GSA White Paper

The Network Services 2020 Strategy

NS2020: Defining the future of Federal telecommunications

General Services Administration

Integrated Technology Service

April 2014

Background

Today's amazing mix of cloud computing, ever-smarter mobile devices, and collaboration tools is changing the consumer landscape and bleeding into government as both an opportunity and a challenge. New expectations require the Federal Government to be ready to deliver and receive digital information and services anytime, anywhere and on any device. It must do so safely, securely, and with fewer resources. To build for the future, the Federal Government needs a Digital Strategy that embraces the opportunity to innovate more with less, and enables entrepreneurs to better leverage government data to improve the quality of services to the American people.[1]

The Network Services 2020 (NS2020) strategy directly supports the three objectives outlined in the Digital Government Strategy:

- Enable the American people and an increasingly mobile workforce to access high-quality digital government information and services anywhere, anytime, on any device

- Ensure that as the government adjusts to this new digital world, we seize the opportunity to procure and manage devices, applications, and data in smart, secure and affordable ways.

- Unlock the power of government data to spur innovation across our Nation and improve the quality of services for the American people.

The NS2020 strategy defines a portfolio of contracts that provide the flexibility and agility to support Agency migrations to future technologies while adhering to the high-level objectives laid out in the IT Reform Plan and the Digital Government Strategy. The NS2020 portfolio, processes, and support structure are designed to enable customers procure products and services in an easier, cost-effective manner. NS2020 will enable interoperability and further the migration from legacy technologies to a converged IP environment with common, core security standards through an expansive array of modern telecommunications and IT service offerings. These offerings will include a full suite of emerging technologies and unified communications services and features combined with the judicious application of Government-wide and industry standard requirements.

Continuous technology refresh mechanisms in the contracts, coupled with solutions engineering advisory assistance provided by GSA, will enable Agency customers to quickly and easily take advantage of changes in product and service offerings, prices, technologies, service delivery models, regulations, and available terms and conditions, as well as the emergence of new providers. NS2020 does not attempt to define the technologies and services for the next 10+ years. Instead, it defines a flexible platform to enable Government to meet its telecommunications and IT infrastructure needs. Structural qualities of flexibility and agility will help GSA's Agency customers to navigate effectively the profound changes expected in the IT landscape between today and 2030.

The strategy also directly supports a number of the specific points in the Federal IT policy plans. Specifically, NS2020 addresses the following IT Reform Plan points:

- Establish a Government-wide marketplace for data services

- Support the shift to a cloud-first policy

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[1] Digital Government: Building a 21st Century Platform to Better Serve the American People
[http://www.whitehouse.gov/sites/default/files/omb/egov/digital-government/digital-government.html]

- Stand up contract vehicles for secure IaaS solutions
- Stand up contract vehicles for commodity services
- Develop a strategy for shared services
- Identify IT acquisition best practices and adopt them Government-wide
- Reduce barriers to entry for small innovative technology companies

NS2020 addresses the Digital Government Strategy for better citizen/Government interactions and the evolution of technology by:

- Making open data, content and Web APIs the new default for data exchange
- Shifting to an Enterprise-wide asset management and procurement model (for example, with the FSSI wireless contract)
- Delivering better digital services using modern tools and technologies
- Promoting the safe and secure adoption of new technologies

The NS2020 portfolio will provide GSA's customer Agencies with the full range of service options, including but not limited to:

- Telecommunications
- Networking and IT requirements
- Data Center
- Cloud Services
- Contact and Call Centers
- Managed Services
- Hardware
- Contract Support

Network Services 2020

To develop the NS2020 Strategy, GSA canvassed more than 100 Government and industry stakeholders to determine which aspects of the existing offerings are working well and where improvements can be made. GSA also analyzed Agency purchases, service provider offerings, the market structure, future market trends, and national and regional buying patterns. These lessons learned and market analyses were foundational to the strategy and led to the following key objectives for a comprehensive and integrated NS2020 portfolio.

