Statement of Work
RFP-DF-96217
Virtual Desktop Infrastructure

1.0   Introduction

Colorado Springs Utilities (UTILITIES) desires to contract with a reputable firm for the purchase and implementation of a Virtual Desktop Infrastructure (VDI) Project. This VDI Project will be designed to replace two classes of PC's currently used at UTILITIES: Training Lab PC's and Multi-User Crew PC's. Our multi-crew PC's represent devices located in field crew rooms that are available to staff primarily used before or after time spent on a job site in the field. UTILITIES plans to transition to 160 thin client devices over the next 4 years. We will repurpose some PC's to run them to failure. We anticipate 40 devices per year over the next 4 years. UTILITIES' is currently using VMware products for our server virtualization.

The existing hardware that UTILITIES uses and can be used as part of this project includes:

Production:
1. C7000 HP Blade Enclosure
    a. Currently use BL460 blades with 12 open slots at this time. The existing 4 blades should not be considered as part of RESPONDENTS proposal.
2. MSA P2000 Storage with 24 600GB SAS Drives
3. Currently no visibility to the SAN.
4. Dual Flex 10 Virtual Connect Module
5. Dual 6Gb SAS BL Switches
6. Currently Symantec NetBackup 7.0, Symantec NetBackup 7.1 in Q3 2012

Production DR will be available by end of August:
1. C7000 HP Blade Enclosure
    a. Currently use BL460 blades with 12 open slots at this time. The existing 4 blades should not be considered as part of RESPONDENTS proposal.
2. MSA P2000 Storage with 24 600GB SAS Drives
3. Currently no visibility to the SAN.
4. Dual Flex 10 Virtual Connect Module
5. Dual 6Gb SAS BL Switches
6. Currently Symantec NetBackup 7.0, Symantec NetBackup 7.1 in Q3 2012

Development:
1. C7000 HP Blade Enclosure
    a. Currently use BL460 blades with 12 open slots at this time. The existing 4 blades should not be considered as part of RESPONDENTS proposal.
2. Dual Flex 10 Virtual Connect Module
3. Virtual Connect FlexFabric 10Gb/24-port Opt. FCOE connectivity to EMC in TIL in testing, not available yet.
4. EMC VNX 5500 with 600GB SAS/2TB NL SAS Drives.
5. Symantec NetBackup 7.1

Current Network Environment
1. Current Backbone Speed: 10 GB/s
2. Uplink speed to Servers: 1 or 10 GB/s

3. Fully redundant networking architecture available in the data center.
4. LACP channeling protocol available.
5. 802.1Q trunking can be used.
6. Current average utilization of internet bandwidth = under 50%;
7. Connection type from end user workstations to wiring closet = GigE/CAT6 up to 1GB/s
8. Connection type from Ethernet switch to Servers/DC = GigE/CAT6 or fiber optics;
9. Latency (ping speed) from end user workstation to server closet < 1 ms;
10. VDI will be delivered across the WAN.
11. Bandwidth between sites (WAN): minimum 10 MB/S
12. Bandwidth to Internet: 100 MB/S per site
13. Currently utilizes VLANs for network separation and can add/adjust VLANs as needed.

2.0 Background

UTILITIES' is currently looking to implement a VDI solution. This program will target 160 traditional PC's and replace them with thin clients over the next four years. The project could grow over the next few years pending the acceptance of this technology is other areas of the business.

The objectives of this VDI Project are multi-faceted:
- Minimize visits to remote PC's for hardware failures
- Improved management of desktop in training labs which can require new images weekly
- Transition to thin clients where appropriate
- Assist with Windows 7 migration
- Test VDI implementation with iPad remote desktop.

