone 7800 Series   For Light-Use VoIP Communications   Light-to-Moderate Use VoIP Communications
Moderate-to-Active Use VoIP Communications   Highly Active-Use VoIP Communications   Affordable VoIP for Small Conference Rooms

7800 Series

Figure 3. Cost-Effective, High-Quality, Secure Voice Communications

IP Phone 7800 Series

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˅ IP Conference Phone 7832 in white available CYQ3 2017.

General Business VoIP Communications

The Cisco IP Phone 7800 Series (Figure 3) delivers affordable, high-fidelity and secure Session Initiation Protocol (SIP)-based VoIP communications to help make your employees more productive in their day-to-day interactions and advance your business goals. Along with the Cisco IP Phone 8800 Series, they deliver the best audio experience Cisco has delivered in an IP Phone to date, with state-of-art technology enhancements to both speaker and microphone.

The Cisco IP Phone 7800 Series is an ideal cost-effective solution for small-to-large companies. If you have older analog and digital telephony desk phones today and wish to migrate to Cisco Unified Communications, then the 7800 Series could be your phones of choice. In addition, Cisco customers who wish to expand or update their investment in VoIP communications endpoints can also consider this series.

All models of the Cisco IP Phone 7800 Series support the latest security enhancements, including Secure Hash Algorithm 2 (SHA-2) and Transport Layer Security 1.2 for encrypting communications to help protect the intellectual property of your business. You can read more about security enhancements for the Cisco IP Phone 7800 Series in the IP Phone 7800 and IP Phone 8800 Series Security Whitepaper found here on Cisco.com: https://www.cisco.com/c/en/us/products/collaboration-endpoints/unified-ip-phone-8800-series/white-paper-listing.html

The 7800 Series also supports investment protection for your desktop endpoint investment, should you be evaluating migration from Cisco on-premises infrastructures to cloud delivery, now or in the future. Whether on-premises, with support from Cisco Business Edition (BE), Cisco Unified Communications Manager (CUCM) and Hosted Collaboration Solution (HCS) infrastructures, or cloud delivery with Cisco Spark™ which brings together calling, messaging and meeting services, the Cisco IP Phone 7800 Series can address your deployment needs. The endpoints in this series can even be redeployed, across these options, should your strategy or business needs change making them a very flexible investment choice!

7800 Series

Figure 4. Reliable, Secure, Comprehensive VoIP

IP Phone 7821

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Even customers with investment in select, Cisco pre-approved, third-party Unified Communications-as-a-Service platforms (UCaaS) can take advantage of the IP Phone 7800 Series as multiplatform phones that run on unique factory-loaded Session Initiation Protocol (SIP) software[3-4].

The IP Phone 7800 Series, along with the 8800 Series described later in this brochure, are the best audio-performing IP phones Cisco has ever delivered since it started making IP Phones in the late 1990's. Wideband audio (G.722) comes standard with the multi-line models and an audio conference phone, while an optional wideband handset is available with the single-line desk phone model. The 7800 Series hardware has been enhanced for higher performance with echo cancellation, meeting European Telecommunications Standards Institute (ETSI) compliance. In addition, vibration isolation of the hardware has been applied to both speakers and microphones, resulting in a higher-quality communications experience than has been delivered before.

The 7800 Series enables you to easily and securely connect to the Cisco network even when you are remote. For example, if you were a full-time teleworker. Cisco Expressway, which resides at the edge of your network, enables you to connect remote workers without need for dedicated VPN hardware or a VPN client for the 7800 Series phone. With Cisco Expressway, it's easier for your remote workers to get up and running quickly (i.e., "time-to-live"), while reducing your IT administration costs.

The IP Phone 7800 Series introduces 5 models to the portfolio. The models range in their support, from a single line model for users with light voice communications needs to a 16-line model for highly active users of VoIP communications. There is also an audio conference phone which supports small conference/huddle rooms up to 6 people.

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[3] Contact your Cisco representative to inquire about the latest third party UCaaS providers who have certified the Cisco IP Phone 7800 Series on their platforms. As of June 2017, the providers who have certified include Asterisk, BroadSoft and Centile. Customers should note that telephony features may vary by platform vendor and are encouraged to engage your vendor of choice to determine supported features with the IP Phone 7800 Series and if these features meet your business needs.

[4] Support is provided on the 7811, 7821, 7841 and 7861 models.

General Business VoIP Communications   User Profiles for IP Phone 7800 Series   For Light-Use VoIP Communications   Light-to-Moderate Use VoIP Communications
Moderate-to-Active Use VoIP Communications   Highly Active-Use VoIP Communications   Affordable VoIP for Small Conference Rooms

7800 Series

Figure 5. High-Fidelity, Crystal-Clear Audio Quality

IP Phon

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The IP Phone 7800 Series models offer the following user features and capabilities as standard:

- High-fidelity audio (i.e., G.722 wideband) through speaker, handset, and headset for crystal-clear audio quality and performance on most desk phone models
- 360-degree handsfree high-fidelity audio for small conference rooms (7832 model)
- Grayscale, high-resolution liquid crystal displays on most models for easy viewing at a glance
- Fixed keys for common telephony features such as conference, transfer, hold/resume, directory, and services plus 2-way navigation button on most models
- Single- and 2-position foot stands to optimize viewing angles under varied lighting conditions (desk phone model dependent)
- Programmable line/feature keys for flexibility in assigning lines or features, such as speed dials (number varies by desk phone model)
- Tricolor LEDs on programmable line keys for call-status notification at a glance on most desk phone models
- Single- and multiple-call-per-line capability, delivering more powerful and flexible call navigation and session management (desk phone models)
- Four context-sensitive programmable soft keys for more dynamic feature interaction and enhanced user experience

- Full-duplex speakerphone, increasing personal productivity when engaged in multiparty conversations
- Electronic hook switch for enhanced call management (initiate, answer, end, and mute calls) through third-party headsets by using IP Phone 7800 Series auxiliary ports (most models)
- Color options of charcoal and white available on most models

The IP Phone 7800 Series models offer the following administrative features and capabilities as standard:

- Support for "VPN-less" connectivity with Cisco Expressway
- IEEE-integrated switches to reduce costs of infrastructure to the desk by routing PC traffic through the 7800 Series endpoint on most models (speed varies by desk phone model)
- Low power consumption as IEEE Power over Ethernet (PoE) Class 1 devices on desk phone models
- Power-save option on all models that can reduce power consumption, in off hours, up to 60 percent versus the phone in idle state with Cisco EnergyWise™ technology
- Text-based third-party Extensible Markup Language (XML) applications from Cisco vendor partners
- Latest security enhancements, including Secure Hash Algorithm 2 (SHA-2) and Transport Layer Security 1.2 for encrypted communications

General Business VoIP Communications   **User Profiles for IP Phone 7800 Series**   For Light-Use VoIP Communications   Light-to-Moderate Use VoIP Communications
Moderate-to-Active Use VoIP Communications   Highly Active–Use VoIP Communications   Affordable VoIP for Small Conference Rooms

7800 Series

Figure 6. Eco-Friendly with Low Power Consumption

IP Phone 786

☑ Enlarge

Optional features of the Cisco IP Phone 7800 Series include:

- **Wall-mount kit:** Kits are available for each desk phone model (orderable separately)

- **Bezel customization:** You can replace the standard black bezel with a silver bezel (all models except 7811, 7832)

- **Third-party UCaaS partner offers:** The 7800 Series, with its SIP interoperability and standalone software, can be deployed on third-party, Cisco approved UCaaS solutions for customers with investments in the following call-control platforms: Asterisk, Broadsoft and Centile. Consult your Cisco representative for platform support updates or send an email to 3pcc-7800-8800@external.cisco.com.

User Profiles for IP Phone 7800 Series

InfoWorker
(7811, 7821, 7841)

Manager/Executive
Administrative Staff
(7841, 7861, 7832)

Teleworker
(7811, 7821, 7841)

Small Conference and
Huddle Rooms
(7832)

Deskless Worker
(7811, 7821, 7841, 7861)

Customer Care
(7861)

7800 Series

Figure 7. For Light Voice Communication Needs

IP Phone 7811 in Charcoal

🗒 Enlarge

For Light-Use VoIP Communications

Cisco IP Phone 7811

The single-line Cisco IP Phone 7811 (Figure 7) is ideal for information workers and teleworkers with light VoIP communication needs.

It delivers a high-quality narrowband audio experience as standard. A wideband handset is available as an option for customers who wish to enhance their audio experience across the range of highs to lows in audio.

The 7811 comes with an IEEE 10/100 integrated switch to support a co-located PC.

The display is 3.28-inch (8.3 cm) monochrome.

A wall-mount kit is optionally available for the 7811 to support spaces without a desk or where desk space is limited.

The 7811 is available in charcoal and comes with a single-position footstand.

Text-based Extensible Markup Language (XML) and Computer Telephony Integration (CTI) applications are supported.

The 7811 supports the latest security enhancements, including Secure Hash Algorithm 2 (SHA-2) and Transport Layer Security 1.2.

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

7800 Series

Figure 8. For Light-to-Moderate Voice Communications

Cisco IP Phone 7821 in Charcoal and White

📝 Enlarge

Light-to-Moderate Use VoIP Communications

Cisco IP Phone 7821

The 2-line Cisco IP Phone 7821 (Figure 8) is an ideal choice for information workers and teleworkers. It is well-suited for users who have light-to-moderate VoIP communications needs.

The 7821 has a 3.5-inch (8.9 cm) graphical, grayscale, 396 x 162 pixel-based display and is backlit.

It comes standard with an IEEE 10/100 integrated switch to support the traffic from a co-located PC.

The 2-programmable line/feature keys feature tri-color LEDs that provide call status notification at a glance.

The 7821 supports the latest security enhancements, including Secure Hash Algorithm 2 (SHA-2) and Transport Layer Security 1.2

As options, a wall-mount kit is available for the 7821 for areas without desks or where desk space is limited. A replaceable silver bezel is also available for customers who wish to change out the black that comes standard with the endpoint.

The 7821 is available in charcoal and white. It comes with a 2-position footstand.

Brochure

Contents ‹ 🏠 ›

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

7800 Series

Figure 9. For Moderately-Active Users

Cisco IP Phone 7841 in Charcoal and White

☑ Enlarge

Moderate-to-Active Use VoIP Communications

Cisco IP Phone 7841

The 4-line Cisco IP Phone 7841 (Figure 9) is an ideal endpoint for moderately active voice users. It is well suited for knowledge workers, administrative staff, managers, customer care agents, and supervisors who have moderate-to-active VoIP communications needs.

The 7841 has a 3.5-inch (8.9 cm) graphical, grayscale, 396 x 162 pixel-based display and is backlit.

