



The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header @ 5

List View

General Information [Contact](#) [Default Values](#) [Discount](#) [Document Information](#) [Clarification Request](#)

Procurement Folder: 1563026

Procurement Type: Central Purchase Order

Vendor ID:

Legal Name: NETWORKING FOR FUTURE INC

Alias/DBA:

Total Bid: \$25,928.81

Response Date:

Response Time:

Responded By User ID:

First Name:

Last Name:

Email:

Phone:

SO Doc Code: CRFQ

SO Dept: 0323

SO Doc ID: WWV2500000003

Published Date: 11/18/24

Close Date: 12/17/24

Close Time: 13:30

Status: Closed

Solicitation Description:

Total of Header Attachments: 5

Total of All Attachments: 5



Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Solicitation Response

Proc Folder: 1563026
Solicitation Description: Kanawha City Networking Equipment
Proc Type: Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2024-12-17 13:30	SR 0323 ESR12172400000003997	1

VENDOR
VS0000037191
NETWORKING FOR FUTURE INC

Solicitation Number: CRFQ 0323 WWV2500000003

Total Bid: 25928.81000000000130967237055 **Response Date:** 2024-12-17 **Response Time:** 11:06:21

Comments: NFF is substituting Cisco 9200L network switches as an "equivalent or better" alternative to the Extreme Networks switches. Cisco 9200L switches are an approved and supported network switching solution by the WV Office of Technology.
Extended warranty for hardware and software term: 3 YEARS.
Note: The comprehensive Bill of Materials (BoM Estimate) is included as an attachment in this ARFQ response. The BoM Estimate was created by Cisco and peerr-reviewed by NFF.

FOR INFORMATION CONTACT THE BUYER
Brandon L Barr
304-558-2652
brandon.l.barr@wv.gov

Vendor
Signature X

FEIN#

DATE

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

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Extreme Networks 48 Port Network Switch	7.00000	EA	3689.830000	25828.81

Comm Code	Manufacturer	Specification	Model #
43222600			

Commodity Line Comments: NFF is substituting Cisco 9200L network switches as an "equivalent or better" alternative to the Extreme Networks switches. Cisco 9200L switches are an approved and supported network switching solution by the WV Office of Technology.
Extended warranty for hardware and software term: 3 YEARS.
Note: The comprehensive Bill of Materials (BoM Estimate) is included as an attachment in this ARFQ response. The BoM Estimate was created by Cisco and peerr-reviewed by NFF.

Extended Description:
Extreme Networks 48 Port Network Switch (Model 5320-48P-8XE), or equal.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Extreme Networks 48 Port Network Switch	2.00000	EA	50.000000	100.00

Comm Code	Manufacturer	Specification	Model #
43222600			

Commodity Line Comments: NFF is substituting Cisco 100% compatible transceiver modules as an "equivalent or better" alternative to the Extreme Networks modules listed on the ARFQ Pricing Sheet.
Note: This item is a transceiver module, as per the pricing sheet (1000BASE-SX SFP transceiver module, MMF, 850nm, DOM)

Extended Description:
Extreme Networks 48 Port Network Switch (Model 5320-48P-8XE), or equal.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Extreme Networks 1M SFP+ Twinaxial Cable	7.00000	EA	0.000000	0.00

Comm Code	Manufacturer	Specification	Model #
43222600			

Commodity Line Comments: This item is a stacking cable, and is included at no charge with the Cisco switches.
Note: The comprehensive Bill of Materials (BoM Estimate) is included as an attachment in this ARFQ response. The BoM Estimate was created by Cisco and peerr-reviewed by NFF.

Extended Description:
Extreme Networks 1M SFP+ Twinaxial Cable (Part 10304), or equal.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	Extreme Networks Standard Power Cord	7.00000	EA	0.000000	0.00

Comm Code	Manufacturer	Specification	Model #
43222600			

Commodity Line Comments: This item is a standard power cord, which meets or exceeds the required specifications, and is included at no charge with the Cisco switches.
Note: The comprehensive Bill of Materials (BoM Estimate) is included as an attachment in this ARFQ response. The BoM Estimate was created by Cisco and peerr-reviewed by NFF.

Extended Description:
Extreme Networks Standard Power Cord, 15A, USA, NEMA 5-15, IEC320-C15(Part 10099), or equal.



Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Centralized Request for Quote
Info Technology

Proc Folder: 1563026			Reason for Modification:
Doc Description: Kanawha City Networking Equipment			
Proc Type: Central Purchase Order			
Date Issued	Solicitation Closes	Solicitation No	Version
2024-11-18	2024-12-17 13:30	CRFQ 0323 WWV2500000003	1

BID RECEIVING LOCATION

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

VENDOR

Vendor Customer Code: VS0000037191
Vendor Name : NFF
Address :
Street : 700 12th Street NW, Suite 700
City :
State : Washington, DC **Country :** USA **Zip :** 20005
Principal Contact : Kevin J. Reith
Vendor Contact Phone: (202) 304-9030 **Extension:**

FOR INFORMATION CONTACT THE BUYER

Brandon L Barr
304-558-2652
brandon.l.barr@wv.gov

Vendor Signature X *Kevin J. Reith* **FEIN#** 54-1819774 **DATE** 12 - 16 - 2024

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

ADDITIONAL INFORMATION
The West Virginia Purchasing Division is soliciting bids on behalf of WorkForce West Virginia, herein referred to as the "Agency" to establish a contract for a qualified vendor to provide Networking Equipment for Kanawha City Office per the attached documentation.

