



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](http://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](http://WVPurchasing.gov) with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

## Header 3

List View

### General Information

Contact

Default Values

Discount

Document Information

Procurement Folder: 482915

SO Doc Code: CRFQ

Procurement Type: Central Purchase Order

SO Dept: 0439

Vendor ID: 000000205753 

SO Doc ID: EBA1900000003

Legal Name: NCOMPASS NETWORKS

Published Date: 8/21/18

Alias/DBA:

Close Date: 9/5/18

Total Bid: \$18,935.46

Close Time: 13:13

Response Date: 08/29/2018 

Status: Closed

Apply Default Values to Commodity Lines

View Procurement Folder



Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	MODULAR/STACKABLE NETWORK ETHERNET SWITCHES	1.00000	EA	\$18,935.460000	\$18,935.46

Comm Code	Manufacturer	Specification	Model #
43222612			

<b>Extended Description :</b>	MODULAR/STACKABLE NETWORK ETHERNET SWITCHES
-------------------------------	---



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

State of West Virginia  
 Request for Quotation  
 21 – Info Technology

Proc Folder: 482915

Doc Description: MODULAR, STACKABLE NETWORK ETHERNET SWITCHES

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2018-08-21	2018-09-05 13:13:00	CRFQ 0439 EBA1900000003	1

**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:

nCompass Networks  
 #4 Stonecrest Drive  
 Huntington, WV 25701  
 304-529-6069

**FOR INFORMATION CONTACT THE BUYER**

Stephanie L Gale  
 (304) 558-8801  
 stephanie.l.gale@wv.gov

Signature X

FEIN# 55-0667417

DATE 8-22-2018

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 the West Virginia Educational Broadcasting Authority (WVEBA) to establish a contract for the one time purchase of modular, stackable network ethernet switches.

INVOICE TO		SHIP TO	
CHIEF FINANCIAL OFFICER EDUCATIONAL BROADCASTING 124 INDUSTRIAL PARK RD		SITE MANAGER EDUCATIONAL BROADCASTING WSWP-TV 124 INDUSTRIAL PARK RD	
BEAVER	WV25813	BEAVER	WV 25813
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	MODULAR/STACKABLE NETWORK ETHERNET SWITCHES	1.00000	EA	\$19,467.62	\$19,467.62

Comm Code	Manufacturer	Specification	Model #
43222612			

Extended Description :  
MODULAR/STACKABLE NETWORK ETHERNET SWITCHES

**SCHEDULE OF EVENTS**

Line	Event	Event Date
1	Technical Questions Due	2018-08-28

<b>EBA1900000003</b>	<b>Document Phase</b> Final	<b>Document Description</b> MODULAR, STACKABLE NETWORK ETHERNET SWITCHES	<b>Page 3</b> <b>of 3</b>
----------------------	--------------------------------	--	------------------------------

**ADDITIONAL TERMS AND CONDITIONS**

See attached document(s) for additional Terms and Conditions

## 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. 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:

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.

**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: August 28, 2018 @ 8:00am ESY

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

**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 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:  
BUYER:  
SOLICITATION NO.:  
BID OPENING DATE:  
BID OPENING TIME:  
FAX NUMBER:

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 of 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 \_\_\_\_\_ 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

**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: September 5, 2018 @ 1:30pm EST

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 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.

**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 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.

**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.

**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.

**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.

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

**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/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. A request form to help facilitate the request can be found at:

<http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf>.

**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.

**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.

**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.

**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.”

**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.”

**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 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.

**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.

**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.

## 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.
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:** This Contract becomes effective on \_\_\_\_\_ and extends for a period of \_\_\_\_\_ 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 \_\_\_\_\_ 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 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.

**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.

**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.

**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 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.

**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: \_\_\_\_\_ per occurrence.

**Professional/Malpractice/Errors and Omission Insurance** in at least an amount of: \$1,000,000.00 per occurrence.

**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.

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.

**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.

**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

**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.

**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.

**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 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.

**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 with regard to 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 <http://www.state.wv.us/admin/purchase/privacy/default.html>.

**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 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.

**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. PURCHASING AFFIDAVIT:** 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, 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.

**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.

**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.

**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](mailto:purchasing.requisitions@wv.gov).

**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.

Revised 06/08/2018

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

**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.

**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.

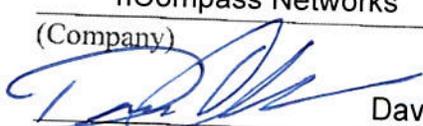
All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for 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.

**44. 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 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.

**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.

David Chambers, sales Executive  
(Name, Title)  
David Chambers, Sales Executive'  
(Printed Name and Title)  
#4 StoneCrest Drive, Huntington, WV, 25701  
(Address)  
Phone: 304-529-6069 Fax 304-529-2621  
(Phone Number) / (Fax Number)  
dchambers@ncompassnetworks.com  
(email address)

**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.

nCompass Networks  
(Company)  
  
David Chambers, Sales Executive  
(Authorized Signature) (Representative Name, Title)

David Chambers, Sales Executive  
(Printed Name and Title of Authorized Representative)

8-22-2018  
(Date)

Ph: 304-529-6069 Fax: 304-529-2621  
(Phone Number) (Fax Number)

ADDENDUM ACKNOWLEDGEMENT FORM  
SOLICITATION NO.: EBA712

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:

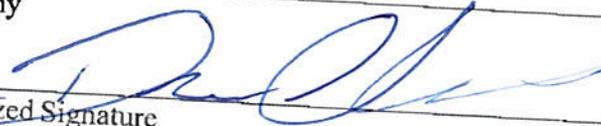
*(Check the box next to each addendum received)*

- Addendum No. 1
- Addendum No. 2
- Addendum No. 3
- Addendum No. 4
- Addendum No. 5

- Addendum No. 6
- Addendum No. 7
- Addendum No. 8
- Addendum No. 9
- 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 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.

nCompass Networks  
Company

  
Authorized Signature

8-22-2018  
Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.

# 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 \$100,000 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.

*"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](mailto:ethics@wv.gov); website: [www.ethics.wv.gov](http://www.ethics.wv.gov).*

STATE OF WEST VIRGINIA  
Purchasing Division

# 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 exceeds 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: nCompass Networks

Authorized Signature: [Signature] Date: 8-22-2018

State of West Virginia

County of Cabell, to-wit:

Taken, subscribed, and sworn to before me this 22 day of June, 2018

My Commission expires November 9th, 2020.

NOTARY PUBLIC [Signature]

*Purchasing Affidavit (Revised 01/19/2018)*



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

Contracting Business Entity: Education Broadcasting Address: 124 Industrial Park RD, Beaver, WV 25813

Authorized Agent: David Chambers Address: \_\_\_\_\_

Contract Number: EBA1900000003 Contract Description: Modular Stackable Network Ethernet Switches

Governmental agency awarding contract: Educational Broadcasting

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.

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: [Handwritten Signature]

Date Signed: 8-22-2018

**Notary Verification**

State of West Virginia, County of Cabell

I, David Chambers, 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 22<sup>ND</sup> day of AUGUST, 2018

[Handwritten Signature]  
Notary Public's Signature

**To be completed by State Agency:**  
Date Received by State Agency: \_\_\_\_\_  
Date submitted to Ethics Commission: \_\_\_\_\_  
Governmental agency submitting Disclosure: \_\_\_\_\_



REQUEST FOR QUOTATION  
RFQ# EBA712 Modular, Stackable Network Ethernet Switches

---

SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Educational Broadcasting Authority (WVEBA) to establish a contract for the one time purchase of modular, stackable network ethernet switches. These switches will be deployed in conjunction with Existing NetGear switches and must be able to form a switch stack with these existing switches as outlined in this RFQ.
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 **10GBase-T:** Is a standard for delivering 10 Gbps connections with unshielded or shielded twisted pair cables and RJ-45 connectors, over distances up to 100 meters.
  - 2.2 **Bandwidth:** the amount of data that can be transmitted in a fixed amount of time, usually expressed in bits per second(bps) or bytes per second.
  - 2.3 **Contract Item:** means network switches and associated modules as more fully described by these specifications.
  - 2.4 **GbE (Gigabit Ethernet):** a term describing various technologies for transmitting Ethernet frames at a rate of a gigabit per second (1,000,000,000 bits per second). When used with a different qualifier the rate would be a multiple of the qualifier. For example, 10 GbE would mean a transfer rate of 10 gigabits per second.
  - 2.5 **Gbps (Gigabit per second):** in data communications, a gigabit is one billion bits, or 1,000,000,000 (that is,  $10^9$ ) bits. Gbps is the transference of 1 Gigabit of data between two telecommunication points in one second.
  - 2.6 **Gigabit:** a unit of information equal to one billion ( $10^9$ ) or, strictly,  $2^{30}$  bits.
  - 2.7 **Hot Swappable:** ability to replace a component without shutting down a system.
  - 2.8 **Layer 2:** is the second layer of the seven-layer OSI model of computer networking. This layer is the protocol layer that transfers data between adjacent network nodes in a wide area network (WAN) or between nodes on the same local area network (LAN) segment.

REQUEST FOR QUOTATION  
RFQ# EBA712 Modular, Stackable Network Ethernet Switches

---

- 2.9 Layer 3:** The third layer of the OSI Model, the network layer, is most commonly known as the layer where routing takes place. A router's main job is to get packets from one network to another.
- 2.10 Layer 4:** the fourth layer of the OSI Model, known as the transport layer. It provides the transparent transmission or transfer of data between end systems or hosts and is responsible for end-to-end error recovery, as well as flow control.
- 2.11 Modular:** employing or involving a module or modules as the basis of design or construction. A modular network switch consists of a main unit whose hardware is configurable via the addition or subtraction of different hardware modules.
- 2.12 OSI Model:** The Open Systems Interconnection model is a conceptual model that characterizes and standardizes the communication functions of a telecommunication or computing system without regard to its underlying internal structure and technology.
- 2.13 OSPF (Open Shortest Path First):** is a routing protocol for Internet Protocol (IP) networks. It uses a link state routing (LSR) algorithm and falls into the group of interior gateway protocols (IGPs), operating within a single autonomous system (AS).
- 2.14 Policy Based Routing:** a technique used to make routing decisions based on policies set by the network administrator. For example, a network administrator might want to forward a packet based on the source address, not the destination address.
- 2.15 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.
- 2.16 RJ-45:** a type of connector commonly used for Ethernet networking. The "RJ" in RJ-45 stands for "registered jack," since it is a standardized networking interface. The "45" simply refers to the number of the interface standard. Each RJ-45 connector has eight pins, which means an RJ-45 cable contains eight separate wires.
- 2.17 Solicitation:** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
- 2.18 Stackable Switch:** a network switch that is fully functional operating standalone but which can also be set up to operate together with one or more other network switches, with this group of switches showing the characteristics of a single switch but having the port capacity of the sum of the combined switches.

