

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. Contract Number	Page of Pages 1   3	
2. Amendment/Modification Number Amendment 1		3. Effective Date 6-Nov-07	4. Requisition/Purchase Request No.	5. Solicitation Caption Data Center Assessment Services	
6. Issued By: Office of Contracting and Procurement Office of the Chief Technology Officer 441 4th Street, NW Washington, DC 20001 Attn: Howard A. Toorie			Code <input type="text"/> 7. Administered By (If other than line 6) Office of the Chief Technology Officer 441 4th Street, NW Washington, DC 20001 202-727-2277		
8. Name and Address of Contractor (No. Street, city, country, state and ZIP Code)			9A. Amendment of Solicitation No. DCTO-2008-R-0001		
			X 9B. Dated (See Item 11) 10-Oct-07		
			10A. Modification of Contract/Order No.		
			10B. Dated (See Item 13)		
Code <input type="text"/>		Facility <input type="text"/>			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
X The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input checked="" 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 <input type="text"/> copies of the amendment: (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or fax which includes a reference to the solicitation and amendment number. FAILURE OF YOUR ACKNOWLEDGEMENT 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 letter or fax, provided each letter or telegram 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)					
X 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 27 DCMR, Chapter 36, Section 3601.2.					
C. This supplemental agreement is entered into pursuant to authority of:					
D. Other (Specify type of modification and authority)					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return <input type="text"/> copies to the issuing office.					
14. Description of amendment/modification (Organized by UCF Section headings, including solicitation/contract subject matter where feasible.)					
1. The question and answers on page 2 and 3 of this amendment shall be incorporate into this RFP.					
2. Section C.3.6 (a) shall include the following at the end of the sentence" "All agencies currently located at ODC II and DCPS" All other Terms and Conditions shall remain the same.					
Except as provided herein, all terms and conditions of the document referenced in Item (9A or 10A) remain unchanged and in full force and effect					
15A. Name and Title of Signer (Type or print)			16A. Name of Contracting Officer William Sharp		
15B. Name of Contractor  (Signature of person authorized to sign)		15C. Date Signed	16B. District of Columbia  (Signature of Contracting Officer)		16C. Date Signed  11/6/2007

**Question 1:** Can OCTO provide clarification concerning the statement concerning conflicts of interest [specific citation is found in RFP Section C.1, paragraph 2] and how that might affect teaming arrangements or downstream work activities?

**Answer:**

*Under Section C.1 if a contractor responds to this RFP, whether or not that company is awarded a contract, said company is precluded from responding to any future RFP for Data Warehousing Services. What the District prohibits is a company being the winning bidder under this RFP and responding to any future District RFP for Data Warehousing Service that was prepared by them (that would be a conflict of interest). Further, the District would like to know if any offeror is presently doing any work or responding on behalf of any Data Warehousing Services company. The District needs to know this information since it may not be possible for an offeror to complete an impartial evaluation of the Data Warehousing Services RFP when their proposal is submitted on behalf of an existing relationship with a Data Warehousing Services provider.*

**Question 2:** Concerning the overall timeframe: is each offeror free to determine the project duration (based on their offer and solution)?

**Answer:**

*The District expects the project to fall within industry standards for similar types of projects this size and scope.*

**Question 3:** Section M (Evaluation Criteria) includes 12 points for “Preference” (see M 4.3.) but includes no definition. Can OCTO please explain what the intent of this is and provide definition?

**Answer:**

*Under District rules, for Local Small Disadvantaged Business Enterprises (LSDBE) responding to this solicitation, up to 12 points are awarded as set forth in the solicitation. However, under this RFP, a LSDBE would still have to meet the mandatory minimum requirement of completing 10 data center assessments before their proposal is evaluated. If this minimum requirement is not met, the offeror’s proposal will not be considered.*

**Question 4:** Is the winning vendor expected to design the architecture or advise the district on an existing architecture design that has been developed in house?

**Answer:**

*The Office of the Chief Technology Officer (OCTO) is requiring the winning assessment team/integrator to advise the District in regard to best business practices for a backhaul network design. This may require the assessment team/integrator to expand upon the current network architecture or design a network that will give the District the best solution set for data transmission over the 100 mile or more distance.*

**Question 5:** Is the specific expectation for the domain of responsibility for the outside contractor to include all requirements in sections C.3.1 through C.3.9? Is the outside contractor allowed to eliminate portions of the stated scope of work that are outside its normal domain of expertise, and focus its bid on those areas that match its expertise? As an example, is the contractor allowed to bid on C.3.1 Technical Objectives and C.3.2 Business Objectives, but NOT bid on other portions of this section?

**Answer:**

*The entire section C is required because these are the minimum requirements for the assessment of Office of the Chief Technology Data Center Two (ODC II). The integrator should try to answer as many questions as possible to earn the most points in order to earn the award. Please refer to section B.3.1 and H.10 for clarification.*

**Question 6:** Is a 100-mile data center separation required by Federal Regulations? Are there other business justifications for this separation specification?

**Answer:**

*For disaster recovery (D/R) business continuity and capacity planning the District of Columbia would like to follow the commercial and Federal business models of having its D/R site outside the District. The scope of this RFP states OCTO has two data centers, which are 3.8 miles apart. This means they are on the same power grid and located within the same bomb blast area if it were a targeted site.*



# Office of the Chief Technology Officer

## Data Center Hosting Relocation Requirements Specification



Prepared by: Office of the Chief Technology Officer  
Data Center Consolidation Team

***"Making Government Work"***  
**- OCTO Confidential -**

Data Center Hosting Core Equipment, Power and Environmental Requirements

**DRAFT**  
**VERSION 2.5**

Last updated: August 15, 2006

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*DATA CENTER HOSTING RELOCATION - Requirements Specification*

**Revision History**

<b>Date</b>	<b>Date</b>	<b>Reason For Changes</b>	<b>Version</b>
Doug Onyeneho	08/01/06	Draft	2.0
Doug Onyeneho	08/03/06	Added missing information from Veronica Lipscomb	2.1
Veronica Lipscomb	08/03/06	Reviewed by Veronica Lipscomb	2.2
Gregory W. Cotten	08/04/06	Reviewed and addressed some corrections	2.3
Doug Onyeneho	08/07/2006	Modified rack diagrams and added more requirements	2.4
Doug Onyeneho	08/15/2006	Added Blurb for DCWAN, CWITS, Web Application, Server ops and Mainframe	2.5
Gregory W. Cotten			

## **1 Introduction**

The District of Columbia Government Office of the Chief Technology Officer (OCTO) maintains two well managed, integrated and reliable state-of-the-art OCTO Data Centers (known as OCTO Data Center 1 (ODC1), located at 3919 Benning Road, NE, and OCTO Data Center 2 (ODC2), located at 222 Massachusetts Ave, NW. Washington DC). These Data Centers provide critical technological services to the District of Columbia Government Agencies and its citizens with an end-to-end network solution on a 24x7x365 basis. Agencies throughout the government use a wide range of computer applications and services to support the needs of the District Citizens and external business partners. These government services provided by the OCTO Data Centers, range from the critical (911 Emergency and snow removal for example) to the mundane (general ledger and payroll). The Data Centers supports approximately 30,000 District of Columbia Government employees that are located at 660 District building locations throughout the Washington metropolitan area.

Each facility has typical capabilities such as Conditioned Power (uninterruptible power supplies UPS and Diesel Generators), which provides temporary power source during critical moments after an unanticipated power failure, Precision Environmental Controls (HVAC and Fire Suppression), Core Routing Equipment (Firewalls and WAN Routers), Redundant Fiber Connections, cooling systems, raised floor and fire/safety systems are critical tools used between the OCTO Data Centers. In addition, the Data Centers are protected by armed guards around the clock. The armed guards monitor and validate visitor access via an Access Control List. Both Data Centers have around 7,000 square feet of air conditioned space and use between 110 and 165 kw. The power usage is expected to grow as more servers are consolidated from remote sites. Between physical consolidation and the use of blade servers, we believe the conditioned space can be reduced by approximately 50% or more.

Each Data Center is engineered to the highest levels, with extensive systems to address security and network redundancy. These services are provided by both OCTO Data Centers within the District of Columbia geographical location. Failover capabilities exist between the two OCTO Data Centers; however certain vulnerabilities do exist due to geographical closeness.

Because of the close proximity of the two Data Centers to each other, the Office of the Chief Technology Officer has performed an evaluation and identified options for providing a tertiary backup data center hosting facility outside of District of Columbia for both OCTO Data Centers should a natural / man-made disaster or power grid impacting the two OCTO Data Centers.

Therefore; The OCTO recommends that ODC2 be moved to the deep Maryland or Virginia suburbs. This recommendation will allow the District of Columbia Government to withstand any natural / man-made disaster or power grid impacting the two OCTO Data Centers much more effectively and for business continuity capability.

## **2 Document Objective**

The District of Columbia government has two OCTO Data Center locations within the Washington, D.C metropolitan area. These two OCTO Data Centers, both located within seven miles of each other, with several common risk factors to disastrous situations. Both OCTO Data Centers are reliant on the same electrical grid. The geographical proximity of the locations makes

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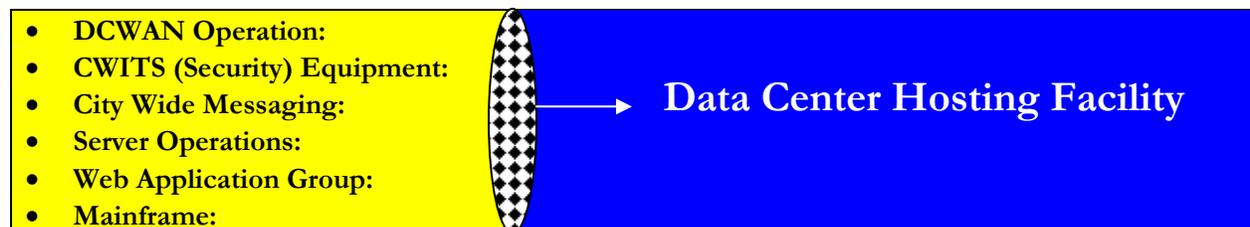
critical communication services hosted in the OCTO Data Centers vulnerable to simultaneous failure should a natural or man-made disaster occur within the District of Columbia area.

Furthermore; external providers, which deliver essential services to the OCTO Data Centers, (such as telecommunications carriers, internet service providers (ISP) and public internet communications points) represents further potential failure points that could impact the delivery of services from the District of Columbia regional area.

The purpose of this document is to provide recommendation and specific requirements for relocating the six critical District of Columbia OCTO Data Center, Core Equipment Network Infrastructure from the current (ODC2) location to the replacement data center hosting facility (TBD) outside of the District of Columbia current location, should a natural or man-made disaster impact the two OCTO Data Centers. The six critical communications components being hosted by ODC2 are listed below:

- DCWAN Operation (WAN Groups)
- Citywide Information Technology Security (CWITS) Network (“Security”)
- City Wide Messaging (Email Groups)
- Server Operations (Server Ops)
- Web Application Group (DNS Groups) and
- Mainframe

All of the requirements listed in this document are considered mandatory. This document supports OCTO’s disaster recovery policy.



### **3 Overall Description**

#### **3.1 DCWAN Operation (WAN Groups)**

The District of Columbia Wide Area Network (DCWAN) interconnects all District agency local area networks (LANs) into a common District-wide network. The DCWAN is the state-of-the-art metropolitan area network infrastructure that interconnects all of the key District of Columbia government agencies, including the Mayor’s Office, the City Council, the Metropolitan Police Department, the Department of Motor Vehicles, and many other vital agencies. This robust network interconnects hundreds of government buildings, and consists of high speed data circuits arranged in a hub-and-spoke topology using Verizon transport services. The DCWAN is comparable to a large, well-managed municipality or corporate ISP company.

The backbone of the DCWAN is the DCWAN Core ("the Core"). Standardized on networking equipment from Cisco Systems, Inc., the Core network is modern, stable and robust. It is also highly adaptable to internetworking thousands of District employees and external customers who

## ***DATA CENTER HOSTING RELOCATION - Requirements Specification***

depend on uninterrupted information technology services each day. For example, the Core enables email and Internet access and supports mission-critical applications, such as System of Accounting Reports (SOAR), PASS, CAPPs, and emerging technologies, such as Gigabit Ethernet, video conferencing, and video streaming.

The DCWAN is a 24x7, high availability and omnibus operation supported by industry-certified engineers hired by the Office of the Chief Technology Officer (OCTO) to design, build and improve the network on a regular basis. In addition, OCTO deploys industry-certified NOC analysts to monitor and maintain the Core network and vital agency appendages, and ensure the overall health and stability of the government's wide area network.

The network components that comprise the DCWAN Core are:

- Border routers (link to Qwest and AT&T ISPs)
- Firewalls
- DMZ routers
- Inside Core routers (provide connectivity to the WAN through Frame Relay)
- Backup T1 routers
- Core Data Center switches (provide network connectivity to all critical components, including internal VLAN routing)

### ***3.2 Citywide Information Technology Security (CWITS)***

The Citywide information Technology Security (CWITS) services team is responsible for centrally managing information security risk for all District of Columbia government agencies and OCTO Data Centers. Services provided by the security team consist of information security risk assessments, mitigation planning and implementation.

The Wide Area Network (WAN) Security Engineering Support team is responsible for the design, implementation, and maintenance of firewall (FW) devices, Virtual Private Network (VPN) and Intrusion Detection Systems (IDS) to protect the District of Columbia Wide Area Network (WAN) and critical applications/data. Additionally; the Security Engineering Support team evaluates policy and control effectiveness and provides the following monitoring services:

- Enterprise Firewall Management and Support Systems, Centralized PIX Firewall Management Support System, Support and Administration of Checkpoint Firewalls.
- Enterprise secure remote access (VPN) to the District's Wide Area Network (WAN)
- Enterprise Intrusion Detection System, Host-Based Intrusion Detection Sensors (HIDS) Sensor integration and IDS monitoring.
- Compliance auditing, automated tool evaluation, audit report and audit planning.