The 4-programmable line/feature keys feature tricolor LEDs that provide call-status notification at a glance.

The 4-programmable line/feature keys come with tricolor LEDs to see call status at a glance.

The Cisco IP Phone 7841 also comes standard with an IEEE PoE 10/100/1000 switch (Gigabit Ethernet) that supports the traffic from a collocated PC.

The 7841 supports the latest security enhancements, including Secure Hash Algorithm 2 (SHA-2) and Transport Layer Security 1.2.

As options, a wall-mount kit for the 7841 is available for areas without desks or where desk space is limited. A replaceable silver bezel is also available for customers who wish to change out the black that comes standard with the endpoint.

The 7841 is available in charcoal and white. It comes with a 2-position footstand.

7800 Series

Figure 10. For Highly-Active Users

Cisco IP Phone 7861 in Charcoal and White

Enlarge

Highly Active-Use VoIP Communications

Cisco IP Phone 7861

The 16-line Cisco IP Phone 7861 (Figure 10) is designed for employees with active VoIP communications needs. It is well suited for administrative staff, managers, customer care agents, and supervisors.

The 7861 has a 3.5-inch (89 mm) graphical, grayscale, 396 x 162 pixel-based display and is backlit.

The 16-programmable line/feature keys offer tricolor LEDs to provide call-status identification at a glance.

An integrated IEEE 10/100 Ethernet switch supports the traffic from a co-located PC.

The Cisco IP Phone 7861 also includes a customizable, paper-label insert that can be locally printed for one-touch access to staff you contact frequently or other communications features. A clear film strip protects the paper label from dirt, spills, etc.

The 7861 supports the latest security enhancements, including Secure Hash Algorithm 2 (SHA-2) and Transport Layer Security 1.2.

As options, a wall-mount kit for the 7861 is available for areas without desks or where desk space is limited. A replaceable silver bezel is also available for customers who wish to change out the black that comes standard with the endpoint.

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

General Business VoIP Communications   User Profiles for IP Phone 7800 Series   For Light-Use VoIP Communications   Light-to-Moderate Use VoIP Communications
Moderate-to-Active Use VoIP Communications   **Highly Active-Use VoIP Communications**   Affordable VoIP for Small Conference Rooms

7800 Series

Table 2. Cisco IP Phone 7800 Series Key Features At-a-Glance

	7811	7821	7841	7861
Display	384 x 106 pixel-based, graphical monochrome display	396 x 162 pixel-based, graphical monochrome display with white backlight	396 x 162 pixel-based, graphical monochrome display with white backlight	396 x 162 pixel-based graphical monochrome display with white backlight
Wideband Audio	Optional	✓	✓	✓
Integrated HD Video	No	No	No	No
Programmable Line Keys	0	2	4	16
Ethernet Switch	10/100	10/100	10/100/1000	10/100
Headset Port	N/A	✓	✓	✓
Full Duplex Speakerphone	✓ (Narrowband)	✓	✓	✓
Wall Mountable	✓	✓	✓	✓

7800 Series

Figure 11. For Small Conference Rooms

Cisco IP Conference Phone 7832 in Charcoal*

☑ Enlarge

Affordable VoIP for Small Conference Rooms

Cisco IP Conference Phone 7832

New to the IP Phone 7800 Series is the introduction of an audio conference phone which is ideal for your small conference/huddle rooms and private office desks. The IP Conference Phone 7832 (Figure 11) meets the needs of rooms up to 172 sq. feet (16 sq. meters) or up to 6 participants.

The 7832 features a sleek, contemporary design with delivery of powerful audio performance. It offers 360-degree hands-free VoIP communications with a microphone pickup range of 7ft (213 cm).

Users with 7800 Series phones will find the experience easy-to-use, as menus and navigation are common with the series' desk phones. In turn, administratively it shares the same phone software as the 7800 Series desk phone models, reducing project management and user training costs for corporate IT.

The 7832 supports Cisco EnergyWise for reduced power consumption in-off work hours. It is an IEEE Power over Ethernet Class 2 endpoint.

The 7832 is deployable in the cloud with Cisco Spark and as of CYQ3 2017, will also support mid-size to large enterprises on-premises.

It is also available in support of Cisco approved UCaaS partner offers as a multiplatform phone.

* 7832 in white available CYQ3 2017.

General Business VoIP Communications   User Profiles for IP Phone 7800 Series   For Light-Use VoIP Communications   Light-to-Moderate Use VoIP Communications

Moderate-to-Active Use VoIP Communications   Highly Active-Use VoIP Communications   **Affordable VoIP for Small Conference Rooms**

7800 Series

360-degree room coverage with full duplex wideband audio speaker and microphone

3.5-inch (8.9 cm) monochrome, backlit, anti-glare 384 x 128 pixel display.

Up to 7ft (217 cm) microphone pickup.

Large mute button makes for easy accessibility from all sides of the endpoint.

Raised edges ease handling and repositioning on the desk.

IEEE 10/100 network port supports Power of Ethernet (Class 2)

Cisco EnergyWise™ for reduced power consumption in off-work hours

Two color options (charcoal and white)

To compare additional technical specifications across all IP Phone 7800 Series models, consult our online Collaboration Endpoint Matrix on Cisco.com.

General Business VoIP Communications

General Business Voice-focused Endpoints

7900 Series

Figure 12. Large Display Screens, Rich Graphics, More Information

IP Phone 7900 Series

Enlarge

General Business VoIP Communications

Cisco Unified IP Phones 7900 Series

If your business requires business-grade voice communications with access to color displays, Gigabit Ethernet and support for third-party endpoint XML-based applications, the Cisco IP Phone 7900 Series address these needs. The 7900 Series supports knowledge workers, administrative staff, managers, and executives with general business VoIP communication at the desk.

The Cisco IP Phone 7900 Series (Figure 12) deliver these capabilities and enhance productivity with support for multiple call-per-line appearance. With multiple-call-per-line appearance, you can take advantage of more sophisticated call navigation capabilities with support for multiple call sessions on a per-line basis. As a simple example, on a 2-line endpoint, you could be on an active call and navigate to pick up a second incoming call on the same line, while the first call is automatically placed on hold. You can then switch back and forth between these two call sessions as required. This capability offers your organization sophisticated and powerful communication options that are not typically available from traditional telephony or hybrid systems.

Businesses that integrate custom and ready-to-use IP endpoint applications into their IP phones can:

- Reduce operating and administration costs.
- Increase revenue.
- Improve employee productivity.
- Enhance customer satisfaction and loyalty.
- Transform business processes.

CISCO

Brochure

Contents

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | **Cisco IP Phones 7900 Series** | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

General Business VoIP Communications   General Business Voice-focused Endpoints

7900 Series

Figure 13. High-Definition Audio, Rich Display Experience, High-Speed Connectivity

IP Phone 7945G, 7965G, and 7975G

☑ Enlarge
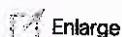
General Business Voice-focused Endpoints

Cisco IP Phone 7945G, 7965G, and 7975 Endpoints

These endpoints (Figure 13) come standard with speakerphones and handsets to support G.722 wideband audio. An expanded application suite includes support for XML text and graphical applications. All support Gigabit Ethernet- integrated switches to reduce cabling at the desktop and installation costs. The 7945, 7965, and 7975 support backlit color displays.

The Cisco IP Phone 7945G includes the following capabilities:

- Two programmable backlit line/feature keys for quick access to communications
- A 5-inch (12.7 cm), backlit, high-resolution, 320- x 240-pixel graphical color display
- Wideband audio support on headset, handset, and full-duplex speakerphone
- Integrated IEEE 10/100/1000 switch ports, which support the switching of multimedia traffic from a co-located PC
- Four-way navigation cluster plus a select key, which allow you to scroll vertically and horizontally when navigating menus and directories

The Cisco IP Phone 7965G includes the following capabilities:

- Six programmable backlit line/feature keys for quick access to communications
- A 5-inch (12.7 cm), backlit, high-resolution, 320- x 240-pixel graphical color display
- Wideband audio support for headset, handset, and full-duplex speakerphone
- Integrated IEEE 10/100/1000 switch to support switching of traffic from a co-located PC
- Four-way navigation cluster plus a select key, which allow you to scroll vertically and horizontally when navigating menus and directories
- Optional 7916 Key Expansion Module for additional programmable line/feature key support

The Cisco IP Phone 7975G builds on the features of the 7965G with:

- Eight programmable backlit line/feature keys for quick access to communications
- A 5.6-inch (14.2 cm), high-resolution, 320- x 240-pixel graphical color display with touchscreen
- Optional 7916 Key Expansion Module for additional programmable line/feature key support

CISCO.

Brochure

Contents

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | **Cisco IP Phones 7900 Series** | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

General Business VoIP Communications   General Business Voice-focused Endpoints

7900 Series

Figure 14. Scalable, Maximized Call Coverage, Personalized Communications

IP Phone Expansion Module 7916 with IP Phone 7975

Enlarge

With optional 7916 key expansion modules (Figure 14), you can monitor and manage call status with additional buttons and an LCD screen to aid your organization in increasing responsiveness with a more personalized touch. In addition, keys on the modules can be programmed by IT to support one-click access to staff, making the calling experience far simpler for administrative staff and executives.

Table 3. Cisco Unified IP Phone 7900 Series Key Feature Comparison (desk phones)

	7945G	7965G	7975G
Base number of	2	6	8
Audio performance	Wideband	Wideband	Wideband
Power class	3	3	3
Display and pixels	5.0 in. (12.7 cm) color/320 x 240	5.0 in. (12.7 cm) color	5.6 in. color/320 x 240
USB port (for headsets)	No	No	No
Bluetooth (for headsets)	No	No	No
802.11 Wi-Fi	No	No	No
Cisco® Intelligent Proximity	No	No	No
Integrated switch	10/100/1000	10/100/1000	10/100/1000
USB charging	No	No	No
XML Applications	Text and Graphical	Text and Graphical	Text and Graphical
KEM support (7916)	No	Yes (2)	Yes (2)

Wish to compare additional key technical specifications across all Cisco Unified IP Phone 7900 Series models or all Cisco IP phones? Consult our Endpoint Matrix online: https://www.cisco.com/c/dam/en/us/solutions/collateral/business-video/business-video/endpoint-product-matrix.pdf.