REQUEST FOR QUOTATION  
RFQ# EBA712 Modular, Stackable Network Ethernet Switches

---

- 2.19 Switch Stack:** two or more stackable switches that have been connected such that they have the characteristics of a single switch but the port capacity of the sum of the combined switches.
- 2.20 Switching Fabric:** the combination of hardware and software that moves data coming in to a network node out by the correct port (door) to the next node in the network. Switching fabric includes the switching units (individual boxes) in a node, the integrated circuits that they contain, and the programming that allows switching paths to be controlled.
- 2.21 TBPS (TeraBits Per Second):** a measurement of data transfer speed equaling one trillion bits 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 Item 1 – NetGear M4300-96x modular network switch (Manufacturer’s part number XSM4396K0-10000S), equivalent, or better.** Quantity 2. This item must have the following features and specifications or better:

**3.1.1.1 Must be modular:**

**3.1.1.1.1** Must have the capacity for a minimum of 12 hardware modules

**3.1.1.1.2** Must have 1 GbE modules available

**3.1.1.1.3** Must have 10 Gbase-T modules available

**3.1.1.1.4** Must have 40 GbE modules available

**3.1.1.2 Must be Stackable**

**3.1.1.2.1** Must be capable of combining a minimum of 8 compatible switches into a stack

**3.1.1.2.2** Switch stack must have a minimum capacity of 384 Gigabit ports, 768 10 Gigabit ports, 192 40 Gigabit ports, or a mixture of these ports

**3.1.1.2.3** Must be stackable with a minimum of the following switches: the NetGear M4300-24x ProSafe switch and the NetGear M4300-12x12F ProSafe switch

REQUEST FOR QUOTATION  
RFQ# EBA712 Modular, Stackable Network Ethernet Switches

---

- 3.1.1.3 Must include Layer 2, Layer 3, and Layer 4 features and functionality including but not limited to Policy Based Routing and OSPF
- 3.1.1.4 Must have a switching fabric rated at 1.920 Tbps or higher
- 3.1.1.5 Must have a minimum of two hot swappable redundant power supplies
  
- 3.1.2 **Item 2 – NetGear 8 Port 100M/1G/2.5G/5G/10Gbase-T Module for NetGear M4300-96x switch (Manufacturer’s part number APM408C), equivalent or better.** Quantity 6. This item must have the following features and specifications or better:
  - 3.1.2.1 Must be certified by the switch manufacturer to be compatible with Item 1, modular network switch
  - 3.1.2.2 Must have a minimum of 8 ports supporting but not limited to 1 GbE, 2.5 GbE, 5 GbE, and 10 Gbase-T connectivity
  
- 3.1.3 **Item 3 - NetGear Modular 600 watt AC Power Supply Unit for M4300-96x switch (Manufacturer’s part number APS600W), equivalent or better.** Quantity 4. This item must have the following features and specifications or better:
  - 3.1.3.1 Must be certified by the switch manufacturer to be compatible with Item 1, modular network switch
  - 3.1.3.2 Must be hot swappable
  - 3.1.3.3 Must have up to 600 watts output power with 110/220 volt AC input

**4. CONTRACT AWARD:**

- 4.1 **Contract Award:** The Contract is intended to provide the WVEBA 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. The total cost shall be the total cost of Item 1, Item 2, and Item 3 as calculated on the Pricing Page.
  
- 4.2 **Pricing Page:** Vendor should complete the Pricing Page (Exhibit A) by filling in the indicated information. 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.

REQUEST FOR QUOTATION  
RFQ# EBA712 Modular, Stackable Network Ethernet Switches

---

Vendor should type or electronically enter the information into the Pricing Page to prevent errors in the evaluation.

**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. Vendor shall deliver the Contract Items within 10 working days after receiving a purchase order or notice to proceed. Contract Items must be delivered to the WVEBA at 600 Capitol St, Charleston, WV 25301.

**6.2 Late Delivery:** The WVEBA 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 the WVEBA will be grounds for cancellation of the Contract, and/or obtaining the Contract Items from a third party.

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 WVEBA's location.

**6.4 Return of Unacceptable Items:** If the WVEBA 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 WVEBA to arrange for the return and reimburse the WVEBA for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the WVEBA with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the WVEBA's location. The returned product shall either be replaced, or the WVEBA shall receive a full credit or refund for the purchase price, at the WVEBA's discretion.

**6.5 Return Due to WVEBA Error:** Items ordered in error by the WVEBA 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

REQUEST FOR QUOTATION  
RFQ# EBA712 Modular, Stackable Network Ethernet Switches

---

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 the WVEBA upon default.

7.2.1 Immediate cancellation of the Contract.

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.



4 Stonecrest Drive Huntington ,WV  
 t. 304-529-6069 f. 304-529-2621

# QUOTE

**Number** AAAQ9456

**Date** Aug 22, 2018

Sold To	Ship To	Your Sales Rep
<b>EDUCATIONAL BROADCASTING</b> WSWP-T Stephanie L Gale 124 INDUSTRIAL PARK RD BEAVER, WV 25813 USA	<b>EDUCATIONAL BROADCASTING</b> WSWP-T Stephanie L Gale 124 INDUSTRIAL PARK RD BEAVER, WV 25813 USA	David Chambers 304-529-6069  dchambers@ncompassn etworks.com
<b>Phone</b> (304) 558-8801 <b>Fax</b>	<b>Phone</b> (304) 558-8801 <b>Fax</b>	

Here is the quote you requested.

Terms	P.O. Number	Ship Via
-------	-------------	----------

Line	P/N	Description	Qty	Unit Price	Ext. Price
1	J9281D	Aruba 10G SFP+ to SFP+ 1m DAC Cable - SFP+ for Network Device, Switch, Transceiver - 1.25 GB/s - 3.28 ft - SFP+ Network - SFP+ Network	4	\$35.90	\$143.60
2	J9822A	HPE 5412R z12 Switch - Manageable - Modular - 3 Layer Supported - 7U High - Rack-mountable - Lifetime Limited Warranty	2	\$1,648.70	\$3,297.40
3	J9828A#ABA	HPE 5400R 700W PoE+ z12 Power Supply - 700 W - 120 V AC, 230 V AC	6	\$286.73	\$1,720.38
4	J9993A	HPE 8 Ports 1G/10GbE SFP+ MACsec v3 z12 - For Data Networking, Optical NetworkOptical FiberGigabit Ethernet, 10 Gigabit Ethernet - 10GBase-X - 10 Gbit/s - 8 x Expansion Slots - SFP+	2	\$1,720.47	\$3,440.94
5	J9995A	HPE 5400R 8-port 1/2.5/5/10GBASE-T PoE+ with MACsec v3 z12 Module - For Data Networking 8 RJ-45 10GBase-T LAN - Twisted Pair10 Gigabit Ethernet - 10GBase-T - 10 Gbit/s	6	\$1,722.19	\$10,333.14

Please contact me if I can be of further assistance.

<b>SubTotal</b>	\$18,935.46
<b>Tax</b>	\$0.00
<b>Shipping</b>	\$0.00
<b>Total</b>	\$18,935.46

Accepted by

Date accepted

REQUEST FOR QUOTATION  
RFQ# EBA712 Modular, Stackable Network Ethernet Switches

Exhibit A, Pricing Page

Item#	Description	Part#	Quan	Cost	Total
Item 1	Modular, Stackable Network Switch	J92810 J9822A	2	6887. <sup>00</sup>	13,774. <sup>00</sup>
Item 2	8 port module 1G/2.5G/5G/10Gbase-T	J9828A#ABA	6	286.73	1,720.38
Item 3	Modular 600 watt AC Power Supply	J9993A J9995A	4	860.25	3,441. <sup>00</sup>
<b>Total</b>		HP/ARUBA			19,935.46

Authorized Signature:



Date:

8/29/2018

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application is hereby made for Preference in accordance with West Virginia Code, §5A-3-37. (Does not apply to construction contracts). West Virginia Code, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the West Virginia Code. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Vendor Preference, if applicable.

1. Application is made for 2.5% vendor preference for the reason checked:

- Bidder is an individual resident vendor and has resided continuously in West Virginia, or bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia, for four (4) years immediately preceding the date of this certification; or,
 Bidder is a resident vendor partnership, association, or corporation with at least eighty percent of ownership interest of bidder held by another entity that meets the applicable four year residency requirement; or,
 Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,

2. Application is made for 2.5% vendor preference for the reason checked:

- Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,

3. Application is made for 2.5% vendor preference for the reason checked:

- Bidder is a nonresident vendor that employs a minimum of one hundred state residents, or a nonresident vendor which has an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia and employs a minimum of one hundred state residents, and for purposes of producing or distributing the commodities or completing the project which is the subject of the bidder's bid and continuously over the entire term of the project, on average at least seventy-five percent of the bidder's employees or the bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years and the vendor's bid; or,

4. Application is made for 5% vendor preference for the reason checked:

- Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,

5. Application is made for 3.5% vendor preference who is a veteran for the reason checked:

- Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,

6. Application is made for 3.5% vendor preference who is a veteran for the reason checked:

- Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

7. Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules.

- Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.

8. Application is made for reciprocal preference.

- Bidder is a West Virginia resident and is requesting reciprocal preference to the extent that it applies.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) rescind the contract or purchase order; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: nCompass Networks

Signed: [Signature]

Date: 8-22-2018

Title: Sales Executive

\*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

DATA SHEET

# ARUBA 5400R ZL2 SWITCH SERIES

## PRODUCT OVERVIEW

The Aruba 5400R zL2 Switch Series is an industry-leading mobile campus access solution with HPE Smart Rate multi-gigabit ports for high-speed 802.11ac devices. It delivers enterprise-class resiliency with innovative flexibility and scalability for customers creating digital workplaces that are optimized for mobile users with an integrated wired and wireless approach. This series brings scalable aggregation with Virtual Switching Framework (VSF) stacking technology, hitless failover, and Fast Software Upgrade for 5400R VSF stacks. The advanced Layer 2 and 3 feature set includes OSPF, IPv6, IPv4 BGP, Dynamic Segmentation, robust QoS and policy-based routing with no software licensing required.

Based on a powerful ProVision ASIC, the Aruba 5400R zL2 Switch Series has a high-speed, high-capacity architecture with 2 Tbps crossbar switching fabric with low 2.1µ latency, robust feature support, and value with flexible programmability for future applications. This series offers flexible connectivity options with 6- or 12-slot compact chassis, line rate 40GbE, up to 96 line rate 10GbE ports and up to 288 ports of PoE+. The 5400R is easy to deploy and manage with advanced security and network management tools like Aruba ClearPass Policy Manager, Aruba AirWave and cloud-based Aruba Central.