INVOICE TO	SHIP TO
WORKFORCE WEST VIRGINIA 1900 KANAWHA BLVD, EAST BLDG 3, 3RD FLOOR, SUITE 300 CHARLESTON WV US	WORKFORCE WEST VIRGINIA 1900 KANAWHA BLVD E BLDG 3, 8TH FLOOR CHARLESTON WV US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Extreme Networks 48 Port Network Switch	7.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43222600			

Extended Description:
 Extreme Networks 48 Port Network Switch (Model 5320-48P-8XE), or equal.

INVOICE TO	SHIP TO
WORKFORCE WEST VIRGINIA 1900 KANAWHA BLVD, EAST BLDG 3, 3RD FLOOR, SUITE 300 CHARLESTON WV US	WORKFORCE WEST VIRGINIA 1900 KANAWHA BLVD E BLDG 3, 8TH FLOOR CHARLESTON WV US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Extreme Networks 48 Port Network Switch	2.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43222600			

Extended Description:
 Extreme Networks 48 Port Network Switch (Model 5320-48P-8XE), or equal.

INVOICE TO				SHIP TO			
WORKFORCE WEST VIRGINIA 1900 KANAWHA BLVD, EAST BLDG 3, 3RD FLOOR, SUITE 300 CHARLESTON WV US				WORKFORCE WEST VIRGINIA 1900 KANAWHA BLVD E BLDG 3, 8TH FLOOR CHARLESTON WV US			

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	Extreme Networks 1M SFP+ Twinaxial Cable	7.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43222600			

Extended Description:
 Extreme Networks 1M SFP+ Twinaxial Cable (Part 10304), or equal.

INVOICE TO				SHIP TO			
WORKFORCE WEST VIRGINIA 1900 KANAWHA BLVD, EAST BLDG 3, 3RD FLOOR, SUITE 300 CHARLESTON WV US				WORKFORCE WEST VIRGINIA 1900 KANAWHA BLVD E BLDG 3, 8TH FLOOR CHARLESTON WV US			

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	Extreme Networks Standard Power Cord	7.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43222600			

Extended Description:
 Extreme Networks Standard Power Cord, 15A, USA, NEMA 5-15, IEC320-C15(Part 10099), or equal.

SCHEDULE OF EVENTS		
<u>Line</u>	<u>Event</u>	<u>Event Date</u>
1	Questions due by December 10th, 2024 at 10 am ET	2024-12-10

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.

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.

3. **PRE-BID MEETING:** The item identified below shall apply to this Solicitation.

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

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

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 individual is permitted to represent more than one vendor at the pre-bid meeting. Any individual that does attempt to represent two or more vendors will be required to select one vendor to which the individual's attendance will be attributed. The vendors not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying 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. 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.

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.

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.

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 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 non-binding.

Submitted emails should have the solicitation number in the subject line. Question

Submission Deadline:

Submit Questions to:

2019 Washington Street, East Charleston, WV 25305

Fax: (304) 558-3970

Email:

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.

6. BID SUBMISSION: All bids must be submitted on or before the date and time of the bid opening listed in section 7 below. Vendors can submit bids electronically through wvOASIS, in paper form delivered to the Purchasing Division at the address listed below either in person or by courier, or in facsimile form by faxing to the Purchasing Division at the number listed below. Notwithstanding the foregoing, 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. The Purchasing Division will not accept bids or modification of bids via email.

Bids submitted in paper, facsimile, or via wvOASIS must contain a signature. Failure to submit a bid in any form without a signature will result in rejection of your bid.

A bid submitted in paper or facsimile form should contain the information listed below on the face of the submission envelope or fax cover sheet. Otherwise, the bid may be rejected by the Purchasing Division.

VENDOR NAME:

BUYER:

SOLICITATION NO.:

BID OPENING DATE:

BID OPENING TIME:

FAX NUMBER:

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.

Bid Delivery Address and Fax Number:

Department of Administration, Purchasing Division 2019 Washington Street East

Charleston, WV 25305-0130

Fax: 304-558-3970

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 or via delivery by mail).

Bid Opening Date and Time:

Bid Opening Location:

Department of Administration, Purchasing Division

2019 Washington Street East

Charleston, WV 25305-0130

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 Acknowledgement Form. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

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.

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 **shall** 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.

11. **COMMUNICATION LIMITATIONS:** In accordance with West Virginia Code of State Rules §148-1-6.6.2, 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.

12. **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.

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

14. **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 must 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: www.state.wv.us/admin/purchase/vrc/Venpref.pdf.

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. Any request for reciprocal preference must include with the bid any information necessary to evaluate and confirm the applicability of the preference. A request form to help facilitate the request can be found at: www.state.wv.us/admin/purchase/vrc/Venpref.pdf.

15. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES:

For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37 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.