Next-Generation Video and Voice Communications

Next-Generation Video and Voice Communications

Cisco IP Phone 8800 Series

The Cisco IP Phone 8800 Series (Figure 15) is the advanced endpoint portfolio that delivers ease of use with superior performance. With the IP Phone 8800 Series, your business can benefit from cost-effective, reliable, secure, and scalable high-definition voice over IP (VoIP) communications. On select models, you can also get:

- Affordable entry to 720p high-definition (HD) video communications to video-enable your entire organization.
- Telephony feature integration support with Cisco's Intelligent Proximity for Mobile Voice when using personal mobile devices
- In-campus mobile communications within wireless LAN (WLAN) networks for workers in more rigorous, industrialized work settings.
- High-performance audio conferencing for small-to-large conference rooms up to 1140 square feet (106 square meters) and up to 42 participants in the room.
- Escalate Cisco Spark™ member exchanges, within Spark virtual team rooms, to Spark voice or video calls
- Choice of two user experience modes for call handling and navigation (IT configured)

Nine models are available with the IP Phone 8800 Series that range in their support to address the needs of knowledge workers, managers, executives and customer care staff. Specialty deployments are supported for audio conference rooms and in-campus mobile workers in rigorous work environments. The 8800 Series includes desk phone models 8811, 8841, 8845, 8851, 8861, 8865. Specialty models include IP Conference Phone 8832 for executive offices and midsized-to-large conference rooms, and the 8821 and 8821-EX for in-campus mobile workers. The 8845 and 8865 support entry to 720p HD video.

Figure 15. Next-Generation Video, Voice and In-Campus Mobile Communications for Today's Workforce

Cisco IP Phone 8800 Series in Charcoal and White

☑ Enlarge

* IP Conference Phone 8832, IP Phone 8851/8861 and IP Phone 8865 Key Expansion Modules not shown. Available CYQ3 2017 in select markets.

Contents < 🏠 >

Next-Generation Video and Voice Communications

Ruggedized In-Campus Mobility

Entry to HD Desktop Video Collaboration

Elevate Collaboration with Entry to HD Desktop Video

User Profiles for IP Phone 8800 Series

High-Performance Audio Conferencing

Bring Desk and Mobile Experiences Closer Together

Add Convenience and Extend Investment

VoIP Communications to Boost Productivity

VoIP Communications to Enhance Collaboration

Share Telephony Experiences between Desk and Mobile

Figure 16. Interactive and engaging collaboration with HD video

IP Pho

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With the 8800 Series and HD video (Figure 16), you can:

- Elevate and personalize communications to improve the quality and speed of decision making.
- Enhance collaboration between geographically dispersed teams and workgroups to accelerate team performance.
- Enable busy employees to meet "face-to- face" from without ever leaving their offices.
- Scale compelling integrated collaboration experiences across your organization quickly and cost-effectively.
- Collaborate with confidence – within your business and between businesses as the IP Phone 8800 Series supports the latest security enhancements for encryption

The 8800 Series, along with the 7800 Series described earlier in this brochure, are the best audio-performing IP phones Cisco has ever delivered. Wideband (G.722) audio is supported on all models and the 8811, 8832, 8841, 8845, 8851, 8861, and 8865 desk endpoints are hardware-enhanced for higher performance on echo cancellation, meeting European Telecommunications Standards Institute (ETSI) compliance. In addition, vibration isolation of the hardware has been applied to both speakers and microphones, resulting in a higher-quality communications experience.

With Cisco Intelligent Proximity for Mobile Voice (Figure 17), Cisco brings the worlds of desktop and mobile closer together to support how your workforce wishes to work. The IP Phone 8845, 8851, 8861, and 8865 models support this feature. It enables import of both your contacts and call history from your mobile device to these desk phones. In addition, users have the ability to move the audio path of active voice and video calls to these desk phones to enjoy the superior acoustical properties they can deliver. You can even move the audio path of your active voice or video call back to your personal mobile device if you need to step away from your desk. Android and Apple (iOS) personal mobile devices are supported.

While not a specific feature of Cisco Intelligent Proximity, because the IP Phone 8851, 8861, and 8865 models offer USB support, you can even charge your personal mobile devices from a USB port on these phones as an added convenience when you are at your desk. The IP Phone 8851 supports smartphone charging. The IP Phones 8861 and 8865 support both smartphone and tablet fast charging.

Next-Generation Video and Voice Communications

Ruggedized In-Campus Mobility   High-Performance Audio Conferencing

Entry to HD Desktop Video Collaboration   Bring Desk and Mobile Experiences Closer Together

Elevate Collaboration with Entry to HD Desktop Video   Add Convenience and Extend Investment

User Profiles for IP Phone 8800 Series   VoIP Communications to Boost Productivity

VoIP Communications to Enhance Collaboration

Share Telephony Experiences between Desk and Mobile

Figure 17. Bring Desktop and Mobile Closer Together

Cisco
IP Pho

✎ Enlarge

The 8800 Series desktop models offer users the choice of two experience modes for their call handling and navigation based on their user preference. The modes are configured by IT and while they cannot be inter-mixed on a given phone, one mode can be exchanged for another based on a user's comfort and needs.

Session Line Mode (SLM), which has been the standard that ships with the 8800 Series since its introduction, offers users five programmable line/feature keys to the left of the display and five session keys to the right of the display. Session keys provide visual status of each call on each line (i.e., active, on-hold). If you have Cisco IP Phone 8900 or 9900 Series today, they support SLM as well making for an easier transition to the IP Phone 8800 Series from these phones.

A new mode, called Enhanced Line Mode or ELM (Figure 18) available with Phone OS 11.5 and later software, delivers up to ten programmable line/feature keys. Thus, the five session keys to the right of the display in SLM become programmable line/feature keys in ELM. Users of 7962, 7965 and 7975 phones will find the ELM experience quite similar – making a transition to the IP Phone 8800 Series a far more seamless call handling and navigation experience when migrating.

Finally, customers seeking investment protection for their desktop endpoints, as they assess migration from on-premises to cloud delivery models for their business, now or in the future, can take advantage of the flexible delivery options supported by this latest generation portfolio. Whether on-premises, with support from Cisco Business Edition (BE), Cisco Unified Communications Manager (CUCM) and Hosted Collaboration Solution (HCS) infrastructure solutions, cloud delivery with Cisco Spark™, or a hybrid configuration, which blends calling, messaging and meeting services between the two, the Cisco IP Phone 8800 Series can meet your business needs. Most models in this series can even be redeployed across these options should your strategy or business needs change. Even customers with investment in select, Cisco approved third-party Unified Communications-as-a-Service (UCaaS) offers will be able to take advantage of the IP Phone 8800 Series as multiplatform phones[5].

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[5] Contact your Cisco representative to inquire about the latest third party UCaaS providers who have certified the Cisco IP Phone 8800 Series on their platforms. As of June 2017, the providers who have certified include Asterisk, BroadSoft and Centile. Note that telephony features may vary by platform vendor. You are encouraged to engage your vendor of choice to determine supported features with the IP Phone 8800 Series and if these features meet your business needs.

Next-Generation Video and Voice Communications   User Profiles for IP Phone 8800 Series   VoIP Communications to Boost Productivity

Ruggedized In-Campus Mobility   High-Performance Audio Conferencing   VoIP Communications to Enhance Collaboration

Entry to HD Desktop Video Collaboration   Bring Desk and Mobile Experiences Closer Together   Share Telephony Experiences between Desk and Mobile

Elevate Collaboration with Entry to HD Desktop Video   Add Convenience and Extend Investment

8800 Series

Figure 18. Enhanced Line Mode User Experience

Cisco IP Phone 8861 in Charcoal with ELM

Enlarge

The 8800 Series supports secure connectivity for remote worker access to the Cisco network, such as for full-time teleworkers. Cisco Expressway, which resides at the edge of your network, enables you to connect these workers without need for dedicated VPN hardware or a VPN client for the 8800 Series phone. Cisco Expressway makes it easier for remote workers to get up and running quickly (i.e., time-to-live), while reducing the costs of administration for IT.

Common user features to the IP Phone 8811, 8841, 8845, 8851 (Figure 19), 8861 and 8865 models follow:

- 5-to-10 lines[6] with two user selectable experience options for added flexibility in call management
- More intuitive, easier-to-use phones with the highest-resolution, backlit, graphical widescreen VGA, 800-x 480-pixel displays in the Cisco IP Phone portfolio (grayscale or color is model-dependent)
- Increased productivity with easier navigation of menus and call-transaction status using the 5-way navigation cluster and 4 context-sensitive soft-label keys (most models)
- Enhanced tactile feel and reduced errant dialing with rounded ergonomic fixed keys
- Fixed keys for commonly used functions including messaging, directory, services, transfer, conference, mute, headset, speakerphone, hold, and release
- Replaceable silver bezel option for the black bezel that comes standard (desk phone models only)
- Escalation of Cisco Spark™ member exchanges, within Spark virtual team rooms, to Spark voice or video calls as work requires.

IT features common to the IP Phone 8811, 8841, 8845, 8851, 8861 and 8865, unless otherwise noted, include:

- Flexible deployment options with support from Cisco communication servers, whether on-premises or in the cloud with Cisco Spark™, and third-party Cisco pre-approved Unified Communications-as-a-Service (UCaaS) call-control platforms[7]
- Support for 802.3af/at PoE to reduce installation and infrastructure costs by eliminating or reducing the need for local power supplies ("power cubes")

[6] Session Mode (SLM) supports up to five configurable lines. Enhanced Line Mode (ELM) available with Phone OS 11.5 and later is a new user option and supports up to 10 configurable lines or programmable keys.

[7] Contact your Cisco representative for availability timing details and supported third-party UCaaS call-control platforms. As of June 2017, supported UCaaS platforms include Asterisk, BroadSoft and Centile. Note that telephony features may vary by vendor. You are encouraged to contact your UCaaS vendor of choice to inquire about IP Phone 8800 Series features supported and that they meet your business needs.

