Department of Property & Procurement

Government of the United States Virgin Islands

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January 14, 2020

AMENDMENT #3 RFP-009-T-2020 (P) – Camera Installation – Territorial

Questions and Answers

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.

BIDDERS MUST ACKNOWLEDGE RECEIPT OF THIS AMENDMENT WITH THEIR BID PROPOSAL.

Questions and Answers:

The following are answers to the vendor's questions:

1. Who will perform the electrical power work?

WAPA is a stakeholder in this project. The request to install power for the cameras and associated devices must be made formally through WAPA. The vendor can coordinate with WAPA to file the request with the coordination of BIT.

2. Where the equipment will be connected and who will run the permits for these new facilities?

All forty (40) cameras are required to have a battery backup unit. The following are examples battery backup units that meet requirements:

1. Perpetual Power Unit (PPU-1-LC) – Large Case 18" x 18" x 18" - forty (40) units required

2. Perpetual Power Unit (PPU-POE) Power Over Ethernet

3. Enterprise PPU Server - one (1) server required

These PPUs are the interface between the cameras and the network. The majority of cameras and PPUs will be mounted on WAPA poles. There are no permits to consider.

3. If there is any contribution or connection payment to VIWAPA? Who will pay them?

The payment of the WAPA bills is not the responsibility of the vendor. The request to install power for the cameras and associated devices must be made formally through WAPA. The vendor can coordinate with WAPA to file the request with the coordination of BIT.

4. Do the points where the proposed cameras will be connected already have the authorization to install these equipment? Example in lighting posts, traffic lights and electric transmission?

There is authorization to install on WAPA poles. The request to install power for the cameras and associated devices must be made formally through WAPA. The vendor can coordinate with WAPA to file the request with the coordination of BIT.

5. Is there some distant point can we use an intermediate antenna for connection?

As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. There are multiple ways to connect the cameras and their associated devices.

6. Does the system will require repeating antennas?

As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. There are multiple ways to connect the cameras and their associated devices.

7. Does the department have available facilities for adding antennas in the proposed areas?

Available facilities are WAPA poles.

8. Can you indicate the points that we can use to install the repeaters?

As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. There are multiple ways to connect the cameras and their associated devices.

9. As for the cameras recommended are the desired resolution?

The camera resolutions are based on the cameras listed under "3.2 Cameras" in the RFP.

10. Do the system will require analytical video?

Yes. Under ""3.1 IPVS Design Objectives", Video Analytics is mentioned as a functional design consideration.

11. Is an USB Joystick required for handling cameras?

A joystick is typically required on PTZ cameras.

12. Who will perform the tree pruning?

Based on the camera locations listed in the RFP, there are no trees that require tree pruning.

13. Are you considering the tree pruning permit cost?

Based on the camera locations listed in the RFP, there are no trees that require tree pruning.

14. Are you considering the cost of landfill deposit?

Based on the camera locations listed in the RFP, there are no consideration for landfill deposit.

15. Do the existing facilities considered at each intersection to install the equipment include VIWAPA posts and traffic lights or we need install new Poles?

Based on the camera locations listed in the RFP, the installation of new poles is not being considered. VIWAPA posts/traffic light structures are the existing facilities being considered.

16. Is there permission to install the equipment on WAPA and traffic light posts?

Yes.

17. Could you give us the addresses of the centers where the monitors and servers will be installed?

This is listed under "3.7 Monitoring Stations" in the RFP.

18. Is there any permission to use the tower in Seidler DR HILL (STX), Little Prince Hill (STX), Mountain Hill (STT), Winberg State hill (STT) and Crown Mountain (STT)?

No. The sites that are mentioned are not owned assets of BIT.

19. Should any power line be installed from the power point to the camera equipment will be considered by us or these works be carried out by the VIWAPA company?

WAPA is a stakeholder in this project. The request to install power for the cameras and associated devices must be made formally through WAPA. The vendor can coordinate with WAPA to file the request with the coordination of BIT.