16. 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 § 148-1-4.7.

17. 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.

18. 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.”

19. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.6. and § 148-1-6.3.”

20. **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 § 148-1-4.7. This authority does not apply to instances where state law mandates receipt with the bid.

21. **EMAIL NOTIFICATION OF AWARD:** The Purchasing Division will attempt to provide bidders with e-mail notification of contract award when a solicitation that the bidder participated in has been awarded. For notification purposes, bidders must provide the Purchasing Division with a valid email address in the bid response. Bidders may also monitor wvOASIS or the Purchasing Division's website to determine when a contract has been awarded.

22. **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.

GENERAL TERMS AND CONDITIONS:

1. CONTRACTUAL AGREEMENT: Issuance of an Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance by the State of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid, or on the Contract if the Contract is not the result of a bid solicitation, signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

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 "Vendors" 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.

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: The Initial Contract Term will be for a period of _____. The Initial Contract Term becomes effective on the effective start date listed on the first page of this Contract, identified as the State of West Virginia contract cover page containing the signatures of the Purchasing Division, Attorney General, and Encumbrance clerk (or another page identified as _____), and the Initial Contract Term ends on the effective end date also shown on the first page of this Contract.

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 _____ 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 _____ successive _____ 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:

☐ the contract will continue for _____ years;

☐ the contract may be renewed for _____ successive _____ 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).

☐ **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.

☐ **Construction/Project Oversight:** This Contract becomes effective on the effective start date listed on the first page of this Contract, identified as the State of West Virginia contract cover page containing the signatures of the Purchasing Division, Attorney General, and Encumbrance clerk (or another page identified as _____), and continues until the project for which the vendor is providing oversight is complete.

☐ **Other:** Contract Term specified in _____

4. AUTHORITY TO PROCEED: Vendor is authorized to begin performance of this contract on the date of encumbrance listed on the front page of the Award Document unless either the box for "Fixed Period Contract" or "Fixed Period Contract with Renewals" has been checked in Section 3 above. If either "Fixed Period Contract" or "Fixed Period Contract with Renewals" has been checked, Vendor must not begin work until it receives a separate notice to proceed from the State. The notice to proceed will then be incorporated into the Contract via change order to memorialize the official date that work commenced.

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/Award Document 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.

☐ **Construction:** This Contract is for construction activity more fully defined in the specifications.

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 a 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.

7. REQUIRED DOCUMENTS: All of the items checked in this section must be provided to the Purchasing Division by the Vendor as specified:

☐ **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 upon request and in a form acceptable to the State. The request may be prior to or after contract award at the State's sole discretion.

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The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications regardless of whether or not that requirement is listed above.

8. INSURANCE: The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below 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 that insurance requirement is listed in this section.

Vendor must maintain:

☐ **Commercial General Liability Insurance** in at least an amount of: _____ per occurrence.

☐ **Automobile Liability Insurance** in at least an amount of: _____ per occurrence.

☐ **Professional/Malpractice/Errors and Omission Insurance** in at least an amount of: _____ per occurrence. Notwithstanding the forgoing, Vendor's are not required to list the State as an additional insured for this type of policy.

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

☐ **Cyber Liability Insurance** in an amount of: _____ 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.

☐

☐

☐

☐

9. WORKERS' COMPENSATION INSURANCE: 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.

10. VENUE: All legal actions for damages brought by Vendor against the State shall be brought in the West Virginia Claims Commission. Other causes of action must be brought in the West Virginia court authorized by statute to exercise jurisdiction over it.

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.

☐ Liquidated Damages Are Not Included in this Contract.

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.

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. Notwithstanding the foregoing, Vendor must extend any publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.

14. PAYMENT IN ARREARS: Payments for goods/services will be made in arrears only upon receipt of a proper invoice, detailing the goods/services provided or receipt of the goods/services, whichever is later. Notwithstanding the foregoing, payments for software maintenance, licenses, or subscriptions may be paid annually in advance.

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.)

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.

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, included in the Contract, 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.

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. If that occurs, the State may notify the Vendor that an alternative source of funding has been obtained and thereby avoid the automatic termination. Non-appropriation or non-funding shall not be considered an event of default.

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.

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

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.

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.

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.

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.

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.

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.

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.

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.

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.

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 www.state.wv.us/admin/purchase/privacy.

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 5G-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.

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.

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.

34. VENDOR NON-CONFLICT: Neither Vendor nor its representatives are permitted to have any interest, nor shall they 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.

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.

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.

37. NO DEBT CERTIFICATION: In accordance with West Virginia Code §§ 5A-3-10a and 5-22-1(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. By submitting a bid, or entering into a contract with the State, Vendor is affirming 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, neither the Vendor nor any related party owe a debt as defined above, and neither the Vendor nor any related party are in employer default as defined in the statute cited above unless the debt or employer default is permitted under the statute.

38. 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.

39. 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.division@wv.gov.

40. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, 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.

41. 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 hearth, basic oxygen, electric furnace, Bessemer or other steel making process.
- c. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:
 1. 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
 2. 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.

42. 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.

