




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

Header  10 List View

## General Information

Contact

Default Values

Discount


Document Information

Procurement Folder: 608684

SO Doc Code: CRFQ

Procurement Type: Central Contract - Fixed Amt

SO Dept: 0947

Vendor ID: VS0000018125 

SO Doc ID: ERP2000000002

Legal Name: AHEAD LLC


Published Date: 8/21/19

Alias/DBA:

Close Date: 8/28/19


Total Bid: \$2,696,897.04

Close Time: 13:30

Response Date: 08/28/2019 

Status: Closed

Response Time: 11:50

Solicitation Description: Addendum No. 1 Production and Disaster Recovery Infrastructu 

Total of Header Attachments: 10

Total of All Attachments: 10



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

**State of West Virginia  
 Solicitation Response**

**Proc Folder :** 608684

**Solicitation Description :** Addendum No. 1 Production and Disaster Recovery Infrastructu

**Proc Type :** Central Contract - Fixed Amt

Date issued	Solicitation Closes	Solicitation Response	Version
	2019-08-28 13:30:00	SR 0947 ESR08281900000001277	1

VENDOR
VS0000018125 AHEAD LLC

**Solicitation Number:** CRFQ 0947 ERP2000000002

**Total Bid :** \$2,696,897.04      **Response Date:** 2019-08-28      **Response Time:** 11:50:44

**Comments:**

**FOR INFORMATION CONTACT THE BUYER**  
 Melissa Pettrey  
 (304) 558-0094  
 melissa.k.pettrey@wv.gov

<b>Signature on File</b>	<b>FEIN #</b>	<b>DATE</b>
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All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Storage Array Solution - Production Site	1.00000	EA	\$1,359,154.920000	\$1,359,154.92

Comm Code	Manufacturer	Specification	Model #
43201802			

**Extended Description :** Exact specifications can be found on the attached specifications sheet.

**Comments:** Please see attached quotes for detailed, line item pricing.  
Total solution cost for all 9 items is \$2,696,897.04  
This line includes production storage, compute/networking, implementation / migration services, production site cabinet, knowledge transfer and education

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Storage Array Solution - Disaster Recovery Site	1.00000	EA	\$1,111,039.280000	\$1,111,039.28

Comm Code	Manufacturer	Specification	Model #
43201802			

**Extended Description :** Exact specifications can be found on the attached specifications sheet.

**Comments:** Please see attached quotes for detailed, line item pricing.  
Total solution cost for all 9 items is \$2,696,897.04  
This line includes Disaster Recovery storage, compute/networking, implementation / migration services, cabinet, knowledge transfer and education

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Compute/Networking Solution - Production Site (with VMware)	1.00000	EA	\$0.000000	\$0.00

Comm Code	Manufacturer	Specification	Model #
43232907			

**Extended Description :** Exact specifications can be found on the attached specifications sheet.

**Comments:** Please see attached quotes for detailed, line item pricing.  
Total solution cost for all 9 items is \$2,696,897.04  
This line is included in 1 and 2



Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	Compute/Networking Solution - Disaster Rec Site (w. VMware)	1.00000	EA	\$0.000000	\$0.00

Comm Code	Manufacturer	Specification	Model #
43232907			

**Extended Description :** Exact specifications can be found on the attached specifications sheet.

**Comments:** Please see attached quotes for detailed, line item pricing.  
Total solution cost for all 9 items is \$2,696,897.04  
This line is included in 1 and 2

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
5	Implementation and Migration Services				\$0.00

Comm Code	Manufacturer	Specification	Model #
81112309			

**Extended Description :** Exact specifications can be found on the attached specifications sheet.

**Comments:** Please see attached quotes for detailed, line item pricing.  
Total solution cost for all 9 items is \$2,696,897.04  
This line is included in 1 and 2

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
6	Cabinet - Production Site	1.00000	EA	\$0.000000	\$0.00

Comm Code	Manufacturer	Specification	Model #
43223306			

**Extended Description :** Exact specifications can be found on the attached specifications sheet.

**Comments:** Please see attached quotes for detailed, line item pricing.  
Total solution cost for all 9 items is \$2,696,897.04  
This line is included in 1 and 2

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
7	Cabinet - Disaster Recovery Site	1.00000	EA	\$0.000000	\$0.00

Comm Code	Manufacturer	Specification	Model #
43223306			

**Extended Description :** Exact specifications can be found on the attached specifications sheet.

**Comments:** Please see attached quotes for detailed, line item pricing.  
Total solution cost for all 9 items is \$2,696,897.04  
This line is included in 1 and 2

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
8	Firewalls (with Subscription Services)	1.00000	EA	\$226,702.840000	\$226,702.84

Comm Code	Manufacturer	Specification	Model #
43222501			

**Extended Description :** Exact specifications can be found on the attached specifications sheet.

**Comments:** This line item include prod and dr firewalls, implementation, maintenance, and firewall knowledge transfer/education.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
9	Knowledge Transfer and Training				\$0.00

Comm Code	Manufacturer	Specification	Model #
86000000			

**Extended Description :** Exact specifications can be found on the attached specifications sheet.

**Comments:** Please see attached quotes for detailed, line item pricing.  
Total solution cost for all 9 items is \$2,696,897.04  
This line is included in 1 and 2



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: 608684

Doc Description: Addendum No. 1 Production and Disaster Recovery Infrastructu

Proc Type: Central Contract - Fixed Amt

Date issued	Solicitation Closes	Solicitation No	Version
2019-08-21	2019-08-28 13:30:00	CRFQ 0947 ERP2000000002	2

**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:

AHEAD, LLC  
 401 N Michigan Avenue, 34th floor  
 Chicago, IL 60611  
 (312) 924-4492

**FOR INFORMATION CONTACT THE BUYER**

Melissa Pettrey  
 (304) 558-0094  
 melissa.k.pettrey@wv.gov

Signature X

FEIN # 20-8476250

DATE 23 Aug 2019

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

**ADDITIONAL INFORMATION:**

Addendum No. 1

Addendum No. 1 is issued to publish and distribute the attached information to the vendor community.  
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**REQUEST FOR QUOTATION**

The West Virginia Purchasing Division is soliciting bids on behalf of the Agency, the West Virginia Enterprise Resource Planning Board (wvOASIS) to establish a contract for the replacement of its current Production and Disaster Recovery Infrastructure and obtain Services to assist in the installation and configuration of the new hardware per the bid requirements, specifications, terms and conditions attached to this solicitation.

The primary Production Site is in Charleston, WV with a Disaster Recovery Site located in Morgantown, WV.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Storage Array Solution - Production Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43201802			

**Extended Description :**  
Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Storage Array Solution - Disaster Recovery Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43201802			

**Extended Description :**  
Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	Compute/Networking Solution - Production Site (with VMware)	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43232907			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	Compute/Networking Solution - Disaster Rec Site (w. VMware)	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43232907			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	Implementation and Migration Services	0.00000			

Comm Code	Manufacturer	Specification	Model #
81112309			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON US	WV25301	CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON US	WV 25301

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
6	Cabinet - Production Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43223306			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON US	WV25301	CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON US	WV 25301

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
7	Cabinet - Disaster Recovery Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43223306			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
8	Firewalls (with Subscription Services)	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43222501			

**Extended Description :**  
 Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
9	Knowledge Transfer and Training	0.00000			

Comm Code	Manufacturer	Specification	Model #
86000000			

**Extended Description :**  
 Exact specifications can be found on the attached specifications sheet.

# SOLICITATION NUMBER: ERP2000000002

## Addendum Number: 1

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The purpose of this addendum is to modify the solicitation identified as ERP2000000002("Solicitation") to reflect the change(s) identified and described below.

### Applicable Addendum Category:

- Modify bid opening date and time
- Modify specifications of product or service being sought
- Attachment of vendor questions and responses
- Attachment of pre-bid sign-in sheet
- Correction of error
- Other

### Description of Modification to Solicitation:

1. To publish Vendor questions and Agency responses.
2. Bid opening remains 08/28/2019 @ 1:30 P.M. EST

**Additional Documentation:** Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

### Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, 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.



**Q1.** RFP States 5 years base term with 3, 1 year extensions.

**Question.** 5 years base term with 3, 1 year extensions (8 years total) of what? Maintenance? Pricing? Typically maintenance is not available on products beyond 6-7 years. Can this specification be removed/reduced?

**A1.** The 1-year extensions are optional and must be agreed to by both parties. This extension would be for maintenance and support for as long as both parties agree, but not to exceed 8 total years. If at any time, both parties do not agree to an renewal or extension, the Contract must be bid back out to all vendors.

**Q2.** Based on the above, this translates into a Price hold for duration of contract (8 years) (see page 17 "...pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/ Contract by the State.")

**Question** – Does that mean that the State of WV is asking responders to hold the same pricing for a period of 8 years? Product refreshes are typically 18 months to 2 years, so this would not even be possible. Can this specification be removed?

**A2.** The 1-year extensions are optional and must be agreed to by both parties. This extension would be primarily for the maintenance and support aspect of the Contract after the initial 5-year term expires. If no renewal is agreed to, a new Contract must be placed out for bid.

**Q3.** The pricing sheet asks only for five years except for VMware which is three years

**A3.** That is correct. There is the expectation of a 5-year warranty, maintenance, and support on all hardware, equipment, software and support/licensing upgrade of software with the exception of VMware, which we are aware is a 3-year term.

**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: ERP2000000002**

**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:**

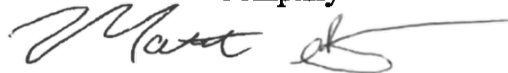
(Check the box next to each addendum received)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input type="checkbox"/> Addendum No. 2            | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

AHEAD, LLC

\_\_\_\_\_  
Company



\_\_\_\_\_  
Authorized Signature

23 Aug 2019

\_\_\_\_\_  
Date

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



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: 608684

Doc Description: Production and Disaster Recovery Infrastructure Upgrade

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2019-08-14	2019-08-28 13:30:00	CRFQ 0947 ERP2000000002	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:

AHEAD, LLC  
 401 N Michigan Avenue, 34th floor  
 Chicago, IL 60611  
 (312) 924-4492

**FOR INFORMATION CONTACT THE BUYER**

Melissa Pettrey  
 (304) 558-0094  
 melissa.k.pettrey@wv.gov

Signature X

FEIN #

20-8476250

DATE

23 Aug 2019

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

**ADDITIONAL INFORMATION****REQUEST FOR QUOTATION**

The West Virginia Purchasing Division is soliciting bids on behalf of the Agency, the West Virginia Enterprise Resource Planning Board (wvOASIS) to establish a contract for the replacement of its current Production and Disaster Recovery Infrastructure and obtain Services to assist in the installation and configuration of the new hardware per the bid requirements, specifications, terms and conditions attached to this solicitation.

The primary Production Site is in Charleston, WV with a Disaster Recovery Site located in Morgantown, WV.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Storage Array Solution - Production Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43201802			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Storage Array Solution - Disaster Recovery Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43201802			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	Compute/Networking Solution - Production Site (with VMware)	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43232907			

Extended Description :  
 Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	Compute/Networking Solution - Disaster Rec Site (w. VMware)	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43232907			

Extended Description :  
 Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	Implementation and Migration Services				

Comm Code	Manufacturer	Specification	Model #
81112309			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO	SHIP TO
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US	CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
6	Cabinet - Production Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43223306			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO	SHIP TO
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US	CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
7	Cabinet - Disaster Recovery Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43223306			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON US	WV25301	CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON US	WV 25301

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
8	Firewalls (with Subscription Services)	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43222501			

**Extended Description :**  
Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON US	WV25301	CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON US	WV 25301

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
9	Knowledge Transfer and Training				

Comm Code	Manufacturer	Specification	Model #
86000000			

**Extended Description :**  
Exact specifications can be found on the attached specifications sheet.

## **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 **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: 08/19/2019 @ 10:00 A.M.

Submit Questions to: Melissa Pettrey, Senior Buyer  
2019 Washington Street, East  
Charleston, WV 25305  
Fax: (304) 558-4115 (Vendors should not use this fax number for bid submission)  
Email: melissa.k.pettrey@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: Production and Disaster Recovery Infrastructure Upgrade  
BUYER: Melissa Pettrey, Senior buyer  
SOLICITATION NO.: CRFQ ERP2000000002  
BID OPENING DATE: 08/28/2019  
BID OPENING TIME: 1:30 P.M.  
FAX NUMBER: 304-558-3970

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

**For Request For Proposal ("RFP") Responses Only:** In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus           N/A           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: 08/28/2019 @ 1:30 P.M.

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 UPON AWARD and extends for a period of FIVE (5) 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 THREE (3) 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: \_\_\_\_\_ per occurrence.

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

**Cyber Liability Insurance** in an amount of: \$1,000,000.00 per occurrence.

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

**Pollution Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Aircraft Liability** in an amount of: \_\_\_\_\_ per occurrence.

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

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

**14. PAYMENT IN ARREARS:** 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 06/05/2019



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 of 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.



\_\_\_\_\_  
(Name, Title)  
Matt Athey, Client Director

\_\_\_\_\_  
(Printed Name and Title)  
5181 Natorp Blvd, Suite 110, Mason, OH 45040

\_\_\_\_\_  
(Address)  
614-354-5892

\_\_\_\_\_  
(Phone Number) / (Fax Number)  
matt.athey@thinkahead.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.

AHEAD, LLC

\_\_\_\_\_  
(Company)



\_\_\_\_\_  
(Authorized Signature) (Representative Name, Title)

Matt Athey, Client Director

\_\_\_\_\_  
(Printed Name and Title of Authorized Representative)

23 Aug 2019

\_\_\_\_\_  
(Date)

614-354-5892

\_\_\_\_\_  
(Phone Number) (Fax Number)

REQUEST FOR QUOTATION  
Infrastructure Upgrade/Refresh

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**SPECIFICATIONS**

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Enterprise Resource Planning Board (wvOASIS) to establish a contract for the replacement of its current Production and Disaster Recovery Infrastructure and obtain Services to assist in the installation and configuration of the new hardware.

The Vendor shall furnish all materials, labor, equipment, and software license necessary to complete all services per the specification requirements.

There are two (2) locations for which equipment will be purchased and reside. The primary Production Site is in Charleston, WV with a Disaster Recovery Site located in Morgantown, WV.

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

2.1 "Contract Item" means all parts, products, software licenses, maintenance, support and services as more fully described by these specifications.

2.2 "Pricing Page" means the pages, contained in wvOASIS or attached hereto as Exhibit A, upon which Vendor should list its proposed price for the Contract Items. For submission/entry in wvOASIS, the Commodity Code section is where pricing is entered for each item/category listed.

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

3. **QUALIFICATIONS:** Vendor, or Vendor's staff if requirements are inherently limited to individuals rather than corporate entities, shall have the following minimum qualifications:

**3.1 Professional Services and Qualifications**

This section will include the baseline minimum requirements for all professional services requested as part of this solicitation as well as an outline of project timeline.

**3.1.1 Requirements for Professional Services/Professional Services Personnel**

3.1.1.1 All professional services must be performed by the employees of the successful reseller or manufacturer of the solution.

3.1.1.2 All professional services personnel must be fluent conversational English language speakers. The wvOASIS reserves the right to request a different technician if the resource provided cannot be understood clearly by wvOASIS personnel.

3.1.1.3 Professional services are to be coordinated via a single point of contact, either a dedicated project manager or lead technical resource is acceptable. Individual to be identified before beginning Project.

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**3.1.1.4** All professional services personnel must have experience with projects of similar scope utilizing like hardware and software

**3.1.1.4.1** Vendor should provide Vendor's proposed relevant certifications including but not limited to: VMware and NetApp of project staff who will be assigned to the Project with its bid response. wvOASIS reserves the right to request proof and may be required before award of a contract.

Response must include at least one reference from a current customer running CGI Advantage ERP on the proposed solution.

Experience will be determined prior to contract award by the State through references provided by the Vendor upon request; through knowledge or documentation of the Vendor's past projects; or some other method that the State determines to be acceptable.

Vendor must provide any documentation requested by the State to assist in confirmation of experience. References, documentation, or other information may be requested after bid opening and prior to contract award.

**3.1.1.5** All professional services related to project implementation (hardware installation, configuration and updating, software installation, migration services, etc.) will be performed on-site working alongside wvOASIS staff.

**3.1.1.6** Project planning meetings may be held via conference call or web conferencing sessions

**3.1.1.7** Any required/included project management functions can be performed offsite/remotely

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**4. MANDATORY REQUIREMENTS:**

The state of West Virginia is seeking a converged infrastructure solution that includes compute, storage and switching or equivalent to host its wvOASIS platform which utilizes an Oracle Database hosting CGI Advantage ERP. Hyper converged solutions will not be considered. The solution should be of a validated design for Oracle Database and VMware and include the validated design document as part of the response.

**4.1 Mandatory Contract Services and Item Requirements:** Contract Items must meet or exceed the minimum mandatory technical/functional requirements for replacement infrastructure hardware and integrated software functionality as listed. All hardware shall be new and warranted by the original manufacturer for five (5) years. Associated licensing with 5 years of hardware and software support and maintenance must be included (with the exception of VMware or Equal, which is for three years) wvOASIS will not accept remanufactured, refurbished, or warranted as new or like new equipment.

**4.1.1 Storage Array Solution for the PRODUCTION SITE located at 1900 Kanawha Blvd. Building 6, Charleston, WV 25305**

The following minimum requirements and technical aspects are based on a NetApp AFF A300 or Equal, storage Array. These technical aspects are required to fulfill the current needs of wvOASIS, and details all technical aspects this system (or any "or equal" storage array) is required to meet to fulfill the needs of the wvOASIS currently and going forward.

**4.1.1.1** The Storage Array must include dual redundant storage controllers

**4.1.1.2** Controller pair must function as a highly available clustered pair.

**4.1.1.3** Controller pair must have the following minimum specifications:

**4.1.1.3.1** 2 x 64-bit 16-core Intel Broadwell-DE 1.70 GHz CPU or Equal

**4.1.1.3.2** 256 GB of RAM

**4.1.1.3.3** 16GB of NVRAM

**4.1.1.3.4** 2 x RJ45 10Gb Ethernet ports

**4.1.1.3.5** 2 x SFP+ 10Gb Ethernet ports

**4.1.1.3.6** 4 x Converged Network Adapter (CNA) SFP+ 10Gb Ethernet/16Gb FC ports

**4.1.1.3.7** 2 x PCIe 3.0 expansion slots

**4.1.1.3.8** 8 x 12Gb SAS ports

**4.1.1.3.9** Must optionally support 40Gbe as that may be used as an alternative to 10Gbe ports requested

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- 4.1.1.4** Storage Array must have the following minimum storage capacity:
  - 4.1.1.4.1** 134 TiB (Tebibyte/Binary Terabytes) of useable formatted flash storage using 3.8TB or larger SSDs. Useable capacity does not include dedupe, compression, or other efficiency technologies.
- 4.1.1.5** Storage Array must be expandable to the following minimum specifications:
  - 4.1.1.5.1** Must support clustering with additional controllers up to a maximum cluster size of 12 controllers providing live mobility of storage volumes between controllers with zero downtime
  - 4.1.1.5.2** Must support up to 11750 TB of raw capacity per HA pair
  - 4.1.1.5.3** Must support up to 384 drives per HA pair
- 4.1.1.6** Storage array must provide the following functionality:
  - 4.1.1.6.1** Must natively provide a single pane of glass management interface for both block and file storage functionality
  - 4.1.1.6.2** Must support dual parity RAID
  - 4.1.1.6.3** Must support triple parity RAID
  - 4.1.1.6.4** Must include Volume Encryption and any associated licensing with 5 years of hardware and software support and maintenance
  - 4.1.1.6.5** Must include per volume deduplication that can be enabled or disabled, during and after volume creation and any associated licensing with 5 years of hardware and software support and maintenance.
  - 4.1.1.6.6** Must include per volume compression that can be enabled or disabled, during and after volume creation and any associated licensing with 5 years of hardware and software support and maintenance
  - 4.1.1.6.7** Must support the ability to natively offload / de-stage cold data to the on and/or off premise private or commercial cloud (S3)
  - 4.1.1.6.8** Must include Oracle database aware local snapshots of individual storage volumes as part of this solicitation and any associated licensing with 5 years of hardware and software support and maintenance.
  - 4.1.1.6.9** Must support synchronous Oracle Database aware replication of individual storage volumes with the Disaster Recovery Array included as part of this solicitation and any associated licensing with 5 years of hardware and software support and maintenance.
  - 4.1.1.6.10** Must support asynchronous Oracle Database aware replication of individual storage volumes with the Disaster Recovery Array included as part of this solicitation and any associated licensing with 5 years of hardware and software support and maintenance.

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- 4.1.1.6.11** Must be able to replicate copies of individual volumes with the Disaster Recovery Array included as part of this solicitation and any associated licensing with 5 years of hardware and software support and maintenance.
- 4.1.1.6.12** Replicated volumes must be accessible in a read only mode on the Disaster Recovery Array.
- 4.1.1.6.13** Replicated volumes must be able to be switched into a read/write mode on the Disaster Recovery Array.
- 4.1.1.6.14** Replication direction must be able to be reversed to support a “fail back” to the production data center.
- 4.1.1.6.15** Must support native cloud replication.
- 4.1.1.6.16** Must support zero downtime firmware and OS upgrades to the storage
- 4.1.1.6.17** controllers.
  
- 4.1.1.6.18** Must support the following protocols natively without a gateway and include any associated licensing with 5 years of hardware and software support and maintenance.
  - A. Fiber Channel
  - B. Fiber Channel over Ethernet (FCoE)
  - C. iSCSI (internet small computer systems interface)
  - D. CIFS/SMB (SMB2, 2.1, 3, 3.1)
  - E. NFS (v3, v4, v4.1)
  - F. pNFS
  
- 4.1.1.6.19** Must support VAAI extensions when utilized with VMware vSphere virtualization platform
  
- 4.1.1.6.20** Must support the following Agency owned and used operating systems:
  - A. Windows Server 2012
  - B. Windows Server 2016
  - C. VMware ESX
  - D. Linux

**4.1.2** Support for Storage Array at the Production Site

- 4.1.2.1** Must include 24x7 remote and on-site support for a duration of no less than 5 years from the date of equipment is tested and accepted by the wvOASIS staff.



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**4.1.2.2** Must adhere to the following response time:

- 4.1.2.2.1** Priority 1: Four (4) hours (storage down and unable to serve data or a state of frequent "panic" or "hang" states, or storage performance is degraded to prevent normal business operations)
- 4.1.2.2.2** Priority 2: Four (4) hours (storage experiencing infrequent, isolated, or intermittent "panic" or "hang" status, or performance is in a degraded state that still allows normal business operations, but is inconsistent or less than optimal state)
- 4.1.2.2.3** Priority 3: Eight (8) hours (storage experiencing an issue, anomaly, or cosmetic defect that inflicts little or no business impact)
- 4.1.2.2.4** Priority 4: Twenty-four (24) hours (Normal requests for information regarding installation, configuration, use, and maintenance of the storage system)
- 4.1.2.2.5** Must include advance hardware replacement. If the original equipment is not returned to the agency, vendor must provide a communication regarding the removed item which shall include item name, serial number and/or wvOASIS property tag (if applicable).