### ***3.3 City Wide Messaging (Email Groups)***

The Citywide Messaging System is the most highly utilized method of communication within the District of Columbia Government. The ability for agency personnel to communicate is considered critical to the government's day-to-day operations. The functions of District agencies are critical to

## *DATA CENTER HOSTING RELOCATION - Requirements Specification*

servicing the citizens and businesses within the city including several aspects of the Federal Government. The Office of the Chief Technology Officer (OCTO) has launched a multi-year initiative to implement a redundant and highly available citywide electronic messaging system to maintain continuity of business for the District of Columbia government.

### **3.3.1 Vision**

In coordination with the Executive Office of the Mayor (EOM) and the Federal Government, OCTO has developed a Next Generation Architecture for citywide electronic messaging that provides the highest level of performance and features to the District of Columbia government agencies with a clear path for support and future enhancement. A priority in the design and implementation of this system is the ability to continue citywide email communications in the event of a network, server, or Internet Service Provider (ISP) failure. The citywide messaging system is based on a centralized group of servers. These servers are managed across two OCTO Data Centers, both located within the District of Columbia metropolitan area. This highly-available messaging system will allow OCTO to provide electronic messaging services to all District agencies during normal day-to-day operations, and in the event of power, network, or computer outages including critical citywide emergencies.

### **3.4 Server Operations (Server Ops)**

Server Operations (Server Ops) provides operational support and maintenance to OCTO Data Center's network and application servers. It is Server Operations' responsibility to provide services in the following areas. Server and Device Administration, Backup and Recovery, Managed Storage, Monitoring and Reporting\Capacity Planning.

#### **3.4.1 Server and Device Administration**

The Server Operation Group utilizes the systems and expertise needed to build, deploy and operate servers. The team performs installation, move, add and changes, hardware and software change management, patch management, hardware break\fix, user administration, shared resource folder creation, server maintenance tracking and issue resolution and tracking.

#### **3.4.2 Backup and Recovery**

Having a well planned backup strategy is the most effective way to protect vital data. With the number of hacks and viruses on the rise, properly backing up and storing data has never been more important. The Server Operation team performs needs analysis, scheduling, integrity testing and data restoration.

#### **3.4.3 Managed Storage**

In other to eliminate bottlenecks and streamlining workflow processes while assuring responsiveness and high availability of information while reducing operational cost. We have higher application availability, higher application performance, centralized data management, consolidated storage, and practical data transfers and centrally maintain data backups and recovery capabilities.

#### **3.4.4 Monitoring**

For servers hosted at either OCTO Data Centers, Server Operations provides a variety of monitoring options to insure the health of the servers. Using an extensive set of tools, Server Operations is able to monitor: Server health (Memory, CPU and Disk Space Utilization), critical services (Print Spooler, IIS, Etc.), backup status and network availability.

### **3.4.5 Reporting\Capacity Planning**

Server Operations team utilizes advanced monitoring technologies from Dell, Microsoft and Cisco as well as Freshwater Systems Sitescope. The team track and analyze hardware, software and bandwidth performance, and offer expert advice on future capacity requirements. Server Operations team has the capacities to report on the following areas: Bandwidth, Hardware, Security and Backup.

### **3.5 Web Application Group (DNS Groups)**

Web Application Group (DNS Group) is responsible for the design, construction and maintenance of the District of Columbia government web infrastructure.

The Web Application Group manages the server farms, applications & database engines; troubleshoot issues and respond to emergency, security, virus, or other situations to maintain the integrity and availability of citywide web services; assist and advise other District projects integrating new applications into the District of Columbia government server infrastructure.

The team goals are to maintain a healthy and stable web delivery platform, insure 100 percent service quality and availability for District of Columbia government web services, provide ongoing application and database support to agencies; continue to enhance the existing infrastructure, develop a fault tolerant server solutions and disaster recovery services.

### **3.6 Mainframe Services**

The Office of the Chief Technology Officer (OCTO) maintains a pair of real-time, mirrored mainframe OCTO Data Centers. These OCTO Data Centers provide reliable, secure, and efficient computing environments with sufficient resource capacity to satisfy the information processing requirements of the District agencies served by the OCTO Data Centers. Through the OCTO Data Centers, a variety of mainframe services are provided such as:

#### **3.6.1 Job Scheduling Services**

The OCT Data Centers collaborate with the agencies to create, schedule, and execute, agency-specific production batch cycles and ad hoc production jobs. Typically, the cycles perform backup of Systems and Application data, apply business logic to agency data, and prepare reports for distribution. The OCTO Data Center staff monitors the execution of the cycles and provides diagnostic assistance as necessary.

#### **3.6.2 Print Services**

The mainframe OCTO Data Centers provide seamless manual and online report distribution as well as content management and report archiving, forms processing and acquisition inventory control.

#### **3.6.3 Tape Processing Services**

The mainframe Systems staff manages the automated and manual tape mounts, automated archive, migration, and recall of seldom used DASD datasets, also automated stacking of tape volumes to increase the efficiency of tape usage. Receipt, processing, and return of foreign tapes to agency affiliates and Offsite tape storage.

### **3.6.4 Capacity Planning and Performance Management Services**

Agency data are classified and corresponding DASD Pools are created to ensure consistency of the resources used to meet the logical and physical requirement of agency data. Systems staff defines and automatically enforces the DASD policies using the Storage and Management Class constructs of the Storage Management System. Additionally; the Systems staff monitors and periodically adjust the DASD pools to ensure that sufficient quantities of DASD are available within the classes and that the classes are performing as anticipated. The mainframe system staff collects Systems Management and Resource Management Facility data to generate reports that depict resource usage and are used to predict future trends and resource requirements.

### **3.6.5 Connectivity Services**

The OCTO Data Center staff provides and supports the physical and logical infrastructure, housed at OCTO Data Centers, required for the client-agencies to access their applications hosted on the mainframe servers. The staff also provides mechanisms for the secured transfer files to and from the mainframes.

### **3.6.6 Security Services**

The OCTO Data Centers' staff provides role-based authentication and access to the facilities and data used and/or owned by the agencies. The staff also provides password reset services.

### **3.6.7 Asset Management Services**

The OCTO is fiscally responsible for the OCTO Data Centers. The contracts for the facilities at which the data centers are located, the hardware, software, supplies, and vendors used to provide end-user services are managed by OCTO.

## **4 Conceptual Baseline Architecture**

A high-level overview of the OCTO Data Centers conceptual communications Architecture and it's interaction with other systems is depicted in Figure 1: on page 9. The Baseline Architecture reflects a well-formed hierarchical network with three distinct network layers, each providing a different function. The layers are listed and defined below:

### **4.1 Access Layer**

The main function of the access (or workgroup) layer is to connect customers or users. Other functions represented by this layer are shared bandwidth, switched bandwidth, MAC-layer filtering, and micro segmentation.

### **4.2 Distribution Layer**

The distribution or policy layer performs policy-based operations. It performs the complex, CPU-intensive calculations, such as filtering, access lists, inter-VLAN routing, broadcast and multicast domain definition, and address or area aggregation. LAN switches and mid-level routers reside in the distribution layer.

### 4.3 Core Layer

The Core layer is the backbone of the network. It functions as a high-speed network concerned mainly with switching traffic as quickly as possible. Fiber-connected Gigabit Ethernet, Fast Ethernet, and High Speed Serial Interfaces connected to T3 lines support the DCWAN Core.

The three-layer concept is a best business practice management approach recommended by leaders in the computer networking industry. Some of the key functional benefits of using the three-layer design are: Network Stability, Isolated Troubleshooting, Optimal Performance, Efficient Use of Routers and No Single Point of Failure.

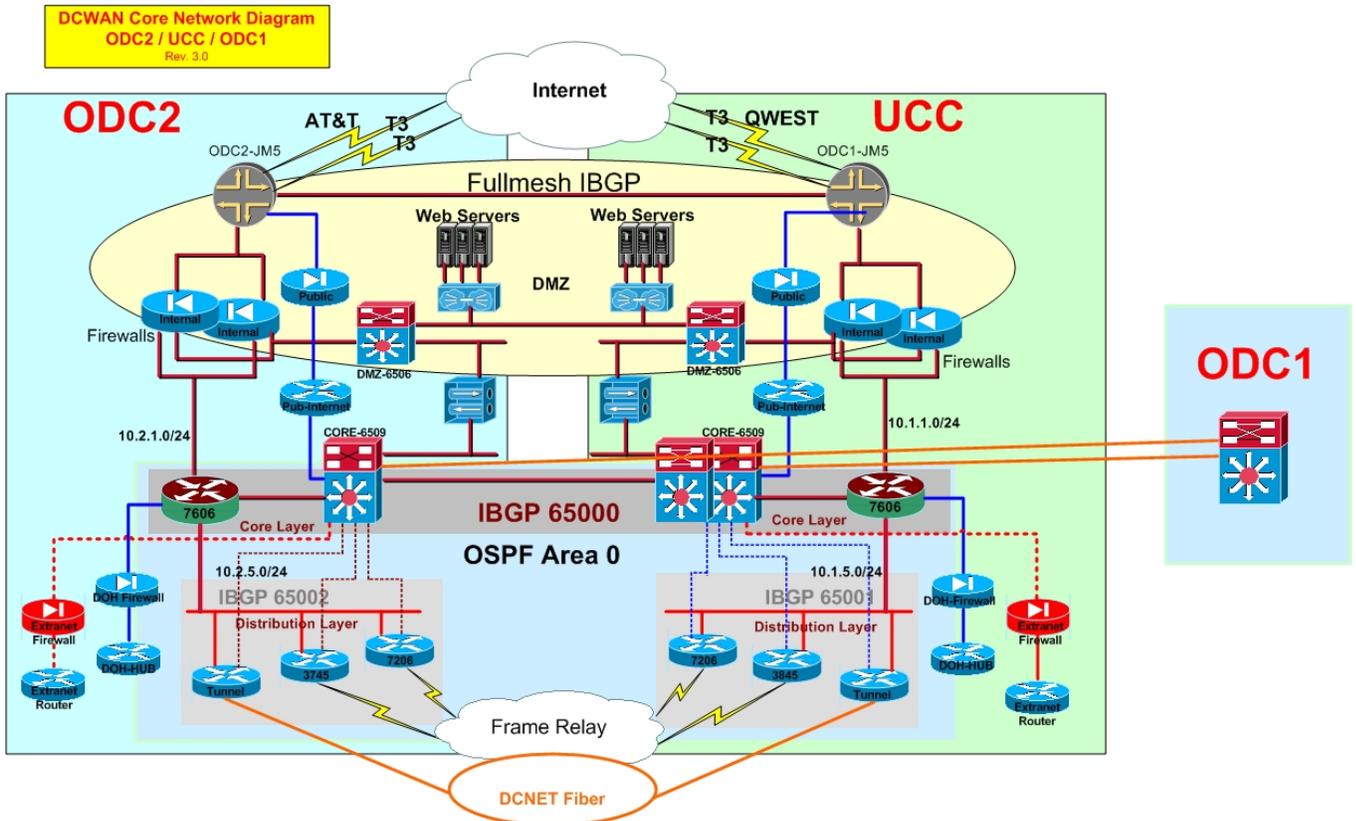


Figure 1-1: Conceptual DCWAN Core Network High-level Communications Architectures

## 5 Data Center Hosting Relocation

The District of Columbia OCTO Data Center hosting Core Equipment Network Infrastructure will be wholly relocated from ODC2 to the new data center hosting facility (TBD). The equipment will be housed in electronic equipment racks enclosed in secure network cabinets with good temperature control, and cable management. With that in mind, the importance of choosing the best data center hosting facility for our needs is clear.

After the District of Columbia OCTO Data Centers hosting Core Equipment Network Infrastructure (DCWAN, CWITS, City Wide Messaging, Server Operations, Web Application Group and the Mainframe equipment is installed in the new data center hosting facility (TBD), the old equipment at ODC2 will be removed and stored in the DCWAN equipment inventory, and then used again in the future as replacement or trade-in units.

## 6 Capital and Operating Cost Estimates

The District of Columbia government is requesting an estimated capital and yearly operating costs for the proposed OCTO Data Center relocation for the basis of comparison. Exact costs can be determined upon completion of detailed technical design.

## 7 Equipment / Racks Requirements

The procurement of new network equipment and supplies will be required to implement this relocation project. Included in the procurement will be multiple routers and switches and related supplies. The DCWAN Core, CWITS, City Wide Messaging, Server Operations, Web Application Group and the Mainframe equipment will be housed on the data center hosting facility (TBD), in electronic equipment racks:

Table 1: Rack System Requirements for Data Center Hosting Relocation

Rack System Requirements		
Organization	Number of Rack Units	Type of Rack Units
DCWAN Operation:	6 Rack Units	Each 84-inch-high
CWITS Security Equipment:	6 Rack Units	Each 84-inch-high
City Wide Messaging:	8 Rack Units	Each 84-inch-high
Server Operation:	18 Rack Units	Each 84-inch-high
Web Application Group	10 Rack Units	Each 84-inch-high
Mainframe	0 Rack units	

Pages 11 through 17 Figures 2 through 8 illustrate detailed views of the rack diagrams to include DCWAN Core, CWITS (Security), City Wide Messaging, and Web Applications Group network equipment. Each 84-inch-high Wrightline rack supports a total of 44 rack units (RUs). **Note:** The floor plans refer to the space where the racks are to be housed as the *Electronic Equipment Racks* area. Detailed lists describing the equipment in the racks are provided in this document, starting on page 18.