20. The following cameras location coordinates have errors; STX site # 17and Site # 20 both have the same coordinate, STT Smith Bay site # 22, STT use location # 33, STT Estate Thomas site # 24 and STT entrance to first Avenue site # 35.

The GPS coordinates are not the same. In STX, the sites indicated are relatively close. In STT, site #24 and site #35 are not close. Site visits are scheduled as indicated in Amendment #1 and will give vendors the opportunity to identify sites and locations firsthand.

21. Who will remove the existing CCTV equipment?

The vendor will remove the existing CCTV equipment.

The following are answers to the vendor's questions:

1. Page 1 - 1.0 Background

a. Do they have a definition of "HD" at the end of paragraph 2?

Yes. The definition of "HD" at the end of paragraph refers to "High Definition".

b. In paragraph 4 they mention the "both districts." We would like to understand how many physical data centers there will be in the solution and what data is expected to reside where and within what time frames.

Both districts refers to section "3.7 Monitoring Stations" in the RFP. These locations will house the CCTV (NVMS) system and serve as the monitoring stations.

2. Page 2 – 2.0 Scope of Work

a. Middle of last paragraph – What is meant by "… based on access policy within user profile configurations."? Is the customer expecting any kind of integration into Microsoft Active Directory for this access policy and user profiles?

This statement does not necessarily refer to any integration into the Microsoft Active Directory. It is referring to accessing data remotely or locally and having user access based on who is permitted to access the data. As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed.

b. Towards the end of the last paragraph – What is meant by "appropriate bandwidth?"

Under "3.2.5 Connectivity", it states that Bidders are required in their proposal to show the projected backhaul bandwidth capacity needed to support the camera network based on proposed remote viewing performance expectations.

3. Page 2 – 3.0 System Requirements

a. Bullet 1 – Does the customer have an idea of by how much the system needs to be designed to expand? perhaps a percentage?

Based on the NVMS that meets the requirements that is listed in the RFP under "3.3 Network Video Management System", it should be able to be expanded as stated in that section.

b. Bullet 6 – Same question as 1.b. above.

Same answer as above.

4. Page 3 – 3.1 IPVS

a. Paragraph 1 – Have you picked out what kind of lighting is preferred at each LPR capture zone; white light (visible) or IR light (invisible) for night reads? Also, will you be expecting color images produced at night or black-and-white images?

No. As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. The preferred color for images whether in the day or night is color.

5. Page 3 – 3.2 Cameras

a. Beginning of paragraph 1 – Can you Clarify the difference between "bright light" and "daylight" conditions?

Daylight refers to the light in the daytime. Bright light refers to bright light that can occur in the day due to the sun's direct bright light during the day. Example cameras that meet requirements are listed in the section "3.2 Cameras".

b. Middle of paragraph 1 – are you seeking cameras capable of facial recognition or software that processes the video streams from the cameras? Will this conflict at all with the LPR system design intent? NOTE: LPR cameras need to be dedicated to LPR only as they will need to be calibrated to the moving traffic.

The facial recognition camera listed in the RFP is in St. John. This is listed in Appendix A. LPR camera locations are listed in the RFP in Appendix A. LPR cameras should be dedicated to LPR. Fixed cameras will be placed at areas that were designated during the site visits for real time monitoring. For each section that mentions LPR cameras in Appendix A, there will be four (4) cameras. Two (2) that are fixed to capture real time traffic and two (2) that are dedicated to LPR, unless another view is requested.

