GSA

Platform as a Service (PaaS)

The EIS Platform as a Service offering (PaaS) is a cloud-based service that provides a ready-made environment for the development, testing and deployment of applications. The service supplies all of the IT components needed for application development including developer and testing tools, database systems, and a Big Data solution platform. Unlike Infrastructure as a Service (IaaS), PaaS is typically not used to replace an agency's entire infrastructure, but rather as a platform for the development, testing and/or deployment of one or more applications.

PaaS meets all federally required security standards for Cloud services supporting the FedRAMP and TIC overlay, a technology designed to provide fast and secure computing for mobile federal personnel.

Category: Cloud Services

Complementary Services Needed: In order to use PaaS, the agency would need:

(1) EIS Access Arrangements or equivalent; and

(2) One of the following EIS Data Services or equivalent:

- Virtual Private Network Service
- Ethernet Transport Service
- Optical Wavelength service
- Private Line Service
- Synchronous Optical Network Service
- Internet Protocol Service

Definitions: Please see EIS contract Section J.12 Glossary of Terms for clarification of technical terms and acronyms.

Figure 1—Platform as a Service
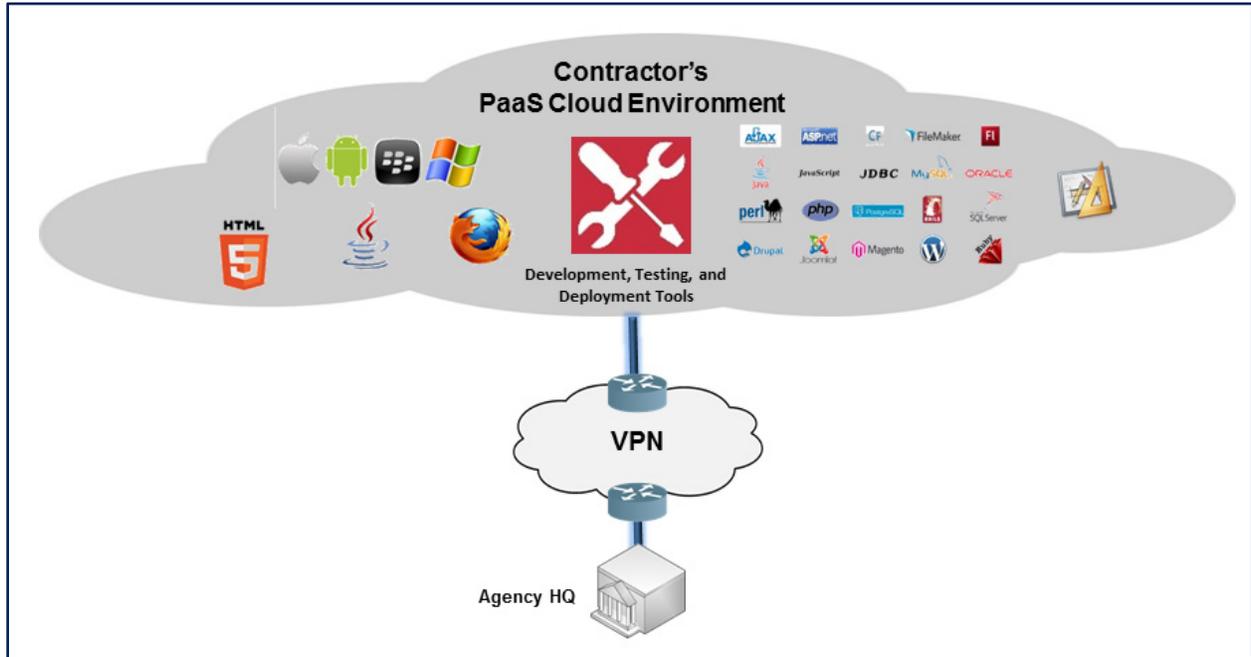
1. Why an Agency Might Select this Service

- An agency can develop, test and run an application using the PaaS environment without enduring the technical, time and budget challenges of setting up the environment on its own premises. PaaS provides an instant development environment to which agency personnel can connect and begin development.

- PaaS allows developers to frequently change or upgrade operating system features.

- PaaS enhances the ability of development teams to collaborate on projects.

NOTE: Agencies considering this service may also want to compare this service with Infrastructure as a Service (IaaS) and Software as a Service (SaaS).

2. Examples of How PaaS Could be Used

- **Temporary Use for Development:** An agency could use PaaS on a temporary basis to quickly establish the development and testing environment for a new application.

- **Agency Applications:** PaaS could be used on a permanent basis to run one or more agency applications.