43. INTERESTED PARTY SUPPLEMENTAL DISCLOSURE: W. Va. Code § 6D-1-2 requires that for contracts with an actual or estimated value of at least \$1 million, the Vendor must submit to the Agency a disclosure of interested parties prior to beginning work under this Contract. Additionally, the Vendor must submit a supplemental disclosure of interested parties reflecting any new or differing interested parties to the contract, which were not included in the original pre-work 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.

44. PROHIBITION AGAINST USED OR REFURBISHED: Unless expressly permitted in the solicitation published by the State, Vendor must provide new, unused commodities, and is prohibited from supplying used or refurbished commodities, in fulfilling its responsibilities under this Contract.

45. VOID CONTRACT CLAUSES: This Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

46. ISRAEL BOYCOTT: Bidder understands and agrees that, pursuant to W. Va. Code § 5A-3-63, it is prohibited from engaging in a boycott of Israel during the term of this contract.

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.

(Printed Name and Title) _____

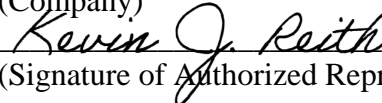
(Address) _____

(Phone Number) / (Fax Number) _____

(email address) _____

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract 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/Contract 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 this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; 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; 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.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

(Company)


(Signature of Authorized Representative)

(Printed Name and Title of Authorized Representative) (Date)

(Phone Number) (Fax Number)

(Email Address)

REQUEST FOR QUOTATION
Networking Equipment for Kanawha City Office

SPECIFICATIONS

1. PURPOSE AND SCOPE: The West Virginia Purchasing Division is soliciting bids on behalf of WorkForce West Virginia to establish a contract for the one-time purchase of networking equipment.

2. DEFINITIONS: The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.

2.1 “Contract Item” networking equipment as more fully described by these specifications.

2.2 “Pricing Page” means the pages, contained in wvOASIS or attached as Exhibit A, upon which Vendor should list its proposed price for the Contract Items.

2.3 “Solicitation” means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

2.4 “PoE” means Power over Ethernet.

2.5 “Gb” means gigabit.

2.6 “SPF” means Small Form-Factor Pluggable.

2.7 “Gbps” means gigabit per second.

3. GENERAL REQUIREMENTS:

3.1 Mandatory Contract Item Requirements: Contract Item must meet or exceed the mandatory requirements listed below.

3.1.1 Contract Item #1 – Quantity 7 – Extreme Networks 48 Port Network Switch (Model 5320-48P-8XE), or equal.

3.1.1.1 Must have forty-eight (48) 10/100/1000 Base-T 802.3at (30W) ports Full/Half-Duplex (autosensing) MACsec-capable.

3.1.1.2 Must have eight (8) 1Gb SFP uplink ports (includes 2 x Stacking ports minimum of 10Gb). May be upgradeable to 10Gb SFP+ via

REQUEST FOR QUOTATION
Networking Equipment for Kanawha City Office

software license. MACsec-capable – 100Mb operation supported on last 4 uplink ports.

3.1.1.3 Must have one (1) Serial console port (RJ-45).

3.1.1.4 Must have one (1) USB A ports for management or external USB flash.

3.1.1.5 Must have one (1) USB Micro-B console port.

3.1.2 Contract Item #2 – Quantity 2 – Extreme Networks 1000BSX SFP mini-GBIC Transceiver Module – 1Gbps (Part 10051H), or equal.

3.1.2.1 Must have a Form Factor: SFP.

3.1.2.2 Must have TX Wavelength 850nm.

3.1.2.3 Must have Reach: 500m

3.1.2.4 Must have Cable Type: MMF

3.1.2.5 Must have Rate Category: 1000Base

3.1.2.6 Must have Interface Type: SX

3.1.2.7 Must have Connector Type: Dual-LC

3.1.3 Contract Item #3 – Quantity 7 – Extreme Networks 1M SFP+ Twinaxial Cable (Part 10304), or equal.

3.1.3.1 Cable must be a minimum of 3.3 feet long with a SFP+ Male to SFP+ Male connections.

REQUEST FOR QUOTATION
Networking Equipment for Kanawha City Office

3.1.4 Contract Item #4 – Quantity 7 – Extreme Networks Standard Power Cord, 15A, USA, NEMA 5-15, IEC320-C15(Part 10099), or equal.

3.1.5 All equipment and supplies must be new, and factory sealed. Refurbished equipment will not be accepted. Vendor submitting an alternate brand must include the manufacture part/model numbers with bid pricing. Vendor submitting an alternate brand must include documentation of technical specifications with bid.

4. CONTRACT AWARD:

4.1 Contract Award: The Contract is intended to provide Agencies with a purchase price for the Contract Items. The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.

4.2 Pricing Page: Vendor should complete the Pricing Page by providing a total cost for the Contract Items being requested. Vendor should complete the Pricing Page in full as failure to complete the Pricing Page in its entirety may result in Vendor's bid being disqualified.

5. PAYMENT:

5.1 Payment: Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

6. DELIVERY AND RETURN:

6.1 Shipment and Delivery: Vendor shall ship the Contract Items immediately after being awarded this Contract and receiving a purchase order or notice to proceed. Contract Items must be delivered to Agency at 1900 Kanawha Blvd. East Building 3, Suite 300, Charleston, WV 25305.