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Contents < 🏠 >

Next-Generation Video and Voice Communications
Ruggedized In-Campus Mobility   High-Performance Audio Conferencing
Entry to HD Desktop Video Collaboration
Elevate Collaboration with Entry to HD Desktop Video

User Profiles for IP Phone 8800 Series   VoIP Communications to Boost Productivity
VoIP Communications to Enhance Collaboration
Bring Desk and Mobile Experiences Closer Together   Share Telephony Experiences between Desk and Mobile
Add Convenience and Extend Investment

Figure 19. Work Your Way with Mobile Device Integration

IP Phone 8861 with Cisco Intelligent Proximity

🔍 Enlarge

- Gigabit Ethernet-integrated switches on all desk phone models to reduce IT administration and cabling costs at the desk while efficiently and effectively processing the traffic from a co-located multimedia PC
- Integrated VPN client to help keep conversations private and support for Cisco Expressway enabling "VPN-less" client connectivity to the network for remote workers
- Reduced energy costs and carbon footprint in off-work hours with support from Cisco EnergyWise® technology
- SIP for greater interoperability and flexibility
- Optional wall-mount kit to deploy in more space-constrained environments (most models)
- Support for the latest security enhancements, such as Transport Layer Security 1.2 (TLS) and Secure Hash Algorithm-2 (SHA-2) for encrypted communications[8]

User Profiles for IP Phone 8800 Series

Infoworker (8811, 8841, 8845, 8851, 8861, 8865)

Manager, Executive, Administrative (8851, 8861, 8865)

Teleworker (8811, 8841, 8845, 8851, 8861, 8865)

Deskless Worker (8851, 8845, 8851, 8861, 8865, 8821/EX)

Customer Care (8841, 8845, 8851, 8861, 8865)

In-Campus Mobile (8821, 8821-EX)

Audio Conferencing (8832)

[8] Most models of the Cisco IP Phone 8800 Series support the latest security enhancements, including Secure Hash Algorithm 2 (SHA-2) and Transport Layer Security 1.2 for encrypting communications to help protect the intellectual property of your business. You can read more about security enhancements for the Cisco IP Phone 8800 Series in the IP Phone 7800 and IP Phone 8800 Series Security Whitepaper found here on Cisco.com: https://www.cisco.com/c/en/us/products/collaboration-endpoints/unified-ip-phone-8800-series/white-paper-listing.html

Contents

Next-Generation Video and Voice Communications   User Profiles for IP Phone 8800 Series   **VoIP Communications to Boost Productivity**
Ruggedized In-Campus Mobility   High-Performance Audio Conferencing   VoIP Communications to Enhance Collaboration
Entry to HD Desktop Video Collaboration   Bring Desk and Mobile Experiences Closer Together   Share Telephony Experiences between Desk and Mobile
Elevate Collaboration with Entry to HD Desktop Video   Add Convenience and Extend Investment

8800 Series

Figure 20. Voice Communications to Boost Productivity

Cisco IP Phone 8811 in Charcoal and White

Enlarge

VoIP Communications to Boost Productivity

Cisco IP Phone 8811

The Cisco IP Phone 8811 (Figure 20) delivers highly secure and powerful mission-critical VoIP communications that are easy to use. The 8811 is ideal for knowledge workers and teleworkers in small to large enterprises. With its support of Cisco EnergyWise technology, the 8811 is a Class 2 PoE device so it is both cost-effective and earth-friendly

Unique to the Cisco IP Phone 8811 is a 5-inch (12.7 cm), backlit, graphical, grayscale widescreen VGA display (800 x 480 pixels).

Session Line Mode (SLM) and Enhanced Line Mode (ELM) user experiences are supported.

The 8811 supports flexible deployment options including Cisco on-premises, Cisco Spark™ for cloud and third-party Cisco pre-approved UCaaS platform offers.

The 8811 also integrates with Cisco Spark™ so that team member exchanges within Spark virtual team rooms can easily escalate to Spark voice calls when needed.

The latest security enhancements, including Secure Hash Algorithm 2 (SHA-2) and Transport Layer Security 1.2 for encryption are supported.

Both charcoal and white color options are available with this model.

Contents

Next-Generation Video and Voice Communications   User Profiles for IP Phone 8800 Series   VoIP Communications to Boost Productivity

Ruggedized In-Campus Mobility   High-Performance Audio Conferencing   VoIP Communications to Enhance Collaboration

Entry to HD Desktop Video Collaboration   Bring Desk and Mobile Experiences Closer Together   Share Telephony Experiences between Desk and Mobile

Elevate Collaboration with Entry to HD Desktop Video   Add Convenience and Extend Investment

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8800 Series

Figure 21. Ruggedized In-Campus Mobility

Wireless IP Phone 8821 and 8821-EX

☑ Enlarge

Ruggedized In-Campus Mobility

Wireless IP Phone 8821 and 8821-EX[9]

If you have workers who are mobile within a Wireless LAN (WLAN) enabled campus for much of their workday, and whose roles are more rigorous in nature requiring voice communications devices with resilient, hardened exteriors, then the Wireless IP Phones 8821 and 8821-EX (Figure 21) may be of interest to you.

These six-line, wideband audio 802.11 Voice over WLAN (VoWLAN) endpoints are the next evolution of the Wireless IP Phone 7921, 7925 and 7926 models. They are designed to deliver cost-effective, reliable, resilient VoIP communications from Cisco on-premises infrastructure solutions and are ideal for workers in the following more physically active roles:

* Nurses, doctors, technicians or other shift workers in healthcare

* Customer service and warehouse representatives in retail settings

* Operations and engineering personnel in manufacturing

* Service staff such as maids in hospitality, crew on cruise ships

* Workers on oil rigs and chemical plants (EX model suggested)

The 8821 and 8821-EX both offer the following user features:

* Support for cost-effective, comprehensive VoIP and unified communications features within 802.11a/b/g/n and ac wireless LAN networks

* Hardened exteriors that are military standard (MIL-STD 810G) compliant. These endpoints are tested for shock resistance by drop- testing them a dozen times onto concrete from a height of 6ft (183 cm) on different points of the handsets (face, top, bottom etc.)

[9] The 8821 is currently available where country compliances have been achieved. The 8821-EX at time of this publication requires additional certification testing for combustible environments and is planned for CYQ4 2017. Please consult your Cisco representative or authorized Cisco reseller partner/distributor for further timing and availability details as these will vary by country and compliance testing they require.

Contents

Next-Generation Video and Voice Communications   User Profiles for IP Phone 8800 Series   VoIP Communications to Boost Productivity

Ruggedized In-Campus Mobility   High-Performance Audio Conferencing   VoIP Communications to Enhance Collaboration

Entry to HD Desktop Video Collaboration   Bring Desk and Mobile Experiences Closer Together   Share Telephony Experiences between Desk and Mobile

Elevate Collaboration with Entry to HD Desktop Video   Add Convenience and Extend Investment

Figure 22. Resilient, Comprehensive VoIP for Active Workers

Wireless IP Phone 8821

Enlarge

- International Protection Standard 67 (IP67) rated for ingress of dust and water. The endpoints are sealed against dust and protected if immersed in water up to 1 meter (3.3 ft) for up to a half hour and will still function.

- Six line/programmable endpoints

- Wideband (G.722) audio with full duplex speakerphone

- High resolution 2.4 in (6 cm) 240 x 320 pixel backlit displays

- Bluetooth 3.0 for choice in third party headsets and an "untethered" experience from the handset

- Easily swappable, rechargeable batteries with talk time of up to 9.5 hours and standby time of up to 145 hours

- Dial-pad keys under glass to protect against wear

- Hermetically sealed USB 2.0 port

- Two soft key buttons to access screen- based applications, features, and functions

- Application button that supports Cisco and third-party XML applications such as Cisco Instant Connect for push-to-talk

- 802.11r ("Fast Transition") for seamless handover of voice when roaming between access points

- Full range of accessories including desktop and multi-chargers, carrying cases, holsters and belt clips

In addition, the following features are included for IT:

- Secure Hash Algorithm 2 (SHA-2) and Extensible Authentication Protocol – Transport Layer Security (EAP-TLS) for enhanced security with certificate management and policies enforcement

- Simple Certificate Enrollment Protocol (SCEP) for automated management of certificates. IT no longer needs to administer each and every device to initially install or update certificates

- Common Phone OS with other 8800 Series desk phones to simplify administration and ease project management of software updates

Contents

Next-Generation Video and Voice Communications   User Profiles for IP Phone 8800 Series   VoIP Communications to Boost Productivity

Ruggedized In-Campus Mobility   High-Performance Audio Conferencing   VoIP Communications to Enhance Collaboration

Entry to HD Desktop Video Collaboration   Bring Desk and Mobile Experiences Closer Together   Share Telephony Experiences between Desk and Mobile

Elevate Collaboration with Entry to HD Desktop Video   Add Convenience and Extend Investment

8800 Series

Figure 23. Locate Easily; Protects in Potentially Combustible Environments

Wireless IP Phone 8821-EX

Enlarge

The 8821-EX (Figure 23) builds upon the 8821 and delivers all its features. It is ideal for operation in settings such as oil and chemical facilities, where the handset could be operated during temporary exposure to a combustible atmosphere. Operation of the device would not ignite such an environment. It adds the following unique features:

- Industry standard yellow plastics for fast recognition/location of the handset

- Atmospheres Explosibles (ATEX) Class 1, Zone 2 certified. ATEX Zone 2 is an area in which an explosive gas atmosphere is not likely to occur in normal operation and if it does occur, is likely to happen infrequently and for short periods (less than 10 hours per year)

- CSA Class 1, Division 2, Zone 2 certified. CSA Class 1 is a location where a quantity of flammable gas or vapor sufficient to produce an explosive or ignitable mixture may be present in the air. Division 2 is a location where a hazard does not normally exist but is possible under abnormal conditions. Zone 2 is an area in which an explosive gas atmosphere does not normally exist

Contents ‹ 🏠 ›

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | **Cisco IP Phones 8800 Series** | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

Next-Generation Video and Voice Communications
Ruggedized In-Campus Mobility
Entry to HD Desktop Video Collaboration
Elevate Collaboration with Entry to HD Desktop Video

User Profiles for IP Phone 8800 Series
High-Performance Audio Conferencing
Bring Desk and Mobile Experiences Closer Together
Add Convenience and Extend Investment

VoIP Communications to Boost Productivity
VoIP Communications to Enhance Collaboration
Share Telephony Experiences between Desk and Mobile

8800 Series

Figure 24. High-Quality, 360-Degree Hands-Free Communications

Cisco IP Conference Phone 8832

🖉 Enlarge
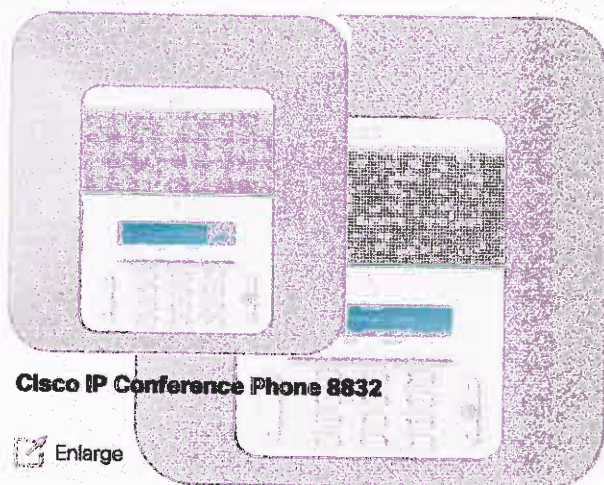
High-Performance Audio Conferencing

New to the 8800 Series portfolio is the Cisco IP Conference Phone 8832[10]. The IP Conference Phone 8832 builds upon the features of the Unified IP Conference Phone 8831 with a new more contemporary ergonomic design. The Cisco IP Conference Phone 8832 (Figure 24) facilitates a more productive in-room and executive office conferencing experience. Designed specifically for use in mid-size to large conference rooms and executive offices, it delivers "as good as being there" acoustical performance with crisp highs and clear lows.