Racks Diagrams	Page
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Figure 7. Web Applications Group Equipment Racks:	16
Figure 8. Web Applications Group Equipment Racks:	17

### DCWAN Core Equipment Racks

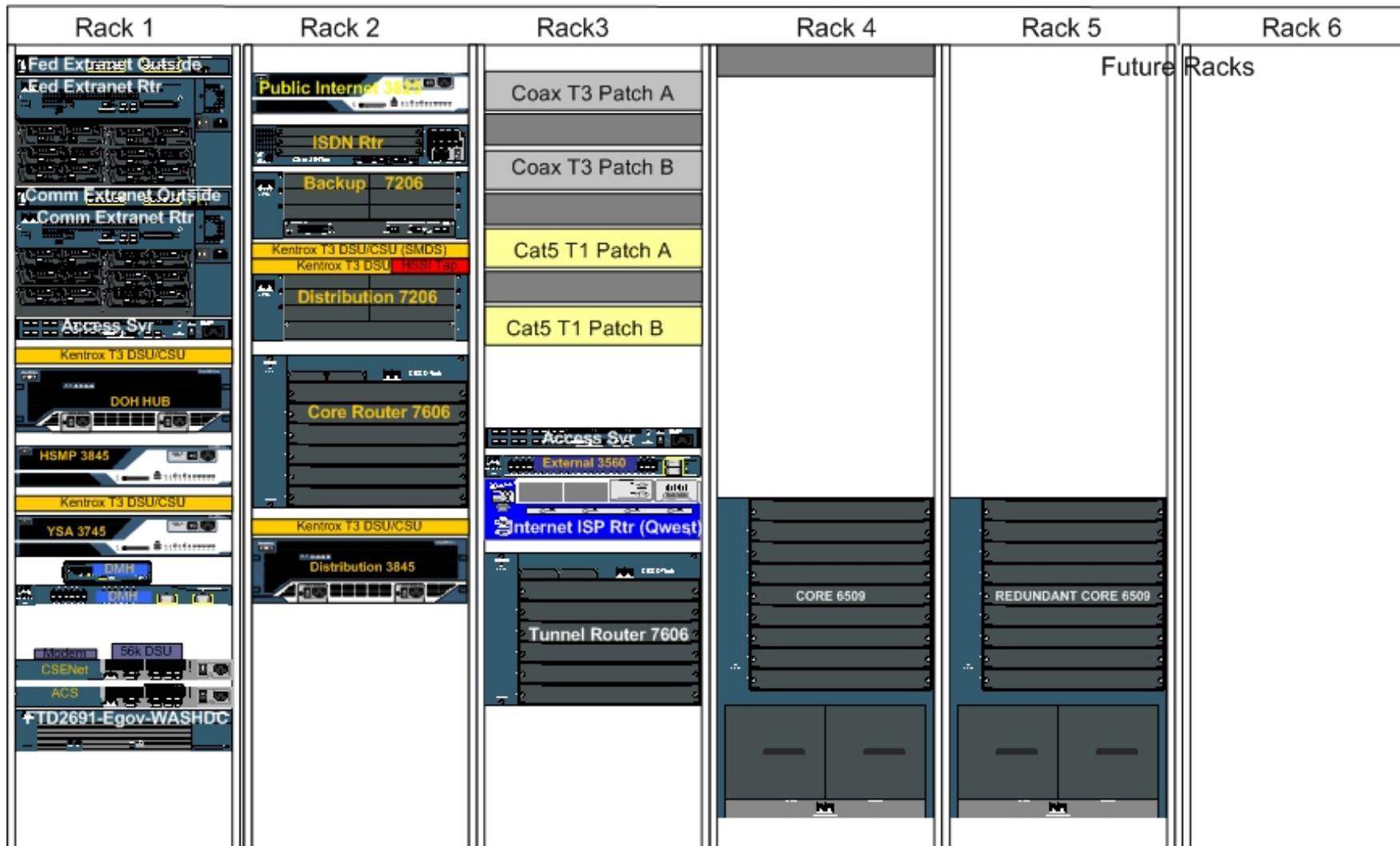


Figure 2. DCWAN Core Equipment Racks:

### Security / Unified NOC Equipment Racks

Security Racks		Network Operations Center Racks			Future Racks
Rack 1	Rack 2	Rack3	Rack 4	Rack 5	Rack 6
Nokia 710 FW	NFR NID 320	Sun V480	11620 Infinistream Sniffer		
Nokia 710 FW	NFR NID 320	Sun V480	11620 Infinistream Sniffer		
PIX 525	NFR NID 320		nPO Visualizer		
PIX 525	Websense		nPO Manager		
PIX 515	AAA Server	Sun V490			
PIX 515	Dell PowerEdge 2850				
VPN Concentrator		Sun StoreEdge L25 Tape Drive			
KVM Switch					
		Dell PowerEdge 2850			
		Dell PowerEdge 2850			
		Dell PowerEdge 2850			

Figure 3. Security and NOC Equipment Racks:

### City Wide Messaging Equipment Racks

ODC2 Exchange 2003 Racks			
Row 3, Rack 5	Row 3, Rack 6	Row 3, Rack 7	Row 3, Rack 8
Avocent CPS1610		Cisco Cat 2950	Cisco Cat 2950
F5 Big IP 1500		F5 Big IP 1500	Cisco Cat 2950
Cisco Cat 2950	Cisco Cat 2950	San Brocade Switch	Dell PE 1750
San Brocade Switch	San Brocade Switch	Sun Fire V100	Dell PE 1750
Sun Fire V100	Sun Fire V100	Sun Fire V100	
Sun Fire V100	Dell PE 1650		Dell PE 6650
Dell PE 1650	Dell PE 2650	Dell PE 1750	
	Dell PE 2650	Dell PE 1650	
Dell PE 2650	Dell PE 2650		
	Dell PE 1750		
Cisco Cat 2950			
KVM Switch	KVM Switch	KVM Switch	KVM Switch
KVM	KVM	KVM	KVM
		Dell PE 2650	
		Dell PE 1650	
Dell PE 6650			
Dell PE 6650	Dell PE 6650		Dell PE 6650
	Dell PE 6650	Dell PE 6650	Dell PE 6650
Dell PE 6650	Dell PE 6650	Dell PE 6650	Dell PE 6650
Dell PE 6650	Dell PE 6650	Dell PE 6650	Dell PE 6600

Figure 4. City Wide Messaging Equipment Racks:

### City Wide Messaging Equipment Racks

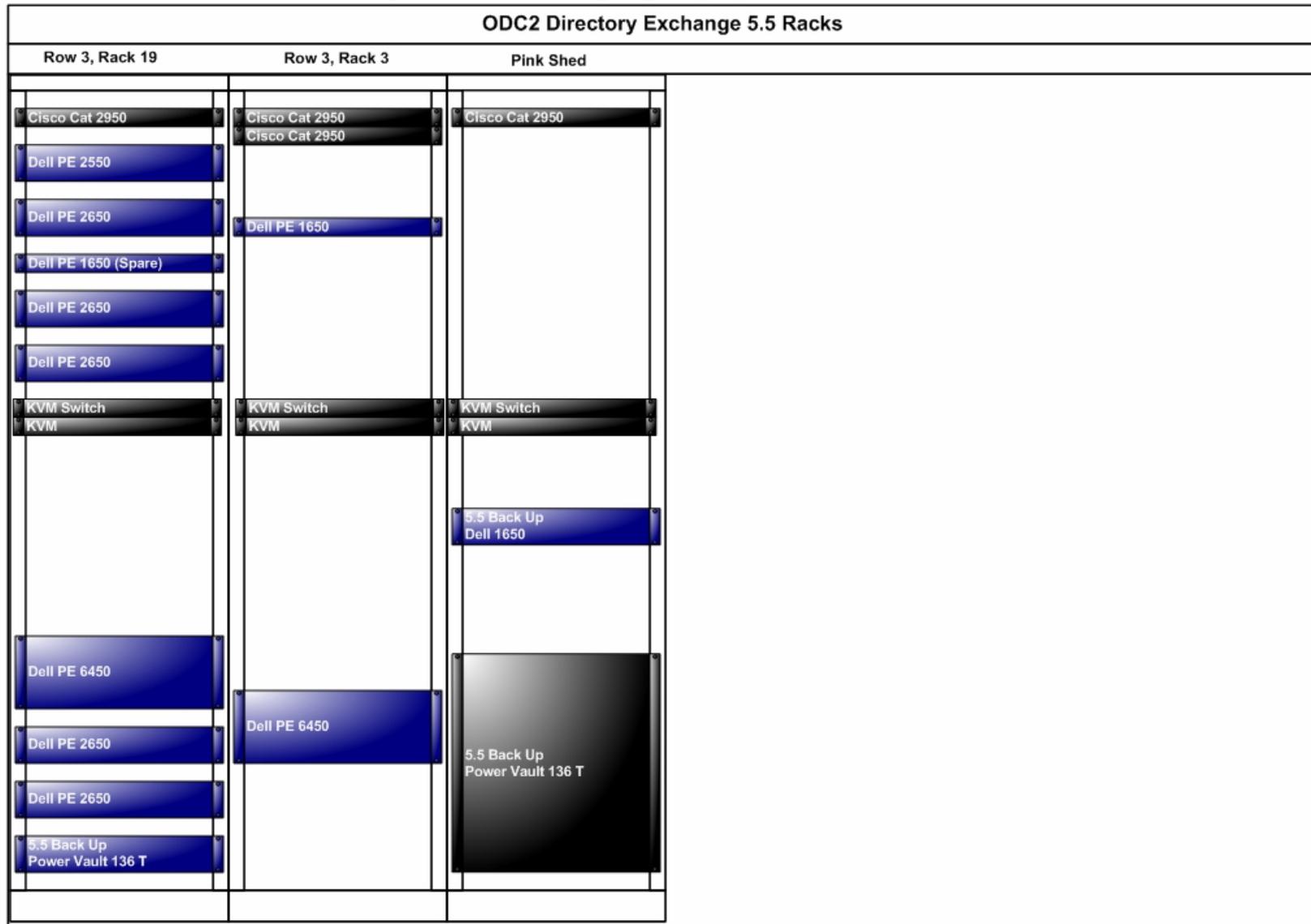


Figure 5. City Wide Messaging Equipment Racks:

