

AN OFFERING IN THE BLUE CYBER SERIES:

DoD Cloud Computing

Version 14 Sep 2021

#11 in the Blue Cyber Education Series



DFARS Clause 252.239-7010 – Cloud Computing Services

Applies when a cloud solution is being used to process data on the DoD's behalf or DoD is contracting with Cloud Service Provider to host/process data in a cloud

Ensures that the cloud service provider:

- **Meets requirements of the DoD Cloud Computing Security Requirements Guide**
- **Use government-related data only to manage the operational environment that supports the Government data and for no other purpose**
- **Complies with requirements for cyber incident reporting and damage assessment**

DFARS Clause 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting, applies when a contractor intends to use an external cloud service provider to store, process, or transmit covered defense information in the performance of a contract. DFARS Clause 252.204-7012 requires the cloud service provider to meet security requirements equivalent to those established for the Federal Risk and Authorization Management Program (FedRAMP) Moderate baseline.



DISA Cloud Computing SRG

Cloud Computing Security Requirements Guide

1 Introduction

2 BACKGROUND

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4 RISK ASSESSMENT OF CLOUD SERVICE OFFERINGS

5 SECURITY REQUIREMENTS

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Department of Defense

Cloud Computing Security Requirements Guide

Version 1 Release 3 | 6 March 2017

Developed by the Defense Information Systems Agency for the Department of Defense





Impact Level = DISA-Approved Clouds

IMPACT LEVEL	INFORMATION SENSITIVITY	SECURITY CONTROLS	LOCATION	OFF-PREMISES CONNECTIVITY	SEPARATION	PERSONNEL REQUIREMENTS
2	PUBLIC or Non-critical Mission Information	FedRAMP v2 Moderate	US / US outlying areas or DoD on-premises	Internet	Virtual / Logical PUBLIC COMMUNITY	National Agency Check and Inquiries (NACI)
4	CUI or Non-CUI Non-Critical Mission Information Non-National Security Systems	Level 2 + CUI-Specific Tailored Set	US / US outlying areas or DoD on-premises	NIPRNet via CAP	Virtual / Logical Limited "Public" Community Strong Virtual Separation Between Tenant Systems & Information	US Persons ADP-1 Single Scope Background Investigation (SSBI)
5	Higher Sensitivity CUI Mission Critical Information National Security Systems	Level 4 + NSS & CUI-Specific Tailored Set	US / US outlying areas or DoD on-premises	NIPRNet via CAP	Virtual / Logical FEDERAL GOV. COMMUNITY Dedicated Multi-Tenant Infrastructure Physically Separate from Non-Federal Systems Strong Virtual Separation Between Tenant Systems & Information	ADP-2 National Agency Check with Law and Credit (NACLC) Non-Disclosure Agreement (NDA)
6	Classified SECRET National Security Systems	Level 5 + Classified Overlay	US / US outlying areas or DoD on-premises CLEARED / CLASSIFIED FACILITIES	SIPRNET DIRECT With DoD SIPRNet Enclave Connection Approval	Virtual / Logical FEDERAL GOV. COMMUNITY Dedicated Multi-Tenant Infrastructure Physically Separate from Non-Federal and Unclassified Systems Strong Virtual Separation Between Tenant Systems & Information	US Citizens w/ Favorably Adjudicated SSBI & SECRET Clearance NDA



Cloud Computing as-a-service

On-site	IaaS	PaaS	SaaS
Applications	Applications	Applications	Applications
Data	Data	Data	Data
Runtime	Runtime	Runtime	Runtime
Middleware	Middleware	Middleware	Middleware
O/S	O/S	O/S	O/S
Virtualization	Virtualization	Virtualization	Virtualization
Servers	Servers	Servers	Servers
Storage	Storage	Storage	Storage
Networking	Networking	Networking	Networking

 You manage
 Service provider manages

SaaS

Software-as-a-service, also known as cloud application services, is the most comprehensive form of cloud computing services, delivering an entire application that is managed by a provider, via a web browser.

Software updates, bug fixes, and general software maintenance are handled by the provider and the user connects to the app via a dashboard or API. There's no installation of the software on individual machines and group access to the program is smoother and more reliable.

You're already familiar with a form of SaaS if you have an email account with a web-based service like Outlook or Gmail, for example, as you can log into your account and get your email from any computer, anywhere.