## FEATURES AND BENEFITS

### Software-defined networks

- Supports multiple programmatic interfaces, including REST APIs and Openflow 1.0 and 1.3, to enable automation of network operations, monitoring, and troubleshooting

### Unified Wired and Wireless

- ClearPass Policy Manager supports unified wired and wireless policies using Aruba ClearPass Policy Manager
- Switch auto-configuration automatically configures switch for different settings such as VLAN, CoS, PoE max power, and PoE priority when Aruba AP is detected



## KEY FEATURES

- Powerful Aruba Layer 3 modular switch series with VSF stacking, Dynamic Segmentation, low latency and resiliency.
  - HPE Smart Rate for high-speed multi-gigabit bandwidth (IEEE 802.3bz) and PoE+ power.
  - Scalable line rate 40GbE for wireless traffic aggregation.
  - Ready for the software defined network with REST APIs and OpenFlow support.
  - Security and network management tools with ClearPass Policy Manager, AirWave and cloud-based Central
  - User Role defines a set of switch-based policies in areas such as security, authentication, and QoS. A user role can be assigned to a group of users or devices, using switch-based local user role or download from ClearPass
  - Dynamic Segmentation provides a secure tunnel that transports network traffic on a per-port or per-user role basis to an Aruba Controller. In a per-user role Tunnel Node, users are authenticated by the ClearPass Policy Manager which directs traffic to be tunneled to an Aruba controller or switch locally
  - Static IP Visibility allows ClearPass to do accounting for clients with static IP address
- ### Quality of Service (QoS)
- Advanced classifier-based QoS classifies traffic using multiple match criteria based on Layer 2, 3, and 4 information; applies QoS policies such as setting priority level and rate limit to selected traffic on a per-port or per-VLAN basis
  - Traffic prioritization allows real-time traffic classification into eight priority levels mapped to eight queues

- Bandwidth shaping
  - Port-based rate limiting provides per-port ingress-/egress-enforced increased bandwidth
  - Classifier-based rate limiting uses an access control list (ACL) to enforce increased bandwidth for ingress traffic on each port
  - Reduced bandwidth provides per-port, per-queue egress-based reduced bandwidth
- Class of Service (CoS) sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port, and DiffServ
- Unknown Unicast Rate Limiting throttles unicast packets with unknown destination addresses and limits flooding on the VLAN

### Management

- Aruba Central cloud-based management platform offers simple, secure, and cost effective way to manage switches
- Zero-Touch ProVisioning (ZTP) simplifies installation of the switch infrastructure using Aruba Activate-based or DHCP-based process with AirWave Network Management
- Flexible management with same hardware – Supports both cloud-based Central and on-premise AirWave with the same hardware ensuring change management platform without ripping and replacing switching infrastructure
- IP SLA for Voice monitors quality of voice traffic using the UDP Jitter and UDP Jitter for VoIP tests (requires v3 modules)
- Built-in programmable and easy to use REST API interface provides configuration automation for Mobile-first campus networks
- Remote intelligent mirroring mirrors selected ingress/egress traffic based on ACL, port, MAC address, or VLAN to a local or remote HPE 8200 zl, 6600, 6200 yl, 5400 zl, 5400R, 3500, or 3800 Switch located anywhere on the network
- RMON, XRMON, and sFlow® v5 provide advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- IEEE 802.1AB Link Layer Discovery Protocol (LLDP) advertises and receives management information from adjacent devices on a network, facilitating easy mapping by network management applications
- Uni-Directional Link Detection (UDLD) support Hewlett Packard Enterprise (HPE) UDLD and DLDP protocols to monitor a cable between two switches and shut down the ports on both ends if the cable is broken

- Management simplicity provides common software features and CLI implementation across all HPE ProVision-based switches (including the zl and yl switches)
- Command authorization leverages RADIUS to link a custom list of CLI commands to an individual network administrator's login; an audit trail documents activity
- Friendly port names allows assignment of descriptive names to ports
- Dual flash images provides independent primary and secondary operating system files for backup while upgrading
- Multiple configuration files stores easily to the flash image
- Comware CLI
  - Comware-compatible CLI bridges the experience of HPE Comware CLI users who are using the ArubaOS-Switch software CLI
  - Display and fundamental Comware CLI commands are embedded in the switch CLI as native commands; display output is formatted as on Comware-based switches, and fundamental commands provide a Comware-familiar initial switch setup
  - Configuration Comware CLI commands when Comware commands are entered, CLI help is elicited to formulate the correct ArubaOS-Switch software CLI command

### Connectivity

- IEEE 802.3az Energy Efficient Ethernet lowers power consumption in periods of low link usage (supported on v2 zl 10/100/1000 and 10/100 modules)
- IEEE 802.3at Power over Ethernet (PoE+) provides up to 30 W per port that allows support of the latest PoE+ capable devices such as IP phones, wireless access points, and security cameras, as well as any IEEE 802.3af-compliant end device; eliminates the cost of additional electrical cabling and circuits that would otherwise be necessary in IP phone and WLAN deployments
- Prestandard PoE support detects and provides power to prestandard PoE devices
- High-density port connectivity provides up to 12 interface module slots and up to 288 wire-speed 10/100/1000 PoE-enabled ports or 96 10GbE ports per system
- Jumbo frames on Gigabit Ethernet and 10-Gigabit Ethernet ports, jumbo frames allow high-performance remote backup and disaster-recovery services
- Auto-MDIX provides automatic adjustments for straight-through or crossover cables on all 10/100 and 10/100/1000 ports

- IPv6
  - IPv6 host enables switches to be managed in an IPv6 network
  - Dual stack (IPv4 and IPv6) transitions IPv4 to IPv6, supporting connectivity for both protocols
  - MLD snooping forwards IPv6 multicast traffic to the appropriate interface
  - IPv6 ACL/QoS supports ACL and QoS for IPv6 traffic
  - IPv6 routing supports static, RIPng, OSPFv3 routing protocols
  - 6in4 tunneling supports encapsulation of IPv6 traffic in IPv4 packets
  - Security provides RA guard, DHCPv6 protection, dynamic IPv6 lockdown, and ND snooping

### Performance

- High-speed, high-capacity architecture 2 Tbps crossbar switching fabric provides intra-module and inter-module switching with 785.7 million pps throughput on the purpose-built ProVision ASICs
- Selectable queue configurations allows for increased performance by selecting the number of queues and associated memory buffering that best meet the requirements of the network applications

### Resiliency and high availability

- Virtual Switching Framework (VSF) creates one virtual resilient switch from two switches; servers or switches can be attached using standard LACP for automatic load balancing and high availability; simplify network operation by reduce the need for complex protocols like Spanning Tree Protocol (STP), Equal-Cost Multipath (ECMP), and VRRP (requires v3 modules)
- Fast Software Upgrade reduces downtime of the VSF stack during an upgrade by sequentially upgrading the members in the stack shrinking the downtime to a few seconds (requires v3 modules)
- Virtual Router Redundancy Protocol (VRRP) allows groups of two routers to dynamically back each other up to create highly available routed environments for IPv4 and IPv6 networks
- Nonstop switching improves network availability to better support critical applications such as unified communication and mobility; interface and fabric modules continue switching traffic during failover from active to standby management module
- Nonstop routing enhances Layer 3 high availability; OSPFv2/v3 and VRRP will continue to operate and route network traffic during failover from an active to a standby management module

- Redundant management and power provide enhanced system availability and continuity of operations
- IEEE 802.1s Multiple Spanning Tree Protocol provides high link availability in multiple VLAN environments by allowing multiple spanning trees; encompasses IEEE 802.1D Spanning Tree Protocol and IEEE 802.1w Rapid Spanning Tree Protocol
- IEEE 802.3ad Link Aggregation Control Protocol (LACP) and HPE port trunking support up to 144 trunks, each with up to eight links (ports) per trunk
- Distributed trunking enables loop-free and redundant network topology without using Spanning Tree Protocol; allows a server or switch to connect to two switches using one logical trunk for redundancy and load sharing
- Optional redundant power supply provides uninterrupted power and allows hot-swapping of the redundant power supplies when installed
- Hot-swappable modules allows dissimilar modules, and power supplies in a redundant power supply configuration to be added or swapped without interrupting the network
- Sparring simplicity HPE z1-common accessories (interface modules and power supplies)
- Uplink Failure Detection provides active-standby network path redundancy for servers that are configured for active-standby NIC teaming
- SmartLink provides easy-to-configure link redundancy of active and standby links

### Layer 2 switching

- VLAN support and tagging supports the IEEE 802.1Q standard and 4,094 VLANs simultaneously
- IEEE 802.1v protocol VLANs isolate select non-IPv4 protocols automatically into their own VLANs
- VxLAN encapsulation (tunneling) protocol for overlay network that enables a more scalable virtual network deployment (requires v3 modules)
- GVRP and MVRP allows automatic learning and dynamic assignment of VLANs
- IEEE 802.1ad Q-in-Q increases the scalability of an Ethernet network by providing a hierarchical structure; connects multiple LANs on a high-speed campus or metro network
- MAC-based VLAN provides granular control and security; uses RADIUS to map a MAC address/user to specific VLANs (requires v2 or higher modules)

- Rapid Per-VLAN Spanning Tree (RPVST+) allows each VLAN to build a separate spanning tree to improve link bandwidth usage; is compatible with PVST+
- HPE switch meshing dynamically load balances across multiple active redundant links to increase available aggregate bandwidth; allows concurrent Layer 3 routing with v2 or higher modules

### Layer 3 services

- Bidirectional Forwarding Detection (BFD) enables link connectivity monitoring and reduces network convergence time for static route, OSPFv2 and VRRP (requires v3 modules)
- User Datagram Protocol (UDP) helper function allows UDP broadcasts to be directed across router interfaces to specific IP unicast or subnet broadcast addresses and prevents server spoofing for UDP services such as DHCP
- Loopback interface address defines an address in Routing Information Protocol (RIP) and Open Standard Path First (OSPF), improving diagnostic capability
- Route maps provide more control during route redistribution; allow filtering and altering of route metrics
- DHCPserver centralizes and reduces the cost of IPv4 address management

### Layer 3 routing

- Static IP routing provides manually configured routing for both IPv4 and IPv6 networks
- Routing Information Protocol (RIP) provides RIPv1, RIPv2, and RIPv6 routing
- OSPF provides OSPFv2 for IPv4 routing and OSPFv3 for IPv6 routing
- Policy-based routing uses a classifier to select traffic that can be forwarded based on policy set by the network administrator (requires v2 or higher modules)
- Border Gateway Protocol (BGP) provides IPv4 Border Gateway Protocol routing, which is scalable, robust, and flexible

### Security

- Control Plane Policing sets rate limit on control protocols to protect CPU overload from DOS attacks
- Access control lists (ACLs) provide filtering based on the IP field, source/destination IP address/subnet, and source/destination TCP/UDP port number on a per-VLAN or per-port basis

- Multiple user authentication methods
  - IEEE 802.1X users per port provides authentication of multiple IEEE 802.1X users per port
  - Web-based authentication authenticates from a Web browser for clients that do not support IEEE 802.1X supplicant
  - MAC-based authentication client is authenticated with the RADIUS server based on the client's MAC address
  - Concurrent IEEE 802.1X, Web, and MAC authentication schemes per port switch port accepts up to 32 sessions of IEEE 802.1X, Web, and MAC authentications
- Private VLAN provides network security by restricting peer-to-peer communication to prevent a variety of malicious attacks; typically a switch port can only communicate with other ports in the same community and/or an uplink port, regardless of VLAN ID or destination MAC address
- DHCP protection blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks
- Secure management access delivers secure encryption of all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3
- Switch CPU protection provides automatic protection against malicious network traffic trying to shut down the switch
- ICMP throttling defeats ICMP denial-of-service attacks by enabling any switch port to automatically throttle ICMP traffic
- Identity-driven ACL enables implementation of a highly granular and flexible access security policy and VLAN assignment specific to each authenticated network user
- STP BPDU port protection blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks
- Dynamic IP lockdown works with DHCP protection to block traffic from unauthorized hosts, preventing IP source address spoofing
- Dynamic ARP protection blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data
- STP root guard protects the root bridge from malicious attacks or configuration mistakes
- Detection of malicious attacks monitors 10 types of network traffic and sends a warning when an anomaly that potentially can be caused by malicious attacks is detected
- Port security allows access only to specified MAC addresses, which can be learned or specified by the administrator

