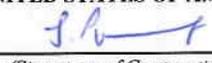


AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE 1 OF 31
2. AMENDMENT/MODIFICATION NO. A003	3. EFFECTIVE DATE 5/14/2013	4. REQUISITION/PURCHASE REQ. NO.PR2189163/2197696/2189137/2188694	5. PROJECT NO. (If applicable)	
6. ISSUED BY CODE U.S. American Embassy Al Kindi Street International Zone Baghdad, Iraq		7. ADMINISTERED BY (If other than Item 6) CODE		
8. NAME AND ADDRESS OF CONTRACTOR (NO., street, city, county, State, and ZIP Code)		X	9a. AMENDMENT OF SOLICITATION NO. SIZ100-13-R-0011	
			9b. DATED (SEE ITEM 11) April 1, 2013	
			10a. MODIFICATION OF CONTRACT/ORDER NO.	
			10b. DATED (SEE ITEM 13)	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS				
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input checked="" type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning <u>1</u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
12. ACCOUNTING AND APPROPRIATION DATA (If required)				
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.				
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.				
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)				
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
D. OTHER (Specify type of modification and authority)				
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return <u> </u> copies to the issuing office.				
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The purpose of this amendment is to extend the due date for submission of proposals to read as follows: Sealed proposals must be submitted electronically by e-mail with the subject line "Proposal SIZ100-13-R-0011 Enclosed" to BaghdadGSOProcBid@state.gov on or before 16:30 afternoon hours (Baghdad Time) on June 10, 2013 or in hard copy marked for the attention of the Contracting Officer with subject line "Proposal SIZ100-13-R-0011 Enclosed" to the U.S. American Embassy, point of entry: Red CAC on Al Kindi Street between 08:00 and 15:00 hours on regular business days on or before 16:30 afternoon hours (Baghdad Time) on June 10, 2013. A site visit at Baghdad Diplomatic Support Center (BDSC) or Erbil is not scheduled. Offerors are encouraged to continue to monitor the Embassy's website for any information. Direct any questions regarding this solicitation to BaghdadGSOProcurement@state.gov . Questions must be submitted in writing in the English language not later May 26 th , 2013 on or before 12:00 noon (Baghdad Time). (See next pages). Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.				
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME OF CONTRACTING OFFICER Stan Parmentier		
15B. NAME OF CONTRACTOR/OFFEROR BY _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)	16C. DATE SIGNED May 14, 2013	

2. Section V. Prices, is deleted and substituted to read as follows:

V. Prices.

1. In consideration of satisfactory performance of the services required under this contract, the Contractor shall be paid a firm fixed-price (FFP) per month as stated in the schedule below. Carrier shall be responsible for payment end-to-end circuit billing.
2. The firm fixed prices are stated in _____ (offeror insert currency).
3. The Government will make payment in the currency identified in number 2 under V, Prices. The contract, invoices and payments all to be stated/paid in the same currency.

4. **Base Year Pricing**

The offeror, offering a firm fixed unit price for any contract line item number in the Base Year, shall offer a firm fixed unit price for same service description in contract line item number of the First Option Year.

Contract Line Item #	SCHEDULE OF SERVICES	ESTIMATED QUANTITY(*)	UNIT	UNIT PRICE	AMOUNT
0001	40 Mbps Dedicated Full-Duplex Multiprotocol Label switching (MPLS) layer 3 Virtual Private Network (VPN) to Germany, at the U.S. American Embassy in Baghdad, see Schedule of supplies/services, Block 20, I. Scope of Work, 1).	12	Month		
0002	50 Mbps Dedicated Full-Duplex Internet Circuit at the U.S. American Embassy in Baghdad, see Schedule of supplies/services, Block 20, I. Scope of Work, 2).	12	Month		
0003	25 Mbps Dedicated Full-Duplex Backup/Redundant Internet Circuit at the U.S. American Embassy in Baghdad, see Schedule of supplies/services, Block 20, I. Scope of Work, 3).	12	Month		
0004	10 Mbps Dedicated Full-Duplex Internet Circuit at the U.S. American Embassy in Baghdad, see Schedule of supplies/services, Block 20, I. Scope of Work, 4).	12	Month		
0005	5 Mbps Dedicated Full-Duplex Internet Circuit at the U.S. American Embassy in Baghdad, see Schedule of supplies/services, Block 20, I. Scope of Work, 5).	12	Month		
0006 (**)	10 Mbps Dedicated Full-Duplex Point-to-Point Fiber Optic Connection at the Baghdad Diplomatic Support Center (BDSC) in Baghdad, see Schedule of supplies/services, Block 20, I. Scope of Work, 6).	12	Month		
0007 (**)	5Mbps DIN Dedicated Full-Duplex Internet Circuit – at Baghdad Diplomatic Support Center (BDSC) in Baghdad, see Schedule of supplies/services, Block 20, I. Scope of Work, 7).	12	Month		

0008	30 Mbps Dedicated Full-Duplex Internet Circuit at the U.S. American Consulate General in Basrah, see Schedule of supplies/services, Block 20, I. Scope of Work, 8).	12	Month		
0009	15 Mbps Dedicated Full-Duplex Backup/Redundant Internet Circuit at the U.S. American Consulate General in Basrah, see Schedule of supplies/services, Block 20, I. Scope of Work, 9).	12	Month		
0010	30 Mbps Dedicated Full-Duplex Internet Circuit at the U.S. American Consulate General in Erbil, see Schedule of supplies/services, Block 20, I. Scope of Work, 10).	12	Month		
0011	15 Mbps Dedicated Full-Duplex Backup/Redundant Internet Circuit at the U.S. American Consulate General in Erbil, see Schedule of supplies/services, Block 20, I. Scope of Work, 11).	12	Month		
Grand Total					

(*) – This estimated quantity is based on estimated Government requirements and the actual amount of work awarded under task order(s) will not exceed the maximum quantity of twelve (12) months for each specified service description during the base year of the contract.

MINIMUM AND MAXIMUM AMOUNTS

During this contract period, the Government shall place orders totaling a minimum of *three (3) months of service from any contract line item number*. This reflects the contract minimum for this period of performance. The amount of all orders shall not exceed *sixty (60) months of service (12 months per each contract line item number equals 60 months)*. This reflects the contract maximum for the base year.

(**) – Only contractor capable to provide the service on the Government of Iraq's existing network at the Baghdad Diplomatic Support Center (BDSC) may offer a firm fixed price on this line item.

5. First Option Year Pricing:

Contract Line Item #	SCHEDULE OF SERVICES	ESTIMATED QUANTITY(*)	UNIT	UNIT PRICE	AMOUNT
0001	40 Mbps Dedicated Full-Duplex Multiprotocol Label switching (MPLS) layer 3 Virtual Private Network (VPN) to Germany, at the U.S. American Embassy in Baghdad, see Schedule of supplies/services, Block 20, I. Scope of Work, 1).	12	Month		
0002	50 Mbps Dedicated Full-Duplex Internet Circuit at the U.S. American Embassy in Baghdad, see Schedule of supplies/services, Block 20, I. Scope of Work, 2).	12	Month		
0003	25 Mbps Dedicated Full-Duplex Backup/Redundant Internet Circuit at the U.S. American Embassy in Baghdad, see Schedule of supplies/services, Block 20, I. Scope of Work, 3).	12	Month		

0004	10 Mbps Dedicated Full-Duplex Internet Circuit at the U.S. American Embassy in Baghdad, see Schedule of supplies/services, Block 20, I. Scope of Work, 4).	12	Month		
0005	5 Mbps Dedicated Full-Duplex Internet Circuit at the U.S. American Embassy in Baghdad, see Schedule of supplies/services, Block 20, I. Scope of Work, 5).	12	Month		
0006 (**)	10 Mbps Dedicated Full-Duplex Point-to-Point Fiber Optic Connection at the Baghdad Diplomatic Support Center (BDSC) in Baghdad, see Schedule of supplies/services, Block 20, I. Scope of Work, 6).	12	Month		
0007 (**)	5Mbps DIN Dedicated Full-Duplex Internet Circuit – at Baghdad Diplomatic Support Center (BDSC) in Baghdad, see Schedule of supplies/services, Block 20, I. Scope of Work, 7).	12	Month		
0008	30 Mbps Dedicated Full-Duplex Internet Circuit at the U.S. American Consulate General in Basrah, see Schedule of supplies/services, Block 20, I. Scope of Work, 8).	12	Month		
0009	15 Mbps Dedicated Full-Duplex Backup/Redundant Internet Circuit at the U.S. American Consulate General in Basrah, see Schedule of supplies/services, Block 20, I. Scope of Work, 9).	12	Month		
0010	30 Mbps Dedicated Full-Duplex Internet Circuit at the U.S. American Consulate General in Erbil, see Schedule of supplies/services, Block 20, I. Scope of Work, 10).	12	Month		
0011	15 Mbps Dedicated Full-Duplex Backup/Redundant Internet Circuit at the U.S. American Consulate General in Erbil, see Schedule of supplies/services, Block 20, I. Scope of Work, 11).	12	Month		
Grand Total					

(*) – This estimated quantity is based on estimated Government requirements and the actual amount of work awarded under task order(s) will not exceed the maximum quantity of twelve (12) months for each specified service description during the first option year of the contract.