**4.2** Storage Array Solution for the Disaster Recovery Site located at 837 Chestnut Ridge Road Morgantown, WV 26505.

The following minimum requirements and technical aspects are based on a NetApp AFF A300 or Equal, storage Array. These technical aspects are required to fulfill the current needs of wvOASIS, and details all technical aspects this system (or any "or equal" storage array) is required to meet to fulfill the needs of the wvOASIS currently and going forward.

**4.2.1** The Storage Array must include dual redundant storage controllers

**4.2.1.1** Controller pair must function as a highly available clustered pair

**4.2.1.2** Controller pair must have the following minimum specifications:

- 4.2.1.2.1** 2 x 64-bit 16-core Intel Broadwell-DE 1.70 GHz CPU Or Equal
- 4.2.1.2.2** 256 GB of RAM
- 4.2.1.2.3** 16GB of NVRAM
- 4.2.1.2.4** 2 x RJ45 10Gb Ethernet ports

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- 4.2.1.2.5** 2 x SFP+ 10gb Ethernet ports
  - 4.2.1.2.6** 4 x Converged Network Adapter (CNA) SFP+ 10gb Ethernet/16gb FC ports
  - 4.2.1.2.7** 2 x PCIe 3.0 expansion slots
  - 4.2.1.2.8** 8 x 12gb SAS ports
  - 4.2.1.2.9** Must optionally support 40Gbe as that may be used as an alternative to 10Gbe ports requested
- 4.2.1.3** Storage Array must have the following minimum storage capacity:
- 4.2.1.3.1** 134 TiB (Tebibyte/Binary Terabytes) of useable formatted flash storage using 3.8TB or larger SSDs. Useable capacity does not include dedupe, compression, or other efficiency technologies.
- 4.2.1.4** Storage Array must be expandable to the following minimum specifications:
- 4.2.1.4.1** Must support clustering with additional controllers up to a maximum cluster size of 12 controllers providing live mobility of storage volumes between controllers with zero downtime
  - 4.2.1.4.2** Must support up to 11750 TB of raw capacity per HA pair
  - 4.2.1.4.3** Must support up to 384 drives per HA pair
- 4.2.1.5** Storage array must provide the following functionality:
- 4.2.1.5.1** Must natively provide a single pane of glass management interface for both block and file storage functionality.
  - 4.2.1.5.2** Must support dual parity RAID
  - 4.2.1.5.3** Must support triple parity RAID
  - 4.2.1.5.4** Must include Volume Encryption and any associated licensing with 5 years of hardware and software support and maintenance
  - 4.2.1.5.5** Must include per volume deduplication that can be enabled or disabled, during and after volume creation and any associated licensing with 5 years of hardware and software support and maintenance

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- 4.2.1.5.6** Must include per volume compression that can be enabled or disabled, during and after volume creation and any associated licensing with 5 years of hardware and software support and maintenance
- 4.2.1.5.7** Must support the ability to natively offload / destage cold data to the on and/or off premise private or commercial cloud (S3)
- 4.2.1.5.8** Must include Oracle application aware local snapshots of individual storage volumes as part of this solicitation and any associated licensing with 5 years of hardware and software support and maintenance
- 4.2.1.5.9** Must support synchronous Oracle Database aware replication of individual storage volumes with the Disaster Recovery Array included as part of this solicitation and any associated licensing with 5 years of hardware and software support and maintenance
- 4.2.1.5.10** Must support asynchronous Oracle Database aware replications of individual storage volumes with the Disaster Recovery Array included as part of this solicitation and any associated licensing with 5 years of hardware and software support and maintenance.
- 4.2.1.5.11** Must be able to replicate copies of individual volumes with the Disaster Recovery Array included as part of this solicitation and any associated licensing with 5 years of hardware and software support and maintenance
- 4.2.1.5.12** Replicated volumes must be accessible in a read only mode on the Disaster Recovery Array
- 4.2.1.5.13** Replicated volumes must be able to be switched into a read/write mode on the Disaster Recovery Array
- 4.2.1.5.14** Replication direction must be able to be reversed to support a "fail back" to the production data center
- 4.2.1.5.15** Must support native cloud replication
- 4.2.1.5.16** Must support zero downtime firmware and OS upgrades to the storage controllers

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**4.2.1.5.17** Must support the following protocols natively without a gateway and include any associated licensing with 5 years of hardware and software support and maintenance

- A. Fiber Channel
- B. Fiber Channel over Ethernet (FCoE)
- C. iSCSI (internet small computer systems interface)
- D. CIFS/SMB (SMB2,2.1,3,3.1)
- E. NFS (v3, v4, v4.1)
- F. pNFS

**4.2.1.5.18** Must support VAAI extensions when utilized with VMware vSphere virtualization platform

**4.2.1.5.19** Must support the following Agency owned and used operating systems:

- A. Windows Server 2012
- B. Windows Server 2016
- C. VMware ESX
- D. Linux

**4.2.2** Support for Storage Array at the Disaster Recovery Site

**4.2.2.1** Must include 24x7 remote and on-site support for a duration of no less than 5 years from the date of equipment is tested and accepted by the wvOASIS.

**4.2.2.2** Must adhere to the following response time:

**4.2.2.2.1** Priority 1: Four (4) hours (storage down and unable to serve data or a state of frequent "panic" or "hang" states, or storage performance is degraded to prevent normal business operations)

**4.2.2.2.2** Priority 2: Four (4) hours (storage experiencing infrequent, isolated, or intermittent "panic" or "hang" status, or performance is in a degraded state that still allows normal business operations, but is inconsistent or less than optimal state)

**4.2.2.2.3** Priority 3: Eight (8) hours (storage experiencing an issue, anomaly, or cosmetic defect that inflicts little or no business impact)

**4.2.2.2.4** Priority 4: Twenty-four (24) hours (Normal requests for information regarding installation, configuration, use, and maintenance of the storage system)

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4.2.2.2.5 Must include advance hardware replacement. If the original equipment is not returned to the agency, vendor must provide a communication regarding the removed item which shall include item name, serial number and/or wvOASIS property tag (if applicable).

**4.3 Compute and Networking Solution (Ethernet and Fiber Channel for PRODUCTION SITE, 1900 Kanawha Blvd. East, Charleston. WV 25305**

The following minimum requirements are based on a Cisco UCS blade server architecture, or equal, for the Compute and Networking components. These technical aspects are required to fulfill the current needs of the wvOASIS and details all technical aspects this system (or any "or equal" compute and networking hardware) is required to meet to fulfill the needs of the wvOASIS today and going forward.

**4.3.1 Top of Rack Switches**

4.3.1.1 Must be fully redundant hardware

4.3.1.2 Must support Ethernet, Fiber Channel over Ethernet (FCoE) and Fiber Channel (FC) protocols in a single switch (unified networking)

4.3.1.3 Must have a minimum 24 40-gigabit Ethernet/FCoE ports

4.3.1.4 Must have a minimum 16 unified ports supporting 1/10-gigabit Ethernet/FCoE and 16-gigabit Fiber Channel

4.3.1.5 Must have total bandwidth of 2.2 Tbps or higher

**4.3.2 Data Center Switches**

4.3.2.1 Must include 2 switches that meet or exceed the following specifications:

4.3.2.2 Must have 48 x 1/10/25-Gbps SFP+ ports and 6 x 40/100-Gbps QSFP ports

4.3.2.3 Must have all line rate ports

4.3.2.4 Must be 1Ru form factor

**4.3.3 Blade Chassis**

4.3.3.1 Must have a minimum of eight (8) slots for compute blades

4.3.3.2 Must have at least 160Gb of throughput per I/O module

4.3.3.3 Must include at least two (2) I/O modules installed

4.3.3.4 Must include redundant power

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**4.3.4 Compute (blade servers)**

**4.3.4.1** Must include Five (5) Blades for Production workloads that must meet or exceed the following minimum specifications:

**4.3.4.1.1** Must have two (2) Intel 2.6 Ghz ~~6240~~, 18-core, 36-thread, 24.75 MB cache processors

**4.3.4.1.2** Must have 384GB DDR4 2933 MHz dual rank RAM, or better, using individual DIMMs no smaller than 32GB in size

**4.3.4.1.3** Must have dual, internal, mirroring-capable 64 GB SD cards

**4.3.4.1.4** Must have a minimum 40Gb of I/O bandwidth to chassis

**4.3.4.1.5** Must have redundant Virtual Interface cards

**4.3.4.1.6** Must include Five (5) blades for Oracle workloads that must meet the following minimum specifications:

**4.3.4.1.7** Must have two (2) Intel 3.8 Ghz 5222, 4-core, 8-thread, 16.5 MB cache processors

**4.3.4.1.8** Must have 384GB DDR4 2933 MHz dual rank RAM, or better, using individual DIMMs no smaller than 32GB in size

**4.3.4.1.9** Must have dual, internal, mirroring-capable 64 GB SD cards

**4.3.4.1.10** Must have a minimum 40Gb of I/O bandwidth to chassis

**4.3.4.1.11** Must have redundant Virtual Interface cards

**4.3.5** Management Capabilities: Management capabilities must include the following functionality:

**4.3.5.1** Centralized management of server (compute) and network hardware from a single user interface

**4.3.5.2** Ability to manage up to 20 chassis under one (1) management interface

**4.3.5.3** Web-based management tools must be HTML5-based

**4.3.5.4** Must have the ability to create/apply profile templates for servers to rapidly deploy new servers

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- 4.3.5.5 Must have the ability to define MAC addresses, WWPN (world-wide port names), WWNN (world-wide node names) to assign to server to enable replacement of a failed server with like hardware with minimal reconfiguration
- 4.3.5.6 Must support single file firmware packages for update of server firmware
- 4.3.5.7 Must support deployment of firmware updates for server and networking components via the single management interface

**4.3.6 Support/maintenance**

4.3.6.1.1 Must include 24x7x365 remote and on-site support for a duration of no less than 5 years from the date of equipment testing and acceptance by the wvOASIS.

4.3.6.1.2 Must adhere to the following response time:

4.3.6.1.2.1. Priority 1 and 2 : One (1) hour (Critical issues where system is down or is experiencing severely degraded functionality)

4.3.6.1.2.2 Priority 3 and 4 : One (1) business day (Less critical issues with little to no impact on system functionality)

4.3.6.1.2.3 Must include advance hardware replacement. If the original equipment is not returned to the agency, vendor must provide a communication regarding the removed item which shall include item name, serial number and/or wvOASIS property tag (if applicable).

**4.3.7 VMware Licenses**

- 4.3.7.1 Must include 20 vSphere Enterprise Plus licenses or Equal with Production support for 3 years.
- 4.3.7.2 Must include 50 VMware Site Recovery Manager Enterprise virtual machine licenses or Equal with production support for 3 years.
- 4.3.7.3 Must include 1 vCenter Standard license or Equal with Production support or for 3 years.

**4.4 Compute and Networking (Ethernet and Fiber Channel for DISASTER RECOVERY SITE. 837 Chestnut Ridge Road, Morgantown, WV 26505**

The following minimum requirements are based on a Cisco UCS blade server architecture, or equal, for the Compute and Networking components. These technical aspects are required to fulfill the current needs of the wvOASIS, and details all technical aspects this system (or

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any "or equal" compute and networking hardware) is required to meet to fulfill the needs of the wvOASIS today and going forward.

**4.4.1 Top of Rack Switch(es)**

- 4.4.1.1 Must be fully redundant hardware
- 4.4.1.2 Must support Ethernet, Fiber Channel over Ethernet (FCoE) and Fiber Channel (FC) protocols in a single switch (unified networking)
- 4.4.1.3 Must have at least 24 40-gigabit Ethernet/FCoE ports
- 4.4.1.4 Must have at least 16 unified ports supporting 1/10-gigabit Ethernet/FCoE and 16-gigabit Fiber Channel
- 4.4.1.5 Must have total bandwidth of 2.2 Tbps or higher

**4.4.2 Data Center Switches**

- 4.4.2.1 Must include 2 switches that meet or exceed the following specifications:
- 4.4.2.2 Must have 48 x 1/10/25-Gbps SFP+ ports and 6 x 40/100-Gbps QSFP ports
- 4.4.2.3 Must have all line rate ports
- 4.4.2.4 Must be 1RU form factor

**4.4.3 Blade Chassis**

- 4.4.3.1 Must have a minimum of eight (8) slots for compute blades
- 4.4.1.1 Must have at least 160Gb of throughput per I/O module
- 4.4.1.2 Must include at least two (2) I/O modules installed
- 4.4.1.3 Must include redundant power

**4.4.4 Compute (blade servers)**

- 4.4.4.1 Must include Three (3) blades for replication of production workloads that must meet the following minimum specifications:
  - 4.4.4.1.1 Must have two (2) Intel 2.6 Ghz 6240, 18-core, 36-thread, 24.75 MB cache processors
  - 4.4.4.1.2 Must have 384GB DDR4 2933 MHz dual rank RAM, or better, using individual DIMMs no smaller than 32GB in size
  - 4.4.4.1.3 Must have dual, internal, mirroring-capable 64 GB SD cards



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**4.4.4.1.4** Must have at least 40Gb of I/O bandwidth to chassis

**4.4.4.1.5** Must have redundant Virtual Interface cards

**4.4.4.2** Must include Two (2) blades for replication of production Oracle workloads that must meet the following minimum specifications:

**4.4.4.2.1** Must have two (2) Intel 3.8 Ghz 5222, 4-core, 8-thread, 16.5 MB cache processors

**4.4.4.2.2** Must have 384GB DDR4 2933 MHz dual rank RAM, or better, using individual DIMMs no smaller than 32GB in size

**4.4.4.2.3** Must have dual, internal, mirroring-capable 64 GB SD cards

**4.4.4.2.4** Must have at least 40Gb of I/O bandwidth to chassis

**4.4.4.2.5** Must have redundant Virtual Interface cards

**4.4.5 Management Capabilities:** Must include management capabilities with the following functionality:

**4.4.5.1** Centralized management of server (compute) and network hardware from a single user interface.

**4.4.5.2** Ability to manage up to 20 chassis under one (1) management interface

**4.4.5.3** Web-based management tools must be HTML5-based

**4.4.5.4** Must have the ability to create/apply profile templates for servers to rapidly deploy new servers

**4.4.5.5** Must have the ability to define MAC addresses, WWPN (world-wide port names), WWNN (world-wide node names) to assign to server to enable replacement of a failed server with like hardware with minimal reconfiguration

**4.4.5.6** Must support single file firmware packages for update of server firmware

**4.4.5.7** Must support deployment of firmware updates for server and networking components via the single management interface.

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**4.4.6 Support/maintenance**

**4.4.6.1.** Must include 24x7x365 remote and on-site support for a duration of no less than 5 years from the date of equipment and wvOASIS testing.

**4.4.6.2** Must adhere to the following response time:

**4.4.6.2.1** Priority 1 and 2 : One (1) hour (Critical issues where system is down or is experiencing severely degraded functionality)

**4.4.6.2.2** Priority 3 and 4 : One (1) business day (Less critical issues with little to no impact on system functionality)

**4.4.6.2.3** Must include advance hardware replacement. If the original equipment is not returned to the agency, vendor must provide a communication regarding the removed item which shall include item name, serial number and/or wvOASIS property tag (if applicable).

**4.4.7 VMware licenses**

**4.4.7.1** Must include 10 vSphere Enterprise Plus licenses or Equal with Production support for three years

**4.5** Two Palo Alto PA3220s Firewalls “or equal” for the PRODUCTION SITE located at 1900 Kanawha Blvd. East, Building 6, Charleston, WV 25305

**4.5.1** Must include “known threat protection”: Threat ID “or equal” with five years subscriptions

**4.5.2** Must include “Unknown threat protection”: Wildfire “or equal” with five years subscriptions

**4.5.3** Must include the ability to classify Internet resources into groups such as Gambling, Adult, etc.: URL Filtering “or equal” with five years subscriptions

**4.5.4** Must include fault-tolerant design: Palo Alto “High Availability” clustering

**4.5.5** Must include real-time SSL decryption

**4.5.6** Must include Five years of hardware and software support

**4.5.7** Must include three days of on-site training

**4.5.8** Must include installation and set up

**4.6** One Palo Alto PA3220 Firewall “or equal” for the Disaster Recovery Site located at 837 Chestnut Ridge Road Morgantown, WV 26505

**4.6.1** Must include “known threat protection”: Threat ID “or equal” with five years subscriptions

**4.6.2** Must include “Unknown threat protection”: Wildfire “or equal” with five years subscriptions

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- 4.6.3 Must include the ability to classify Internet resources into groups such as Gambling, Adult, etc.: URL Filtering “or equal” with five years subscriptions
  - 4.6.4 Must include real-time SSL decryption
  - 4.6.5 Must include Five years of hardware and software support
  - 4.6.6 Must include three days of on-site training
  - 4.6.7 Must include installation and set up

**4.7 Cabinet for PRODUCTION SITE, Charleston, WV (same location as other equipment)**

The server cabinet and power distribution units (PDUs) provided as part of the bid response must meet the following requirements:

- 4.7.1 Must be at least a 42U Style/Type metal cabinet
- 4.7.2 Must have front and rear mesh style doors with locks
- 4.7.3 Must have removable side panels
- 4.7.4 Must include two PDUs with NEMA L6-30 or Equal and with enough outlets to power all equipment to be provided as part of the Production Site. If a piece of equipment has special power needs then a direct, UPS-backed, house power outlet can be provided and does not need to plug into the PDUs.
- 4.7.5 Must have an opening in the bottom of the cabinet for airflow
- 4.7.6 Must have grommets or an opening at the top of the cabinet for cable runs

**4.8 Cabinet for DISASTER RECOVERY SITE, Morgantown, WV (same location as other equipment)**

The server cabinet and PDUs provided as part of the bid response must meet the following requirements:

- 4.8.1 Must be at least a 42U Style/Type or Equal ~~metal~~ cabinet
- 4.8.2 Must have front and rear mesh style doors with locks
- 4.8.3 Must have removable side panels
- 4.8.4 Must include two PDUs with NEMA L6-30 or Equal and with enough outlets to power all equipment to be provided as part of the Disaster Recovery Site. If a piece of equipment has special power needs then a direct, UPS-backed, house power outlet can be provided and does not need to plug into the PDUs.
- 4.8.5 Must have an opening in the bottom of the cabinet for airflow
- 4.8.6 Must have grommets or an opening at the top of the cabinet for cable runs

**4.9 Hardware Delivery and Base Implementation Services**

This section identifies the minimum services the successful vendor will be required to

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perform as part of delivering the hardware on site, validated, updated and powered on.

- 4.9.1** The vendor must have all hardware delivered to the designated data center locations (Production and Disaster Recovery Sites) within forty-five (45) days after award is issued.
- 4.9.2** Once hardware arrives on site, the vendor will need to have professional services personnel on site within two (2) weeks to begin working on the following tasks which must be completed within a total of thirty (30) calendar days from the delivery of equipment:
  - 4.9.2.1** Inventory hardware to validate all components have been delivered.
  - 4.9.2.2** Perform “rack and stack” of the equipment at both locations
    - 4.9.2.2.1** This shall include initial setup of the equipment as well as base configuration to support full administration of all devices from the provided management network interfaces.
    - 4.9.2.2.2** This shall include configuration and validation of call home functionality, Administrator User(s) configuration, as well as internal automated error notification systems.
  - 4.9.2.3** Power on all equipment and validate there is no faulty hardware.
  - 4.9.2.4** Update all firmware on the hardware components to the latest versions.
  - 4.9.2.5** All software licenses/feature keys to enable functionality requested must be validated. This will ensure that all firmware features/management features are enabled prior to accepting the hardware and authorizing subsequent payment of this first phase of the project.
- 4.9.3** Once the above tasks are complete the wvOASIS will sign off on delivery of the hardware. The date of this sign off will be the start date for all hardware maintenance and warranty services.
  - 4.9.3.1** wvOASIS will consider a milestone payment for the equipment portion of the project, provided, the Vendor provides all necessary documentation requested by wvOASIS to support the payment request.
- 4.9.4** After sign off for completion of the hardware delivery and staging, the successful vendor should schedule a kick off meeting with their assigned project manager and technical resources that will be working with the wvOASIS staff on the implementation and migration services portion of this project.
- 4.9.5** Contract items must be warranted by the manufacturer. It is the Vendor's responsibility to ensure that a timely response is scheduled with the manufacturer in accordance with requirements set herein.
- 4.9.6** A manufacturer's business partner submitting a bid independently of the manufacturer,

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or on behalf of a manufacturer, will have prime contractor responsibilities. The State will not act as a third party in any arrangements between the manufacturer and its business partner.

**4.10 Implementation/Migration Services Phase**

This section outlines the minimum tasks that the successful vendor will be required to perform as part of the Implementation Phase of the project.

- 4.10.1** Assist the wvOASIS staff in connecting and configuring the network switching hardware to the existing wvOASIS core router(s) at both data centers.
- 4.10.2** Work with the wvOASIS staff to configure the storage array at both locations to meet the needs of wvOASIS.
  - 4.10.2.1** A single storage pool on the Production Array providing the total useable capacity of the storage resources in the storage array at the production data center.
  - 4.10.2.2** A primary storage pool on the Disaster Recovery Array providing the same useable capacity as the storage pool configured on the Production Array
  - 4.10.2.3** Create data volumes as desired by the wvOASIS engineers based upon consulting and adherence of best practices of the selected vendor.
  - 4.10.2.4** Configuration of asynchronous replication between the existing Production Array and the new Production Array.  
*Note: if any additional software is needed for this process, the vendor must include licenses of that software that will be retained by the wvOASIS as part of their bid response for these services. The NetApp storage arrays on which the storage requirements were based provides native replication tools for this functionality.*
  - 4.10.2.5** Configuration of the storage arrays and the switching hardware to allow new compute resources (blade servers) at both locations to access the storage arrays at the same location.
  - 4.10.2.6** Configuration and implementation of Snapshot integration with the servers for Oracle Databases and the storage array.
  - 4.10.2.7** Knowledge transfer of the snapshot integration and assistance in documenting tasks required to support the snap creation, mounting of snapshot to different host(s), and validating data availability for the target server's data usage.
- 4.10.3** Assist the wvOASIS with the installation of the hypervisor software VMware ESXi - platform; vendor must have technical resources available that are knowledgeable on both) on the server hardware at each location, configuration to include clustering, configuration of converged networking, attaching and configuring LUNs/volumes from the storage array to the servers and the installation and configuration of management tools (VMware vCenter). The clusters will be configured as follows:

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**4.10.3.1** One (1) 5-node cluster at the production site to run production workloads

**4.10.3.2** One (1) 3-node cluster at the disaster recovery site to run production workloads that reside at the Disaster Recovery Site and serve as the replication target for the production cluster

**4.10.4** Assist the wvOASIS staff with the migration of up to ten (10) existing virtual machines from the current production environment to the new production environment.