3.0 Scope and Responsibilities

3.1 UTILITIES Responsibilities

UTILITIES shall:
3.1.1 Assign a designated Project Manager on behalf of the UTILITIES, who shall have responsibility for providing all project approvals, project information, and the day-to-day project management of the Implementation. The UTILITIES Project Manager shall be available to consult with RESPONDANT to facilitate the delivery of the services per this Statement of Work ("SOW").
3.1.2 Ensure all infrastructure (servers, thin clients, etc.) have power and network connectivity available.
3.1.3 Provide the successful Respondent with supervised access to all locations where services are to be performed.
3.1.4 Provide a suitable work area for delivery of the service, including access to an outside telephone line, power, and any network connections required.
3.1.5 Participate in the VDI Project Wrap-Up Meetings upon completion of the Implementation.

3.2 RESPONDENT Responsibilities:

Respondent shall:
3.2.1 Provide a VDI Solution that meets the minimum requirements set forth in this RFP.

3.2.2   Be an authorized reseller of all hardware/software proposed in the solution.

3.2.3   Provide software pricing for 160 devices that will utilize the VDI infrastructure for the most current field proven software version available from manufacturer.

3.2.4   Provide software pricing for the management software required to create and administer the VDI environment.

3.2.5   Provide software requirements for Microsoft licensing. Actual Microsoft licensing will be handled by UTILITIES.

3.2.6   Provide hardware recommendations extending the HP C7000 Blade infrastructure described above to test 10 concurrent users in our development environment and 160 users in our production environment. RESPONDENT may include hardware pricing as long as they are authorized resellers of the HP product.

3.2.7   Provide 40 thin client devices with a 17" and 19" monitor options; dual monitor option; Workstation/Smart Terminal with 2Gb RAM, USB port, audio and video output, keyboard and mouse; propose alternate devices if available.

3.2.8   Provide typical network traffic statistics of VDI environments compared to traditional computing environments.

3.2.9   Provide timely responses to questions generated from the VDI Implementation Project Kick-Off Meeting.

3.2.10 Be responsible for all approvals as well as the day-to-day management of the Respondents' Resources assigned to this project.

3.2.11 Provide UTILITIES with the necessary pre-requisite Information, prior to the Project Kick-Off Meeting (Software, Firmware)

3.2.12 Provide a project implementation plan as part of your submittal of this proposal.

3.2.13 Meet with the UTILITIES Project Manager and VDI Team to review the VDI Implementation activities to:
- Ensure that all UTILITIES requirements are addressed.
- Mutually agree upon the roles and responsibilities of Respondent's personnel and UTILITIES personnel
- Provide a draft project plan to UTILITIES for approval and sign off

3.2.14 Install the VDI Management Software in the development and production environments.

3.2.15 Provide professional services to create at least 3 separate VDI images that will be used during the project.

3.2.16 Provide professional services to integrate the new proposed solution to work with existing backup software.

3.2.17 Provide professional services to integrate the new proposed solution to work with Microsoft System Center Configuration Manager 2007 environment

3.2.18 Provide logical and physical design diagrams for the VDI configuration including zoning and information necessary to configure the hardware and software in an editable format, i.e. Visio document.

3.2.19 Define the knowledge transfer process and shall coordinate with UTILITIES for the knowledge transfer regarding the VDI products' features and operational use that will be provided by RESPONDENTS team resources assigned to this implementation.

3.2.20 Demonstrate and transfer operational knowledge of all VDI management interfaces (VDI management applications, etc.) to UTILITIES team personnel.

3.2.21 Provide complete configuration documentation and submit electronic copies for review/verification by the UTILITIES Project Manager.

3.2.22 Participate in the UTILITIES Project Close Out and Wrap-Up session.

4.0 Project Schedule

Respondent shall include provide a detailed VDI Implementation Project Plan to UTILITIES in Respondent's proposal. The Project Plan shall include a Work Breakdown Structure (WBS) and a timeline for each task. UTILITIES and Respondent shall mutually agree upon the Project Plan and then the approved Project Plan shall be incorporated into the SOW.