Features include:

- Superior HD audio performance: The full-duplex wideband (G.722), hands-free speaker helps improve productivity for mission-critical communications.

- Scalable room coverage: The base station supports up to 400 sq. feet (37.2 sq. meters) with up to 10 participants. Optional wired extension microphones double the room support to up to 800 sq. feet (74.3 sq. meters) with up to 26 participants. In CYQ4, "daisy-chaining" a second base station and adding optional Digital Equipment Cordless Telephony (DECT) wireless microphones enables support of up to 1140 sq. feet (106 sq. meters) with up to 42 participants.

- New contemporary design: The 8832 includes a new ergonomic design with integrated dialpad, backlit pixel-based color display, large mute key (for easy participant access from all angles) and rounded edges for ease of handling.

- Choice of two color options (charcoal and white).

- European Telecommunications Standards Institute (ETSI) 738 and 740 compliance for superior audio performance.

- Latest security enhancements including Transport Layer Security 1.2 (TLS) and Secure Hash Algorithm 2 (SHA-2) for encryption

[10] The Cisco IP Conference Phone 8832 is targeted to be available in CYQ3 2017 for US and Canada. Countries in EMEA are targeted for CYQ4 2017. Countries who have not compliance tested the 8832 conference phone may still be able to purchase the Cisco Unified IP Conference Phone 8831 which remains available. Contact your Cisco representative for further details.

8800 Series

Figure 25. Easy-to-Use with Vibrant Color Display

Cisco IP Phone 8841 in Charcoal and White

🔲 Enlarge

VoIP Communications to Enhance Collaboration

Cisco IP Phone 8841

The Cisco IP Phone 8841 (Figure 25) builds upon the features of the IP Phone 8811. It delivers superior voice communications that can enhance collaboration throughout your entire organization. It is ideally suited for knowledge workers and teleworkers, whether on-premises or remote. It also supports Cisco Spark™ for cloud deployment and select, Cisco approved third-party UCaaS platform offers.

- The 8841 comes standard with a 5-inch (12.7 cm) color, backlit, graphical widescreen VGA (800 x 480 pixels) display. As a PoE Class 2 device, it is both cost-effective and earth-friendly.

Contents

Next-Generation Video and Voice Communications User Profiles for IP Phone 8800 Series VoIP Communications to Boost Productivity

Ruggedized In-Campus Mobility High-Performance Audio Conferencing VoIP Communications to Enhance Collaboration

Entry to HD Desktop Video Collaboration Bring Desk and Mobile Experiences Closer Together Share Telephony Experiences between Desk and Mobile

Elevate Collaboration with Entry to HD Desktop Video Add Convenience and Extend Investment

Figure 26. Meet Face-to-Face Regardless of Place

Cisco IP Phone 8845 in Charcoal and White

Enlarge

Entry to HD Desktop Video Collaboration

Cisco IP Phone 8845

The Cisco IP Phone 8845 (Figure 26) builds upon the features delivered with the IP Phone 8841.

Notable additions include:

- Affordable 720p HD H.264 AVC video communications enabling all users within your organization to participate in video conversations.

- Bluetooth for user choice in third-party headsets.

- Cisco Intelligent Proximity for Mobile Voice for telephony feature integration with personal mobile devices, such as smartphones and tablets.

Contents

8800 Series

Figure 27. Integrates with Personal Mobile Devices

Cisco IP Phone 8851 in Charcoal and White

Enlarge

Bring Desk and Mobile Experiences Closer Together

Cisco IP Phone 8851

The Cisco IP Phone 8851 (Figure 27) also builds upon the features delivered with the IP Phone 8841[11]. It supports Cisco Intelligent Proximity for Mobile Voice to integrate telephony features with your personal smartphone or tablet, when in range of the 8851 at the desk using Bluetooth.

The IP Phone 8851 is able to charge personal smartphones through one standard USB port adjacent to the Key Expansion Module connector on the right of the endpoint.

The 8851 is also the first model in the 8800 Series to support the new optional IP Phone 8851/8861 Key Expansion Module. It supports up to 2 modules, for an additional 56 programmable line/feature keys. Key Module support adds to your scalability and Return On Investment (ROI) beyond the number of programmable line keys supported on the 8851 phone[12].

A no-radio version of the 8851 is available, without Bluetooth, to support those environments where use of Bluetooth is not permitted. Consult your Cisco representative for further details.

[11] Support of Bluetooth, USB and optional Key Expansion Modules require additional power and depending on number of expansion modules, may require 802.3at PoE or local power cubes. Contact your Cisco representative for further assistance.

[12] The number of programmable line/feature keys on the IP Phone 8851 is dependent on the user experience mode selected. Session Line Mode (SLM) supports up to 5 on the 8851. Enhanced Line Mode supports up to 10. The new optional IP Phone 8851/8861 supports both user experience modes.

Contents

8800 Series

Figure 28. Enjoy Integrated Desk and Mobile Voice Communications

Cisco IP Phone 8861 in Charcoal and White

Enlarge

Share Telephony Experiences between Desk and Mobile

Cisco IP Phone 8861

The Cisco IP Phone 8861 (Figure 28) delivers all of the features of the IP Phone 8851 and adds:

A second USB port on the rear of the endpoint, which can fast-charge tablets in addition to smartphones for added convenience when at the desk.

For headquarters or branch offices whose campuses are wireless LAN-enabled, the IP Phone 8861 also supports 802.11a/b/g/n/ac protocols. This adds flexibility and reduces costs of installation and administration and minimizes cabling at the desk.

The 8861 supports up to 3 of the new and optional IP Phone 8851/8861 Key Expansion Module[13], supporting up to 84 additional programmable line/feature keys to those that come standard with the 8861. This gives you further scalability and increases the return on your investment (ROI) in 8861 phones.

[13] The addition of an 802.11 Wi-Fi radio to Bluetooth, USB and key expansion module support requires additional power and thus, the 8861 is rated a PoE Class 4 endpoint. Please note for planning purposes.

Brochure

Contents < 🏠 >

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | **Cisco IP Phones 8800 Series** | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

Next-Generation Video and Voice Communications   User Profiles for IP Phone 8800 Series   VoIP Communications to Boost Productivity
Ruggedized In-Campus Mobility   High-Performance Audio Conferencing   VoIP Communications to Enhance Collaboration
Entry to HD Desktop Video Collaboration   Bring Desk and Mobile Experiences Closer Together   Share Telephony Experiences between Desk and Mobile
Elevate Collaboration with Entry to HD Desktop Video   Add Convenience and Extend Investment

Figure 29. Enhance Team Collaboration and Accelerate Decision Making

Cisco IP Phone 8865 in Charcoal and White

Enlarge

Elevate Collaboration with Entry to HD Desktop Video

Cisco IP Phone 8865

The Cisco IP Phone 8865 (Figure 29) builds upon all of the features delivered with the IP Phone 8861.

It also adds affordable 720p HD video communications, enabling all users within your organization to connect face-to-face, even when remote, from their desktops.

The 8865 also supports up to 3 optional IP Phone 8865 Key Expansion Modules (KEM) for up to 84 additional programmable line/feature keys. The expansion module is unique to the IP Phone 8865. Aligning the angle of the module with the 8865 phone provides more pleasing aesthetics and ease of use.

Contents < 🏠 >

Next-Generation Video and Voice Communications   User Profiles for IP Phone 8800 Series   VoIP Communications to Boost Productivity

Ruggedized In-Campus Mobility   High-Performance Audio Conferencing   VoIP Communications to Enhance Collaboration

Entry to HD Desktop Video Collaboration   Bring Desk and Mobile Experiences Closer Together   Share Telephony Experiences between Desk and Mobile

Elevate Collaboration with Entry to HD Desktop Video   **Add Convenience and Extend Investment**

8800 Series

Figure 30. Simplify Administrative and Managerial Communications

Cisco IP Phone 8800 Series Key Expansion Module with IP Phone 8861

☑ Enlarge

Add Convenience and Extend Investment

Cisco 8800 Series Key Expansion Modules

Key Expansion Modules (KEM's) are optional accessories that provide additional line and programmable feature keys for highly-active users such as executives, managers, administrative staff and lobby receptionists.

KEM's simplify and enhance the calling experience by making it easier for you to contact staff that you collaborate with often, using features such as "speed dials" for one-button push-to-call. They also increase your responsiveness with a more personalized touch, when receiving inbound calls and help you pick up calls for another colleague if they are busy or away from their desk.

The IP Phone 8800 Series offers three Key Expansion Modules. Available today, the IP Phone 8800 Key Expansion Module (Figure 30), offers 18 physical keys per module. A software "Page 2" key provides another 18 keys that can be configured for a total of 36 keys per module. You can have up to two modules supported off an IP Phone 8851 and up to three modules off the 8861 and 8865 phone models. The IP Phone 8800 Key Expansion Module supports Session Line Mode (SLM) only. They are ideally suited for installed base customers who have them today and wish to add another for expansion up to the limit of three (phone model dependent).

New additions to the KEM portfolio are the Cisco IP Phone 8851/8861 Key Expansion Module and the IP Phone 8865 Key Expansion Module. These are both available in CYQ3 2017. They are also optional modules but unlike the IP Phone 8800 KEM, they also support the Enhanced Line Mode (ELM) user experience . There is a module for 8851 and 8861 phone models and one, with different articulation (i.e., angling) of its hardware, to align with the 8865 phone model as the 8865 phone supports HD video.

Both modules support 14 physical keys per module. A software "Page 2" key adds another 14 for a total of 28 line/programmable feature keys that can be configured. Up to two 8851/8861 KEM's can be supported off the 8851 phone model. Up to three can be supported with the 8861 phone model. In turn, the 8865 KEM can support up to three modules attached to the 8865 phone.

These new modules are ideally suited for customers who have investment today or are familiar with the Cisco IP Phone 7900 Series as the Enhanced Line Mode user experience support makes for a more migration when using these new KEM's with the 8851,8861 and 8865 phone models. These modules offer more characters per line label to reduce guessing of calling line ID with inbound callers (i.e., is "Daniel" actually Daniel or is it Danielle calling?).