*Note: If any 3rd party tools are required/planned to be used for the migration of the virtual machines, the vendor should include licenses for that software, which will be retained by the wvOASIS as part of their bid response for these services.*

**4.10.5** The Project Plan for the above Services work will be set during the project kickoff meeting and subsequent meetings and mutually agreed on by the wvOASIS staff and the successful vendor prior to any work being performed.

**4.10.6** The wvOASIS staff estimates the Implementation/Migration Services of this project to be able to be completed in forty-five (45) days after the start date agreed upon during project kickoff and planning meetings by both wvOASIS and the successful vendor.

#### **4.11 Knowledge Transfer and Training**

This section will outline any training or knowledge transfer required as part of this solicitation.

**4.11.1** All implementation work being performed will be done alongside wvOASIS staff and will provide knowledge transfer on all work being performed, no additional knowledge transfer should be required.

**4.11.2** Onsite or online instructor led training must be provided on the computer and networking components included in the solicitation.

**4.11.2.1** This training can either be performed by staff employed by the vendor or provided via training vouchers for OEM training

**4.11.2.2** The training must include a minimum of three (3) days, or twenty-four (24 hours) of training for up to three (3) people from wvOASIS

**4.11.3** Vendor must include on-site or online instructor led training on the storage arrays

**4.11.3.1** This training can either be performed by staff employed by the successful vendor or provided via training vouchers for OEM training.

**4.11.3.2** The training must include a minimum of five (5) days (40 hours) of training for up to three (3) people from the wvOASIS staff.

**4.12** Project Closeout: Project Closeout shall include the following:

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- 4.12.1 Provide all available/applicable operating manuals, information/instructions for all components after completion and acceptance.
- 4.12.2 Provide contact information, online web portal site for support and customer service needs
- 4.12.3 Vendor shall submit applicable warranty documents to the wvOASIS project manager during this time, or upon final inspection or testing.
- 4.12.4 Vendor shall provide wvOASIS with all applicable final drawings and diagrams during cleanup and/or final inspection activities.
- 4.12.5 Vendor shall provide copies of all software license documents as required
- 4.12.6 Final payment will be withheld until these documents are provided.

**5. CONTRACT AWARD:**

- 5.1 Contract Award: The Contract is intended to provide Agency with a purchase price for the Contract Items. The Contract will be awarded to the lowest qualified responsible Vendor that provides the Contract Items meeting the required specifications for the lowest TOTAL BID AMOUNT as shown on the Pricing Page(s), or if entered in wvOASIS, the combined total of all Commodity Lines.
- 5.2 Pricing Page: Vendor should complete the Pricing Page by inserting its Total Bid per Category/Line Item as listed in wvOASIS, and on Exhibit A -Pricing Page, if not responding electronically via wvOASIS. The Vendor should type or electronically enter the information into the Pricing Page to prevent errors. 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.

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- 5.2.1 Exhibit A – Pricing Page should include the Total Price for each of the categories identified for the Production Site and Disaster Recovery Site locations, respectively. Vendor must also provide a separate listing (Build List) with all equipment brand name, model numbers, etc. per location/site to support the proposed solution/cost. Vendor must provide this information with the bid response. This includes detail components for the storage, compute, networking, firewalls and VMware or Equal.
- 5.2.2 Price for equipment components and software shall include a five (5) year warranty as described per the Specifications, with the exception of VMware which is three years.
- 5.2.3 Vendor should provide any Warranty/Maintenance Terms and Conditions that the State or the Agency will be required to agree to and accept as a part of this solicitation with their submitted bid response. **This information will be required before Purchase Order is issued.**
- 5.2.4 Vendor should provide with their bid a copy of any and all Software Terms and Conditions or licenses that the State of West Virginia or the Agency will have to agree to or accept as part of this solicitation. **This information will be required before Purchase Order is issued.**
6. PERFORMANCE: Vendor and Agency shall agree upon a schedule for performance of Contract Services and Contract Services Deliverables, unless such a schedule is already included herein by Agency.
7. PAYMENT: Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.
- 7.1 Milestone Payment – Equipment Delivery/Acceptance: Upon request from the Vendor, wvOASIS will consider a milestone payment for the Goods (Equipment) as described in the Specifications. Vendor shall provide all itemization/details on its invoice to support a payment request.
- 7.2 All other contract services/items will be paid upon the completion of the final project migration, testing and acceptance, training (as applicable) by wvOASIS. Vendor shall provide an itemized invoice based upon the pricing page submitted.
- 7.3 TRAVEL: Vendor shall be responsible for all mileage and travel costs, including travel time, associated with performance of this Contract. Any anticipated mileage or travel costs may be included in the Vendor's fee bid but such costs will not be paid by the Agency separately.
8. DELIVERY:
- 8.1 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



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Contract Items (Goods) within 30 (thirty) calendar days after receiving a purchase order or notice to proceed. Note: the 30 days is applicable to the delivery of the hardware items only.

The Migration Services as defined in Section 4.8 grants up to an additional 45 (forty-five) days once the project plan is approved by the Agency.

The Knowledge Transfer and Training, as applicable, grants an additional 3 (three) days.

Contract Items *must* be delivered to Agency at the following:

**8.1.1** Production Site: 1900 Kanawha Blvd. E, Building 6, State Capitol Complex, Charleston, WV 25305

**8.1.2** Disaster Recovery Site: WVNET (on behalf of wvOASIS), 837 Chestnut Ridge Road, Morgantown, WV 26505

**8.1.3** It is strongly preferred that each location have most, if not all items delivered together since wvOASIS does not have staff at these locations. Advanced notice of delivery is required to ensure receipt of goods can be accommodated, etc. Pending on shipping method to be used, wvOASIS will need to assist in identifying deliver limitations or needs. Contact names and numbers will be provided upon contract award and post award meeting.

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

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

**9. FACILITIES ACCESS:** Performance of Contract Services may require access cards and/or keys to gain entrance to Agency's facilities. In the event that access cards and/or keys are required:

**9.1** Vendor must identify principal service personnel which will be issued access cards and/or keys to perform service.

**9.2** Vendor will be responsible for controlling cards and keys and will pay replacement fee, if the cards or keys become lost or stolen.

**9.3** Vendor shall notify Agency immediately of any lost, stolen, or missing card or key.

**9.4** Anyone performing under this Contract will be subject to Agency's security protocol and procedures.

**9.5** Vendor shall inform all staff of Agency's security protocol and procedures.

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**10. VENDOR DEFAULT:**

**10.1** The following shall be considered a vendor default under this Contract.

**10.1.1** Failure to provide Contract Items in accordance with the requirements contained herein.

**10.1.2** Failure to comply with other specifications and requirements contained herein.

**10.1.3** Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.

**10.1.4** Failure to remedy deficient performance upon request.

**10.2** The following remedies shall be available to Agency upon default.

**10.2.1** Immediate cancellation of the Contract.

**10.2.2** Immediate cancellation of one or more release orders issued under this Contract.

**10.2.3** Any other remedies available in law or equity.

**11. MISCELLANEOUS:**

**11.1** Contract Manager: During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: Lee Erwin  
(Printed/Typed Name)

Telephone Number: 312-924-4498

Fax Number: 800-294-5141

Email Address: lee.erwin@thinkahead.com

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EXHIBIT A -PRICING PAGE

Vendor is to complete this Pricing Page and submit it with its bid response if not responding electronically via wvOASIS. Vendor shall enter the total bid amount (lump sum) per category/line item to provide the Goods and/or Services contemplated and as described in Section 4 of the Specifications for the project in wvOASIS, and/or on the corresponding lines below.

Additionally, Vendor should provide an itemized Build List with the brand, model numbers, etc. for all equipment proposed for each category and location as a separate attachment. Equipment prices for each category/location must include the services as specified in Section 5.2.1. (Hardware Delivery & Base Implementation Services). Vendor must supply this information with their bid response.

Price shall include a five (5) year warranty on all hardware, equipment, software, (except VMware) and support/licensing upgrade of applicable software from the date of Agency acceptance. Prices shall include all costs, fees, including but not limited to shipping, travel, lodging, meals and other related costs.

Item 1: Storage Array Solution -Production Site	\$ _____
Item 2: Storage Array Solution -Disaster Recovery Site	\$ _____
Item 3: Compute/Networking Solution -Production Site (with VMware)	\$ _____
Item 4: Compute/Networking Solution-Disaster Recovery Site (with VMware)	\$ _____
Item 5: Implementation/Migration Services	\$ _____
Item 6: Cabinet -Production Site	\$ _____
Item 7: Cabinet – Disaster Recovery Site	\$ _____
Item 8: Firewalls (with Subscriptions Services)	\$ _____
Item 9: Knowledge Transfer & Training	\$ _____

TOTAL BID AMOUNT     \$ \$2,696,897.04

(Items 1-8)

Please see attached quotes for itemized pricing

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: \_\_\_\_\_

Authorized Signature: \_\_\_\_\_ Date: \_\_\_\_\_

State of \_\_\_\_\_

County of \_\_\_\_\_, to-wit:

Taken, subscribed, and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

My Commission expires \_\_\_\_\_, 20\_\_.

**AFFIX SEAL HERE**

**NOTARY PUBLIC** \_\_\_\_\_



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: 608684

Doc Description: Production and Disaster Recovery Infrastructure Upgrade

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2019-08-14	2019-08-28 13:30:00	CRFQ 0947 ERP2000000002	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:

AHEAD, LLC  
 401 N Michigan Avenue, 34th floor  
 Chicago, IL 60611  
 (312) 924-4492

**FOR INFORMATION CONTACT THE BUYER**

Melissa Pettrey  
 (304) 558-0094  
 melissa.k.pettrey@wv.gov

Signature X

FEIN # 20-8476250

DATE 23 Aug 2019

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

**ADDITIONAL INFORMATION:**

## REQUEST FOR QUOTATION

The West Virginia Purchasing Division is soliciting bids on behalf of the Agency, the West Virginia Enterprise Resource Planning Board (wvOASIS) to establish a contract for the replacement of its current Production and Disaster Recovery Infrastructure and obtain Services to assist in the installation and configuration of the new hardware per the bid requirements, specifications, terms and conditions attached to this solicitation.

The primary Production Site is in Charleston, WV with a Disaster Recovery Site located in Morgantown, WV.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Storage Array Solution - Production Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43201802			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Storage Array Solution - Disaster Recovery Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43201802			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	Compute/Networking Solution - Production Site (with VMware)	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43232907			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	Compute/Networking Solution - Disaster Rec Site (w. VMware)	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43232907			

**Extended Description :**

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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	Implementation and Migration Services				

Comm Code	Manufacturer	Specification	Model #
81112309			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO	SHIP TO
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US	CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
6	Cabinet - Production Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43223306			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO	SHIP TO
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US	CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
7	Cabinet - Disaster Recovery Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43223306			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.



INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
8	Firewalls (with Subscription Services)	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43222501			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
9	Knowledge Transfer and Training				

Comm Code	Manufacturer	Specification	Model #
86000000			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

<b>ERP2000000002</b>	<b>Document Phase</b> Final	<b>Document Description</b> Production and Disaster Recovery Infrastructure Upgrade	<b>Page 6</b> <b>of 6</b>
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**ADDITIONAL TERMS AND CONDITIONS**

See attached document(s) for additional Terms and Conditions



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: 608684

Doc Description: Addendum No. 1 Production and Disaster Recovery Infrastructu

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2019-08-21	2019-08-28 13:30:00	CRFQ 0947 ERP2000000002	2

**BID RECEIVING LOCATION**

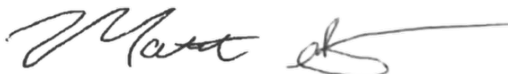
BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

Vendor Name, Address and Telephone Number:  
 AHEAD, LLC  
 401 N Michigan Avenue, 34th floor  
 Chicago, IL 60611  
 (312) 924-4492

**FOR INFORMATION CONTACT THE BUYER**

Melissa Pettrey  
 (304) 558-0094  
 melissa.k.pettrey@wv.gov

Signature X  FEIN # 20-8476250 DATE 23 Aug 2019

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

**ADDITIONAL INFORMATION:**

Addendum No. 1

Addendum No. 1 is issued to publish and distribute the attached information to the vendor community.

\*\*\*\*\*

**REQUEST FOR QUOTATION**

The West Virginia Purchasing Division is soliciting bids on behalf of the Agency, the West Virginia Enterprise Resource Planning Board (wvOASIS) to establish a contract for the replacement of its current Production and Disaster Recovery Infrastructure and obtain Services to assist in the installation and configuration of the new hardware per the bid requirements, specifications, terms and conditions attached to this solicitation.

The primary Production Site is in Charleston, WV with a Disaster Recovery Site located in Morgantown, WV.

INVOICE TO		SHIP TO	
CONTROLLER		CONTROLLER	
ENTERPRISE RESOURCE PLANNING BOARD		ENTERPRISE RESOURCE PLANNING BOARD	
1007 BULLITT STREET		1007 BULLITT STREET	
SUITE 400		SUITE 400	
CHARLESTON	WV25301	CHARLESTON	WV 25301
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Storage Array Solution - Production Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43201802			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER		CONTROLLER	
ENTERPRISE RESOURCE PLANNING BOARD		ENTERPRISE RESOURCE PLANNING BOARD	
1007 BULLITT STREET		1007 BULLITT STREET	
SUITE 400		SUITE 400	
CHARLESTON	WV25301	CHARLESTON	WV 25301
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Storage Array Solution - Disaster Recovery Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43201802			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	Compute/Networking Solution - Production Site (with VMware)	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43232907			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	Compute/Networking Solution - Disaster Rec Site (w. VMware)	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43232907			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	Implementation and Migration Services				

Comm Code	Manufacturer	Specification	Model #
81112309			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
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1007 BULLITT STREET		1007 BULLITT STREET	
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CHARLESTON	WV25301	CHARLESTON	WV 25301
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
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Comm Code	Manufacturer	Specification	Model #
43223306			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER		CONTROLLER	
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1007 BULLITT STREET		1007 BULLITT STREET	
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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
7	Cabinet - Disaster Recovery Site	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43223306			

**Extended Description :**

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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
8	Firewalls (with Subscription Services)	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #
43222501			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

INVOICE TO		SHIP TO	
CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV25301 US		CONTROLLER ENTERPRISE RESOURCE PLANNING BOARD 1007 BULLITT STREET SUITE 400 CHARLESTON WV 25301 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
9	Knowledge Transfer and Training				

Comm Code	Manufacturer	Specification	Model #
86000000			

**Extended Description :**

Exact specifications can be found on the attached specifications sheet.

<b>ERP2000000002</b>	<b>Document Phase</b> Final	<b>Document Description</b> Addendum No. 1 Production and Disaster Recovery Infrastructu	<b>Page 6</b> <b>of 6</b>
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**ADDITIONAL TERMS AND CONDITIONS**

See attached document(s) for additional Terms and Conditions



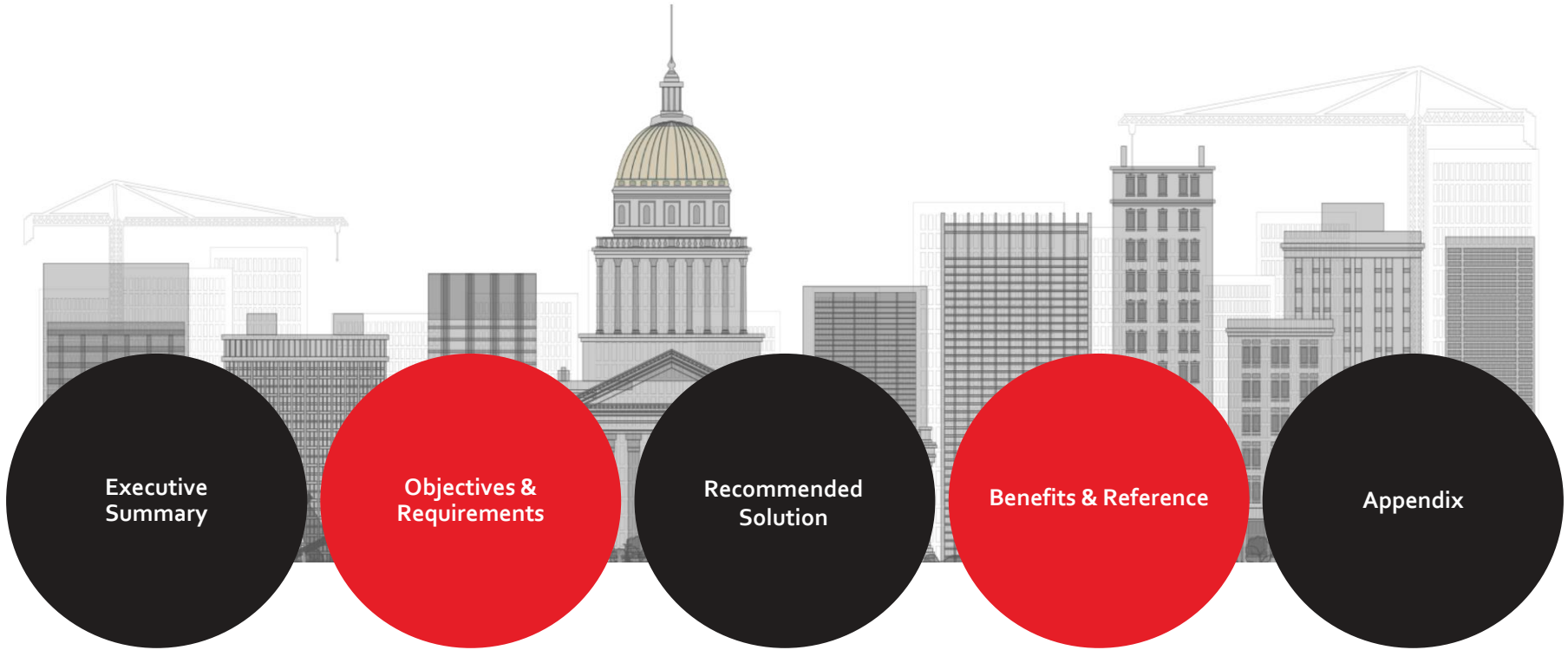


# West Virginia ERP (wvOASIS)

Solicitation: ERP20000002

Production and Disaster Recovery Infrastructure Upgrade

# Agenda



Executive  
Summary

Objectives &  
Requirements

Recommended  
Solution

Benefits & Reference

Appendix

# Executive Summary

The West Virginia Enterprise Resource Planning Board is soliciting bids to establish a contract for replacement of its current Production and Disaster Recovery Infrastructure and obtain Services to assist in the installation and configuration of the new hardware. The primary Production Site is in Charleston, WV with a Disaster Recovery Site in Morgantown, WV.

Ahead recommends an innovative way to deploy a modern SAN-based IT infrastructure with industry-leading technologies, allowing you to focus on your business and less on infrastructure management.

VxBlock System 1000 fully integrates industry leading technologies – including Dell EMC storage, Cisco UCS blade and rack servers, Cisco LAN and SAN networking, and VMware virtualization – into one system delivering a turnkey, engineered experience.



# Objectives



## Storage

Must be Block and File with 134TiB usable capacity with five years of maintenance and support



## Compute & Networking

ToR, DC Switches, Chassis and Blade Servers, and Vmware with three and five years of maintenance included



## Firewalls

Palo Alto firewalls with five years of support, training, and implementation services



## Services

Must include implementation, configuration, migration, and knowledge transfer services for everything



# Requirements – Production Storage

The Storage Array must include dual redundant storage controllers

Controller pair must function as a highly available clustered pair.

Controller pair must have the following minimum specifications:

2 x 64-bit 16-core Intel Broadwell-DE 1.70 GHz CPU or Equal

256 GB of RAM

16GB of NVRAM

2 x RJ45 10Gb Ethernet ports

2 x SFP+ 10Gb Ethernet ports

4 x Converged Network Adapter (CNA) SFP+ 10Gb Ethernet/16Gb FC ports

2 x PCIe 3.0 expansion slots

8 x 12gb SAS ports

Must optionally support 40Gbe as that may be used as an alternative to 10Gbe ports requested

Storage Array must have the following minimum storage capacity:

134 TiB (Terabyte/Binary Terabytes) of useable formatted flash storage using 3.8TB or larger SSDs. Useable capacity does not include dedupe, compression, or other efficiency technologies.

Storage Array must be expandable to the following minimum specifications:

Must support clustering with additional controllers up to a maximum cluster size of 12 controllers providing live mobility of storage volumes between controllers with zero downtime

Must support up to 11750 TB of raw capacity per HA pair

Must support up to 384 drives per HA pair

Must natively provide a single pane of glass management interface for both block and file storage functionality

Must support dual parity RAID

Must support triple parity RAID

Storage array must provide the following functionality:

Must include Volume Encryption and any associated licensing with 5 years of hardware and software support and maintenance

Must include per volume deduplication that can be enabled or disabled, during and after volume creation and any associated licensing with 5 years of hardware and software support and maintenance.

Must include per volume compression that can be enabled or disabled, during and after volume creation and any associated licensing with 5 years of hardware and software support and maintenance

Must support the ability to natively offload / de-stage cold data to the on and/or off premise private or commercial cloud (S3)

Must include Oracle database aware local snapshots of individual storage volumes as part of this solicitation and any associated licensing with 5 years of hardware and software support and maintenance.

Must support synchronous Oracle Database aware replication of individual storage volumes with the Disaster Recovery Array included as part of this solicitation and any associated licensing with 5 years of hardware and software support and maintenance.

Must support asynchronous Oracle Database aware replication of individual storage volumes with the Disaster Recovery Array included as part of this solicitation and any associated licensing with 5 years of hardware and software support and maintenance.

Must be able to replicate copies of individual volumes with the Disaster Recovery Array included as part of this solicitation and any associated licensing with 5 years of hardware and software support and maintenance.

Replicated volumes must be accessible in a read only mode on the Disaster Recovery Array.

Replicated volumes must be able to be switched into a read/write mode on the Disaster Recovery Array.

Replication direction must be able to be reversed to support a "fail back" to the production data center.

Must support native cloud replication.

Must support zero downtime firmware and OS upgrades to the storage controllers.

Must support the following protocols natively without a gateway and include any associated licensing with 5 years of hardware and software support and maintenance.

