

Advantages of Using FTS2001/Networx for Managed Contact Solutions

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A managed contact solution (MCS) uses telecommunications assets and software applications to manage customer contacts. This paper explores the business scenarios best suited for MCS, its advantages, and the convenience and cost benefits of using existing contract vehicles.

In situations where MCS fits, such as organizations that service a substantial volume of customer contacts, it provides several benefits. MCS enables agencies to leverage automation to service customer inquiries without agent intervention, and/or increase service efficiencies by balancing call volume among agent groups across multiple contact centers, and selecting the agent that is best suited for a particular call. MCS can also extend customer interactions beyond the traditional phone channel and into electronic channels such as email and Web customer service. Across the various interaction channels, MCS provides real-time and historic reporting tools to assist agencies in measuring and managing the contact centers operation, including the customer experience and service quality. These advantages decrease agencies' costs and improve the caller's experience.

Government agencies can serve the public with MCS quickly and conveniently with existing contracts such as Networx. Networx is a General Services Administration Government-Wide Acquisition Contract with a wide range of MCS services that are substantially discounted from commercial rates.

Introduction

Managed contact solutions (MCSs) have been used by commercial firms for some years, and their continuing growth is a measure of their success. When an MCS offering is compared to previous solutions with minimal automation, but the same traffic load, MCS provides reduced cost, a better customer experience, and more efficient use of existing telecommunications assets. Moreover, this greater efficiency allows for increased traffic using the same number of agents. Government agencies can reap these benefits, and the substantial purchasing power of the federal government provides reduced cost compared to the commercial market. Furthermore, existing purchasing vehicles through the General Services Administration (GSA) makes use of these solutions particularly attractive.

What is a managed contact solution

An MCS offering refers to a vendor-provided and maintained technology infrastructure for managing customer contacts and is provided to agencies on a usage-based pricing model. This has traditionally included interactive voice response (IVR) self-service capability and customer contact routing using automatic call distribution (ACD)-type functionality for the voice channel. MCS has now evolved to include more advanced multi-

media routing capabilities for non-voice channels (e.g., email and chat). Predominantly, this capability is provided in three major forms, as follows.

Dedicated infrastructure located on customer premises. The vendor installs, implements, and manages a hardware/software contact routing and self-service infrastructure on a customer's premises. All MCS assets are owned by the vendor and the customer utilizes this infrastructure to serve its customer contact requirements on a usage basis. This model most closely resembles an equipment lease option augmented with a managed services structure for the ongoing technology support. The vendor is responsible for supporting, maintaining, and upgrading the technology infrastructure related to the MCS.

Hosted shared, multi-tenant infrastructure. The vendor provides a contact routing and self-service infrastructure located on the vendor's premises or network which is shared among multiple customers. Vendors, including large carriers, integrators, and equipment providers, have built out infrastructures that can be used by multiple end users/customers. Agencies using this service pay a usage fee on a per-agent, per-minute, or per-call basis to gain access to applications and capabilities implemented by the vendor. Network IVR is the

most common application of a hosted shared MCS offering, wherein a vendor-provided IVR platform and its ports are shared among multiple customers with customer-specific IVR applications.

Dedicated infrastructure located on vendor premises. The vendor provides a separate contact routing and self-service infrastructure on its premises or network for a specific customer and their operational needs. This configuration is significantly less prevalent and requires the vendor to build out a hardware/software infrastructure tailored and dedicated to a specific customer. This model reduces the economies of scale associated with the shared multi-tenant model, but can provide some benefits to agencies by locating all needed infrastructure assets on the vendor premises, and leverages vendor/contractor personnel that are already trained and deployed at the vendor's operations centers. This model is best suited for organizations that require a very large contact routing infrastructure or have highly customized needs.