### City Wide Messaging Equipment Rack

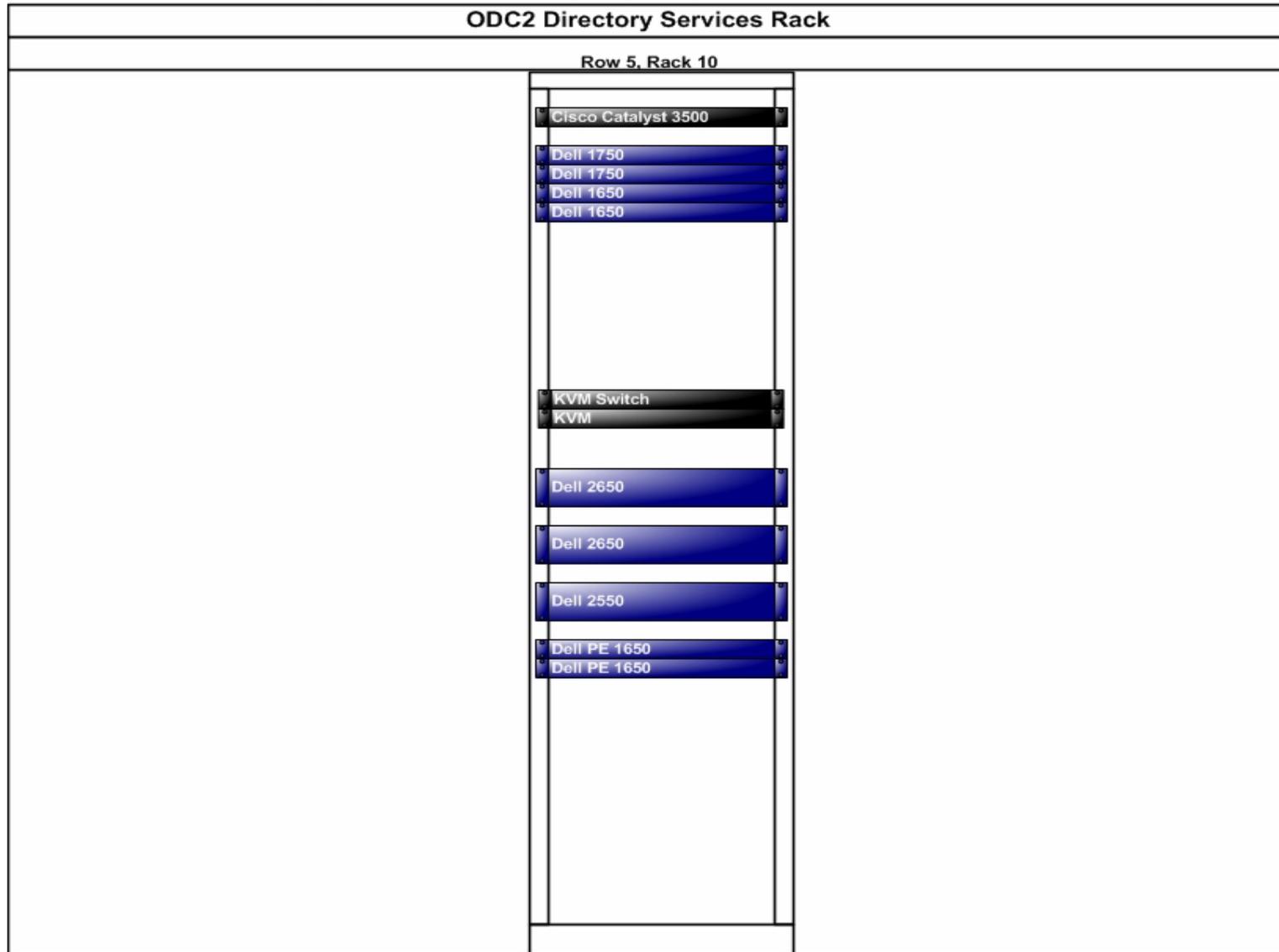


Figure 6. City Wide Messaging Equipment Racks

### Web Applications Group Equipment Racks

Row 3, Rack 9	Row 3, Rack 10	Row 3, Rack 13	Row 3, Rack 14	DCStat Rack	Rack (AB/26)
APC PDU Controller	APC PDU Controller				
Cisco Cat 3550XL	Cisco Cat 3550XL	Dell PE 2850			
Cisco CSS 11154	Avocent CPS1610	Dell PE 2650			
Dell PE 1750		Dell PE 2650	Dell PE 1750		Dell PE 1750
Dell PE 2650	Dell PE 1650		Dell PE 1750		
Cisco CSS 11503		Cisco Cat 3550XL			
		F5 Big IP 1500			
Avocent DSR2161	Avocent DSR2161	Dell PE 1750	Avocent DSR1010		
Keyboard Tray	Keyboard Tray	Dell PE 1750	Keyboard Tray	Dell PE 2650	
Sun Netra T1	Sun Netra T1	Dell PE 2650	Dell PE 1750	Dell PE 2650	
Sun Netra T1	Sun Netra T1	Dell PE 2650	Dell PE 1650	Dell PE 2650	
Dell PE 1650	Dell PE 2450	Dell PE 2650		Dell PE 2650	
Dell PE 1650	Dell PE 2550	Dell PE 2650	Dell PE 2650	Dell PE 2650	
Dell PE 1650	Dell PE 1650	Dell PE 2650	Dell PE 2650	Dell PE 2650	
Dell PE 1650	Dell PE 1650		Dell PE 2850	Dell PE 2650	
Dell PE 1650	Dell PE 1650		Dell PE 2850	Dell PE 1750	
				Dell PE 1750	
				Dell PE 1750	
				Dell PE 1750	
				Dell PE 1750	
				Dell PE 2850	
				Dell PE 2850	
	Dell PE 2650				
ODC2 DMZ Rack	ODC2 Intranet Rack	ODC2 HSMP Rack 1	ODC2 HSMP Rack 2	ODC2 DCStat Rack	ODC2 HSMP Temporary

This rack belongs to Server Ops. They have other servers in it.

Figure 7. Web Applications Group Equipment Racks:

### Web Applications Group Equipment Racks

Row 4, Rack 9	Row 4, Rack 8	Row 4, Rack 7	Row 4, Rack 6
Dell PV 122T	Dell PV 122T		Sun Fire V100
Dell PE 1850	Sun Netra T1		Sun Fire V100
Dell PE 2450	Sun Fire V100		Dell PE 2650
Dell PE 2650	Dell PE 2650		Dell PE 2650
Dell PE 1850	Dell PE 2850		Dell PE 2650
	Dell PV 745N	Cisco Cat 2950	
		Cisco Cat 3524XL	Dell PV 120T
		Radware WSD-NP	
		F5 Big IP	
Avocent DSR2161	Avocent DSR2161	Avocent DSR2161	Dell PE 2450
Dell PE 2650	Keyboard Tray	Keyboard Tray	Dell PE 2550
Dell PE 2650	Dell PE 2650	Cisco Cat 6506	Dell PE 2450
Dell PE 750	Dell PE 2650		Dell PE 1850
	Dell PE 6450		Dell PE 1850
Dell PV 220S	Dell PE 6450		Dell PE 1850
Dell PE 2650		Cisco Cat 3548XL	Dell PE 1750
		NFR Security	
		Dell PV 122T	
ODC2 Intranet Rack 2	ODC2 Intranet Rack 3	ODC2 Intranet Rack 4	ODC2 Intranet Rack 5

Figure 8: Web Applications Group Equipment Racks:

## **8 Detailed Core Equipment Requirements**

The new DCWAN Core network and Security equipment and supplies that must be procured to complete this project are described in the following lists.

### **8.1 DCWAN Core Hardware Requirements**

#### **Core Switch**

- 1 - Enh C6509 Chassis, 9slot, 15RU, No Pow Supply, No Fan Tray
- 1 - Cisco CAT6000-SUP720 IOS ADVANCED IP SERVICES SSH
- 2 - Catalyst 6500/Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3B
- 2 - Cat6500 Sup720/Sup32 Compact Flash Mem 128MB
- 2 - CiscoView Device Mgr 1.1 for Catalyst 6500 Series 3DES
- 2 - Catalyst 6500 24-port GigE Mod: fabric-enabled (Req. SFPs)
- 2 - Catalyst 6500 256MB DDR, xCEF720 (67xx interface, DFC3A)
- 2 - Catalyst 6500 Central Fwd Card for WS-X67xx modules
- 20 - GE SFP, LC connector SX transceiver
- 2 - Catalyst 6500 48-port 10/100/1000 GE Mod., RJ-45
- 1 - Catalyst 6509-E Chassis Fan Tray
- 2 - Catalyst 6500 3000W AC power supply
- 2 - Power Cord, 250Vac 16A, twist lock NEMA L6-20 plug, US

#### **Redundant Core Switch**

- 1 - Enh C6509 Chassis, 9slot, 15RU, No Pow Supply, No Fan Tray
- 1 - Cisco CAT6000-SUP720 IOS ADVANCED IP SERVICES SSH
- 2 - Catalyst 6500/Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3B
- 2 - Cat6500 Sup720/Sup32 Compact Flash Mem 128MB
- 2 - CiscoView Device Mgr 1.1 for Catalyst 6500 Series 3DES
- 2 - Catalyst 6500 24-port GigE Mod: fabric-enabled (Req. SFPs)
- 2 - Catalyst 6500 256MB DDR, xCEF720 (67xx interface, DFC3A)
- 2 - Catalyst 6500 Central Fwd Card for WS-X67xx modules
- 20 - GE SFP, LC connector SX transceiver
- 2 - Catalyst 6500 48-port 10/100/1000 GE Mod., RJ-45
- 1 - Catalyst 6509-E Chassis Fan Tray
- 2 - Catalyst 6500 3000W AC power supply
- 2 - Power Cord, 250Vac 16A, twist lock NEMA L6-20 plug, US

#### **DMZ Switch**

- 1 - Enh C6506 Chassis, 6slot, 12RU, No Pow Supply, No an Tray
- 1 - Cisco CAT6000-SUP2/MSFC2 IOS ADV IP W/MPLS/IPV6/SSH/3DES+BGP
- 1 - Catalyst 6500 Supervisor Engine-2, 2GE, plus MSFC-2 / PFC-2
- 1 - Cat6500 Sup2, ATA Type1 Flash Mem Card, 64MB Option
- 1 - CiscoView Device Mgr 1.1 for Catalyst 6500 Series 3DES
- 3 - Catalyst 6500 48-port 10/100/1000 GE Mod., RJ-45
- 1 - Catalyst 6506-E Chassis Fan Tray
- 2 - Catalyst 6500 3000W AC power supply
- 2 - Power Cord, 250Vac 16A, twist lock NEMA L6-20 plug, US
- 1 - Catalyst 6500 256MB DRAM on the Supervisor (SUP2)
- 1 - Catalyst 6500 256MB DRAM on the MSFC2

#### **Core Router**

## *DATA CENTER HOSTING RELOCATION - Requirements Specification*

- 1 - Cisco 7606 Chassis Bundle
- 1 - High Speed Fan Module for CISCO7606 Chassis
- 1 - Cisco 7606 Chassis, 6-slot, 2 SUP7203B, 2 Power Supply
- 1 - Supervisor Engine 720-3B
- 1 - Cat6500 Sup720/Sup32 Compact Flash Mem 128MB
- 1 - Supervisor Engine 720-3B
- 1 - Cat6500 Sup720/Sup32 Compact Flash Mem 128MB
- 2 - 2700 W AC Power Supply for 7606
- 2 - Cisco 12016 GSR AC Power Supply Cord, US
- 1 - Cisco 7600-SUP720 IOS ADV IP W/MPLS/IPV6/SSH/3DES
- 1 - Catalyst 6500 24-port GigE Mod: fabric-enabled (Req. SFPs)
- 20 - GE SFP, LC connector SX transceiver
- 1 - Catalyst 6500 48-port 10/100/1000 GE Mod., RJ-45
- 1 - Catalyst 6500/Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3B
- 1 - Catalyst 6500/Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3B
- 2 - 2700W AC power supply for CISCO7606
- 1 - Catalyst 6500 256MB DDR, xCEF720 (67xx interface, DFC3A)
- 1 - Catalyst 6500 Central Fwd Card for WS-X67xx modules
- 2 - Cisco 7606 PEM Cover

### **Tunnel Router**

- 1 - Cisco 7606 Chassis Bundle
- 1 - High Speed Fan Module for CISCO7606 Chassis
- 1 - Cisco 7606 Chassis, 6-slot, SUP7203B, Power Supply
- 1 - Supervisor Engine 720-3B
- 1 - Cat6500 Sup720/Sup32 Compact Flash Mem 128MB
- 1 - 2700 W AC Power Supply for 7606
- 1 - 2700W AC power supply for CISCO7606
- 2 - Cisco 12016 GSR AC Power Supply Cord, US
- 1 - Cisco 7600-SUP720 IOS ADV IP W/MPLS/IPV6/SSH/3DES
- 1 - Catalyst 6500 24-port GigE Mod: fabric-enabled (Req. SFPs)
- 20 - GE SFP, LC connector SX transceiver
- 1 - Catalyst 6500 48-port 10/100/1000 GE Mod., RJ-45
- 1 - Catalyst 6500/Cisco 7600 Supervisor 720 Fabric MSFC3 PFC3B
- 1 - 2700W AC power supply for CISCO7606
- 1 - Catalyst 6500 256MB DDR, xCEF720 (67xx interface, DFC3A)
- 1 - Catalyst 6500 Central Fwd Card for WS-X67xx modules
- 2 - Cisco 7606 PEM Cover

### **Distribution Router**

- 1 - 4-slot chassis, NPE-G100, 1 Power Supply
- 1 - Cisco 7300 Series IOS IP/FW/IDS SECURED SHELL 3DES
- 1 - Cisco 7304 AC Power Supply
- 1 - Cisco 7304 Redundant AC Power Supply Option
- 2 - 15A AC Pwr Cord, left-angle (United States) (bundle option)
- 1 - Cisco 7304 NPE-G100 w/1GB SDRAM, 256MB Flsh, (3)GE/FE/E
- 1 - 1GB default SDRAM for 7304 NPE-G100
- 1 - Cisco 7304 Compact Flash Memory, 256MB
- 3 - 7304 Carrier Card for 7200 Series Port Adapters
- 1 - 8 port multichannel T1/E1 8PRI port adapter
- 2 - 1 Port T3 Serial Port Adapter Enhanced

### **Federal ExtraNet Router**

- 1 - 3845 w/AC PWR,2GE,1SFP,4NME,4HWIC, IP Base, 64F/256D
- 1 - Cisco 3845 IOS ADVANCED IP SERVICES

## *DATA CENTER HOSTING RELOCATION - Requirements Specification*

- 4 - 2 10/100 Ethernet with 2 WAN Card Slot Network Module
- 4 - 2 port 10/100 Ethernet with 2 WAN Card Slot Network Module
- 8 - Updated 1-Port T1/Fractional T1 DSU/CSU WAN Interface Card
- 8 - 1-Port T1/Fractional T1 DSU/CSU WAN Interface Card: Ver. 2
- 1 - Cisco3845 redundant AC power supply
- 2 - Power Cord,110V
- 1 - Cisco 3845 AC power supply
- 1 - Device manager for routers
- 1 - 256BM SDRAM default memory for 3800
- 1 - 64MB Cisco 3800 Compact Flash Memory Default

### **Commercial ExtraNet Router**

- 1 - 3845 w/AC PWR,2GE,1SFP,4NME,4HWIC, IP Base, 64F/256D
- 1 - Cisco 3845 IOS ADVANCED IP SERVICES
- 4 - 2 10/100 Ethernet with 2 WAN Card Slot Network Module
- 4 - 2 port 10/100 Ethernet with 2 WAN Card Slot Network Module
- 8 - Updated 1-Port T1/Fractional T1 DSU/CSU WAN Interface Card
- 8 - 1-Port T1/Fractional T1 DSU/CSU WAN Interface Card: Ver. 2
- 1 - Cisco3845 redundant AC power supply
- 2 - Power Cord,110V
- 1 - Cisco 3845 AC power supply
- 1 - Device manager for routers
- 1 - 256BM SDRAM default memory for 3800
- 1 - 64MB Cisco 3800 Compact Flash Memory Default

### **HSMP**

- 1 - 3825 w/AC PWR, 2GE,1SFP, 2NME, 4HWIC, IP Base, 64F/256D
- 1 - Power Cord,110V
- 1 - Cisco 3825 IOS ADVANCED IP SERVICES
- 1 - Cisco 3825 AC power supply
- 1 - Device manager for routers
- 1 - 256BM SDRAM default memory for 3800
- 1 - 64MB Cisco 3800 Compact Flash Memory Default

### **DOH Hub**

- 1 - 3845 w/AC PWR,2GE,1SFP,4NME,4HWIC, IP Base, 64F/256D
- 1 - Cisco 3845 IOS ADVANCED IP SERVICES
- 1 - One port T3/E3 network module
- 1 - 2 port 10/100 Ethernet with 2 WAN Card Slot Network Module
- 2 - Updated 1-Port T1/Fractional T1 DSU/CSU WAN Interface Card
- 1 - Cisco3845 redundant AC power supply
- 2 - Power Cord,110V
- 1 - Cisco 3845 AC power supply
- 1 - Device manager for routers
- 1 - 256BM SDRAM default memory for 3800
- 1 - 64MB Cisco 3800 Compact Flash Memory Default