A. Fiber Channel

B. Fiber Channel over Ethernet (FCoE)

C. iSCSI (internet small computer systems interface)

D. CIFS/SMB (SMB2, 2.1, 3, 3.1)

E. NFS (v3, v4, v4.1)

F. pNFS

Must support VAAI extensions when utilized with VMware vSphere virtualization platform

Support for Storage Array at the Production Site

Must include 24x7 remote and on-site support for a duration of no less than 5 years from the date of equipment is tested and accepted by the wvOASIS staff.

Must adhere to the following response time:

Priority 1: Four (4) hours (storage down and unable to serve data or a state of frequent "panic" or "hang" states, or storage performance is degraded to prevent normal business operations)

Priority 2: Four (4) hours (storage experiencing infrequent, isolated, or intermittent "panic" or "hang" status, or performance is in a degraded state that still allows normal business operations, but is inconsistent or less than optimal state)

Priority 3: Eight (8) hours (storage experiencing an issue, anomaly, or cosmetic defect that inflicts little or no business impact)

Priority 4: Twenty-four (24) hours (Normal requests for information regarding installation, configuration, use, and maintenance of the storage system)

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# Requirements – Prod Compute & Networking

## Top of Rack Switches

Must be fully redundant hardware

Must support Ethernet, Fiber Channel over Ethernet (FCoE) and Fiber Channel (FC) protocols in a single switch (unified networking)

Must have a minimum 24 40-gigabit Ethernet/FCoE ports

Must have a minimum 16 unified ports supporting 1/10-gigabit Ethernet/FCoE and 16-gigabit Fiber Channel

Must have total bandwidth of 2.2 Tbps or higher

## Data Center Switches

Must include 2 switches that meet or exceed the following specifications:

Must have 48 x 1/10/25-Gbps SFP+ ports and 6 x 40/100-Gbps QSFP ports

Must have all line rate ports

Must be 1RU form factor

## Blade Chassis

Must have a minimum of eight (8) slots for compute blades

Must have at least 160Gb of throughput per I/O module

Must include at least two (2) I/O modules installed

Must include redundant power

## VMware Licenses

Must include 20 vSphere Enterprise Plus licenses or Equal with Production support for 3 years.

Must include 50 VMware Site Recovery Manager Enterprise virtual machine licenses or Equal with production support for 3 years.

Must include 1 vCenter Standard license or Equal with Production support for 3 years.

## Compute (blade servers)

Must include Five (5) Blades for Production workloads that must meet or exceed the following minimum specifications:

Must have two (2) Intel 2.6 Ghz ~~6240~~, 18-core, 36-thread, 24.75 MB cache processors

Must have 384GB DDR4 2933 MHz dual rank RAM, or better, using individual DIMMs no smaller than 32GB in size

Must have dual, internal, mirroring-capable 64 GB SD cards

Must have a minimum 40Gb of I/O bandwidth to chassis

Must have redundant Virtual Interface cards

Must include Five (5) blades for Oracle workloads that must meet the following minimum specifications:

Must have two (2) Intel 3.8 Ghz 5222, 4-core, 8-thread, 16.5 MB cache processors

Must have 384GB DDR4 2933 MHz dual rank RAM, or better, using individual DIMMs no smaller than 32GB in size

Must have dual, internal, mirroring-capable 64 GB SD cards

Must have a minimum 40Gb of I/O bandwidth to chassis

Must have redundant Virtual Interface cards

Management Capabilities: Management capabilities must include the following functionality:

Centralized management of server (compute) and network hardware from a single user interface

Ability to manage up to 20 chassis under one (1) management interface

Web-based management tools must be HTML5-based

Must have the ability to create/apply profile templates for servers to rapidly deploy new servers

Must have the ability to define MAC addresses, WWPN (world-wide port names), WWNN (world-wide node names) to assign to server to enable replacement of a failed server with like hardware with minimal reconfiguration

Must support single file firmware packages for update of server firmware

Must support deployment of firmware updates for server and networking components via the single management interface

## Support/maintenance

Must include 24x7x365 remote and on-site support for a duration of no less than 5 years from the date of equipment testing and acceptance by the wvOASIS.

Must adhere to the following response time:

Priority 1 and 2 : One (1) hour (Critical issues where system is down or is experiencing severely degraded functionality)

Priority 3 and 4 : One (1) business day (Less critical issues with little to no impact on system functionality)

Must include advance hardware replacement. If the original equipment is not returned to the agency, vendor must provide a communication regarding the removed item which shall include item name, serial number and/or wvOASIS property tag (if applicable).

# Requirements – DR Compute & Networking

## Top of Rack Switches

- Must be fully redundant hardware
- Must support Ethernet, Fiber Channel over Ethernet (FCoE) and Fiber Channel (FC) protocols in a single switch (unified networking)
- Must have a minimum 24 40-gigabit Ethernet/FCoE ports
- Must have a minimum 16 unified ports supporting 1/10-gigabit Ethernet/FCoE and 16-gigabit Fiber Channel
- Must have total bandwidth of 2.2 Tbps or higher

## Data Center Switches

- Must include 2 switches that meet or exceed the following specifications:
- Must have 48 x 1/10/25-Gbps SFP+ ports and 6 x 40/100-Gbps QSFP ports
- Must have all line rate ports
- Must be 1RU form factor

## Blade Chassis

- Must have a minimum of eight (8) slots for compute blades
- Must have at least 160Gb of throughput per I/O module
- Must include at least two (2) I/O modules installed
- Must include redundant power

## VMware Licenses

- Must include 10 vSphere Enterprise Plus licenses or Equal with Production support for three years

## Compute (blade servers)

- Must include Three (3) blades for replication of production workloads that must meet the following minimum specifications:
  - Must have two (2) Intel 2.6 Ghz ~~6240~~, 18-core, 36-thread, 24.75 MB cache processors
  - Must have 384GB DDR4 2933 MHz dual rank RAM, or better, using individual DIMMs no smaller than 32GB in size
  - Must have dual, internal, mirroring-capable 64 GB SD cards
- Must have a minimum 40Gb of I/O bandwidth to chassis
- Must have redundant Virtual Interface cards
- Must include Two (2) blades for replication of production Oracle workloads that must meet the following minimum specifications:
  - Must have two (2) Intel 3.8 Ghz 5222, 4-core, 8-thread, 16.5 MB cache processors
  - Must have 384GB DDR4 2933 MHz dual rank RAM, or better, using individual DIMMs no smaller than 32GB in size
  - Must have dual, internal, mirroring-capable 64 GB SD cards
- Must have a minimum 40Gb of I/O bandwidth to chassis
- Must have redundant Virtual Interface cards

Management Capabilities: Management capabilities must include the following functionality:

- Centralized management of server (compute) and network hardware from a single user interface
- Ability to manage up to 20 chassis under one (1) management interface
- Web-based management tools must be HTML5-based
- Must have the ability to create/apply profile templates for servers to rapidly deploy new servers
- Must have the ability to define MAC addresses, WWPN (world-wide port names), WWNN (world-wide node names) to assign to server to enable replacement of a failed server with like hardware with minimal reconfiguration
- Must support single file firmware packages for update of server firmware
- Must support deployment of firmware updates for server and networking components via the single management interface

## Support/maintenance

Must include 24x7x365 remote and on-site support for a duration of no less than 5 years from the date of equipment testing and acceptance by the wvOASIS.

Must adhere to the following response time:

Priority 1 and 2 : One (1) hour (Critical issues where system is down or is experiencing severely degraded functionality)

Priority 3 and 4 : One (1) business day (Less critical issues with little to no impact on system functionality)

Must include advance hardware replacement. If the original equipment is not returned to the agency, vendor must provide a communication regarding the removed item which shall include item name, serial number and/or wvOASIS property tag (if applicable).



# Requirements – Production Firewalls

## Two Palo Alto PA3220s Firewalls

Must include “known threat protection”: Threat ID “or equal” with five years subscriptions

Must include “Unknown threat protection”: Wildfire “or equal” with five years subscriptions

Must include the ability to classify Internet resources into groups such as Gambling, Adult, etc.: URL Filtering “or equal” with five years subscriptions

Must include fault-tolerant design: Palo Alto “High Availability” clustering

Must include real-time SSL decryption

Must include Five years of hardware and software support

Must include three days of on-site training

Must include installation and set up

# Requirements – Disaster Recovery Firewalls

## One Palo Alto PA3220 Firewall

Must include “known threat protection”: Threat ID “or equal” with five years subscriptions

Must include “Unknown threat protection”: Wildfire “or equal” with five years subscriptions

Must include the ability to classify Internet resources into groups such as Gambling, Adult, etc.: URL Filtering “or equal” with five years subscriptions

Must include real-time SSL decryption

Must include Five years of hardware and software support

Must include three days of on-site training

Must include installation and set up

# Requirements – Production Cabinet

Must be at least a 42U Style/Type metal cabinet

Must have front and rear mesh style doors with locks

Must have removable side panels

Must include two PDUs with NEMA L6-30 or Equal and with enough outlets to power all equipment to be provided as part of the Production Site. If a piece of equipment has special power needs then a direct, UPS-backed, house power outlet can be provided and does not need to plug into the PDUs.

Must have an opening in the bottom of the cabinet. for airflow

Must have grommets or an opening at the top of the cabinet for cable runs

# Requirements – Disaster Recovery Cabinet

Must be at least a 42U Style/Type metal cabinet

Must have front and rear mesh style doors with locks

Must have removable side panels

Must include two PDUs with NEMA L6-30 or Equal and with enough outlets to power all equipment to be provided as part of the Production Site. If a piece of equipment has special power needs then a direct, UPS-backed, house power outlet can be provided and does not need to plug into the PDUs.

Must have an opening in the bottom of the cabinet. for airflow

Must have grommets or an opening at the top of the cabinet for cable runs

# Hardware Delivery & Base Implementation

The vendor must have all hardware delivered to the designated data center locations (Production and Disaster Recovery Sites) within forty-five (45) days after award is issued.

Once hardware arrives on site, the vendor will need to have professional services personnel on site within two (2) weeks to begin working on the following tasks which must be completed within a total of thirty (30) calendar days from the delivery of equipment:

- Inventory hardware to validate all components have been delivered.

- Perform “rack and stack” of the equipment at both locations

  - This shall include initial setup of the equipment as well as base configuration to support full administration of all devices from the provided management network interfaces.

  - This shall include configuration and validation of call home functionality, Administrator User(s) configuration, as well as internal automated error notification systems.

- Power on all equipment and validate there is no faulty hardware.

- Update all firmware on the hardware components to the latest versions.

- All software licenses/feature keys to enable functionality requested must be validated. This will ensure that all firmware features/management features are enabled prior to accepting the hardware and authorizing subsequent payment of this first phase of the project.



# Implementation & Migration

Assist the wvOASIS staff in connecting and configuring the network switching hardware to the existing wvOASIS core router(s) at both data centers.

Work with the wvOASIS staff to configure the storage array at both locations to meet the needs of wvOASIS.

A single storage pool on the Production Array providing the total useable capacity of the storage resources in the storage array at the production data center.

A primary storage pool on the Disaster Recovery Array providing the same useable capacity as the storage pool configured on the Production Array

Create data volumes as desired by the wvOASIS engineers based upon consulting and adherence of best practices of the selected vendor.

Configuration of asynchronous replication between the existing Production Array and the new Production Array.

Configuration of the storage arrays and the switching hardware to allow new compute resources (blade servers) at both locations to access the storage arrays at the same location.

Configuration and implementation of Snapshot integration with the servers for Oracle Databases and the storage array.

Knowledge transfer of the snapshot integration and assistance in documenting tasks required to support the snap creation, mounting of snapshot to different host(s), and validating data availability for the target server's data usage.

Assist the wvOASIS with the installation of the hypervisor software VMware ESXi - platform; vendor must have technical resources available that are knowledgeable on both) on the server hardware at each location, configuration to include clustering, configuration of converged networking, attaching and configuring LUNs/volumes from the storage array to the servers and the installation and configuration of management tools (VMware vCenter). The clusters will be configured as follows:

One (1) 5-node cluster at the production site to run production workloads

One (1) 3-node cluster at the disaster recovery site to run production workloads that reside at the Disaster Recovery Site and serve as the replication target for the production cluster

Assist the wvOASIS staff with the migration of up to ten (10) existing virtual machines from the current production environment to the new production environment.

*Note: If any 3rd party tools are required/planned to be used for the migration of the virtual machines, the vendor should include licenses for that software, which will be retained by the wvOASIS as part of their bid response for these services.*

The Project Plan for the above Services work will be set during the project kickoff meeting and subsequent meetings and mutually agreed on by the wvOASIS staff and the successful vendor prior to any work being performed.

The wvOASIS staff estimates the Implementation/Migration Services of this project to be able to be completed in forty-five (45) days after the start date agreed upon during project kickoff and planning meetings by both wvOASIS and the successful vendor.

# Knowledge Transfer & Training

All implementation work being performed will be done alongside wvOASIS staff and will provide knowledge transfer on all work being performed, no additional knowledge transfer should be required.

Onsite or online instructor led training must be provided on the computer and networking components included in the solicitation.

This training can either be performed by staff employed by the vendor or provided via training vouchers for OEM training

The training must include a minimum of three (3) days, or twenty-four (24 hours) of training for up to three (3) people from wvOASIS

Vendor must include on-site or online instructor led training on the storage arrays

This training can either be performed by staff employed by the successful vendor or provided via training vouchers for OEM training.

The training must include a minimum of five (5) days (40 hours) of training for up to three (3) people from the wvOASIS staff.





# Recommended Solution

Dell EMC

## VxBLOCK 1000

Turnkey system for high value workload consolidation  
built on powerful Dell EMC storage and data protection

### HIGH VALUE WORKLOADS

Consolidate, optimize  
& protect



### CLOUD OPERATIONS

Automate &  
proactively manage

vmware®


### LIFE CYCLE MANAGEMENT

Simplify &  
lower risk





# Dell EMC Unity Storage



NVMe Ready

CloudIQ

**FUTURE-PROOF**  
STORAGE LOYALTY PROGRAM

Dell EMC Unity XT 380/380F, 480/480F, 680/680F, 880/880F

Designed for **PERFORMANCE**

Optimized for **EFFICIENCY**

Built for **MULTI-CLOUD**

## No Compromise Midrange Storage

### Performance

- Up to 2X more performance
- NVMe-ready

### Efficiency

- Up to 5:1 data reduction
- 85% system efficiency

### Multi-Cloud

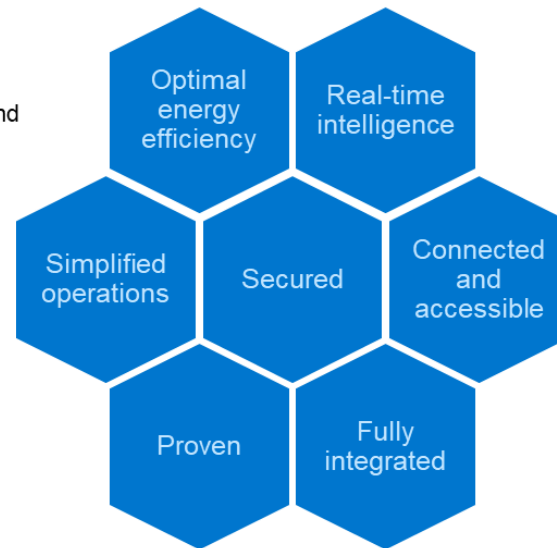
- Dell Technologies Cloud Platform
- Cloud Data Services
- Cloud Connected Systems
- Cloud Data Insights

# Intelligent Cabinet for Ongoing Optimization



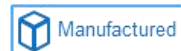
- 1. IPIA\* with SmartZone gateway**  
SNMP-based gateway for simplified power and sensor management
- 2. Door sensors**  
Door contact sensors (microswitch) are used to detect and provide real-time door access and control status
- 3. Temperature sensors**  
Detect environmental information in and around rack for real-time monitoring and management
- 4. Electronic swing handle**  
Provides intelligent electronic locking and monitoring for advanced security
- 5. Cable management system**  
Simple, organized cable management
- 6. Intelligent PDUs**  
Redundant PDUs with smart power management
- 7. VxBlock Central integration**  
Utilize VxBlock Central software for monitoring, reporting, tracking, and access controls

\*Panduit Intelligent Physical Infrastructure Appliance



# Benefits

- ✓ **Engineered**  
Created, selected, managed by Dell EMC with extensive converged infrastructure experience



- ✓ **Manufactured**  
Factory built and tested by Dell EMC  
Faster Time-to-Value



AS ONE TURNKEY PRODUCT

- ✓ **Managed**  
VxBlock Central unified management tool  
Single system view and component view  
(Health check, lifecycle, check, alerts, etc.)  
backed by automation and analytics

- ✓ **Supported**  
One-call, Dell EMC owns end-to-end  
Cross-trained support staff for all components  
Quicker time to resolution, fewer outages

- ✓ **Sustained**  
Lifecycle assurance for all components  
Code releases are Pre-tested and certified for life of the product  
Compliance through quarterly RCM, VxBlock Central verified



# Customer Reference

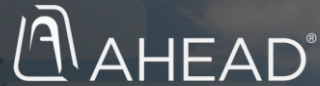
CGI ADVANTAGE® ERP

STATE AND PROVINCIAL GOVERNMENT | CGI ADVANTAGE

*“CGI uses Dell EMC infrastructure internally, and CGI runs their internal Cloud offering on Dell EMC with Vmware.”*



# Thank You



Building Platforms for Digital Business

[thinkahead.com](http://thinkahead.com)



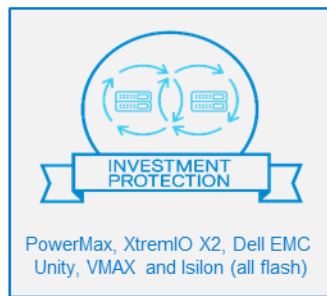
# Appendix



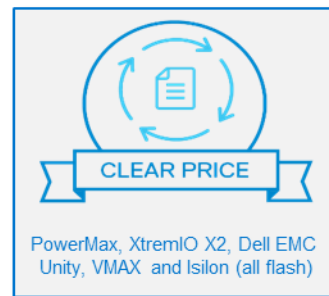
# Dell EMC Future-proof Loyalty Program



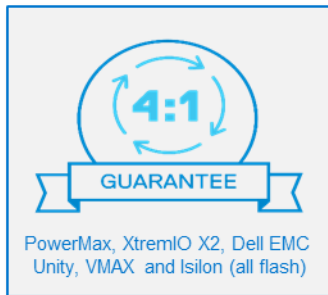
**Three-year-satisfaction guarantee**



**Hardware investment protection**



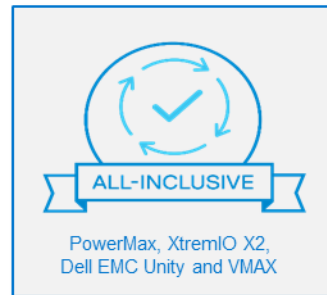
**Predictable support pricing**



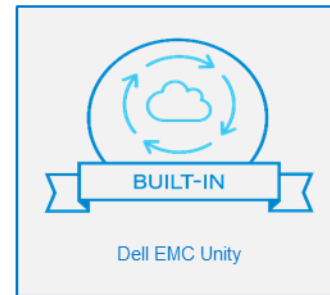
**4:1 all-flash storage efficiency guarantee**



**Never-worry data migrations**



**All-inclusive software**

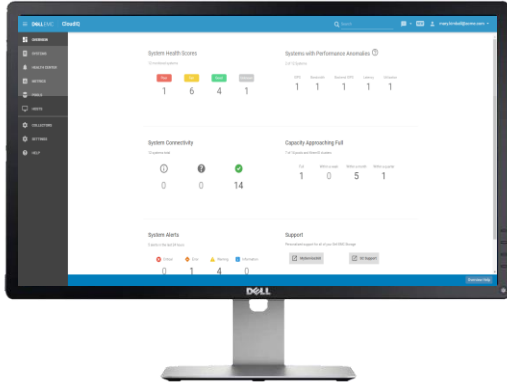


**Built-in Virtustream Storage Cloud**

# Dell EMC CloudIQ Overview

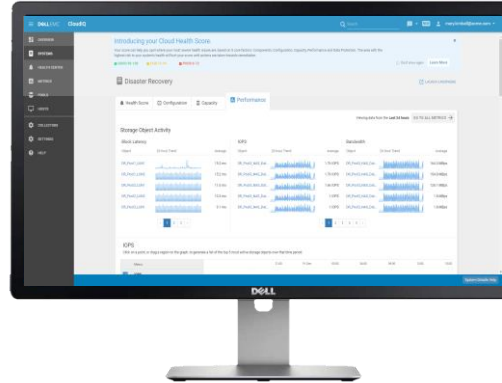
Cloud-based storage analytics to monitor and manage Unity environments

## Central Monitoring



Centrally monitor performance, capacity, configuration, and data protection.

## Predictive Analytics



Intelligent projections of capacity and performance utilization

## Proactive Health Score

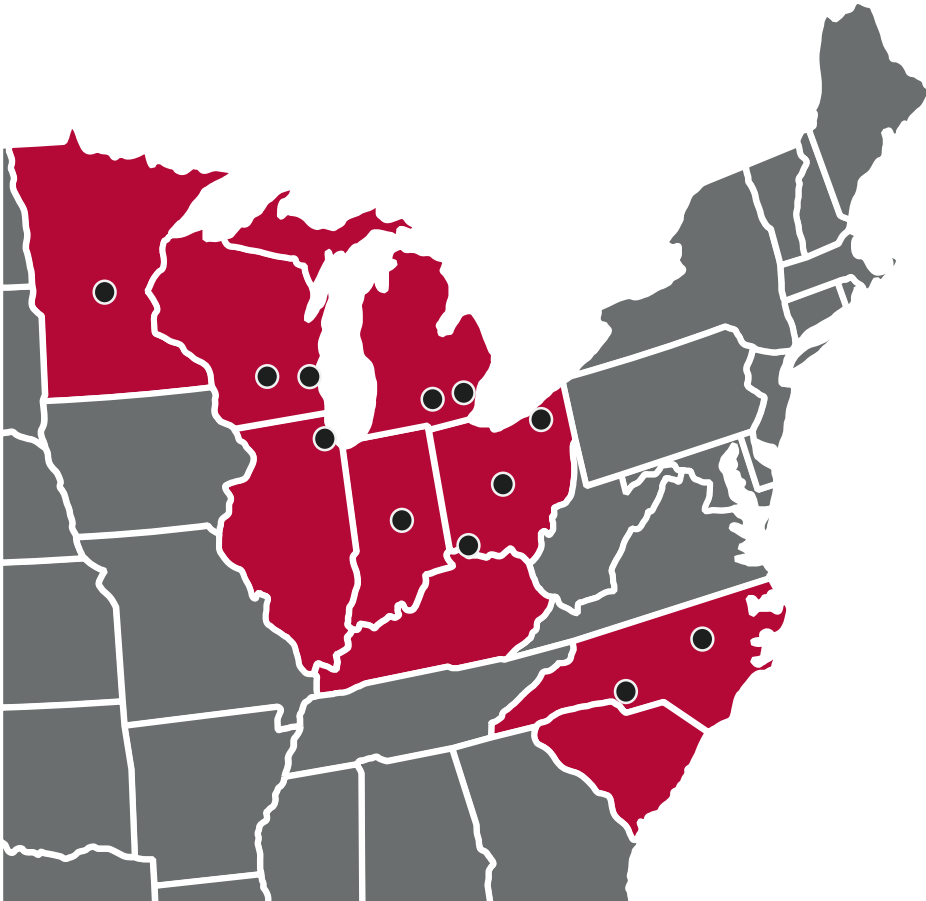


Identify potential risks before they impact the environment.