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

Next-Generation Video and Voice Communications   User Profiles for IP Phone 8800 Series   VoIP Communications to Boost Productivity

Ruggedized In-Campus Mobility   High-Performance Audio Conferencing   VoIP Communications to Enhance Collaboration

Entry to HD Desktop Video Collaboration   Bring Desk and Mobile Experiences Closer Together   Share Telephony Experiences between Desk and Mobile

Elevate Collaboration with Entry to HD Desktop Video   **Add Convenience and Extend Investment**

Table 4.   Cisco IP Phone 8800 Series At-a-Glance Features (desk phone models)

	8811	8841	8845	8851	8861	8865
Display	5" high-resolution (800 x 480) greyscale display	5" high-resolution (800 x 480) WVGA color display	5" high-resolution (800 x 480) WVGA color display	5" high-resolution (800 x 490) WVGA color display	5" high-resolution (800 x 480) WVGA color display	5" high-resolution (800 x 480) WVGA color display
Wideband Audio	✓	✓	✓	✓	✓	✓
HD Video (720p)			✓			✓
Programmable Line Keys	5-10	5-10	5-10	5-10	5-10	5-10
Ethernet Switch	10/100/1000	10/100/1000	10/100/1000	10/100/1000	10/100/1000	10/100/1000
Headset Port (RJ9)	✓	✓	✓	✓	✓	✓
Full Duplex Speaker Phone	✓	✓	✓	✓	✓	✓
Integrated Bluetooth			✓	✓	✓	✓
Intelligent Proximity			✓	✓	✓	✓
USB (Physical Ports)				✓(1)	✓(2)	✓(2)
Key Expansion Module Support				✓(2)	✓(3)	✓(3)
Wi-Fi					✓	✓
External Audio Port					✓	✓
PoE Classification	2	2	2	4 (v.08+)	4	4
Wall Mountable	✓	✓	✓	✓	✓	✓

Wish to compare additional key technical specifications across all Cisco IP Phone 8800 Series models or all Cisco IP phones? Consult our Endpoint Matrix online:
https://www.cisco.com/c/dam/en/us/solutions/collateral/business-ideo/business-video/endpoint-product-matrix.pdf

Brochure

Contents ❮ ⌂ ❯

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

Multimedia Applications for Your Business   XML Applications

Multimedia Applications for Your Business

Cisco works with Cisco Developer Network (CDN) partners to enhance the customer value of Cisco IP Phones by expanding the portfolio of endpoint applications made available to you. The result is more advanced capabilities with dynamic, intelligent application content that can help you meet the needs of your business both today and tomorrow.

Cisco has a robust ecosystem of third-party IP endpoint application developers. These technology partners give you access to a new world of value-added Extensible Markup Language (XML) applications for your endpoints. This rich array of applications takes advantage of the latest technologies to maximize your Cisco IP endpoint investment[14].

They can also make your company more competitive by helping you:

- Improve customer satisfaction

- Enhance business continuity

- Reduce administration costs

- Transform business processes

[14] Consult the written datasheet for your Cisco IP Phone model(s) of interest to determine if XML applications are supported.

Multimedia Applications for Your Business   XML Applications

IP Endpoint Multimedia Applications

XML Applications

Overhead Paging

On-Demand and Continuous Call Recording

Directory Search

Employee Time Card

Multimedia Broadcasts

Wireless IP Push-to-Talk And More

XML Applications

XML provides a standard language that developers can use to share information between different kinds of IP endpoints, different applications, and different organizations without needing to pass through many layers of conversion.

Endpoint applications can provide significant savings. For example, one financial services organization saves about $50 million a year by taking advantage of a workplace management application. The application empowers workers to locate and reserve workspaces through the IP endpoint whenever and wherever they need to work. It also allows the company to measure usage of every workspace in the organization. This capability has made it possible to eliminate more than 4000 workstations nationwide.

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Brochure

Contents ⟨ 🏠 ⟩

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

Turn Traditional Telephones into IP Endpoints   Three Hardware Models   Third-party Headsets

Analog Telephone Adaptor & Accessories

Figure 31. Protect Your Analog Device Investment

Cisco ATA 191 and ATA 192 Analog Telephone Adaptors

Enlarge

Turn Traditional Telephones into IP Endpoints

The cost-effective, standards-based Cisco ATA190 Series Analog Telephone Adaptors (Figure 31) protect your existing analog telephone investment while delivering true VoIP terminations. Simply connect traditional analog devices to the Cisco ATA190 Series Analog Telephone Adaptors and a traditional telephone becomes an IP endpoint. You can use the Cisco ATA190 Series Analog Telephone Adaptors in both businesses and residences worldwide, where they:

- Deliver clear, natural-sounding voice quality
- Support 2 voice ports, each with its own independent telephone number
- Provide a single RJ-45 10/100 BASE-T Ethernet port (ATA 191) and two RJ-45 10/100 BASE-T Ethernet ports with router function (ATA 192)
- Can use existing Ethernet LANs in addition to broadband pipes such as DSL, fixed wireless, and cable modem deployments
- Offer a dedicated PRT button for serviceability improvement

When telephones are connected to the Cisco ATA 190 Series Analog Telephone Adapters, companies can take advantage of many cost-saving, productivity-building IP telephony applications, including:

- User configuration
- Full-duplex capability
- Central provisioning for ease of administration
- SIP services such as dynamic IP address assignment, VLAN configuration, user authentication, etc.
- Fax support so you can send faxes cost effectively over the IP network
- SSH access for remote debugging
- IPv4/IPv6 dual stack for IPv6 migration

The Cisco ATA 190 Series Analog Telephone Adaptors enable secure media and signaling support through Secure Real-Time Transfer Protocol/Transport Layer Security 1.2 (SRTP/TLS) over SIP. The adaptor is also firmware-upgradable.

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Brochure

Contents < 🏠 >

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

Turn Traditional Telephones into IP Endpoints   Three Hardware Models   Third-party Headsets

Analog Telephone Adaptor & Accessories

Three Hardware Models

These three models in the ATA 190 family turn traditional telephone devices into IP Phones:

- ATA 191: 2-port Analog Telephone Adapter for on-premises
- ATA 191 MPP: 2-port multiplatform Analog Telephone Adapter for 3PCC market
- ATA 192 MPP: 2-port multiplatform Analog Telephone Adapter with router for 3PCC market

Third-party Headsets

Cisco partners with industry leading headset providers to offer your choice of headsets that support Cisco IP phones. Consult the links below to our partner websites for your provider of choice to determine the latest headset options available to you and those headsets supported on your Cisco IP phone(s) of choice.

- http://www.jabra.com
- http://www.plantronics.com
- http://en-us.sennheiser.com/headsets

CISCO

Brochure

Contents

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | Additional Information |

Summary

Optimize Your Organization's Collaboration

Communicate and collaborate with our comprehensive portfolio of industry leading endpoint solutions. Cisco has an IP Phone for your every organizational need. From the lobby to the executive suite. From the start-up to the well-established enterprise. For every deployment model including on-premises, cloud or a hybrid configuration of the two. Cisco even supports select, third-party, approved UCaaS provider offers who have certified Cisco 7800 and 8800 Series phones on their platforms as multiplatform phones.

The diverse Cisco portfolio includes:

- Solutions to meet your corporate objectives while remaining within your budget
- Single- and multiline endpoints, supporting a range of communication needs from low-to-moderate to the most active environments
- A range of endpoints from basic to fully featured, enabling your organization to take advantage of robust Cisco collaboration capabilities
- Support for HD video collaboration, on selected models, to reduce your travel costs and accelerate the speed of decision making in your organization
- Telephony feature integration with personal mobile devices on select Cisco next-generation phone models that support Cisco Intelligent Proximity for Mobile Voice
- Cost-effective, in-campus mobile collaboration for the worker on the go whose roles require more hardened devices to support their voice communications needs
- Scalable, affordable audio conferencing, from the small conference/huddle room to the large conference rooms, that is easy-to-use and manage

Cisco IP Phones can help your business obtain the productivity-building capabilities of next-generation communications and collaboration, and deliver an exceptional communications experience throughout your organization.

We hope that this brochure has helped you identify which Cisco IP Phones are right for your business. If you have questions about any of our endpoint solutions, please contact your local Cisco representative or authorized Cisco reseller.

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Brochure

Contents

| Introduction | Cisco SIP Phones 3900 Series | Cisco IP Phones 6900 Series | Cisco IP Phone 7800 Series | Cisco IP Phones 7900 Series | Cisco IP Phones 8800 Series | IP Endpoint Multimedia Applications | Analog Telephone Adaptor & Accessories | Summary | **Additional Information** |

Additional Information

For more information about any of the products discussed in this brochure, please visit the following websites:

- Cisco SIP Phone 3900 Series
  https://www.cisco.com/go/ipphones/3900

- Cisco IP Phones 6900 Series
  https://www.cisco.com/go/ipphones/6900

- Cisco IP Phone 7800 Series
  https://www.cisco.com/go/ipphone/7800

- Cisco IP Phones 7900 Series
  https://www.cisco.com/go/ipphones/7900

- Cisco IP Phones 8800 Series
  https://www.cisco.com/go/ipphones/8800

- Cisco ATA 190 Analog Telephone Adaptor
  https://www.cisco.com/c/en/us/products/unified-communications/ata190-2-portadapter/index.html

The AudioCodes 400HD series of IP phones includes a range of easy-to-use, feature-rich products for the service provider, hosted services, enterprise IP telephony and contact center markets. Based on the same advanced, field-proven underlying technology as our other VoIP products, AudioCodes high quality IP phones enable service providers, systems integrators and end-customers to build end-to-end VoIP solutions.

| C450HD IP Phone | 450HD IP Phone | 445HD IP Phone | 440HD IP Phone | 420HD IP Phone | 405HD IP Phone |

Powerful Set of Common Features

- High-definition voice quality
- Robust security mechanisms
- Multiple language support
- AudioCodes Auto-provisioning
- Power over Ethernet (PoE)
- Integration with voice quality monitoring
- Full SIP protocol support with extensive interoperability
- Out of the box global redirection sever support
- Full duplex speakerphone and headset connectivity

Unified Communications

AudioCodes provides diverse solutions tailored for the unified communications (UC) market. AudioCodes' offering for UC includes media gateways, E-SBCs, call recording solutions, mobility and IP phones which, in addition to high quality voice calls, also support presence features.

Enterprise IP Telephony

AudioCodes IP phones offer reliable, high quality communications for users of on-premises, open source and hosted IP-PBXs. Their wide range of essential business features, reliability and proven interoperability makes them the perfect choice for any SIP-based environment, from SOHO up to large enterprises.