MINIMUM AND MAXIMUM AMOUNTS

During this contract period, the Government shall place orders totaling a minimum of *three (3) months of service from any contract line item number*. This reflects the contract minimum for this period of performance. The amount of all orders shall not exceed *sixty (60) months of service (12 months per each contract line item number equals 60 months)*. This reflects the contract maximum for the first option year.

(**) – Only contractor capable to provide the service on the Government of Iraq's existing network at the Baghdad Diplomatic Support Center (BDSC) may offer a firm fixed price on this line item.

6. Price Summary

Base Period: _____

First Option Year: _____

Grand total Firm-Fixed Price for Base Year plus all option Years: _____

3. Schedule of Supplies/Services, Block 20, Description/Specifications/Work Statement, Section I. Scope of Work, is deleted and substituted to read as follows:

I. Scope of Work

The purpose of this Firm Fixed Price Indefinite Delivery Indefinite Quantity Contract is to obtain VPN, Internet, and Circuitry Services for the U.S. American Embassy in Baghdad, U.S. Baghdad Diplomatic Support Center in Baghdad and U.S. American Consulates in Basrah and Erbil, Republic of Iraq.

The local Telecommunication's Internet Service Provider (ISP) contracting firm shall provide internet services and dedicated leased line channels and circuitry for connecting American Embassy in Baghdad, U.S. Baghdad Support Center in Baghdad, U.S. American Consulates General in Basrah and Erbil, and remote U.S. Embassy/Consulate Annex locations data links as shown below in this technical paper.

This is the list of required services:

1. Circuit Size of 40 Mbps Dedicated Full-Duplex Multi-protocol Label Switching (MPLS) Layer 3 Virtual Private Network (VPN) to Germany – at the U.S. American Embassy – Baghdad, address: AL KINDI STREET, Baghdad International Zone, +268-2404 6441, Contract Line Item No. 0001, Section 1, Block 23, Prices, V. Prices, under paragraphs 4 and 5, for Circuit Size of 40Mbps Dedicated Full-Duplex Multi-protocol Label Switching (MPLS) Layer 3 Virtual Private Network (VPN) to Germany
 - General: The U.S. American Embassy is currently in the process of increasing its technology and infrastructure to better support its network. The U.S. American Embassy Baghdad needs high-speed fiber optic connectivity at its premises to support both voice and data applications. The objective of this contract is to provide reliable, redundant network paths, to the Internet through a contractor supplied MPLS Layer 3 VPN to Mainz-Kastel, Wiesbaden, Germany. The endpoint of this VPN will be with the Internet Service Provider (ISP) Deutsche Telekom AG, headquartered in Bonn, North Rhine-Westphalia, in Germany.
 - The contractor shall use the following technical specifications:
 - (a) The contractor shall provide circuit connectivity from their main distribution frame to the Embassy's demarcation point. The contractor shall also provide all of the necessary equipment and installers to the Embassy's demarcation point.
 - (b) In order to achieve high quality performance, the below shall be met by the contractor:
 - i. Latency <=200ms (to Germany), Packet Loss <=.1% and availability of 99.7%
 - ii. ISP interface connectors: Fiber Optic interface as agreed upon by the mission IM Representatives and contractor.
 - iii. ISP availability: "Always on"
 - iv. ISP connection shall NOT use Network Address Translation (NAT).
 - v. ISP shall permit all IP protocols (including but not limited to UDP, TCP, and IPSEC) to transit without filters or proxies.

- vi. Unfiltered access to the Internet is required without ISP firewall blocking.
 - vii. ISP shall permit installation of Customer VPN encryption devices on circuit.
 - viii. ISP shall permit ping and trace route traffic (Fiber Optic interface or other agreed upon interfaces which terminate Customer VPN encryption devices).
- (c) Contractor approach of network paths to the Embassy's Red Compound Access Control (CAC) demarcation point.
- i. Existing Single mode, direct burial, fiber optic cable (using the IZFN) is required.
 - ii. The link will be terminated at the Embassy's Red Compound Access Control (CAC) demarcation point and tested.
 - iii. Where contractor routers are provided, the contractor is responsible for replacement and normal upgrade of that equipment.
 - iv. The Embassy shall be responsible for connecting the path from the demarcation point to subsequent points on their networks.
- PROJECT PLAN AND DELIVERABLES

The contractor shall provide technical reports, documentation and deliverables in written and electronic format and shall provide monthly written progress reporting. All tasks below shall be completed and all circuits shall be fully operational to begin this contract.

Task 1: Link physical connection to the Embassy

The contractor shall:

- a) Develop a project proposal
- b) Review project expectations for bandwidth and latency
- c) Provide a schedule for deliverables

(a) Task 1 Deliverables

- (1) Connect cabling (fiber optic) to hardware located in the Red CAC demarcation point.
- (2) Provide the Embassy with the manufacturer, model, and technical specifications of all contractor routers and equipment that will be located in the Embassy's Red CAC demarcation point.
- (3) Coordinate with ISP Deutsche Telekom AG, headquartered in Bonn, North Rhine-Westphalia, Germany to facilitate an endpoint connection to Mainz- Kastel, Wiesbaden, Germany.

Task 2: Usability Analysis, Testing, & Review Session

The Contractor shall perform regular diagnostic usability tests of the fiber optic cable and provide test results to a designated Embassy representative for review.

(a) Task 2 Deliverables

The contractor shall:

- (1) develop a usability testing plan
- (2) provide a written usability testing report of findings
- (3) provide presentation, with accompanying graphs, of findings based on usability testing report
- (4) provide a report of Virtual Private Network (VPN) operation to include communication with the designated endpoint in Germany

2. Circuit Size of 50Mbps Dedicated Full-Duplex Internet Circuit – at the U.S. American Embassy – Baghdad, address: AL KINDI STREET, Baghdad International Zone, +268-2404 6441, Contract Line Item No. 0002, Section 1, Block 23, Prices, V. Prices, under paragraphs 4 and 5, for Circuit Size of 50Mbps Dedicated Full-Duplex Internet Circuit

General: The U.S. American Embassy is currently in the process of increasing its technology and infrastructure to better support its network. The U.S. American Embassy needs high-speed fiber optic connectivity at its premises to support both voice and data applications. The objective of this contract is to provide reliable, redundant network paths, to the Internet, for our Virtual Private Network (VPN).

The contractor shall use the following technical specifications:

- (a) The contractor shall provide circuit connectivity from their main distribution frame to the Embassy's demarcation point. The contractor shall also provide all of the necessary equipment and installers to the Embassy's demarcation point.
- (b) In order to achieve high quality performance, the below shall be met by the contractor:
 - i. Latency \leq 200ms (to Washington DC), Packet Loss \leq .1% and availability of 99.7%
 - ii. /28 subnet static Public IP addresses (total to be determined) for VPN equipment, network mask, and default gateway IP address.
 - iii. ISP interface connectors: Fiber Optic interface preferred or as agreed upon by the mission IM Representatives and contractor.
 - iv. ISP availability: "Always on"
 - v. ISP connection shall NOT use Network Address Translation (NAT).
 - vi. ISP shall permit all IP protocols (including but not limited to UDP, TCP, and IPSEC) to transit without filters or proxies.
 - vii. Unfiltered access to the Internet is required without ISP firewall blocking.
 - viii. ISP shall permit installation of Customer VPN encryption devices on circuit.
 - ix. ISP shall permit ping and trace route traffic (Fiber Optic interface or other agreed upon interfaces which terminate Customer VPN encryption devices).
- (c) Contractor approach of network paths to the Embassy's Red Compound Access Control (CAC) demarcation point.
 - i. Existing Single mode, direct burial, fiber optic cable (using the IZFN) is required.
 - ii. The link will enter the Embassy's compound via the Embassy's Red Compound Access Control (CAC) demarcation point and tested.
 - iii. Where Contractor routers are provided, the contractor is responsible for replacement and normal upgrade of that equipment.
 - iv. The Embassy shall be responsible for connecting the path from the demarcation point to subsequent points on their networks.

- **PROJECT PLAN AND DELIVERABLES**

The contractor shall provide technical reports, documentation and deliverables in written and electronic format and shall provide monthly written progress reporting. All tasks below shall be completed and all circuits shall be fully operational to begin this contract.

Task 1: Link physical connection to the Embassy

The contractor shall:

- a) Develop a project proposal
- b) Review project expectations for bandwidth and latency

c) Provide a schedule for deliverables

(a) Task 1 Deliverables

- (1) Connect cabling (fiber optical) to hardware located in the Red CAC demarcation point.
- (2) Provide the Embassy with the manufacturer, model, and technical specifications of all contractor routers and equipment that will be located in the Embassy's Red CAC demarcation point.