The following list is taken from Appendix A and shows the direction of the traffic that the cameras should be capturing. The numbers refer to the locations in Appendix A:

ST. CROIX

1. EAST-WEST (2 cameras)

2. EAST-WEST (2 cameras)

3. EAST-WEST (2 cameras)

4. NORTH-SOUTH (2 cameras)

5. EAST-WEST - LPR (2 cameras)

6. EAST-WEST & NORTH (3 cameras)

7. NORTH-SOUTH (2 cameras)

8. EAST-WEST - LPR (4 cameras)

9. NORTH-SOUTH (2 cameras)

10. EAST-WEST - LPR (4 cameras)

11. EAST-WEST (2 cameras)

12. EAST-WEST (2 cameras)

13. EAST-WEST (2 cameras)

14. EAST-WEST (2 cameras)

15. EAST-WEST (2 cameras)

16. NORTH-SOUTH - LPR (4 cameras)

17. EAST-WEST (2 cameras)

18. EAST-WEST & NORTH - LPR (6 cameras) North requires an LPR and a fixed camera

19. View H & R WEST SUPERMARKET & VEGETABLE MARKET (2 cameras)

20. WEST & NORTH (2 cameras)

21. EAST-WEST (2 cameras)

ST. THOMAS

22. EAST-WEST (2 cameras)

23. EAST-WEST & SOUTH (3 cameras)

24. EAST-WEST - LPR (4 cameras)

25. NORTH-SOUTH (2 cameras)

26. NORTH-SOUTH & EAST-WEST (4 cameras)

27. EAST-WEST (2 cameras)

28. NORTH-SOUTH - LPR (4 cameras)

29. SOUTH (1 cameras)

30. EAST-WEST - LPR (4 cameras)

31. EAST-WEST - ADD LPR (4 cameras)

32. EAST-WEST (2 cameras)

33. EAST-WEST (2 cameras)

34. EAST-WEST (2 cameras)

35. NORTH (1 cameras)

36. EAST-WEST - LPR (4 cameras)

ST. JOHN

37. WEST - FRT (1 camera)

38. EAST-WEST - LPR (4 cameras)

39. NORTH-SOUTH (2 cameras)

40. EAST-WEST (2 cameras)

c. Please Note: Some "starlight" cameras can "see better at night" but in an LPR scenario, the shutter speeds of the cameras will need to be set manually and set high (depends on vehicle speed) and with faster shutter comes the need for more light in the environment.

Noted. As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed.

6. Page 3 – 3.2.2 Camera Functionality

i. Night lighting needs to be considered carefully because distance from camera to plate, traffic speed, amount of lighting needed, and other factors will drive whether the internal IR of the camera can produce the needed light or external lighting will be needed. The power infrastructure will need to be designed to handle the power draw.

ii. Please Note: 1993-1999 US Virgin Island plates have red lettering and may not show well in IR lighting at night. Testing will need to be done on actual "red letter" license plates to understand the IR reflectivity of the pigments and the construction of the license plates.

As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Be clear in articulating your approach and the reason behind your approach.

7. Page 4 – 3.2.3 Camera Specifications

a. Bullet 1 – There is a concern that the preferred "dome cameras" will not have long enough lenses to attain the required 120 pixels per foot (PPF) at the far end of the desired LPR capture zone.

The cameras listed under "3.2 Cameras" show an example of an LPR camera that is not a dome camera. As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Be clear in articulating your approach and the reason behind your approach.

b. Bullet 4 – Cameras will be required to stream H.264 with a 1920x1080 resolution and a 10K-12K bit rate. Does this raise network concerns?

Under "3.2.5 Connectivity", it states that Bidders are required in their proposal to show the projected backhaul bandwidth capacity needed to support the camera network based on proposed remote viewing performance expectations.

c. Bullet 7 – Frame rate is calculated based on maximum vehicle speed being considered. With faster vehicles, higher frame rate is required.

Noted. As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed.

d. Bullet 8 – Focal depth and lens length are determined per camera if a "bullet" camera or fitted separately if a "box" camera. The software requires 120 PPF at the far end of the LPR capture zone.

e. Bullet 9 – LPR cameras will most likely not have a 120 AoV because they will have to be zoomed in to the back of vehicles to get the required 120 PPF.

8. Page 5 – 3.2.4 Connectivity

a. Second paragraph – the LPR software requires a minimum of 120 PPF at the far end of the LPR capture zone.