6.2 Late Delivery: The Agency placing the order under this Contract must be notified in writing if the shipment of the Contract Items will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the Contract, and/or obtaining the Contract Items from a third party.

REQUEST FOR QUOTATION
Networking Equipment for Kanawha City Office

Any Agency seeking to obtain the Contract Items from a third party under this provision must first obtain approval of the Purchasing Division.

- 6.3 Delivery Payment/Risk of Loss:** Vendor shall deliver the Contract Items F.O.B. destination to the Agency's location.
- 6.4 Return of Unacceptable Items:** If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.
- 6.5 Return Due to Agency Error:** Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

7 VENDOR DEFAULT:

- 7.1** The following shall be considered a vendor default under this Contract.
- 7.1.1 Failure to provide Contract Items in accordance with the requirements contained herein.
 - 7.1.2 Failure to comply with other specifications and requirements contained herein.
 - 7.1.3 Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.
 - 7.1.4 Failure to remedy deficient performance upon request.
- 7.2** The following remedies shall be available to Agency upon default.
- 7.2.1 Immediate cancellation of the Contract.

REQUEST FOR QUOTATION
Networking Equipment for Kanawha City Office

- 7.2.2 Immediate cancellation of one or more release orders issued under this Contract.
- 7.2.3 Any other remedies available in law or equity.

Exhibit A - Pricing Page

Kanawha City Networking Equipment

Item #	Part Number	Description	Manufacturer and Model if bidding * or equal products	Unit of Measure	Quantity *	Unit Price	Extended Amount
3.1.1	5320-48P-8XE	Extreme Networks 48 Port Network Switch, or Equal	Cisco Catalyst 9200L 48-port Network Switch (# C9200L-48P-4X-E)	Each	7	\$3,689.83	\$25,828.81
3.1.2	10051H	Extreme Networks 1000BSX SFP min-GBIC Transceiver Module, or Equal	Cisco 100% compatible 1000BSX SFP (# GLC-SX-MMD=)	Each	2	\$50.00	\$100.00
3.1.3	10304	Extreme Networks 1M SFP+ Twinaxial Cables, or Equal	Cisco Stacking Kit and Stacking Cable (# STACK-T4-50CM)	Each	7	\$0.00	\$0.00
3.1.4	10099	Extreme Networks Standard Power Cords 15A, USA, NEMA 5-15, IEC320-C15, or Equal	Cisco Standard AC Power Cable Type A (# CAB-TA-NA)	Each	7	\$0.00	\$0.00
Overall Total Cost							\$25,928.81

Vendor must complete the Price Page in full as failure to complete the Pricing Page in its entirety may result in Vendor's bid being disqualified. A no bid will result in Vendor's bid being disqualified.


Vendor Signature

Note: Lines 3 & 4 (3.1.3 & 3.1.4) do not show a cost because they are an included item, no charge

Networking For Future (NFF), Inc.
wvOASIS Vendor Code: VS0000037191

Kevin J. Reith, Sales Director – WV State/Local/Education
233 Heavner Avenue, Unit #D, ELKINS, WV 26241
Email: kreith@nffinc.com // Cell: (202) 304-9030

Estimate ID: NX159719057YI
 Estimate Name: WV WorkForce Switches 11-24
 Created On: 25-Nov-2024
 Created By: Jessie Hackney (jehackne@cisco.com)
 Last Update On: 17-Dec-2024
 Last Update By: Kevin Reith (kevin.reith@nffinc.com)
 Main Currency: USD
 Price List: Global Price List US Availability

Line Number	Item Name	Description	Service Duration (Months)	Estimated Lead Time (Days)	Qty	ListPrice	Extended ListPrice
Products							
1.0	C9200L-48P-4X-E	Catalyst 9200L 48-port PoE+, 4 x 10G, Network Essentials	N/A	14	7	8,252.06	57,764.42
1.1	C9200L-DNA-E-48	C9200L Cisco DNA Essentials, 48-port Term license	N/A	14	7	0.00	0.00
1.2	C9200L-NW-E-48	C9200L Network Essentials, 48-port license	N/A	14	7	0.00	0.00
1.3	CAB-TA-NA	North America AC Type A Power Cable	N/A	14	7	0.00	0.00
1.4	PWR-C5-BLANK	Config 5 Power Supply Blank	N/A	14	7	0.00	0.00
1.5	C9K-ACC-RBFT	RUBBER FEET FOR TABLE TOP SETUP 9200 and 9300	N/A	14	7	0.00	0.00
1.6	C9K-ACC-SCR-4	12-24 and 10-32 SCREWS FOR RACK INSTALLATION, QTY 4	N/A	14	7	0.00	0.00
1.7	CAB-GUIDE-1RU	1RU CABLE MANAGEMENT GUIDES 9200 and 9300	N/A	14	7	0.00	0.00
1.8	C9200L-STACK-KIT	Cisco Catalyst 9200L Stack Module	N/A	14	7	1,604.66	11,232.62
1.9	C9200-STACK	Catalyst 9200 Stack Module	N/A	14	14	0.00	0.00
1.10	STACK-T4-50CM	50CM Type 4 Stacking Cable	N/A	14	7	0.00	0.00
1.11	NETWORK-PNP-LIC	Network Plug-n-Play Connect for zero-touch device deployment	N/A	3	7	0.00	0.00