The market for hosted contact center equipment and services continues to grow. Table 1 shows growth as forecasted from 2005 through 2013. [1]

Year	Seats (Thousands)	Revenue (\$ Millions)	Revenue Growth Rate (Percent)
2005	70	127	—
2006	108	191	50
2007	157	299	56
2008	222	427	43
2009	304	582	36
2010	404	765	31
2011	525	977	28
2012	672	1,223	25
2013	845	1,494	22

Compound Annual Growth Rate (2006–2013): 34.1 percent
 All figures are rounded; the base year is 2006
 Source: Frost & Sullivan, 2006

Situations where MCS excels

MCS enables organizations to implement contact center functionalities by procuring an ongoing service, which bypasses large, upfront investments in technology and the associated maintenance personnel. Each organization should address the benefits of MCS as it applies to their environment, needs, and plans. However, any organization that is planning a brand new (“green field”) contact center implementation should seriously evaluate the applicability of MCS services as a cost-effective and efficient option for meeting its business needs.

Among green field implementations, MCS as a service provides significant benefits for organizations with the following characteristics.

Small to medium size organizations/operations. The ongoing service-based model of MCS offerings enables smaller organizations with limited capital budgets to implement contact center capabilities that may not have been affordable with a traditional technology procurement approach. MCS eliminates the capital intensive planning, budgeting, and expenditures associated with the contact center technology purchase, installation, and future upgrades.

Organizations lacking domain expertise. MCS enables organizations of all sizes to implement contact center services without having to put in place the technical domain knowledge. Organizations with limited or no contact center technology expertise can leverage contact center functionalities for their mission without having to hire or re-train technical personnel.

Expedited time to market requirement. Depending on the MCS deployment model, organizations can significantly reduce the implementation time associated with specific types of capabilities. Adopting the shared vendor premises, the MCS model enables organizations to leverage an existing infrastructure, thereby bypassing significant implementation time. Network IVR capability is a good example where organizations can significantly expedite the deployment time by minimizing implementation time, resources, complexities, and risk associated with installing and configuring technology. Instead, the vendor only needs to implement the IVR application that will run on the vendor's existing IVR platform infrastructure.

Seasonal traffic spikes. MCS enables organizations to more cost effectively accommodate spikes in traffic volume. Organizations that experience seasonal spikes can easily increase and decrease their infrastructure needs (e.g., network IVR ports) to better match their seasonal capacity requirements. This eliminates the need to purchase and maintain a permanent infrastructure that is under-utilized when traffic volumes are significantly less than seasonal spikes. The shared infrastructure deployment models can inherently accommodate certain levels of traffic increases depending on the total traffic load generated by all its users.

Redundancy and disaster recovery. Depending on the organization and the MCS service and deployment model, MCS can enable organizations to incorporate disaster recovery capabilities more cost effectively. Organizations that have only

a single site to dedicate to contact center technology implementations can leverage vendor premises-based MCS infrastructures that provide robust disaster recovery and failover. Carrier-based network IVR offerings are a good example of an MCS with significant built-in redundancy and disaster recovery, where a large number of carrier-based IVR platforms are distributed across the vendor's network. Similarly, many vendor premises-based call routing and ACD capabilities are offered in a multi-site configuration with failover and disaster recovery built into the service.

Need for piloting a contact center offering. MCS enables organizations to pilot new capabilities and features without a significant upfront investment (e.g., Web chat). An organization can initially use an MCS service to evaluate the business value of contact center functionality, and then re-evaluate the applicability of MCS or transition from MCS to a different deployment model as a permanent solution.

MCS can also prove beneficial in an upgrade scenario, where the organization may be faced with a “forklift” upgrade that requires significant investment in hardware, software, and technical domain expertise. Forklift upgrades can require significant capital and resource investments, which can be more manageable when adopting an MCS deployment model. When faced with business decisions involving major upgrades, organizations should also consider the value of an MCS as an option to the traditional upgrade process.