- CloudIQ is a “Software as a Service” application
- Provides operational monitoring in the form of aggregated dashboards and health scores
- Requires ESRS and valid support account



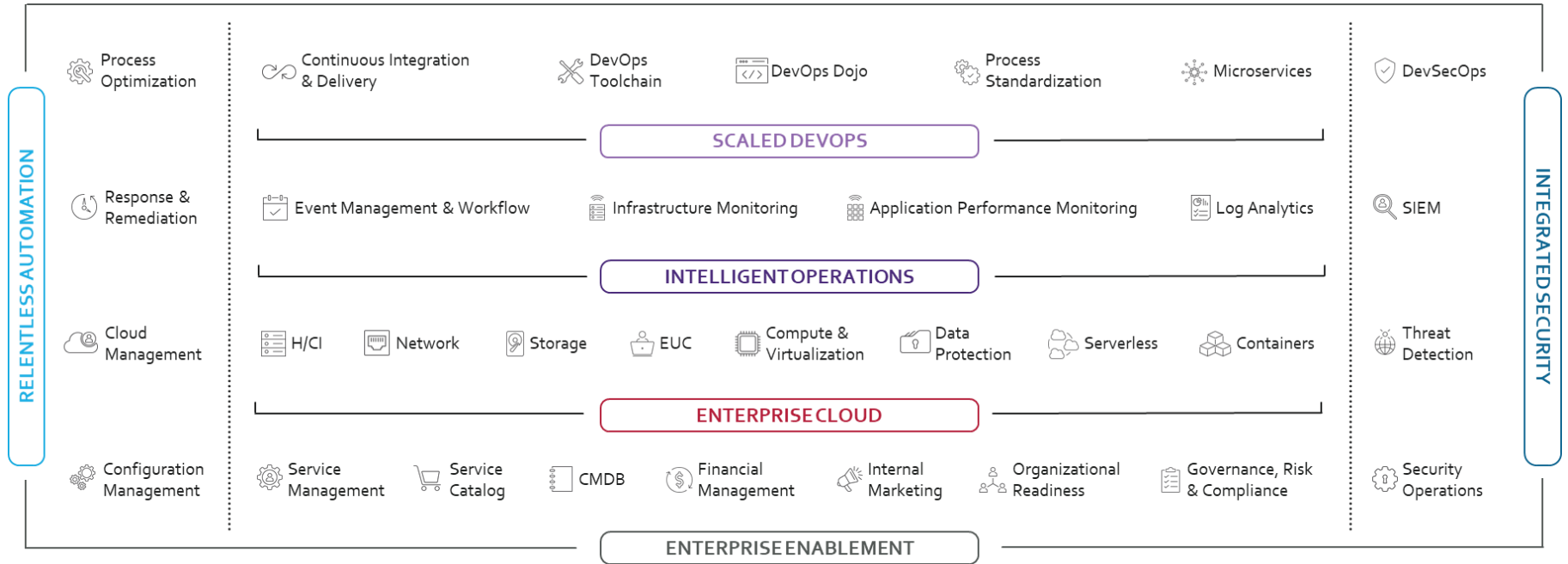
# About Us



- Founded in 2007
- Deep expertise in IT infrastructure and solutions of 60 partners
- Full range of professional services from strategy through ongoing support
- 385 employees, 230 in client engaging roles
- Serving 500 enterprise clients
- \$700 million in revenue and 25% CAGR
- Core values of: Collaborate, Innovate, and Drive

# AHEAD Digital Delivery Platform

 Mobile Apps
 ..... 
  Predictive Analytics
 ..... 
  AI & Machine Learning
 ..... 
 **DIGITAL BUSINESS INITIATIVES**
 ..... 
  Customer Experience
 ..... 
  Internet of Things
 ..... 
  Digital Products



Education  
and Enablement



Strategy  
and Roadmap



Design and  
Plan



Deployment and  
Management



## Services for Your Enterprise Cloud

At every stage, we help you

Strike a balance between innovation and Day 2 operations

Blend technical, operational, and organizational perspectives

Take a holistic view of an issue across your enterprise cloud

## Education and Enablement



- Executive briefings
- Accelerated evaluation process
- Hands-on experience with emerging tech
- Personalized sandbox environments
- Lab demonstrations
- Technology comparisons

## Strategy and Roadmap



- Current state analysis
- Desired state operating model
- Reference architecture development
- Organizational readiness assessment
- Business case analysis
- Roadmap development

## Design and Plan



- Technical discovery
- Application and infrastructure design
- Process automation and optimization
- Project financials
- Deployment and migration planning

## Deployment and Management



- Implementation and configuration
- Migration
- Training and ongoing enablement
- Continuous optimization
- CoPilot managed cloud services



**AHEAD LLC**  
 401 Michigan Avenue  
 Suite 3400  
 Chicago, IL 60611

**Ahead Client Director:**  
 Matt Athey  
 614-354-5892  
 matt.athey@thinkahead.com

**Ahead Quote Number**  
 AHD201972194 - 1  
**Reference Number:**  
 SWS11640490-V0 Morgantown  
 Palo Alto Firewall

**Shipping Address:**  
 State of West Virginia  
 Enterprise Resource Planning (ERP) Board  
 Melissa Pettrey  
 837 Chestnut Ridge Road  
 Morgantown 26505

**Billing Address:**  
 State of West Virginia  
 Enterprise Resource Planning (ERP) Board  
 1007 Bullitt Street, Suite 400  
 Charleston WV 25301

**Client Operations Specialist**  
 Jennifer Eveslage  
  
 513-457-7855  
 jennifer.eveslage@thinkahead.com

**Quote Date:**  
 8/27/2019  
**Expiration Date:**  
 9/26/2019

**MPA:**  
 Standard Terms  
**Payment Terms:**  
 Net 30

**Logistics Coordinator:**  
 Matt Arflin  
 (312) 496-7991  
 matt.arflin@thinkahead.com

<i>WV -ERP- Palo Alto Firewall- Morgantown</i>				
	<b>QTY</b>	<b>Part Number</b>	<b>Description</b>	<b>Extended Price</b>
Hardware	1	PAN-PA-3220	Palo Alto Networks PA-3220 with redundant AC power supplies	\$18,000.00
Software	1	PAN-PA-3220-TP-5YR-HA2	Threat prevention subscription 5 year prepaid for device in an HA pair, PA-3220	\$11,200.00
Software	1	PAN-PA-3220-WF-5YR-HA2	WildFire subscription 5 year prepaid for device in an HA pair, PA-3220	\$11,200.00
Software	1	PAN-PA-3220-URL4-5YR-HA2	PANDB URL filtering subscription 5 year prepaid for device in an HA pair, PA-3220	\$11,200.00
Maintenance - Hardware	1	PAN-SVC-4HR-3220-5YR	4-Hour Premium support 5 year prepaid, PA-3220 - 60.00 MNTHS	\$15,965.28

<b>Hardware:</b>	\$18,000.00
<b>Software:</b>	\$33,600.00
<b>Maintenance:</b>	\$15,965.28
<b>Managed Services:</b>	\$0.00
<b>Services:</b>	\$0.00
<b>Training:</b>	\$0.00
<b>Web Services:</b>	\$0.00
<b>Total Investment:</b>	<b>\$67,565.28</b>

Acceptance of this quote authorizes Ahead to invoice the party indicated herein ("Customer"). Any Services covered by an Ahead Service Brief shall be invoiced in advance and in full, regardless of whether or not such Services have been completed. Ahead reserves the right to make partial shipments. Customer acknowledges that it has read the Terms and Conditions attached hereto which shall govern and apply, unless a previously executed agreement governing the sale of products exists between Ahead and Customer. The Special Additional Terms (the "SAT") contained in this quote (if any) shall supplement the attached Terms and Conditions or previously executed agreement (collectively, the "Agreements"), provided, however that in the event of any conflict or inconsistency between the SAT and any of the Agreements, the SAT shall take precedence, govern and control. Except as indicated otherwise, pricing does not include sales tax, VAT or shipping charges. All shipping charges shall be invoiced separately following delivery. Acceptance may be emailed to [accounting@thinkahead.com](mailto:accounting@thinkahead.com).

Authorized Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_



**ACCEPTANCE OF THE PRICE QUOTE IS MADE ONLY UPON THESE TERMS AND CONDITIONS.**

**1. AGREEMENT:** AHEAD DOES NOT ACCEPT AND EXPRESSLY OBJECTS TO ANY TERMS AND CONDITIONS OR OTHER WRITING ON ANY PURCHASE ORDER OR ACKNOWLEDGEMENT WHICH IS DIFFERENT FROM OR ADDITIONAL TO THOSE TERMS AND CONDITIONS CONTAINED HEREIN, EXPRESSLY INCLUDING, WITHOUT LIMITATION, ANY EFFORT TO NEGATE THE TERMS AND CONDITIONS SET FORTH HEREIN OR IN THE PRICE QUOTE. NO MODIFICATION OR WAIVER OF THESE TERMS WILL BE EFFECTIVE AGAINST AHEAD UNLESS SPECIFIED IN WRITING AND SIGNED BY AHEAD. THE RECEIPT OF THE PRICE QUOTE OR PAYMENT FOR THE PRODUCTS AND/OR SERVICES PROVIDED THEREUNDER SHALL CONSTITUTE CUSTOMER'S ACCEPTANCE OF THE TERMS HEREOF.

**2. PRICING:** Prices for any Products or Services (each as defined below) purchased will be those specified in the Price Quote and will be valid for 30 days therefrom unless otherwise stated therein. "Products" shall refer to those software and hardware goods that are listed in the Price Quote. "Services" are those services performed by Product manufacturers and/or Ahead (including its subcontractors) that are listed in the Price Quote. Unless otherwise stated in the Price Quote, prices do not include, and Customer is responsible for (i) all applicable federal, state or local sales, use or other taxes (except taxes on Ahead's net income), (ii) shipping or packing charges, (iii) insurance and (iv) any other expenses associated with the sale and transportation or storage of the Products or tariffs and any similar charges imposed upon or in connection with the Products. The parties agree that all charges included in the price of the Products and Services set forth in the Price Quote are based upon detailed specifications supplied by Customer and any deviation requested by the Customer from such specifications may result in additional charges.

**3. PAYMENT:** Unless otherwise specified in the Price Quote, payment for Products and Services is due net 15 days from the date of invoice. Ahead may require prepayment. Ahead may charge Customer interest on all amounts unpaid after 30 days from the date of the invoice at the annual rate of the lesser of (i) 1.5% per month or (ii) the highest interest rate permitted by law. If any invoice is not paid when due, payment shall be considered late, and Ahead may, at any time, suspend delivery or other performance with respect to any Products without liability or penalty and take all other action permitted under the Uniform Commercial Code available to it.

**4. CANCELLATION:** Customer shall have no right to cancel an order once received by Ahead, including by reason of a failure or delay in delivery, to the extent that such delay is due to causes that are beyond Ahead's reasonable control (including, without limitation, failures or delays in performance which are due to strike, lockout, concerted act of workers or other industrial disturbance, fire, explosion, flood, or other natural catastrophe, civil disturbance, riot, act of war or terrorism, or armed conflict, whether declared or undeclared, curtailment, shortage, rationing or allocation of normal sources of supply of labor, materials, transportation, energy, or utilities, mechanical breakdown, equipment failure, accident, Act of God, delay of subcontractors or vendors, sufferance of or voluntary compliance with acts of government or government regulations (whether valid or not), embargo, or due to any other cause), subject to any provisions of Customer's local law to the contrary.

**5. ACCEPTANCE.** These Terms and Conditions are binding only after acceptance by an authorized officer of Ahead. Use by Ahead of any payments made by Customer prior to shipment shall not constitute acceptance by Ahead. Notwithstanding the foregoing, Ahead shall be entitled to revoke its acceptance hereof without any liability whatsoever to Customer if, at any time prior to the shipment of the Products covered hereby if Ahead becomes aware of a change in the financial position of Customer which would, in Ahead's opinion, affect Customer's ability to perform its obligations hereunder or if the applicable Product manufacturer declines to sell Product to Customer, for any reason whatsoever. In such instance, Seller's sole obligation in such event shall be to return to Customer any down payment which Seller is holding hereunder.

**6. DELIVERY; TITLE AND RISK OF LOSS:** Unless otherwise specified in the Price Quote title to, and all risk of loss of or damage to, all Products will pass to Customer upon delivery to the carrier at the loading dock of the Ahead (or third-party Product manufacturer's) facility. Ahead agrees to insure the shipment, provided, however, Customer will be responsible for any claims against the carrier relating to shipment which are not covered by insurance. Customer is responsible for all shipping and handling charges including inspection fees, assessments, import duties, V.A.T. and similar taxes. Such costs will be prepaid by Ahead and added to Customer's invoice except for import duties and taxes which will be paid directly by the Customer. Ahead reserves, and Customer hereby grants to Ahead, a purchase money security interest in the Products, and all proceeds from the sale thereof, until full payment is received for all amounts due and payable by Customer.

**7. SHORTAGE CLAIMS AND INSPECTION:** Customer shall have the right to inspect the Products within 48 hours of receipt. Any shortages or other claims in connection with an order must be made in writing and delivered to Ahead within such 48-hour period or shall be waived.

**8. RETURNS:** Customer acknowledges that Ahead shall have no obligation to accept returns of any Products or Services ordered by and sold to Customer. Ahead, at its sole discretion, may authorize the return of unused Products or Services. Such returns cannot be made without a return authorization in writing issued by Ahead. All pre-paid Services expire 18 months from the order date and are non-refundable.

**9. CONFIDENTIALITY:** In consideration of Ahead selling the Products and/or Services, Customer shall keep confidential and not disclose to any persons or use any confidential and/or proprietary knowledge, information or materials, relating to Ahead's business, including, without limitation, customer names, customer supplied information, pricing, quantities, business and marketing plans and strategy, processes and trade secrets for so long as permitted by applicable law. Additionally, the use of Ahead's name or logo or other proprietary marks or those of Product manufacturers or other Ahead suppliers in any advertisement or other publication by Customer must be preapproved in writing by Ahead.

**10. WARRANTIES AND REMEDIES:** All Products, and the components and materials utilized in any assembled or customized Products, are covered by, and subject to, the terms, conditions, and limitations of the manufacturer's standard warranty, which warranty is expressly in lieu of any other warranty, express or implied, of or by Ahead or the applicable Product manufacturer. Ahead represents, warrants and covenants that (i) Ahead shall perform all Services, if any, in accordance with the material specifications set forth in the Price Quote and (ii) the functions and features of the Services and related deliverables shall operate in the manner described in the applicable Price Quote for ninety (90) days from the completion thereof. Customer's exclusive remedy, if any, under these warranties is limited, at Ahead's election, to any one of (a) refund of Customer's purchase price, (b) repair by Ahead or the manufacturer of any Products found to be defective, or (c) replacement of any such Product.

Notwithstanding anything contained herein to the contrary, to the extent a manufacturer requires Products to be installed by Ahead or such manufacturer in order for a warranty to be valid, neither Ahead nor the Product manufacturer shall provide a warranty for any Products which are not installed, as applicable, by Ahead or the Product manufacturer. EXCEPT AS SET FORTH HEREIN, AHEAD MAKES NO OTHER WARRANTIES, WRITTEN OR ORAL. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE HEREBY SPECIFICALLY DISCLAIMED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT, AND ANY WARRANTY ARISING BY STATUTE, OPERATION OF LAW, COURSE OF DEALING OR PERFORMANCE, OR USAGE OF TRADE. Customer acknowledges that it does not rely on, and waives any claim for breach of, any representations and warranties which are not confirmed in writing by Ahead. Ahead shall, after Products are tendered to Customer, have no liability in respect of any changes in quality of the Products arising from storage or transportation of the Products or from willful damages, negligence, abnormal working conditions, misuse or alteration of the Products.

**11. LIMITATION OF LIABILITY:** The total liability of Ahead (beyond any express warranty obligation) to Customer from any cause whatsoever, whether arising under contract, warranty, tort (including negligence), strict liability, products liability or any other theory of liability will be limited to the lesser of (i) Customer's actual damages or (ii) the purchase price paid to Ahead for the Product(s) or Service(s) that is the subject of Customer's claim. Except for the warranty coverage referenced in paragraph 10, above, AHEAD SHALL NOT HAVE ANY LIABILITY OR OBLIGATION TO CUSTOMER OR ANY OTHER PERSON FOR ANY CLAIM, LOSS, DAMAGE, OR EXPENSE CAUSED IN WHOLE OR IN PART, DIRECTLY OR INDIRECTLY, BY THE INADEQUACY OF ANY PRODUCTS OR SERVICES FOR ANY PURPOSE, BY ANY DEFICIENCY OR DEFECT IN ANY PRODUCT OR SERVICE (WHETHER OR NOT COVERED BY ANY WARRANTY), BY THE USE OR PERFORMANCE OF ANY PRODUCTS OR SERVICES OR BY ANY FAILURE OR DELAY IN AHEAD'S PERFORMANCE HEREUNDER, OR FOR ANY SPECIAL, DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE DAMAGES, HOWEVER CAUSED, INCLUDING, WITHOUT LIMITATION, PERSONAL INJURY OR LOSS OF BUSINESS OR PROFIT, WHETHER OR NOT CUSTOMER WILL HAVE INFORMED AHEAD OF THE POSSIBILITY OR LIKELIHOOD OF ANY SUCH DAMAGES. All claims hereunder against AHEAD must be brought within 12 months after the cause of action arises and Customer expressly agrees to this 12-month period and waives any other statute of limitations which might apply by operation of law or otherwise including under the Uniform Commercial Code.

**12. EXPORT RESTRICTIONS:** Products may be subject to export or resale restriction or regulation, and Customer acknowledges that it will comply with such restrictions and regulations. Any statement as to product country of origin, Export Control Classification Number, or compliance with applicable law (including, without limitation, that products are lead-free or RoHS compliant) is as provided to Ahead by its suppliers, and Ahead does not warrant its accuracy and will not be liable for any error with regard to same.

**13. INTELLECTUAL PROPERTY:** Any software or other intellectual property included in or relating to Products is supplied by its manufacturer or licensor. Ahead makes no representation or warranty with respect thereto and will have no liability in connection therewith. Customer agrees to comply with all requirements with regard to proprietary and similar rights in and to any intellectual property (including any requirement to enter into a separate license agreement and prohibitions against duplicating or disclosing the same), even if Ahead has broken the seal on any "shrink wrapped" software. If Customer provides Ahead with any intellectual property, Customer warrants that it has all necessary legal rights to such property.

**14. THIRD PARTY SOFTWARE AND INTELLECTUAL PROPERTY LICENSING.** Except for certain Products manufactured and/or supplied by EMC Corporation, which shall be subject to and governed by the sublicensing terms which will be provided upon request, any Software or other intellectual property included in or relating to Products and/or Services is supplied by its manufacturer or licensor (not Ahead). Ahead makes no representation or warranty with respect thereto and will have no liability in connection therewith. Customer agrees to comply with all third party requirements with regard to proprietary and similar rights in and to any intellectual property (including any requirement to enter into a separate license agreement and prohibitions against duplicating or disclosing the same), even if Ahead has broken the seal on any "shrink wrapped" Software. If Customer provides Ahead with any intellectual property, Customer warrants that it has all necessary legal rights to such property. Customer will indemnify Ahead against and hold it harmless from any and all liability, cost or expense arising from a breach or purported breach of this section.

**15. GOVERNING LAW AND CONSENT TO JURISDICTION:** The Price Quote and these Terms and Conditions shall be governed by and construed in accordance with the laws of the State of Illinois. Any court action which may be brought by any party pertaining to the Price Quote or these Terms and Conditions shall be brought in federal or state courts having situs in the Northern District of Illinois. The parties consent to personal jurisdiction and venue by state and federal courts in Illinois for any action pertaining to the Price Quote and these Terms and Conditions by personal service of process within or without the State of Illinois. Ahead and Customer agree that the United Nations Convention on International Sale of Goods shall have no force or effect on transactions relating to the Price Quote or these Terms and Conditions.

**16. INDEPENDENT CONTRACTORS:** Nothing contained in the Price Quote or these Terms and Conditions shall be construed as creating a partnership or joint venture between Ahead and Customer, and Customer shall at all times be deemed to be an independent contractor, solely responsible for the manner by and the form in which it fulfills the Price Quote.

**17. ASSIGNMENT:** This agreement may not be transferred or assigned in whole or in part by Customer without the prior written consent of Ahead. Such consent shall not relieve Customer of its obligations and liabilities hereunder.

**18. MISCELLANEOUS PROVISIONS:** This instrument, together with the Price Quote and all schedules, attachments and documents incorporated herein and therein, shall constitute the entire agreement between the parties. The failure of either party at any time to require performance by the other party of any provision of this agreement shall in no way affect the right to require such performance at any time thereafter, nor shall the waiver of either party of a breach of any provision of this agreement constitute a waiver of any succeeding breach of the same or other provision.

**19. SEVERABILITY:** The invalidity or unenforceability of any provision contained herein shall not affect the validity or enforceability of any other provision hereof. Any invalid or unenforceable provision shall be deemed severed from the Price Quote and these Terms and Conditions to the extent of its invalidity or unenforceability, and the Price Quote and these Terms and Conditions shall be construed and enforced as if such documents did not contain that particular provision to the extent of its invalidity or unenforceability.

**20. LITIGATION COSTS.** Customer shall be obligated to pay to Ahead all of Ahead's costs and expenses, without any offset, including, but not limited to all attorneys' fees and court costs incurred by Ahead in enforcing these Terms and Conditions. This obligation includes the payment of such amounts paid by Ahead prior to the filing of any action, as well as when an action is filed, and includes the case where an action which is filed and is then dismissed.



