Network Computing

BT Response:

Request for Information (RFI)
On Frame Relay to MPLS Migration

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Request for Information (RFI)
On
Frame Relay to MPLS Migration

RSVP Deadline: **May 16, 2005** e-mailed or postmarked by 5 p.m. (ET)
RFI Deadline: **May 31, 2005** e-mailed or postmarked by 5 p.m. (ET)
Publication Date**: **August 4, 2005

I. Introduction

A. Purpose

This RFI (Request for Information) is proprietary to Network Computing and CMP Media, LLC. It is drafted and disseminated for the sole purpose of generating information on Frame Relay migration to an MPLS network for publication in Network Computing on August 4, 2005. Participating vendors must meet the minimum requirements for participation and agree that any information returned to Network Computing in response to this RFI may be published in print and electronic form on our Web site, www.networkcomputing.com.

B. Instructions

The following minimum requirements are essential to participate in the Frame Relay migration to MPLS review.

Please note: Services proposed in this RFI **MUST** be available at time of your response. No beta services, please. We reserve the right to examine a test unit (either in our lab or at a customer site) of any service proposed.

___ WAN services proposed must be available in all listed locations (through partnerships is OK).
___ MPLS-provisioned services must comprise at least part of the proposal.

If you do not meet the preceding criteria, your product does not meet the minimum qualifications for this review. Please RSVP by May 16 to Bruce Boardman (bboardman@nwc.com). Thank you for your consideration.

If you respond to the RFI, please note the dates in Section I.C to complete the RFI on time for inclusion in our Aug. 4 issue. We suggest you read through the entire RFI before answering questions. You can reference answers to other questions in the RFI using the section and

question number. Please do not reference materials outside the RFI; incorporate them into your answers. This RFI will be the **only** source used to compare the participating services.

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

Please answer all the questions in light of Sections II through V. These sections lay the foundation on which to base your answers, which will determine the winning bid and our Editor's Choice Award. If you have questions, please contact Bruce Boardman bboardman@nwc.com.

C. Effective Dates

RFI Issue Date: April 22, 2005
RSVP Deadline: May 16, 2005 e-mailed or postmarked by 5 p.m. (ET)
RFI Submission Deadline: May 31, 2005 e-mailed or postmarked by 5 p.m. (ET)
Publication Date: August 4, 2005

II. Business Overview

TacDoh Corp., worldwide purveyors of deep-fried delights, has an aging Frame Relay network linking its 100-plus sites. Employee productivity is a critical TacDoh competitive advantage and is fuel by a well-connected network and application infrastructure. In the past the current hub-and-spoke Frame Relay network served TacDoh's data needs well, but now an increasing rate of change and the need to leverage network dollars mandate a complete network redesign. TacDoh is searching for a new network strategy and design and is very interested in the flexibility and much-heralded cost savings of MPLS.

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.

The network supports voice, video, SAP transactions and Lotus Notes. Voice includes IP trunking as well as telephony for call processing. Voice and Video conferencing is accomplished using Polycom units at each location and occasional video streaming for companywide broadcast events. SAP transactions are high-priority traffic, requiring reliable and consistent processing, while the Lotus Notes collaboration uses store-and-forward messaging and background replication. Additionally, TacDoh runs its own instant messaging server and supports employee access to the Internet. Internet traffic, however, is regionally filtered and monitored, in accordance with corporate policy.

Service levels are applied to two areas: network performance and service delivery. Network performance is defined as metrics like availability, jitter, error rate and throughput. Service delivery is focused on guarantees associated with the time it takes to install new sites, dispatches to customer premises, escalation of out-of-service conditions and so on. The winning service provider will explain in detail the types of service levels available and any associated quantifications, like percentage of uptime.

In addition to supporting and improving the service delivery and provisioning cost of its existing applications, TacDoh is seeking other ways to improve costs and service. To this end TacDoh is interested in other services available from each provider that may not be specified in this RFI, or considered part of TacDoh's initial conversion, but are recommended as a future network enhancements. Vision to outsource IT infrastructure services, cost-appropriate connectivity,

redundancy, management, security and even extending network services to TacDoh customers are possible suggestions for fulfilling this partnership vision. Anything that better leverages TacDoh's network investment or core business will help the company choose a provider with which to partner.

