
Flexible IT:

Contracting Strategies for Infrastructure as-a-Service

White Paper

About this Paper:

ViON Corporation has provided technology Infrastructure as a Service (IaaS) to government agencies since 2003. In that time, we've seen customers apply government contracting structures in innovative ways to access the latest technology and services for the best price. This white paper shares best practices to help others involved in government contracting create the flexibility they need to procure technology as a service in support of their missions and customers.



Executive Summary

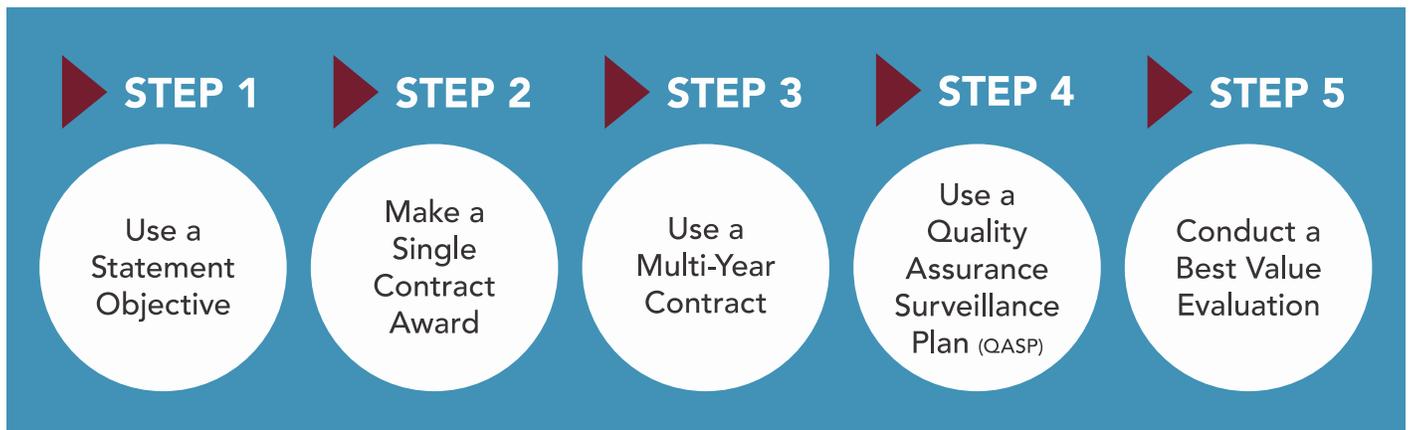
Under tight budget restrictions and capital expenditure scrutiny, government agencies are finding it difficult to keep pace with mandates to modernize technology infrastructure. Technology Infrastructure as a Service (IaaS) offers a direct path to IT modernization, efficiency and control.

A consumption-based model of utilizing IT, IaaS frees organizations from the traditional practice of procuring, owning and running hardware and software inside their operations.

With IaaS, organizations can:

- Meet federal mandates for cloud computing, software-defined networks and virtualization
- Leverage operational expenditure (OpEx) rather than capital expenditure (CapEx) budgets
- Maintain full operational and financial control by contracting for IT capacity on an as-needed basis

This white paper details the driving forces behind the shift to IaaS as well as the benefits of moving to a consumption economics model for IT. It also details best practices, specific strategies and the five (5) key principles in contracting for IaaS as well as a glossary of IaaS related terms, so that government agencies can efficiently and effectively utilize what is fast becoming the preferred, proven method of contracting for and implementing IT capacity.



Introduction: The Benefits of Purchasing IaaS

The increasing requirements of organizations and their stakeholders are changing the way information technology (IT) is procured, developed and delivered. Advances in technology and access to new “as-a-service” consumption models (e.g., cloud computing, cloud storage, Software-as-a-Service, etc.) offer dynamic and efficient ways for government to consume IT resources. In this era of tighter budgets and limited resources, using an as-a-Service model enables government IT staff to better meet increasing expectations to create and operate new technology, services and capabilities.

Technology virtualization is the driving force enabling software, servers, storage, and networks to be offered in standardized units of measure at an hourly, daily, or monthly fee. The nexus of virtualization and consumption economics is the as-a-Service consumption model for IT.

The government’s ability to consume IT on a Per-unit-of-consumption basis makes it possible to:



- Avoid over-spending on excess capacity
- Achieve just-in-time delivery of capability
- Order IT capacity that is “ready-for-use”
- Significantly improve cost control, asset management, capacity planning and budget forecasting
- Avoid long term commitments (such as a lease)

Today, legislation and policy directives compel agencies to demonstrate how and to what degree they are leveraging as-a-Service consumption models. No longer can agencies rely on traditional acquisition formulas to meet their IT requirements. The IT consumption model is here and understanding its advantages early means reaping benefits sooner and, ultimately, winning IT budget battles.