Simplify the process of acquiring telecommunications and IT infrastructure services

The NS2020 strategy entails a portfolio of pre-competed contracts with current and emerging network services from quality suppliers. This reduces or eliminates the need for Government Agencies to engage in duplicative acquisition efforts, so they can focus on their core missions. By using these pre-established contracts, Agencies will be able to access services more quickly than by conducting their own full acquisitions. GSA will offer full lifecycle support for some NS2020 services, provided largely as "turn-key" services. So depending upon an Agency's needs, it may not even need to conduct its own fair opportunity decision. Furthermore, since GSA is integrating its national and regional network services programs, enterprise customers will no longer need to integrate solutions across multiple regions. GSA

is currently consolidating activities such as order writing and regional help desks, and three consolidated, multi-region acquisitions are underway.

Additional enhancements are planned for the Enterprise Infrastructure Solutions (EIS) program – the successor to Networx – that will make it easier for Agencies to acquire telecommunications and IT infrastructure services. EIS will have a broad scope and include a wide range of pre-defined commonly-procured items to enable one-stop shopping. This means that Agencies will no longer need to split their enterprise requirements across multiple procurements. Agencies will also benefit from an improved fair opportunity process in which they establish task orders based on 1) a Government portal/pricing module, 2) additional vendor competition on pre-priced Contract Line Item Numbers (CLINs), or 3) a Statement of Work Request for Proposal (RFP). GSA and the Agencies will establish a Delegation of Procurement Authority for Agency Contracting Officers. Once a task order has been established, an Agency CO may assign one or more individuals within the organization as Designated Agency Representatives (DARs), with responsibility to place service orders within the scope, pricing, ceiling, and terms and conditions of the CO-awarded task order. In addition, task orders may contain Agency-Unique CLINs in order to efficiently support complex or Agency-unique specifications without the need to modify the master contract. The envisioned custom task order process is a significant change from Networx that is anticipated to accelerate and simplify the ordering process. Given the expected use of customized task orders, EIS will also have far fewer pre-defined CLINs than Networx, with the primary focus being on common, commodity-like services.

Furthermore, standardized Statement of Work (SOW) templates and a SOW development tool will be provided. GSA is also modernizing its web portals and back office systems for ordering, provisioning, billing, receiving and reconciling vendor invoices, providing dispute management and issuing credits. This is intended to simplify and standardize the user experience, provide an accurate and visible service inventory, and reduce the time from requirements identification to service delivery.

Provide cost savings through aggregated volume buying and price and spend visibility

The U.S. Government is the largest customer for telecommunications services. The business volume for GSA's telecommunications contract vehicles, FTS2000, FTS2001 and Networx, has steadily increased and is predictable. Such scale and predictable demand is important when establishing telecommunications contracts because the industry has high fixed costs (facilities), low variable costs, and significant economies of scale. The marginal cost of carrying additional traffic is close to zero if spare capacity exists. With NS2020, contracts will be scoped to target the capabilities of competitors for each industry segment, and the Government's volume will be leveraged to establish competitive prices.

EIS and most other programs in the NS2020 portfolio will have pre-defined CLINs for common items to permit apples-to-apples comparisons. Commercial standards and commercial offerings will be used wherever possible because it is expected that the services provided via EIS will be mostly, though not entirely, commercial in nature. Current and historical pricing information will be easy to access and compare via an electronic portal. As has been seen with Networx, this will provide continuous price competition. The task order process mentioned in the previous section will be designed and monitored to maintain spend visibility. Commonly procured items initially specified as Agency-Unique CLINs will be migrated to the CLINs defined on the master contract.

Two other methods for providing cost savings involve contract term and product life cycle. As was the case with its predecessors, EIS is planned to have a long term — at least a 10-year period of performance. In terms of the product lifecycle, industry's costs to maintain outdated hardware and software are often higher than for more efficient, newer infrastructure. EIS and other programs in the NS2020 portfolio will have refresh mechanisms to enable the introduction of newer technologies. GSA will work with the service providers and Agencies to facilitate the movement from services being sunsetted to these newer technologies.

Reduce Agency and GSA costs to acquire and manage programs and services

NS2020 will provide cost savings to Agency customers in several ways. First, as mentioned above, aggregated volume and pricing mechanisms will result in competitive pricing. Second, the pre-competed contracts with "baked in" items such as security and other safe harbor provisions will reduce Agency acquisition costs. Third, improved inventory and billing systems will facilitate expense management. For example, most billing errors will be automatically detected, and the systems and associated reporting requirements in the contracts will improve Service Level Agreement (SLA) monitoring and reporting. Agencies will obtain additional savings through GSA's efforts to apply category management principles, conduct deep-dive market analyses, address supply chain managements, and right size demand.