Task 2: Usability Analysis, Testing, & Review Session

The contractor shall perform regular diagnostic usability tests of the fiber optic cable and provide test results to a designated Embassy representative for review.

(a) Task 2 Deliverables

The Contractor shall:

- (1) develop a usability testing plan;
- (2) provide a written usability testing report of findings
- (3) provide presentation, with accompanying graphs, of findings based on usability testing report

Task 3: Bandwidth Management

- a) The contractor shall perform bandwidth management to ensure that full download and upload speeds are being maintained.
- b) The contractor shall provide for a spare/redundant path should the primary fiber optical cable link fails between the Embassy and the ISP. Upon an outage of the primary link the path shall be transitioned immediately to the alternate path and the Embassy notified.
- c) The contractor shall compile and analyze regular testing methods and view results to develop a bandwidth management plan to ensure true bandwidth is maintained.

(a) Task 3 Deliverables

The contractor shall:

- (1) develop a bandwidth testing plan
- (2) provide quarterly written bandwidth test reports of findings
- (3) provide presentation, with accompanying graphs, of findings based on bandwidth testing
- (4) provide Written report of any circuit outages and any switch to the alternate path

3. Circuit Size of 25Mbps Dedicated Full-Duplex Backup/Redundant Internet Circuit – at the U.S. American Embassy – Baghdad, address: AL KINDI STREET, Baghdad International Zone, +268-2404 6441, Contract Line Item No. 0003, Section 1, Block 23, Prices, V. Prices, under paragraphs 4 and 5, for Circuit Size of 25Mbps Dedicated Full-Duplex Internet Circuit

General: The U.S. American Embassy is currently in the process of increasing its technology and infrastructure to better support its network. The U.S. American Embassy needs high-speed fiber optic connectivity at its premises to support both voice and data applications. The objective of this contract is to provide reliable, redundant network paths, to the Internet, for our Virtual Private Network (VPN).

The contractor shall use the following technical specifications:

- (a) The contractor shall provide circuit connectivity from their main distribution frame to the Embassy's demarcation point. The contractor shall also provide all of the necessary equipment and installers to the Embassy's demarcation point.
- (b) In order to achieve high quality performance, the below shall be met by the contractor:
 - i. Latency ≤ 200 ms (to Washington DC), Packet Loss $\leq .1\%$ and availability of 99.7%
 - ii. /28 subnet static Public IP addresses (total to be determined) for VPN equipment, network mask, and default gateway IP address.
 - iii. ISP interface connectors: Fiber Optic interface preferred or as agreed upon by the mission IM Representatives and contractor.
 - iv. ISP availability: "Always on"
 - v. ISP connection shall NOT use Network Address Translation (NAT).
 - vi. ISP shall permit all IP protocols (including but not limited to UDP, TCP, and IPSEC) to transit without filters or proxies.
 - vii. Unfiltered access to the Internet is required without ISP firewall blocking.
 - viii. ISP shall permit installation of Customer VPN encryption devices on circuit.
 - ix. ISP shall permit ping and trace route traffic (Fiber Optic interface or other agreed upon interfaces which terminate Customer VPN encryption devices).
- (c) Contractor approach of redundant network paths to the Embassy's Red Compound Access Control (CAC) demarcation point.
 - i. Wireless link from vendor's Network Operations Center (NOC), to the Embassy Compound.
 - a. This NOC must be a different NOC from the one that physically connects the circuit for Contract Line Item (CLIN) #2.
 - b. This NOC must also have a different physical terrestrial circuit path that connects Contract Line Item (CLIN) #2.
 - ii. The link will enter the Embassy's compound via the Embassy's Red Compound Access Control (CAC) demarcation point and tested.
 - iii. Where Contractor routers are provided, the contractor is responsible for replacement and normal upgrade of that equipment.
 - iv. The Embassy shall be responsible for connecting the path from the demarcation point to subsequent points on their networks.

- **PROJECT PLAN AND DELIVERABLES**

The contractor shall provide technical reports, documentation and deliverables in written and electronic format and shall provide monthly written progress reporting. All tasks below shall be completed and all circuits shall be fully operational to begin this contract.

Task 1: Link physical connection to the Embassy

The contractor shall:

- a) Develop a project proposal
 - b) Review project expectations for bandwidth and latency
 - c) Provide a schedule for deliverables
- (a) Task 1 Deliverables
- (1) Connect cabling (fiber optical) to hardware located in the Red CAC demarcation point.

- (2) Provide the Embassy with the manufacturer, model, and technical specifications of all contractor routers and equipment that will be located in the Embassy's Red CAC demarcation point.

Task 2: Usability Analysis, Testing, & Review Session

The contractor shall perform regular diagnostic usability tests of the fiber optic cable and provide test results to a designated Embassy representative for review.

(a) Task 2 Deliverables

The Contractor shall:

- (1) develop a usability testing plan;
- (2) provide a written usability testing report of findings
- (3) provide presentation, with accompanying graphs, of findings based on usability testing report

Task 3: Bandwidth Management

- a) The contractor shall perform bandwidth management to ensure that full download and upload speeds are being maintained.
- b) The contractor shall provide for a spare/redundant path should the primary fiber optical cable link fails between the Embassy and the ISP. Upon an outage of the primary link the path shall be transitioned immediately to the alternate path and the Embassy notified.
- c) The contractor shall compile and analyze regular testing methods and view results to develop a bandwidth management plan to ensure true bandwidth is maintained.

(a) Task 3 Deliverables

The contractor shall:

- (1) develop a bandwidth testing plan
 - (2) provide quarterly written bandwidth test reports of findings
 - (3) provide presentation, with accompanying graphs, of findings based on bandwidth testing
 - (4) provide Written report of any circuit outages and any switch to the alternate path
4. Circuit Size: 10Mbps dedicated Full-Duplex Internet Circuit – at the U.S. American Embassy – Baghdad, address: AL KINDI STREET, Baghdad International Zone, +268-2404 6441, Contract Line Item No. 0004, Section 1, Block 23, Prices, V. Prices, under paragraphs 4 and 5, for Circuit Size of 10Mbps dedicated Full-Duplex Internet Circuit
- General: The U.S. American Embassy is currently in the process of increasing its technology and infrastructure to better support its network. The U.S. American Embassy Baghdad needs high-speed fiber optic connectivity at its premises to support both voice and data applications. The objective of this contract is to provide reliable, redundant network paths, to the Internet.
 - The contractor shall use the following technical specifications:
 - (a) The contractor shall provide circuit connectivity from their main distribution frame to the Embassy's demarcation point. The contractor shall also provide all of the necessary equipment and installers to the Embassy's demarcation point.
 - (b) In order to achieve high quality performance, the below shall be met by the contractor:

- i. Latency ≤ 200 ms (to Washington DC), Packet Loss $\leq .1\%$ and availability of 99.7%
 - ii. /28 subnet static Public IP addresses (total to be determined) for VPN equipment, network mask, and default gateway IP address
 - iii. ISP interface connectors: Fiber Optic interface or as agreed upon by the mission IM Representatives and contractor
 - iv. ISP availability: "Always on"
 - v. ISP connection shall NOT use Network Address Translation (NAT).
 - vi. ISP shall permit all IP protocols (including but not limited to UDP, TCP, and IPSEC) to transit without filters or proxies
 - vii. Unfiltered access to the Internet is required without ISP firewall blocking.
 - viii. ISP shall permit installation of Customer VPN encryption devices on circuit
 - ix. ISP shall permit ping and trace route traffic (Fiber Optic interface or other agreed upon interfaces which terminate Customer VPN encryption devices)
- (c) Contractor approach of network paths to the Embassy's Red Compound Access Control (CAC) demarcation point.
- i. Existing Single mode, direct burial, fiber optic cable (using the IZFN) is required
 - ii. The link will enter the Embassy's compound via the Embassy's Red Compound Access Control (CAC) demarcation point and tested.
 - iii. Where contractor routers are provided, the contractor is responsible for replacement and normal upgrade of that equipment.
 - iv. The Embassy shall be responsible for connecting the path from the demarcation point to subsequent points on their networks.

- PROJECT PLAN AND DELIVERABLES

The contractor shall provide technical reports, documentation and deliverables in written and electronic format and shall provide monthly written progress reporting. All tasks below shall be completed and all circuits shall be fully operational to begin this contract.

Task 1: Link physical connection to the Embassy

The Contractor shall:

- a) Develop a project proposal
- b) Review project expectations for bandwidth and latency
- c) Provide a schedule for deliverables

(a) Task 1 Deliverables

- (1) Connect cabling (fiber optical) to the Red CAC demarcation point.
- (2) Provide the Embassy with the manufacturer, model, and technical specifications of all contractor routers and equipment that will be located in the Embassy's Red CAC demarcation point.

Task 2: Usability Analysis, Testing, & Review Session

The contractor shall perform regular diagnostic usability tests of the fiber optic cable and provide test results to a designated Embassy representative for review.