- MAC address lockout prevents particular configured MAC addresses from connecting to the network
- Source-port filtering allows only specified ports to communicate with each other
- RADIUS/TACACS+ eases switch management security administration by using a password authentication server
- Secure shell encrypts all transmitted data for secure remote CLI access over IP networks
- Secure Sockets Layer (SSL) encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- Secure FTP allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file
- Open Authentication Role simplifies first-time deployment of AAA in brownfield deployments by allowing full network access for failed clients and provides instant connectivity as soon as a client is plugged-in
- Critical Authentication Role ensures that important infrastructure devices such as IP phones are allowed network access even in the absence of a RADIUS server
- MAC Pinning allows non-chatty legacy devices to stay authenticated by pinning client MAC addresses to the port until the clients logoff or get disconnected
- Management Interface Wizard helps secure management interfaces such as SNMP, telnet, SSH, SSL, Web, and USB at the desired level
- Switch management logon security helps secure switch CLI logon by optionally requiring either RADIUS or TACACS+ authentication
- Security banner displays a customized security policy when users log in to the switch
- IEEE 802.1AE MACsec provides security on a link between two switch ports (1Gbps or 10Gbps) using standard encryption and authentication (requires v3 modules)

### Convergence

- IP multicast routing includes PIM Sparse and Dense modes to route IP multicast traffic
- IP multicast snooping (data-driven IGMP) prevents flooding of IP multicast traffic
- Protocol Independent Multicast for IPv6 supports one-to-many and many-to-many media casting use cases such as IPTV over IPv6 networks
- LLDP-MED (Media Endpoint Discovery) defines a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones

- PoE allocations supports multiple methods (automatic, IEEE 802.3af class, LLDP-MED, or user-specified) to allocate PoE power for more efficient energy savings
- Auto VLAN configuration for voice
  - RADIUS VLAN uses a standard RADIUS attribute and LLDP-MED to automatically configure a VLAN for IP phones
  - CDPv2 uses CDPv2 to configure legacy IP phones
- Local MAC Authentication assigns attributes such as VLAN and QoS using locally configured profile that can be a list of MAC prefixes

### Warranty and support

- Limited Lifetime Warranty  
See [www.hpe.com/networking/warrantysummary](http://www.hpe.com/networking/warrantysummary) for warranty and support information included with your product purchase.
- Software releases to find software for your product, refer to [www.hpe.com/networking/support](http://www.hpe.com/networking/support); for details on the software releases available with your product purchase, refer to [www.hpe.com/networking/warrantysummary](http://www.hpe.com/networking/warrantysummary)

SPECIFICATIONS		
	Aruba 5406R zL2 Switch (J9821A)	Aruba 5412R zL2 Switch (J9822A)
<b>Included accessories</b>	<ul style="list-style-type: none"> <li>1 Aruba 5400R zL2 Management Module (J9827A)</li> <li>1 Aruba 5406R zL2 Switch Fan Tray (J9831A)</li> </ul>	<ul style="list-style-type: none"> <li>1 Aruba 5400R zL2 Management Module (J9827A)</li> <li>1 Aruba 5412R zL2 Switch Fan Tray (J9832A)</li> </ul>
<b>I/O ports and slots</b>	<ul style="list-style-type: none"> <li>6 open module slots</li> <li>Supports a maximum of 144 autosensing 10/100/1000 ports or 144 SFP ports or 48 SFP+ ports or 48 HPE Smart Rate Multi-Gigabit or 12 40GbE ports, or a combination</li> </ul>	<ul style="list-style-type: none"> <li>12 open module slots</li> <li>Supports a maximum of 288 autosensing 10/100/1000 ports or 288 SFP ports or 96 SFP+ ports or 96 HPE Smart Rate Multi-Gigabit or 24 40GbE ports, or a combination</li> </ul>
<b>Power supplies</b>	<ul style="list-style-type: none"> <li>2 power supply slots</li> <li>1 minimum power supply required (ordered separately)</li> </ul>	<ul style="list-style-type: none"> <li>4 power supply slots</li> <li>2 minimum power supplies required (ordered separately)</li> </ul>
<b>Fan tray</b>	Includes: 1 x J9831A 1 fan tray slot	Includes: 1 x J9832A 1 fan tray slot
<b>Physical characteristics</b>		
Dimensions	17.5 (w) x 17.75 (d) x 6.9 (h) in (44.45 x 45.09 x 17.53 cm) (4U height)	17.5 (w) x 17.75 (d) x 12.1 (h) in (44.45 x 45.09 x 30.73 cm) (7U height)
Weight	24.5 lb (11.11 kg)	38.1 lb (17.28 kg)
<b>Memory and processor</b>		
v3 Gigabit Module	Dual ARM® Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM11 @ 450 MHz; Packet buffer size: 18 MB internal	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM11 @ 450 MHz; Packet buffer size: 18 MB internal
v2 Gigabit Module		
v3 10G Module	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM11 @ 550 MHz; Packet buffer size: 18 MB internal	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM11 @ 550 MHz; Packet buffer size: 18 MB internal
v2 10G Module		
v3 40G Module	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal Freescale P2020 dual core @ 1.2 GHz, 16 MB flash, 1 GB SD Card, 4 GB DDR3 SODIMM	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal Freescale P2020 dual core @ 1.2 GHz, 16 MB flash, 1 GB SD Card, 4 GB DDR3 SODIMM
Management Module		
<b>Mounting and enclosure</b>	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (hardware included); Horizontal surface mounting only
<b>Performance</b>		
	IPv6 Ready Certified	IPv6 Ready Certified
1000 Mb Latency	< 2.8 μs (FIFO 64-byte packets)	< 2.8 μs (FIFO 64-byte packets)
10 Gbps Latency	< 1.8 μs (FIFO 64-byte packets)	< 1.8 μs (FIFO 64-byte packets)
40 Gbps Latency	< 1.5 μs (FIFO 64-byte packets)	< 1.5 μs (FIFO 64-byte packets)
Throughput	up to 571.4 Mpps	up to 1142.8 Mpps
Routing/Switching capacity	960 Gbps	1920 Gbps
Switch fabric speed	1015 Gbps	2030 Gbps
Routing table size	10000 entries (IPv4), 5000 entries (IPv6)	10000 entries (IPv4), 5000 entries (IPv6)
MAC address table size	64000 entries	64000 entries

## SPECIFICATIONS

	Aruba 5406R zL2 Switch (J9821A)	Aruba 5412R zL2 Switch (J9822A)
<b>Environment</b>		
Operating temperature	32°F to 113°F (0°C to 45°C); 0°C to 40°C with J8177C transceiver installed, 0°C to 35°C with FIPS Opacity Shield installed	32°F to 113°F (0°C to 45°C); 0°C to 40°C with J8177C transceiver installed, 0°C to 35°C with FIPS Opacity Shield installed
Operating relative humidity	15% to 95% @ 113°F (45°C), noncondensing	15% to 95% @ 113°F (45°C), noncondensing
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	15% to 95% @ 149°F (65°C), noncondensing	15% to 95% @ 149°F (65°C), noncondensing
Altitude	up to 10,000 ft (3 km)	up to 10,000 ft (3 km)
Acoustic	Power: 44 dB, Pressure: 31.7 dB ISO 7779, ISO 9296	Power: 49 dB, Pressure: 35.7 dB ISO 7779, ISO 9296
<b>Electrical characteristics</b>		
Frequency	50/60 Hz	50/60 Hz
80plus.org Certification	Gold	Gold
Description	Does not come with power supply. Two power supply slots are available; three different power supplies are available. See power supply products for additional specifications.	Does not come with power supply. Four power supply slots are available; three different power supplies are available. See power supply products for additional specifications.
Maximum heat dissipation	2450 BTU/hr (2584 kJ/hr), (max. non-PoE); 3700 BTU/hr (3903 kJ/hr) (max. using PoE)	4900 BTU/hr (5169.5 kJ/hr), (max. non-PoE); 7400 BTU/hr (7,807 kJ/hr) (max. using PoE)
Voltage	100 - 127/200 - 240 VAC, rated (depending on power supply chosen)	100 - 127/200 - 240 VAC, rated (depending on power supply chosen)
Idle power		
Notes	Heat dissipation does not include heat dissipated by the PoE-powered devices themselves.	Heat dissipation does not include heat dissipated by the PoE-powered devices themselves. When more than four power cords are installed in a 5412R zL2 switch chassis, additional installation requirements are needed. Refer to the HPE 5400R zL2 Switches Quick Setup Guide and Safety/Regulatory Information manual for details.
<b>Safety</b>		
	CSA 22.2 No. 60950; UL 60950; IEC 60950; EN 60950	CSA 22.2 No. 60950; UL 60950; IEC 60950; EN 60950
<b>Emissions</b>		
	FCC part 15 Class A; EN 55022/CISPR 22 Class A	FCC part 15 Class A; EN 55022/CISPR 22 Class A

## SPECIFICATIONS

	Aruba 5406R zL2 Switch (J9821A)	Aruba 5412R zL2 Switch (J9822A)
<b>Immunity</b>		
EN	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2; 4 kV CD, 8 kV AD; HPE ENV. 765.002	IEC 61000-4-2; 4 kV CD, 8 kV AD; HPE ENV. 765.002
Radiated	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line) IEC 61000-4-5; 1 kV/2 kV AC, 1 kV signal, 0.5 kV DC	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line) IEC 61000-4-5; 1 kV/2 kV AC, 1 kV signal, 0.5 kV DC
Surge	IEC 61000-4-6; 3 Vrms	IEC 61000-4-6; 3 Vrms
Conducted	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Power frequency magnetic field	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3
<b>Management</b>	Aruba Central; Aruba AirWave Network Management; IMC – Intelligent Management Center; Command-line interface; Web browser; Configuration menu; Out-of-band management (RJ-45 Ethernet); In-line and out-of band; Out-of-band management (serial RS-232c or micro usb)	Aruba Central; Aruba AirWave Network Management; IMC – Intelligent Management Center; Command-line interface; Web browser; Configuration menu; Out-of-band management (RJ-45 Ethernet); In-line and out-of band; Out-of-band management (serial RS-232c or micro usb)
<b>Notes</b>	Supported 1G SFP transceivers are revision "B" or later (product number ends with the letter "B" or later; For example, J9142B, J8177C).	Supported 1G SFP transceivers are revision "B" or later (product number ends with the letter "B" or later; For example, J9142B, J8177C).
<b>Services</b>	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">www.hpe.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">www.hpe.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