Situations where MCS does not excel

As mentioned above, organizations should evaluate the *pros* and *cons* of MCS on a case-by-case basis. Each organization has its own needs, characteristics, culture, and plans for the future, which ultimately influence whether an MCS service provides the best solution for where the organization wants to be. Organizations with significant investment in contact center technologies and resources to manage them will gain little benefit from transitioning to an MCS offering. These organizations that effectively manage their infrastructure are already leveraging the efficiencies associated with large technology deployments and the resources and domain knowledge to maintain and operate them. Transitioning to an MCS environment may not only increase the life cycle cost, but also introduce undue risk by changing the maintenance and operational staff and expertise.

What are FTS2000, FTS2001, and Networx

Prior to 1984, GSA maintained and ran the Federal Telecommunications Service (FTS), the largest private telecommunications network in the world at the time. [2] The idea behind FTS was to combine the telecommunications requirements of many government agencies to obtain economies of scale that could not be enjoyed by agencies contracting directly with AT&T, the sole long distance carrier at the time. With the large customer base, GSA was able to use Telpak, a bulk tariff from AT&T, for the backbone routes with favorable rates. This changed in 1981 when AT&T withdrew its Telpak tariff due to competitive pressures from MCI.

Instead of amending FTS, GSA reengineered it. The new FTS, called FTS2000, differed in that GSA would no longer engineer and manage its own network, but would acquire services from the long distance carriers, and GSA would perform contract oversight and administration. Only the carriers had the experience to design and implement a large network such as FTS2000. This arrangement also made sense from an economic standpoint, because deregulation had created a competitive market and GSA could negotiate reduced prices because of its large customer base.

FTS2000 was an outstanding success. Calls made under FTS were 30¢ to 40¢ per minute at the start of the contract; by 1994, this had dropped to 8¢ per minute and continued to decline with FTS2001.

While FTS2001 was largely a follow-on to FTS2000, Networx is a complete redesign. The key features of FTS2000 and FTS2001—acquisition of services rather than equipment and competition between vendors—were retained, but the scope of the contract and the selection of services was greatly expanded. All three contracts are now Government-Wide Acquisition Contracts (GWACs). This contract mode [3] is defined as “... task order or delivery order contracts for information technology (IT) established by one agency for government-wide use.” GWACs have several advantages, among them [4] that competition occurs at both the contract and task order levels; contracts are pre-qualified for capability; task order awards cannot be protested; and they include a full range of contract types. Networx is an Indefinite Delivery Indefinite Quantity (IDIQ) contract.

GSA contracts for managed contact solutions

FTS2000 had MCSs that were linked to an 800 number. Callers dialing the 800 number would be placed in a queue that was

connected to an IVR unit. The IVR allows for automated interaction with the caller to answer commonly asked questions and obtain information from the caller that is useful in the event that the caller needs to speak with an agent. The options under the original contract were expanded using amendments (also called modifications) and Custom Design Documents (CDDs) that are mechanisms for defining customized processes for an individual agency. [5] Using the features from the original contract with modifications and CDDs, agencies were able to route calls using caller responses to questions from the IVR unit. A feature called Flexword allowed for a custom speaker vocabulary of up to 2,000 words. In addition, the agency could have pre-planned routes, next available agent routing, and routing to a pre-determined alternate location if the main location was unavailable. Agencies could also route calls based on a caller's telephone number, since the contract included access to an agency-supplied database. Other features included a facsimile (Fax) catalog, where agencies could place documents with the vendor, and customers could have them delivered to their Fax machine. There was a selection of reports available to the agencies. Besides all the features available with FTS2000, FTS2001 added a number of enhancements. These included routing based on the geographic area of the caller; time of day or week routing; cascade routing, where successive predetermined routes are used if the egress circuit for a route is unavailable; and routing from a Network Call Distributor. There were also an expanded number of reports the agencies could choose.

