

General Services Administration

Federal Acquisition Service

Technology Transformation Services

1800 F St NW | Washington, DC | 20405

GSA TTS-wide Infrastructure-as-a-Service

Limited Sources Justification — Items Peculiar to One Manufacturer

Identification of the agency and contracting activity

General Services Administration (GSA)

Federal Acquisition Service (FAS)

Technology Transformation Services (TTS)

Office of Acquisition

1800 F Street NW, Room 4400

Washington, DC 20405

Nature and/or description of the action being approved

This Limited Sources Justification seeks approval pursuant to Federal Acquisition Regulation (FAR) Part [8.405-6\(b\)](#), Limiting Sources Items Peculiar to one Manufacturer, for GSA TTS to procure IaaS only from Amazon Web Services to allow for the

continuity of operations for current GSA TTS products and services and the infeasibility of transitioning to another IaaS provider.

GSA TTS seeks to award a small business, set-aside IT Schedule 70, Not-to-Exceed Pay Per Use Task Order to an authorized [Amazon Web Services \(AWS\)](#) Partner Network (APN) Advanced Consulting Partner and an Authorized Government Reseller that offers the full FedRAMP approved AWS Infrastructure-as-a-Service (IaaS) suite, including AWS East/West, AWS GovCloud, AWS GovCloud High, which includes numerous infrastructure services that form the backbone of several GSA TTS products and are in turn used by nearly all GSA TTS projects.

Description of the supplies/services required

GSA TTS seeks a commercial service provider offering a commodity Infrastructure-as-a-Service (IaaS) solution, AWS Partner Network (APN) Advanced Consulting Partner and an Authorized Government Reseller and that they offer all AWS IaaS products in all 3 FedRAMP approved AWS regions, including AWS East/West, AWS GovCloud, AWS GovCloud High.

The IaaS should provide on-demand access to a shared pool of configurable computing resources including, but not limited to servers, storage, network infrastructure, identity management, and various other web services to support internal GSA TTS hosting needs and non-production systems such as developer sandboxes, experiments, prototypes, and pilots. GSA TTS must be able to directly and immediately provision or release computing resources.

GSA TTS requires a comprehensive, evolving cloud computing platform, to offer products and services that support internal and external clients, by providing a master payer account, with each individual product and service provided within the full suite. This master payer account must contain only GSA TTS accounts and GSA TTS requires direct control over the root accounts. In addition, the IaaS solution must allow for ad-hoc creation and disposal of accounts under the master payer account. To that end, GSA TTS also requires the IaaS solution to provide the ability to support other governmental agencies who have signed memorandums of understanding and/or inter-agency agreements with GSA TTS.

GSA TTS does not require assistance managing the information systems within the accounts. GSA TTS also requires consolidated monthly billing, detailed billing and usage data, and access to the raw IaaS billing source data.

In order to maintain continuity of operations, GSA TTS requires that the IaaS solution be immediately compatible with the applications that GSA TTS currently operates. IaaS that is not immediately compatible will change the applications running on top of the infrastructure, configuration of the underlying infrastructure, and testing in order to ensure proper function, all of which would disrupt continuity of operations.

The Period of Performance and IGCE is as follows:

Base Year:	Not-to-Exceed \$5,000,000.00
Option Year:	Not-to-Exceed \$5,000,000.00
Total:	Not-to-Exceed \$10,000,000.00

Statutory authority permitting other than full and open competition

FAR 8.405-6(b) - Items peculiar to one manufacturer. An item peculiar to one manufacturer can be a particular brand name, product, or a feature of a product, peculiar to one manufacturer. A brand name item, whether available on one or more schedule contracts, is an item peculiar to one manufacturer.

Identification of the Justification Rationale

There are two primary reasons why the IaaS products needed to meet GSA TTS's needs can only be procured from one manufacturer/provider, Amazon Web Services, Inc. (AWS).