9. Page 5 – 3.2.5

a. Paragraph 1 – How many physical data centers will there be and detail of what data is expected to reside where and within what time frames.

The districts in section "3.7 Monitoring Stations" in the RFP will house the CCTV (NVMS) system and serve as the monitoring stations.

b. Paragraph 2 – What are the expectations of "real time results"? Wireless is a concern regarding throughput and reliability in adverse conditions.

As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. The quality of the images captured by the cameras is expected to be of high quality.

10. Page 5 – 3.3 Network Video Management System

a. Paragraph 1 – Do we know what OS's there will be and if the MS OS's will have the "desktop experience" and be the English installed version?

As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. The OS should be based on the NVMS that meets requirements under 3.3 Network Video Management System. English is the language that should be installed and that is spoken in the United States Virgin Islands.

11. Page 7 – 3.3 Network Video Management System

a. Bullet 6 d. – What is the maximum vehicle speed to be designed for. Capturing plates on vehicle with a speed of 150 mph would require higher performance cameras, network infrastructure, and LPR processing servers.

Noted. As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. System should be able to capture a max speed of 150 mph. Setting the system initially for half that (75 mph), should be allowable.

12. Page 9 – License Plate Recognition

a. Please Note: The NVMS and the LPR system may not be installed on the same server.

Noted. As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed.

13. Appendix A – Camera and LPR Locations

a. A review of each intersection's desired LPR capture needs, number of cameras, and placement of each camera will need to be completed as the distance from camera to plate will give an understanding on the lens length and lighting needs for each LPR capture zone.

Noted. As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Site visits were performed on January 9, 2020 and January 10, 2020.

14. Contract for Professional Services – Page 4 – 15. Right to Withhold

a. Paragraph 1 – How and when will payment to subcontractors be delivered on a project this large?

The vendor is required to submit a Cost Proposal. The winning bidder signs a contract with the terms of payment. Paying subcontractors are the responsibility of the winning bidder.

b. Paragraph 2 – How and when will payment to subcontractors be delivered on a project this large?

The vendor is required to submit a Cost Proposal. The winning bidder signs a contract with the terms of payment. Paying subcontractors are the responsibility of the winning bidder.

15. we have personnel on St. Croix. - how do we schedule walk-throughs in the districts/intersections?

The proposed dates for the site visits would be Thursday; January 9, 2020 for St. Thomas/St. John and Friday; January 10, 2020 for St. Croix.

The start location for the St. Thomas/St. John site visits will be at the Bureau of Information Technology (BIT) office at the following location:

The Bureau of information Technology 8000 Nisky Center, Suite 600A St. Thomas, VI 00802

The start location for the St. Croix site visits will be at the Bureau of Information Technology (BIT) office at the following location:

The Bureau of information Technology 9059 Estate Castle Coakley Christiansted, St. Croix 00820

The time that site visits will start for both districts will be 10:00 AM. The contact person for the site visits would be Romel Wallace.

See Amendment #2 on the Department of Property & Procurement's website.

16. is BIT providing the internet connection between the islands or is inter-island connectivity going to be the responsibility of the contractor?

The inter-island connectivity is going to be the responsibility of the contractor.

17. is there a list of locations where existing fiber is available and can be utilized for connectivity?

The fiber and fiber access points (FAP) are not the assets of BIT. As such, the RFP states that "The vendor is responsible for coordinating with local providers to assess connection requirements and provide the best solution for configuring cameras to operate in an Enterprise environment with the appropriate bandwidth." (Under 3.2.5 Connectivity and 3.0 Scope of Work in the RFP). A local provider could be any local ISP.

Depending on the vendor's design, point to point links and wireless access points can be used. The interface that meet requirements for interfacing the cameras to the network are the battery backup units listed in the RFP under section 3.2.6 Battery Backup. ClearSite Communications, Inc. PPU specifications meet this requirement. It is the responsibility of the contractor to access the fiber network.

