

# JEDI: Understanding the Warfighting Requirements for DoD Enterprise Cloud

July 25, 2019





# Why DoD Needs Cloud

- *Support enhanced lethality and strategic readiness*
- *Enable the Warfighter to respond at the speed of operations*

## DoD Challenge

Episodic Demand and Difficulty with Global Scaling



Fragmented Infrastructure Landscape



Capacity Constraints



## Cloud Solution

Rapid Surge of Resources on Tactically Relevant Timelines

Consolidated Compute Capability and Mission Resiliency

Provide On-Demand Growth for Advanced Data Analysis, e.g., Artificial Intelligence

*While Cloud resolves certain challenges, the way Cloud is implemented determines how much benefit can be achieved.*



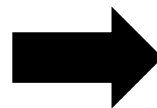
# Why *Enterprise* Cloud Approach?

## Challenges of Many Disparate Clouds

## Benefits of Enterprise Cloud Solution

### Security

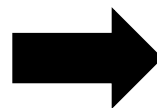
More attack vectors for adversaries to exploit



- Enables universal application of key security policies
- Focuses resources on securing data rather than perimeter defense

### Speed to Capability

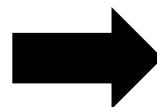
Many clouds for similar needs results in inefficiencies and redundant capabilities



- Warfighters can focus resources on critical missions rather than repeatedly solving for compute and storage

### Data Analysis, Access & Sharing

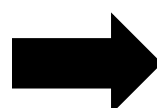
Stove piped data that limits Artificial Intelligence (AI) and Machine Learning (ML)



- Enables AI and ML at scale
- Decreases number of environments that have to be integrated

### Tactical Edge

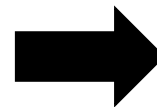
No compute and storage at the tactical edge or limited capabilities with no ability to share across platforms



- Extends compute and storage to the tactical edge
- Enhances force lethality through data sharing with Warfighters and mission partners in theatre

### Modern Practices

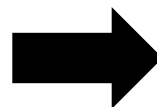
Variable software development practices



- Automated and repeatable processes that accelerate software development

### Workforce Talent

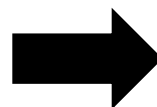
Not enough technologists to operate and secure all clouds effectively



- DoD can achieve the most bang for its buck out of a limited talent pool

### Economies of Scale

Reduced purchase power



- Consolidated purchase power to demand best-in-class pricing



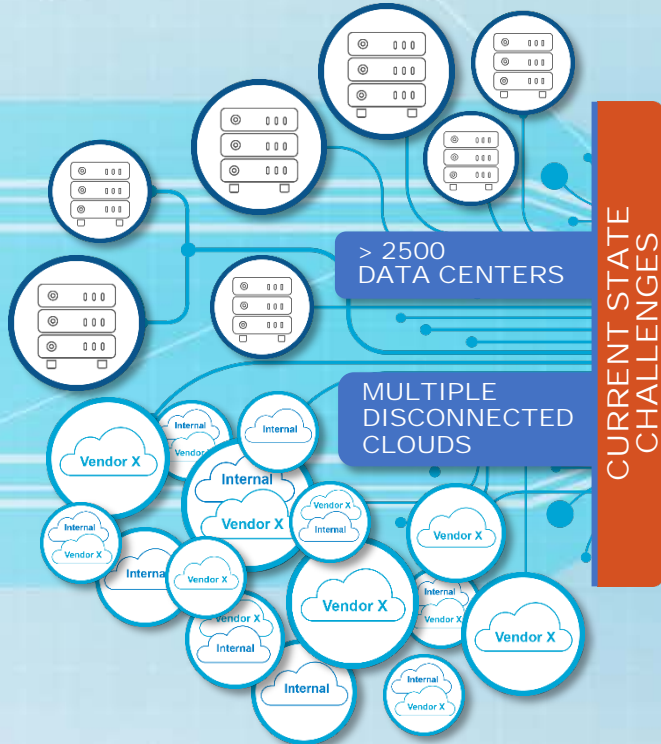
# DoD ENTERPRISE CLOUD STRATEGY

Path to Multi-Vendor, Multi-Cloud Environment



## CHALLENGES

- TACTICAL EDGE CAPABILITY
- EPISODIC DEMANDS
- RESILIENT INFRASTRUCTURE
- SCALABLE TECHNOLOGY
- SECURE APPLICATIONS
- DATA SILOS