Services							
1.1.1	C9200L-DNA-E-48-3Y	C9200L Cisco DNA Essentials, 48-port, 3 Year Term license	36	N/A	7	1,324.59	9,272.13

Notes: This is the comprehensive BoM Estimate for the Cisco switches being proposed in place of the Extreme switches. *Pricing is MSRP LIST PRICE ONLY*

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DATE (MM/DD/YYYY)

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INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC OTHER:			7092168501	05/06/2024	05/06/2025	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 15,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 4,000,000 \$
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY			7092168482	05/06/2024	05/06/2025	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			7092168465	05/06/2024	05/06/2025	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000 \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	7092168529	05/06/2024	05/06/2025	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
B	E&O / Cyber			7092170569	05/06/2024	05/06/2025	\$ 5,000,000 / \$25K DED
D	3rd Party Crime			BDRH605330	05/06/2024	05/06/2025	\$ 5,000,000 / \$25K DED
D	EPLI w/ 3rd Party			LHRH65290503	05/06/2024	05/06/2025	\$ 1,000,000 \$25K DED

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

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AUTHORIZED REPRESENTATIVE

Shannon Cole

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Extreme Networks: Interoperability Evaluation for Cisco Catalyst & WLAN with Extreme Switches

EXECUTIVE SUMMARY

Wireless LANs are an essential part of enterprises of all sizes and Wi-Fi 6 is the latest generation bringing enhanced performance and implementing 2.5GbE uplinks from AP to switch. To further enhance performance, Cisco Systems implements multiple 10GbE ports on its Catalyst WLAN controller. Extreme Networks provides high-performance switching ideal for serving as a network fabric for high-performance Wi-Fi 6 wireless networks.

Extreme Networks commissioned Tolly to evaluate the interoperability of its Extreme 5520-24X 10GbE and 5720-48MW series of LAN switches with the Cisco Systems WLAN and wired solutions as implemented in the Cisco Systems Catalyst 9800 WLAN Controller, Catalyst 9115 Series Wi-Fi 6 Access Point, and Catalyst 9200 48-port PoE switch.

The Extreme Networks LAN switches and the Cisco Systems Catalyst wireless WLAN solutions demonstrated interoperability across all functionality tests and illustrated interoperability with the 2.5GbE AP uplink, 10GbE WLAN controller, and the Cisco Systems Catalyst switch. See Table 1 for WLAN results.

THE BOTTOM LINE

The Extreme switches & Cisco WLAN Controller and AP illustrated:

- 1 Power over Ethernet (PoE) & LLDP power negotiation interoperability
- 2 VLAN tagging interoperability
- 3 sFlow & LLDP system interoperability & visibility
- 4 Interoperability with 2.5GbE uplink of the AP
- 5 Link Aggregation interoperability with the WLAN controller (10GbE)

Extreme Networks 5520-24X & 5720-48MW LAN Switch Interoperability with Cisco Systems Catalyst 9800 WLAN Controller & Cisco Catalyst 9115 Series Wi-Fi 6 Access Point

Feature/Function	Extreme Networks 5520-24X (10GbE Switch with 40GbE Uplinks)	Extreme Networks 5720-48MW PoE (GbE switch with 10GbE Uplinks)
Power over Ethernet (PoE)	N/A. See note.	✓
Link Layer Discovery Protocol (LLDP)	✓	✓
PoE Power Negotiation via LLDP	N/A. See note.	✓
VLANs (Tagged traffic)	✓	✓
sFlow Support	✓	✓
2.5GbE Uplink Support	N/A. See note.	✓
Link Aggregation (Multiple controller 10GbE ports to switch)	✓	✓

Note: The 5520-24X is a 10GbE switch and is not used for access point connectivity. The 5520 product family has models that do include PoE and PoE power negotiation.

Source: Tolly, July 2023

Table 1



Background

Extreme Networks implements standards-based networking protocols to support open networking and provide support for third-party components in customer networks. For enterprise WLAN environments, it is essential that features such as Power over Ethernet, LLDP, and VLANs, function effectively between the wired LAN and WLAN infrastructure components. Illustrating that functionality and interoperability was the driver for this test. Additionally, it is imperative to prove support for 10GbE and 2.5GbE uplinks as WLAN capacities

continue to increase. As noted, all WLAN results are summarized in Table 1.

Tests were conducted in a microcosm of an Enterprise environment. This consisted of Extreme LAN switches providing wired Ethernet switching, including Power over Ethernet and Multigigabit Ethernet and 10GbE ports, communicating across the Cisco Catalyst 9200 switch. The Cisco WLAN AP was connected to the Extreme PoE switch and the Cisco WLAN controller was connected to the Extreme 10GbE switch. Various test clients on multiple network segments provided session traffic needed to evaluate the interoperability. All components were tested as a complete system. For an

Extreme Networks

5520-24X 10GbE
and 5720-48MW
GbE PoE Switches

LAN Switch &
Cisco WLAN &
Wired
Interoperability
Evaluation



Tested
July
2023

illustration of the test environment, see Figure 1.