## SPECIFICATIONS

	Aruba 5412R 92GT PoE+/4SFP+ (No PSU) v3 z12 Switch (JL001A)	Aruba 5406R 8-port 1/2.5/5/10GBASE-T PoE+/8-port SFP+ (No PSU) v3 z12 Switch (JL002A)
<b>Included accessories</b>	<ul style="list-style-type: none"> <li>1 Aruba 5400R z12 Management Module (J9827A)</li> <li>1 Aruba 5412R z12 Switch Fan Tray (J9832A)</li> <li>3 Aruba 24-port 10/100/1000BASE-T PoE+ MACsec v3 z12 Module (J9986A)</li> <li>1 Aruba 20-port 10/100/1000BASE-T PoE+ / 4-port 1G/10GbE SFP+ MACsec v3 z12 Module (J9990A)</li> </ul>	<ul style="list-style-type: none"> <li>1 Aruba 5400R z12 Management Module (J9827A)</li> <li>1 Aruba 5406R z12 Switch Fan Tray (J9831A)</li> <li>1 Aruba 8-port 1G/10GbE SFP+ MACsec v3 z12 Module (J9993A)</li> <li>1 Aruba 8-port 1/2.5/5/10GBASE-T PoE+ MACsec v3 z12 Module (J9995A)</li> </ul>
<b>I/O ports and slots</b>	<ul style="list-style-type: none"> <li>92 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only</li> <li>4 open 10GbE SFP+ transceiver slots</li> <li>8 open module slots</li> <li>Supports a maximum of 288 autosensing 10/100/1000 ports or 288 SFP ports or 96 SFP+ ports or 96 HPE Smart Rate Multi-Gigabit or 24 40GbE ports, or a combination</li> </ul>	<ul style="list-style-type: none"> <li>8 RJ-45 HPE Smart Rate Multi-Gigabit ports</li> <li>8 open 10GbE SFP+ transceiver slots</li> <li>4 open module slots</li> <li>Supports a maximum of 144 autosensing 10/100/1000 ports or 144 SFP ports or 48 SFP+ ports or 48 HPE Smart Rate Multi-Gigabit or 12 40GbE ports, or a combination</li> </ul>
<b>Power supplies</b>	<ul style="list-style-type: none"> <li>4 power supply slots</li> <li>2 minimum power supplies required (ordered separately)</li> </ul>	<ul style="list-style-type: none"> <li>2 power supply slots</li> <li>1 minimum power supply required (ordered separately)</li> </ul>
<b>Fan tray</b>	Includes: 1 x J9832A 1 fan tray slot	Includes: 1 x J9831A 1 fan tray slot
<b>Physical characteristics</b>		
Dimensions	17.5 (w) x 17.75 (d) x 12.1 (h) in (44.45 x 45.09 x 30.73 cm) (7U height)	17.5 (w) x 17.75 (d) x 6.9 (h) in (44.45 x 45.09 x 17.53 cm) (4U height)
Weight	45.19 lb (20.5 kg)	28.11 lb (12.75 kg)
<b>Memory and processor</b>		
v3 Gigabit Module	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM 11 @ 450 MHz; Packet buffer size: 18 Mb internal	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM 11 @ 450 MHz; Packet buffer size: 18 MB internal
v2 Gigabit Module		
v3 10G Module	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM 11 @ 550 MHz; Packet buffer size: 18 MB internal	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM 11 @ 550 MHz; Packet buffer size: 18 MB internal
v2 10G Module		
v3 40G Module	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal Freescale P2020 dual core @ 1.2 GHz, 16 MB flash, 1 GB SD Card, 4 GB DDR3 SODIMM	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal Freescale P2020 dual core @ 1.2 GHz, 16 MB flash, 1 GB SD Card, 4 GB DDR3 SODIMM
Management Module		
<b>Mounting and enclosure</b>	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (hardware included); Horizontal surface mounting only

## SPECIFICATIONS

	Aruba 5412R 92GT PoE+/4SFP+ (No PSU) v3 z12 Switch (JL001A)	Aruba 5406R 8-port 1/2.5/5/10GBASE-T PoE+/8-port SFP+ (No PSU) v3 z12 Switch (JL002A)
<b>Performance</b>		
1000 Mb Latency	< 2.8 $\mu$ s (FIFO 64-byte packets)	< 2.8 $\mu$ s (FIFO 64-byte packets)
10 Gbps Latency	< 1.8 $\mu$ s (FIFO 64-byte packets)	< 1.8 $\mu$ s (FIFO 64-byte packets)
40 Gbps Latency	< 1.5 $\mu$ s (FIFO 64-byte packets)	< 1.5 $\mu$ s (FIFO 64-byte packets)
Throughput	up to 1142.8 Mpps	up to 571.4 Mpps
Routing/Switching capacity	1920 Gbps	960 Gbps
Switch fabric speed	2030 Gbps	1015 Gbps
Routing table size	10000 entries (IPv4), 5000 entries (IPv6)	10000 entries (IPv4), 5000 entries (IPv6)
MAC address table size	64000 entries	64000 entries
<b>Environment</b>		
Operating temperature	32°F to 113°F (0°C to 45°C); 0°C to 40°C with J8177C transceiver installed, 0°C to 35°C with FIPS Opacity Shield installed	32°F to 113°F (0°C to 45°C); 0°C to 40°C with J8177C transceiver installed, 0°C to 35°C with FIPS Opacity Shield installed
Operating relative humidity	15% to 95% @ 113°F (45°C), noncondensing	15% to 95% @ 113°F (45°C), noncondensing
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	15% to 95% @ 149°F (65°C), noncondensing	15% to 95% @ 149°F (65°C), noncondensing
Altitude	up to 10,000 ft (3 km)	up to 10,000 ft (3 km)
Acoustic	Power: 49 dB, Pressure: 35.7 dB ISO 7779, ISO 9296	Power: 44 dB, Pressure: 31.7 dB ISO 7779, ISO 9296
<b>Electrical characteristics</b>		
Frequency	50/60 Hz	50/60 Hz
80plus.org Certification	Gold	Gold
Description	Does not come with power supply. Four open power supply slots are available; three different power supplies are available. See power supply products for additional specifications.	Does not come with power supply. Two open power supply slots are available; three different power supplies are available. See power supply products for additional specifications.
Maximum heat dissipation	4900 BTU/hr (5169.5 kJ/hr), (max. non-PoE); 7400 BTU/hr (7807 kJ/hr) (max. using PoE)	2450 BTU/hr (2584.75 kJ/hr), (max. non-PoE); 3700 BTU/hr (3903 kJ/hr) (max. using PoE)
Voltage	110 - 127/200 - 240 VAC, rated (depending on power supply chosen)	110 - 127/200 - 240 VAC, rated (depending on power supply chosen)
Idle power	312 W	215 W
Notes	<p>Idle power is the actual power consumption of the device with no ports connected.</p> <p>Heat dissipation does not include heat dissipated by the PoE-powered devices themselves. When more than four power cords are installed in a 5412R z12 switch chassis, additional installation requirements are needed. Refer to the HPE 5400R z12 Switches Quick Setup Guide and Safety/Regulatory Information manual for details.</p>	<p>Idle power is the actual power consumption of the device with no ports connected.</p> <p>Heat dissipation does not include heat dissipated by the PoE-powered devices themselves.</p>

## SPECIFICATIONS

	Aruba 5412R 92GT PoE+/4SFP+ (No PSU) v3 z12 Switch (JL001A)	Aruba 5406R 8-port 1/2.5/5/10GBASE-T PoE+/8-port SFP+ (No PSU) v3 z12 Switch (JL002A)
<b>Safety</b>	CSA 22.2 No. 60950; UL 60950; IEC 60950; EN 60950	CSA 22.2 No. 60950; UL 60950; IEC 60950; EN 60950
<b>Emissions</b>	FCC part 15 Class A; EN 55022/CISPR 22 Class A	FCC part 15 Class A; EN 55022/CISPR 22 Class A
<b>Immunity</b>		
EN	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2; 4 kV CD, 8 kV AD; HPE ENV. 765.002	IEC 61000-4-2; 4 kV CD, 8 kV AD; HPE ENV. 765.002
Radiated	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line) IEC 61000-4-5; 1 kV/2 kV AC, 1 kV signal, 0.5 kV DC	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line) IEC 61000-4-5; 1 kV/2 kV AC, 1 kV signal, 0.5 kV DC
Surge	IEC 61000-4-6; 3 Vrms	IEC 61000-4-6; 3 Vrms
Conducted	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Power frequency magnetic field	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3
<b>Management</b>	Aruba Central; Aruba AirWave Network Management; IMC—Intelligent Management Center; Command-line interface; Web browser; Configuration menu; REST interface; SNMP manager Telnet; RMON1; FTP; Out-of-band management (Serial RS-232C, Micro USB Serial)	Aruba Central; Aruba AirWave Network Management; IMC—Intelligent Management Center; Command-line interface; Web browser; Configuration menu; REST interface; SNMP manager Telnet; RMON1; FTP; Out-of-band management (Serial RS-232C, Micro USB Serial)
<b>Notes</b>	Supported 1G SFP transceivers are revision "B" or later (product number ends with the letter "B" or later; For example, J9142B, J8177C).	Supported 1G SFP transceivers are revision "B" or later (product number ends with the letter "B" or later; For example, J9142B, J8177C).  HPE Smart Rate Multi-Gigabit Cabling: 1000BASE-T, 2.5 Gigabit, and 5 Gigabit Ethernet: Category 5e or better UTP or STP; 10GBASE-T: Category 6 or better (CAT6A recommended) UTP or STP
<b>Services</b>	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">www.hpe.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">www.hpe.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

## SPECIFICATIONS

	Aruba 5406R 44GT PoE+/4SFP+ (No PSU) v3 z12 Switch (JL003A)	Aruba 5406R 16-port SFP+ (No PSU) v3 z12 Switch (JL095A)
<b>Included accessories</b>	<ul style="list-style-type: none"> <li>1 Aruba 5400R z12 Management Module (J9827A)</li> <li>1 Aruba 5406R z12 Switch Fan Tray (J9831A)</li> <li>1 Aruba 24-port 10/100/1000BASE-T PoE+ MACsec v3 z12 Module (J9986A)</li> <li>1 Aruba 20-port 10/100/1000BASE-T PoE+/4-port 1G/10GbE SFP+ MACsec v3 z12 Module (J9990A)</li> </ul>	<ul style="list-style-type: none"> <li>1 Aruba 5400R z12 Management Module (J9827A)</li> <li>1 Aruba 5406R z12 Switch Fan Tray (J9831A)</li> <li>2 Aruba 8-port 1G/10GbE SFP+ MACsec v3 z12 Module (J9993A)</li> </ul>
<b>I/O ports and slots</b>	<ul style="list-style-type: none"> <li>44 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only</li> <li>4 open 10GbE SFP+ transceiver slots</li> <li>4 open module slots</li> <li>Supports a maximum of 144 autosensing 10/100/1000 ports or 144 SFP ports or 48 SFP+ ports or 48 HPE Smart Rate Multi-Gigabit or 12 40GbE ports, or a combination</li> </ul>	<ul style="list-style-type: none"> <li>16 open 10GbE SFP+ transceiver slots</li> <li>4 open module slots</li> <li>Supports a maximum of 144 autosensing 10/100/1000 ports or 144 SFP ports or 48 SFP+ ports or 48 HPE Smart Rate Multi-Gigabit or 12 40GbE ports, or a combination</li> </ul>
<b>Power supplies</b>	<ul style="list-style-type: none"> <li>2 power supply slots</li> <li>1 minimum power supply required (ordered separately)</li> </ul>	<ul style="list-style-type: none"> <li>2 power supply slots</li> <li>1 minimum power supply required (ordered separately)</li> </ul>
<b>Fan tray</b>	Includes: 1 x J9831A 1 fan tray slot	Includes: 1 x J9831A 1 fan tray slot
<b>Physical characteristics</b>		
Dimensions	17.5 (w) x 17.75 (d) x 6.9 (h) in (44.45 x 45.09 x 17.53 cm) (4U height)	17.5 (w) x 17.75 (d) x 6.9 (h) in (44.45 x 45.09 x 17.53 cm) (4U height)
Weight	28.11 lb (12.75 kg)	28.11 lb (12.75 kg)
<b>Memory and processor</b>		
v3 Gigabit Module	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM 11 @ 450 MHz; Packet buffer size: 18 MB internal	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM 11 @ 450 MHz; Packet buffer size: 18 MB internal
v2 Gigabit Module	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM 11 @ 550 MHz; Packet buffer size: 18 MB internal	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM 11 @ 550 MHz; Packet buffer size: 18 MB internal
v3 10G Module	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM 11 @ 550 MHz; Packet buffer size: 18 MB internal	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM 11 @ 550 MHz; Packet buffer size: 18 MB internal
v2 10G Module	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM 11 @ 550 MHz; Packet buffer size: 18 MB internal	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM 11 @ 550 MHz; Packet buffer size: 18 MB internal
v3 40G Module	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM 11 @ 550 MHz; Packet buffer size: 18 MB internal	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal ARM 11 @ 550 MHz; Packet buffer size: 18 MB internal
Management Module	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal Freescale P2020 dual core @ 1.2 GHz, 16 MB flash, 1 GB SD Card, 4 GB DDR3 SODIMM	Dual ARM Coretex A9 @ 1 GHz; Packet buffer size: 13.5 MB internal Freescale P2020 dual core @ 1.2 GHz, 16 MB flash, 1 GB SD Card, 4 GB DDR3 SODIMM
<b>Mounting and enclosure</b>	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (hardware included); Horizontal surface mounting only	Mounts in an EIA standard 19-inch telco rack or equipment cabinet (hardware included); Horizontal surface mounting only

