Request for Information (RFI)
On
Enterprise Switch network

Introduction

This RFI (Request for Information) is proprietary to InformationWeek and CMP Media, LLC. It is drafted and disseminated for the sole purpose of generating information on Enterprise Switching for publication InformationWeek, Q1, 2008. Participating vendors must meet the minimum requirements for participation and agree that any information returned to InformationWeek in response to this RFI may be published in print and electronic form on our Web site, www.informationweek.com.

Instructions

The following minimum requirements are essential to participate in the Ethernet Swtich RFI.

Essay-type questions include word-count limits. Any submission beyond the limit may be ignored.

Please answer all the. These sections lay the foundation on which to base your answers, which we will use in our analysis. If you have questions, please contact Mike Fratto at 315-567-9866 or via email at mfratto@nwc.com.

Effective Dates

Response date: 11/11

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Business Overview

Example Corp. is a worldwide purveyor of deep-fried delights sold through major retail outlets. Our corporate office contains sales support, marketing, R&D, and centralized IT. 3 Branch offices provide localized support for sales. Employee productivity is a critical TacDoh competitive advantage and is fueled by a well-connected network and application infrastructure. Our LAN network served TacDoh's data needs well, but has grown overtime with infrastructure sourced from multiple vendors. The need to leverage network dollars mandates a complete network redesign. TacDoh is searching for a new network strategy and design and is very interested in the flexibility, quality of service, availability, and security features in a new enterprise switch network.

Change and growth are key elements the new network will have to support. Maintaining site connectivity and application support are crucial; in addition, the winning RFI will support the increasing changes forced onto the TacDoh network.

Tac-Doh upgraded our cabling to Cat-5E a few years ago and are unlikely to perform another upgrade for a few more years. Generally speaking each desk has a single network port for a users PC. We are planning on running fiber between wiring closets and the data center if needed.

We have pilot projects which will be moved into deployment in the next 6 months. We want to prepare our LAN network in advance.

- Replacing our PBX with VoIP to all the desktops in the corporate and remote offices.

- Unified communications to better manage meetings and collaboration. This includes more use of real-time media both broadcast and point to point
- Network access control. We haven't decided product or technology, but we want our infrastructure to support what ever we choose.
- Centralizing all servers into the datacenter eliminating departmental application servers.

The network supports voice, video, SAP transactions and Lotus Notes. Voice includes IP trunking as well as telephony for call processing. Voice is accomplished using SIP based phones at each location. Video streaming for companywide broadcast events has been used, but we are exploring the use of video for collaboration. Application sharing is also a high priority. TacDoh's customer facing applications are located in the data center. Additionally, TacDoh runs its own instant messaging server and supports employee access to the Internet. Internet traffic, however, is filtered and monitored, in accordance with corporate policy.

Our data center consolidation project is driven be a need to reduce costs and to centralize data for better management and regulatory reasons. That makes data center availability critical to our IT plans. The chosen network design must increase the fault tolerance of our data center. In addition, we measure service levels are for network performance defined by availability, jitter, error rate and throughput. Network performance is used to assess the effectiveness of our IT infrastructure. The vendor should provide a network design and explain how their solution will maximize performance.

We haven't had a need to apply or enforce QoS marking to LAN traffic, but we will want to do so in the future. While many products can mark packets, many others cannot. We are interested in what features, if any, are available in the switches to mark packets on behalf of hosts.

VoIP is our big initiative with SIP based handsets replacing digital handsets. Our plan is to use phones that have a built in network port for users PC's. Combined with our NAC initiative, we must ensure that any port based access control doesn't affect our VoIP infrastructure. In addition, we are planning on using PoE to power our handsets to reduce power requirements at each workstation. We will also need to plan for power in the wiring closet.

Current Network.

The current network has gown over time using products from multiple vendors purchased at different points or acquired through M&A. The access switches are located in wiring closets from which the end-runs fan out to access ports. Current desktop connections are 10 MB/s links which are starting to impede client server connections and file sharing. The switches are interconnected using 100base-TX. None of the runs are long enough to warrant fiber installation.

The single core switch is a single point of failure and interconnects the access switches with the datacenter. Inside the datacenter, the two access switches are a redundant pair and critical servers are teamed to each switch. Less critical servers and services are attached singly. VLAN's are configured per port and are mostly static requiring little change over time. All traffic is routed between VLAN's as needed.