(a) Task 2 Deliverables

The contractor shall:

- (1) develop a usability testing plan
- (2) provide a written usability testing report of findings
- (3) provide presentation, with accompanying graphs, of findings based on usability testing report

5. Circuit Size: 5Mbps dedicated Full-Duplex Internet Circuit – at the U.S. American Embassy – Baghdad, address: AL KINDI STREET, Baghdad International Zone, +268-2404 6441, Contract Line Item No. 0005, Section 1, Block 23, Prices, V. Prices, under paragraphs 4 and 5, for Circuit Size of 5Mbps dedicated Full-Duplex Internet Circuit.

- General: The U.S. American Embassy is currently in the process of increasing its technology and infrastructure to better support its network. The U.S. American Embassy Baghdad needs high-speed fiber optic connectivity at its premises to support both voice and data applications. The objective of this contract is to provide reliable, redundant network paths, to the Internet.
- The contractor shall use the following technical specifications:
 - (a) The contractor shall provide circuit connectivity from their main distribution frame to the Embassy's demarcation point. The contractor shall also provide all of the necessary equipment and installers to the Embassy's demarcation point.
 - (b) In order to achieve high quality performance, the below shall be met by the contractor:
 - i. Latency <=200ms (to Washington DC), Packet Loss <=.1% and availability of 99.7%
 - ii. /28 subnet static Public IP addresses (total to be determined) for VPN equipment, network mask, and default gateway IP address
 - iii. ISP interface connectors: Fiber Optic interface or as agreed upon by the mission IM Representatives and contractor
 - iv. ISP availability: "Always on"
 - v. ISP connection shall NOT use Network Address Translation (NAT).
 - vi. ISP shall permit all IP protocols (including but not limited to UDP, TCP, and IPSEC) to transit without filters or proxies
 - vii. Unfiltered access to the Internet is required without ISP firewall blocking.
 - viii. ISP shall permit installation of Customer VPN encryption devices on circuit
 - ix. ISP shall permit ping and trace route traffic (Fiber Optic interface or other agreed upon interfaces which terminate Customer VPN encryption devices)
 - (c) Contractor approach of network paths to the Embassy's Red Compound Access Control (CAC) demarcation point.
 - i. Existing Single mode, direct burial, fiber optic cable (using the IZFN) is required
 - ii. The link will enter the Embassy's compound via the Embassy's Red Compound Access Control (CAC) demarcation point and tested.
 - iii. Where contractor routers are provided, the contractor is responsible for replacement and normal upgrade of that equipment.
 - iv. The Embassy shall be responsible for connecting the path from the demarcation point to subsequent points on their networks.

- PROJECT PLAN AND DELIVERABLES

The contractor shall provide technical reports, documentation and deliverables in written and electronic format and shall provide monthly written progress reporting. All tasks below shall be completed and all circuits shall be fully operational to begin this contract.

Task 1: Link physical connection to the Embassy

The Contractor shall:

- a) Develop a project proposal
- b) Review project expectations for bandwidth and latency
- c) Provide a schedule for deliverables

(a) Task 1 Deliverables

- (1) Connect cabling (fiber optical) to the Red CAC demarcation point.
- (2) Provide the Embassy with the manufacturer, model, and technical specifications of all contractor routers and equipment that will be located in the Embassy's Red CAC demarcation point.

Task 2: Usability Analysis, Testing, & Review Session

The contractor shall perform regular diagnostic usability tests of the fiber optic cable and provide test results to a designated Embassy representative for review.

(a) Task 2 Deliverables

The contractor shall:

- (1) develop a usability testing plan
- (2) provide a written usability testing report of findings
- (3) provide presentation, with accompanying graphs, of findings based on usability testing report

6. Circuit Size of 10Mbps Dedicated Full-Duplex Point-to-Point Layer-2 Fiber Optic Connection – at Baghdad Diplomatic Support Center, address: Baghdad International Airport, +268 2404 6441, Contract Line Item No. 0006, Section 1, Block 23, Prices, V. Prices, under paragraphs 4 and 5, for Circuit Size of 10 Mbps Dedicated Full-Duplex Point-to-Point Fiber Optic Connection

- General: The U.S. American Embassy is currently in the process of increasing its technology and infrastructure to better support its network. The U.S. American Embassy needs high-speed fiber optic connectivity at its premises to support both voice and data applications. The objective of this contract is to provide reliable, redundant fiber optic network paths, between the U.S. Embassy in Baghdad and Baghdad Diplomatic Support Center (BDSC) located at the Baghdad International Airport.
- The contractor shall use the following technical specifications:
 - (a) The contractor shall provide circuit connectivity from their main distribution frame to the Embassy's demarcation point. The contractor shall also provide all of the necessary equipment and installers to the Embassy's demarcation point.
 - (b) In order to achieve high quality performance, the below shall be met by the contractor:

- i. Latency ≤ 10 ms, Packet Loss $\leq 0.1\%$ and availability of 99.7%
 - ii. /28 subnet static Public IP addresses (total to be determined) for VPN equipment, network mask, and default gateway IP address.
 - iii. ISP interface connectors: Fiber Optic interface preferred or as agreed upon by the mission IM Representatives and contractor.
 - iv. ISP availability: "Always on"
 - v. ISP connection shall NOT use Network Address Translation (NAT).
 - vi. ISP shall permit all IP protocols (including but not limited to UDP, TCP, and IPSEC) to transit without filters or proxies.
 - vii. Unfiltered access to the Internet is required without ISP firewall blocking.
 - viii. ISP shall permit installation of Customer VPN encryption devices on circuit.
 - ix. ISP shall permit ping and trace route traffic (Fiber Optic interface or other agreed upon interfaces which terminate Customer VPN encryption devices).
- (c) Contractor approach of network paths to the Embassy's Red Compound Access Control (CAC) demarcation point.
- i. Existing Single mode, direct burial, fiber optic cable (using the IZFN) is required.
 - ii. The link will enter the Embassy's compound via the Embassy's Red Compound Access Control (CAC) demarcation point and tested.
 - iii. Where contractor routers are provided, the contractor is responsible for replacement and normal upgrade of that equipment.
 - iv. The Embassy shall be responsible for connecting the path from the demarcation point to subsequent points on their networks.
- (d) Contractor approach of network paths to the BDSC demarcation point (GPS: N 33 15.895 E 44 12.715 d.).
- i. Existing Single mode, direct burial, fiber optic cable
 - ii. The link will be terminated in an equipment room (ITN1) that services BDSC
 - iii. Where contractor equipment is provided, the contractor is responsible for replacement and normal upgrade of that equipment
 - iv. The Embassy shall be responsible for connecting the path from the two demarcation points to subsequent points on their networks

- **PROJECT PLAN AND DELIVERABLES**

The contractor shall provide technical reports, documentation and deliverables in written and electronic format and shall provide monthly written progress reporting. All tasks below shall be completed and all circuits shall be fully operational to begin this contract.

Task 1: Link physical connection to the Embassy

The contractor shall:

- a) Develop a project proposal
- b) Review project expectations for bandwidth and latency
- c) Provide a schedule for deliverables

(a) *Task 1 Deliverables*

- (1) Connect fiber optical cabling between the BDSC demarcation (GPS: N 33 15.895 E 44 12.715)
- (2) to contractor Layer-2 hardware located in the Red CAC demarcation point.

- (3) Provide the Embassy with the manufacturer, model, and technical specifications of all contractor routers and equipment that will be located in the Embassy's Red CAC and BDSC demarcation points.

Task 2: Usability Analysis, Testing, & Review Session

The contractor shall perform regular diagnostic usability tests of the fiber optic cable and provide test results to a designated Embassy representative for review.

(a) Task 2 Deliverables

The Contractor shall:

- (1) develop a usability testing plan
- (2) provide a written usability testing report of findings
- (3) provide presentation, with accompanying graphs, of findings based on usability testing report

- An Invoice, suitable for payment, shall contain, but not limited to, the following information:
 - a. Name of Contractor;
 - b. Date of Invoice;
 - c. Original Invoice Number (Consecutive numbers);
 - d. Contract number;
 - e. Task or Delivery Order number, as applicable;
 - f. Government Specific Accounting and Appropriation Data (Funding Cite.) (example: 19X0113-2015-X75041-180100-5327-2332);
 - g. Contract Line Item Number (CLIN) of item or service provided;
 - h. Description of the item, or service actually provided;
 - i. Period of performance of service or date item is provided;
 - j. Block/Space reserved for COR acceptance signature and date;
 - k. Signature, Name and Phone number of Company representative authorized to sign invoices;
 - l. Remit to address
 - m. Name, phone number and Mailing address to whom any disputed invoices should be addressed;
 - n. Credits with explanation and period covered.

Failure to submit Invoices which do not identify this information shall be returned without payment to the Contractor for correction.

