



Date

MEMORANDUM FOR THE GSA ACQUISITION WORKFORCE

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SUBJECT: Procurement of Cloud Computing on a Consumption Basis

1. Purpose.

This Acquisition Letter (AL) establishes special ordering procedures to authorize policy changes for buying cloud computing on a consumption basis under the Federal Supply Schedule program, including the necessary controls and limitations.

For purposes of this AL, the term “**cloud computing**” has the meaning given the term by the National Institute of Standards and Technology (NIST) in [NIST Special Publication 800–145](#) and any amendatory or superseding document(s) thereto.

The term “**consumption basis**” means any offering that is metered and billed on a predetermined periodic basis (e.g. per second, hour, week, or month) and is billed based on actual usage during an elapsed period with predetermined pricing or rates.

2. Background.

Procurement on a consumption basis is the practice of paying for only what is used. An example of this is found in markets for utility services such as water and electricity, where the total price is directly correlated with the amount consumed. In the private-sector, in certain specific circumstances, buying cloud computing on a consumption basis is a best practice that promotes cost efficiency and supports technological innovation. While Federal appropriation law limits the Federal Government’s ability to fully replicate the private-sector model, there are acquisition flexibilities that can be used in order for the Federal Government to buy cloud computing on a consumption basis and benefit by emulating the private-sector best practices.

Consumption-based services are often difficult to estimate. As a result, Federal agencies tend to over-obligate upfront to ensure funds are available in the event of an unanticipated spike in demand. This approach is relatively inflexible. Other potential downsides include excessive needs for contract administration, suboptimal use of funds, and inability to leverage the marketplace to obtain the best pricing and newer technology.

While offering cloud computing on a consumption basis is already permissible under the FSS program, the procedures outlined in this AL further improve this strategy while seeking to realize the best practices in the private-sector of cost transparency and efficiency, increased cyber security and more robust competition.

By tying cloud computing procurements to commercial market prices, still in the fixed price family, this approach provides cost transparency without burdening contractors with additional transactional price reporting requirements. This approach promotes cost efficiency as it reduces the need to lock into long term contracts in markets where falling prices are reasonably anticipated. And with a contract structure more closely tied to real time demand, this approach also provides greater flexibility to take advantage of technology improvements and better support cyber security.

GSA also anticipates purchasing cloud computing on a consumption basis will increase competition, as the move towards commercial practices will encourage new entrants to the FSS program. Buying cloud computing on a consumption basis will also provide GSA with information to evaluate the potential to purchase other types of information technology on a consumption basis.

3. Authority.

- a. Federal Acquisition Regulation (FAR) 1.102(d), Statement of Guiding Principles for the Federal Acquisition System states: *In exercising initiative, Government members of the Acquisition Team may assume if a specific strategy, practice, policy or procedure is in the best interests of the Government and is not addressed in the FAR, nor prohibited by law (statute or case law), Executive Order or other regulation, that the strategy, practice, policy or procedure is a permissible exercise of authority.*
- b. General Services Administration Acquisition Regulation (GSAR) Section 501.370 authorizes the GSA Senior Procurement Executive to issue an acquisition letter to provide interim acquisition policies, procedures, and guidance for a specific period of time or until such time that it can be incorporated into the General Services Administration Acquisition Manual (GSAM) or FAR, as applicable.

- c. 41 U.S.C. 152(3) and 41 U.S.C. 501 authorize GSA to establish procedures for the FSS program (see FAR 8.401).
- d. FAR 8.403(b) provides that GSA may establish special ordering procedures for a particular FSS offering.

4. Effective Date.

This AL is effective immediately and remains in effect until rescinded or incorporated into the FAR or GSAM.

5. Applicability.

- a. This AL applies to the acquisition of cloud computing on a consumption basis under the FSS program.
- b. To the extent that this AL establishes ordering procedures under FAR 8.405, it may also be relied upon by authorized users of GSA sources of supply to the extent that it is consistent with their own agency-specific procedures.