IP Contact Centers

AudioCodes IP phones provide the perfect solution for IP contact center agents. Combining excellent voice quality for contact center agents, with a compact and robust enclosure design and headset integration, AudioCodes' IP phones offer several essential features required in the growing contact center market including fully certified VoIP interoperability with leading contact center solution providers.

audiocodes

HD VoIP
Sounds Better

C450HD IP Phone**

The C450HD IP phone is a high-end, native Microsoft Teams executive IP phone with a large, color 5" touch screen, integrated Bluetooth** and Wi-Fi**, and optional connectivity to color touch screen expansion modules.

- Full duplex speakerphone and headset connectivity
- Graphical 5" color touch screen (720 X 1280) with multi-lingual support
- Dual GbE support
- PoE or external power supply
- 2xUSB headset support
- Expansion module support

450HD IP Phone

The 450HD IP phone is an executive high-end business IP phone with a large, color 5" touch screen, integrated Bluetooth** and an optional color touch screen expansion module.

- Large 5" color touch screen (800 X 480) with multi-lingual support
- Touch oriented user interface allowing up to 8 programmable soft keys
- Expansion module (optional) with 5" color touch screen (480 X 854)
- Full duplex speakerphone and headset connectivity
- Integrated Bluetooth for wireless headset connectivity
- SILK
- Dual GbE support
- 2xUSB headset support
- PoE or external power supply
- Unique multiple Boss Admin user interface

445HD IP Phone

The 445HD IP phone is an advanced, high-end business IP phone with a large, color 4.3" main display, integrated Bluetooth** and a dedicated LCD displaying contacts and their presence (integrated sidecar).

- Color 4.3" high resolution screen (480x272)
- Full duplex speakerphone and headset connectivity
- 6 multi-function keys and 4 soft keys
- Dedicated LCD (370 X 60) for 12 contacts display with (BLF)
- Dual GbE support
- USB headset support
- PoE or external power supply
- Unique multiple Boss Admin user interface

**Contact AudioCodes for availability

440HD & 430HD IP Phones

The 440HD/430HD IP phones are advanced, mid-range business IP phones. Built for ease-of-use and convenience, the 430HD boasts a large LCD and 12 programmable speed dial keys. The 440HD includes a dedicated LCD displaying contacts and their presence (integrated sidecar).

- Full duplex speakerphone and headset connectivity
- Graphical multi-lingual LCD (256 X 128)
- 6 multi-function keys/lines
- 4 soft keys
- Dedicated LCD (370 X 60) for contacts display (440HD only)
- 12 programmable speed dial keys with presence monitoring (BLF)
- Unique multiple Boss Admin user interface (440HD only)
- SILK
- Dual GbE support
- USB headset support
- PoE or external power supply

420HD IP Phone

The 420HD IP phone is an entry-level, feature-rich enterprise IP phone. Its flexibility and robust design make it extremely suitable for demanding enterprise and contact center deployments.

- Full duplex speakerphone and headset connectivity
- 2 lines
- Graphical multi-lingual LCD (128 X 48)
- 4 programmable soft keys
- SILK
- Dual GbE support
- PoE or external power supply

405HD & 405* IP Phones

The 405HD/405 IP phone is a cost-effective, entry-level IP phone designed to offer the essential everyday features that the modern business environment demands.

- Full duplex speakerphone and headset connectivity
- 2 lines
- Graphical, backlit multi-lingual LCD (132 X 64)
- 4 programmable soft keys
- PoE or external power supply
- SILK (405HD only)
- Dual GbE support (405HD only)
- USB headset support (405HD only)

*405HD is certified for Skype for Business and Microsoft Teams
405 is not certified for Skype for Business

Technical Specifications for the 400HD Series

Telephony Features

Supplementary Features	Call waiting, call hold, call transfer, call forward, 3-way conference (local mix) and network conferencing, hot line, DND, route, speed dial, dial plan, CWRD, call logs, auto answer via TALK event, call pickup, multiple Base Admin, shared line appearance, call park[5]
Signaling	Caller ID, MWI, DTMF relay – RFC2833, DTMF via SIP INFO, configurable call progress tones

VoIP Applications

Unified communications, IP contact centers, open-source IP-PBX, hosted IP-PBX and IP centrex

Enhanced VoIP Processing Capabilities

Packet loss concealment, high quality wideband, wideband acoustic echo canceller, low-delay adaptive jitter buffers

Media Processing

Wideband Voice Coders	G.722, OPUS[2], SILK[2]
Narrowband Voice Coders	G.711µ/a, G.729A/B, OPUS[2], SILK[2]
Additional Media Features	Acoustic echo cancelation (AEC)- multiple path, wideband acoustic EC, packet loss concealment, silence suppression, voice activation detection, adaptive jitter buffer

Protocol Support

VoIP and Signaling	SIP – RFC 3261, SDP – RFC 2327, SIP over TCP/UDP/TLS, DNS_SRV (redundancy), digest authentication, PRACK, early media, SIP subscribe notify, BLF[1] (busy lamp field), presence, MWI (message waiting indication)
Data Protocols	IPv4, TCP, UDP, ICMP, ARP, RTP, SRTP, RTCP-XR, 802.1x, static IP/DHCP IP assignment, IEEE 802.1p/Q, QoS/ToS, HTTP/HTTPS/DHCP, NTP, FTP/TFTP, CDP/LLDP VLAN configuration, LDAP
Security	802.1x, HTTPS, SIP over TLS and SRTP, configuration file encryption, PC port disable option
Provisioning & Management	Web server for configuration and management, configuration update via FTP, TFTP, HTTP, HTTPS, DHCP options (66,67,160,12,60,77), mass deployment provisioning with global redirection server, provision URL via SIP SUBSCRIBE and NOTIFY, RFC6035 SIP publish for QoE reporting

General Specifications

Language Support	English (default), Spanish, Italian, Portuguese (with feature key), German, Russian, Ukrainian, French, Polish, Hebrew, Finnish, Korean, Simplified and Traditional Chinese, Turkish, Japanese (Kanji, Hiragana, and Katakana input modes), Hungarian, Slovak, Czech
Telephony Interface	RJ-9 headset jack X 1, USB port(s) for headset[4], DHSG[1]
Network Interface	2 LAN RJ-45 10/100/1000 Base-T for PC and LAN connectivity
Power Requirements	+12V DC, 1A power adapter (450HD: +12V DC, 2A) AC 100V-240V and/or integrated Power over Ethernet- IEEE 802.3af (see price list for ordering options)
Storage/Operation Temperature	-20° to +70°C / 0° to +40°C (-4 to +158°F / 32 to +104°F)
Homologations & Approvals	FCC Part 15 Class B, ICES-003 Class B, EN55032 Class B, EN61000-3-2, EN61000-3-3, UL-60950-1, EN60950-1, IEC-60950-1 (CB), CE mark, cTUVus RCM, KC, Anatel, CCC, ICASA, EAC, IC, ACTA, VCCI, BSMI

The homologation list can change from model to model, please contact AudioCodes for up to date model specific information.

Physical Specifications

	C450HD/450HD	445HD	440HD	430HD	420HD	405HD/405[4]
Unit Dimension (WxDxH)	234 x 190 x 170/195 mm[3] (9.21 x 7.48 x 6.69/7.67 in.)	250 x 168 x 163 mm (9.84 x 6.61 x 6.42 in.)	250 x 168 x 163 mm (9.84 x 6.61 x 6.42 in.)	250 x 168 x 163 mm (9.84 x 6.61 x 6.42 in.)	188 x 157 x 163 mm (7.40 x 6.18 x 6.41 in.)	191 x 180 x 153 mm (7.52 x 7.09 x 6.02 in.)
Unit Weight	1.06Kg (2.33 lb)	0.978Kg (2.15 lb)	1Kg (2.2 lb)	0.95Kg (2.09 lb)	0.78Kg (1.71 lb)	0.718Kg (1.58 lb)
Unit Box Dimension (WxDxH)	275 x 245 x 110 mm (10.83 x 9.65 x 4.33 in.)	316 x 255 x 95 mm (12.44 x 10.04 x 3.74 in.)	316 x 255 x 95 mm (12.44 x 10.04 x 3.74 in.)	316 x 255 x 95 mm (12.44 x 10.04 x 3.74 in.)	262 x 236 x 95 mm (10.31 x 9.25 x 3.74 in.)	205 x 191 x 94 mm (8.07 x 7.52 x 3.7 in.)
Unit Box Weight	1.705Kg (3.75 lb)	1.474Kg (3.24 lb)	1.516Kg (3.34 lb)	1.476Kg (3.25 lb)	1.185Kg (2.61 lb)	0.952Kg (2.09 lb)
Master Carton Dimension (WxDxH)	579 x 467 x 291 mm (22.8 x 18.39 x 11.46 in.)	532 x 500 x 361 mm (20.94 x 19.69 x 14.21 in.)	532 x 500 x 361 mm (20.94 x 19.69 x 14.21 in.)	532 x 500 x 361 mm (20.94 x 19.69 x 14.21 in.)	542 x 500 x 291 mm (21.34 x 19.69 x 11.46 in.)	485 x 385 x 225 mm (19.09 x 15.16 x 8.85 in.)
Master Carton Weight	16Kg (35.2 lb)	17.3Kg (38.1 lb)	17.7Kg (39 lb)	17.3Kg (38.1 lb)	13.9Kg (30.64 lb)	10.7Kg (23.58 lb)

[1] Supported by 430HD, 440HD, 445HD and 450HD.

[2] OPUS and SILK are supported on 405HD, 420HD, 430HD, 440HD and 450HD.

[3] C450HD/450HD supports two desktop positions: Low position: 170mm | High position: 195mm.

[4] GbE and USB are available on 405HD (not supported on 405).

[5] Some of the features are supported by 430HD, 440HD, 445HD and 450HD only.

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Turn Any Space into a Meeting Space

AudioCodes Huddle Room Solution

In today's fast-paced business world, where rapid and efficient collaboration between office and remote employees, suppliers and customers is key to success, most meetings do not take place in dedicated conference rooms, but rather in smaller areas or huddle rooms. AudioCodes' Huddle Room solution is designed to turn any space into a meeting room by delivering high quality audio in a powerful and cost-effective package that is simple to operate and manage.

With a highly intuitive user interface the Huddle Room solution makes setting up a Skype for Business meeting, joining calls and managing participants straightforward, while advanced underlying voice technology ensures that local and remote call participants can benefit from high definition audio. Complete lifecycle management is provided through full integration with AudioCodes' One Voice Operations Center management platform.