1. AWS enables the continuity of operations for current GSA TTS products and services

In 2016, GSA TTS first procured access to AWS as its IaaS provider, and in the interim has designed and developed products and services with AWS as the foundation. For example, a heavily-used GSA TTS application platform built upon AWS is cloud.gov. Cloud.gov's FedRAMP Provisional Authority to Operate (P-ATO) requires the use of AWS. As part of receiving said P-ATO from FedRAMP, cloud.gov specified in [its System Security Plan](#) (SSP) that it used AWS IaaS services to satisfy various security controls. If AWS IaaS were no longer available, cloud.gov would be required to revise its SSP, which would likely be considered a "significant change" by FedRAMP. Under [FedRAMP's policies](#), this would require documentation and evaluation by FedRAMP and could result in the need for reauthorization of the system. This process would be lengthy and, in the event of sudden deauthorization of the platform, would cause major business disruptions that could last up to two fiscal years or more.

Additionally, cloud.gov uses various AWS services as the foundation of its platform, including EC2 servers and RDS databases, to provide a platform-as-a-service (PaaS) for its clients, including GSA TTS and a number of federal agencies. As a result, cloud.gov's FedRAMP authorization makes possible a large portion of GSA TTS's work.

At the time of writing this justification, the cloud.gov PMO maintained 16 active interagency agreements across 11 federal agencies and 8 active IA agreements or MOUs with GSA entities outside of GSA TTS (FAS, Federal Systems Integration and Management, and Office of Government-wide Policy) for access to the cloud.gov. Should the FedRAMP authorization lapse on account of a switch in infrastructure, client systems' ATOs and other factors would be negatively affected. In other words, losing FedRAMP authorization would result in the loss of dependent applications' ATOs and the ability to operate their platforms, compromising their ability to carry out their digital mission.

Additionally, some GSA TTS projects with ATOs make direct use of AWS IaaS beyond the cloud.gov platform:

- 18F's Federalist, which provides static site hosting using AWS S3 storage buckets, specified the use of S3 object storage in [its SSP](#). At the time of writing, there were 7 active agreements across 6 federal agencies for Federalist.
- Pulse.cio.gov, a collaboration between 18F and GSA's Office of Government-wide Policy which tracks several metrics for government websites, specified the use of S3 object storage in [its SSP](#).
- analytics.usa.gov specified the use of S3 object storage in [its SSP](#).

2. Transitioning to another IaaS provider would be complex and risky without clear added benefits

Due to the number of products and services using AWS completing a successful transition from one commercially-available IaaS provider to another would require a significant amount of time and would be extremely risky. This is mainly because there is no industry standard for structuring IaaS product suites or communication between different manufacturer/providers, meaning the products are not interchangeable. As a result, such a transition would have to be largely manual and would require a large level of effort.

Transitioning to a different IaaS manufacturer/provider would likely take no less than two fiscal years when considering at a minimum, extensive transition research, FedRamp approval, and the agency Authority to Operate for all GSA TTS applications and platforms. Without these items an orderly transition cannot occur. For context, cloud.gov, an application platform heavily used, by GSA TTS and its partners, recently transitioned from AWS East/West regions to the AWS GovCloud region. This did not require learning how a new IaaS manufacturer/provider worked, and did not require moving systems to a differently-structured infrastructure. Nevertheless, the process took [approximately six months](#) from beginning to end.

Contracting Officer determination

AWS created an [authorized resellers list](#) of vendors who can sell the needed IaaS product suites. GSA TTS determined the IaaS AWS authorized Government Resellers that offer all AWS IaaS products in all 3 FedRAMP approved AWS regions, including AWS East/West, AWS GovCloud, AWS GovCloud High, were also GSA Schedule 70 Special Item Number (SIN) 132-40 Cloud Computing Services contract holders.

As a result, this acquisition is being conducted under the authority of the Multiple Award Schedule Program. Further, GSA has already determined the prices of services under Schedule contracts to be fair and reasonable. GSA TTS has determined that continuously managing and monitoring usage against applied funding via the AWS dashboard will be a prudent business practice.

Based on the above, as the Contracting Officer, it is my determination that the order represents the best value consistent with FAR 8.404(d).

Description of market research

GSA TTS conducted market research in accordance with Federal Acquisition Regulation (FAR) Part [10](#).