Networkx greatly expanded the choice of options. Besides all the functionality of FTS2001, an agency could select from a variety of additional options; for instance, five methods of service delivery for customer Contact Center Services (CCS):

- Contractor-provided and contractor-based (agency provides agents)
- Contractor-provided and agency-based (agency provides agents)
- Contractor-based and agency-provided (agency provides equipment and agents)
- CCS provided at an agency location (contractor supplies equipment and agents)
- CCS at contractor location (contractor supplies space, equipment, and agents)

With Networkx, call routing can be based on the real-time state of the call center, media type (Web, chat, and telephone), and queue prioritization. Networkx services will interoperate with agency firewalls and security layers, and can provide service observation. The wait time for a caller in a queue can be included in the message to the caller. There are additional fea-

tures such as email response management, language interpretation service, and workforce management.

Advantages of using FTS2001/ Networkx

State-of-the-art telecommunications network and IT services are offered to federal agencies through programs like FTS2001 or Networkx. These programs:

- Meet government-wide complex user needs
- Are designed to accommodate unique networking services requirements of each participating government agency
- Support current critical agency requirements and at the same time address the future of government telecommunications, networking, and IT requirements

While they are not mandatory, government agencies use such programs because they represent the best value in the marketplace. The best value mission, in essence, means that the primary objective is to ensure the best networking technology service and price for the government, while maximizing competition in acquiring those services. Some of the important benefits of FTS2001 have been:

- Utilize networking solutions that are pre-competed and readily available for all agencies; this helps save time and realize significant government-wide value
- Leverage the large buying power across government agencies to obtain competitive prices
- Customize solutions tailored to meet the unique needs of a customer, large or small
- Provide a centralized, one-stop contracting and program management expertise; this way, agencies on their own do not necessarily have to develop, award, implement, and administer individual contracts
- Access, by virtue of the built-in flexibility in the program, new technologies as they become available

Networkx is the follow-on to the FTS2001 telecommunications program which ended January 11, 2007. FTS2001 was replaced with the FTS2001 Bridge contract which allowed agencies a smooth transition to Networkx. FTS2001 Bridge has the same prices as FTS2001 and can take CDDs and contract modifications. Networkx has just started and an extensive track record of Networkx performance is not yet available. FTS2001, on the other hand, has been available since 1998 and there is a large reservoir of information on FTS2001. Accordingly, illustrative examples cited in this paper will draw primarily on FTS2001 experience.

Price competitive

Prices on Networkx will be at or below those for FTS2000/FTS2001; therefore, savings with Networkx can be predicted with the experience on FTS2000 and FTS2001.

When compared to commercial pricing as of 2004, the “low prices obtained thus far have resulted in approaching \$2B in savings to the federal government.” [6] This represents a nominal savings of around 40 percent over commercial prices. [7] This trend of cost savings is expected to continue with Networkx.

The following is an example illustrating these cost savings. MCI (now Verizon Business) offered MCS services to a certain agency through FTS2001. This solution was built on a third party contact routing hardware/software platform. The commercial list price for this 7,000 license system corresponded to approximately \$45M. [8] In the commercial sector, discounting on such software licensing is approximately 40 percent; [9] under FTS2001, the MCI price discounted this solution by 53 percent corresponding to \$21M. In fact, under FTS2001, a discount of as much as 78 percent for very large MCS orders is not uncommon. [10]

This example illustrates an important price metric, which is the ratio of price savings over procurement volume. In this example, the value is about 53 percent. In general, this ratio should hold approximately for other MCS cases.