### **YSA**

- 1 - 3825 w/AC PWR, 2GE,1SFP, 2NME, 4HWIC, IP Base, 64F/256D
- 1 - Power Cord,110V
- 1 - Cisco 3825 IOS ADVANCED IP SERVICES
- 1 - One port T3/E3 network module

## *DATA CENTER HOSTING RELOCATION - Requirements Specification*

- 1 - Cisco 3825 AC power supply
- 1 - Device manager for routers
- 1 - 256MB SDRAM default memory for 3800
- 1 - 64MB Cisco 3800 Compact Flash Memory Default

### **DMH**

- 1 - 2811 w/ AC PWR,2FE,4HWICs,2PVDMs,1NME,2AIMS,IP BASE,64F/256D
- 1 - Cisco 2800 IOS ADVANCED IP SERVICES
- 1 - Updated 1-Port T1/Fractional T1 DSU/CSU WAN Interface Card
- 1 - Power Cord,110V
- 1 - Cisco 2811 AC power supply
- 1 - Device manager for routers
- 1 - 256MB DDR DRAM Memory factory default for the Cisco 2800
- 1 - 64MB CF default for Cisco 2800 Series

### **Public Internet**

- 1 - 3825 w/AC PWR, 2GE,1SFP, 2NME, 4HWIC, IP Base, 64F/256D
- 1 - Power Cord,110V
- 1 - Cisco 3825 IOS ADVANCED IP SERVICES
- 1 - 2 port 10/100 Ethernet with 2 WAN Card Slot Network Module
- 1 - Cisco 3825 AC power supply
- 1 - Device manager for routers
- 1 - 256MB SDRAM default memory for 3800
- 1 - 64MB Cisco 3800 Compact Flash Memory Default

### **AS5350XM**

- 1 - AS5350XM Voice; 2T1, 60 DSPs, Single AC, IP+ IOS
- 1 - Cisco AS5350 IOS IP PLUS IPSEC 3DES
- 1 - AS5350XM chassis including AC Redundant Power Supply
- 2 - Redundant PS AC Power Cord, US 110V
- 1 - AS5350XM and AS5400XM 512MB Main SDRAM
- 1 - AS5350XM and AS5400XM 128M Compact Flash
- 1 - AS5350 Dual T1/PRI DFC card
- 1 - AS5000XM 60 Voice/Universal Port Feature Card
- 1 - AS5000 Software License Agreement

### **3560 Switches**

- 4 - Catalyst 3560 24 10/100 + 2 SFP Enhanced Image
- 4 - Power Cord,110V

### **3560 Switches**

- 4 - Catalyst 3560 48 10/100 + 4 SFP Enhanced Image
- 4 - Power Cord,110V

## **8.2 Detailed Security Equipment Requirements**

- 2 - Nokia CheckPoint IP 710
- 2 - Extranet PIX 525
- 2 - PIX FW 515
- 3 - NFR NID 320
- 1 - VPN Concentrator
- 1 - Websense
- 1 - AAA Server
- 1 - KVM Over IP Switch
- 1 - Dell PowerEdge 2850 Server

## 9 Equipment /Electrical Power Requirements

DCWAN, CWITS, City Wide Messaging, Server Operations Web Applications Group and Mainframe network engineers analyzed the data center floor plans and consulted with data center hosting facility architects and contractors, and then developed the following lists, which detail the DCWAN Core, CWITS, City Wide Messaging, Server Operations, Web Applications Group and Mainframe equipment/ electrical power requirements per equipment unit.

Core Backbone Network Electrical Power Requirements								
DCWAN Core Electrical Power Requirements								
Device	Voltage	Amps	Power	Power Units	Total Power	BTU/hour	Cable Plug	
Core Switch – Cisco 6509	250	16	4000	2	8000	29540	NEMA L6-20	
Redundant Core Switch	250	16	4000	2	8000	29540	NEMA L6-20	
DMZ Switch – Cisco 6506	250	16	4000	2	8000	27202	NEMA L6-20	
Core Router – Cisco 7606	250	16	4000	2	8000	26955	NEMA L6-20	
Tunnel Router – Cisco 7606	250	16	4000	2	8000	25655	NEMA L6-20	
Distribution Router – Cisco 7304	110	15	1650	2	3300	2387	NEMA 5-15	
Extranet Router (Federal) – Cisco 3845	110	15	1650	2	3300	1485	NEMA 5-15	
Extranet Router (Commercial) – Cisco 3845	110	15	1650	2	3300	1485	NEMA 5-15	
HSMP Router – Cisco 3825	110	15	1650	1	1650	1025	NEMA 5-15	
DOH Hub Router – Cisco 3845	110	15	1650	2	3300	1485	NEMA 5-15	
YSA Hub Router – Cisco 3825	110	15	1650	1	1650	1025	NEMA 5-15	
DMH Router – Cisco 2811	110	15	1650	1	1650	580	NEMA 5-15	
Public Internet Router Cisco 3825	110	15	1650	1	1650	1025	NEMA 5-15	
AS5350XM	110	15	1650	1	1650	573	NEMA 5-15	
24-Port Access Switch	110	15	1650	1	1650	314	NEMA 5-15	
24-Port Access Switch	110	15	1650	1	1650	314	NEMA 5-15	
24-Port Access Switch	110	15	1650	1	1650	314	NEMA 5-15	
24-Port Access Switch	110	15	1650	1	1650	314	NEMA 5-15	
48-Port Access Switch	110	15	1650	1	1650	500	NEMA 5-15	
48-Port Access Switch	110	15	1650	1	1650	500	NEMA 5-15	
48-Port Access Switch	110	15	1650	1	1650	500	NEMA 5-15	
48-Port Access Switch	110	15	1650	1	1650	500	NEMA 5-15	
CWITS Electrical Power Requirements								
Device	Voltage	AMPS	Power	Power Units	Total Power	BTU/Hr	Cable Plug	RACK
Nokia CheckPoint IP 710	100-120	1.5	180W	1	180W	410	NEMA 5-15	3U
Nokia CheckPoint IP 710	100-120	1.5	180W	1	180W	410	NEMA 5-15	3U
Extranet PIX 525	120	5	600W	1	600W	410	NEMA 5-15	2U
Extranet PIX 525	120	5	600W	1	600W	410	NEMA 5-15	2U
PIX FW 515	120	5	600W	1	600W	410	NEMA 5-15	2U
PIX FW 515	120	5	600W	1	600W	410	NEMA 5-15	2U
NFR NID 320	100-120	1.5	180W	1	180W	410	NEMA 5-15	2U
NFR NID 320	100-120	1.5	180W	1	180W	410	NEMA 5-15	2U

*DATA CENTER HOSTING RELOCATION - Requirements Specification*

CWITS Electrical Power Requirements								
Device	Voltage	AMPS	Power	Power Units	Total Power	BTU/Hr	Cable Plug	RACK
NFR NID 320	100-120	1.5	180W	1	180W	410	NEMA 5-15	2U
VPN Concentrator	120	1.5	180W	1	180W	410	NEMA 5-15	2U
Websense	120	1.5	180W	1	180W	410	NEMA 5-15	2U
AAA Server	120	1.5	180W	1	180W	410	NEMA 5-15	2U
KVM Over IP Switch	120	1	120W	1	120W	92	NEMA 5-15	1U
Dell PowerEdge 2850 Server	120	1.5	180W	1	180W	410	NEMA 5-15	2U
CWITS Electrical Power Requirements								
Device	Manufacturer		BTU/Hr					
POWEREDGE 1750	DELL		2500					
SERVER POWEREDGE 2600	DELL		2500					
SNIFFER	NETWORK GENERAL		2500					
POWEREDGE 2650 SERVER	DELL		2500					
SERVER POWEREDGE 1850	DELL		2500					
SERVER POWEREDGE 1650	DELL		2500					
SERVER POWEREDGE 2550	DELL		2500					
VPN 3000 SERVER	CISCO		1485					
VPN 3000 SERVER	CISCO		1485					
POWEREDGE 2250 SERVER	DELL		2500					
SERVER POWEREDGE 6650	DELL		2500					
INTERNET PROCESSOR PIC 0/3	JUNIPER NETWORKS		1025					
DSR 2161 ROUTER	AVOCENT		580					
<b>Nokia CheckPoint IP 710</b>	NOKIA		410					
<b>Nokia CheckPoint IP 710</b>	NOKIA		410					
NFR SECURITY SERVER	NFR SECURITY		410					
NFR SERVER	NFR SECURITY		410					
NID 200 SERVER	NFR		410					
SNIFFER SERVER	SNIFFER TECHNOLOGIES		2500					
<b>Extranet PIX 525</b>			410					
<b>Extranet PIX 525</b>			410					
<b>PIX FW 515</b>			410					
<b>PIX FW 515</b>			410					
<b>NFR NID 320</b>			410					
<b>NFR NID 320</b>			410					
<b>NFR NID 320</b>			410					
<b>VPN Concentrator</b>			410					
<b>Websense</b>			410					
<b>AAA Server</b>			410					
<b>KVM Over IP Switch</b>			100					
<b>Dell PowerEdge 2850 Server</b>			2388					
ACE Server (Windows 2000)			410					
Cisco VPN 3060			1025					
Cisco VPN 3060			1025					

*DATA CENTER HOSTING RELOCATION - Requirements Specification*

<b>CWITS Electrical Power Requirements</b>			
<b>Device</b>	<b>Manufacturer</b>		<b>BTU/Hr</b>
Sentivist Server	Dell Power Edge 2850		2388
Sentivist Server	Dell Power Edge 2850		2388
NFR Sensor	NFR_NID320		410
NFR Sensor	NFR_NID320		410
ISSite Protector	4 U Rack server		2500
Check Point/Nokia 1260 Border Firewalls			1025
Cisco PIX Commercial Extranet Firewalls			1025
Cisco PIX Commercial Extranet Firewalls			1025
Cisco PIX Commercial Extranet Firewalls			1025
Cisco PIX Federal Extranet Firewalls			1025
Cisco PIX Federal Extranet Firewalls			1025
Cisco PIX DOH Firewall			1025
Cisco PIX DCPL Firewall			1025
Cisco PIX WARN Firewall			1025
Cisco PIX HSMP Firewall			1025
Dell Server: Firewall Mgr			2500
Dell Server: Firewall Logger/Webtrends			2500
Dell Server: Firewall Syslogger			2500
Dell Server: Websense			2500
Dell Tape Autoloader			1025
APC Power Master			410
Avocent KVM			92
VPN 3060 Concentrator			1485
Windows 2000 server rack mounted			1025
	<b>SUBTOTAL</b>		<b>41431</b>
<b>Future Installation</b>			
AV Gateway			2500
AV Gateway			2500
AV Gateway			2500
Wireless Gateway Cisco 2700			2500
Wireless Gateway Cisco 2700			2500
Wireless Gateway Cisco 2700			2500
IPS (Juniper IDP 1100, 2 U)			1025
IPS (Juniper IDP 1100, 2 U)			1025
IPS (Juniper IDP 1100, 2 U)			1025
IPS (Juniper IDP 1100, 2 U)			1025
IPS (Juniper IDP 1100, 2 U)			1025
IPS (Juniper IDP 1100, 2 U)			1025
ISA Proxy Servers	Dell Power Edge 6850		2388

*DATA CENTER HOSTING RELOCATION - Requirements Specification*

CWITS Electrical Power Requirements							
Device	Manufacturer			BTU/Hr			
ISA Proxy Servers	Dell Power Edge 6850			2388			
ISA Proxy Servers	Dell Power Edge 6850			2388			
ISA Proxy Servers	Dell Power Edge 6850			2388			
Checkpoint Management Redundant Server				1450			
<b>KVM Over IP Switch</b>				100			
<b>KVM Over IP Switch</b>				100			
<b>KVM Over IP Switch</b>				100			
RSA SecurID ACE Server (Windows/Intel platform)				2500			
Juniper SSL VPN devices				1025			
Juniper SSL VPN devices				1025			
Juniper SSL VPN devices				1025			
Juniper DX load balancers				1025			
Juniper DX load balancers				1025			
Juniper SSG Firewall/VPN Appliances (or IDP)				1025			
Juniper SSG Firewall/VPN Appliances (or IDP)				1025			
Cisco PIX Firewalls (agency/group specific)				410			
Server for firewall management				2500			
1 VPN 3060 Concentrator				1450			
1 Cisco 3745 router							
	<b>SUBTOTAL</b>			<b>46487</b>			
	<b>TOTAL</b>			<b>87918</b>			
City Wide Messaging Electrical Power Requirements							
SERVER NAME	SERVER TYPE	SERVER TAG	Amps	State	Rack		
DS-CSSW21	Cisco Catalyst 3500 / 24p		0.39		5-10		
DS-LDAP21	Dell PowerEdge 1750	5S7VQ31	3.4		5-10		
DS-LDAP23	Dell PowerEdge 1750	5ZCTD41	3.4		5-10		
DS-LDAP22	Dell PowerEdge 1650	R0LDZ21	2.5		5-10		
DS-DSE21	Dell PowerEdge 1650	62ZSX21	2.5		5-10		
DS-KVMT21	Dell KVM Tray		0.2		5-10		
DS-KVM21	Avocent DSR 2161		1.0		5-10		
OPRS-ADEX21	Dell PowerEdge 2650	G67W441	3.5		5-10		
EMO-AD2K3-22	Dell PowerEdge 2650	7YJSG31	3.5		5-10		
<b>SPARE</b>	Dell PowerEdge 2550	6MJ381	<b>2.9</b>	<b>OFF</b>	5-10		
JE4SH7KKT	Dell PowerEdge 1650	BNBKJ11	2.5		5-10		
H7GNM34F	Dell PowerEdge 1650	CNBKJ11	2.5		5-10		
EMO-CSSW??	Cisco Catalyst 3500 / 24p		0.39		3-19		
EMO-KVMT??	Dell KVM Tray		0.2		3-19		