## ENTERPRISE CLOUD

MISSION APPROPRIATE

GENERAL PURPOSE

FIT FOR PURPOSE

SECURE DEV OPS FOR APPLICATION DEVELOPMENT

DATA CENTER CONSOLIDATION

TECHNOLOGY STANDARDS TO LEVERAGE MODERN CLOUD CAPABILITY

## DoD ENTERPRISE CLOUD ENVIRONMENT



JEDI

GENERAL PURPOSE PATHFINDER

JEDI

FIT FOR PURPOSE

FIT FOR PURPOSE

FIT FOR PURPOSE

## OPTIMIZED

Automated Account Provisioning and Automation Tool Integration

Advanced Capabilities Available (e.g. AI, Machine Learning, Tactical Edge Cloud)

Application and Data Efficiencies for Hybrid Cloud and Multi-vendor Solutions





# What is Joint Enterprise Defense Infrastructure (JEDI) Cloud?

- **Pathfinder effort** for an enterprise-wide, General Purpose Cloud leveraging commercial parity
- Addresses critical unmet needs for warfighters
  - **All classification levels** – Unclassified, Secret, and Top Secret
  - **Globally available** – CONUS, OCONUS, including the **Tactical Edge**
  - Supports **Artificial Intelligence (AI)** and **Machine Learning (ML)** at scale
  - **Rapid, decentralized ordering**
- Aligns with the **National Defense Strategy** by supporting enhanced lethality, strategic readiness and enabling the warfighter to respond at the speed of operations
- Builds upon **lessons learned from the Intelligence Community** of using a pathfinder to mature
- **Harmonized with guidance suggested by OMB's 2019 Federal Cloud Computing Strategy – Cloud Smart**
- Indefinite delivery/indefinite quantity (**ID/IQ**) **contract** with a **\$10B ceiling** and a **\$1M minimum**
- 2-year base period, with options periods spread out over 8 years (3-3-2) for a potential **total of 10 years**



# Myth versus Reality

1	<b>Myth</b>	<i>JEDI is a \$10 billion, 10 Year sole-sourced contract.</i>
	<b>Fact</b>	<p>JEDI is not a \$10 billion contract. JEDI's guaranteed minimum is only \$1 million. JEDI's total contract ceiling, if all option periods are exercised, is \$10 billion, but DoD is under no obligation to place any orders beyond the \$1 million minimum.</p> <p>In addition, the contract has a two-year base period with three option periods (3 years + 3 years + 2 years) for a total of 10 years. The inclusion of a low guaranteed minimum and multiple option periods affords the Department maximum flexibility in placing orders and off-ramping as necessary. DoD is not locked in.</p> <p>DoD's Cloud Strategy, released in February 2019, reflects a multi-vendor, multi-cloud ecosystem which is consistent with industry best practices. DoD is a multi-vendor, multi-cloud environment now and will remain so into the future. The JEDI contract is a pathfinder initiative and one component of the larger ecosystem that consists of different cloud models based on purpose.</p>



# Myth versus Reality

2	<b>Myth</b>	<i>While many companies were interested, DoD unreasonably restricted competition.</i>
	<b>Fact</b>	<p>There are only a handful of companies in the world that can provide general purpose cloud capabilities on the scale required for the Department of Defense. Independent research performed by Gartner in the Infrastructure as a Service Report confirms that there are only five non-Chinese companies seriously competing in the hyper-scale cloud marketplace. Four of the five companies participated in the JEDI competition.</p> <p>A majority of the companies that attended the JEDI Cloud Industry Day and provided market research materials specialized in cloud migration services or were cloud resellers, both of which are outside the scope of JEDI. Customers of JEDI Cloud are free to contract for migration services, application development services, and other cloud implementation services, which will be competed among companies that specialize in those areas.</p> <p>To ensure DoD continues to benefit from global marketplace pressures and maintain best-in-class pricing, the JEDI contract tethers its prices to the vendor's commercial prices.</p>



