Request for Information
Outsourcing
Network Management

I. Business Scenario

This RFI evaluates outsourced network management services for 5-year-old food-services company TacDoh Corp. Building on its network of retail and warehouse distribution locations, TacDoh provides deep-fat-fried foods round the clock via an expanding network of retail walk-in and drive-up outlets.

The organization's mantra is to extend to the consumer the best in fried foods in a location offering all the comforts of home. To this end, TacDoh has made its operations as consistent as possible across stores and markets while keeping that personal touch.

"The customer is No. 1" is more than just a feel-good slogan at TacDoh, which offers Internet-based ordering of custom-made, ready-when-you-are, deep fat-fried snack items. This e-commerce site provides personalized "MyTacDoh" capabilities. Each registered customer defines and can then order "The Usual" with a single mouse click; the product is billed directly to the user's credit card. In an effort to attract professional customers, TacDoh's "SitAnywhereTacDoh" initiative offers registered users 802.11 wireless hot-spot access within each outlet, again in an overstuffed, home-style atmosphere. Customers can gratify their gluttony while surfing the Web or downloading e-mail, with convenient 'SureWeKnowU' direct billing available in all outlets.

The wireless "SitAnywhereTacDoh" initiative has had a positive bottom-line impact for TacDoh. Half of each location's registered customers use the wireless facilities once a day and spend, on average, 15 percent more per transaction. This added nearly $4 million to TacDoh's gross sales last year, and is thus considered a critical service.

As for employee relations, since its inception TacDoh has shared profits with its associates through its unique "Share The Fat" incentive program. Share The Fat, or SFT, recognizes outstanding performance and tracks bonus pay based on sales and service achievements. Considered an industry differentiator, this in-house-developed application is as important to the ongoing success of TacDoh as its point-of-sale, inventory tracking and general accounting programs.

However, TacDoh's IT group has hard choices to make: the SFT application development effort requires increased programming man-hours, but the IT budget is frozen at last year's levels.

Even though the network is of prime importance in supporting TacDoh's distributed retail chain and customer outreach and employee incentives, managing the network is considered a cost. As such, TacDoh is interested in exploring ways to manage this cost without interrupting store operations or customer-base enlargement.

Network Topology and Infrastructure
There are currently 300 retail outlets, each linked to one of three regional distribution centers, in Chicago, Newark, N.J., and Atlanta. The distribution centers act as warehouse and communications hubs for the attached retail stores. The Chicago center is the original location, housing the corporate offices and data center. Chicago, as the oldest hub, supports 150 retail stores, while Newark and Atlanta have 100 and 50 locations, respectively.

The stores are connected to their distribution centers via T1 Frame Relay access links with 256Kb CIRs (committed information rates) burstable to 512Kb. The three distribution locations are meshed, each dual-homed via T1 and T3 link at each location. These run over the Internet using IPSEC VPNs. The two links are dual homed to different ISPs and route balance using 3100 Path Control units from Route Science, to improve reliability and lower costs.

The 300 Frame Relay links for the retail locations are terminated on Adtran IQ 710 access devices deploying traffic shaping. The traffic shaping prioritizes the "SitAnywhereTacDoh" customer traffic, while buffering POS and personnel data. All retail sites also house Cisco 2600 routers, Extreme Summit24e2 24-port Layer 2 switches and Symbol 4131 wireless access points. Each branch supports dial backup, via ISDN where possible, and over dial-up where not.

The distribution centers house Cisco 7200 routers with Extreme Summit24e2 24-port switches. Warehouses also support Symbol 4131 access points as well as regional servers, office workstations and PCs.

All system equipment will continue to be managed by TacDoh's internal IT staff. This includes file servers, desktop PCs, printers, centralized servers, and database and mail servers. However, the winning bid will describe how the MSP will work to bridge the gap between systems and network management with tools and procedures that will be provided to the internal IT staff.

It is a requirement that the dial back-up be automatic and restored when the dedicated circuit returns.