GSA will also realize benefits by consolidating the current array of Local Service Agreement (LSA) contracts into fewer vehicles, by integrating the national and regional aspects of the Network Services Programs, by consolidating its back-office systems, and by implementing other operational efficiencies. The aforementioned task order process planned for EIS will not only speed the overall procurement timeline, it will reduce GSA's costs for processing contract modifications. These improvements will ultimately result in improved service and lower fees for GSA customers.

Enable the procurement of integrated solutions

NS2020 contracts are designed to operate within the overall Integrated Technology Services (ITS) portfolio, which includes other contract vehicles designed to accommodate Government needs for completely customized or outsourced services. The full suite of NS2020 and ITS program areas is described later in this document. GSA will develop new solutions, programs and contracts to provide comprehensive solutions in each program area and/or utilize existing solutions as needed. GSA will also provide expertise and consulting services to guide buyers in the identification, acquisition and implementation of those technology solutions. GSA will also work with Agencies to customize purchasing channels to better meet customer needs and market demands.

The broadly-defined scope of EIS will enable Agencies to include ancillary services in their task orders that would otherwise fall into another program area. It will also include service-related labor. These features will provide flexibility and, in combination with the ability to specify custom contract line items, will enable Agencies to procure integrated solutions.

Foster competition and promote participation by small businesses

Since NS2020 includes a coordinated portfolio of contracts, there are multiple avenues for vendors to provide their services. Certain aspects of the portfolio are well suited for small businesses; for example, the Satellite Communications program area includes a small business set-aside vehicle, Custom SATCOM Solutions—Small Business. In contrast to its predecessor, Networx, EIS will have multiple functional areas and service providers may be awarded a contract without offering ubiquitous geographic or

service coverage. In general, service requirements will be functional and performance-based rather than technology-specific, thereby encouraging the development of IP-centric solutions for voice, data and unified communications, and supporting the efficient sun-setting of legacy services. Overall, this approach will broaden the marketplace and offer opportunities for smaller service providers.

Support a fully outsourced managed services / cloud model

In addition to more traditional telecommunications services, the scope of the contract vehicles in the broadly-defined Infrastructure Solutions program area will include managed and cloud services. The improved task order process will speed access to these services, and GSA will provide technical and acquisition expertise to advise Agencies on how best to acquire them. The Mobility/Wireless and SATCOM program areas also include managed services, and will evolve with the market and technologies.

Offer a flexible and agile portfolio that supports a range of Government purchasing patterns

The NS2020 portfolio of contracts has been designed so the attributes of each program area can be tailored both to the marketplace and to Agency purchasing patterns. For EIS, the improvements mentioned previously, such as facilitating custom task orders and the purchase of service-related labor, will make the contracts more flexible than their predecessors. GSA will provide support for both direct and assisted ordering, and GSA and/or vendor-maintained electronic portals will be made available to enable self-service. The revised task order and DPA process will give Agencies more freedom to use the NS2020 contracts in the way they prefer, although controls will still be applied to maintain the integrity of the contract scope, inventory and price visibility.

For EIS, GSA will provide three levels of support to accommodate the varying internal capabilities and needs of Agencies. 1) A standard level will include assistance to Agencies for developing their task orders and conducting their fair opportunity activities. This can include technical, pricing and contracting assistance. GSA will also manage the overall Government transition to the Infrastructure Solutions contracts, and will provide extensive transition assistance to Agencies as they conduct their individual transitions. Other services, such as centralized billing, are available to assist Agencies with ongoing administration. 2) Additional "special" services, such as assisted acquisition, will be available a la carte. 3) With full lifecycle support, GSA will perform solution development, acquisition, pricing, fair opportunity, service ordering, inventory management, SLA enforcement, and other activities to procure and manage the services.