Billions Invested in IaaS

Since 2003, The Department of Defense has competitively awarded more than \$2 billion in as-a-Service contracts to modernize and consolidate a wide variety of server, storage and communication technologies for its data center operations worldwide. Numerous organizations have on-demand services on the General Services Administration IT Schedule 70. Another government agency recently awarded \$20 billion in contracts to 14 organizations for IaaS.

Moving to a consumption economics model allows an organization to retain full operational and financial control within the constraints of traditional contracting requirements and utilize operational funds rather than capital expense budgets.

Contracting Strategies

Agencies have followed five key principles in contracting for IaaS:

1. Use a Statement of Objectives instead of a Statement of Work
2. Make a Single Contract Award
3. Use a Multi-year Contract with Options
4. Use a Quality Assurance Surveillance Plan that includes Operating Level Agreements, Service Level Agreements, and Escalation Procedures
5. Conduct Best Value rather than "Low Price Technically Acceptable" Evaluations

1. Use a Statement of Objectives (SOO)

The government is a consumer of industry's IT capacity-on-demand services and not the creator of new services for the marketplace. Using provisions of the Federal Acquisition Regulations (FAR) that allow the government to most simply state its needs (goals and/or outcomes) streamlines the acquisition process, shortens acquisition lead time, and allows for the greatest flexibility in selecting the most advantageous solution.

Using a SOO allows offerors the opportunity to propose market-based solutions and to describe how they would modify their offering to meet the government's goals, outcomes, or both in a statement of work format (as might be required in the government's Request for Proposal). While a SOO states requirements as desired goals and/or outcomes, it is used for the purposes of soliciting bids from industry. Using a SOO does not mean the government cannot and should not require the offeror to propose, and the government to ultimately negotiate, a Statement of Work to be incorporated into the contract.

2. Make a Single Contract Award

A single award allows the government to leverage the volume of its purchases by encouraging the best pricing from bidders who are more likely to offer aggressive pricing if they know they will be the sole awardee. This is particularly advantageous at a time when many government contracts are awarded to multiple bidders, requiring winners to compete repeatedly to earn business under a particular contract. Additionally, a single winner simplifies the government's job of managing and monitoring the winner's performance and negotiating the details of the service to be provided (see "Operating an IaaS Program"). Finally, a single contract award provides the winner with program stability and narrows its focus to delivering and not selling.

Statement of Objective

"... a summary of key agency goals, outcomes, or both, that is incorporated into performance-based service acquisitions in order that competitors may propose their solutions, including a technical approach, performance standards, and a quality assurance surveillance plan based upon commercial business practices."

[The Defense Acquisition University's "Acquipedia"](#)

3. Use a Multi-Year Contract

A base contract period of 3-to-5 years provides a long enough period of performance to allow the winner to recover the investment in technology required to offer unit prices for IT capacity. The winner has to invest in hardware, software and services. Through the collection of service fees (unit price times a quantity of capacity: e.g., 10 servers per month) over a period of time, the winner recovers their investment.

4. Use a Quality Assurance Surveillance Plan (QASP) Statement of Objective with Operating Level Agreements, Service Level Agreements, and Escalation procedures

This approach involves requesting offerors to draft a QASP as part of their bid response and then negotiating operating level agreements, service level agreements, acceptable quality levels, and escalation and reporting procedures. The QASP is a companion document to the statement of objectives and schedule of supplies and services that form the basis of an ITaaS program.

The QASP must be read in the context of the offeror's SOO response. By reviewing the documents together, the government can assess how well the offeror understands how to deliver and operate an IaaS program.

5. Conduct a Best Value Evaluation

Using a SOO allows the government to evaluate more than just price. In fact, it allows for an evaluation of other attributes of the service being considered – including, but not limited to, ease of ordering, billing, and other facets of the bidder's solution. Ordering, billing, invoicing, operating level agreements, service level agreements, government acceptance and other terms and conditions are equally important to price. Without evaluating these attributes, the government cannot determine its true cost for the IaaS.

Lessons Learned in IT-as-a-Service

Operating an IaaS Program

The following contracting best practices come from the experiences of ViON Corporation and our customers over 13 years of working with IT-as-a-Service. Following award of the contract for on-demand IT capacity, it is important for the government and the winner to document specific roles and responsibilities under the contract.

The government should document operating processes and procedures for ordering, invoicing, acceptance and reporting – as well as for physical security, system and network security – including the process and procedures for applying security patches and updates.

The government should also document the operational processes and procedures the winner is expected to follow. Documenting the details ensures shared understanding and provides the details for the Operating Level Agreement (Statement of Work) that should be incorporated into the contract.



The winner and the government must also finalize the Quality Assurance Surveillance Plan (QASP). This is important to establish acceptable quality levels, service level agreements, monitoring and reporting requirements for both the government and the winner. In addition, the QASP should include the escalation procedures and primary contact information for each level of the escalation plan.

Start slow, perfect the process

The first few orders for capacity should be easy for both the government and the winning offeror to deliver and implement. Going slowly allows for learning – as capacity increases you can change what doesn't work, and measure performance for each order and implementation. Once you gain confidence you can increase complexity and volume, and before you know it you will have established a good rhythm of ordering, status reporting, invoicing and reviewing performance to service level agreements.