Current IT Staffing
Current IT staffers plan, develop, operate and manage applications, voice systems and the network. They are allocated as follows:

Data center	10
LAN server/desktop support	12

| Voice support | 4 |
| Data network: | 8 |

        3 Network engineers
        4 Network operations
        1 Manager

Help-desk	14
Application development/support	12
IT Management	4

Business Service Goals

Please consider the following business service goals when answering this RFI. Indicate how they will be supported, violation thresholds, audit and reimbursement procedures. Please further quantify or qualify your support of these goals as necessary.

It is understood that network management cannot in all cases completely control or affect all of these outcomes. It is also understood that these may be high-level goals, which do not fully explain all of the necessary technologies and considerations that will effect how the network will be managed. However it is important that network management support and prioritize its service in alignment with the following, and point out shortcomings, or alternative scenarios in the network management proposal.

In all cases where more than a single option exists please indicate which you recommend in this situation. Keep in mind this is primarily a cost off set for TacDoh, and they have to weigh service short falls against savings outsourcing provides. Also if there are other additional functions and associated cost please list those separately, and make your recommendation as to business imperatives that would make them worth consideration.

1. Reduce and predict network management costs. Please indicate the cost of ongoing service and any contract periods required to receive the pricing. Also break out costs associated with converting to your network management services, as well as costs to convert off of your service, either back in house or to another network management provider. This could for instance include costs associated with data conversion, or circuit provisioning. Also please indicate any financial penalties that would arise from the early termination of the contract.

If you wish you may choose to bid on more than one contract length. TacDoh will analyze contract cost as compared to flexibility in choosing a network management outsourcer.

2. Completely outsource configuration, monitoring, reporting, planning and maintenance of all network infrastructure at each warehouse, store and corporate location.

3.Existing help-desk and operations support will remain, but at reduced levels to support POS, accounting and SFT applications. Staff reductions based on removal of network and branch systems.

4. Availability service levels at the store level of 99.9.

5. Availability service levels at regional warehouse facilities of 99.99

6. All transactions must take less than 5 seconds, with network transit time under 2 seconds. All circuits and systems currently operate with in these parameters 99.9% of the time.

7. 24/7 network availability supporting online transactions and customers' wireless transactions to the regional warehouses. This includes local store POS servers, switches, wireless AP, WAN CPE and WAN circuit monitoring. Management.

8. Auto-dial back-up needs to be accomplished within a five minutes of dedicated circuit outage. Dial back up also must be dropped within five minutes of the dedicated circuit being restored.

Specific Requirements

In addition to addressing the general business goals outlined above, please specify how each of the following will be handled:

Reporting

Reports are needed by store, warehouse and corporate user. Their differing needs require access that ranges from local store to overall business delivery tracking. TacDoh IT wants to control access while delegating much of the responsibility for user access configuration to each business constituency. Ideally, this will include report viewing, running, creation and definition.

Standard reports should be available on a by store, by region, and overall network basis. The data elements should include Top 10 Applications by bandwidth, TopN Talkers, Utilization, Errors, Through put and availability. Historical Averages, minimums, maximums and 95 percentile overlays would be useful.

Application flow performance data is only available from the Adtran CPE FRADS. If you don't collect from that data source, but do offer alternative transactional analysis, please propose those solutions you feel appropriate. Also please break out each proposal separately, in order to clearly identify all of the cost associated.

The ideal report distribution will provide for online access and local report printing. It will also offer a security and access model that can be distributed and delegated. This would for example allow corporate to delegate and distribute report access and creation to each regional warehouse management team. Who could then distribute and delegate access to specific store staffs or groups of stores.

Finally if you offer ad hoc report creation, definition, or writing, please specify in detail the features available, and costs associated with each.

Sales Tracking Integration

Response times are fed to an in-house application, TacDoh Mixer, which tracks POS activity and "SureWeKnowU" access. Currently this is an XML data feed. The data provided from the network management application to TacDoh Mixer include each stores local server's CPU and Memory usage and each store's network latency,

utilization and transactional flow analysis split between "SureWeKnowU" traffic and POS traffic.

Please specify if you are able to support this data feed and any additional cost.