18. If fiber is nearby but must be extended, will that be the responsibility of the contractor?

Yes, that will be the responsibility of the contractor.

19. To reiterate 1-B: Section 3.2.5 lists all districts as having their own network and server but on page 2 it states to develop 2 networks conveying that St Thomas and St John are to be one network. Can we get clarification on this?

The St. Thomas/St. John is considered one district. St. Croix is considered another district.

The same can be said for the camera locations list which include St John but not a home location on St. John for the network to converge before getting access to the internet for the watch posts to view?

St. John will not have a NVMS. The four (4) cameras will connect to the St. Thomas network.

20. Where is the mounting location for the cams? Light poles? new poles? mixed?

The majority of the cameras will be mounted on poles. License Plate Reader (LPR) will be mounted at intersections.

21. What is required of the contractor for approval to use existing poles?

DPW and WAPA are both stakeholders in this project. A formal agreement is not required for DPW. DPW can coordinate informally with BIT and the vendor.

The request to install power for the cameras and associated devices must be made formally through WAPA. The vendor can coordinate with WAPA to file the request with the coordination of BIT. WAPA existing poles can be used.

22. What is the voltage available at the mounting locations for the PPU's? this is important for pricing.

The PPU interface that meet requirements for interfacing the cameras to the network are the battery backup units listed in the RFP under section 3.2.6 Battery Backup. ClearSite Communications, Inc. PPU specifications meet this requirement and show the required operational voltage.

The request to install power for the cameras and associated devices must be made formally through WAPA (Water & Power Authority). The vendor can coordinate with WAPA to file the request with the coordination of BIT. The following under 3.2.6 Battery Backup is in the RFP:

3.2.6 Battery Backup

All forty (40) cameras locations are required to have a battery backup unit. The following are examples battery backup units that meet requirements:

1. Perpetual Power Unit (PPU-1-LC) – Large Case 18" x 18" x 18" - forty (40) units required plus additional cameras required as per site visits.

2. Perpetual Power Unit (PPU-POE) Power Over Ethernet

3. Enterprise PPU Server - one (1) server required

WAPA Triplex that supplies the necessary voltage to the PPUs can be extended as necessary to supply the required voltage to the PPU's location.

23. Will each District have its own LPR system? (including server and supporting equipment)

Each district will have its own LPR system.

24. Will each District have its own Facial recognition system? (including server and supporting equipment)

Each district will have its own Facial recognition system.

The following are answers to the vendor's questions:

Section 2.0 Scope of Work

1. "Servers, computers, and viewing Monitors for monitoring stations"

   a. Please clarify what is meant by "viewing Monitors". Are these monitors for the individual workstations? Or are these monitors for some sort of video wall system? If the latter, please specify the quantity and size.

   The NVMS shall support an unlimited number of monitors used for monitoring video and audio streams connected to a single workstation. The NVMS shall support three (3) CCTV LED 27 inch monitors and one (1) 55 inch monitor (wall mountable) for both districts (St. Croix and St. Thomas). They should be full HD 1920 x 1080 resolution, 4K. Monitors would be the three (3) CCTV LED 27 inch monitors. The monitors could also be part of a video wall.

b. How many concurrent video streams must each workstation be capable of viewing?

   The concurrent video streams should be based on the NVMS that meets requirements under 3.3 Network Video Management System.

c. How many workstations are required at each Monitoring Stations?

   The concurrent video streams should be based on the NVMS that meets requirements under 3.3 Network Video Management System. The NVMS shall support three (3) CCTV LED 27 inch monitors and one (1) 55 inch monitor (wall mountable) for both districts (St. Croix and St. Thomas). As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Based on the amount of cameras in each district, the vendor should recommend the best value to accommodate the cameras that are to be installed. Itemize the amounts/costs that are requested as well as the best layout that you come up with to provide the best value.