Respondent's estimates the implementation of the VDI to run from:

Start date: _____
End date: _____

5.0 Deliverables

Upon completion of this VDI Implementation Respondent shall have provided Utilities with the following deliverables:

5.1 One VDI Systems. Provide one VDI that meets our requirements.

5.2 Project Implementation Plan. Provided a detail Project Implementation Plan including a work breakdown structure including a start and end date for each Task in the Plan for UTILITIES review and approval.

5.3 Design. Created all logical and physical diagrams for the VDI configuration. These diagrams will be based on UTILITIES requirements, and shall include information necessary to properly configure all hardware and software, which shall be delivered to UTILITIES

5.4 Customer Orientation. Provide knowledge transfer and hands-on expertise to UTILITIES employees throughout the entire Implementation process. Such knowledge transfer and hands-on expertise shall include all VDI System features and operational use.

5.5 Project Close Out. Respondent shall have participated in all VDI Implementation Project Close Out and Wrap-up Sessions for knowledge transfer to UTILITES resources. These Project Close Out and Wrap-up Sessions will be held in Colorado Springs, Colorado at a mutually convenient time and date.

5.6 Full Documentation. Respondent shall have provided UTILITIES with an Implementation Document, and an editable electronic copy (Word, Visio, etc.) of the "as is "configuration information captured.

5.7 Knowledge Acquisition. Respondent shall have agreed to provide UTILITIES with up to 40 hours of training at no charge for the VDI software and hardware to be utilized over the next twelve months.

6.0 Payment

Once the Acceptance Criteria contained in Article 7.0 (Acceptance) has been completed, Respondent will deliver the UTILITIES' Acceptance Form contained in Attachment B of this Statement of Work to the UTILITIES' VDI Implementation Project Manager for execution. Once the UTILITIES Project Manager executes the Acceptance Form, Respondent shall submit an Invoice to Utilities for payment.

7.0 Acceptance Criteria

7.1 The successful Respondent shall validate proper functionality of the total VDI and associated software that was installed and shall validate the configuration. After successful completion of the configuration, UTILITIES will execute the UTILITIES Acceptance Form attached as Attachment B to this Statement of Work.

7.2 Respondent shall have provided an electronic project implementation plan on Schedule.

7.3 Respondent shall have participated with UTILITIES at Project Kick-Off meeting on schedule.

7.4 Respondent shall have performed VDI standard hardware/software tests/diagnostics on schedule.

7.5 Respondent shall have installed VDI solution on schedule.

7.6 Respondent shall have provided logical and physical design diagrams on schedule.

7.7 Respondent shall have provided knowledge transfer of the VDI products' features and operational use.

7.8 Respondent shall have provided complete configuration documentation and submitted electronic copies for review/verification by the Utilities Project Manager.

7.9 Respondent shall have participated in all Project Close Out and Wrap-Up sessions.

8.0 Work Performance

8.1 Delivery Location. The VDI System will be delivered to and installed at:
Colorado Springs Utilities
System Energy Control Center
215 Nichols Boulevard
Colorado Springs, CO 80907

8.2   Hours.   All on-site services shall be performed Monday through Friday during the hours of 8:00 AM to 5:00 PM (MST) excluding UTILTIES Holidays:

9.0   Outsourced Activity

Respondent shall describe the origin of all proposed services, identifying any tasks or services that will be assigned to sub-contractors.

10.0   Security Guidelines

10.1 Respondent agrees that all personnel assigned to this Project shall adhere to all UTILITIES' security policies and guidelines at all times and at all UTILITIES' locations.

10.2   A background check verification must be provided in writing to UTILITIES prior to the   start date of a resulting contract for Respondent's personnel who will need unescorted physical or electronic access to one or more UTILITIES Critical Cyber Assets (CCAs), i.e. SECC Control Center, LYSC Control Center and Tesla Hydro Control Center.

10.3 Any Respondent provided computing equipment to be connected to UTILITIES' computer network must be scanned for viruses and other malicious software by UTILITIES personnel prior to each connection.   UTILITIES recommends that the Respondent supply general Internet access for all of Respondents resources through Respondent provided mobile wireless devices to maximize on-site productivity.