Research methods

The following methods were utilized to conduct Market Research:

- Contacting knowledgeable individuals in Government and industry regarding market capabilities to meet requirements
- Industry-expert developers, designers, and engineers
- Survey of GSA/Federal Supply Schedule (GSA Advantage)
- Survey of FedRAMP Marketplace
- Acquisition History - IaaS services have been procured on 3 previous contracts, listed oldest to newest:
 1. Blanket Purchase Agreement (BPA) GS00H15AAA0054 to Aquilent effective October 20, 2014, for a Base Year plus 4 Option Years (OY) for \$100,000,000, which was administered by Internal Acquisition Division (IAD). Option Year 1 was exercised October, 20, 2015; however, no further OY's were exercised.
 2. Contract #GSQ1117BJ0003, GSA Schedule GS-35F-0553P to Four Points LLC, in the amount of \$1,060,372.08, for a base year from October 6, 2016 to October 6, 2017, which was administered by GSA, National Capital Region.
 3. Contract #Contract #47QFDA18F0002, GSA Schedule GS35F135BA to JHC, Technology, Inc in the amount of \$600,000 for a base period of

October 6, 2017 to April 19, 2018, also administered by GSA, National Capital Region.

Market Analysis

An initial survey of the market for IaaS demonstrates that the services are provided as product suites to account for the variation in need. Those product suites must be FedRAMP approved in order for GSA TTS to use them. The Federal Risk and Authorization Management Program, or FedRAMP, is a government-wide program that provides a standardized approach to security assessment. FedRAMP has an established marketplace of the types of solutions that Federal Agencies need. This market promotes reusability to save money and time and provides guidance to Agencies in support of their move to modern, secure cloud technologies.

IaaS is sold by provider/manufacturers however FedRAMP does not approve provider/manufacturers they approve their product suites. At the time this market research was conducted, a survey was done of the FedRAMP approved IaaS product suites. According to the [FedRAMP marketplace](#), there are 31 IaaS product suites available with FedRAMP authorization. Each product suite was compared against the stated need. The analysis of the established marketplace demonstrated that only 3 product suites could meet GSA TTS's need. Those three product suites were found to be offered by one provider/manufacturer.

The one manufacturer/provider has many resellers. The resellers of these products are all currently available within the existing, pre-competed scope of GSA IT Schedule 70, Special Item Number (SIN) 132-40 for Cloud Computing Services, 55 of them are small businesses.

Any other supporting facts

NA

Actions taken to remove barriers to competition

GSA TTS is in active discussion with key stakeholders and industry, including cloud.gov, to provide a roadmap to show future growth and plans to implement features along the way and get their platform authorized to include new and a more robust group of IaaS providers in addition to AWS. Discussions with stakeholders and industry is centered around establishing professional services to help agencies re-platform applications as appropriate, providing persistent local file system solutions, self-service access to IaaS services, hosting applications that only run on Microsoft Windows operating systems and providing tooling to support continuous monitoring activity for future IaaS procurements. Deploying to multiple IaaS providers creates a infrastructure vendor-independent platform. Multiple providers also enable competition, which may result in reduced prices and improved service. GSA TTS intends to utilize the two year contract period to establish a procurement path forward to offering more competition in its future IaaS procurement(s).

Certifications

Technical/Requirements Certification

As evidenced by their signatures on the signature page, the technical and/or requirements personnel have certified that any supporting data contained herein which is their responsibility is both accurate and complete.

e-Signed by Steven Reilly
on 2018-03-14

Steven Reilly
GSA TTS Innovation Specialist

Date

Contracting Officer Certification

The contracting officer's signature on the signature page evidences that he/she has determined this document to be both accurate and complete to the best of his/her knowledge and belief.

e-Signed by Kirsten Amber Green
on 2018-03-14

Kirsten Amber Green
GSA TTS Contracting Officer

Date

One Level Above the Contracting Officer Certification

e-Signed by Alla Seiffert
on 2018-03-14

Alla Goldman Seiffert
GSA, TTS Acting Director/Assistant Commissioner

Date

Competition Advocate Approval

Virginia Huth
Competition Advocate

Date