2. "Furniture for Monitoring Stations"

a. Please specify the brand/make, model/part number, and quantity of each piece of furniture that is desired

   There is furniture currently in the designated area that can be used. They will eventually be upgraded. As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Based on the amount of cameras in each district, the vendor should recommend the best value. For anyone that includes it in their bid, please

itemize it.

3. Who will operate and maintain the underlying data network (Ethernet switches, routers, wireless network, etc.)? The Bidder or VIT/VIPD? If VIT/VIPD, what manufacturers are preferred?

VIPD will maintain the equipment that is stored at their locations. Aruba switches/routers would be preferred.

4. Assuming a point-to-point wireless network for the cameras, is there a communication tower available on the roof of each Monitoring Station that could be utilized for the wireless bridges? If not, would Bidders need/be allowed to install a communication tower on the roof? Or are there other existing communication towers that we'd be allowed to utilize? If so, please specify those locations.

As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Be clear in articulating your approach and the reason behind your approach. There will be no communication towers on roofs. Point to Point links can be placed on roofs of the Monitoring Stations. Most of the existing communication towers are not owned assets of BIT.

5. "Although each system will be operated and managed by the VIPD departments, use of Internet Protocol (IP) based technology will allow for cross-functional viewing by authorized personnel in both districts. Data recorded from any of the systems will also be retrievable via IP by authorized staff based on access policy within user profile configurations. The vendor is responsible for coordinating with local providers to assess connection requirements and provide the best solution for configuring cameras to operate in an Enterprise environment with the appropriate bandwidth."

a. Please describe/clarify how BIT expects IPVS traffic to be transported between the two Monitoring Station sites. Is there a WAN in place between these two sites that can be utilized or expanded to accommodate the IPVS traffic? Or are Bidders expected to include a new WAN connection (e.g., MPLS, P2P VPN, etc.) from a local provider as part of our proposal? Or is BIT asking Bidders to simply state the WAN requirements and BIT/VIPD will procure the required service from the local ISP?

The inter-island connectivity is going to be the responsibility of the contractor. The RFP states that "The vendor is responsible for coordinating with local providers to assess connection requirements and provide the best solution for configuring cameras to operate in an Enterprise environment with the appropriate bandwidth." (Under 3.2.5 Connectivity and 3.0 Scope of Work in the RFP). As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Be clear in articulating your approach and the reason behind your approach.

Section 3.0 System Requirements

1. Can you please provide floor plans for each of the Monitoring Stations and indicate where the IPVS would be installed (e.g., the MDF/IDF location) and where each of the workstations would be located?

   Site visits on both districts showed the Monitoring Station areas that the associated equipment will be installed.

2. Do Bidders need to provide Ethernet cabling from the MDF/IDF to the new workstations?

   Yes. Bidders need to provide what is necessary to connect the associated cameras, workstations and any associated devices.

3. Are conduits available to run cabling to the roof for the wireless bridges?

   Assume that conduits are not available to run cabling to the roof.

4. Can we assume that each Monitoring Station has sufficient rack space, power, and HVAC to accommodate the IPVS servers, switches, routers, and UPS/batteries?

   Assume that there is sufficient power and HVAC at each Monitoring Station location. Do not assume that there is any rackspace. Based on site visits, this may have to be purchased based on your design. State power requirements in your bid.

5. "The IPVS system will use technology and components similar to or compatible with those used by BIT."

   a. Can you please specify what technologies and components BIT currently uses?

   This question refers to the following listed in the RFP:

   "The IPVS system will use technology and components similar to or compatible with those used by BIT."

   This refers to using professional enterprise grade equipment/technology. For example, we use CAT 6 cable. We do not expect to see usage of coax cable to replace CAT 6. The technology should be up to date and able to network the IPVS system and its connected components at a Professional/Enterpise level. BIT manages an Enterprise for the USVI Government.

6. "In locations/sites that are configured with multiple servers, the servers should be synchronized into a single crash proof cluster."

   a. As each Monitoring Station will initially only support approximately 20 cameras, this will easily be accommodate within a single server. Is that acceptable, provided that RAID is used to provide redundancy for the storage?