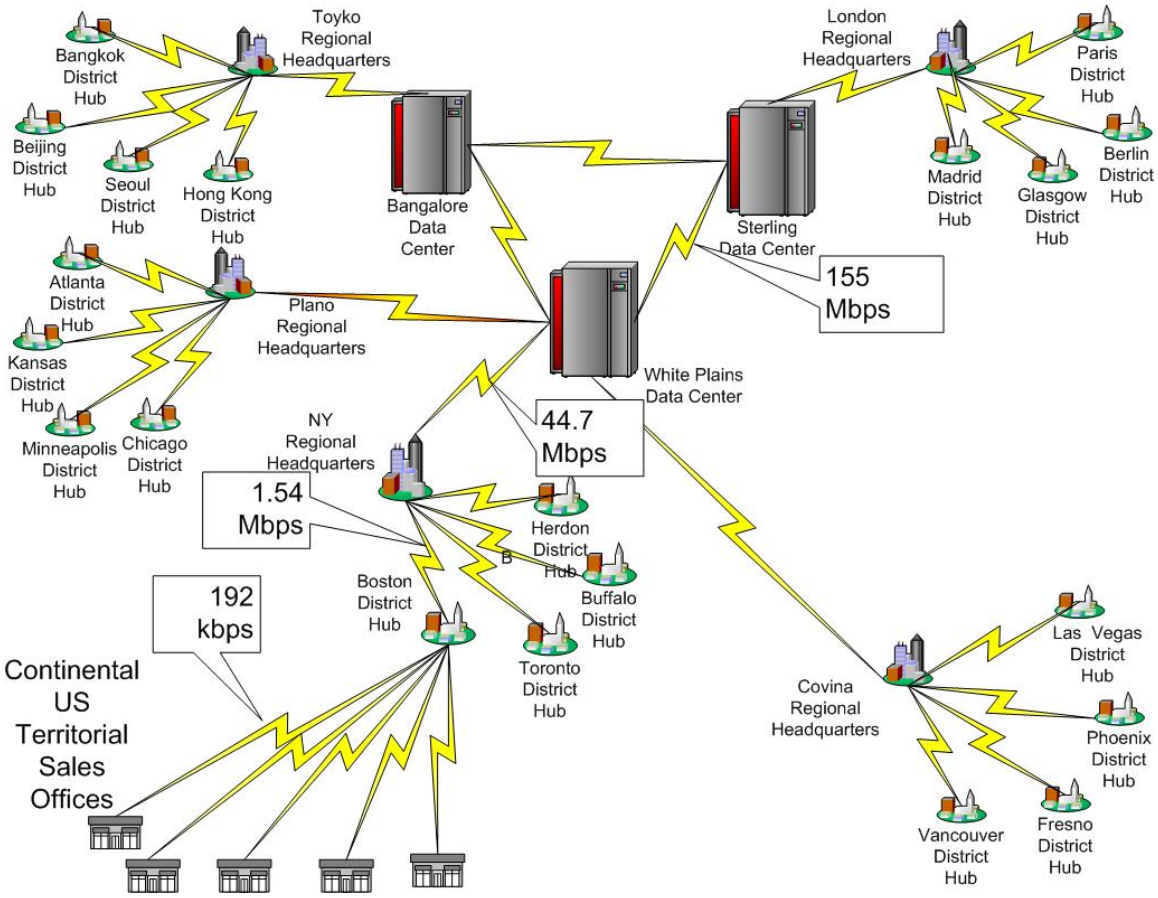
TacDoh is growing into new areas and requires a geographical coverage explanation from each service provider. The granularity should list world regions that are part of the service provider's native coverage and regions that will be covered using partners. In the case that more than a single partner relationship exists please list all available.