- Authorized Instruction to Contractor
 - a) No person or agency other than the Contracting Officer (CO) is authorized to give instruction, orders or directions on behalf of the Government to the Contractor or his employees, unless such person or agency is authorized in writing by the CO to so act. The authority of such person or agency is strictly limited to the written authorization provided by the CO. The duty is upon the Contractor to determine the authority of such person or agency. Any questions regarding the authority of such person or agency should be directed to the CO in writing.
 - b) Contracting Officer's Representative (COR): The CO may designate and authorize a representative(s) to act on his/her behalf under this contract. Such representative(s) as may be appointed shall be designated by a letter from the CO and a copy of the letter shall be given to the Contractor. The COR shall represent the CO as specified in his/her delegation of authority letter. The COR shall not be authorized to issue change orders or adjustments. Changes in the Scope of Work/Specifications or any increase or decrease in the work called for by this contract shall be made by the CO by an executed modification to this contract.

- Government-Furnished Equipment (GFE): Reserved
 - Release of Information
- a) The Contractor's organization shall clear with the Information Office listed below any public release of information on this contract. This information includes news stories, articles, sales literature, advertisements, radio-TV spots, etc.
 - b) The request for public release of information should be addressed to: The Information Management Officer, U.S. Embassy Al Kindi Street International Zone, Baghdad in Iraq
 - c) Limited Use of Data and Information. Performance of this contract may require the contractor to access and use data and information proprietary to the Government agency or agency personnel, or which is of such a nature that its dissemination or use, other than in performance of this contract would be adverse to the interests of the Government or others. The Contractor and Contractor personnel shall not divulge or release data or information developed or obtained in performance of this contract, until made public by the Government, except to the authorized Government personnel or upon written approval of the Contracting Officer. The Contractor will not use, disclose, or reproduce proprietary data which bears a restrictive legend, other than as required in the performance of this contract. Nothing herein shall preclude the use of any data independently acquired by the Contractor without such limitations or prohibit an agreement at no costs to the Government between the Contractor and the data owner provides for greater rights to the Contractor.

Trouble Escalation Procedure

- a) The Government shall refer the problem to the carrier after performing tests as prescribed in the Trouble Analysis procedure. Obtain the name of the carrier test person and a carrier ticket number; record this information on the Government's Remedy Ticket.
 - b) After the trouble has been referred to the carrier for two (2) hours, recall the carrier for an update on the current trouble. Record the carrier's response, the name of the individual you talked with, and the carrier ticket number on the Remedy Ticket.
 - c) After the trouble has been referred to the carrier for four (4) hours, recall the carrier for an update on the current trouble. If the carrier's response is not satisfactory escalate the trouble to the carrier's management. Record the carrier's response, the name of the individual you talked with, and the carrier ticket number on the Remedy Ticket.
 - d) After the trouble has been referred to the contractor for six (6) hours the COR shall escalate the trouble to the contractor's manager; also notify IRM/IMO and the Contracting Officer and the STATE IRM/ISC Office. Record the contractor's response, the name of the individual you talked with, the contractor ticket number, and the names of the IRM managers that were notified on the Remedy Ticket.
 - e) Continue to status the contractor for the remainder of the outage or until you have received a problem resolved status.
7. ***Circuit Size: 5Mbps dedicated Full-Duplex Internet Circuit – at Baghdad Diplomatic Support Center, address: Baghdad International Airport, +268 2404 6441, Contract Line Item No. 0007, Section 1, Block 23, Prices, V Prices, under paragraphs 4 and 5, for Circuit Size of 5Mbps dedicated Full-Duplex Internet Circuit.***
- General: The U.S. American Embassy is currently in the process of increasing its technology and infrastructure to better support its network. The U.S. American Embassy Baghdad needs high-speed fiber optic connectivity at its premises to support both voice and data applications. The objective of this contract is to provide reliable, redundant network paths, to the Internet.

- The contractor shall use the following technical specifications:
 - (a) The contractor shall provide circuit connectivity from their main distribution frame to the Embassy's demarcation point. The contractor shall also provide all of the necessary equipment and installers to the Embassy's demarcation point.
 - (b) In order to achieve high quality performance, the below shall be met by the contractor:
 - i. Latency \leq 200ms (to Washington DC), Packet Loss \leq .1% and availability of 99.7%
 - ii. /28 subnet static Public IP addresses (total to be determined) for VPN equipment, network mask, and default gateway IP address
 - iii. ISP interface connectors: Fiber Optic interface or as agreed upon by the mission IM Representatives and contractor
 - iv. ISP availability: "Always on"
 - v. ISP connection shall NOT use Network Address Translation (NAT).
 - vi. ISP shall permit all IP protocols (including but not limited to UDP, TCP, and IPSEC) to transit without filters or proxies
 - vii. Unfiltered access to the Internet is required without ISP firewall blocking.
 - viii. ISP shall permit installation of Customer VPN encryption devices on circuit
 - ix. ISP shall permit ping and trace route traffic (Fiber Optic interface or other agreed upon interfaces which terminate Customer VPN encryption devices)
 - (a) Contractor approach of network paths to the BDSC demarcation point (GPS: N 33 15.895 E 44 12.715 d.).
 - i. Existing Single mode, direct burial, fiber optic cable (using the IZFN) is required
 - ii. The link will be terminated in an equipment room (ITN1) that services BDSC.
 - iii. Where contractor routers are provided, the contractor is responsible for replacement and normal upgrade of that equipment.
 - iv. The Embassy shall be responsible for connecting the path from the demarcation point to subsequent points on their networks.

- PROJECT PLAN AND DELIVERABLES

The contractor shall provide technical reports, documentation and deliverables in written and electronic format and shall provide monthly written progress reporting. All tasks below shall be completed and all circuits shall be fully operational to begin this contract.

Task 1: Link physical connection to the Embassy

The Contractor shall:

- a) Develop a project proposal
- b) Review project expectations for bandwidth and latency
- c) Provide a schedule for deliverables

(a) Task 1 Deliverables

- (1) Connect fiber optical cabling between the BDSC demarcation (GPS: N 33 15.895 E 44 12.715).
- (2) Provide the Embassy with the manufacturer, model, and technical specifications of all contractor routers and equipment that will be located in the Embassy's Red CAC demarcation point.

Task 2: Usability Analysis, Testing, & Review Session

The contractor shall perform regular diagnostic usability tests of the fiber optic cable and provide test results to a designated Embassy representative for review.

(a) Task 2 Deliverables

The contractor shall:

- (1) develop a usability testing plan
 - (2) provide a written usability testing report of findings
 - (3) provide presentation, with accompanying graphs, of findings based on usability testing report
8. ***Circuit Size of 30Mbps Dedicated Full-Duplex Internet Circuit – at the U.S. American Consulate General in Basrah, Republic of Iraq, address: Basrah International Airport, +268 2404 6441, Contract Line Item No. 0008, Section 1, Block 23, Prices, V. Prices, under paragraphs 4 and 5, for Circuit Size of 30 Mbps Dedicated Full-Duplex Internet Circuit***
- General: The U.S. American Consulate Consular General is located in Basrah, Iraq. This diplomatic mission has a large Local Area Network which provides access to the U.S. Government systems. These systems require large amounts of Internet bandwidth with streamlined throughput, low jitter, and little latency. The ability to access, download, and upload data is paramount. The U.S. American Consulate General is currently in the process of increasing its technology and infrastructure to better support its network. The U.S. American Consulate General needs high-speed fiber optic connectivity at its premises to support both voice and data applications. The objective of this contract is to provide reliable, redundant network paths, to the Internet, for our Virtual Private Network (VPN).
 - The U.S. Consulate General may increase or decrease the circuit bandwidth requirement within 30 days via modification to the contract. The bandwidth requirement for this circuit is listed above. The availability of this circuit shall not be less than 99.7% percent per month over the period of the contract.
 - This digital service shall be via whatever facilities are available to the contractor. The service shall be for the exclusive use of the Consulate, 24-hours per day, 7 days per week, and 52 weeks per year.
 - The contractor shall coordinate the service and shall be responsible for the technical sufficiency of the circuit, including services necessary to establish, operate, and restore the circuit. The contractor shall provide all equipment, materials, and supplies required to provide the service.
 - The contractor shall provide sufficient technical support to ensure uninterrupted end-to-end service between such terminal points as are covered in this contract.
 - The contractor shall provide, properly adjust, and maintain the circuit for continuous Consulate use. The contractor shall ensure that the circuit complies with service changes, additions, or deletions as required under this contract.
 - The contractor shall provide the key individuals to complete the work according to the guidelines specified below. The contractor shall ensure that qualified IT Help Desk/Engineers shall be available for consultations 24-hours per day, 7 days per week, and 52 weeks per year.
 - The circuit shall be completely transparent with no bits added to or deleted from the bit stream provided to the interface of the Consulate's equipment.