DATA CENTER HOSTING RELOCATION - Requirements Specification

City Wide Messaging Electrical Power Requirements							
SERVER NAME	SERVER TYPE	SERVER TAG	Amps	State	Rack		
EMO-KVM??	Avocent DSR 2161		1.0		3-19		
<b>SPARE</b>	Dell PowerEdge 2550	4MJ3811	<b>2.9</b>	<b>OFF</b>	3-19		
SOCPDC002	Dell PowerEdge 2650	9TN4S11	3.5		3-19		
<b>SPARE</b>	Dell PowerEdge 1650	1W8JZ21	<b>2.5</b>	<b>OFF</b>	3-19		
SOCTODC003	Dell PowerEdge 2650	HF72T61	3.5		3-19		
OPMSERVER	Dell PowerEdge 2650	2QQ8Y41	3.5		3-19		
OCC_EXCHANGE	Dell PowerEdge 6450	59RC511	3.5		3-19		
DCOPEXCH	Dell PowerEdge 2650	3QQ8Y41	3.5		3-19		
SOCTOSP01	Dell PowerEdge 2450	1FYNG01	2.8		3-19		
PV120T	Dell PowerVault 120T		1.1		3-19		
<b>SPARE</b>	Cisco Catalyst 3500 / 24p		<b>0.39</b>	<b>OFF</b>	3-3		
EMO-CSSW??	Cisco Catalyst 3500 / 24p		0.39		3-3		
EMO-KVMT??	Dell KVM Tray		0.2		3-3		
EMO-KVM??	Avocent DSR 2161		1.0		3-3		
SOCTOAS01	Dell PowerEdge 1650	4H4PD11	2.5		3-3		
ADIC Scalar 2000	ADIC Scalar i2000		30		---		
EMC CX600	EMC CX600		40		---		
EMC Centera	EMC Centera		30		---		
EMO-CONAV021	Avocent CPS1610		1.0		3-5		
EMO-F5LB-21	BigIP F5		3.5		3-5		
EMO-CSSW21	Cisco Catalyst 2950 / 24p		0.39		3-5		
EMO-BRSW21	EMC Brocade Switch / 48p		2.0		3-5		
EMO-IMSSOB-21	Sun SunFire V100		0.7		3-5		
EMO-IMSS-21	Sun SunFire V100		0.7		3-5		
EMO-PNI2K3-21	Dell PowerEdge 1650	BV8JZ21	2.5		3-5		
EMO-KVM-21	Dell KVM Tray		0.2		3-5		
EMO-KVMAV-21	Avocent DSR 2161		1.0		3-5		
EMO-SCSM-21	Dell PowerEdge 2650	GRM8T11	3.5		3-5		
DCPS-EX2K3-11	Dell PowerEdge 6650	D6GGL61	6.10		3-5		
EMO-EXCH2K3-211	Dell PowerEdge 6650	HTPX351	6.10		3-5		
EMO-BU2K3-21	Dell PowerEdge 6650	BPW4S11	6.10		3-5		
EMO-EXCH2K3-21	Dell PowerEdge 6650	HNW4S11	6.10		3-5		
EMO-CSSW22	Cisco Catalyst 2950 / 24p		0.39		3-6		
EMO-BRSW22	EMC Brocade Switch / 48p		2.0		3-6		
EMO-IMSS-22	Sun SunFire V100		0.7		3-6		
EMO-OWA2K3-22	Dell PowerEdge 1650	DVM0Q21	2.5		3-6		
EMO-AD2K3-21	Dell PowerEdge 2650	DTN4S11	3.5		3-6		
EMO-SNAP2K3-21	Dell PowerEdge 2650	CTN4S11	3.5		3-6		
EMO-SMTP2K3-21	Dell PowerEdge 1650	??QXQ	2.5		3-6		
EMO-KVM-22	Dell KVM Tray		0.2		3-6		
EMO-KVMAV-22	Avocent DSR 2161		1.0		3-6		
EMO-EXCH2K3-26	Dell PowerEdge 6650	GNW4S11	6.10		3-6		
EMO-EXCH2K3-24	Dell PowerEdge 6650	GPW4S11	6.10		3-6		
EMO-EXCH2K3-22	Dell PowerEdge 6650	4PW4S11	6.10		3-6		

*DATA CENTER HOSTING RELOCATION - Requirements Specification*

City Wide Messaging Electrical Power Requirements									
SERVER NAME	SERVER TYPE	SERVER TAG	Amps	State	Rack				
EMO-CSSW23	Cisco Catalyst 2950 / 24p		0.39		3-7				
EMO-CONAV022	Avocent CPS1610		1.0		3-7				
EMO-BRSW23	EMC Brocade Switch / 48p		2.0		3-7				
EMO-IMSSOB-22	Sun SunFire V100		0.7		3-7				
EMO-IMSSOB-23	Sun SunFire V100		0.7		3-7				
EMO-OWA2K3-22	Dell PowerEdge 1650	DDR6Y21	2.5		3-7				
EMO-CLARADM-2	Dell PowerEdge 1750	HP1V051	3.4		3-7				
EMO-SMTP2K3-22	Dell PowerEdge 1650	HDR6Y21	2.5		3-7				
EMO-KVM-23	Dell KVM Tray		0.2		3-7				
EMO-KVMAV-23	Avocent DSR 2161		1.0		3-7				
EMO-EXCH2K3-28	Dell PowerEdge 6650	JNWS11	6.10		3-7				
EMO-EXCH2K3-23	Dell PowerEdge 6650	FPW4S11	6.10		3-7				
EMO-EXCH2K3-27	Dell PowerEdge 6650	H3RLS11	6.10		3-7				
EMO-CSSW24	Cisco Catalyst 2950 / 24p		0.39		3-8				
DCPS-CSSW21	Cisco Catalyst 2950 / 24p		0.39		3-8				
EMO-SMTP2K3-23	Dell PowerEdge 1750	6QQXQ31	3.4		3-8				
EMO-OWA2K3-21	Dell PowerEdge 1750	CNBTD41	3.4		3-8				
EMO-EXCH2K3-212	Dell PowerEdge 6650	JTPX351	6.10		3-8				
EMO-KVM-24	Dell KVM Tray		0.2		3-8				
EMO-KVMAV-24	Avocent DSR 2161		1.0		3-8				
EMO-EXCH2K3-210	Dell PowerEdge 6650	1PW4S11	6.10		3-8				
EMO-EXCH2K3-29	Dell PowerEdge 6650	BHX7T11	6.10		3-8				
EMO-SQL2K3-21	Dell PowerEdge 6650	JNFD721	6.10		3-8				
EMO-ADMIN2K3-21	Dell PowerEdge 6600	7D4G621	9.4		3-8				
Backup Server	Dell PowerEdge 1650		2.5		Shed				
Backup Library	Dell PowerVault 136T		3.2		Shed				
Server Operations Electrical Power Requirements									
Row	Rack	Agency / Project	Description	Manufacturer	Serial	Rack Requirements "U's"	Voltage	Amps	Power Supplies
1	8	OSO	Catalyst 3500 Series	Cisco		1	110	1	1
1	8	OSO	Catalyst 3500 Series	Cisco		1	110	1	1
1	8	OSO	Catalyst 3500 Series	Cisco		1	110	1	1
1	8	OSO	ED-6064	McData		9	110	2	2
1	8	OSO	ED-6064	McData		9	110	2	2
1	8	OSO	ES-1000	McData		1	110	4	2
1	8	OSO	ES-1000	McData		1	110	4	2
1	8	OSO	PowerEdge 2650	Dell	671VH31	2	110	3.5	2
1	8	OSO	PowerEdge 2650	Dell	561VH31	2	110	3.5	2
1	8	OSO	SunFire V480	Sun	0340AM0081	5	110	10	2
1	8	OSO	SuperStack 3 Dual Speed Hub	3COM		1	110	1	1

*DATA CENTER HOSTING RELOCATION - Requirements Specification*

Server Operations Electrical Power Requirements									
Row	Rack	Agency / Project	Description	Manufacturer	Serial	Rack Requirements "U's"	Voltage	Amps	Power Supplies
1	9	OSO	eServer xSeries 342	IBM	02-11A64	3	110	4.3	2
1	9	OSO	NetFinity 4500R	IBM	02-1095E	3	110	4.3	2
1	9	OSO	NetFinity 450R	IBM	02-1095D	3	110	4.3	2
1	9	OSO	PowerEdge 1550	Dell	J4JP311	1	110	1.5	2
1	9	OSO	PowerEdge 1550	Dell	F4JP311	1	110	1.5	2
1	9	OSO	PowerEdge 1750	Dell	D618W31	1	110	3.4	2
1	9	OSO	PowerEdge 2300	Dell	G30Q7	5	110	4.1	2
2	11	OSO	PowerConnect 5224	Dell		1	110	2	1
2	11	OSO	PowerConnect 5224	Dell		1	110	2	1
2	11	OSO	PowerConnect 5224	Dell		1	110	2	1
2	11	OSO	PowerConnect 5224	Dell		1	110	2	1
2	11	OSO	PowerConnect 5224	Dell		1	110	2	1
2	11	OSO	PowerConnect RPS-600	Dell		1	110	12	1
2	11	OSO	PowerVault 132T	Dell		4	110	2.7	1
2	18	OSO	PowerEdge 1750	Dell	H993P51	1	110	3.4	2
2	18	OSO	PowerEdge 1750	Dell	FGQRN41	1	110	3.4	2
2	18	OSO	PowerEdge 2650	Dell	6WD3Q51	2	110	3.5	2
2	18	OSO	PowerEdge 2850	Dell	JRTN981	2	110	5.7	2
2	18	OSO	PowerEdge 2850	Dell	2H1GR71	2	110	5.7	2
2	18	OSO	PowerVault 220S	Dell	40XYT31	3	110	8.2	2
3	17	OSO	PowerEdge 1750	Dell	4TY4R31	1	110	3.4	2
3	17	OSO	PowerEdge 2850	Dell	D84S171	2	110	5.7	2
3	17	OSO	PowerEdge 2850	Dell	884S171	2	110	5.7	2
3	17	OSO	PowerEdge 6450	Dell	36T4S01	4	110	3.5	2
3	17	OSO	PowerEdge 6450	Dell	G5T4S01	4	110	3.5	2
A	1	OSO	Catalyst 3750	Cisco	CNMWU00 ARB	1	110	3	1
A	1	OSO	EMC2	Dell	B7GCR71	4	110	5.9	4
A	1	OSO	PowerEdge 6850	Dell	7RWC881	4	208	11.43	2
A	1	OSO	PowerEdge 6850	Dell	6VWF581	4	208	11.43	2
A	1	OSO	PowerEdge 6850	Dell	8RWC881	4	208	11.43	2
A	1	OSO	SilkWorm 3250	Dell	J30P341	1	110	1	1

*DATA CENTER HOSTING RELOCATION - Requirements Specification*

Server Operations Electrical Power Requirements									
Row	Rack	Agency / Project	Description	Manufacturer	Serial	Rack Requirements "U's"	Voltage	Amps	Power Supplies
A	1	OSO	SilkWorm 3250	Dell	CJ0P341	1	110	1	1
A	3	OSO	PowerEdge 6650	Dell	497VD41	4	110	6.1	2
A	3	OSO	PowerVault 220S	Dell	6C9LQ71	3	110	8.2	2
DC	DC	OSO	Storage Area Network	Hitachi		42 standalone	208	40	2
DC	DC	OSO	Storage Area Network	Hitachi		42 standalone	208	40	2
DC	DC	OSO	Storage Area Network	Hitachi		42 standalone	208	40	2
DC	DC	OSO	Storage Area Network	Hitachi		42 standalone	208	40	2
DC	DC	OSO	Storage Area Network	Hitachi		42 standalone	208	40	2
DC	DC	OSO	Storage Area Network	TBD		42 standalone	208	40	2
DC	DC	OSO	Storage Area Network	TBD		42 standalone	208	40	2
DC	DC	OSO	Storage Area Network	TBD		42 standalone	208	40	2
DC	DC	OSO	Storage Area Network	TBD		42 standalone	208	40	2
DC	DC	OSO	Storage Area Network	TBD		42 standalone	208	40	2
5	1	OSO / ASMP	Catalyst 2950 Series	Cisco		1	110	1	1
5	1	OSO / ASMP	Catalyst 3500 Series	Cisco		1	110	1.5	1
5	1	OSO / ASMP	Catalyst 3500 Series	Cisco		1	110	1.5	1
5	1	OSO / ASMP	PowerEdge 1850	Dell	9J0KG11	1	110	4.2	2
5	1	OSO / ASMP	PowerEdge 2550	Dell	GP36G11	2	110	2.9	2
5	1	OSO / ASMP	PowerEdge 2550	Dell	JGK9X11	2	110	2.9	2
5	1	OSO / ASMP	PowerEdge 2550	Dell	GGK9X11	2	110	2.9	2
5	1	OSO / ASMP	PowerEdge 6400	Dell	6Z8M511	7	110	3.3	2
5	1	OSO / ASMP		IBM	10-2331A	1	110	3.5	1
5	2	OSO / ASMP	PowerEdge 2650	Dell	CVT0M21	2	110	3.5	2
5	2	OSO / ASMP	PowerEdge 2650	Dell	BVT0M21	2	110	3.5	2
5	2	OSO / ASMP	PowerEdge 6650	Dell	9F5C241	4	110	6.1	2
5	2	OSO / ASMP	PowerEdge 6650	Dell	7W16Q31	4	110	6.1	2
5	2	OSO / ASMP	PowerEdge 6650	Dell	8P16Q31	4	110	6.1	2
5	3	OSO / ASMP	eServer pSeries	IBM	10-F0T8A	5	110		2
5	3	OSO / ASMP	PowerEdge 2650	Dell	4D0YL21	2	110	3.5	2
5	3	OSO / ASMP	PowerEdge 2650	Dell	FVT0M21	2	110	3.5	2

