

# Scope of Work

The purpose of this firm fixed price purchase order is to obtain VPN, Internet Services, and Circuitry for the U.S. Consulate General Dhahran, Saudi Arabia.

The local Telecommunication's Internet Service Provider (ISP) firm must provide internet services and dedicated leased line channels and circuitry for connecting U.S. Consulate Dhahran, Saudi Arabia.

## REQUIREMENTS

1. The service provider will need to install and support a Dedicated Internet Access (DIA) connection to the United States (U.S.) Consulate located Near KFUPM Dhahran, KSA. The connection must provide connectivity from the demarcation point within the U.S. Consulate compound, through the ISP central office and to the Internet. The demarcation point within the U.S. Consulate compound must terminate in an Ethernet capable connection.
2. The DIA connection will need to be capable of data transmission at a minimum of **Six (6)** Megabits per second (Mbps) Dedicated bandwidth.
3. Costs for the service need to be specified for aggregate access speeds of 44 Mbps or the next available incremental speed. This includes the following:
  - a. Non-Recurring Costs (NRC) for installation of any necessary equipment and/or communications lines.
  - b. Annual recurring costs for services.
4. The ISP will need to agree to the following level of service:
  - a. Bandwidth must be dedicated with unlimited usage.
  - b. Network Availability must meet a service level of 99% uptime.
  - c. Guaranteed data transmission speeds not including any transmission overhead that may be introduced by the transmitting technology (i.e. overhead due to encapsulation, checksum, packet header data, etc.).
5. The ISP provided DIA connection must include the following Internet Protocol (IP) capabilities (to the extent that the KSA MoCI law permits)
  - a. A minimum of Four (4) usable, dedicated Internet Protocol version 4 (IPv4) addresses from the ISP's Internet IPv4 address pool. This requires a masking block from subnet of /24 through /29.
  - b. IPv4 addresses must be publicly routable via the Internet.
  - c. Permit the unfiltered transmission of all IP traffic types including, but not limited to, UDP, TCP and IPSEC protocols

6. The ISP provided DIA connection must adhere to the following IPv4 latency levels. Latency is to be measured from the demarcation point within the U.S. Consulate compound to the ISP central office equipment.
  - a. 32 milliseconds or less for IPv4 packet transmissions.
  - b. Zero packet loss.
  - c. Single hop (Direct) package transmission.
7. The ISP is to provide full maintenance support 24 hours a day, 7 days a week for one year.
  - a. Full maintenance support will need to include the following support services:
    - i. Support with billing and other administrative issues.
    - ii. Support for equipment installed in the U.S. Consulate compound including equipment replacements or upgrades as needed.
    - iii. Support for any communications lines up to the demarcation point within the U.S. Consulate compound.
    - iv. The ISP is expected to respond and initiate steps to resolve issues within two (2) hours of the U.S. Consulate reporting the incident or requesting support.
8. The ISP is expected to provide the U.S. Consulate with network diagrams showing both the physical and logical layout of the proposed DIA connection.

## REPORTING

It is important that the U.S. Consulate and the ISP work closely together to ensure the highest possible level of service. To that end, the U.S. Consulate will require the following reporting mechanisms:

1. The ISP is to provide a billing invoice within 30 days of the U.S. incurring an authorized expense.
2. The ISP is expected to provide bi-weekly reports regarding the bandwidth utilization and quality of service for the DIA connection.
3. The ISP is to provide the U.S. Consulate with access to monitoring systems (MRTG, Nagios or other acceptable SNMP based monitoring systems) that will help in checking the DIA connection status.

This is the list of required services:

### **Service: Open Net-VPN**

Name: Open Net plus (VPN through the Internet) at the U.S. Consulate Dhahran, Saudi Arabia.

Description: One (1) dedicated Internet lease line at minimum 6,144 Kbps (6MB) providing fault tolerance in the last mile. HSRP protocol is required.

Type of Service: Dedicated Internet Lease Line

Location: Chancery Building (American Consulate, Dhahran, Saudi Arabia.)

The provided Internet Service shall comply with the following requirements:

1. Internet Service Provider (ISP) shall provide dedicated leased channel high-speed access to the Internet; data transport media must be fiber optic. Twenty-four (24) hours uplink. Post Internet Service Provider (ISP) connection must be "always on", and must not require the installation of any custom software on the client side.
2. Internet Service Provider (ISP) connection must NOT, *repeat*, NOT use Network Address Translation (NAT).
3. Internet Service Provider (ISP) must permit installation of Customer VPN encryption devices on circuit.