- The contractor shall use the following technical specifications:
 - (a) The contractor shall provide circuit connectivity from their main distribution frame to the Consulate's demarcation point (GPS: N 30 33.700 E 47 40.087).
 - (b) In order to achieve high quality performance, the below shall be met by the contractor:
 - i. Latency <=200ms (to Washington DC), Packet Loss <=.1% and availability of 99.7% .
 - ii. /28 subnet static Public IP addresses (total to be determined) for VPN equipment, network mask, and default gateway IP address.
 - iii. ISP interface connectors: Fiber Optic interface preferred or as agreed upon by the mission IM Representatives and contractor.
 - iv. ISP availability: "Always on"
 - v. ISP connection shall NOT use Network Address Translation (NAT).
 - vi. ISP shall permit all IP protocols (including but not limited to UDP, TCP, and IPSEC) to transit without filters or proxies.
 - vii. Unfiltered access to the Internet is required without ISP firewall blocking.
 - viii. ISP shall permit installation of Customer VPN encryption devices on circuit.
 - ix. ISP shall permit ping and trace route traffic (Fiber Optic interface or other agreed upon interfaces which terminate Customer VPN encryption devices).
 - (c) Contractor approach of network paths to the Consulate's Compound Access Control (CAC) demarcation point.
 - i. Existing Single mode, direct burial, fiber optic cable is required.
 - ii. The link will enter the Consulate compound via the designated CAC.
 - iii. The link will be terminated at the Consulate's CAC demarcation point and tested.
 - iv. Where contractor routers are provided, the contractor is responsible for replacement and normal upgrade of that equipment.
 - v. The Consulate shall be responsible for connecting the path from the demarcation point to subsequent points on their networks.

- Acceptable Level of Performance

The Standard of Performance (SP) for this contract is 99.7% percent availability per month (100 percent less 0.5 percent each month for corrective and preventive maintenance).

- Inspection and Acceptance

Unless specified in the contract, the Consulate shall require a period not to exceed 48 hours in order to perform testing to determine acceptance of the circuit. The circuit shall meet service performance and availability as defined above.

- Terms of Contract

The required circuit shall be installed and delivered to the Destination Point on or before the Notice to Proceed. Upon successful installation and acceptance by the Consulate of the required circuit, the contractor shall be provided, in writing, notice to proceed and shall provide contractual services for a twelve (12) month period.

The contractor agrees that the work and services set forth in this contract shall be performed during the period commencing the effective date of this contract and shall continue through the end of the twelve month period of service.

- **AUTOMATIC FAILOVER REDUNDANCY**

The contractor shall be able to provide automatic failover routing capability to the alternate route to minimize disruption to service ordered. Alternate route shall be established within five minutes, be automatic, and notification of the Reason for Outage (RFO) shall be received within 24 hours.

- **PROJECT PLAN AND DELIVERABLES**

The contractor shall provide technical reports, documentation and deliverables in written and electronic format and shall provide monthly written progress reporting. All tasks below shall be completed and all circuits shall be fully operational to begin this contract.

Task 1: Link physical connection to the U.S. Consulate General in Basrah

The contractor shall:

- a) Develop a project proposal
- b) Review project expectations for bandwidth and latency
- c) Provide a schedule for deliverables

(a) Task 1 Deliverables

- (1) Connect cabling (fiber optical) to the Basra Consulate's designated CAC demarcation point (GPS: N 30 33.700 E 47 40.087).
- (2) Provide the Consulate with the manufacturer, model, and technical specifications of all contractor routers and equipment that will be located in the Consulate's CAC demarcation point.

Task 2: Usability Analysis, Testing, & Review Session

The contractor shall perform regular diagnostic usability tests of the fiber optic cable and provide test results to a designated Consulate representative for review.

(a) Task 2 Deliverables

The contractor shall:

- (1) develop a usability testing plan
- (2) provide a written usability testing report of findings
- (3) provide presentation, with accompanying graphs, of findings based on usability testing report

Task 3: Bandwidth Management

- a) The contractor shall perform bandwidth management to ensure that full download and upload speeds are being maintained.
- b) The contractor shall provide for a spare/redundant path should the primary fiber optical cable link fails between the Consulate and the ISP. Upon an outage of the primary link the path shall be transitioned immediately to the alternate path and the Consulate notified.

- c) The contractor shall compile and analyze regular testing methods and view results to develop a bandwidth management plan to ensure true bandwidth is maintained.

(a) *Task 3 Deliverables*

The contractor shall:

- (1) develop a bandwidth testing plan and shall:
- (2) provide quarterly written bandwidth test reports of findings
- (3) provide presentation, with accompanying graphs, of findings based on bandwidth testing
- (4) provide written report of any circuit outages and any switch to the alternate path

9. Circuit Size of 15Mbps Dedicated Full-Duplex Backup/Redundant Internet Circuit – at the U.S. American Consulate General in Basrah, Republic of Iraq, address: Basrah International Airport, +268 2404 6441, Contract Line Item No. 0009, Section 1, Block 23, Prices, V Prices, under paragraphs 4 and 5, for Circuit Size of 15Mbps Dedicated Full-Duplex Internet Circuit

- General: The U.S. American Consulate Consular General is located in Basrah, Iraq. This diplomatic mission has a large Local Area Network which provides access to the U.S. Government systems. These systems require large amounts of Internet bandwidth with streamlined throughput, low jitter, and little latency. The ability to access, download, and upload data is paramount. The U.S. American Consulate General is currently in the process of increasing its technology and infrastructure to better support its network. The U.S. American Consulate General needs high-speed fiber optic connectivity at its premises to support both voice and data applications. The objective of this contract is to provide reliable, redundant network paths, to the Internet, for our Virtual Private Network (VPN).
- The U.S. Consulate General may increase or decrease the circuit bandwidth requirement within 30 days via modification to the contract. The bandwidth requirement for this circuit is listed above. The availability of this circuit shall not be less than 99.7% percent per month over the period of the contract.
- This digital service shall be via whatever facilities are available to the contractor. The service shall be for the exclusive use of the Consulate, 24-hours per day, 7 days per week, and 52 weeks per year.
- The contractor shall coordinate the service and shall be responsible for the technical sufficiency of the circuit, including services necessary to establish, operate, and restore the circuit. The contractor shall provide all equipment, materials, and supplies required to provide the service.
- The contractor shall provide sufficient technical support to ensure uninterrupted end-to-end service between such terminal points as are covered in this contract.
- The contractor shall provide, properly adjust, and maintain the circuit for continuous Consulate use. The contractor shall ensure that the circuit complies with service changes, additions, or deletions as required under this contract.
- The contractor shall provide the key individuals to complete the work according to the guidelines specified below. The contractor shall ensure that qualified IT Help Desk/Engineers shall be available for consultations 24-hours per day, 7 days per week, and 52 weeks per year.
- The circuit shall be completely transparent with no bits added to or deleted from the bit stream provided to the interface of the Consulate's equipment.

- The contractor shall use the following technical specifications:
 - (a) The contractor shall provide circuit connectivity from their main distribution frame to the Consulate's demarcation point (GPS: N 30 33.700 E 47 40.087).
 - (b) In order to achieve high quality performance, the below shall be met by the contractor:
 - i. Latency \leq 200ms (to Washington DC), Packet Loss \leq .1% and availability of 99.7% .
 - ii. /28 subnet static Public IP addresses (total to be determined) for VPN equipment, network mask, and default gateway IP address.
 - iii. ISP interface connectors: Fiber Optic interface preferred or as agreed upon by the mission IM Representatives and contractor.
 - iv. ISP availability: "Always on"
 - v. ISP connection shall NOT use Network Address Translation (NAT).
 - vi. ISP shall permit all IP protocols (including but not limited to UDP, TCP, and IPSEC) to transit without filters or proxies.
 - vii. Unfiltered access to the Internet is required without ISP firewall blocking.
 - viii. ISP shall permit installation of Customer VPN encryption devices on circuit.
 - ix. ISP shall permit ping and trace route traffic (Fiber Optic interface or other agreed upon interfaces which terminate Customer VPN encryption devices).
 - (c) Contractor approach of network paths to the Consulate's Compound Access Control (CAC) demarcation point.
 - i. Wireless link from vendor's Network Operations Center (NOC), to the Consulate's Compound.
 - a. This NOC must be a different NOC than the one that physically connects the circuit for Contract Line Item (CLIN) #8.
 - b. This NOC must also have a different physical terrestrial circuit path leaving the country of Iraq, than the physical terrestrial circuit path that connects Contract Line Item (CLIN) #8.
 - ii. The link will enter the Consulate compound via the designated CAC.
 - iii. The link will be terminated at the Consulate's CAC demarcation point and tested.
 - iv. Where contractor routers are provided, the contractor is responsible for replacement and normal upgrade of that equipment.
 - v. The Consulate shall be responsible for connecting the path from the demarcation point to subsequent points on their networks.

- Acceptable Level of Performance

The Standard of Performance (SP) for this contract is 99.7% percent availability per month (100 percent less 0.5 percent each month for corrective and preventive maintenance).