**AHEAD LLC**  
 401 Michigan Avenue  
 Suite 3400  
 Chicago, IL 60611

**Ahead Client Director:**  
 Matt Athey  
 614-354-5892  
 matt.athey@thinkahead.com

**Ahead Quote Number**  
 AHD201972193 - 3  
**Reference Number:**  
 Merged[1] [2]  
**Quote Date:**  
 8/27/2019  
**Expiration Date:**  
 9/26/2019

**Shipping Address:**  
 State of West Virginia  
 Enterprise Resource Planning (ERP) Board  
 Melissa Pettrey  
 1900 Kanawha Blvd E  
 Charleston 25305

**Billing Address:**  
 State of West Virginia  
 Enterprise Resource Planning (ERP) Board  
 1007 Bullitt Street, Suite 400  
 Charleston WV 25301

**Client Operations Specialist**  
 Jennifer Eveslage  
 513-457-7855  
 jennifer.eveslage@thinkahead.com

**MPA:**  
 Standard Terms  
**Payment Terms:**  
 Net 30

**Logistics Coordinator:**  
 Matt Arflin  
 (312) 496-7991  
 matt.arflin@thinkahead.com

<i>WV-ERP- Palo Alto Firewalls- Charleston</i>			
QTY	Part Number	Description	Extended Price
<b>Charleston Palo Alto PA3220 Firewalls</b>			
Hardware	1 PAN-PA-3220	Palo Alto Networks PA-3220 with redundant AC power supplies	\$18,000.00
Hardware	1 PAN-PA-3220	Palo Alto Networks PA-3220 with redundant AC power supplies	\$18,000.00
Software	1 PAN-PA-3220-TP-5YR	Threat prevention subscription 5-year prepaid, PA-3220	\$14,400.00
Software	1 PAN-PA-3220-WF-5YR	WildFire subscription 5-year prepaid, PA-3220	\$14,400.00
Software	1 PAN-PA-3220-URL4-5YR	PANDB URL filtering subscription 5-year prepaid, PA-3220	\$14,400.00
Software	1 PAN-PA-3220-TP-5YR-HA2	Threat prevention subscription 5 year prepaid for device in an HA pair, PA-3220	\$11,200.00
Software	1 PAN-PA-3220-WF-5YR-HA2	WildFire subscription 5 year prepaid for device in an HA pair, PA-3220	\$11,200.00
Software	1 PAN-PA-3220-URL4-5YR-HA2	PANDB URL filtering subscription 5 year prepaid for device in an HA pair, PA-3220	\$11,200.00
Maintenance - Hardware	1 PAN-SVC-4HR-3220-5YR	4-Hour Premium support 5 year prepaid, PA-3220 - 60.00 MNTHS	\$15,965.28
Maintenance - Hardware	1 PAN-SVC-4HR-3220-5YR	4-Hour Premium support 5 year prepaid, PA-3220 - 60.00 MNTHS	\$15,965.28
<b>Palo Alto Network On-Site Training</b>			
Training	1 PAN-EDU-ONSITE-3DAY-12	Palo Alto Networks On-Site training course, 3 days, up to 12 students. Onsite training will expire (1) one year from date of purchase. Price includes instructor T&E, courseware, and lab access.	\$14,410.00

<b>Hardware:</b>	\$36,000.00
<b>Software:</b>	\$76,800.00
<b>Maintenance:</b>	\$31,930.56
<b>Managed Services:</b>	\$0.00
<b>Services:</b>	\$0.00
<b>Training:</b>	\$14,410.00
<b>Web Services:</b>	\$0.00
<b>Total Investment:</b>	<b>\$159,140.56</b>

Acceptance of this quote authorizes Ahead to invoice the party indicated herein ("Customer"). Any Services covered by an Ahead Service Brief shall be invoiced in advance and in full, regardless of whether or not such Services have been completed. Ahead reserves the right to make partial shipments. Customer acknowledges that it has read the Terms and Conditions attached hereto which shall govern and apply, unless a previously executed agreement governing the sale of products exists between Ahead and Customer. The Special Additional Terms (the "SAT") contained in this quote (if any) shall supplement the attached Terms and Conditions or previously executed agreement (collectively, the "Agreements"), provided, however that in the event of any conflict or inconsistency between the SAT and any of the Agreements, the SAT shall take precedence, govern and control. Except as indicated otherwise, pricing does not include sales tax, VAT or shipping charges. All shipping charges shall be invoiced separately following delivery. Acceptance may be emailed to accounting@thinkahead.com.

**Authorized Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Printed Name:** \_\_\_\_\_





**ACCEPTANCE OF THE PRICE QUOTE IS MADE ONLY UPON THESE TERMS AND CONDITIONS.**

**1. AGREEMENT:** AHEAD DOES NOT ACCEPT AND EXPRESSLY OBJECTS TO ANY TERMS AND CONDITIONS OR OTHER WRITING ON ANY PURCHASE ORDER OR ACKNOWLEDGEMENT WHICH IS DIFFERENT FROM OR ADDITIONAL TO THOSE TERMS AND CONDITIONS CONTAINED HEREIN, EXPRESSLY INCLUDING, WITHOUT LIMITATION, ANY EFFORT TO NEGATE THE TERMS AND CONDITIONS SET FORTH HEREIN OR IN THE PRICE QUOTE. NO MODIFICATION OR WAIVER OF THESE TERMS WILL BE EFFECTIVE AGAINST AHEAD UNLESS SPECIFIED IN WRITING AND SIGNED BY AHEAD. THE RECEIPT OF THE PRICE QUOTE OR PAYMENT FOR THE PRODUCTS AND/OR SERVICES PROVIDED THEREUNDER SHALL CONSTITUTE CUSTOMER'S ACCEPTANCE OF THE TERMS HEREOF.

**2. PRICING:** Prices for any Products or Services (each as defined below) purchased will be those specified in the Price Quote and will be valid for 30 days therefrom unless otherwise stated therein. "Products" shall refer to those software and hardware goods that are listed in the Price Quote. "Services" are those services performed by Product manufacturers and/or Ahead (including its subcontractors) that are listed in the Price Quote. Unless otherwise stated in the Price Quote, prices do not include, and Customer is responsible for (i) all applicable federal, state or local sales, use or other taxes (except taxes on Ahead's net income), (ii) shipping or packing charges, (iii) insurance and (iv) any other expenses associated with the sale and transportation or storage of the Products or tariffs and any similar charges imposed upon or in connection with the Products. The parties agree that all charges included in the price of the Products and Services set forth in the Price Quote are based upon detailed specifications supplied by Customer and any deviation requested by the Customer from such specifications may result in additional charges.

**3. PAYMENT:** Unless otherwise specified in the Price Quote, payment for Products and Services is due net 15 days from the date of invoice. Ahead may require prepayment. Ahead may charge Customer interest on all amounts unpaid after 30 days from the date of the invoice at the annual rate of the lesser of (i) 1.5% per month or (ii) the highest interest rate permitted by law. If any invoice is not paid when due, payment shall be considered late, and Ahead may, at any time, suspend delivery or other performance with respect to any Products without liability or penalty and take all other action permitted under the Uniform Commercial Code available to it.

**4. CANCELLATION:** Customer shall have no right to cancel an order once received by Ahead, including by reason of a failure or delay in delivery, to the extent that such delay is due to causes that are beyond Ahead's reasonable control (including, without limitation, failures or delays in performance which are due to strike, lockout, concerted act of workers or other industrial disturbance, fire, explosion, flood, or other natural catastrophe, civil disturbance, riot, act of war or terrorism, or armed conflict, whether declared or undeclared, curtailment, shortage, rationing or allocation of normal sources of supply of labor, materials, transportation, energy, or utilities, mechanical breakdown, equipment failure, accident, Act of God, delay of subcontractors or vendors, sufferance of or voluntary compliance with acts of government or government regulations (whether valid or not), embargo, or due to any other cause), subject to any provisions of Customer's local law to the contrary.

**5. ACCEPTANCE.** These Terms and Conditions are binding only after acceptance by an authorized officer of Ahead. Use by Ahead of any payments made by Customer prior to shipment shall not constitute acceptance by Ahead. Notwithstanding the foregoing, Ahead shall be entitled to revoke its acceptance hereof without any liability whatsoever to Customer if, at any time prior to the shipment of the Products covered hereby if Ahead becomes aware of a change in the financial position of Customer which would, in Ahead's opinion, affect Customer's ability to perform its obligations hereunder or if the applicable Product manufacturer declines to sell Product to Customer, for any reason whatsoever. In such instance, Seller's sole obligation in such event shall be to return to Customer any down payment which Seller is holding hereunder.

**6. DELIVERY; TITLE AND RISK OF LOSS:** Unless otherwise specified in the Price Quote title to, and all risk of loss of or damage to, all Products will pass to Customer upon delivery to the carrier at the loading dock of the Ahead (or third-party Product manufacturer's) facility. Ahead agrees to insure the shipment, provided, however, Customer will be responsible for any claims against the carrier relating to shipment which are not covered by insurance. Customer is responsible for all shipping and handling charges including inspection fees, assessments, import duties, V.A.T. and similar taxes. Such costs will be prepaid by Ahead and added to Customer's invoice except for import duties and taxes which will be paid directly by the Customer. Ahead reserves, and Customer hereby grants to Ahead, a purchase money security interest in the Products, and all proceeds from the sale thereof, until full payment is received for all amounts due and payable by Customer.

**7. SHORTAGE CLAIMS AND INSPECTION:** Customer shall have the right to inspect the Products within 48 hours of receipt. Any shortages or other claims in connection with an order must be made in writing and delivered to Ahead within such 48-hour period or shall be waived.

**8. RETURNS:** Customer acknowledges that Ahead shall have no obligation to accept returns of any Products or Services ordered by and sold to Customer. Ahead, at its sole discretion, may authorize the return of unused Products or Services. Such returns cannot be made without a return authorization in writing issued by Ahead. All pre-paid Services expire 18 months from the order date and are non-refundable.

**9. CONFIDENTIALITY:** In consideration of Ahead selling the Products and/or Services, Customer shall keep confidential and not disclose to any persons or use any confidential and/or proprietary knowledge, information or materials, relating to Ahead's business, including, without limitation, customer names, customer supplied information, pricing, quantities, business and marketing plans and strategy, processes and trade secrets for so long as permitted by applicable law. Additionally, the use of Ahead's name or logo or other proprietary marks or those of Product manufacturers or other Ahead suppliers in any advertisement or other publication by Customer must be preapproved in writing by Ahead.

**10. WARRANTIES AND REMEDIES:** All Products, and the components and materials utilized in any assembled or customized Products, are covered by, and subject to, the terms, conditions, and limitations of the manufacturer's standard warranty, which warranty is expressly in lieu of any other warranty, express or implied, of or by Ahead or the applicable Product manufacturer. Ahead represents, warrants and covenants that (i) Ahead shall perform all Services, if any, in accordance with the material specifications set forth in the Price Quote and (ii) the functions and features of the Services and related deliverables shall operate in the manner described in the applicable Price Quote for ninety (90) days from the completion thereof. Customer's exclusive remedy, if any, under these warranties is limited, at Ahead's election, to any one of (a) refund of Customer's purchase price, (b) repair by Ahead or the manufacturer of any Products found to be defective, or (c) replacement of any such Product.

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**19. SEVERABILITY:** The invalidity or unenforceability of any provision contained herein shall not affect the validity or enforceability of any other provision hereof. Any invalid or unenforceable provision shall be deemed severed from the Price Quote and these Terms and Conditions to the extent of its invalidity or unenforceability, and the Price Quote and these Terms and Conditions shall be construed and enforced as if such documents did not contain that particular provision to the extent of its invalidity or unenforceability.

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**AHEAD LLC**  
401 Michigan Avenue  
Suite 3400  
Chicago, IL 60611

**Ahead Client Director:**  
Matt Athey  
614-354-5892  
matt.athey@thinkahead.com

**Ahead Quote Number**  
AHD201972193 - 4  
**Reference Number:**  
P1168691 Prod VxBlock

**Shipping Address:**  
State of West Virginia - Enterprise Resource Planning (ERP) Board

Melissa Pettrey  
1900 Kanawha Blvd E  
Charleston 25305

**Billing Address:**  
State of West Virginia - Enterprise Resource Planning (ERP) Board  
1007 Bullitt Street, Suite 400  
Charleston WV 25301

**Client Operations Specialist**  
Jennifer Eveslage  
513-457-7855  
jennifer.eveslage@thinkahead.com

**Quote Date:**  
8/28/2019  
**Expiration Date:**  
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**MPA:**  
Standard Terms  
**Payment Terms:**  
Net 30

**Logistics Coordinator:**  
Matt Arflin  
(312) 496-7991  
matt.arflin@thinkahead.com

<i>WV_ERP- Vblock- Charleston</i>				
	QTY	Part Number	Description	Extended Price
<b>WV ERP Prod Professional Services</b>				<b>\$90,600.00</b>
Services	1	ACD-AHS-CLD-VBLK3B	VCE VxBlock 1000 Series Deployment	\$70,600.00
Services	1	ACD-ADV-STO	Unity Replication - 20 Sessions	\$14,000.00
Services	1	ACD-ADV-CVI	Migration of up to 10 VMs - Show and Tell	\$6,000.00
<b>WV ERP Prod VxBlock</b>				<b>\$1,202,423.46</b>
Hardware	2	AGGE-3110-00-A01	31108TC-V,48x10G,6x100G or 40G QSFP+,PSE	\$19,859.10
Hardware	2	AGGE-9336-00-A01	Nexus 9300 Series, 36p 40/100G QSFP28	\$29,545.46
Hardware	6	AGGE-SFPP-00-A02	Ethernet Aggregation SFP+	\$2,713.62
Hardware	4	AGGE-SR4M-00-A01	40GBASE-SR4 QSFP XCVR Mod w/MPO conn	\$5,445.44
Hardware	5	B5GL-0575-EX-H01	B200M5 6240 18C/384G(12x32G)1340,64SD,T1	\$97,600.90
Hardware	5	B5GL-0587-EX-B01	B200M5 5222 4C/384G(12x32G)1340,64SD,T1	\$81,495.00
Hardware	2	COMP-6454-00-A02	UCS Fabric Interconnect 6454	\$48,448.64
Hardware	2	COMP-CHS3-00-B01	Single 5108 w/Updated backplane, 2208	\$24,826.10
Hardware	3	MGMT-L45T-00-A01	HiAv C220M5SX 4114/192GB,1457,2x64SD,TPM	\$33,061.50
Hardware	2	SFPS-FISN-00-C02	FI to SAN 32G - QTY 4 SFP	\$3,636.36
Hardware	8	YMC00N2000011294	40GBASE-SR4 QSFP Transceiver Module with MPO Connector	\$10,890.88
Hardware	1	STOR-3501-00-A02	AMP Hi Avail Shared Storage-HW	\$20,805.27
Hardware	1	D44PC10ITAF	UNITY 2X4 PORT CARD 10GBE OPT AF	\$987.27
Hardware	1	D45L16C25FAF	UNITY 880F DPE 25 X 2.5 DELL FLD RCK	\$52,600.51
Hardware	47	D4F-25FXL2-3840	D4F 3.84TB ALL FLASH 25X2.5 SSD	\$205,954.94
Hardware	1	D4DPEKITAF	UNITY DPE INSTALL KIT AF	\$0.00
Hardware	1	D45L10ICUAF	UNITY 2X4 PORT IO 10GBASET AF	\$932.65
Hardware	1	D45L16FAF	UNITY 2X4 PORT IO 16GB FC AF	\$1,428.31
Hardware	1	D4122FAF	UNITY 2U 25X2.5 DAE FLD RCK AF	\$987.27
Hardware	2	YME0000E00011320	Qty 2 9216 9120 9124 9140 Power Cord US	\$0.00
Hardware	2	YME0000E00192932	MDS-9148T Switch w/24 32G SFPs PSE	\$19,720.92
Hardware	48	YME0000E00195807	MDS 32G Switch SW Optics SFP+	\$18,556.32
Hardware	8	CABL-CHFI-00-A01	Chassis IOM to FI 4 Links AOC Cables	\$10,727.28
Hardware	2	CABL-FILN-00-A01	FI to LAN 2x100G links AOC Cable	\$13,409.10
Hardware	2	CABL-FISN-00-A01	FI to SAN 4x16G links LC Cables	\$1,340.92
Hardware	9	INFR-CABL-00-A02	VCE Infrastructure Cable Assembly-A	\$5,113.62
Hardware	1	INFR-POW2-00-A01	Generic SMART POU	\$5,681.82
Hardware	1	PROD-0122-00-A01	VCE™ VxBlock 1000 w/Unity 650F	\$0.00
Hardware	1	PROD-0137-00-A01	VCE™ VxBlock 1000	\$0.00
Hardware	1	PROD-0143-00-A01	Dell EMC VxBlock w/ AMP 3S	\$0.00
Hardware	1	PROD-0144-00-A01	Dell EMC VxBlock 1000 w/ AMP 3S	\$0.00
Hardware	1	CBNT-Q215-00-B02	IPI Compute Cabinet, 700mm x 1200mm (CRS)	\$5,980.68
Hardware	2	INFR-Q224-00-A01	Door Handle, IPI, HID Card Reader	\$681.82
Hardware	1	INFR-Q285-00-C01	Front Door Brand,IPI/DPI,VxBLOCK,LED,BLK	\$322.73
Hardware	2	INFR-Q287-00-A01	Side Panel,IPI/DPI,Front,VxBLOCK,BLK	\$811.36
Hardware	2	INFR-Q289-00-A01	Side Panel,IPI/DPI,Rear,Blank,BLK	\$365.92
Software	2	SFTW-3000-00-B01	Nexus 3000 LAN Enterprise License (=)	\$7,272.72
Software	2	SFTW-3DCN-00-B01	DCNM for LAN Advanced Edt. for N3K (=)	\$909.10
Software	2	YMC00NEX00934519	DCNM for LAN Advanced Edt. for Nexus 9300 switches	\$909.10
Software	1	SFTW-3501-00-A01	AMP Hi Avail Shared Storage-UNITY BaseSW	\$0.00
Software	1	SFTW-3502-00-A02	AMP Hi Avail Shared Storage-APPSYNC SW	\$0.00
Software	1	SFTW-3505-00-A01	AMP Hi Avail Shared Storage-RP Basic	\$0.00
Software	1	SFTW-3506-00-A02	AMP Hi Avail Shared Storage-M&R SW	\$0.00
Software	1	SFTW-ENIA-00-A01	Dell EMC ESRS ENABLER=IA	\$0.00
Software	10	SFTW-PPBL-00-A04	POWERPATH BLADE LICENSE POWERPATH/VE HOST LICENSES, VMWARE	\$0.00
Software	20	SFTW-PPSK-00-B04	POWERPATH CPU SOCKET LICENSE (8+)	\$10,842.00
Software	1	SFTW-PPVE-00-A01	POWERPATH Virtual Edition	\$0.00
Software	1	458-002-525	UNITY AFA BASE SOFTWARE+ D@RE=IC	\$0.00
Software	1	458-001-737	APPSYNC BSC FOR UNITY 600F/650F/880F=IC	\$0.00
Software	1	458-002-627	SRM FOR UNITY 880F=IC	\$15,452.41
Software	1	458-001-585	RP BASIC FOR UNITY380F/480F/680F/880F=IC	\$0.00
Software	2	YME0000E00129234	DCNM SAN Lic MDS 9100 Server based=MA	\$6,693.28
Software	26	VIRT-ESX_US-C02	VMware vSphere Enterprise Plus (1 CPU)	\$69,040.40
Software	1	VIRT-VCNT-US-C02	Vmware vCenter Server Standard	\$4,561.08
Software	5	SSUJ-0097-00-A01	VxBlock Central BASE SM SNS ANL	\$25,568.20
Software	1	VSFT-0058-00-A01	VxBlock Central BASE SM SYS LIC	\$0.00
Software	2	SFTW-WS12-00-A01	Microsoft Windows Server Std 2012 R2, Supports 2 VM's	\$1,527.28

Maintenance - Hardware	50	SUCH-2M5U-00-A01	Sgl Bld ETS 24X7X4OS B200 M5 - 60.00 MNTHS	\$15,238.50
Maintenance - Hardware	15	SUCH-2M5X-00-A01	Sgl Bld ETS 24X7X4OS C220 M5 20 SFF - 60.00 MNTHS	\$6,606.90
Maintenance - Hardware	10	SUCH-3110-00-A01	ETS 24x7x4OS Nexus 31108TC-V with 48 port - 60.00 MNTHS	\$17,509.10
Maintenance - Hardware	10	SUCP-CHSX-00-A02	Annual Support Compute Base: ETS ONSITE 24x7x4 UCS 5108 AC Chassis w/Updated backplane - 60.00 MNTHS	\$1,861.40
Maintenance - Hardware	10	SUPH-9336-00-A01	SNT24X7X4OS Nexus9300 36p 40/100G QSFP28 - 60.00 MNTHS	\$13,397.70
Maintenance - Hardware	10	YHC00DDN01674276	ETS 24X7X4OS UCS Fabric Interconnect 6454 - 60.00 MNTHS	\$16,731.80
Maintenance - Software	10	YHC00SWS01567804	SWSS UPGRADES DCNM for LAN Advanced Edt. for Nexus 9300 swit - 60.00 MNTHS	\$1,561.40
Maintenance - Software	10	YHC00SWS01568686	SWSS UPGRADES DCNM for LAN Advanced Edt. for Nexus 3000 - 60.00 MNTHS	\$1,363.60
Maintenance - Hardware	5	SUPH-3501-00-A02	AMP Hi Avail Shared Storage-HW Support - 60.00 MNTHS	\$12,480.70
Maintenance - Software	5	SUPS-3501-00-A01	AMP Hi Avail Shared Storage-UNITY SW Sup - 60.00 MNTHS	\$0.00
Maintenance - Software	5	SUPS-3502-00-A02	AMP Hi Avail Shared Storage-APPSYNC SWsp - 60.00 MNTHS	\$0.00
Maintenance - Software	5	SUPS-3505-00-A01	AMP Hi Avail Shared Storage-RP Basic Sup - 60.00 MNTHS	\$0.00
Maintenance - Software	5	SUPS-3506-00-A02	AMP Hi Avail Shared Storage-M&R SW Sup - 60.00 MNTHS	\$0.00
Maintenance - Software	100	SUPS-PPTH-00-B04	POWERPATH ANNUAL MAINTENANCE PER CPU (8+) - 60.00 MNTHS	\$12,490.00
Maintenance - Hardware	10	YHE0000E00192933	MDS-9148T Switch w/24 32G SFPs PSE After Warranty Annual Premium Maintenance - 60.00 MNTHS	\$4,930.20
Maintenance - Hardware	1	M-PSM-HWE-005	PROSUPPORT 4HR/MC HARDWARE SUPPORT - 60.00 MNTHS	\$78,867.41
Maintenance - Software	1	M-PSM-SWE-005	PROSUPPORT 4HR/MC SOFTWARE SUPPORT - 60.00 MNTHS	\$0.00
Maintenance - Software	1	M-PSM-SWE-005	PROSUPPORT 4HR/MC SOFTWARE SUPPORT - 60.00 MNTHS	\$0.00
Maintenance - Software	1	M-PSM-SWE-005	PROSUPPORT 4HR/MC SOFTWARE SUPPORT - 60.00 MNTHS	\$8,344.33
Maintenance - Software	1	M-PSM-SWE-005	PROSUPPORT 4HR/MC SOFTWARE SUPPORT - 60.00 MNTHS	\$0.00
Maintenance - Software	10	YSE0000E00129235	DCNM SAN Lic MDS 9100 Server based=MA Annual Premium Maintenance - 60.00 MNTHS	\$6,023.20
Maintenance - Hardware	2	YUE0000E00192934	MDS-9148T Switch w/24 32G SFPs PSE Premium Warranty Upgrade - 60.00 MNTHS	\$822.82
Maintenance - Software	78	SUPS-ESX_US-C04	VCE vSphere EntPlus (1CPU), Server Standard Annual Support - 60.00 MNTHS	\$65,848.38
Maintenance - Software	3	SUPS-VCNT-US-C04	Prod Supp/Sub for vCenter Svr Std - 60.00 MNTHS	\$4,474.08
Maintenance - Hardware	1	SYSS-VBIS-00-A01	VxBlock Integrated Support - 60.00 MNTHS	\$29,936.66
Services	1	PSEM-ESRS-00-A02	ESRS Zero Dollar Install	\$0.00
Services	1	YME000F100042331	ZERO DOLLAR ESRS INSTALL	\$0.00
Services	1	MNFG-CABA-00-A01	Manufacturing & Factory Assembly Service	\$10,498.00
Services	1	PSVC-VAIA-00-A01	Logical - AMP - Add-On	\$770.00
Services	1	PSVC-VAIS-00-A01	Logical - AMP - Base	\$5,230.00
Services	1	PSVC-VLBB-00-A01	Logical - VxBlock 1000 Base	\$12,820.00
Services	1	PSVC-VLBR-00-A01	Logical - VxBlock 1000 Rack Add-On	\$7,910.00