Finally, because TacDoh's network connectivity and services are so critical to the success of its enterprise, the financial health and technical infrastructure of each service provider is important. The most favored responses will demonstrate all of these areas, providing sales, customer references, financials and MPLS network connectivity in core and access network tiers.

III. Current Network

TacDoh currently has 128 sites, all linked with Frame Relay. Of these 114 sites are in the continental U.S., while the remaining 14 are located internationally. The top of this hierarchal network has **3 Data Centers**, connected to **5 Regional Headquarters**. Below and connected to the Regional Headquarters are **20 District Hubs**. At the lowest level connected to the District Hubs are the **100 Territory Sales Offices**.

Each data center is meshed with the other two other data centers, requiring two 155 Mbps connections for each. Each data center also has one or two downstream regional headquarters, each connected at 44.7 Mbps. Each regional headquarters has four district hubs, each connected at 1.54 Mbps. Each district hub has five 128 Kbps connections to the downstream territory sales offices.



As the traffic flows towards the data center it is aggregated.

A. Network hierarchy – Current total network sites equal 128 with the following breakdowns:

1. Connectivity

a) Data Centers – 3 - 155 Mbps OC3 connectivity with each data center connected to the other two.

b) Regional Headquarters – 44.7 Mbps T3/E3 connectivity to one data center and 2 district hubs

c) District Hubs – 1.54 Mbps T1/E1 connectivity to 1 regional headquarters upstream and 4 territory sales offices downstream

d) 100 Territory Sales Offices –192 kbps – All 100 sales offices are within the continental US and connected to US only District Hubs.

2. Distribution

a) Continental US = 114 total

1. Data Center = 1
2. Regional Head Quarters = 3
3. District Hubs = 10
4. Territorial Sales = 100

b) International = 11
1. Data Center = 2
2. Regional Head Quarters = 2
3. District Hubs = 10
4. Territorial Sales Offices = 0 (Internationally Territorial Sales offices are housed within District Hubs).

B. Applications supported on all circuits

1. Voice
a) IP Trunking
b) IP Telephony

2. Periodic Video Conferencing

3. Periodic Video Broadcasts

4. IBM Notes - including mail and database replication

5. SAP – Important real-time online transactions

6. Batch off hour data backup

C. Service Level Requirements

1. Technical Service levels
a) 99.99% uptime
1. Data Centers
2. Regional Headquarters
3. District Hubs

b) 99.95%
1 . Territory Sales Offices

2. Service Delivery
a) New service turn-ups and service moves, especially as related to IP Telephony is critical.

b) Historical and anticipated change activity is as follows:
1. Personnel transfers requiring data and telephony – 500 annually
2. New sales offices – 10 annually for next 3 years
3. New District Hubs – 1 annually for next 3 years

D. Internet access

1. Centrally managed at each data center

2. Allowable protocols
a) HTTP
b) HTTPS
c) Instant Messaging

3. Browsing destinations controlled through categorization and filtering software

E. Network backup

1. Must be automated
a) Start and stop

b) usage sensitive in order to mitigate cost

2. Can include a mix of public and private network options with less important or delay/loss sensitive traffic routed on the public path.

3. Public directed traffic needs to be secured

IV. Objectives

- Billing must interface electronically to TacDoh accounting systems
- Break out usage and cost into territory, district, region and data center subsection based on a three year contract.
- Intelligently and cost effectively support the named TacDoh applications
- Provide 24/7/365 support for troubleshooting of circuit connectivity
- Provide network backup using public (Internet) and private options
- Provide self provisioning if available
- Replace current Frame Relay network with MPLS where possible
- Reporting of usage, availability and problems via role-based access control portal so as to allow TacDoh to limit access based on need to know and existing internal TacDoh directory.
- SOHO and Remote Access not part of this proposal

V. Selection Criteria

- Additional Service Costs
- Advanced Service Offerings
- Backbone Architecture
- CE Deployment Time/Costs
- Class of Service
- Contingency Services
- Geographical Coverage
- Global Network Strategy
- PoPs
- Price
- Summary of MPLS services
- Support for non-IP protocols
- Topology Service Offerings
- Traffic Classification