Reduce the complexity and cost of transition

GSA intends to make transition simpler and less expensive for Agencies. As described above, the contract vehicles will be easier to use. GSA will also work to establish a well understood, visible timeline and project plan, and a standard transition process that is accepted by all participants. This process will include a firm transition interval, end-to-end transition process templates, user training, and regular, open reporting on transition progress by Agencies and contractors. The overall transition plan will provide for a staggered approach in which Agencies do not all transition at once, allowing for a realistic allocation of finite GSA, Agency and contractor resources. GSA is also considering adopting a longer (15-year) period of performance for the EIS acquisition in order to better allow the timing of future transitions to be driven by Agency infrastructure lifecycles rather than contractual constraints.

To enable better collaboration, GSA will establish a broad-spectrum Government transition group that includes representatives from participating Agency CIO, CAO and CFO offices. This group will meet regularly to discuss and report on transition progress and issues. GSA will work with Agencies and OMB to develop and implement a structured process to manage, monitor and report progress against a set of established transition milestones and metrics. GSA will also provide a database of lessons learned from the Networx transition with open Government access.

Furthermore, NS2020 will promote the use of Government Shared Services. Making use of shared services provided through a single Agency can reduce the complexity of procuring and managing those services for the customer, which can help to streamline transition.

Provide comprehensive and proactive transition support

In order to help its Agency customers succeed, GSA will provide resources and active support for their transitions to NS2020. Full support options will be offered for each step in the transition with a particular focus on the early steps in the lifecycle, including significantly enhanced support for SOW and RFP development. GSA will develop a transition milestone schedule, a transition handbook and a lessons learned database, and will provide a range of support options to accommodate the varying internal capabilities of Agencies (e.g., no support, acquisition only, technical only, or both). Transition credits or funding will be provided earlier in the process than was the case during the Networx transition.

In light of the crucial role of service providers in a successful transition, GSA will establish a provider coordination and advisory group. This will ensure that service provider requirements and processes are taken into consideration, particularly in the area of operations support. This group will also provide input for the Transition Management Plan in order to avoid bottlenecks during the phased transitions.

NS2020 Portfolio Development

As part of the NS2020 acquisition strategy development process, program areas were first defined based on industry service categories to enable strategic sourcing. This was followed by development of a high-level scope of services for each of the Program Areas. Existing Government vehicles for each program area were then analyzed for applicability using the program area scope of services and the NS2020 portfolio and acquisition goals. This analysis concluded that the services and products to be offered under the NS2020 portfolio will use a combination of existing and new acquisition vehicles.

During the strategy development process, the NS2020 team:
- Analyzed Agency purchases, service provider offerings, and future market trends
- Analyzed National and Regional buying patterns
- Evaluated information and recommendations collected during the Networx transition
- Developed technology service sets (groupings) and a Customer Segmentation Model
- Recommended goals and portfolio alternatives

To collect additional information from stakeholders, an Interagency Advisory Panel was formed with senior representatives from Federal Agencies and OMB. An American Council for Technology / Industry Advisory Council (ACT/IAC) Networks & Telecommunications SIG NS2020 Working Group was formed to

collect additional input from Government and industry. Additional outreach to and engagement with industry stakeholders was also conducted.

NS2020 Portfolio

The following diagram shows how NS2020 fits into the overall ITS portfolio:
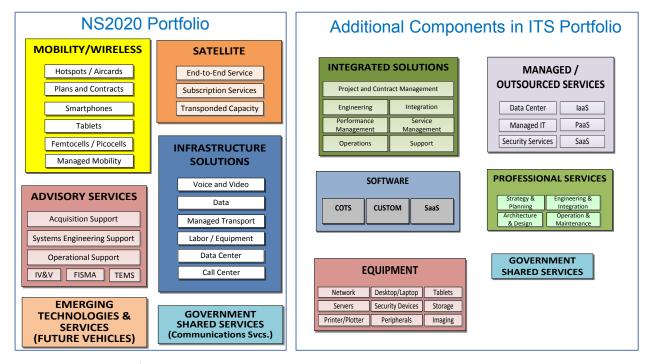

Figure 1: Overall ITS Portfolio

NS2020 will focus on the communications marketplace, which is divided into six program areas as shown above (Mobility/Wireless, Satellite, Advisory Services, Infrastructure Solutions, Emerging Technologies & Services, and Government Shared Services). There will be one or more acquisitions (or the reuse of existing vehicles) for each program area. These acquisitions will focus on the services depicted in the respective program area, but there will also be provisions to enable procurement of solutions with ancillary services that would otherwise fall into another program area.