Understand that the number of cameras has increased. The system should be expandable and capable of expanding to accommodate hundreds of cameras in the future. Utilize the NVMS system under "3.3 Network Video Management System" as your guide. As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Be clear in articulating your approach and the reason behind your approach. Redundancy is a requirement.

Section 3.2.3 Camera Specifications

1. "Optional capability to use SDHD storage on cameras." Is the SDHC a hard requirement or is any memory card format/form factor acceptable?

"Optional capability to use SDHD storage on cameras." is an option. However, cameras that meet requirements under "3.2 Cameras" have this feature.

Selection 3.2.4 Camera Field Performance

1. "Bidder's will determine the most opportune mounting locations, based on main target coverage required and approximate HFoV identified during site walkouts per location."

a. Will Bidders be permitted to utilize any of the following as mounting locations? Or will Bidders need to install new poles for each camera?

i. Traffic light poles
ii. Utility poles
iii. Building facades
iv. Street lamps
v. Others (please specify)

Traffic light poles, Utility poles and street lamps are permitted. Building facades are permitted on Monitoring Stations' locations. Locations that do not belong to the Government are not permitted.

b. What is the power source for the cameras? If cameras are installed on existing traffic/street lights or utility poles, can Bidders tap into the power feeding those poles? If we have to install new poles or mount cameras in locations where an existing power source is not readily available, can Bidders assume that BIT/VIPD will provide access to power? Or do Bidders need to include costs of new power drops from the VI Water and Power Authority in our proposals? We understand that cameras must support PoE and each camera must have a battery backup as detailed in 3.2.6, but what is supplying power to the battery backup and that power source (and associated costs) something that Bidders need to include in our proposals?

DPW and WAPA are both stakeholders in this project. A formal agreement is not required for DPW. DPW can coordinate informally with BIT and the vendor.

The payment of the WAPA bills is not the responsibility of the vendor. The request to install power for the cameras and associated devices must be made formally through WAPA. The vendor can coordinate with WAPA to file the request with the coordination of BIT.

Section 3.2.5 Connectivity

1. "A combination of dipole and parabolic antennas on select cameras will be used to transmit video through new IEEE 802.11 a/b/g/n/ac wireless networks."

   a. Is 802.11 the only wireless protocol permitted? Or can Bidders propose any wireless network technology?

   The 802.11 protocol is preferred. The bidder can propose another wireless protocol, but has to show the advantage over the preferred. The PPU interface that meets requirements for interfacing the cameras to the network are the battery backup units listed in the RFP under section 3.2.6 Battery Backup. The listed ClearSite Communications, Inc. PPU specifications in the RFP meet this requirement and show the different protocols that it can interface with (Eg. fiber, wireless, etc.)

Section 3.3 Network Video Management System

1. "Indefinite number of concurrent clients to site connections, limited only by the bandwidth capability of the network and server.... Shall be available for local users, remote users and mobile devices."

   a. Besides the workstations at each Monitoring Station, how many users would need to connect to the NVMS from:

   i. A PC using a client application
   ii. A web browser
   iii. A mobile client (e.g., smartphone)?

   These details may impact the number of client licenses.

   An initial amount of ten (10) users. Please itemize the cost.

2. "The NVMS shall support storage and processing of video and audio."

   a. Do any of the cameras need to be equipped with microphones to record audio? If so, please specify which ones.

   All cameras need to be equipped with microphones. The ability to mute the microphones should be available.

3. "The system must support absolute redundancy configurations."

a. Given that each Monitoring Station initially only has ~20 cameras, what level of redundancy must be included with the proposal? As opposed to what the NVMS is capable of supporting.

The number of cameras has increased for each Monitoring Station (53 cameras St. Croix District, 50 cameras in the St. Thomas/St. John District). This number will grow in the future. As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Be clear in articulating your approach and the reason behind your approach.