6. Requirements.

- a. GSA FSS Contracting Officers
 - i. *Contract Modification.* GSA FSS contracting officers awarding and administering FSS contracts for cloud computing on a consumption basis shall amend the solicitation and existing contracts to reflect the changes outlined in Attachment A¹, which establishes special ordering procedures for cloud computing offered on a consumption basis as well as accomplishes the following changes to the administration of FSS contracts.²
 - A. Waives the tracking requirements for contractors to comply with the Price Reductions Clause (i.e., GSAR 552.238-81) for cloud computing offered on a consumption basis.
 - B. Clarifies the contract type used for cloud computing offered on a consumption basis is fixed price both at the Schedule contract level and at the order-level.
 - C. Requires the contractor to identify line items in their price list that are available to be ordered on a consumption basis.

¹ Attachment B provides additional information to explain the policy rationale behind the changes discussed in this section

² This policy is limited to offerings under Special Item Number (SIN) 518210C (previously 132-40) or successor SINs; within the Information Technology (IT) Category (previously Schedule 70)

- D. Clarifies that Economic Price Adjustment Clauses (e.g. GSAR 552.216-70) do not apply for cloud computing offered on a consumption basis.
- ii. *Contract Pricing.*
 - A. Unless otherwise approved by the contracting director, GSA FSS contracting officers awarding consumption-based cloud computing offerings shall—
 - 1. Negotiate a rate fixed to commercial prices, through a price list or an index, at the Schedule contract level; and
 - 2. Negotiate a fixed discount off the unit rates in relation to the agreed upon price list or index.
 - B. GSA FSS contracting officers shall use the procedures in GSAM 538.270 to evaluate FSS contract prices for consumption-based cloud computing offerings at least once every option period to ensure prices remain fair and reasonable.
- b. Ordering Activities
 - i. *Best Practices.* The GSA Federal Acquisition Service (FAS) Office of IT Category (ITC) has developed a best practices guide to assist ordering activities purchasing cloud computing on a consumption basis using GSA Schedules. The guide can be found at <https://www.gsa.gov/pirc>. (Note 1/17/2020: This guide is still being drafted and has yet to be posted.)
 - ii. *Controls.* As part of the best practices guide, ordering activities purchasing cloud computing on a consumption basis under the FSS program are advised to—:
 - A. Establish a **Consumption-Based Monitor** to notify the Ordering CO and any other stakeholders of—
 - 1. Total Units Used
 - 2. Total Units Remaining Available
 - 3. Projection for Unit Ceiling Attainment, and
 - 4. Status of Available Funding.
 - B. Limit increases in total units to no more than 50 percent of the initial quantity ordered of the same line item.
 - C. Limit cloud computing orders on a consumption basis to only when using no-year funds or multi-year funds with more than one year remaining.

7. Evaluation.

GSA is looking to understand the effectiveness of buying cloud computing on a consumption basis and to learn more about the potential to buy other elements of IT on a consumption basis. Accordingly, the Office of Acquisition Policy will partner with FAS ITC in collecting and analyzing data on key metrics. Final metrics are intended to address whether the Government realized cost transparency and efficiency, increased cyber security and obtained more robust competition.

8. Point of Contact.

Any questions regarding this Acquisition Letter may be directed to the General Services Acquisition Policy Division at GSARPolicy@gsa.gov.

Attachments

Attachment A - Modification Language

Attachment B - Rationale for Policy Changes

**Attachment A
Modification Language**

Instructions: GSA Federal Supply Schedule (FSS) Contracting Officers awarding and administering FSS contracts for cloud computing on a consumption basis shall amend applicable solicitations and existing contracts to add the following special ordering procedures clause:

**Clause 552.238-XX - Special Ordering Procedures Applicable When Offering
Cloud Computing on a Consumption Basis (DEVIATION [insert month] 2020)**

(a) Definitions.

(1) "Cloud computing" has the meaning given the term by the National Institute of Standards and Technology in NIST Special Publication 800–145 and any amendatory or superseding document(s) thereto.

(2) "Consumption basis" means any solution that is metered and billed on a predetermined periodic basis (e.g. per second, hour, week, or month) and is billed based on actual usage during an elapsed period with predetermined pricing or rates.