Test Results

Power over Ethernet

Providing power to the AP via the wired Ethernet connection is certainly the most basic and arguably the most important element of interoperability.

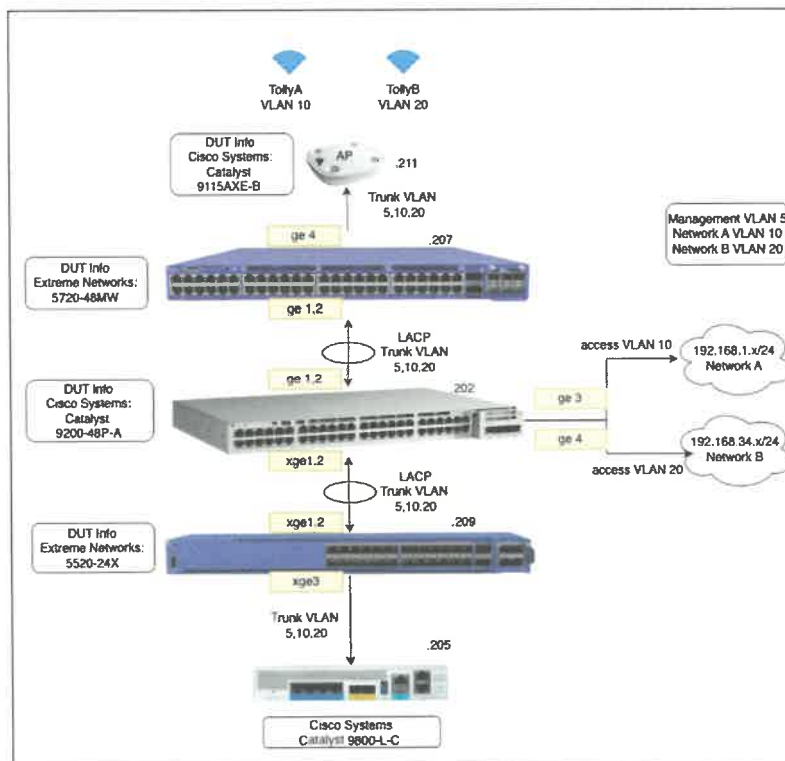
Tests showed that the Extreme Networks switch provided the required power to the AP via the wired Ethernet port.

LLDP Discovery

The Link Layer Discovery Protocol provides a dynamic method for network devices to learn information about other network devices without requiring a management session between devices.

Tests showed that the Extreme Networks switches discovered key system information and details about the AP under test. The details included system name, description, and MAC/PHY details.

Extreme Networks LAN Switch Interoperability with Cisco WLAN & Wired Infrastructure Test Environment



Source: Tolly, July 2023

Figure 1



Power Negotiation via LLDP

Different devices will require differing amounts of power from the LAN switch that is providing PoE. The LLDP protocol provides for a communication path between the powered device and the power provider across which the AP can request specific power levels.

Tests showed that the Extreme Networks switch modified the power being delivered based on the requirements of the AP under test.

VLAN Tagging

VLANs are an essential and commonly used method for differentiating traffic belonging to different groups of users. By tagging traffic into a particular VLAN, network traffic can be grouped for various reasons such as performance and/or security.

Tests showed that the Extreme Networks switches processed multiple client VLANs across a single switch port connected to the AP under test.

Link Aggregation

Link aggregation is a standards-based method of combining multiple physical ports of a switch to function as a single logical port.

Tests showed that the Extreme Networks switches interoperated with the WLAN under test to create a two-port, link aggregation group (LACP) using two 10Gigabit Ethernet ports implemented in the WLAN controller under test. Two additional LACP-based LAGs were created between the Cisco

Catalyst 9200 switch and both Extreme switches, which passed data to/from the WLAN clients.

sFlow

sFlow is an industry standard sampling technology used to monitor network traffic. sFlow gives visibility into network traffic for further analysis. Tests showed that the Extreme Networks switches collected network traffic data from the AP under test. Tolly engineers displayed the AP-to-WLAN controller network traffic data using a network protocol analyzer.

2.5GbE Multigigabit Access Port

Interoperability was confirmed for the Extreme 5720 switch to the AP. This test was not applicable to the other Extreme switch tested.

Switch Capabilities

In addition to the interoperability testing, Tolly engineers also validated more than a dozen important LAN switch capabilities.

These additional capabilities are listed in Table 2. Each Extreme switch passed all applicable test. (PoE/PoE+, for example, did not apply to the Extreme 5520-24X 10GbE switch.)

Each capability was configured as appropriate via the Extreme CLI and observed operating in the multi-switch environment. Because of the basic nature of those functions methodologies are not listed.

Test Setup & Methodology

Systems Under Test

LAN Switch

Tolly Group engineers tested WLAN interoperability using the Extreme Networks switches as the wired Ethernet LAN Switches. For switch infrastructure details, see Table 2.