- Maximizes effectiveness of huddle rooms, small group meeting spaces
- Solution simplicity accelerates user adoption
- Enhanced audio quality for local and remote call participants
- Typical scalability options from 6 up to 15 users
- Full integration with Microsoft Skype for Business
- Standalone solution- no computer needed
- Centralized management and control to lower operational costs

Key features

Simplicity for Users

- Clear, intuitive GUI
- One click to join the meeting
- Add users on the fly
- Manage the lobby
- Additional conference control (lock, mute, info)
- Pick up handset to go private at any time during the call

Exceptional Audio Quality

- Loud and clear audio
- Intelligibility for local and remote participants
- Advanced echo cancellation technology

Powerful IT Tools

- Full lifecycle management
- Management of huddle room equipment, software and performance
- Voice quality monitoring
- Remote maintenance

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Scalable AudioCodes Huddle Room Solution Options

UC-HRS-457

Room Size | **Small**

Up to 6 participants in huddle room

- Simple addition of remote participants
- Large, full-color touch screen for meeting control
- Familiar Skype for Business meeting management experience
- USB audio connectivity
- Theft protection- Kensington lock adaptor

UC-HRS-457D

Room Size | **Medium**

Up to 12 participants in huddle room

- Simple addition of remote participants
- Large, full-color touch screen for meeting control
- Familiar Skype for Business meeting management experience
- Wireless audio connectivity
- USB audio connectivity
- Theft protection- Kensington lock adaptor

UC-HRS-458

Room Size | **Large**

Up to 15 participants in huddle room

- Simple addition of remote participants
- Large, full-color touch screen for meeting control
- Familiar Skype for Business meeting management experience
- Advanced echo cancellation
- USB audio connectivity
- Theft protection- Kensington lock adaptor

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Spectralink 84-Series Wireless Telephones

Voice over WI-FI Communications for the Workplace

A United Front

The Spectralink 84-Series wireless telephones connect on-site mobile professionals with customers, colleagues, and the applications they need to perform their best – leading to increased worker productivity and organizational cost savings. Designed with the requirements of on-site workers in the healthcare, retail, and manufacturing industries in mind – the Spectralink 84-Series handsets unite the most critical elements of workplace communications within a single mobile device that is highly reliable, extra durable, and easy to use.

Whether attending to patients or customers – the Spectralink 84-Series handsets allow workers to deliver the very best care, service, and response times for any needs, so they can deliver services that directly impact safety, sales, efficiency and satisfaction.

Spectralink 84-Series Wireless Telephone

The Spectralink 84-Series handsets provide the right communication tools for mobile professionals in the workplace – all in one lightweight, simple-to-use, ergonomic device. They tie directly into your telephone system, voice mail and directories. Like a "desk phone in your hand," the Spectralink 84-Series' high definition voice quality provides crystal clear conversations. The handsets also support text alerts and instant messaging that can replace overhead paging for a quieter, more peaceful environment. Fully-integrated push-to-talk functionality makes it easy to instantly reach specialized teams within your organization, and eliminates the need for two-way radios. And with the on-board Web browser and standards-based developer environment, the handsets provide fast, easy access to applications and references. The handsets are also tough, rugged, and built to last. Advanced features like the reinforced cage design, component shock mounting, rubberized over molding will keep your Spectralink 84-Series handset working for years to come.

BENEFITS

- Deliver high-quality and secure voice communications across all enterprise environments

- Enable mobile workers to be reached immediately and reliably throughout workplace

- Notify workers of requests or alarms instantly

- Combine mobile phone, pager, two-way radio, barcode scanner and voice-recognition badge in one device

- Leverage existing wireless LAN infrastructure for voice and data applications

- Integrate directly into corporate voice mail, voice-activated dialing, and directories

- Support text alerts and instant messaging that can **replace overhead paging for a quieter environment**

- Deploy easily with the Spectralink Installation and Configuration (SLIC) tool

Spectralink VQO on 84-Series

In the world of enterprise wireless communications—voice and data aren't created equal. It takes deep expertise and advanced technology to achieve superior voice quality in these environments.

Spectralink Voice Quality Optimization, VQO, is the answer to this challenge, an engineered system that delivers superior voice quality over in-building, enterprise Wi-Fi networks. The system is built of technology on the inside of every 84-Series device—and the knowledge and expertise of our partners and specialized System Architects, on the outside. With Spectralink VQO, your 84-Series ensures crystal-clear communication, every time.

The Right Device

There are three models to choose from; the Spectralink 8440, 8441 and 8453. All handset models include the advanced features listed above. But there are additional options available to meet specific needs. For example, the Spectralink 8441 and 8453 include Spectralink SAFE designed to help protect mobile workers. The Spectralink 8453 mobile device with built-in 1D/2D barcode reader enables mobile workers to scan and access patient information product databases, and other applications.

FEATURES

- 802.11a/b/g/n (Wi-Fi) compatible
- Direct integration with SIP PBX systems and Microsoft® Lync®
- Standards-based VoIP protocol support
- Standards based QoS
- Standard, enterprise-grade security options
- Text messaging support via third party integration
- Instant Messaging via Microsoft Lync
- Management and configuration via web-based GUI
- XML-based Application Programing Interface (API) and software developer's kit
- Lightweight, ergonomic design
- Resistant to dust, shock and liquid damage

- User-selectable profiles
- HD voice and integrated full duplex speakerphone
- Personal directory, redial and speed-dial lists
- Icon-based status indicator
- Audible and vibrating ringers
- Soft key feature access
- Standard and extended-life battery options
- Single, dual, quad and multi charging options
- Push-to-talk (PTT) mode with 25 channels including one priority override channel
- Personal safety features, including panic and "man down" (8441 and 8453 only)
- 1D/2D integrated barcode scanners (8453 only)

RADIO FREQUENCIES

- 2.4 - 2.4835 GHz (802.11b, 802.11g)
- 5.15 - 5.825 GHz (802.11a varies by country)
- 2.4 and 5 GHz (802.11n)

TRANSMIT DATA RATES

- Up to 11 Mbps (802.11b), up to 54 Mbps (802.11a/g), up to 72.2 Mbps (802.11n)

DISPLAY

- 2.2 in. (55.9 mm)
- 240 x 320 resolution
- 65,000 color palette

ENVIRONMENTAL

- Operating temperature: 32° - 104° F (0 - 40° C)
- Storage temperature: -22° - 140° F (-30° - 60° C)

QOS

- Wi-Fi standard QoS; including WMM, WMM Power Save, and WMM Admission Control
- IEEE 802.1p/Q tagging (VLAN)/DSCP tagging

CODECS

- G.711 (A-law, u-law), G.729, G.722, G.722.1

PERIPHERAL INTERFACES

- Micro USB interface
- 2.5mm connector
- Bluetooth

SECURITY

- WEP, WPA-Personal, WPA2-Personal, WPA2-Enterprise with 802.1X (EAP-TLS, EAP-FAST, PEAP-MSCHAPv2) with Opportunistic Key Caching (OKC) and Cisco Client Key Management (CCKM)
- Media encryption via Secure Real-Time Protocol (SRTP)
- SIP signaling encryption via Transport Layer Security (TLS)
- Server-based configuration file encryption (AES 128 bit)
- HTTPS secure provisioning

MANAGEMENT AND PROVISIONING

- FTP, FTPS, TFTP, HTTP or HTTPS
- Centralized user administration
- Provisioning and call server redundancy
- USB and over-the-air configuration

PROGRAMMING INTERFACES

- XHTML
- WebKit-based browser (JavaScript, CSS, DOM)
- LDAP
- Spectralink OAI

spectralink

Office 365

ConvergeOne Managed Microsoft Cloud Services Include:

- Microsoft Teams + Skype for Business Online
- Security + Compliance features
- Exchange Online
- SharePoint Online
- PowerBI
- OneDrive for Business
- Identity Management
- Intune
- Azure Infrastructure
- On-premises components (priced using equivalent cloud service)
- And more!

MANAGED MICROSOFT CLOUD
Subscription based professional + managed services for the modern organization, now including on-premises components.

Make the Cloud + On-Premises Work for You

"Can we do it in the cloud?" It's the question IT and communication departments ask every day, on every project: Can we buy this functionality as a service? Will this save money? Can the cloud support our operations? Can it meet our unique needs? If you have plans on moving to the cloud but aren't quite ready—that's fine, too. We can support your on-premises workloads and make the shift when you are ready, all without a separate sales process and proposal. It's already covered!

For years, core productivity applications lived on the user PC, and unified communications (UC) in an on-premises server room. It was unquestioned—local resources were the only way to guarantee performance. But with the build-out of cloud architectures and network bandwidth, core productivity and UC are migrating to the cloud. Now is the time to embrace the modern workplace.

Microsoft Office 365 makes it easy to deliver a powerful suite of integrated UC and productivity applications, tools, and administration software to realize the value of the cloud in any business. ConvergeOne managed services facilitate support, administration, configuration, and adoption.

All included to implement new features. Welcome to the world of subscription-based, modern managed and professional services. If you are in an active agreement that covers the Microsoft cloud service, we will plan and implement that service with our top-tier cloud architects, no new proposal required.

Reap the Benefits

Service	Silver	Gold
Cloud Licensing	✓	✓
24x7 Support	✓	✓
24x7 Monitoring	✓	✓
Administration + Configuration	✓	✓
Dedicated Cloud Architect + Customer Success Manager (Quarterly Review)		✓
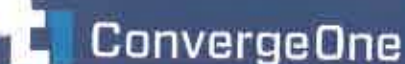
ConvergeOne   Microsoft

With Microsoft's highest cloud credentials, ConvergeOne has the knowledge and tools needed to optimize the Microsoft cloud (Microsoft 365, Office 365, Azure) suite in your business. Budget your professional services in an easy-to-implement OpEx agreement that covers your cloud and on-premises environment using modern Microsoft cloud-based tools.

Get the benefits of the cloud without compromising quality and control. Prepare for moving services to the cloud with the on-premises support. When you're ready to make the cloud move, ConvergeOne will provide the professional services to make that happen—all without a new proposal! Combine the industry-standard capabilities of Microsoft cloud services with industry-leading support, change management, adoption, configuration, and administration services by ConvergeOne—in a simple package with a single annual invoice.

With a broad selection of available enterprise-grade managed services, ConvergeOne helps Microsoft cloud subscribers get the most value from their cloud-based environment.

Microsoft Cloud Functionality with ConvergeOne Managed + Professional Services:

- Core software subscription
- Activation and setup services
- Service desk 24x7 support
- Move/add/change/delete services (MACD)
- Configuration
- Policy management
- Quarterly software release updates
- New service implementation
- Includes on-premises – prepare for your cloud move by supporting on-premises and move when you're ready

The above list is a sample list of services provided. Our services align with your Microsoft subscription levels. If you own it, we support it!

Trust the experienced specialists of ConvergeOne to help you make the most of your Microsoft Cloud subscription. ConvergeOne experts carry the highest available Microsoft application and cloud credentials to help you gain the benefits and navigate the hazards of cloud communications.