- **Big Data:** An agency could develop an application that uses the platform's Big Data features to generate reports that guide public or private decision making.

- **Department of Interior (DOI) Example:** When DOI relaunched DOI.gov, it avoided setting up its own website development environment, and instead opted for a Platform as a Service content management system.

3. Key Technical Specifications

NOTE:

1. This portion of the service guide has been abridged due to space considerations. For full technical details on PaaS, please refer to EIS contract Section C.2.5.2 Platform as a Service.

2. The EIS contracting vehicle does not define any features for this service.

Table 1—PaaS Technical Capabilities

Capability	Description
Access to Agency Data in Data Centers	Complies with National Policy as defined in C.1.8.8 including agency sites and remote locations
Developer Tools	(a) Integrated Development Environment (IDE) Suite (b) Application Server (c) Utilities/Libraries
Database Systems	DBMS/RDMS
Big Data Solution Platform	(No Description in EIS contract Section C)
Directory	Based on, but not limited to, LDAP/X.500 based implementations, to support directory schemas, defined as object classes, attributes, name bindings, and knowledge (namespaces)
Testing Tools	(a) Application Test Tools (b) Web Test Tools (c) Workflow Tools

4. Pricing Basics for PaaS

NOTE: PaaS is priced using the contractor's catalog. Please visit the EIS Resources Listing and locate the Basic EIS Pricing Concepts Guide to gain an understanding of EIS pricing fundamentals.

4.1 Access Arrangements

Appropriate Access Arrangements must be selected for this service. Please visit the EIS Resources Listing and locate the Access Arrangements Guide for more detailed information.

4.2 Service Related Equipment (SRE)

- SRE must be chosen based on equipment required at each location. NOTE: SRE uses catalog-based pricing.

- Request that contractor provide pricing for any SRE that would be required, in addition to the agency's existing infrastructure, to deliver the service.

- Please visit the EIS Resources Listing and locate the Service Related Equipment Service Guide for more detailed information.

4.3 PaaS Price Components

The price structure for PaaS consists of the components shown in *Table 2* below.

Table 2—PaaS Pricing Components

Component	*Charging Unit*
PaaS Cloud Service Catalog Item, Non Recurring Cost (NRC)	Individual Case Basis (ICB)
PaaS Cloud Service Catalog Item, Monthly Recurring Cost (MRC)	ICB
PaaS Cloud Service Catalog Item (Usage)	ICB

Figure 2 below shows how the pricing components in *Table 2* are combined to produce the total cost for the service.

Figure 2—This figure shows how the various pricing components in Table 2 would be combined to calculate the total PaaS charges. NOTE: One or more of these components may not be needed to price a particular service package.
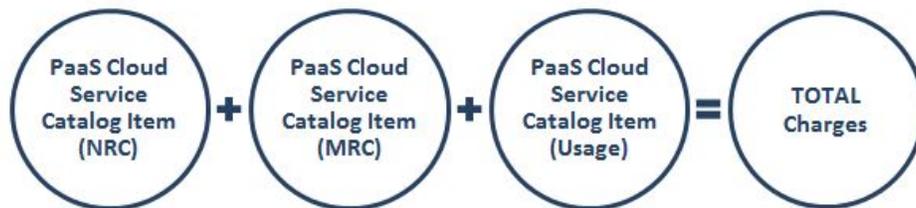
NOTE: A contractor may offer a custom variation of the service to meet an agency's unique requirements. Such a customization would be identified with a Task Order Unique CLIN (TUC), and would include charges that would have to be added to the components in *Figure 2* to determine the total cost of the service.

4.4 PaaS Pricing Examples

NOTE: PaaS is a Catalog-based Service. No pricing examples are provided, as the specific services available vary based on each contractor's cloud service catalog.

For a general example of pricing a Catalog-based Service, please visit the EIS Resources Listing and locate the Basic EIS Pricing Concepts Guide, and, in particular, the Guide's Section 6 on Catalog-based Pricing.

5. References and Other Sources of Information

- For more technical details and information on PaaS, please refer to EIS contract Section C.2.5.2; for pricing details, Section B.2.5.

- For more information on service-related items, please see:

    o EIS contract Section B.2.10 Service Related Equipment

    o EIS contract Section B.2.11 Service Related Labor

- Please refer to a contractor's individual EIS contract for specifics on the contractor's PaaS offerings.

- For additional EIS information and tools, visit the EIS Resources Listing.

- For guidance on transitioning to EIS, please visit EIS Transition Training where you'll find several brief video training modules.