4. "The NVMS shall support monitoring video and audio sources from IP-based ONVIF Profile S Cameras..."

a. Are Axis, Hanwha, or other manufacturers acceptable alternatives to Bosch? Besides the technical specifications, are there any other limitations to what camera manufacturers are acceptable? e.g., country of origin?

As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Be clear in articulating your approach and the reason behind your approach. The preferred cameras are listed in the RFP. Alternative cameras should equal or exceed the preferred cameras.

5. "The system must provide lifetime server and client software upgrades which shall not require physical access to servers and without down-time."

a. Many NVMS manufacturers require the system to be covered by a valid support contract in order to obtain major software upgrades. Is that acceptable?

As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Be clear in articulating your approach and the reason behind your approach.

6. "The NVMS shall provide the ability to control the client application using the following types of peripherals: A USB keyboard and/or mouse, USB joystick, A PTZ controller keyboard"

a. Which of those options (and how many) must be included as part of the Bidder's proposal?

As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Be clear in articulating your approach and the reason behind your approach.

7. "The NVMS shall support an unlimited number of monitors used for monitoring video and audio streams connected to a single workstation."

a. How many monitors must be included for each workstation and what are the desired technical specifications?

As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Be clear in articulating your approach and the reason behind your approach. The NVMS shall support three (3) CCTV LED 27 inch monitors and one (1) 55 inch monitor (wall mountable) for both districts (St. Croix and St. Thomas). Based on the amount of cameras in each district, the vendor should recommend the best value to accommodate the cameras that are to be installed. Itemize the amounts that are requested as well as the best layout that you come up with to provide the best value. Utilize the NVMS requirements under 3.3 Network Video Management System.

8. "The NVMS shall support three (3) CCTV LED 27-inch monitors and one (1) 55-inch monitor (wall mountable) for both districts (St. Croix and St. Thomas). They should be full HD 1920 x 1080 resolution, 4K."

a. Are the three 27" monitors for use by a workstation, or are they in addition to the workstation monitors?

Based on the amount of cameras in each district, the vendor should recommend the best value to accommodate the cameras that are to be installed. If three (3) 27 inch monitors can not accommodate the amount of cameras provided, provide the amount that works. As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Be clear in articulating your approach and the reason behind your approach.

b. Is the 55" monitor connected to a dedicated workstation, or is the intent to have any workstation display on the 55" monitor? If the latter, then each workstation would potentially need to have at least four HDMI outputs, correct? And the 55" monitor would need to have at least as many inputs as there are workstations.

The intent is to have any workstation display on the 55" monitor. As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. There should be enough monitors to accommodate the cameras that will be viewed.

c. Please clarify how BIT/VIPD envisions these monitors would be used.

As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. Based on the amount of cameras in each district, the vendor should recommend the best value to accommodate the cameras that are to be installed. Itemize the amounts that are requested as well as the best layout that you come up with to

provide the best value. There should be enough monitors to accommodate the cameras that will be viewed.

Section 3.4 Video Storage

1. "The NVR must be capable of recording at least 50 cameras simultaneously."

   a. To clarify, this is a storage sizing requirement, correct? The NVRs at each Monitoring Station only need to be licensed for their associated cameras as specified in Appendix A?

The NVRs at each Monitoring Station only need to be licensed for their associated cameras as specified in Appendix A for each district. In the future, cameras in each district will grow so the system must also be able to expand to accomodate the recording capability specified. The specifications under "3.3 Network Video Management System" that meet the requirements define how many cameras can be recorded simultaneously.

2. "Exported recordings will be protected by an invisible watermark using hashing function with a 1024 bit key."

   a. Is the hashtag/1024 bit key a hard requirement, or will any watermark technology suitable for evidentiary purposes be acceptable?

As an RFP, the vendor has flexibility to propose solutions to the problem or business requirements that are listed. If the NVMS system that meets the requirements under "3.3 Network Video Management System" can export recordings and be protected by an invisible watermark using hashing function with at least a 1024 bit key, then it is a hard requirement.