Keep the program current and relevant

Review processes, procedures, policies, and technology at least quarterly, or when required, and change the SOW and/or QASP as necessary. Add new services within the scope of the contract where and when the need exists. Update the service offerings, SOW, QASP and service levels when necessary. Given a 3-to-5 year base period of performance, a lot is going to change over time. Ensure the program keeps pace with the changes, where appropriate, and keep the technology service offerings relevant to your changing needs and workloads.

Summary

Since 2003, more than \$22 billion in government contracts have been awarded for IaaS to modernize and consolidate a wide variety of server, storage and communication technologies for data center operations worldwide.

Organizations of all sizes and industries are moving to this more flexible approach to obtaining IT capacity on an as-needed basis. The FAR includes provisions for purchasing such services and the General Services Administration IT Schedule 70 includes companies that are approved as suppliers.

In an era of increasing requirements and tightening budgets, the IaaS model offers organizations the flexibility to benefit from the latest technological solutions within the constraints of traditional contracting requirements and capital expenditure budgets. With guidance from an experienced partner and insights from best-practice organizations, you can find similar success in leveraging government contracting structures for flexible IT solutions that support your mission.

To learn more, visit www.vion.com or contact the experts at ViON today.

About ViON

ViON Corporation is a cloud service provider with over 37 years experience designing and delivering enterprise data center solutions to government agencies and commercial businesses. The company provides IT as-a-Service solutions including on-premise public cloud capabilities to simplify the challenges facing business leaders and agency executives. Focused on supporting the customer's evolution to the next generation data center, ViON's Data Center as-a-Service offering provides innovative solutions from OEMs and disruptive technology providers via a consumption-based model. ViON delivers expertise and an outstanding customer experience at every step with professional and managed services, backed by highly-trained, cleared resources. A veteran-owned company based in Herndon, Virginia, the company has field offices throughout the U.S. (www.vion.com).

ViON Cloud Solutions

ViON's IT Infrastructure as a Service (IaaS) is a business strategy for providing technology when and where our customers require it. The service allows organizations to acquire and provision a range of IT hardware and software suited to their needs on a consumption basis (compute, storage, data center networking). ViON's solution gives customers the ability to:

- *Use technology on premise to create a private Cloud*
- *Customize, combine and configure technology to meet their specific needs*
- *Scale capacity up or down to meet demand without penalty or minimums*
- *Pay for capacity with operations dollars rather than capital expenditure*
- *Achieve best-practice, customized service-level agreements (SLAs)*
- *Enjoy 24/7 live, secure support when needed*

ViON's unique Infrastructure as a Service is delivered ready-for-use (RFU) as a single, fixed-price unit of server, storage or networking capacity. This single unit price includes all materials, shipping, installation labor, maintenance and support for the life of the contract.

Glossary of Terms

as-a-Service consumption model — A model in which service capacity is created just-in-time, on an as-needed basis. Services are generated from an approved inventory with each service having clear pricing, SLAs, etc., and are paid for on a consumption basis.

Consumption Economics — The change in buying model from "own/purchase" to "use/rent" that shifts the risk of product purchase from customers to sellers.

Offeror — Organization that offers a proposal in response to a request for proposal.

Performance Work Statement — A document used to describe requirements by emphasizing performance-based concepts such as desired service outcomes, performance standards, desired results and measurable objectives.

Quality Assurance Surveillance Plan (QASP) — A document used to make sure systematic quality assurance methods are used in the administration of a contract and in subsequent task orders. The intent is to ensure that the contractor performs in accordance with the performance metrics and the government receives the quality of services called for in the contract.

Service Level Agreement — A service level agreement (SLA) is a contract between a service provider and the customer that defines the level of service expected from the service provider. SLAs are output-based in that their purpose is specifically to define what the customer will receive.

Single Contract Award — A single contract award is held by only one vendor, which is the only vendor that can receive orders under that contract.

Software-as-a-Service (SaaS) — A software distribution model in which applications are hosted by a vendor or service provider and made available to customers over a network, typically the Internet. Unlike traditional packaged applications that users install on their computers or servers, the SaaS vendor owns the software and runs it on computers in its data center. The customer does not own the software but effectively rents it, usually for a monthly fee.

Statement of Objectives — A summary of key agency goals, outcomes or both, that is incorporated into performance-based service acquisitions so that competitors may propose their solutions.

Statement of Work (SOW) — A formal document that captures and defines the work activities, deliverables, and timeline a vendor must execute in performance of specified work for a client. The SOW usually includes detailed requirements and pricing, with standard regulatory and governance terms and conditions. The statement of work should also include how success will be assessed.

Virtualization — Virtualization solutions make traditional computing more scalable by making it possible for a group of servers to operate as a single pool of computing resources, and allow customers to run multiple operating systems simultaneously on a single machine.