FTS2001 is cost-effective not only with respect to commercial prices, but against well-discounted government prices that are not from centralized contracts such as FTS2001 or Networkx. A case in point—*GSA Advantage!*

Government-approved vendors are listed in the *GSA Advantage!* database, which is not associated with FTS2001 or Networkx. *GSA Advantage!* is a convenient contract which serves as the one-stop online shopping source for government procurement of commercial products and services. Price analysis of well over 100 FTS2001 custom design and contract modification proposals [11] shows that *GSA Advantage!* prices are reasonably discounted (30 to 40 percent) over vendor’s commercial list prices. Thus an agency can procure products and services from commercial vendors at 30 to 40 percent discount without having to use FTS2001. However, the same analysis shows that agencies could save 45 to 65 percent over commercial list prices by purchasing the same services through FTS2001. Therefore, going through FTS2001, an agency can save an additional 15 to 25 percent over discounts otherwise available to the government.

One of the major strategic goals of Networkx is to offer telecommunications prices that are at or below current levels. This is “to assure stability and predictability in agencies’ telecommunications budgets.” [12] Networkx “[p]rovides all services currently provided under FTS2001” and “[p]rices are

overall below current FTS2001 prices.” [13] These two points are well illustrated with the following example.

The FTS2001 Toll Free Services (TFS) contract modification is an MCS. Networkx also has a TFS offering and that offering is essentially identical to the one under FTS2001. The basic Networkx TFS domestic transport charge from the AT&T proposal is 1.798¢ per minute. The current FTS2001 rate for the identical item from the same vendor is 1.926¢ per minute. Thus, Networkx not only continues with all FTS2001 services, but at rates lower than the latest corresponding FTS2001 rates.

The Networkx program consists of two broadly scoped acquisitions—Universal and Enterprise. Each of the three Universal contractors provides 36 common services that include all FTS2001 services to meet current government requirements and over 20 new services emphasizing Internet Protocol (IP)-based networks of the future. Networkx Enterprise allows each industry provider more flexibility, within the framework of the acquisition, to propose a subset of the required services and geographic coverage. Networkx Enterprise includes nine IP-centric common services with primarily national coverage. As with Universal, additional service options are available. This program offers a wider range of contractors based on their core competencies and competitive advantages. In addition to continuing to offer FTS2001 TFS services at a lower rate, Networkx defines a new CCS, which is broader in scope and adds Voice over IP (VoIP) and multimedia-based offerings.

Procurement options

Agencies have several options for acquiring networking solutions. Existing processes for government procurement of networking services are described in some detail by Chandra, Crown, and Soltys. [14] The following sections summarize the various alternatives.

Open competition. As mentioned before, an agency may choose not to rely on a GWAC contract such as Networkx and go through full and open competition in the marketplace.

Standard FTS2001 Bridge. An agency can simply place an order directly from a FTS2001 Bridge contractor using the fixed price quoted in the vendor’s approved proposal against a Service Configuration Identification (SCID) number. This is the simplest option that uses a pre-competed contract vehicle. Some technical management of the customer premises and access infrastructure over which the service is delivered comes with this. Although agencies have the choice of going through a full and open competition in the marketplace to acquire telecommunications solutions, using pre-competed contract vehicles like FTS2001 Bridge has multiple advantages of cost and mission customization.

Custom FTS2001 Bridge. Agencies can also choose to optimize various aspects of their network solution such as service level agreements (SLAs), service delivery features, and individual price structures within the FTS2001 Bridge framework to meet their specific requirements demanding a more robust, end-to-end solution. The agency can submit a task order to their existing FTS2001 Bridge provider as a logical follow-on to previous orders. The other alternative is for the agency to solicit competitive proposals from all capable FTS2001 Bridge contractors and then use various criteria such as cost only or a combination of cost and technical merit, as well as past performance, etc., to select the proposal that meets their requirements. In the latter case the agency needs to develop a statement of work (SOW) documenting its requirements.

In either case, the contractor responds with a CDD along with fixed prices for the required services and a fixed price quote. In certain cases, a CDD results in the modification of the FTS2001 Bridge contract.

Complete offering with Networkx

Besides a complete range of MCS services, the Networkx contract includes a large selection of other telecommunications services such as transport for telephone and data traffic. The user need not purchase from several contract vehicles to put together a complete telecommunications solution.