## SPECIFICATIONS

	Aruba 5406R 44GT PoE+/4SFP+ (No PSU) v3 z12 Switch (JL003A)	Aruba 5406R 16-port SFP+ (No PSU) v3 z12 Switch (JL095A)
<b>Performance</b>		
1000 Mb Latency	< 2.8 $\mu$ s (FIFO 64-byte packets)	< 2.8 $\mu$ s (FIFO 64-byte packets)
10 Gbps Latency	< 1.8 $\mu$ s (FIFO 64-byte packets)	< 1.8 $\mu$ s (FIFO 64-byte packets)
40 Gbps Latency	< 1.5 $\mu$ s (FIFO 64-byte packets)	< 1.5 $\mu$ s (FIFO 64-byte packets)
Throughput	up to 571.4 Mpps	up to 571.4 Mpps
Routing/Switching capacity	960 Gbps	960 Gbps
Switch fabric speed	1015 Gbps	1015 Gbps
Routing table size	10000 entries (IPv4), 5000 entries (IPv6)	10000 entries (IPv4), 5000 entries (IPv6)
MAC address table size	64000 entries	64000 entries
<b>Environment</b>		
Operating temperature	32°F to 113°F (0°C to 45°C); 0°C to 40°C with J8177C transceiver installed, 0°C to 35°C with FIPS Opacity Shield installed	32°F to 113°F (0°C to 45°C); 0°C to 40°C with J8177C transceiver installed, 0°C to 35°C with FIPS Opacity Shield installed
Operating relative humidity	15% to 95% @ 113°F (45°C), noncondensing	15% to 95% @ 113°F (45°C), noncondensing
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	15% to 95% @ 149°F (65°C), noncondensing	15% to 95% @ 149°F (65°C), noncondensing
Altitude	up to 10,000 ft (3 km)	up to 10,000 ft (3 km)
Acoustic	Power: 44 dB, Pressure: 31.7 dB ISO 7779, ISO 9296	Power: 44 dB, Pressure: 31.7 dB ISO 7779, ISO 9296
<b>Electrical characteristics</b>		
Frequency	50/60 Hz	50/60 Hz
80plus.org Certification	Gold	Gold
Description	Does not come with power supply. Two open power supply slots are available; three different power supplies are available. See power supply products for additional specifications.	Does not come with power supply. Two open power supply slots are available; three different power supplies are available. See power supply products for additional specifications.
Maximum heat dissipation	2450 BTU/hr (2584.75 kJ/hr), (max. non-PoE); 3700 BTU/hr (3903 kJ/hr) (max. using PoE)	2450 BTU/hr (2584.75 kJ/hr), (max. non-PoE); 3700 BTU/hr (3903 kJ/hr) (max. using PoE)
Voltage	110 - 127/200 - 240 VAC, rated (depending on power supply chosen)	110 - 127/200 - 240 VAC, rated (depending on power supply chosen)
Idle power	215 W	215 W
Notes	Idle power is the actual power consumption of the device with no ports connected. Heat dissipation does not include heat dissipated by the PoE-powered devices themselves.	Idle power is the actual power consumption of the device with no ports connected. Heat dissipation does not include heat dissipated by the PoE-powered devices themselves.
<b>Safety</b>		
	CSA 22.2 No. 60950; UL 60950; IEC 60950; EN 60950	CSA 22.2 No. 60950; UL 60950; IEC 60950; EN 60950
<b>Emissions</b>		
	FCC part 15 Class A; EN 55022/CISPR 22 Class A	FCC part 15 Class A; EN 55022/CISPR 22 Class A

## SPECIFICATIONS

	Aruba 5406R 44GT PoE+/45FP+ (No PSU) v3 zL2 Switch (JL003A)	Aruba 5406R 16-port SFP+ (No PSU) v3 zL2 Switch (JL095A)
<b>Immunity</b>		
EN	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2; 4 kV CD, 8 kV AD; HPE ENV. 765.002	IEC 61000-4-2; 4 kV CD, 8 kV AD; HPE ENV. 765.002
Radiated	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
Surge	IEC 61000-4-5; 1 kV/2 kV AC, 1kV signal, 0.5 kV DC	IEC 61000-4-5; 1 kV/2 kV AC, 1kV signal, 0.5 kV DC
Conducted	IEC 61000-4-6; 3 Vrms	IEC 61000-4-6; 3 Vrms
Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Voltage dips and interruptions	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3
<b>Management</b>	Aruba Central; Aruba AirWave Network Management; IMC—Intelligent Management Center; Command-line interface; Web browser; Configuration menu; REST interface; SNMP manager Telnet; RMON1; FTP; Out-of-band management (Serial RS-232C, Micro USB Serial)	Aruba Central; Aruba AirWave Network Management; IMC—Intelligent Management Center; Command-line interface; Web browser; Configuration menu; REST interface; SNMP manager Telnet; RMON1; FTP; Out-of-band management (Serial RS-232C, Micro USB Serial)
<b>Notes</b>	Supported 1G SFP transceivers are revision "B" or later (product number ends with the letter "B" or later; For example, J9142B, J8177C).	Supported 1G SFP transceivers are revision "B" or later (product number ends with the letter "B" or later; For example, J9142B, J8177C).
<b>Services</b>	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">www.hpe.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.	Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">www.hpe.com/networking/services</a> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

## STANDARDS AND PROTOCOLS (APPLIES TO ALL PRODUCTS IN SERIES)

### BGP

- RFC 1997 BGP Communities Attribute
- RFC 2918 Route Refresh Capability
- RFC 4271 A Border Gateway Protocol 4 (BGP-4)
- RFC 4456 BGP Route Reflection: An Alternative to Full Mesh Internal BGP (IBGP)
- RFC 5492 Capabilities Advertisement with BGP-4

### Device management

- RFC 1591 DNS (client)
- HTML and telnet management
- RFC 2576 (Coexistence between SNMP V1, V2, V3)
- RFC 2579 (SMIPv2 Text Conventions)
- RFC 2580 (SMIPv2 Conformance)
- RFC 3416 (SNMP Protocol Operations v2)

### General protocols

- IEEE 802.1ad Q-in-Q
- IEEE 802.1AX-2008 Link Aggregation
- IEEE 802.1D MAC Bridges
- IEEE 802.1p Priority
- IEEE 802.1Q VLANs
- IEEE 802.1s Multiple Spanning Trees
- IEEE 802.1v VLAN classification by Protocol and Port
- IEEE 802.1w Rapid Reconfiguration of Spanning Tree
- IEEE 802.3ad Link Aggregation Control Protocol (LACP)
- IEEE 802.3af Power over Ethernet
- IEEE 802.3az Energy Efficient Ethernet
- IEEE 802.3bz 2.5 Gbps and 5 Gbps interfaces
- IEEE 802.3x Flow Control
- RFC 768 UDP
- RFC 783 TFTP Protocol (revision 2)
- RFC 792 ICMP
- RFC 793 TCP
- RFC 826 ARP
- RFC 854 TELNET
- RFC 868 Time Protocol
- RFC 951 BOOTP
- RFC 1058 RIPv1
- RFC 1350 TFTP Protocol (revision 2)
- RFC 1519 CIDR
- RFC 1542 BOOTP Extensions
- RFC 1918 Address Allocation for Private Internet
- RFC 2030 Simple Network Time Protocol (SNTP) v4
- RFC 2131 DHCP
- RFC 2453 RIPv2

- RFC 2548 (MS-RAS-Vendor only)
- RFC 3046 DHCP Relay Agent Information Option
- RFC 3575 IANA Considerations for RADIUS
- RFC 3576 Ext to RADIUS (CoA only)
- RFC 3768 VRRP
- RFC 4675 RADIUS VLAN & Priority UDLD (Uni-directional Link Detection)
- RFC 5880 BFD
- RFC 5905 NTP Client

### IP multicast

- RFC 3376 IGMPv3
- RFC 3973 PIM Dense Mode
- RFC 4601 PIM Sparse Mode

### IPv6

- RFC 1981 IPv6 Path MTU Discovery
- RFC 2375 IPv6 Multicast Address
- RFC 2080 RIPng for IPv6
- RFC 2081 RIPng Protocol Applicability
- RFC 2082 RIP-2 MD5 Assignments
- RFC 2460 IPv6 Specification
- RFC 2464 Transmission of IPv6 over Ethernet Networks
- RFC 2710 Multicast Listener Discovery (MLD) for IPv6
- RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only)
- RFC 3019 MLDv1 MIB
- RFC 3315 DHCPv6 (client and relay)
- RFC 3484 Default Address Selection for IPv6
- RFC 3587 IPv6 Global Unicast Address Format
- RFC 3596 DNS Extension for IPv6
- RFC 3810 MLDv2 for IPv6
- RFC 4022 MIB for TCP
- RFC 4087 IP Tunnel MIB
- RFC 4113 MIB for UDP
- RFC 4213 Basic Transition Mechanisms for IPv6 Hosts and Routers
- RFC 4251 SSHv6 Architecture
- RFC 4252 SSHv6 Authentication
- RFC 4253 SSHv6 Transport Layer
- RFC 4254 SSHv6 Connection
- RFC 4291 IP Version 6 Addressing Architecture
- RFC 4293 MIB for IP
- RFC 4294 IPv6 Node Requirements
- RFC 4419 Key Exchange for SSH
- RFC 4443 ICMPv6
- RFC 4541 IGMP & MLD Snooping Switch

- RFC 4861 IPv6 Neighbor Discovery
- RFC 4862 IPv6 Stateless Address Auto-configuration
- RFC 5095 Deprecation of Type 0 Routing Headers in IPv6
- RFC 5340 OSPFv3 for IPv6
- RFC 5453 Reserved IPv6 Interface Identifiers
- RFC 5519 Multicast Group Membership Discovery MIB (MLDv2 only)
- RFC 5722 Handling of Overlapping IPv6 Fragments
- RFC 6620 FCFS SAVI
- draft-ietf-savi-mix