- Inspection and Acceptance

Unless specified in the contract, the Consulate shall require a period not to exceed 48 hours in order to perform testing to determine acceptance of the circuit. The circuit shall meet service performance and availability as defined above.

- Terms of Contract

The required circuit shall be installed and delivered to the Destination Point on or before the Notice to Proceed. Upon successful installation and acceptance by the Consulate of the required circuit, the

contractor shall be provided, in writing, notice to proceed and shall provide contractual services for a twelve (12) month period.

The contractor agrees that the work and services set forth in this contract shall be performed during the period commencing the effective date of this contract and shall continue through the end of the twelve month period of service.

- **AUTOMATIC FAILOVER REDUNDANCY**

The contractor shall be able to provide automatic failover routing capability to the alternate route to minimize disruption to service ordered. Alternate route shall be established within five minutes, be automatic, and notification of the Reason for Outage (RFO) shall be received within 24 hours.

- **PROJECT PLAN AND DELIVERABLES**

The contractor shall provide technical reports, documentation and deliverables in written and electronic format and shall provide monthly written progress reporting. All tasks below shall be completed and all circuits shall be fully operational to begin this contract.

Task 1: Link physical connection to the U.S. Consulate General in Basrah

The contractor shall:

- a) Develop a project proposal
- b) Review project expectations for bandwidth and latency
- c) Provide a schedule for deliverables

(a) Task 1 Deliverables

- (1) Connect cabling (fiber optical) to the Basra Consulate's designated CAC demarcation point (GPS: N 30 33.700 E 47 40.087).
- (2) Provide the Consulate with the manufacturer, model, and technical specifications of all contractor routers and equipment that will be located in the Consulate's CAC demarcation point.

Task 2: Usability Analysis, Testing, & Review Session

The contractor shall perform regular diagnostic usability tests of the fiber optic cable and provide test results to a designated Consulate representative for review.

(a) Task 2 Deliverables

The contractor shall:

- (1) develop a usability testing plan
- (2) provide a written usability testing report of findings
- (3) provide presentation, with accompanying graphs, of findings based on usability testing report

Task 3: Bandwidth Management

- a) The contractor shall perform bandwidth management to ensure that full download and upload speeds are being maintained.

- b) The contractor shall provide for a spare/redundant path should the primary fiber optical cable link fails between the Consulate and the ISP. Upon an outage of the primary link the path shall be transitioned immediately to the alternate path and the Consulate notified.
- c) The contractor shall compile and analyze regular testing methods and view results to develop a bandwidth management plan to ensure true bandwidth is maintained.

(a) *Task 3 Deliverables*

The contractor shall:

- (1) develop a bandwidth testing plan and shall:
- (2) provide quarterly written bandwidth test reports of findings
- (3) provide presentation, with accompanying graphs, of findings based on bandwidth testing
- (4) provide written report of any circuit outages and any switch to the alternate path

10. Circuit Size of 30Mbps Dedicated Full-Duplex Internet Circuit – at the U.S. American Consulate General in Erbil, Republic of Iraq, Contract Line Item No. 0010, Section 1, Block 23, Prices, V Prices, under paragraphs 4 and 5, for Circuit Size of 30 Mbps Dedicated Full-Duplex Internet Circuit

- General: The U.S. American Consulate Consular General is located in Erbil, Iraq. This diplomatic mission has a large Local Area Network which provides access to the U.S. Government systems. These systems require large amounts of Internet bandwidth with streamlined throughput, low jitter, and little latency. The ability to access, download, and upload data is paramount. The U.S. American Consulate General is currently in the process of increasing its technology and infrastructure to better support its network. The U.S. American Consulate General needs high-speed fiber optic connectivity at its premises to support both voice and data applications. The objective of this contract is to provide reliable, redundant network paths, to the Internet, for our Virtual Private Network (VPN).
- The U.S. Consulate General may increase or decrease the circuit bandwidth requirement within 30 days via modification to the contract. The bandwidth requirement for this circuit is listed above. The availability of this circuit shall not be less than 99.7% percent per month over the period of the contract.
- This digital service shall be via whatever facilities are available to the contractor. The service shall be for the exclusive use of the Consulate, 24-hours per day, 7 days per week, and 52 weeks per year.
- The contractor shall coordinate the service and shall be responsible for the technical sufficiency of the circuit, including services necessary to establish, operate, and restore the circuit. The contractor shall provide all equipment, materials, and supplies required to provide the service.
- The contractor shall provide sufficient technical support to ensure uninterrupted end-to-end service between such terminal points as are covered in this contract.
- The contractor shall provide, properly adjust, and maintain the circuit for continuous Consulate use. The contractor shall ensure that the circuit complies with service changes, additions, or deletions as required under this contract.
- The contractor shall provide the key individuals to complete the work according to the guidelines specified below. The contractor shall ensure that qualified IT Help Desk/Engineers shall be available for consultations 24-hours per day, 7 days per week, and 52 weeks per year.

- The circuit shall be completely transparent with no bits added to or deleted from the bit stream provided to the interface of the Consulate's equipment.
- The contractor shall use the following technical specifications:
 - (a) The contractor shall provide circuit connectivity from their main distribution frame to the Consulate's demarcation point.
 - (b) In order to achieve high quality performance, the below shall be met by the contractor:
 - i. Latency \leq 200ms (to Washington DC), Packet Loss \leq .1% and availability of 99.7% .
 - ii. /28 subnet static Public IP addresses (total to be determined) for VPN equipment, network mask, and default gateway IP address.
 - iii. ISP interface connectors: Fiber Optic interface preferred or as agreed upon by the mission IM Representatives and contractor.
 - iv. ISP availability: "Always on"
 - v. ISP connection shall NOT use Network Address Translation (NAT).
 - vi. ISP shall permit all IP protocols (including but not limited to UDP, TCP, and IPSEC) to transit without filters or proxies.
 - vii. Unfiltered access to the Internet is required without ISP firewall blocking.
 - viii. ISP shall permit installation of Customer VPN encryption devices on circuit.
 - ix. ISP shall permit ping and trace route traffic (Fiber Optic interface or other agreed upon interfaces which terminate Customer VPN encryption devices).
 - (c) Contractor approach of network paths to the Consulate's Compound Access Control (CAC) demarcation point.
 - i. Existing Single mode, direct burial, fiber optic cable is required.
 - ii. The link will enter the Consulate compound via the designated CAC.
 - iii. The link will be terminated at the Consulate's CAC demarcation point and tested.
 - iv. Where contractor routers are provided, the contractor is responsible for replacement and normal upgrade of that equipment.
 - v. The Consulate shall be responsible for connecting the path from the demarcation point to subsequent points on their networks.
- Acceptable Level of Performance

The Standard of Performance (SP) for this contract is 99.7% percent availability per month (100 percent less 0.5 percent each month for corrective and preventive maintenance).
- Inspection and Acceptance

Unless specified in the contract, the Consulate shall require a period not to exceed 48 hours in order to perform testing to determine acceptance of the circuit. The circuit shall meet service performance and availability as defined above.
- Terms of Contract

The required circuit shall be installed and delivered to the Destination Point on or before the Notice to Proceed. Upon successful installation and acceptance by the Consulate of the required circuit, the contractor shall be provided, in writing, notice to proceed and shall provide contractual services for a twelve (12) month period.

The contractor agrees that the work and services set forth in this contract shall be performed during the period commencing the effective date of this contract and shall continue through the end of the twelve month period of service.

- AUTOMATIC FAILOVER REDUNDANCY

The contractor shall be able to provide automatic failover routing capability to the alternate route to minimize disruption to service ordered. Alternate route shall be established within five minutes, be automatic, and notification of the Reason for Outage (RFO) shall be received within 24 hours.

- PROJECT PLAN AND DELIVERABLES

The contractor shall provide technical reports, documentation and deliverables in written and electronic format and shall provide monthly written progress reporting. All tasks below shall be completed and all circuits shall be fully operational to begin this contract.

Task 1: Link physical connection to the U.S. Consulate General in Erbil

The contractor shall:

- a) Develop a project proposal
- b) Review project expectations for bandwidth and latency
- c) Provide a schedule for deliverables

(a) Task 1 Deliverables

- (1) Connect cabling (fiber optical) to the Erbil Consulate's designated CAC demarcation point.
- (2) Provide the Consulate with the manufacturer, model, and technical specifications of all contractor routers and equipment that will be located in the Consulate's CAC demarcation point.

Task 2: Usability Analysis, Testing, & Review Session

The contractor shall perform regular diagnostic usability tests of the fiber optic cable and provide test results to a designated Consulate representative for review.

(a) Task 2 Deliverables

The contractor shall:

- (1) develop a usability testing plan
- (2) provide a written usability testing report of findings
- (3) provide presentation, with accompanying graphs, of findings based on usability testing report

Task 3: Bandwidth Management

- a) The contractor shall perform bandwidth management to ensure that full download and upload speeds are being maintained.
- b) The contractor shall provide for a spare/redundant path should the primary fiber optical cable link fails between the Consulate and the ISP. Upon an outage of the primary link the path shall be transitioned immediately to the alternate path and the Consulate notified.