There are roughly 100 people in 3rd floor sales. Accounting and HR have 15 people. The Executive office has 8 people plus two conference rooms. The first floor conference room was recently wired for Ethernet. R&D is separated from the rest of company manage their own servers. R&D is the only part of the company that will retain it's servers after the data center consolidation. The warehouse has 5 workstations which are used for employees access to email and HR. Wi-fi is primarily used for scanners and inventory tracking. We do have phones located through out the warehouse which will be moved to VoIP.

The physical plant from the core switch to the various departments are run through cable trays in walls and ceilings. We do have spare space in the channels to add more copper or fiber. The cabel runs in the data run through over head cable trays.

Objectives

We want our new network to support our IT plans for the next five years when we plan on evaluating a potential upgrade. We are adding more employees and more applications that are consuming bandwidth on the network. Equally important, our real-time media initiatives must have good response times across the LAN. We are not, however, planning on adding more IT staff, so automation of IT equipment in integration into our support systems are critical. We want to achieve the following goals:

1. Unify our infrastructure to simplify management and deployment.
2. Better support real-time media like voice and video.
3. Support network access control so that users can be freed from physical locations.
4. Leverage enhanced switch services to maintain a easily managed network.
5. Support capacity increases as we centralize our data center and as more data is pushed across the network.
6. Plan for growth. We expect to double our workforce in 24 months as we expand our product line and branch out into related ventures.

Ethernet vendor questions

Network redesign

Based on the enclosed map and our stated objectives, design a network including equipment placement.

Answer Guidance

Reason for question: We are looking for your expertise in network design and product knowledge to recommend products and configurations that will suit our needs.
Response Format: Submit a network map in jpg or gif image format. Visio 2002 is acceptable. The textual description should be no longer than 4 pages.

Description of fault tolerance

Describe in detail the fault tolerance built into the network design and the equipment. Please explain any product features that are additional to the base product line like additional power supplies, etc. Highlight any recommended changes to the physical plant.

Reason for question: We want to understand the fault tolerance features to see if they will meet our needs.
Response format: 2 pages

Description of switch management features

Recommend and describe management platforms for centralized management. Include descriptions of integration points with external systems like alerting products, help desk, and so on.

Reason for question: We have many management systems used for IT management, alerting, and trending. We want to leverage those investments and unify our support structure.
Response format: 2 pages.

Description of power management

What describe the PoE management features available in the switches for intelligent power management and cooling? Of specific importance is ensuring that 911 capabilities are available at all times.

Reason for question: PoE and VoIP is new to Tac-Doh and we want clear guidance on how to plan for and manage power. In addition, we need to know how E-911 will be supported and the infrastructure is a critical component.
Response format: 3 pages.

Description of critical security features

Describe in detail how the products security features will support a network access control program and how we can leverage the infrastructure to respond to internal threats quickly. Describe any additional network resources that may be needed.

Reason for question: We want to understand how the products will support network access control specifically and network security in general. We want to get the most value out of our purchase.
Response format: 3 pages.

Support for convergence technology

Describe how the products will support our unified communications needs for real-time media like voice, video, and text. What features will be needed?

Reason for question:
We what to ensure that our chose architecture can support real-time needs as well our bulk data transfer and other network services.
Response format: 3 pages.

Performance claims

Describe the performance claims of the major components and describe how those performance claims have been tested. Cite any internal or external testing that is appropriate. Describe how the components have been designed to attain the claim performance.

Reason for question:
Adequate network performance is critical to a successful roll-out. In lieu of conducting our own exhaustive performance testing, we want to understand what the claims are and how they are arrived at.
Response format: 2 pages. Charts are acceptable to illustrate claims.

Pricing

Please indicate the model number of all network hardware, additional modules, and software/firmware used in the network design. Use Manufacturers Suggested Retail Price (MSPR) in the pricing column. In the network design includes management software, please include that as well.

Reason for question: We as for MSRP since that is a known starting point and negotiated prices vary depending on a number of factors.
Response format: Please use a table format similar to the one below. Model is the part number. Description is the product name. Total is the quantity time unit price. Include software and firmware. At attached spread sheet is acceptable. Please add any clarifying notes.

Model	Description	Quantity	Unit price	Total
			Sum Total	

Service and support

Summarize service and support offerings describing features available at each level. Please include the MSRP of the support offering. Percentage points of purchase price is acceptable.

Reason for question: We will need support. Our IT staff will be responsible for maintaining the equipment and are highly skilled. However, we may want to acquire higher support levels to ensure low mean time to repair.
Response format: 3 pages

Network Map