*DATA CENTER HOSTING RELOCATION - Requirements Specification*

Server Operations Electrical Power Requirements									
Row	Rack	Agency / Project	Description	Manufacturer	Serial	Rack Requirements "U's"	Voltage	Amps	Power Supplies
5	3	OSO / ASMP	SunFire V480	Sun	250V0323	5	110	10	2
5	3	OSO / ASMP	SunFire V880	Sun	250V0082	16	110	12	3
5	4	OSO / ASMP	Catalyst 2950 Series	Cisco		1	110	1	1
5	4	OSO / ASMP	Catalyst 3500 Series	Cisco		1	110	1	1
5	4	OSO / ASMP	SunFire V890	Sun	0531AM0281	16	220	8	3
5	5	OSO / ASMP	ExpPlus	IBM	10-C918A	3	110	2.5	2
5	6	OSO / ASMP	NetVista	IBM	KA3KYAT	5	110		5
5	6	OSO / ASMP	SunFire V480	Sun	249V038A	5	110	10	2
5	7	OSO / ASMP	InfiniStream i1600		46207001195P	5	110		5
5	7	OSO / ASMP	IP710	NOKIA		3	110	3	1
5	7	OSO / ASMP	IP710	NOKIA		3	110	3	1
5	7	OSO / ASMP	NID200	nFR		1	110		1
5	7	OSO / ASMP	PowerEdge 1650	Dell	BWSHY11	1	110	2.5	2
5	7	OSO / ASMP	PowerEdge 1850	Dell	52JN671	1	110	4.2	2
5	7	OSO / ASMP	PowerEdge 2550	Dell	CGFFY01	2	110	2.9	2
5	7	OSO / ASMP	PowerEdge 2550	Dell	BGFFY01	2	110	2.9	2
5	7	OSO / ASMP	PowerEdge 2600	Dell	1NY6721	8	110	4.8	2
5	7	OSO / ASMP	PowerEdge 2650	Dell	4JX2331	2	110	3.5	2
5	7	OSO / ASMP	PowerEdge 2850	Dell	867HL61	2	110	5.7	2
5	7	OSO / ASMP	PowerEdge 650	Dell	B5WG641	1	110	2.1	2
5	7	OSO / ASMP	PowerEdge 6650	Dell	HFFK851	4	110	6.1	2
5	7	OSO / ASMP	PowerVault 114T	Dell		2	110	0.8	2
5	8	OSO / ASMP	7212	IBM		1	110		1
5	8	OSO / ASMP	CATALYST 2950	Cisco		1	110	1	2
5	8	OSO / ASMP	eServer	IBM	10-C266A	1	110		1
5	8	OSO / ASMP	F5			1	110		1
5	8	OSO / ASMP	PowerEdge 2650	Dell	58ZQH41	2	110	3.5	2
5	8	OSO / ASMP	PowerEdge 6600	Dell	HV8ZG51	8	110	9.4	2
5	8	OSO / ASMP	PowerEdge 6650	Dell	BW3ZZ41	4	110	6.1	2
5	8	OSO / ASMP	PowerEdge 6650	Dell	HCC8Y41	4	110	6.1	2

*DATA CENTER HOSTING RELOCATION - Requirements Specification*

Server Operation Electrical Power Requirements									
Row	Rack	Agency / Project	Description	Manufacturer	Serial	Rack Requirements "U's"	Voltage	Amps	Power Supplies
5	9	OSO / ASMP	CATALYST 2950	Cisco		1	110	1	1
5	9	OSO / ASMP	F5			1	110		1
5	9	OSO / ASMP	PowerEdge 6600	Dell	DJHNY41	8	110	9.4	2
5	9	OSO / ASMP	PowerEdge 6650	Dell	1ZD9S61	4	110	6.1	2
5	9	OSO / ASMP	PowerEdge 6650	Dell	FW3ZZ41	4	110	6.1	2
5	9	OSO / ASMP	PowerEdge 6650	Dell	BW3ZZ41	4	110	6.1	2
5	9	OSO / ASMP	PowerEdge 6650	Dell	GW3ZZ41	4	110	6.1	2
5	9	OSO / ASMP	PowerEdge 6650	Dell	BBC8Y41	4	110	6.1	2
DC	DC	OSO / ASMP	P-Server	IBM		42 standalone	208	50	2
DC	DC	OSO / ASMP	P-Server	IBM		42 standalone	208	50	2
DC	DC	OSO / ASMP	P-Server	IBM		42 standalone	208	50	2
DC	DC	OSO / ASMP	P-Server	IBM		42 standalone	208	50	2
5	14	OSO / DOH	PowerEdge 1650	Dell	6BMRV11	1	110	2.5	2
5	14	OSO / DOH	PowerEdge 1650	Dell	7N11W11	1	110	2.5	2
5	14	OSO / DOH	PowerEdge 2650	Dell	37CYN31	2	110	3.5	2
5	14	OSO / DOH	PowerEdge 2650	Dell	6XB9P21	2	110	3.5	2
5	14	OSO / DOH	PowerEdge 2650	Dell	4XB9P21	2	110	3.5	2
5	17	OSO / DOH	PowerEdge 2650	Dell	JPBLB21	2	110	3.5	2
5	17	OSO / DOH	PowerEdge 2650	Dell	HPBLB21	2	110	3.5	2
5	17	OSO / DOH	PowerEdge 2650	Dell	1QBLB21	2	110	3.5	2
5	17	OSO / DOH	PowerEdge 2650	Dell	5WDLB21	2	110	3.5	2
2	6	OSO / GIS	Catalyst 3560G Series	Cisco		1	110	3	1
2	6	OSO / GIS	PowerEdge 2650	Dell	2XZ4831	2	110	3.5	2
2	6	OSO / GIS	PowerEdge 750	Dell	61XP481	1	110	2.4	2
2	6	OSO / GIS	ProLiant DL580	HP	USE547N2 7V	4	110	7.6	2
2	6	OSO / GIS	ProLiant DL580	HP	USE548N2 R1	4	110	7.6	2
2	6	OSO / GIS	ProLiant DL380	HP	2UX541013 R	2	110	4.8	2
2	6	OSO / GIS	ProLiant DL380	HP	2UX541011 G	2	110	4.8	2
2	6	OSO / GIS	Storageworks	HP		3	110	2.3	2
2	7	OSO / GIS	ProLiant DL580	Compaq	D045DYT1 L149	4	110	7.6	2

DATA CENTER HOSTING RELOCATION - Requirements Specification

Server Operations Electrical Power Requirements									
Row	Rack	Agency / Project	Description	Manufacturer	Serial	Rack Requirements	Voltage	Amps	Power Supplies
2	7	OSO / GIS	ProLiant DL580	Compaq	D105DYT1 K121	4	110	7.6	2
2	7	OSO / GIS	ProLiant DL360	Compaq	6J16FXK1D 0AB	1	110	3.1	1
2	7	OSO / GIS	Storage Array	Compaq	9J0BFLY1Y 5K6	3	110	2.3	2
2	10	OSO / GIS	StorageWorks		9J27FLY19 BDL	3	110	2.3	2
2	10	OSO / GIS	ProLiant DL580	Compaq	D237FRK1 D346	4	110	12	2
2	10	OSO / GIS	ProLiant DL580	Compaq	D237FRK1 D247	4	110	12	2
2	10	OSO / GIS	ProLiant DL760	Compaq	D227FDB1 D017	7	110	8	2
2	10	OSO / GIS	ProLiant DL760	Compaq	D227FDB1 D003	7	110	8	2
2	10	OSO / GIS	StorageWorks	Compaq	9J27FLY19 BD9	3	110	1.3	2
2	10	OSO / GIS	StorageWorks TL891	Compaq	3G13CR83 K019	4	110	1.8	1
3	18	OSO / LANDESK	Catalyst 2950 Series	Cisco		1	110	1	1
3	18	OSO / LANDESK	Catalyst 2950 Series	Cisco		1	110	1	1
3	18	OSO / LANDESK	PowerEdge 2650	Dell	F8TK451	2	110	3.5	2
3	18	OSO / LANDESK	PowerEdge 2650	Dell	38TB451	2	110	3.5	2
3	18	OSO / LANDESK	PowerEdge 2650	Dell	4BK9451	2	110	3.5	2
3	18	OSO / LANDESK	PowerEdge 2650	Dell	3XV4W31	2	110	3.5	2
3	18	OSO / LANDESK	PowerEdge 2650	Dell	29TK451	2	110	3.5	2
2	14	OSO / Remedy	PowerEdge 1650	Dell	HQH3Y21	1	110	2.5	2
2	14	OSO / Remedy	PowerEdge 2650	Dell	2S4HX41	2	110	3.5	2
2	14	OSO / Remedy	PowerEdge 2650	Dell	DNXD041	2	110	3.5	2
2	14	OSO / Remedy	PowerEdge 2650	Dell	3NXD041	2	110	3.5	2
2	14	OSO / Remedy	PowerEdge 2650	Dell	6LXD041	2	110	3.5	2
2	14	OSO / Remedy	PowerEdge 2850	Dell	17KJJ81	2	110	5.7	2
2	14	OSO / Remedy	PowerEdge 2850	Dell	H6KJJ81	2	110	5.7	2
2	15	OSO / UC4	eServer p5	IBM	10-D215F	4	110		2
2	15	OSO / UC4	xSeries 336	IBM	10-99D9A	1	110	4.6	2
Web Application Group server racks Electrical Power Requirements									
Device	Voltage	Amps	Power	Power Units	Total Power	BTU/hour	Cable Plug		
<b>ODC2 DMZ Rack</b>									
Cisco Cat 3550XL	110	15	110	1	110	375	NEMA 5-15		
Cisco CSS 11154	110	15	150	1	150	511	NEMA 5-15		
Dell PE 1750	110	15	400	1	400	1364	NEMA 5-15		

*DATA CENTER HOSTING RELOCATION - Requirements Specification*

<b>Web Application Group server racks Electrical Power Requirements</b>							
<b>Device</b>	<b>Voltage</b>	<b>Amps</b>	<b>Power</b>	<b>Power Units</b>	<b>Total Power</b>	<b>BTU/hour</b>	<b>Cable Plug</b>
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Cisco CSS 11503	110	15	150	1	150	511	NEMA 5-15
Avocent DSR2161	110	15	80	1	80	273	NEMA 5-15
Sun Netra T1	110	15	130	1	130	443	NEMA 5-15
Sun Netra T1	110	15	130	1	130	443	NEMA 5-15
Dell PE 1650	110	15	300	1	300	1023	NEMA 5-15
Dell PE 1650	110	15	300	1	300	1023	NEMA 5-15
Dell PE 1650	110	15	300	1	300	1023	NEMA 5-15
Dell PE 1650	110	15	300	1	300	1023	NEMA 5-15
Dell PE 1650	110	15	300	1	300	1023	NEMA 5-15
Dell PE 2850	110	15	671	1	671	2288	NEMA 5-15
<b>ODC2 Intranet Rack</b>							
Cisco Cat 3550XL	110	15	110	1	110	375	NEMA 5-15
Avocent CPS1610	110	15	80	1	80	273	NEMA 5-15
Dell PE 1650	110	15	300	1	300	1023	NEMA 5-15
Avocent DSR2161	110	15	80	1	80	273	NEMA 5-15
Sun Netra T1	110	15	130	1	130	443	NEMA 5-15
Dell PE 2450	110	15	300	1	300	1023	NEMA 5-15
Dell PE 2550	110	15	400	1	400	1364	NEMA 5-15
Dell PE 1650	110	15	300	1	300	1023	NEMA 5-15
Dell PE 1650	110	15	300	1	300	1023	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Cisco Cat 3550XL	110	15	110	1	110	375	NEMA 5-15
<b>ODC2 HSMP Rack 1</b>							
Dell PE 2850	110	15	671	1	671	2288	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Cisco Cat 3550XL	110	15	110	1	110	375	NEMA 5-15
F5 BigIP	110	15	200	1	200	682	NEMA 5-15
Dell PE 1750	110	15	400	1	400	1364	NEMA 5-15
Dell PE 1750	110	15	400	1	400	1364	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
<b>ODC2 DCStat Rack</b>							
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15

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<b>Web Application Group server racks Electrical Power Requirements</b>							
<b>Device</b>	<b>Voltage</b>	<b>Amps</b>	<b>Power</b>	<b>Power Units</b>	<b>Total Power</b>	<b>BTU/hour</b>	<b>Cable Plug</b>
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 1750	110	15	400	1	400	1364	NEMA 5-15
Dell PE 1750	110	15	400	1	400	1364	NEMA 5-15
Dell PE 1750	110	15	400	1	400	1364	NEMA 5-15
Dell PE 1750	110	15	400	1	400	1364	NEMA 5-15
Dell PE 2850	110	15	671	1	671	2288	NEMA 5-15
<b>ODC2 HSMP Rack 2</b>							
Dell PE 1750	110	15	400	1	400	1364	NEMA 5-15
Dell PE 1750	110	15	400	1	400	1364	NEMA 5-15
Avocent DSR1010	110	15	80	1	80	273	NEMA 5-15
Dell PE 1750	110	15	400	1	400	1364	NEMA 5-15
Dell PE 1650	110	15	300	1	300	1023	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2850	110	15	671	1	671	2288	NEMA 5-15
Dell PE 2850	110	15	671	1	671	2288	NEMA 5-15
<b>ODC2 HSMP Temporary Rack</b>							
Dell PE 1750	110	15	400	1	400	1364	NEMA 5-15
<b>ODC2 Intranet Rack 2</b>							
Dell PV 122T	110	15	100	1	100	341	NEMA 5-15
Dell PE 1850	110	15	445	1	445	1517	NEMA 5-15
Dell PE 2450	110	15	300	1	300	1023	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 1850	110	15	445	1	445	1517	NEMA 5-15
Avocent DSR2161	110	15	80	1	80	273	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 750	110	15	300	1	300	1023	NEMA 5-15
Dell PV 220S	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
<b>ODC2 Intranet Rack 3</b>							
Dell PV 122T	110	15	100	1	100	341	NEMA 5-15
Sun Netra T1	110	15	130	1	130	443	NEMA 5-15
Sun Fire V100	110	15	130	1	130	443	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2850	110	15	671	1	671	2288	NEMA 5-15
Dell PV 745N	110	15	400	1	400	1364	NEMA 5-15
Avocent DSR2161	110	15	80	1	80	273	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15