(b) Authority. FAR 8.403(b) provides that GSA may establish special ordering procedures for a particular FSS offering.

(c) Ordering procedures. The procedures in FAR subpart 8.4 apply to this contract, with the exceptions listed in this clause. If a requirement in this clause is inconsistent with FAR subpart 8.4, this clause takes precedence pursuant to FAR 8.403(b).

(d) Applicability of conflicting clauses.

(1) GSAR 552.238-81 Alternate 1 applies to all cloud computing offered on a consumption basis under this contract.

(2) In addition to the elements listed in clause I-FSS-600, the Contractor must also identify all cloud computing line items in their price list that are available to be ordered on a consumption basis.

(3) Economic Price Adjustment Clauses (e.g., GSAR 552.216-70, I-FSS-969) do not apply for cloud computing offered on a consumption basis.

(e) Contract type.

(1) All cloud computing offered under this contract, including orders, are considered fixed-price. Prices are established as a fixed discount against a market price list or an index. The discount will remain constant as the price list or index changes.

(2) The Contracting Officer shall establish a ceiling price for all estimated cloud computing.

(i) Orders using these procedures may not exceed 50 percent of the initial quantity ordered for the same line item.

(ii) If at any time the Contractor has reason to believe that total costs in performing this contract in the next succeeding 30 days will exceed 85 percent of the ceiling price, the Contractor shall promptly notify the contracting officer.

(iii) The Government will not be obligated to pay the Contractor any amount in excess of the ceiling price in the contract, and the Contractor shall not be obligated to continue performance if doing so would exceed the ceiling price set forth in the contract, unless and until the Contracting Officer notifies the Contractor in writing that the ceiling price has been increased for performance under this contract.

(f) Limitations of fund type. Ordering activities must use no year funds, or multi-year funds with more than one year remaining, to order cloud computing utilizing these procedures.

Attachment B
Rationale for Policy Changes for Cloud Computing
Purchased on a Consumption Basis

A. Price Reductions Clause (GSAR 552.238-81)

The price monitoring and reporting requirements of the Price Reductions Clause (PRC)³ are not applicable to those FSS contracts offering cloud computing on a consumption basis. Instead, Alternate 1 of the Price Reductions Clause, which is normally used only for FSS contracts with Transactional Data Reporting (TDR) requirements and does not contain the price monitoring and reporting requirements of the basic PRC, will apply to these contracts.⁴

Historically, in awarding and managing FSS contracts, GSA has used a vertical pricing model to establish price reasonableness. This model entails comparing a contractor's prices and price-related terms and conditions with those offered to other customers. These prices are collected through Commercial Sales Practice disclosures that include a broad disclosure of discounts offered to customers for similar products or services.

GSA establishes a favorable pricing relationship in comparison to one of the customers or categories of customers. Contractors are then required, under the basic version of the PRC, to monitor the pricing over the life of the contract and to provide the Government with the same price reductions that they give to the class of the customer upon which the original contract was predicated. The PRC also allows vendors to voluntarily reduce the price to the Government and allows for the Government to request a price reduction at any time during the contract period.

Commercial pricing for cloud computing offerings fluctuates widely, often multiple times per day. While there is an overall downward trend, price spikes and dips regularly occur. In addition, cloud computing pricelists are extensive, consisting of many thousands of items with various units of measure. As such, the PRC's traditional price monitoring and reporting requirements are not practical for this marketplace.

In June, 2016, GSA published a final rule announcing the TDR pilot as an alternative pricing strategy.⁵ At that time, GSA explained a number of factors have eroded the effectiveness of the Commercial Sales Practices and PRC mechanisms, which

³ Paragraphs (a), (b), (c), (d), (f), and (g) of GSAR clause 552.238-81.

⁴ TDR requirements are not applicable unless the contract is part of the TDR pilot (i.e. the contract already includes Alternate 1 of GSAR clause 552.238-80).

⁵ See [81 FR 41103](#).

necessitated piloting an alternative approach where data would play a critical role in moving from a vertical model protected by regulation to a horizontal model with market forces providing protection.