**WV ERP VMware SRM and Training**

Software	2	YMVGBVCT00016724	VMware Site Recovery Manager 8 Enterprise (25 VM Pack)	\$21,330.34
Maintenance - Software	2	YSVGBVCT00016745	Production Support/Subscription for VMware Site Recovery Manager 8 Enterprise (25 VM Pack) for 3 years - 60.00 MNTHS	\$18,491.36
Training	3	YME0000I00144124	UNITY training class 1 person	\$11,693.22
Training	3	YME0000I00198462	VxBlock Admin ValuePak 1 person	\$14,616.54

<b>Hardware:</b>	\$723,931.71
<b>Software:</b>	\$164,105.91
<b>Maintenance:</b>	\$316,979.54
<b>Managed Services:</b>	\$0.00
<b>Services:</b>	\$127,828.00
<b>Training:</b>	\$26,309.76
<b>Web Services:</b>	\$0.00
<b>Total Investment:</b>	<b>\$1,359,154.92</b>

Acceptance of this quote authorizes Ahead to invoice the party indicated herein ("Customer"). Any Services covered by an Ahead Service Brief shall be invoiced in advance and in full, regardless of whether or not such Services have been completed. Ahead reserves the right to make partial shipments. Customer acknowledges that it has read the Terms and Conditions attached hereto which shall govern and apply, unless a previously executed agreement governing the sale of products exists between Ahead and Customer. The Special Additional Terms (the "SAT") contained in this quote (if any) shall supplement the attached Terms and Conditions or previously executed agreement (collectively, the "Agreements"), provided, however that in the event of any conflict or inconsistency between the SAT and any of the Agreements, the SAT shall take precedence, govern and control. Except as indicated otherwise, pricing does not include sales tax, VAT or shipping charges. All shipping charges shall be invoiced separately following delivery. Acceptance may be emailed to [accounting@thinkahead.com](mailto:accounting@thinkahead.com).

Authorized Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_



**ACCEPTANCE OF THE PRICE QUOTE IS MADE ONLY UPON THESE TERMS AND CONDITIONS.**

**1. AGREEMENT:** AHEAD DOES NOT ACCEPT AND EXPRESSLY OBJECTS TO ANY TERMS AND CONDITIONS OR OTHER WRITING ON ANY PURCHASE ORDER OR ACKNOWLEDGEMENT WHICH IS DIFFERENT FROM OR ADDITIONAL TO THOSE TERMS AND CONDITIONS CONTAINED HEREIN, EXPRESSLY INCLUDING, WITHOUT LIMITATION, ANY EFFORT TO NEGATE THE TERMS AND CONDITIONS SET FORTH HEREIN OR IN THE PRICE QUOTE. NO MODIFICATION OR WAIVER OF THESE TERMS WILL BE EFFECTIVE AGAINST AHEAD UNLESS SPECIFIED IN WRITING AND SIGNED BY AHEAD. THE RECEIPT OF THE PRICE QUOTE OR PAYMENT FOR THE PRODUCTS AND/OR SERVICES PROVIDED THEREUNDER SHALL CONSTITUTE CUSTOMER'S ACCEPTANCE OF THE TERMS HEREOF.

**2. PRICING:** Prices for any Products or Services (each as defined below) purchased will be those specified in the Price Quote and will be valid for 30 days therefrom unless otherwise stated therein. "Products" shall refer to those software and hardware goods that are listed in the Price Quote. "Services" are those services performed by Product manufacturers and/or Ahead (including its subcontractors) that are listed in the Price Quote. Unless otherwise stated in the Price Quote, prices do not include, and Customer is responsible for (i) all applicable federal, state or local sales, use or other taxes (except taxes on Ahead's net income), (ii) shipping or packing charges, (iii) insurance and (iv) any other expenses associated with the sale and transportation or storage of the Products or tariffs and any similar charges imposed upon or in connection with the Products. The parties agree that all charges included in the price of the Products and Services set forth in the Price Quote are based upon detailed specifications supplied by Customer and any deviation requested by the Customer from such specifications may result in additional charges.

**3. PAYMENT:** Unless otherwise specified in the Price Quote, payment for Products and Services is due net 15 days from the date of invoice. Ahead may require prepayment. Ahead may charge Customer interest on all amounts unpaid after 30 days from the date of the invoice at the annual rate of the lesser of (i) 1.5% per month or (ii) the highest interest rate permitted by law. If any invoice is not paid when due, payment shall be considered late, and Ahead may, at any time, suspend delivery or other performance with respect to any Products without liability or penalty and take all other action permitted under the Uniform Commercial Code available to it.

**4. CANCELLATION:** Customer shall have no right to cancel an order once received by Ahead, including by reason of a failure or delay in delivery, to the extent that such delay is due to causes that are beyond Ahead's reasonable control (including, without limitation, failures or delays in performance which are due to strike, lockout, concerted act of workers or other industrial disturbance, fire, explosion, flood, or other natural catastrophe, civil disturbance, riot, act of war or terrorism, or armed conflict, whether declared or undeclared, curtailment, shortage, rationing or allocation of normal sources of supply of labor, materials, transportation, energy, or utilities, mechanical breakdown, equipment failure, accident, Act of God, delay of subcontractors or vendors, sufferance of or voluntary compliance with acts of government or government regulations (whether valid or not), embargo, or due to any other cause), subject to any provisions of Customer's local law to the contrary.

**5. ACCEPTANCE.** These Terms and Conditions are binding only after acceptance by an authorized officer of Ahead. Use by Ahead of any payments made by Customer prior to shipment shall not constitute acceptance by Ahead. Notwithstanding the foregoing, Ahead shall be entitled to revoke its acceptance hereof without any liability whatsoever to Customer if, at any time prior to the shipment of the Products covered hereby if Ahead becomes aware of a change in the financial position of Customer which would, in Ahead's opinion, affect Customer's ability to perform its obligations hereunder or if the applicable Product manufacturer declines to sell Product to Customer, for any reason whatsoever. In such instance, Seller's sole obligation in such event shall be to return to Customer any down payment which Seller is holding hereunder.

**6. DELIVERY; TITLE AND RISK OF LOSS:** Unless otherwise specified in the Price Quote title to, and all risk of loss of or damage to, all Products will pass to Customer upon delivery to the carrier at the loading dock of the Ahead (or third-party Product manufacturer's) facility. Ahead agrees to insure the shipment, provided, however, Customer will be responsible for any claims against the carrier relating to shipment which are not covered by insurance. Customer is responsible for all shipping and handling charges including inspection fees, assessments, import duties, V.A.T. and similar taxes. Such costs will be prepaid by Ahead and added to Customer's invoice except for import duties and taxes which will be paid directly by the Customer. Ahead reserves, and Customer hereby grants to Ahead, a purchase money security interest in the Products, and all proceeds from the sale thereof, until full payment is received for all amounts due and payable by Customer.

**7. SHORTAGE CLAIMS AND INSPECTION:** Customer shall have the right to inspect the Products within 48 hours of receipt. Any shortages or other claims in connection with an order must be made in writing and delivered to Ahead within such 48-hour period or shall be waived.

**8. RETURNS:** Customer acknowledges that Ahead shall have no obligation to accept returns of any Products or Services ordered by and sold to Customer. Ahead, at its sole discretion, may authorize the return of unused Products or Services. Such returns cannot be made without a return authorization in writing issued by Ahead. All pre-paid Services expire 18 months from the order date and are non-refundable.

**9. CONFIDENTIALITY:** In consideration of Ahead selling the Products and/or Services, Customer shall keep confidential and not disclose to any persons or use any confidential and/or proprietary knowledge, information or materials, relating to Ahead's business, including, without limitation, customer names, customer supplied information, pricing, quantities, business and marketing plans and strategy, processes and trade secrets for so long as permitted by applicable law. Additionally, the use of Ahead's name or logo or other proprietary marks or those of Product manufacturers or other Ahead suppliers in any advertisement or other publication by Customer must be preapproved in writing by Ahead.

**10. WARRANTIES AND REMEDIES:** All Products, and the components and materials utilized in any assembled or customized Products, are covered by, and subject to, the terms, conditions, and limitations of the manufacturer's standard warranty, which warranty is expressly in lieu of any other warranty, express or implied, of or by Ahead or the applicable Product manufacturer. Ahead represents, warrants and covenants that (i) Ahead shall perform all Services, if any, in accordance with the material specifications set forth in the Price Quote and (ii) the functions and features of the Services and related deliverables shall operate in the manner described in the applicable Price Quote for ninety (90) days from the completion thereof. Customer's exclusive remedy, if any, under these warranties is limited, at Ahead's election, to any one of (a) refund of Customer's purchase price, (b) repair by Ahead or the manufacturer of any Products found to be defective, or (c) replacement of any such Product.

Notwithstanding anything contained herein to the contrary, to the extent a manufacturer requires Products to be installed by Ahead or such manufacturer in order for a warranty to be valid, neither Ahead nor the Product manufacturer shall provide a warranty for any Products which are not installed, as applicable, by Ahead or the Product manufacturer. EXCEPT AS SET FORTH HEREIN, AHEAD MAKES NO OTHER WARRANTIES, WRITTEN OR ORAL. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE HEREBY SPECIFICALLY DISCLAIMED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT, AND ANY WARRANTY ARISING BY STATUTE, OPERATION OF LAW, COURSE OF DEALING OR PERFORMANCE, OR USAGE OF TRADE. Customer acknowledges that it does not rely on, and waives any claim for breach of, any representations and warranties which are not confirmed in writing by Ahead. Ahead shall, after Products are tendered to Customer, have no liability in respect of any changes in quality of the Products arising from storage or transportation of the Products or from willful damages, negligence, abnormal working conditions, misuse or alteration of the Products.

**11. LIMITATION OF LIABILITY:** The total liability of Ahead (beyond any express warranty obligation) to Customer from any cause whatsoever, whether arising under contract, warranty, tort (including negligence), strict liability, products liability or any other theory of liability will be limited to the lesser of (i) Customer's actual damages or (ii) the purchase price paid to Ahead for the Product(s) or Service(s) that is the subject of Customer's claim. Except for the warranty coverage referenced in paragraph 10, above, AHEAD SHALL NOT HAVE ANY LIABILITY OR OBLIGATION TO CUSTOMER OR ANY OTHER PERSON FOR ANY CLAIM, LOSS, DAMAGE, OR EXPENSE CAUSED IN WHOLE OR IN PART, DIRECTLY OR INDIRECTLY, BY THE INADEQUACY OF ANY PRODUCTS OR SERVICES FOR ANY PURPOSE, BY ANY DEFICIENCY OR DEFECT IN ANY PRODUCT OR SERVICE (WHETHER OR NOT COVERED BY ANY WARRANTY), BY THE USE OR PERFORMANCE OF ANY PRODUCTS OR SERVICES OR BY ANY FAILURE OR DELAY IN AHEAD'S PERFORMANCE HEREUNDER, OR FOR ANY SPECIAL, DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE DAMAGES, HOWEVER CAUSED, INCLUDING, WITHOUT LIMITATION, PERSONAL INJURY OR LOSS OF BUSINESS OR PROFIT, WHETHER OR NOT CUSTOMER WILL HAVE INFORMED AHEAD OF THE POSSIBILITY OR LIKELIHOOD OF ANY SUCH DAMAGES. All claims hereunder against AHEAD must be brought within 12 months after the cause of action arises and Customer expressly agrees to this 12-month period and waives any other statute of limitations which might apply by operation of law or otherwise including under the Uniform Commercial Code.

**12. EXPORT RESTRICTIONS:** Products may be subject to export or resale restriction or regulation, and Customer acknowledges that it will comply with such restrictions and regulations. Any statement as to product country of origin, Export Control Classification Number, or compliance with applicable law (including, without limitation, that products are lead-free or RoHS compliant) is as provided to Ahead by its suppliers, and Ahead does not warrant its accuracy and will not be liable for any error with regard to same.

**13. INTELLECTUAL PROPERTY:** Any software or other intellectual property included in or relating to Products is supplied by its manufacturer or licensor. Ahead makes no representation or warranty with respect thereto and will have no liability in connection therewith. Customer agrees to comply with all requirements with regard to proprietary and similar rights in and to any intellectual property (including any requirement to enter into a separate license agreement and prohibitions against duplicating or disclosing the same), even if Ahead has broken the seal on any "shrink wrapped" software. If Customer provides Ahead with any intellectual property, Customer warrants that it has all necessary legal rights to such property.

**14. THIRD PARTY SOFTWARE AND INTELLECTUAL PROPERTY LICENSING.** Except for certain Products manufactured and/or supplied by EMC Corporation, which shall be subject to and governed by the sublicensing terms which will be provided upon request, any Software or other intellectual property included in or relating to Products and/or Services is supplied by its manufacturer or licensor (not Ahead). Ahead makes no representation or warranty with respect thereto and will have no liability in connection therewith. Customer agrees to comply with all third party requirements with regard to proprietary and similar rights in and to any intellectual property (including any requirement to enter into a separate license agreement and prohibitions against duplicating or disclosing the same), even if Ahead has broken the seal on any "shrink wrapped" Software. If Customer provides Ahead with any intellectual property, Customer warrants that it has all necessary legal rights to such property. Customer will indemnify Ahead against and hold it harmless from any and all liability, cost or expense arising from a breach or purported breach of this section.

**15. GOVERNING LAW AND CONSENT TO JURISDICTION:** The Price Quote and these Terms and Conditions shall be governed by and construed in accordance with the laws of the State of Illinois. Any court action which may be brought by any party pertaining to the Price Quote or these Terms and Conditions shall be brought in federal or state courts having situs in the Northern District of Illinois. The parties consent to personal jurisdiction and venue by state and federal courts in Illinois for any action pertaining to the Price Quote and these Terms and Conditions by personal service of process within or without the State of Illinois. Ahead and Customer agree that the United Nations Convention on International Sale of Goods shall have no force or effect on transactions relating to the Price Quote or these Terms and Conditions.

**16. INDEPENDENT CONTRACTORS:** Nothing contained in the Price Quote or these Terms and Conditions shall be construed as creating a partnership or joint venture between Ahead and Customer, and Customer shall at all times be deemed to be an independent contractor, solely responsible for the manner by and the form in which it fulfills the Price Quote.

**17. ASSIGNMENT:** This agreement may not be transferred or assigned in whole or in part by Customer without the prior written consent of Ahead. Such consent shall not relieve Customer of its obligations and liabilities hereunder.

**18. MISCELLANEOUS PROVISIONS:** This instrument, together with the Price Quote and all schedules, attachments and documents incorporated herein and therein, shall constitute the entire agreement between the parties. The failure of either party at any time to require performance by the other party of any provision of this agreement shall in no way affect the right to require such performance at any time thereafter, nor shall the waiver of either party of a breach of any provision of this agreement constitute a waiver of any succeeding breach of the same or other provision.

**19. SEVERABILITY:** The invalidity or unenforceability of any provision contained herein shall not affect the validity or enforceability of any other provision hereof. Any invalid or unenforceable provision shall be deemed severed from the Price Quote and these Terms and Conditions to the extent of its invalidity or unenforceability, and the Price Quote and these Terms and Conditions shall be construed and enforced as if such documents did not contain that particular provision to the extent of its invalidity or unenforceability.

**20. LITIGATION COSTS.** Customer shall be obligated to pay to Ahead all of Ahead's costs and expenses, without any offset, including, but not limited to all attorneys' fees and court costs incurred by Ahead in enforcing these Terms and Conditions. This obligation includes the payment of such amounts paid by Ahead prior to the filing of any action, as well as when an action is filed, and includes the case where an action which is filed and is then dismissed.



**AHEAD LLC**  
401 Michigan Avenue  
Suite 3400  
Chicago, IL 60611

**Ahead Client Director:**  
Matt Athey  
614-354-5892  
matt.athey@thinkahead.com

**Ahead Quote Number**  
AHD201972194 - 3  
**Reference Number:**  
P1168691 DR VxBlock  
**Quote Date:**  
8/28/2019  
**Expiration Date:**  
9/27/2019

**Shipping Address:**  
State of West Virginia - Enterprise Resource Planning (ERP) Board

Melissa Pettrey  
837 Chestnut Ridge Road  
Morgantown 26505

**Billing Address:**  
State of West Virginia - Enterprise Resource Planning (ERP) Board  
1007 Bullitt Street, Suite 400  
Charleston WV 25301