NS2020 Portfolio Program Areas

The NS2020 program areas are defined to optimize the contracts to the marketplace, making it easier, more efficient and less costly for industry and Government to do business, and harnessing the buying power of the Federal Government to help Agencies save money on the technology that they need.

The following NS2020 portfolio program areas have been defined based on industry service categories:

- **Satellite Program Area:** The Satellite Services Program Area includes a comprehensive range of commercial satellite communications services. This area will be addressed by the existing Future COMSATCOM Services Acquisition (FCSA) contract vehicles that GSA developed in partnership with the Defense Information Systems Agency (DISA). It has three major program components:
    - o Transponded capacity (the dedicated bandwidth on a commercial communications satellite)

- o Subscription services (subscriptions to pre-existing, pre-engineered satellite solutions, including service plans and terminals)
- o Custom end-to-end satellite services

- **Mobility/Wireless Program Area**: This program area will provide wireless solutions for Agency customers based on 3G/4G, LTE, or similar technologies as they emerge. Mobility/Wireless will provide equipment, service plans, customer support, and other related line items for Agency customers to purchase and manage their own wireless and mobility programs. This program area will be addressed by GSA's Mobility Program – which includes Managed Mobility and Federal Strategic Sourcing Initiative (FSSI) Wireless – as it continues to evolve.

- **Advisory Services:** This program area will provide technical, programmatic and acquisition advisory services for Agency telecommunications and IT infrastructure programs. A full spectrum of services will be provided, with contractor(s) working with Agency technical, program and acquisition personnel as trusted advisors. Conflict of interest will often be a consideration. Typical types of services provided will include: Acquisition support, Systems Engineering Support, Operational Support, Telecommunications Expense Management Services (TEMS), and Federal Information Security Management Act (FISMA) Support. Advisory Services will be provided by existing vehicles such as Alliant, Connections-II or Multiple-Award Schedules (MAS). Based on customer demand, GSA may establish an MAS-based BPA (e.g., using MOBIS or Schedule 70), or may provide sample SOWs to use for obtaining advisory services.

- **Emerging Technologies and Services:** The telecommunications market is continually adding new service offerings, technology products, and delivery mechanisms. New technologies and services will be assessed as market requirements and demand emerges. Examples of potential markets include video content management and delivery, and machine-to-machine communications.

- **Government Shared Services (Communications):** To promote Government efficiency as advocated by the Office of Management and Budget (OMB) Federal IT Shared Services Strategy, NS2020 plans to include Government Shared Services for Telecommunications. With shared services, the providing Agency reduces much of the complexity of procuring and managing the service for the customer. These services may be developed and offered by GSA alone, or in cooperation with other Agencies. The scope of each offering will likely be specific and focused. Example services may include: voice services, telepresence, Metropolitan Area Network (MAN) services, Federal Relay (FedRelay) services, Mobile Device Management (MDM) services, IaaS cloud brokerage services and continuous security monitoring.

- **Infrastructure Solutions**: This program area includes traditional voice/video/data and data center related services, plus emerging services that are delivered as managed services or under a self-service delivery model. Infrastructure Solutions will have the widest scope of services and will require a new overall acquisition – Enterprise Infrastructure Solutions (EIS). As the planned successor to the two Networx contract vehicles (Universal and Enterprise) and the 14 Regional Local Service Agreements (LSAs), EIS will usher in a new era of infrastructure services. EIS will be a single, multiple-award ID/IQ contract vehicle that will employ a strategy of multiple functional areas to expand the market. This will promote competition and provide a wider range of contractors, potentially including small and medium-sized businesses. EIS will have a broadly defined scope and will support Agency task orders to include ancillary services that would otherwise fall into another program area (e.g., Satellite Services). This will provide flexibility and, when coupled with the planned ability for Agencies to specify custom contract line items, will enable the procurement of integrated solutions.

To provide an interim approach for Regional LSAs that will expire in the 2015-17 timeframe, the NS2020 Strategy will include the development of three Infrastructure Solutions contracts that will span multiple GSA Regions; one each for the Northeastern, Southern, and Western portions of the U.S. These contracts will nominally have an eight-year Period of Performance including base and option years, allowing overlap for a "staggered transition" to EIS beginning in 2017.