Keeping current—modifications and CDDs

Programs like FTS2001 stay current with new technologies through contract modifications and CDDs. With these instruments, FTS2001 kept pace with advancements in the commercial market. New services such as embedded security services, not available when the program was first launched, were added through contract modifications to improve the overall value of the contracts to agency customers. The Networkx contract also provides this feature.

Contract modifications allow for the reduction in price of existing services, improvement in the quality and efficiency of service delivery, and introduction of new services. For example, over its life cycle, the FTS2001 contract has been modified over 300 times and grew from offering 21 core services to close to 40 services. [15] Through a contract modification, a vendor makes a new solution available for all federal agencies to utilize. Thus, a CDD is between one vendor and one agency, whereas a modification is between one vendor and many agencies. These points are elaborated with examples below.

The TFS itself was not much more than providing transport to 800-number calls when FTS2001 began. Now it includes advanced capabilities such as IVR. Enhanced reporting, on the other hand, is a good example of how FTS2001 can accommodate MCS service enhancements. Introduced in 2006,

the enhanced reporting modification provides reports for advanced speech recognition-based MCS services. How price reduction of existing services can be achieved is clearly demonstrated by the evolution of the AT&T price for TFS transport services. In 2001, the price was 4.2¢ per minute. Through a series of subsequent contract modifications, that price has gradually come down to the current rate of 1.9¢ per minute.

A CDD was required from vendors whenever a particular agency wanted a specific custom solution under FTS2001. Customization allowed an agency to:

- Upgrade existing technology
- Introduce new technology and services
- Purchase technical management and professional services
- Obtain more robust, improved services
- Negotiate a better price structure than possible using the line items in the existing version of the FTS2001 contract

A CDD is a specific bilateral contract between the particular agency and the provider of the specific service. The following is an example of MCI's (currently Verizon Business) CDD Case Number MCS10. [16]

A third party vendor provided a call center operation for a particular federal agency. The agency wanted an interface to retrieve real-time and historical information from the call center premises-based Work Force Management Package and tasked MCI to implement and manage a Hosted Intelligent Contact Routing (HICR) solution for this purpose. MCI used a Blue Pumpkin interface to accomplish this task per agency requirements. At that point, an HICR solution and, more specifically, a managed BPI interface, were not contained in the FTS2001 MCS contract from MCI—hence, the MCS CDD (Case Number MCS10) contract between MCI and that agency. By the definition of a CDD, only that particular agency could procure that specific MCS solution from MCI. If any other agency required a similar solution, then that agency would have to negotiate a different CDD with MCI or any other FTS2001 vendor the agency might choose to deliver the solution. MCI wanted to make the HICR solution (but not the specific BPI) within MCS10 available government-wide and proposed a FTS2001 contract modification. [17] Thus, a CDD or part of it may result in a contract modification. Consequently, any agency could then buy the HICR solution from MCI.

While a CDD in some form may eventually result in a modification, it is only one way a modification may be created. A contract modification may be proposed without any precedent CDD. This was done when MCI proposed alternative pricing for MCS. [18]

Apart from price considerations, a modification or CDD proposal needs to be within the scope of the contract to be

accepted. The scope is established when the program is designed.

Conclusions

The large number of additional MCS services in Networx attests to the continuing popularity of these services. Agencies have found MCS a necessary service, especially when servicing large call volumes and/or customer inquiries across non-voice channels (e.g., email, chat). MCS provides agencies with robust contact routing and management capabilities that improve the caller's experience through self service and more efficient assisted service, while reducing the overall cost to the agency.

Networx provides a convenient, low cost mechanism for agencies to acquire MCS services. Most of the contracting detail has been taken care of in the Networx contract, and it can be further tailored to agency needs through the use of modifications and CDDs. Judging from the experience on FTS2001, Networx MCS will become a much-used service in the years ahead. ■

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