While the TDR pilot remains under evaluation, early results demonstrate the pilot has reduced the industry burden without increasing prices paid on FSS contracts. By tying cloud computing procurements to commercial market prices, still in the fixed price family, this approach provides cost transparency without burdening contractors with TDR requirements. Instead, invoice details will obviate the need for separate transactional reporting at a later date. Additional information about invoicing is provided in the best practices guide.

B. Fixed Price Contract Type

[See “Questions for Industry Partners” on last page]

C. Economic Price Adjustment Clauses

Pegging a cloud computing unit rate to a commercial price list or index serves the same function as a standard Economic Price Adjustment (EPA) clause ((e.g. GSAR 552.216-70). Therefore, EPA clauses are not applicable when establishing fixed unit rates pegged to a market index or price list for cloud computing purchased on a consumption basis. However, for all non-consumption-based offerings under the contract, the EPA clauses still remain in effect.

D. Multi-Year or No-Year Funds

The Anti-Deficiency Act is a foundation of federal fiscal law and an essential topic for contracting officers to master. The factors that provide for spikes and dips in demand have long led Federal agencies to safeguard purchases of cloud computing by over obligating contracts. In this way, in the event of an emergency, an agency is ensured that it has capacity and websites won't go dark. Moving to a consumption-based approach requires added protections and oversight. One key protection is limiting this authority to multi-year funds and no-year funds. In short, this authority is limited to situations where funding obligated remains valid for more than one-year. In this way, when combined with the consumption monitor position, and the total units consumed limitation, the risk of a violation of the Anti-Deficiency Act can be controlled.

E. Consumption Level Increase Limit

For purposes of ensuring fair competition, the variable level of consumption must still be monitored. It is not appropriate to have an unlimited increase in the number of units consumed. Such uncontrolled use could constitute a cardinal change to the contract, and could invite abuse of the process.

In studying this issue, the Section 809 Panel recommended capping the increase from the initial level.⁶ Similarly, FAR 17.203(g)(2) limits the increase for additional supplies through options from initial quantities. A limit of 50 percent strikes a reasonable balance in bringing new levels of efficiency into the acquisition system while preserving the nature of fair and open competition. Because this limitation is known and disclosed as part of the solicitation process, it is consistent with the fair notice requirements of FAR Subpart 8.4.

⁶ See Section 809 Panel, "Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations," Volume 3 of 3, January 2019, https://section809panel.org/wp-content/uploads/2019/01/Sec809Panel_Vol3-Report_JAN19_part-1.pdf

Questions for Industry Partners

Questions

- GSA is looking for a structure which fits in the fixed price family. How does the pricing vary under a typical contract for private sector customers? Does the price float, such as a fixed discount with caps? How is it best managed? How should GSA adopt this to remain in fixed price?
- When purchasing cloud on a consumption basis, is it typical for private sector organizations to obtain cloud services entirely on a pay-as-you-go basis or do organizations typically purchase a fixed amount and then have the option to purchase additional quantities on a pay-as-you-go basis?
- Our understanding is cloud prices can change frequently, perhaps multiple times per day. What are the primary factors for these price fluctuations?
- We are trying to better understand pay-as-you-go pricing as we consider how it would be structured on a GSA Schedule contract. Is it typical for a private sector organization to place guardrails around the prices it will pay on a consumption basis? Ex. no more than 10% of a target price; prices pegged to a published price, etc.
- Can you provide sample contracts or contract language for consumption-based cloud computing?

Requirements Task Order

GSA is also interested in thoughts on a “requirements task order” concept we are exploring for consumption-based procurements.

The "requirements task order" concept is similar to a requirements contract ([FAR 16.503](#)). In a typical requirements contract, the Government will award a contract with the obligation to purchase its future requirements under that contract but does not obligate funds for estimated usage upfront; instead, the actual requirements are then satisfied through orders against the contract.

The concept we're exploring is different in that the Government's obligation to satisfy its requirements is limited to a task order issued against an FSS contract; instead of orders against a requirements contract, future requirements will be satisfied by activating CLINs on a task order. From a fiscal standpoint, this concept is similar to a typical requirements contract in that funds for future requirements will be obligated when the Government activates a CLIN and obtains those services.