SLA Reporting
SLA threshold violations and near violations need to be reported, as well as flagged with an e-mail notification. Ideally, this will provide from a configurable list, management of which can be delegated and distributed.

Service levels include the WAN and local infrastructure at each store and warehouse distribution center. It is important that the network management solution encompass and manage all provider service levels. In addition to monitoring, it should include audit with provider, and status of ongoing audits and billing disputes with each WAN circuit provider. If this level of management is not available please indicate what interaction with WAN providers is possible. If there are separate costs associated with any WAN provider management please indicate what those are.

Circuit Billing
WAN payments will be done by TacDoh corporate accounting, but provisioning and WAN billing audits are to be outsourced. Network CIR, burst, and utilization need to be correlated to billing reports from WAN providers. These reports should be audited for accuracy and flagged where billing reimbursement is required. New stores come online regularly, usually with three month's notice.

Performance Metrics
Monitoring is currently tracking minimum, maximum, average and 95th percentile for the following gathered on a 5-minute basis:
In and out octets, values and percentage of utilization of every interface
Errors values and as percentage of packets for every interface
CPU utilization on every branch and warehouse server via HOST MIB
Memory utilization of every branch and warehouse server via HOST MIB
Disk-space utilization for every server via HOST MIB

The bandwidth and response time average, min, max and 95 percentile for the POS and "SureWeKnowU" applications. The "SureWeKnowU" application is all the browsing, mail, etc… coming from the wireless access points.

Data needs to be saved in five-minute samples and kept for one year. The five-minute samples need to be rolled up to weekly, monthly and quarterly summaries. These roll up should be saved for five years. This is currently available via the corporate RDBMS.

Describe data collection and retention periods available with your proposal. Please also indicate user access, and any associated additional functions and cost.

On-site Support
Network staffers have take general responsibility for on-site network troubleshooting and repair. Please indicate if you will be able to manage an onsite response.

We realize that branch location will dictate cost. Use each of the warehouse distribution sites as centers from which dispatches would be figured, and indicate the costs associated. For example this might include the distance in miles to a particular store attached to the Atlanta warehouse, as well as specific hours or response, and or guaranteed elapsed time until a tech will be onsite.

Also please indicate the financial responsibility in each of the following outcomes:

-Not directly related to onsite communication, network or computing equipment, or cable plant - For example and act of God like lightning, or earthquake or building landlord powering drilling through power feed while remodeling adjacent store.

-No trouble found – For example when the dispatch arrives and test the trouble no longer exists or clears during testing.

-WAN provider error – For example provider erroneously places disconnect on circuit.

Please indicate any modular service level and cost associated in multiple options are available.

Management Applications
Currently, network management is supported through the following applications:

    Adtran N-Form
    Cisco Works 2000
    HP OpenView Network Node Manager
    Concord Communication eHealth

While primarily tools of the networking group, they are also used by help-desk, operations and systems personnel to support internal applications, systems and users. The cost reduction of these applications will help offset the outsourcing cost, but retraining costs need to be considered. Please indicate any network management tools that will be provided by you to the above groups, in support of internal applications, systems and users. Obviously, not having to re-learn tools is advantageous, but should that be a requirement, indicate training and facilities that will support remaining IT staff.

If there are additional modules or functionality, like special training classes, please indicate their cost separately.

Network Infrastructure to be Managed

	Chicago	Newark	Atlanta	Branches
Cisco 2600 Router	0	0	0	3
Cisco 7200 Router	2	1	1	
Cisco 6509 w MFRC	1	0	0	
Extreme Summit24e2	20	0	0	3
Extreme Summit48i	10	0	0	
Foundry FastIron Edge Switch 2402	0	5	5	
Foundry FastIron Edge Switch 4802	0	5	5	
Alcatel Omniswitch 6624	0	5	5	

Route Science 3100 Path Control	1	1	1	
Adtran IQ 710	0	0	0	3
Symbol 4131 AP	6	3	3	3
T3	1	1	1	
T1	1	1	1	
FracT1	0	0	0	3