WLAN Access Point & Controller

The Cisco Systems WLAN solution consisted of the Cisco Catalyst 9800 Series WLAN controller and a Cisco Catalyst 9115 Series Wi-Fi 6 Access Point. The AP was configured with a static IP address. The Cisco WLAN controller was configured to have the AP traffic tunneled to the controller, and tests were also conducted with local bridging mode. For WLAN infrastructure details, see Table 3.

Clients & Session Traffic

Various common clients (Windows, MacOS, iOS wired and wireless) were used as required to provide the session traffic over the WLAN/wired environment. As the use of these clients was to provide generic traffic to illustrate that the environment was operational and that traffic could flow across the heterogeneous switch-AP-controller environment client details are not relevant and, thus, not documented herein.



Extreme Networks Switch Capabilities Evaluation Results

Function	Description	Result
Static IP address support	Support for configuring ports with static IP addresses	✓
Hot-swappable power supplies	Support for multiple power supplies with hot-swap capability	✓
Remote configuration load	Support for loading configuration remotely via TFTP or FTP	✓
In-band configuration via SSH/Telnet	Support for configuration via SSH and Telnet protocols	✓
Remote SNMP management	Support for remote management via SNMP	✓
VLAN trunks and 802.1Q tags	Support for IEEE 802.1Q virtual LAN tags and trunks	✓
RMON Group 1 and 2 Statistics	Support for remote network monitoring Group 1 & 2	✓
802.1s MSTP	Support for the IEEE 802.1s multiple spanning tree protocol	✓
Network Time Protocol (NTP)	Support for client and server NTP (client tested)	✓
Logging	Support for logging/reporting user access, configuration changes, and system events	✓
IGMP v2	Support for Internet Group Management Protocol v2	✓
802.1p QoS	Support for IEEE 802.1p priority bits	✓
802.3ad link aggregation	Support for IEEE 802.3ad link aggregation	✓
802.3at PoE+	Support for IEEE 802.3at Power over Ethernet+	✓

Source: Tolly, July 2023

Table 2

Test Methodology

Power Over Ethernet

This test verified that the LAN switch could deliver power to the AP from the LAN switch wired Ethernet port.

Tolly engineers used the Extreme switch show command to validate that the switch was delivering power to the AP under test. Tolly engineers reviewed the power setting on the port before and after the AP was connected.

Link Layer Discovery Protocol

This test verified that the LAN switch could identify key attributes of the AP under test via LLDP.

Tolly engineers used the Extreme switch show command to verify that the Extreme switch could identify the system name of the AP under test.

Power Negotiation via LLDP

This test verified that the LAN switch could negotiate power to the level requested by the AP under test.

Tolly engineers used the aforementioned switch commands to verify that power

was negotiated to the level required by the AP under test.

VLANs (Tagged Traffic)

This test verified that the LAN switch could process traffic streams from the AP containing VLAN tags from two different VLANs.

Tolly engineers configured two clients communicating with the AP under test with each client on a different VLAN. The clients then communicated with systems that could be reached only by traversing the Extreme switches.

Tolly engineers verified that the sessions were established and,



Solutions Under Test

Role	Vendor	Device Type	Multigigabit Copper (2.5/5GbE) Ports	Device	Version
Switch Infrastructure	Extreme Networks	LAN Switch	Yes	5520-24X	32.4.1.10
	Extreme Networks	LAN Switch	Yes	5720-48MW	32.4.1.10
	Cisco Systems	LAN Switch	Yes	C9200-48P-A	16.12.4
WLAN Infrastructure	Cisco Systems	WLAN Controller with fiber uplink	N/A	Cisco Catalyst C9800-L-F-K9	16.12.4a
	Cisco Systems	WLAN Wi-Fi 6 Access Point	Yes	Cisco Catalyst 9115 Series Wi-Fi 6 Access Point	Loaded from WLAN controller

Source: Tolly, July 2023

Table 3

additionally, used Extreme switch commands to display the relevant VLANs on the switch and confirm the port mapping.

Link Aggregation

This test verified that the LAN switch could support the link aggregation function whereby two physical Gigabit Ethernet ports on the AP can be combined logically via LACP to provide higher bandwidth between the WLAN controller and the LAN switch.

Tolly engineers configured a port channel using LACP on the Extreme switch using two 10GbE ports between the switch and the Cisco WLAN controller. Engineers confirmed that the WLAN controller recognized and used the link aggregation group.

2.5GbE Multigigabit Access Port

This test verified that the switch could communicate with the AP at 2.5GbE over the AP's multigigabit link to the switch. This test was run only on the Extreme Networks 5720-48MW switch.

sFlow

This test verified that the LAN switch could collect sFlow ("sampled flow") network traffic information relative to the AP under test and send it to the designated capture port.

Tolly engineers used a Wireshark network protocol analyzer to capture the traffic to confirm that sFlow was being sent to the designated capture port. Wireshark was used to display the data to confirm its contents as sFlow.



About Tolly...

The Tolly Group companies have been delivering world-class IT services for more than 25 years. Tolly is a leading global provider of third-party validation services for vendors of IT products, components and services. You can reach the company by email at sales@tolly.com, or by telephone at +1 561.391.5610.

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