### MIBs

- IEEE 802.1ap (MSTP and STP MIB's only)
- IEEE 8021-Bridge-MIB (2008)
- IEEE 8021-Q-Bridge-MIB (2008)
- RFC 1155 Structure & ID of Mgmt Info for TCP/IP Internets
- RFC 1213 MIB II
- RFC 1493 Bridge MIB
- RFC 1724 RIPv2 MIB
- RFC 1850 OSPFv2 MIB
- RFC 2021 RMONv2 MIB
- RFC 2096 IP Forwarding Table MIB
- RFC 2578 Structure of Management Information Version 2 (SMIV2)
- RFC 2613 SMON MIB
- RFC 2618 RADIUS Client MIB
- RFC 2620 RADIUS Accounting MIB
- RFC 2665 Ethernet-Like-MIB
- RFC 2668 802.3 MAU MIB
- RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
- RFC 2737 Entity MIB (Version 2)
- RFC 2787 VRRP MIB
- RFC 2863 The Interfaces Group MIB
- RFC 2925 Ping MIB
- RFC 2932 IP (Multicast Routing MIB)
- RFC 2933 IGMP MIB
- RFC 4292 IP Forwarding Table MIB
- RFC 4836 Managed Objects for 802.3 Medium Attachment Units (MAU)
- RFC 7331 BFD MIB

### Network management

- IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
- RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)
- RFC 3176 sFlow
- RFC 3411 SNMP Management Frameworks
- RFC 3412 Message Processing and Dispatching for the

- Simple Network Management Protocol (SNMP)
- RFC 3413 Simple Network Management Protocol (SNMP) Applications
- RFC 3414 User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)
- RFC 3415 View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)
- RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)
- RFC 5424 Syslog Protocol
- ANSI/TIA-1057 LLDP Media Endpoint
- Discovery (LLDP-MED)
- SNMPv1/v2c/v3 XRMON
- XRMON

### OSPF

- RFC 2328 OSPFv2
- RFC 3101 OSPF NSSA
- RFC 5340 OSPFv3 for IPv6

### QoS/CoS

- RFC 2474 DiffServ Precedence, including 8 queues/port
- RFC 2475 DiffServ Architecture
- RFC 2597 DiffServ Assured Forwarding (AF)
- RFC 2598 DiffServ Expedited Forwarding (EF)

### Security

- IEEE 802.1AE MAC Security Standard (MACSec)
- IEEE 802.1X Port Based Network Access Control
- RFC 1492 TACACS+
- RFC 1321 The MD5 Message-Digest Algorithm
- RFC 2698 A Two Rate Three Color Marker
- RFC 2818 HTTP Over TLS
- RFC 2865 RADIUS (client only)
- RFC 2866 RADIUS Accounting
- RFC 3579 RADIUS Support For Extensible Authentication Protocol (EAP)
- Secure Sockets Layer (SSL)
- SSHv2 Secure Shell

## ARUBA 5400R zL2 SWITCH SERIES ACCESSORIES

### v2 Modules

- HPE 8-port 10GBASE-T v2 zL Module (J9546A)
- HPE 8-port 10GbE SFP+ v2 zL Module (J9538A)
- HPE 12-port Gig-T PoE+/12-port SFP v2 zL Module (J9637A)
- HPE 20-port Gig-T/4-port SFP v2 zL Module (J9549A)
- HPE 20-port Gig-T/2-port 10GbE SFP+ v2 zL Module (J9548A)
- HPE 20-port Gig-T PoE+/2-port 10GbE SFP+ v2 zL Module (J9536A)
- HPE 20-port Gig-T PoE+/4-port SFP v2 zL Module (J9535A)
- HPE 24-port 10/100 PoE+ v2 zL Module (J9547A)
- HPE 24-port Gig-T v2 zL Module (J9550A)
- HPE 24-port Gig-T PoE+ v2 zL Module (J9534A)
- HPE 24-port SFP v2 zL Module (J9537A)
- HPE Advanced Services v2 zL Module with HDD (J9857A)
- HPE Advanced Services v2 zL Module with SSD (J9858A)

### v3 Modules

- Aruba 8-port 1/2.5/5/10GBASE-T PoE+ MACsec v3 zL2 Module (J9995A)
- Aruba 8-port 1G/10GbE SFP+ MACsec v3 zL2 Module (J9993A)
- Aruba 12-port 10/100/1000BASE-T PoE+/12-port 1GbE SFP MACsec v3 zL2 Module (J9989A)
- Aruba 20-port 10/100/1000BASE-T PoE+/4-port 1G/10GbE SFP+ MACsec v3 zL2 Module (J9990A)
- Aruba 20-port 10/100/1000BASE-T PoE+/4p 1/2.5/5/10GBASE-T PoE+ MACsec v3 zL2 Module (J9991A)
- Aruba 20-port 10/100/1000BASE-T PoE+ MACsec/1-port 40GbE QSFP+ v3 zL2 Module (J9992A)
- Aruba 24-port 10/100/1000BASE-T MACsec v3 zL2 Module (J9987A)
- Aruba 24-port 10/100/1000BASE-T PoE+ MACsec v3 zL2 Module (J9986A)
- Aruba 24-port 1GbE SFP MACsec v3 zL2 Module (J9988A)
- Aruba 2-port 40GbE QSFP+ v3 zL2 Module (J9996A)
- Aruba 5400R zL2 Management Module (J9827A)

### Management Module

- Aruba 5400R zL2 Management Module (J9827A)

### Transceivers

- Aruba 100M SFP LC FX 2km MMF XCVR (J9054D)
- Aruba 1G SFP RJ45 T 100m Cat5e XCVR (J8177D)
- Aruba 1G SFP LC SX 500m MMF XCVR (J4858D)
- Aruba 1G SFP LC LX 10km SMF XCVR (J4859D)
- Aruba 1G SFP LC LH 70km SMF XCVR (J4860D)
- Aruba 10G SFP+ LC SR 300m MMF XCVR (J9150D)
- Aruba 10G SFP+ LC LR 10km SMF XCVR (J9151D)
- Aruba 10G SFP+ LC LRM 220m MMF XCVR (J9152D)
- Aruba 10G SFP+ LC ER 40km SMF XCVR (J9153D)
- Aruba 10G SFP+ to SFP+ 1m DAC Cable (J9281D)
- Aruba 10G SFP+ to SFP+ 3m DAC Cable (J9283D)
- Aruba 10G SFP+ to SFP+ 7m DAC Cable (J9285D)
- Aruba 40G QSFP+ LC BiDi 150m MMF XCVR (JL308A)
- HPE X142 40G QSFP+ MPO SR4 Transceiver (JH231A)
- HPE X142 40G QSFP+ LC LR4 SM Transceiver (JH232A)
- HPE X142 40G QSFP+ MPO eSR4 300M XCVR (JH233A)
- HPE X242 40G QSFP+ to QSFP+ 1m DAC Cable (JH234A)
- HPE X242 40G QSFP+ to QSFP+ 3m DAC Cable (JH235A)
- HPE X242 40G QSFP+ to QSFP+ 5m DAC Cable (JH236A)

### Cables

- Aruba X2C2 RJ45 to DB9 Console Cable (JL448A)
- HPE 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)
- HPE 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)
- HPE 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)
- HPE 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)
- HPE 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)
- HPE 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)
- HPE 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)
- HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 1m Cable (QK732A)
- HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 2m Cable (QK733A)
- HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 5m Cable (QK734A)
- HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 15m Cable (QK735A)
- HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 30m Cable (QK736A)
- HPE Premier Flex LC/LC Multi-mode OM4 2 fiber 50m Cable (QK737A)

### Power Supply

- 5400R 700W PoE+ z12 Power Supply (J9828A)
- 5400R 1100W PoE+ z12 Power Supply (J9829A)
- 5400R 2750W PoE+ z12 Power Supply (J9830B)

### Mounting Kit

- HPE X450 4U/7U Universal 4-Post Rack Mounting Kit (J9852A)



a Hewlett Packard  
Enterprise company

[www.arubanetworks.com](http://www.arubanetworks.com)

3333 SCOTT BLVD | SANTA CLARA, CA 95054

1.844.473.2782 | T: 1.408.227.4500 | FAX: 1.408.227.4550 | [INFO@ARUBANETWORKS.COM](mailto:INFO@ARUBANETWORKS.COM)

© Copyright 2018 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein. DS\_5400Rz12\_062618

# HPE Networking Product Warranty & Support Summary (October 2017)

Products		Warranty duration <sup>1</sup>	Hardware replacement <sup>2</sup>	Business Hours Technical Support <sup>3</sup>	24x7 Technical Support <sup>3</sup> (After Dec. 1, 2015)	Software/OS Releases <sup>4</sup>
Switches	Modular					
	129xx, 125xx, 119xx	1 year	10 days	1 year	N/A	As long as owned <sup>4</sup>
	105xx, 75xx	1 year	10 days	1 year	90 days	As long as owned <sup>4</sup>
	84xx	5 years	10 days	90 days	N/A	5 years <sup>4</sup>
	82xxzl, 54xxzl/R, 42xxvl	Lifetime <sup>5</sup>	NBD Ship	As long as owned <sup>5</sup>	90 days	As long as owned <sup>4</sup>
	Fixed-configuration					
	79xx, 59xx/AF, 583x/AF, 582x/AF, 57xx	1 year	10 days	1 year	N/A	As long as owned <sup>4</sup>
	Altoline 6xxx Switches (Purchased after March 31, 2016)	1 year	10 days	1 year	N/A	N/A
	Arista switches (See <a href="http://www.arista.com/assets/data/pdf/Warranty.pdf">http://www.arista.com/assets/data/pdf/Warranty.pdf</a> for details)	1 year <sup>15</sup>	10 days <sup>15</sup>	1 year <sup>15</sup>	N/A	N/A
	580x/AF	Lifetime <sup>5</sup>	NBD Ship	As long as owned <sup>5</sup>	N/A	As long as owned <sup>4</sup>
	55xx, 513x, 512x, 38xx, 36xx, 35xx/yl, 31xx, 29xx/al, 281x, 26xx, 25xx/G	Lifetime <sup>5</sup>	NBD Ship	As long as owned <sup>5</sup>	90 days	As long as owned <sup>4</sup>
	Smart Managed					
	195x, 192x, 191x, 18xx, 1620 (Purchased after October 1, 2017)	Lifetime <sup>14</sup>	NBD Ship	90 days Phone support-Chat support entire warranty period <sup>14</sup>	90 days Phone support-Chat support entire warranty period <sup>14</sup>	As long as owned <sup>4</sup>
	Unmanaged					
1420, 1410 (Purchased after October 1, 2017)	Lifetime <sup>14</sup>	NBD Ship	90 days Phone support-Chat support entire warranty period <sup>14</sup>	90 days Phone support-Chat support entire warranty period <sup>14</sup>	N/A	
1405 (Purchased after October 1, 2017)	3 years <sup>14</sup>	NBD Ship	90 days Phone support-Chat support entire warranty period <sup>14</sup>	90 days Phone support-Chat support entire warranty period <sup>14</sup>	N/A	
Wireless LAN	Indoor Access Points					
	Aruba Controller-Managed Access Points (APs)	Lifetime <sup>10</sup>	30 day NBD/Return-to-factory <sup>11</sup>	90 days	N/A	90 days (bug fix only)
	3WN/P, 155/P, 108/109 Aruba Remote Access points (RAPs)	Lifetime <sup>10</sup>	30 day NBD/Return-to-factory <sup>11</sup>	90 days	N/A	Periodic updated image <sup>13</sup>
	Aruba Instant Access Points (IAPs)	Lifetime <sup>10</sup>	30 day NBD/Return-to-factory <sup>11</sup>	90 days	N/A	Periodic updated image <sup>13</sup>
	M330, M2xx	Lifetime <sup>5</sup>	NBD Ship	As long as owned <sup>5</sup>	90 days	As long as owned <sup>4</sup>
	OfficeConnect 20 Access Point	3 years <sup>14</sup>	NBD Ship	90 days Phone support-Chat support entire warranty period <sup>14</sup>	90 days Phone support-Chat support entire warranty period <sup>14</sup>	As long as owned <sup>4</sup>
	Controllers					
	Aruba controllers	1 year	30 day NBD/Return-to-factory <sup>11</sup>	90 days <sup>12</sup>	N/A	N/A
	Aruba Mobility Access Switches	Lifetime <sup>10</sup>	NBD Ship	90 days	90 days	As long as owned <sup>4</sup>
	Other WLAN products					
	Aruba Controller-Managed 2xx Series Outdoor Access Points	Lifetime <sup>10</sup>	30 day NBD/Return-to-factory <sup>11</sup>	90 days	N/A	90 days (bug fix only)
	Aruba Instant 2xx Series Outdoor Access Points (IAPs)	Lifetime <sup>10</sup>	30 day NBD/Return-to-factory <sup>11</sup>	90 days	N/A	Periodic updated image <sup>13</sup>
	AirWave Appliances, ClearPass Appliances, IntroSpect Appliances	1 year	30 day NBD/Return-to-factory <sup>11</sup>	90 days <sup>12</sup>	N/A	90 days (bug fix only)
	MST2HP, MST2HAC, MSR2KP, MSR4KP Aruba Outdoor Wireless Mesh Routers	1 year	30 day NBD/Return-to-factory <sup>11</sup>	90 days <sup>12</sup>	N/A	90 days (bug fix only)
Aruba Beacons	90 days	30 day NBD/Return-to-factory <sup>11</sup>	90 days	N/A	90 days (bug fix only)	
Aruba Power Supplies, Antennae, Accessories	1 year	30 day NBD/Return-to-factory <sup>11</sup>	90 days	N/A	N/A	