- c) The contractor shall compile and analyze regular testing methods and view results to develop a bandwidth management plan to ensure true bandwidth is maintained.

(a) *Task 3 Deliverables*

The contractor shall:

- (1) develop a bandwidth testing plan and shall:
- (2) provide quarterly written bandwidth test reports of findings
- (3) provide presentation, with accompanying graphs, of findings based on bandwidth testing
- (4) provide written report of any circuit outages and any switch to the alternate path

11. Circuit Size of 15Mbps Dedicated Full-Duplex Backup Internet Circuit – at the U.S. American Consulate General in Erbil, Republic of Iraq, Contract Line Item No. 0011, Section 1, Block 23, Prices, V Prices, under paragraphs 4 and 5, for Circuit Size of 15 Mbps Dedicated Full-Duplex Internet Circuit

- General: The U.S. American Consulate Consular General is located in Erbil, Iraq. This diplomatic mission has a large Local Area Network which provides access to the U.S. Government systems. These systems require large amounts of Internet bandwidth with streamlined throughput, low jitter, and little latency. The ability to access, download, and upload data is paramount. The U.S. American Consulate General is currently in the process of increasing its technology and infrastructure to better support its network. The U.S. American Consulate General needs high-speed fiber optic connectivity at its premises to support both voice and data applications. The objective of this contract is to provide reliable, redundant network paths, to the Internet, for our Virtual Private Network (VPN).
- The U.S. Consulate General may increase or decrease the circuit bandwidth requirement within 30 days via modification to the contract. The bandwidth requirement for this circuit is listed above. The availability of this circuit shall not be less than 99.7% percent per month over the period of the contract.
- This digital service shall be via whatever facilities are available to the contractor. The service shall be for the exclusive use of the Consulate, 24-hours per day, 7 days per week, and 52 weeks per year.
- The contractor shall coordinate the service and shall be responsible for the technical sufficiency of the circuit, including services necessary to establish, operate, and restore the circuit. The contractor shall provide all equipment, materials, and supplies required to provide the service.
- The contractor shall provide sufficient technical support to ensure uninterrupted end-to-end service between such terminal points as are covered in this contract.
- The contractor shall provide, properly adjust, and maintain the circuit for continuous Consulate use. The contractor shall ensure that the circuit complies with service changes, additions, or deletions as required under this contract.
- The contractor shall provide the key individuals to complete the work according to the guidelines specified below. The contractor shall ensure that qualified IT Help Desk/Engineers shall be available for consultations 24-hours per day, 7 days per week, and 52 weeks per year.
- The circuit shall be completely transparent with no bits added to or deleted from the bit stream provided to the interface of the Consulate's equipment.
- The contractor shall use the following technical specifications:

- (a) The contractor shall provide circuit connectivity from their main distribution frame to the Consulate's demarcation point.
- (b) In order to achieve high quality performance, the below shall be met by the contractor:
- i. Latency ≤ 200 ms (to Washington DC), Packet Loss $\leq .1\%$ and availability of 99.7% .
 - ii. /28 subnet static Public IP addresses (total to be determined) for VPN equipment, network mask, and default gateway IP address.
 - iii. ISP interface connectors: Fiber Optic interface preferred or as agreed upon by the mission IM Representatives and contractor.
 - iv. ISP availability: "Always on"
 - v. ISP connection shall NOT use Network Address Translation (NAT).
 - vi. ISP shall permit all IP protocols (including but not limited to UDP, TCP, and IPSEC) to transit without filters or proxies.
 - vii. Unfiltered access to the Internet is required without ISP firewall blocking.
 - viii. ISP shall permit installation of Customer VPN encryption devices on circuit.
 - ix. ISP shall permit ping and trace route traffic (Fiber Optic interface or other agreed upon interfaces which terminate Customer VPN encryption devices).

(c) Contractor approach of network paths to the Consulate's Compound Access Control (CAC) demarcation point.

- i. Wireless link from vendor's Network Operations Center (NOC), to the Consulate's Compound.
 - a. This NOC must be a different NOC than the one that physically connects the circuit for Contract Line Item (CLIN) #10.
 - b. This NOC must also have a different physical terrestrial circuit path leaving the country of Iraq, than the physical terrestrial circuit path that connects Contract Line Item (CLIN) #10.
- ii. The link will enter the Consulate compound via the designated CAC.
- iii. The link will be terminated at the Consulate's CAC demarcation point and tested.
- iv. Where contractor routers are provided, the contractor is responsible for replacement and normal upgrade of that equipment.
- v. The Consulate shall be responsible for connecting the path from the demarcation point to subsequent points on their networks.

- Acceptable Level of Performance

The Standard of Performance (SP) for this contract is 99.7% percent availability per month (100 percent less 0.5 percent each month for corrective and preventive maintenance).

- Inspection and Acceptance

Unless specified in the contract, the Consulate shall require a period not to exceed 48 hours in order to perform testing to determine acceptance of the circuit. The circuit shall meet service performance and availability as defined above.

- Terms of Contract

The required circuit shall be installed and delivered to the Destination Point on or before the Notice to Proceed. Upon successful installation and acceptance by the Consulate of the required circuit, the contractor shall be provided, in writing, notice to proceed and shall provide contractual services for a twelve (12) month period.

The contractor agrees that the work and services set forth in this contract shall be performed during the period commencing the effective date of this contract and shall continue through the end of the twelve month period of service.

- **AUTOMATIC FAILOVER REDUNDANCY**

The contractor shall be able to provide automatic failover routing capability to the alternate route to minimize disruption to service ordered. Alternate route shall be established within five minutes, be automatic, and notification of the Reason for Outage (RFO) shall be received within 24 hours.

- **PROJECT PLAN AND DELIVERABLES**

The contractor shall provide technical reports, documentation and deliverables in written and electronic format and shall provide monthly written progress reporting. All tasks below shall be completed and all circuits shall be fully operational to begin this contract.

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- c) The contractor shall compile and analyze regular testing methods and view results to develop a bandwidth management plan to ensure true bandwidth is maintained.

(a) *Task 3 Deliverables*

The contractor shall:

- (1) develop a bandwidth testing plan and shall:
- (2) provide quarterly written bandwidth test reports of findings
- (3) provide presentation, with accompanying graphs, of findings based on bandwidth testing
- (4) provide written report of any circuit outages and any switch to the alternate path

4. Section 3 – Solicitation Provisions, Article A. Summary of Instructions is revised to add Paragraph (10) as follows:

A. *Summary of instructions. Each offer must consist of the following:*

A.1. *A completed solicitation, in which the SF-1449 cover page (blocks 12, 17, 19-24, and 30 as appropriate), and Section 1 has been filled out.*

A.2. *Information demonstrating the offeror's ability to perform, including:*

- (1) Name of a Project Manager (or other liaison to the Embassy/Consulate) who understands written and spoken English;
- (2) Evidence that the offeror operates an established business with a permanent address and telephone listing;
- (3) List of clients, demonstrating prior experience with relevant past performance information and references;
- (4) Evidence that the offeror can provide the necessary personnel, equipment, and financial resources needed to perform the work;
- (5) Evidence that the offeror has all licenses and permits required by local law (see DOSAR 652.242-73 in Section 2).
- (6) a copy of the Certificate of Insurance, or
- (7) a statement that the contractor will get the required insurance, and the name of the insurance provider to be used.
- (8) The offeror is required to submit a **Recruitment Plan** as part of their proposal. The Recruitment Plan shall include the following at a minimum:
 - a. State the anticipated number of workers to be recruited, the skills they are expected to have, and the country or countries from which the contractor intends to recruit them.
 - b. Explain how the contractor intends to attract candidates and the recruitment strategy including the recruiter.
 - c. Provide sample recruitment agreement in English.
 - d. State in the offer that the recruited employee will not be charged recruitment or any similar fees.
 - e. State in the offer that the contractor's recruitment practices comply with recruiting nation and host country labor laws.
 - f. State in the offer that the contractor has read and understands the requirements of FAR 52.222-50 Combating Trafficking in Persons.
- (9) Offerors providing employer furnished housing shall submit a **Housing Plan**.

The offeror shall submit a **Housing Plan** if the contractor intends to provide employer furnished housing for TCNs. The **Housing Plan** must describe the location and description of the proposed housing. Contractors must state in their offer that housing meets host country housing and safety standards and local codes or explain any variance. Contractor shall comply with any Temporary Labor Camp standards contained in this contract. In contracts without a Temporary Labor Camp standard, fifty square feet is the minimum amount of space per person without a Contracting Officer waiver.

(10) The Offeror will provide in his proposal a detailed plan of a full implementation of the contract terms at all U.S. Embassy facilities, as prescribed in I. SCOPE OF WORK. The proposal should specify how the process is going to take place from start to end, taking these requirements into consideration.