# Myth versus Reality

3	<b>Myth</b>	<i>A single award contract does not give the American people the best value for their dollar.</i>
	<b>Fact</b>	<p>The JEDI solicitation reflects the unique and critical needs of DoD, which operates on a global scale and in austere, disconnected environments. There are only a handful of non-Chinese companies in the world that can provide general purpose cloud capabilities on the scale required for the Department of Defense. Four of the five companies chose to bid in the JEDI competition.</p> <p>The pricing competition is going to come down to vendors who can provide the full scale of services at the best value. The JEDI solicitation was constructed to drive competition. As a result, JEDI has tremendous price competition among the cloud providers who submitted proposals. To ensure DoD continues to benefit from global marketplace pressures and maintain best-in-class pricing, the JEDI contract tethers its prices to the vendor's commercial prices.</p>
4	<b>Myth</b>	<i>Can the Department of Defense really trust one Cloud vendor to keep their data safe?</i>
	<b>Fact</b>	<p>DoD contacted outside industry to review the security elements of the JEDI solicitation. Furthermore, NSA, CYBERCOM, and the intelligence community provided input into JEDI's security requirements. DoD will be performing in-depth analysis and penetration testing to validate JEDI's security capabilities.</p> <p>DoD's Cloud Strategy includes a multi-vendor, multi-cloud ecosystem, which is consistent with industry best practices. All cloud vendors will be subject to the same DoD security requirements.</p>





# Myth versus Reality

5	<b>Myth</b>	<i>There were inside negotiations with at least one person who is now an Amazon employee.</i>
	<b>Fact</b>	This information was alleged by Oracle in their filings before the US Court of Federal Claims. On July 12, the US Court of Federal Claims did not sustain any of Oracle's complaints. Prior to the Court's ruling, the Department of Defense conducted its own investigations and determined that the integrity of the acquisition remains intact.

6	<b>Myth</b>	<i>There are several "gating" criteria that predetermines an award to one contractor.</i>
	<b>Fact</b>	The evaluation criteria reflect the unique and critical needs of the Department of Defense to meet warfighting requirements. All evaluation criteria underwent a thorough review process to ensure a best value award that will successfully meet these requirements. The reasonableness of DoD's requirements was upheld by the General Accountability Office and US Court of Federal Claims.



# Myth versus Reality

7	<b>Myth</b>	<i>Contrary to industry best practices, the Department has decided to use a single vendor for the JEDI program.</i>
	<b>Fact</b>	DoD's Cloud Strategy, released in February 2019, reflects a multi-vendor, multi-cloud ecosystem which is consistent with industry best practices. DoD is a multi-vendor, multi-cloud environment now and will remain so into the future. The JEDI contract is one component of the larger ecosystem that consists of different cloud models based on purpose. JEDI is a pathfinder solution that incorporates lessons learned and builds on the success of the intelligence community's (IC's) experience. The transition of a complex enterprise to a cloud model requires more than technology acquisition. A successful transition also requires development and maturation of new business, software development, and cyber security practices. JEDI will help DoD refine processes and experience, thus informing future acquisitions for additional cloud services.
8	<b>Myth</b>	<i>The JEDI strategy does not comply with the Cloud Smart strategy for federal departments.</i>
	<b>Fact</b>	The Federal Cloud Computing Strategy - Cloud Smart strategy does not direct agencies to obtain cloud services from multiple vendors. Rather, it states the following: "agencies will need to use a variety of approaches that leverage the strength of Federal Government's bulk purchasing power, the shared knowledge of good acquisition principles, as well as relevant risk management practices." DoD agrees, as evidenced by DoD's Cloud Strategy, which specifies DoD is a multi-vendor and multi-cloud ecosystem. A large part of the Cloud Smart strategy focuses on encouraging all agencies to prioritize migration planning, sustainment, and organizational maturity in order to realize the full benefit of cloud services. As a pathfinder effort, JEDI will help DoD mature and learn how to implement secure cloud services at scale.



# Myth versus Reality

9

**Myth**

*The JEDI contracting process has not been open, transparent, or honest.*

**Fact**

The Court of Federal Claims agreed with DoD that JEDI has been a fair, full and open competition. JEDI is a competitively solicited requirement. Multiple proposals were submitted in October 2018, and two offerors remain in the competitive range established in April 2019. As affirmed by the court, the JEDI Cloud acquisition activity is being conducted as an impartial, free, and fair competitive source selection.

The Joint Staff, Military Departments, National Security Agency, Combatant Commands, and other DoD Components participated in the process for defining the warfighting requirements for JEDI. DoD released three draft solicitations, providing industry multiple opportunities to review the evaluation criteria and provide comment. As with any other acquisition, this is a multi-layered source-selection process. A team of department experts developed the requirements and solicitation and is involved in the award decision.