The most current version of this document is available at [www.hpe.com/networking/warrantysummary](http://www.hpe.com/networking/warrantysummary)  
HPE Networking product warranty policy details are available at [www.hpe.com/networking/warranty](http://www.hpe.com/networking/warranty)  
Information on services for HPE Networking products can be found at [www.hpe.com/networking/services](http://www.hpe.com/networking/services)

The information contained herein is subject to change without notice. Warranties for HPE products and services are set forth in the express warranty statements accompanying such products and services. In addition, our goods come with guarantees that cannot be excluded under Australian and New Zealand consumer laws. Subject to the foregoing, nothing herein should be construed as constituting an additional warranty. HPE shall not be liable for technical or editorial errors or omissions contained herein.



# HPE Networking Product Warranty & Support Summary (October 2017)

	Product	Warranty	Support	Warranty	Support	Notes
<b>Routers</b>	Routers					
	88xx, HSR68xx	1 year	10 days	1 year	N/A	As long as owned <sup>4</sup>
	HSR66xx, 66xx, MSR50, MSR4xxx, MSR3xxx, MSR30	1 year	10 days	1 year	90 days	As long as owned <sup>4</sup>
	MSR2xxx, MSR20, MSR1xxx, MSR9xx	1 year	NBD Ship	1 year	90 days	As long as owned <sup>4</sup>
	ALU 77xx	1 year <sup>9</sup>	Return-to-factory <sup>9</sup>	1 year <sup>9</sup>	N/A	All updates for purchased license <sup>9</sup>
	120, 110 Wireless routers	3 years	NBD Ship	3 years	90 days	As long as owned <sup>4</sup>
<b>Management</b>	VSR routers	90 days (Media only)	N/A	90 days	N/A	All updates for purchased license <sup>8</sup>
	Network Management					
	Intelligent Management Center (support details at <a href="http://www.hpe.com/networking/IMCSupport">www.hpe.com/networking/IMCSupport</a> )	90 days (Media only)	N/A	90 days	N/A	90 days (bug fix only)
	AirWave, ALE, ArubaCentral, ClearPass, Meridian, VIA, Visual RF	90 days (Media only)	N/A	90 days	N/A	90 days (bug fix only)
	HPE VAN SDN controller and HPE SDN applications	90 days (Media only)	N/A	90 days	N/A	All updates for purchased license <sup>8</sup>
	HPE Distributed Cloud Networking	90 days (Media only)	N/A	N/A	N/A	None
<b>Additional Networking Products</b>	Big Switch Networks controller appliances (See <a href="http://www.bigswitch.com/support">www.bigswitch.com/support</a> for warranty & support details)	N/A <sup>16</sup>	N/A <sup>16</sup>	N/A <sup>16</sup>	N/A <sup>16</sup>	N/A <sup>16</sup>
	Transceivers					
	Aruba Transceivers (for WLAN controllers and MAS switches)	1 year	30 day NBD/Return-to-factory <sup>11</sup>	90 days	N/A	N/A
	Aruba 40G transceivers and HPE X244, X242, X142, X132, X131, X129, X122, X121, X119, X112, X111	Lifetime <sup>5</sup>	NBD Ship	As long as owned <sup>5</sup>	N/A	N/A
	Aruba 100G transceivers	1 year	10 days	1 year	N/A	N/A
HPE X2A0, X240, X190, X180, X170, X160, X150, X140, X135, X130, X125, X124, X120, X115, X114, X110	1 year	30 days	1 year	N/A	N/A	

- 1) Removable power supplies, modules and accessories such as antennas, fans, power cords, etc. may have different warranty coverage than the host device. See the HPE Networking Warranty Coverage Quick Reference at [www.hpe.com/networking/warrantyquickref](http://www.hpe.com/networking/warrantyquickref) for more details.
- 2) Response time is based on commercially reasonable effort and subject to a daily shipment cutoff time. In some countries and regions and under certain supplier constraints, response time may vary. Contact your local HPE service organization for response time availability in your area. NBD Ship = Next Business Day shipment.
- 3) Warranty phone and electronic case technical support is provided during local HPE business hours for the entire warranty period for the purposes of diagnosing hardware or software defects. Many products purchased after December 1, 2015 include 90 days of 24x7 technical support as noted. See product's Hewlett-Packard Limited Warranty Statement for additional coverage details. Extended coverage services are available.
- 4) Includes all generally available software/OS releases offered for the specific products listed, when and if available, for as long as the customer owns the product, except where noted. Some software releases may require additional or new hardware. Customers who desire specific feature updates, patches and fixes to be prioritized into future releases should purchase the appropriate support services from HPE.
- 5) For products purchased after December 1, 2014, the warranty extends only for as long as the original end user owns the product. Includes coverage of any built-in fans and power supplies for the entire warranty period. You may be required to provide proof of purchase or lease as a condition of receiving warranty service.
- 6) Hardware warranty, technical support and all software releases provided for hardware and the ONE Service OS only, when and if available, for as long as the original end user owns the product. See product specific documentation for application support. 5 year warranty on the disk drive in the HPE Alliance One Advanced Services zl Modules.
- 7) Products purchased before August 1, 2013 include 1 year of technical support and 1 year (bug fix only).
- 8) Includes all software updates offered for the licensed version, when and if available. Software upgrades will require purchase of appropriate SKU, packaged support services or contract.
- 9) All technical, hardware and software support for ALU 77xx products is provided directly by Alcatel-Lucent only and not HPE. For support from Alcatel-Lucent, select the country from which the customer is calling in the following link and it will present the appropriate ALU support contact information: [https://services.support.alcatel-lucent.com/product\\_support/](https://services.support.alcatel-lucent.com/product_support/). Hardware warranty requires shipping failed product to ALU for repair or replacement. Logistics cost for shipment of product from customer's site to ALU site for repair or replacement will be covered by the customer. Software maintenance releases are included for the major software release purchased. Major software release upgrades are NOT included. Services may be purchased from HPE or Alcatel-Lucent to extend your support coverage and software upgrades. Support will be provided by Alcatel Lucent for these services.
- 10) For products purchased after December 1, 2015, the warranty extends only for as long as the original end user owns the product and is limited to five (5) years from the end of sale date.
- 11) For the first 30 days from shipment, HPE will provide same day ship advanced replacement for the covered hardware products. After thirty (30) days from shipment through the remaining warranty period, HPE will replace or repair any non-compliant Product and return it in operable condition, shipping after HPE's receipt of the non-compliant Product via HPE's RMA procedure, with receipt by customer within ten (10) days on a commercially reasonable basis.
- 12) HPE will provide next business day email response for the purposes of diagnosing hardware or software defects during standard Pacific Time Zone business hours for the first 90 days after purchase.
- 13) HPE will make one recent Instant OS software release image available on the software portal. This image is also available for Remote Access Points (RAPs) running Instant OS.
- 14) These products are covered by 90 days of 24x7 phone support. Thereafter, only chat support would be available for the remaining warranty period. Limited lifetime warranty (where applicable) extends only for as long as the original end user owns the product and is limited to five (5) years from the end of sale date. This warranty includes coverage of any built-in fans and power supplies for the entire warranty period. You may be required to provide proof of purchase or lease as a condition of receiving warranty service. See [www.hpe.com/OfficeConnect/support/](http://www.hpe.com/OfficeConnect/support/) for more information on the new OfficeConnect support process.
- 15) All technical, hardware and software support for Arista products is provided directly by Arista and not HPE. Consult the Arista customer support page for contact information: <https://www.arista.com/en/support/customer-support>. Transportation costs, if any, incurred in connection with the return of a defective Hardware to an Arista repair center shall be borne by Customer. Arista shall pay any transportation costs incurred with the redelivery of a repaired or replaced Hardware. Services may be purchased from HPE or Arista to extend your support coverage and software upgrades. Support will be provided by Arista for these services. For details on Arista warranty and support, see: <http://www.arista.com/assets/data/pdf/Warranty.pdf>.
- 16) All technical, hardware and software support for Big Switch Networks products is provided directly by BSN and not HPE. Consult the Big Switch Networks customer support page for contact information: [www.bigswitch.com/support](http://www.bigswitch.com/support). For details on Big Switch Networks warranty and support options, see: [http://bigswitch.com/sites/default/files/bsn\\_support\\_and\\_maintenance\\_policy.v2.2.2016.11.14.pdf](http://bigswitch.com/sites/default/files/bsn_support_and_maintenance_policy.v2.2.2016.11.14.pdf).

The most current version of this document is available at [www.hpe.com/networking/warrantysummary](http://www.hpe.com/networking/warrantysummary)  
HPE Networking product warranty policy details are available at [www.hpe.com/networking/warranty](http://www.hpe.com/networking/warranty)  
Information on services for HPE Networking products can be found at [www.hpe.com/networking/services](http://www.hpe.com/networking/services)

The information contained herein is subject to change without notice. Warranties for HPE products and services are set forth in the express warranty statements accompanying such products and services. In addition, our goods come with guarantees that cannot be excluded under Australian and New Zealand consumer laws. Subject to the foregoing, nothing herein should be construed as constituting an additional warranty. HPE shall not be liable for technical or editorial errors or omissions contained herein.