The following diagram shows the three Regional Infrastructure Solutions areas:
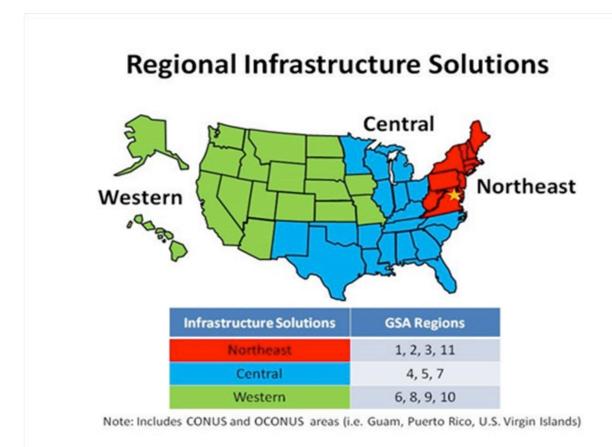
Figure 2: Regional Infrastructure Solutions Areas
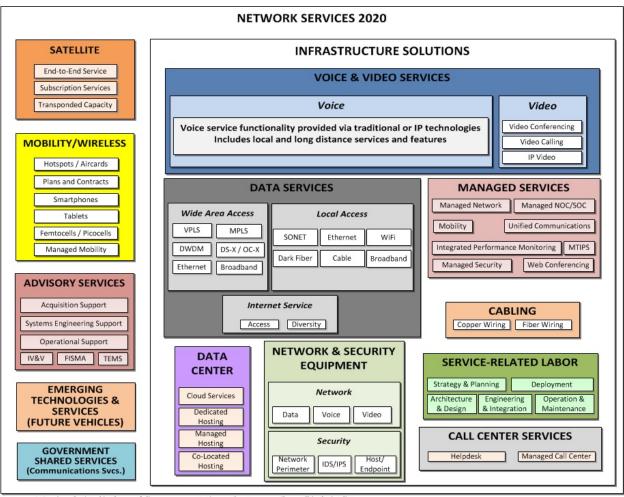
Increased Flexibility

While NS2020 acquisitions are focused on the services within their respective program areas, select acquisitions will also be designed to enable a wide range of solutions by:

- Establishing the scope for Infrastructure Solutions (and potentially other selected program areas) to include the full spectrum of NS2020 services, thereby improving ease of use for Agencies that have requirements that span multiple program areas

- Creating pre-defined and pre-priced CLINs for base services and products to aggregate similar requirements across the Federal Government

- Using "un-priced" CLINs (i.e., Individual Case Basis (ICB) CLINs) for Agency-specific requirements that will be specified in the task order, which will efficiently support complex or Agency-unique specifications without modifications to the master contract

- Establishing a process to convert previously "un-priced" items to priced CLINs where deemed appropriate to provide price efficiencies
- Enabling task orders to access ancillary services that would otherwise fall into another program area to provide custom solutions (note that the task orders will not actually use the contracts in the other program area)
- Creating Labor CLINs with pre-defined and pre-priced labor categories that are within the scope of the program area

The Integrated Solutions program area will be made available across the entire spectrum of the ITS portfolio via cost-reimbursable task orders, enabling procurement of services from other contracts. (Note: the Integrated Solutions program area is outside but complementary to NS2020. Alliant and Alliant-Small Business are two examples of programs in this area.)

The following diagram provides more detail about the Infrastructure Solutions program area:

Figure 3: NS2020 Portfolio Program Areas

The following diagram provides a target timeline for EIS and the regional acquisitions:
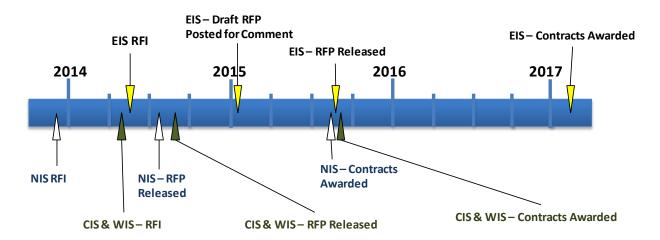

Figure 4: EIS and Regional Infrastructure Solutions Target Timeline

Resources

Additional information is available at the NS2020 website: http://www.gsa.gov/ns2020