**Client Operations Specialist**  
Jennifer Eveslage  
  
513-457-7855  
jennifer.eveslage@thinkahead.com

**MPA:**  
Standard Terms  
**Payment Terms:**  
Net 30

**Logistics Coordinator:**  
Matt Arflin  
(312) 496-7991  
matt.arflin@thinkahead.com

WV_ERP - Vblock - Morgantown			
QTY	Part Number	Description	Extended Price
<b>WV ERP DR Professional Services</b>			<b>\$70,600.00</b>
Services	1	ACD-AHS-CLD-VBLK3B	VCE VxBlock 1000 Series Deployment
			\$70,600.00
<b>WV ERP DR VxBlock</b>			<b>\$1,040,439.28</b>
Hardware	2	AGGE-3110-00-A01	31108TC-V,48x10G,6x100G or 40G QSFP+,PSE
Hardware	2	AGGE-9336-00-A01	Nexus 9300 Series, 36p 40/100G QSFP28
Hardware	6	AGGE-SFPP-00-A02	Ethernet Aggregation SFP+
Hardware	4	AGGE-SRAM-00-A01	40GBASE-SR4 QSFP XCVR Mod w/MPO conn
Hardware	3	BSGL-0575-EX-H01	B200M5 6240 18C/384G(12x32G)1340,645D,T1
Hardware	2	BSGL-0587-EX-B01	B200M5 5222 4C/384G(12x32G)1340,645D,T1
Hardware	2	COMP-6454-00-A02	UCS Fabric Interconnect 6454
Hardware	2	COMP-CHS3-00-B01	Single 5108 w/Updated backplane, 2208
Hardware	3	MGMT-L4ST-00-A01	HiAv C220M5SX 4114/192GB,1457,2x645D,TPM
Hardware	2	SFPS-FISN-00-C02	FI to SAN 32G - QTY 4 SFP
Hardware	8	YMC00N2000011294	40GBASE-SR4 QSFP Transceiver Module with MPO Connector
Hardware	1	STOR-3501-00-A02	AMP Hi Avail Shared Storage-HW
Hardware	1	D44PC10ITAF	UNITY 2X4 PORT CARD 10GBE OPT AF
Hardware	1	D4SL16C25FAF	UNITY 880F DPE 25 X 2.5 DELL FLD RCK
Hardware	47	D4F-25FXL2-3840	D4F 3.84TB ALL FLASH 25X2.5 SSD
Hardware	1	D4DPEKITAF	UNITY DPE INSTALL KIT AF
Hardware	1	D4SL10ICUAF	UNITY 2X4 PORT IO 10GBASET AF
Hardware	1	D4SL16FAF	UNITY 2X4 PORT IO 16GB FC AF
Hardware	1	D4122FAF	UNITY 2U 25X2.5 DAE FLD RCK AF
Hardware	2	YME0000E00011320	Qty 2 9216 9120 9124 9140 Power Cord US
Hardware	2	YME0000E00192932	MDS-9148T Switch w/24 32G SFPs PSE
Hardware	48	YME0000E00195807	MDS 32G Switch SW Optics SFP+
Hardware	8	CABL-CHFI-00-A01	Chassis IOM to FI 4 Links AOC Cables
Hardware	2	CABL-FILN-00-A01	FI to LAN 2x100G links AOC Cable
Hardware	2	CABL-FISN-00-A01	FI to SAN 4x16G links LC Cables
Hardware	9	INFR-CABL-00-A02	VCE Infrastructure Cable Assembly-A
Hardware	1	INFR-POW2-00-A01	Generic SMART POU
Hardware	1	PROD-0122-00-A01	VCE™ VxBlock 1000 w/Unity 650F
Hardware	1	PROD-0137-00-A01	VCE™ VxBlock 1000
Hardware	1	PROD-0143-00-A01	Dell EMC VxBlock w/ AMP 3S
Hardware	1	PROD-0144-00-A01	Dell EMC VxBlock 1000 w/ AMP 3S
Hardware	1	CBNT-Q215-00-B02	IPI Compute Cabinet, 700mm x 1200mm (CRS)
Hardware	2	INFR-Q224-00-A01	Door Handle, IPI, HID Card Reader
Hardware	1	INFR-Q285-00-C01	Front Door Brand,IPI/DPI,VxBLOCK,LED,BLK
Hardware	2	INFR-Q287-00-A01	Side Panel,IPI/DPI,Front,VxBLOCK,BLK
Hardware	2	INFR-Q289-00-A01	Side Panel,IPI/DPI,Rear,Blank,BLK
Software	2	SFTW-3000-00-B01	Nexus 3000 LAN Enterprise License (=)
Software	2	SFTW-3DCN-00-B01	DCNM for LAN Advanced Edt. for N3K (=)
Software	2	YMC00NEX00934519	DCNM for LAN Advanced Edt. for Nexus 9300 switches
Software	1	SFTW-3501-00-A01	AMP Hi Avail Shared Storage-UNITY BaseSW
Software	1	SFTW-3502-00-A02	AMP Hi Avail Shared Storage-APPSYNC SW
Software	1	SFTW-3505-00-A01	AMP Hi Avail Shared Storage-RP Basic
Software	1	SFTW-3506-00-A02	AMP Hi Avail Shared Storage-M&R SW
Software	1	SFTW-ENIA-00-A01	Dell EMC ESR5 ENABLER=IA
Software	5	SFTW-PPBL-00-A04	POWERPATH BLADE LICENSE POWERPATH/VE HOST LICENSES, VMWARE
Software	10	SFTW-PPSK-00-B04	POWERPATH CPU SOCKET LICENSE (8+)
Software	1	SFTW-PPVE-00-A01	POWERPATH Virtual Edition
Software	1	458-002-525	UNITY AFA BASE SOFTWARE+ D@RE=IC
Software	1	458-001-737	APPSYNC BSC FOR UNITY 600F/650F/880F=IC
Software	1	458-002-627	SRM FOR UNITY 880F=IC
Software	1	458-001-585	RP BASIC FOR UNITY380F/480F/680F/880F=IC
Software	2	YME0000E00129234	DCNM SAN Lic MDS 9100 Server based=MA
Software	16	VIRT-ESX_US-C02	Vmware vSphere Enterprise Plus (1 CPU)
Software	1	VIRT-VCNT-US-C02	Vmware vCenter Server Standard
Software	5	SSUU-0097-00-A01	VxBlock Central BASE SM SNS ANL
Software	1	VSFT-0058-00-A01	VxBlock Central BASE SM SYS LIC
Software	2	SFTW-WS12-00-A01	Microsoft Windows Server Std 2012 R2, Supports 2 VM's
Maintenance - Hardware	25	SUCH-2M5U-00-A01	Sgl Bld ETS 24X7X4OS B200 M5 - 60.00 MNTHS
Maintenance - Hardware	15	SUCH-2M5X-00-A01	Sgl Bld ETS 24X7X4OS C220 M5 20 SFF - 60.00 MNTHS
Maintenance - Hardware	10	SUCH-3110-00-A01	ETS 24x7x4OS Nexus 31108TC-V with 48 port - 60.00 MNTHS
Maintenance - Hardware	10	SUCP-CHSX-00-A02	Annual Support Compute Base: ETS ONSITE 24x7x4 UCS 5108 AC Chassis w/Updated backplane - 60.00 MNTHS
Maintenance - Hardware	10	SUPH-9336-00-A01	SNT24X7X4OS Nexus9300 36p 40/100G QSFP28 - 60.00 MNTHS
Maintenance - Hardware	10	YHC00DON01674276	ETSP 24X7X4OS UCS Fabric Interconnect 6454 - 60.00 MNTHS
Maintenance - Software	10	YHC00SWS01567804	SWSS UPGRADES DCNM for LAN Advanced Edt. for Nexus 9300 swit - 60.00 MNTHS
Maintenance - Software	10	YHC00SWS01568686	SWSS UPGRADES DCNM for LAN Advanced Edt. for Nexus 3000 - 60.00 MNTHS
Maintenance - Hardware	5	SUPH-3501-00-A02	AMP Hi Avail Shared Storage-HW Support - 60.00 MNTHS
Maintenance - Software	5	SUPS-3501-00-A01	AMP Hi Avail Shared Storage-UNITY SW Sup - 60.00 MNTHS
Maintenance - Software	5	SUPS-3502-00-A02	AMP Hi Avail Shared Storage-APPSYNC SWsp - 60.00 MNTHS

Maintenance - Software	5	SUPS-3505-00-A01	AMP Hi Avail Shared Storage-RP Basic Sup - 60.00 MNTHS	\$0.00
Maintenance - Software	5	SUPS-3506-00-A02	AMP Hi Avail Shared Storage-M&R SW Sup - 60.00 MNTHS	\$0.00
Maintenance - Software	50	SUPS-PPTH-00-B04	POWERPATH ANNUAL MAINTENANCE PER CPU (8+) - 60.00 MNTHS	\$6,245.00
Maintenance - Hardware	10	YHE0000E00192933	MDS-9148T Switch w/24 32G SFPs PSE After Warranty Annual Premium Maintenance - 60.00 MNTHS	\$4,930.20
Maintenance - Hardware	1	M-PSM-HWE-005	PROSUPPORT 4HR/MC HARDWARE SUPPORT - 60.00 MNTHS	\$78,867.41
Maintenance - Software	1	M-PSM-SWE-005	PROSUPPORT 4HR/MC SOFTWARE SUPPORT - 60.00 MNTHS	\$0.00
Maintenance - Software	1	M-PSM-SWE-005	PROSUPPORT 4HR/MC SOFTWARE SUPPORT - 60.00 MNTHS	\$0.00
Maintenance - Software	1	M-PSM-SWE-005	PROSUPPORT 4HR/MC SOFTWARE SUPPORT - 60.00 MNTHS	\$8,344.33
Maintenance - Software	1	M-PSM-SWE-005	PROSUPPORT 4HR/MC SOFTWARE SUPPORT - 60.00 MNTHS	\$0.00
Maintenance - Software	10	YSE0000E00129235	DCNM SAN Lic MDS 9100 Server based=MA Annual Premium Maintenance - 60.00 MNTHS	\$6,023.20
Maintenance - Hardware	2	YUE0000E00192934	MDS-9148T Switch w/24 32G SFPs PSE Premium Warranty Upgrade - 60.00 MNTHS	\$822.82
Maintenance - Software	48	SUPS-ESX_-US-C04	VCE vSphere EntPlus (1CPU), Server Standard Annual Support - 60.00 MNTHS	\$40,522.08
Maintenance - Software	3	SUPS-VCNT-US-C04	Prod Supp/Sub for vCenter Svr Std - 60.00 MNTHS	\$4,474.08
Maintenance - Hardware	1	SYSS-VBIS-00-A01	VxBlock Integrated Support - 60.00 MNTHS	\$27,055.39
Services	1	PSEM-ESRS-00-A02	ESRS Zero Dollar Install	\$0.00
Services	1	YME000F100042331	ZERO DOLLAR ESRS INSTALL	\$0.00
Services	1	MNFG-CABA-00-A01	Manufacturing & Factory Assembly Service	\$10,498.00
Services	1	PSVC-VAIA-00-A01	Logical – AMP – Add-On	\$770.00
Services	1	PSVC-VAIS-00-A01	Logical – AMP – Base	\$5,230.00
Services	1	PSVC-VLBB-00-A01	Logical – VxBlock 1000 Base	\$12,820.00
Services	1	PSVC-VLBR-00-A01	Logical – VxBlock 1000 Rack Add-On	\$7,910.00

<b>Hardware:</b>	\$635,994.35
<b>Software:</b>	\$110,800.57
<b>Maintenance:</b>	\$256,416.36
<b>Managed Services:</b>	\$0.00
<b>Services:</b>	\$107,828.00
<b>Training:</b>	\$0.00
<b>Web Services:</b>	\$0.00
<b>Total Investment:</b>	<b><u>\$1,111,039.28</u></b>

Acceptance of this quote authorizes Ahead to invoice the party indicated herein ("Customer"). Any Services covered by an Ahead Service Brief shall be invoiced in advance and in full, regardless of whether or not such Services have been completed. Ahead reserves the right to make partial shipments. Customer acknowledges that it has read the Terms and Conditions attached hereto which shall govern and apply, unless a previously executed agreement governing the sale of products exists between Ahead and Customer. The Special Additional Terms (the "SAT") contained in this quote (if any) shall supplement the attached Terms and Conditions or previously executed agreement (collectively, the "Agreements"), provided, however that in the event of any conflict or inconsistency between the SAT and any of the Agreements, the SAT shall take precedence, govern and control. Except as indicated otherwise, pricing does not include sales tax, VAT or shipping charges. All shipping charges shall be invoiced separately following delivery. Acceptance may be emailed to [accounting@thinkahead.com](mailto:accounting@thinkahead.com).

Authorized Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_





**ACCEPTANCE OF THE PRICE QUOTE IS MADE ONLY UPON THESE TERMS AND CONDITIONS.**

**1. AGREEMENT:** AHEAD DOES NOT ACCEPT AND EXPRESSLY OBJECTS TO ANY TERMS AND CONDITIONS OR OTHER WRITING ON ANY PURCHASE ORDER OR ACKNOWLEDGEMENT WHICH IS DIFFERENT FROM OR ADDITIONAL TO THOSE TERMS AND CONDITIONS CONTAINED HEREIN, EXPRESSLY INCLUDING, WITHOUT LIMITATION, ANY EFFORT TO NEGATE THE TERMS AND CONDITIONS SET FORTH HEREIN OR IN THE PRICE QUOTE. NO MODIFICATION OR WAIVER OF THESE TERMS WILL BE EFFECTIVE AGAINST AHEAD UNLESS SPECIFIED IN WRITING AND SIGNED BY AHEAD. THE RECEIPT OF THE PRICE QUOTE OR PAYMENT FOR THE PRODUCTS AND/OR SERVICES PROVIDED THEREUNDER SHALL CONSTITUTE CUSTOMER'S ACCEPTANCE OF THE TERMS HEREOF.

**2. PRICING:** Prices for any Products or Services (each as defined below) purchased will be those specified in the Price Quote and will be valid for 30 days therefrom unless otherwise stated therein. "Products" shall refer to those software and hardware goods that are listed in the Price Quote. "Services" are those services performed by Product manufacturers and/or Ahead (including its subcontractors) that are listed in the Price Quote. Unless otherwise stated in the Price Quote, prices do not include, and Customer is responsible for (i) all applicable federal, state or local sales, use or other taxes (except taxes on Ahead's net income), (ii) shipping or packing charges, (iii) insurance and (iv) any other expenses associated with the sale and transportation or storage of the Products or tariffs and any similar charges imposed upon or in connection with the Products. The parties agree that all charges included in the price of the Products and Services set forth in the Price Quote are based upon detailed specifications supplied by Customer and any deviation requested by the Customer from such specifications may result in additional charges.

**3. PAYMENT:** Unless otherwise specified in the Price Quote, payment for Products and Services is due net 15 days from the date of invoice. Ahead may require prepayment. Ahead may charge Customer interest on all amounts unpaid after 30 days from the date of the invoice at the annual rate of the lesser of (i) 1.5% per month or (ii) the highest interest rate permitted by law. If any invoice is not paid when due, payment shall be considered late, and Ahead may, at any time, suspend delivery or other performance with respect to any Products without liability or penalty and take all other action permitted under the Uniform Commercial Code available to it.

**4. CANCELLATION:** Customer shall have no right to cancel an order once received by Ahead, including by reason of a failure or delay in delivery, to the extent that such delay is due to causes that are beyond Ahead's reasonable control (including, without limitation, failures or delays in performance which are due to strike, lockout, concerted act of workers or other industrial disturbance, fire, explosion, flood, or other natural catastrophe, civil disturbance, riot, act of war or terrorism, or armed conflict, whether declared or undeclared, curtailment, shortage, rationing or allocation of normal sources of supply of labor, materials, transportation, energy, or utilities, mechanical breakdown, equipment failure, accident, Act of God, delay of subcontractors or vendors, sufferance of or voluntary compliance with acts of government or government regulations (whether valid or not), embargo, or due to any other cause), subject to any provisions of Customer's local law to the contrary.

**5. ACCEPTANCE.** These Terms and Conditions are binding only after acceptance by an authorized officer of Ahead. Use by Ahead of any payments made by Customer prior to shipment shall not constitute acceptance by Ahead. Notwithstanding the foregoing, Ahead shall be entitled to revoke its acceptance hereof without any liability whatsoever to Customer if, at any time prior to the shipment of the Products covered hereby if Ahead becomes aware of a change in the financial position of Customer which would, in Ahead's opinion, affect Customer's ability to perform its obligations hereunder or if the applicable Product manufacturer declines to sell Product to Customer, for any reason whatsoever. In such instance, Seller's sole obligation in such event shall be to return to Customer any down payment which Seller is holding hereunder.

**6. DELIVERY; TITLE AND RISK OF LOSS:** Unless otherwise specified in the Price Quote title to, and all risk of loss of or damage to, all Products will pass to Customer upon delivery to the carrier at the loading dock of the Ahead (or third-party Product manufacturer's) facility. Ahead agrees to insure the shipment, provided, however, Customer will be responsible for any claims against the carrier relating to shipment which are not covered by insurance. Customer is responsible for all shipping and handling charges including inspection fees, assessments, import duties, V.A.T. and similar taxes. Such costs will be prepaid by Ahead and added to Customer's invoice except for import duties and taxes which will be paid directly by the Customer. Ahead reserves, and Customer hereby grants to Ahead, a purchase money security interest in the Products, and all proceeds from the sale thereof, until full payment is received for all amounts due and payable by Customer.

**7. SHORTAGE CLAIMS AND INSPECTION:** Customer shall have the right to inspect the Products within 48 hours of receipt. Any shortages or other claims in connection with an order must be made in writing and delivered to Ahead within such 48-hour period or shall be waived.

**8. RETURNS:** Customer acknowledges that Ahead shall have no obligation to accept returns of any Products or Services ordered by and sold to Customer. Ahead, at its sole discretion, may authorize the return of unused Products or Services. Such returns cannot be made without a return authorization in writing issued by Ahead. All pre-paid Services expire 18 months from the order date and are non-refundable.

**9. CONFIDENTIALITY:** In consideration of Ahead selling the Products and/or Services, Customer shall keep confidential and not disclose to any persons or use any confidential and/or proprietary knowledge, information or materials, relating to Ahead's business, including, without limitation, customer names, customer supplied information, pricing, quantities, business and marketing plans and strategy, processes and trade secrets for so long as permitted by applicable law. Additionally, the use of Ahead's name or logo or other proprietary marks or those of Product manufacturers or other Ahead suppliers in any advertisement or other publication by Customer must be preapproved in writing by Ahead.

**10. WARRANTIES AND REMEDIES:** All Products, and the components and materials utilized in any assembled or customized Products, are covered by, and subject to, the terms, conditions, and limitations of the manufacturer's standard warranty, which warranty is expressly in lieu of any other warranty, express or implied, of or by Ahead or the applicable Product manufacturer. Ahead represents, warrants and covenants that (i) Ahead shall perform all Services, if any, in accordance with the material specifications set forth in the Price Quote and (ii) the functions and features of the Services and related deliverables shall operate in the manner described in the applicable Price Quote for ninety (90) days from the completion thereof. Customer's exclusive remedy, if any, under these warranties is limited, at Ahead's election, to any one of (a) refund of Customer's purchase price, (b) repair by Ahead or the manufacturer of any Products found to be defective, or (c) replacement of any such Product.

Notwithstanding anything contained herein to the contrary, to the extent a manufacturer requires Products to be installed by Ahead or such manufacturer in order for a warranty to be valid, neither Ahead nor the Product manufacturer shall provide a warranty for any Products which are not installed, as applicable, by Ahead or the Product manufacturer. EXCEPT AS SET FORTH HEREIN, AHEAD MAKES NO OTHER WARRANTIES, WRITTEN OR ORAL. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE HEREBY SPECIFICALLY DISCLAIMED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT, AND ANY WARRANTY ARISING BY STATUTE, OPERATION OF LAW, COURSE OF DEALING OR PERFORMANCE, OR USAGE OF TRADE. Customer acknowledges that it does not rely on, and waives any claim for breach of, any representations and warranties which are not confirmed in writing by Ahead. Ahead shall, after Products are tendered to Customer, have no liability in respect of any changes in quality of the Products arising from storage or transportation of the Products or from willful damages, negligence, abnormal working conditions, misuse or alteration of the Products.

**11. LIMITATION OF LIABILITY:** The total liability of Ahead (beyond any express warranty obligation) to Customer from any cause whatsoever, whether arising under contract, warranty, tort (including negligence), strict liability, products liability or any other theory of liability will be limited to the lesser of (i) Customer's actual damages or (ii) the purchase price paid to Ahead for the Product(s) or Service(s) that is the subject of Customer's claim. Except for the warranty coverage referenced in paragraph 10, above, AHEAD SHALL NOT HAVE ANY LIABILITY OR OBLIGATION TO CUSTOMER OR ANY OTHER PERSON FOR ANY CLAIM, LOSS, DAMAGE, OR EXPENSE CAUSED IN WHOLE OR IN PART, DIRECTLY OR INDIRECTLY, BY THE INADEQUACY OF ANY PRODUCTS OR SERVICES FOR ANY PURPOSE, BY ANY DEFICIENCY OR DEFECT IN ANY PRODUCT OR SERVICE (WHETHER OR NOT COVERED BY ANY WARRANTY), BY THE USE OR PERFORMANCE OF ANY PRODUCTS OR SERVICES OR BY ANY FAILURE OR DELAY IN AHEAD'S PERFORMANCE HEREUNDER, OR FOR ANY SPECIAL, DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE DAMAGES, HOWEVER CAUSED, INCLUDING, WITHOUT LIMITATION, PERSONAL INJURY OR LOSS OF BUSINESS OR PROFIT, WHETHER OR NOT CUSTOMER WILL HAVE INFORMED AHEAD OF THE POSSIBILITY OR LIKELIHOOD OF ANY SUCH DAMAGES. All claims hereunder against AHEAD must be brought within 12 months after the cause of action arises and Customer expressly agrees to this 12-month period and waives any other statute of limitations which might apply by operation of law or otherwise including under the Uniform Commercial Code.

**12. EXPORT RESTRICTIONS:** Products may be subject to export or resale restriction or regulation, and Customer acknowledges that it will comply with such restrictions and regulations. Any statement as to product country of origin, Export Control Classification Number, or compliance with applicable law (including, without limitation, that products are lead-free or RoHS compliant) is as provided to Ahead by its suppliers, and Ahead does not warrant its accuracy and will not be liable for any error with regard to same.

**13. INTELLECTUAL PROPERTY:** Any software or other intellectual property included in or relating to Products is supplied by its manufacturer or licensor. Ahead makes no representation or warranty with respect thereto and will have no liability in connection therewith. Customer agrees to comply with all requirements with regard to proprietary and similar rights in and to any intellectual property (including any requirement to enter into a separate license agreement and prohibitions against duplicating or disclosing the same), even if Ahead has broken the seal on any "shrink wrapped" software. If Customer provides Ahead with any intellectual property, Customer warrants that it has all necessary legal rights to such property.

**14. THIRD PARTY SOFTWARE AND INTELLECTUAL PROPERTY LICENSING.** Except for certain Products manufactured and/or supplied by EMC Corporation, which shall be subject to and governed by the sublicensing terms which will be provided upon request, any Software or other intellectual property included in or relating to Products and/or Services is supplied by its manufacturer or licensor (not Ahead). Ahead makes no representation or warranty with respect thereto and will have no liability in connection therewith. Customer agrees to comply with all third party requirements with regard to proprietary and similar rights in and to any intellectual property (including any requirement to enter into a separate license agreement and prohibitions against duplicating or disclosing the same), even if Ahead has broken the seal on any "shrink wrapped" Software. If Customer provides Ahead with any intellectual property, Customer warrants that it has all necessary legal rights to such property. Customer will indemnify Ahead against and hold it harmless from any and all liability, cost or expense arising from a breach or purported breach of this section.

**15. GOVERNING LAW AND CONSENT TO JURISDICTION:** The Price Quote and these Terms and Conditions shall be governed by and construed in accordance with the laws of the State of Illinois. Any court action which may be brought by any party pertaining to the Price Quote or these Terms and Conditions shall be brought in federal or state courts having situs in the Northern District of Illinois. The parties consent to personal jurisdiction and venue by state and federal courts in Illinois for any action pertaining to the Price Quote and these Terms and Conditions by personal service of process within or without the State of Illinois. Ahead and Customer agree that the United Nations Convention on International Sale of Goods shall have no force or effect on transactions relating to the Price Quote or these Terms and Conditions.

**16. INDEPENDENT CONTRACTORS:** Nothing contained in the Price Quote or these Terms and Conditions shall be construed as creating a partnership or joint venture between Ahead and Customer, and Customer shall at all times be deemed to be an independent contractor, solely responsible for the manner by and the form in which it fulfills the Price Quote.

**17. ASSIGNMENT:** This agreement may not be transferred or assigned in whole or in part by Customer without the prior written consent of Ahead. Such consent shall not relieve Customer of its obligations and liabilities hereunder.

**18. MISCELLANEOUS PROVISIONS:** This instrument, together with the Price Quote and all schedules, attachments and documents incorporated herein and therein, shall constitute the entire agreement between the parties. The failure of either party at any time to require performance by the other party of any provision of this agreement shall in no way affect the right to require such performance at any time thereafter, nor shall the waiver of either party of a breach of any provision of this agreement constitute a waiver of any succeeding breach of the same or other provision.

**19. SEVERABILITY:** The invalidity or unenforceability of any provision contained herein shall not affect the validity or enforceability of any other provision hereof. Any invalid or unenforceable provision shall be deemed severed from the Price Quote and these Terms and Conditions to the extent of its invalidity or unenforceability, and the Price Quote and these Terms and Conditions shall be construed and enforced as if such documents did not contain that particular provision to the extent of its invalidity or unenforceability.

**20. LITIGATION COSTS.** Customer shall be obligated to pay to Ahead all of Ahead's costs and expenses, without any offset, including, but not limited to all attorneys' fees and court costs incurred by Ahead in enforcing these Terms and Conditions. This obligation includes the payment of such amounts paid by Ahead prior to the filing of any action, as well as when an action is filed, and includes the case where an action which is filed and is then dismissed.

STATE OF WEST VIRGINIA  
Purchasing Division  
**PURCHASING AFFIDAVIT**

**CONSTRUCTION CONTRACTS:** Under W. Va. Code § 5-22-1(f), 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: AHEAD, LLC

Authorized Signature: [Signature] Date: 15 Jul 2019

State of Illinois

County of Cook, to-wit

Taken, subscribed, and sworn to before me this 15 day of July, 2019.

My Commission expires November 1, 2021.

AFFIX SEAL HERE



NOTARY PUBLIC Alison Marie Kibbat  
Purchasing Affidavit (Revised 01/19/2018)