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Web Application Group server racks Electrical Power Requirements							
Device	Voltage	Amps	Power	Power Units	Total Power	BTU/hour	Cable Plug
Dell PE 6450	110	15	500	1	500	1705	NEMA 5-15
Dell PE 6450	110	15	500	1	500	1705	NEMA 5-15
<b>ODC2 Intranet Rack 4</b>							
Cisco Cat 2950	110	15	110	1	110	375	NEMA 5-15
Cisco Cat 3524XL	110	15	110	1	110	375	NEMA 5-15
Radware WSD-NP	110	15	110	1	110	375	NEMA 5-15
F5 BigIP	110	15	200	1	200	682	NEMA 5-15
Avocent DSR2161	110	15	80	1	80	273	NEMA 5-15
Cisco 6506	250	16	4000	2	8000	27202	NEMA L6-20
Cisco Cat 3548XL	110	15	110	1	110	375	NEMA 5-15
<b>ODC2 Intranet Rack 5</b>							
Sun Fire V100	110	15	130	1	130	443	NEMA 5-15
Sun Fire V100	110	15	130	1	130	443	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PE 2650	110	15	500	1	500	1705	NEMA 5-15
Dell PV 120T	110	15	100	1	100	341	NEMA 5-15
Dell PE 2450	110	15	300	1	300	1023	NEMA 5-15
Dell PE 2550	110	15	400	1	400	1364	NEMA 5-15
Dell PE 2450	110	15	300	1	300	1023	NEMA 5-15
Dell PE 1850	110	15	445	1	445	1517	NEMA 5-15
Dell PE 1850	110	15	445	1	445	1517	NEMA 5-15
Dell PE 1850	110	15	445	1	445	1517	NEMA 5-15
Dell PE 1850	110	15	445	1	445	1517	NEMA 5-15
Dell PE 1750	110	15	400	1	400	1364	NEMA 5-15

**Mainframe Electrical Power Requirements**

Region	Site	Department Location	Category	Device Description	Item	Serial Number	Power Req. KVA	KBTU/HR
OCTO	ODC2	222 Mass Ave	Hardware	IBM Server	IBM 2074	02-1095D		
OCTO	ODC2	222 Mass Ave	Hardware	IBM Server	IBM 2074	02-1095E		
OCTO	ODC2	222 Mass Ave	Hardware	IBM Tape Controller	IBM 3490E-A20	13-65140		
OCTO	ODC2	222 Mass Ave	Hardware	IBM Tape Drive	IBM 3490E-A20	13-70453		
OCTO	ODC2	222 Mass Ave	Hardware	IBM Tape Drive	IBM 3490E-A20	13-72900		
OCTO	ODC2	222 Mass Ave	Hardware	IBM FEP	IBM 3745-310	60252		

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Mainframe Electrical Power Requirements								
Region	Site	Department Location	Category	Device Description	Item	Serial Number	Power Req. KVA	KBTU/HR
OCTO	ODC2	222 Mass Ave	Hardware	IBM FEP CCU	IBM 3746-A11	32098		
OCTO	ODC2	222 Mass Ave	Hardware	IBM FEP CCU	IBM 3746-L13	51409		
OCTO	ODC2	222 Mass Ave	Hardware	IBM Processor	IBM Z800-2066	YH11HA24 S09W	3.2	10.4
OCTO	ODC2	222 Mass Ave	Hardware	IBM Escon Director	IBM 9032-003	51022202		
OCTO	ODC2	222 Mass Ave	Hardware	Hitachi Dasd	Hitachi 9960	40718		
OCTO	ODC2	222 Mass Ave	Hardware	Inrange Channel Ext	Inrange 8200	Q79822/38 47		
OCTO	ODC2	222 Mass Ave	Hardware	Inrange Channel Ext	Inrange 8231	Q79824/38 47		
OCTO	ODC2	222 Mass Ave	Hardware	StorageTek	STK 9310		10.8	36.7
OCTO	ODC2	222 Mass Ave	Hardware	StorageTek	STK 9311			
OCTO	ODC2	222 Mass Ave	Hardware	StorageTek	STK 9330			
OCTO	ODC2	222 Mass Ave	Hardware	StorageTek	STK 9490			
OCTO	ODC2	222 Mass Ave	Hardware	StorageTek	STK 9741E			
OCTO	ODC2	222 Mass Ave	Hardware	IBM Printer	6262-022	70328		
OCTO	ODC2	222 Mass Ave	Hardware	Xerox	75-2000	FT3085034 5		
OCTO	ODC2	222 Mass Ave	Hardware	Cross Console	3151	88 Ayca5		
OCTO	ODC2	222 Mass Ave	Hardware	IBM Sever	IBM 2974	02-11a64		
OCTO	ODC2	222 Mass Ave	Hardware	STK Digital Data Storage	Sum Modem	223c57e2		
OCTO	ODC2	222 Mass Ave	Hardware	CISCO 1548	Micro Switch	Pn11p2805		
OCTO	ODC2	222 Mass Ave	Hardware	Storage Tek Diag.System AST Vison SL	Monitor			
OCTO	ODC2	222 Mass Ave	Hardware	9600 Modem (STK DIAG SYS)				
OCTO	ODC2	222 Mass Ave	Hardware	STK CPU Unit	1602			
OCTO	ODC2	222 Mass Ave	Hardware	SMC EZ Switch 10/100 (1016DT)	6626984297	-3		

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The table below is being supplied primarily to reflect the Mainframe equipment and electrical power requirements at ODC1.

Mainframe Electrical Power Requirements								
Owner	Region	Site	Department	Category	Device Description	Item	Serial Number	BTU / HR
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Control Unit	IBM 3494/B18 Virtual Tape Server	7860200	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3494	78-01116	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3494	13-12409	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3494	23357	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3494	25198	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3494	13-60200	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3494	23335	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3494	78-34448	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3494	78-34452	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3494	78-34285	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3494	78-01116	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Control Unit	IBM 3490E A20	711280	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Control Unit	IBM 3490E A20	711279	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3490E B40	77B7163	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3490E B40	77B7164	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Control Unit	IBM 3490 A01	13-44332	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3490 B04	13-56844	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3490 B04	13-56833	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3490E B40	72897	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3490E B40	72905	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3490E B40	72189	
Mainframe Area	OCTO	ODC1	005- 3919 BENNING RD NE	Hardware	Magnetic Tape Reader	IBM 3490E B40	72995	
Mainframe Area	OCTO	ODC1	3919 BENNING RD NE	Hardware	Eson Director	IBM 9032	022-1973	

## **10 Cabling and HVAC Requirements**

### ***10.1 Cabling Requirements***

The OCTO has mandated the use of CAT 5e, CAT 6 and fiber optic cabling to support the Core network infrastructure at data center hosting facility. Cable management implementation beneath and on top of the equipment cabinets, via cable trays and raceways, are required to fulfill this mandate.

### ***10.2 HVAC Requirements***

The OCTO has determined that the heating, ventilation and air conditioning (HVAC) system in the new Data Center Hosting Facility will meet the required standards to maintain network equipment within required temperature constraints. The OCTO has provided on page 2 through 37 all of the BTU requirements for DCWAN Core, CWITS, City Wide Messaging, Server Operations, Web Application Group and Mainframe equipment to be installed in the new Data Center Hosting Facility (TBD).

## 11 DCWAN Core Network Infrastructure Verizon Circuits

Agency	Location	Circuit Transport	Mbps	Verizon Circuit ID
<b>Frame Relay Circuits</b>				
OCTO	3919 Benning Rd NE	T3	45Mbps	36.YIGQ.000047.945
OCTO	3919 Benning Rd NE	T3	45Mbps	36.YIGQ.000007.945
DHS	3919 Benning Rd NE	T3	4Mbps	36.YIGQ.000001.904
DHS	3919 Benning Rd NE	T1	1.54Mbps	36.QGDQ.830332.CD
YSA	3919 Benning Rd NE	T3	6Mbps	36.QIXQ.100000.DC 36.HFGS.408466.CD
DOH-APRA	3919 Benning Rd NE	T3	22Mbps	323.YIGQ.800003.922 23.HFGS.000440
<b>SMDS</b>				
OCTO-Core	3919 Benning Rd NE	T3	4Mbps	10.QCZQ.10013.904 36.HFGS404577
DHS-back up	3919 Benning Rd NE	T1	1.54Mbps	36.QGDQ.830332.CD
<b>Extranet Circuits</b>				
DMV	Terri Town, NY	P2P	1.54Mbps	36.HCGS.858160
DMV	Terri Town, NY	P2P	1.54Mbps	36.HCGS.882442
Dept. of Justice	Benning Rd., NE	P2P	1.54Mbps	36.HCGA.730767
Public Defenders	625 Indiana Ave., NW	P2P	1.54Mbps	36.HCGA.952217
Dell	Tampa, FL	P2P	1.54Mbps	36.HCGS.976259
DCPS	825 N. Capitol St., NE	P2P	1.54Mbps	36.DHZQ.100051
CSOSA	633 Indiana Ave., NW	P2P	1.54Mbps	36.HCGA.100517
HIDTA	Greenbelt, MD	P2P	1.54Mbps	36.HCGA.588356
RFK	Washington, DC	P2P	1.54Mbps	10.QGXQ.109989
CAPWIN	3919 Benning Rd. NE, DC	P2P	1.54Mbps	23.HCGS.014266
CompMgt	1212 NY Ave., 5 <sup>th</sup> Floor	P2P	1.54Mbps	36.DHZQ.100057.DC
CSOED CS Programmers	Indianapolis, IN	P2P	1.54Mbps	FRWAS04-8664696.01
<b>Back Up Point-to-Point Circuits</b>				
DOC	1923 Vermont Ave., NW	P2P	1.54Mbps	36.DHDA.946262
DMV	95 M Street	P2P	1.54Mbps	23.HCGS.028933
DMV	95 M Street	P2P	1.54Mbps	23.HCGS.030023
DMH	2700 MLK Jr Ave., SE	P2P	1.54Mbps	36.DHZQ.100048
OCTO	441 4Th St., NW	P2P	1.54Mbps	36.DHZQ.946598
DMV	301 C St., NW	P2P	1.54Mbps	36.DHDA.963807
Capitol Police	Anacostia Rd., SE	P2P	1.54Mbps	36.HCGA.101657
E-GOV		P2P	1.54Mbps	36.HCGS.976252
UDC	4200 Conn. Ave., NW	P2P	1.54Mbps	36.DHZA.100293
DC Lottery	2101 MLK Jr. Ave., SE	P2P	1.54Mbps	36.DHZQ.946821
DC Parks & Rec	3149 16th St., NW	P2P	1.54Mbps	36.DHDA.946230
DMH	2700 MLK Jr. Ave., SE	P2P	1.54Mbps	36.DHZQ.100049
DOH	1300 First St., NE	P2P	1.54Mbps	36.DHDB.100280
Admin Courts	1401 H St., NW	P2P	1.54Mbps	36.DHZQ.102023
ATX-TVA DELL	730 12th St., NW	P2P	1.54Mbps	36.HCGS.976259
DOES	609 H St., NE	P2P	1.54Mbps	36.DHZQ.946822

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<b>Agency</b>	<b>Location</b>	<b>Circuit Transport</b>	<b>Mbps</b>	<b>Verizon Circuit ID</b>
DCRA	3220 Penn Ave., SE	P2P	1.54Mbps	36.DHZQ.100388
YSA-Mt. Olivet	1000 Mt. Olivet Rd., NE	P2P	1.54Mbps	36.DHZA.100284
EOM	1350 Penn. Ave., NW	P2P	1.54Mbps	36.DHZQ.946597
<b>ISP</b>				
Qwest	3919 Benning Rd., NE	DS3	45Mbps	DS3-5799430
Qwest	3919 Benning Rd., NE	DS3	45Mbps	DS3-8664695
<b>ISDN</b>				
PRI	3919 Benning Rd., NE	ISDN	PRI	36.IPZD.946323.001
PRI	3919 Benning Rd., NE	ISDN	PRI	36.IPZD.946323.002

## 12 Acronyms / Abbreviations

<b>Acronyms</b>	<b>Full Names</b>
CWITS	Citywide Information Technology Security
D.C.	District of Columbia
DC Lottery	District of Columbia Lottery
DCLAN	District of Columbia Local Area Network
DCPS	District of Columbia Public Schools
DCWAN	District of Columbia Wide Area Network
Dell	Dell Computer
DHS	Department of Human Services
DMH	Department of Mental Health
DMV	Department of Motor Vehicles
DOC	Department of corrections
DOES	Department of Employment Services
DOH	Department of Housing
EMA	Emergency Management Agency
EOM	Executive Office of the Mayor
FEMA	Federal Emergency Management Agency
ISP	Internet Service Providers
MPD	Metropolitan Police Department
NOC	Network Operations Center
OCTO	Office of the Chief Technology Officer
OCTO-Core	Office of the Chief Technology Officer Core
ODC	Office of the Chief Technology Officer Data Center
ODC1	Office of the Chief Technology Officer Data Center 1
ODC2	Office of the Chief Technology Officer Data Center 2
RUs	Rack Units
UCC	Unified Communications Center
UDC	University of District of Columbia
<b>UPS</b>	<b>Uninterruptible Power Supply</b>
VPN	Virtual Private Network