Fed RAMP Certification for Cloud Service Providers

Sort Marketplace by:

PRODUCTS AGENCIES ASSESSORS

✕ Clear All

Search by Provider or Product

33 results

Status
Ready
In Process
Authorized

Authorization Type
Agency
JAB

Products Authorized

Service Models

Deployment Models

Agencies
Administration for Children & Families
Administration for Community

Name	Service Models	Impact Level	Status	
 Avue Digital Services	SaaS	Moderate	FedRAMP Authorized	4 Authorizations
 Blackboard Learn SaaS	SaaS	Moderate	FedRAMP Authorized	3 Authorizations
 Box Enterprise Cloud Content Collaboration Platform	SaaS	Moderate	FedRAMP Authorized	52 Authorizations
 Cisco Unified Communications Manager Cloud for Government (Cisco UCM Cloud for Government)	SaaS	Moderate	FedRAMP Authorized	7 Authorizations
 Cisco WebEx	SaaS	Moderate	FedRAMP Authorized	26 Authorizations





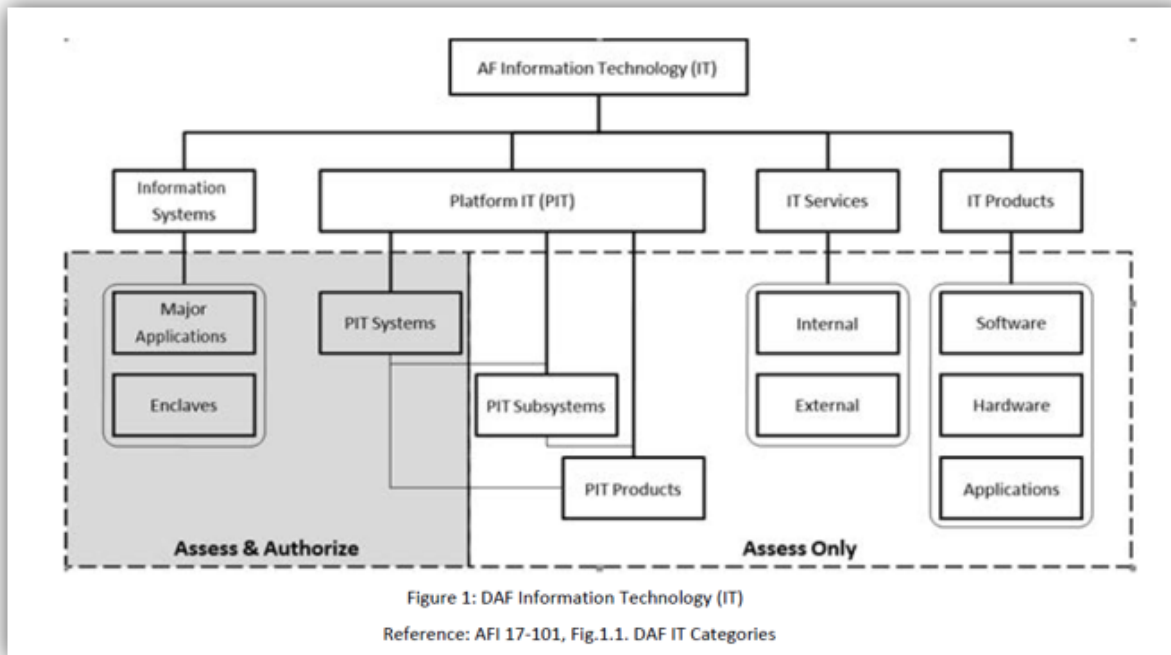
ATO and Assess-Only/ATU

Do I need an ATO?

Maybe not...

If the Program is proposing an internal or external IS service, such as a web-based application or SaaS, the AO will decide

IT below the system level (Single Purpose IT Products or Devices, PIT Subsystems, PIT Products, IT Products, and IT Services) or if the IS in an internal or external IS service, the AO has discretion to simply approve for use.





ENTERPRISE CLOUD
U.S. DEPARTMENT OF DEFENSE

HOME DEOS MILCLOUD 2.0 CLOUD ONE DOD 365 CONTACT US

What is Enterprise Cloud

Multi-cloud and multi-vendor ecosystem composed of a general-purpose and multiple fit-for-purpose clouds that are available globally and at the tactical edge

DoD Enterprise Clouds

DEOS

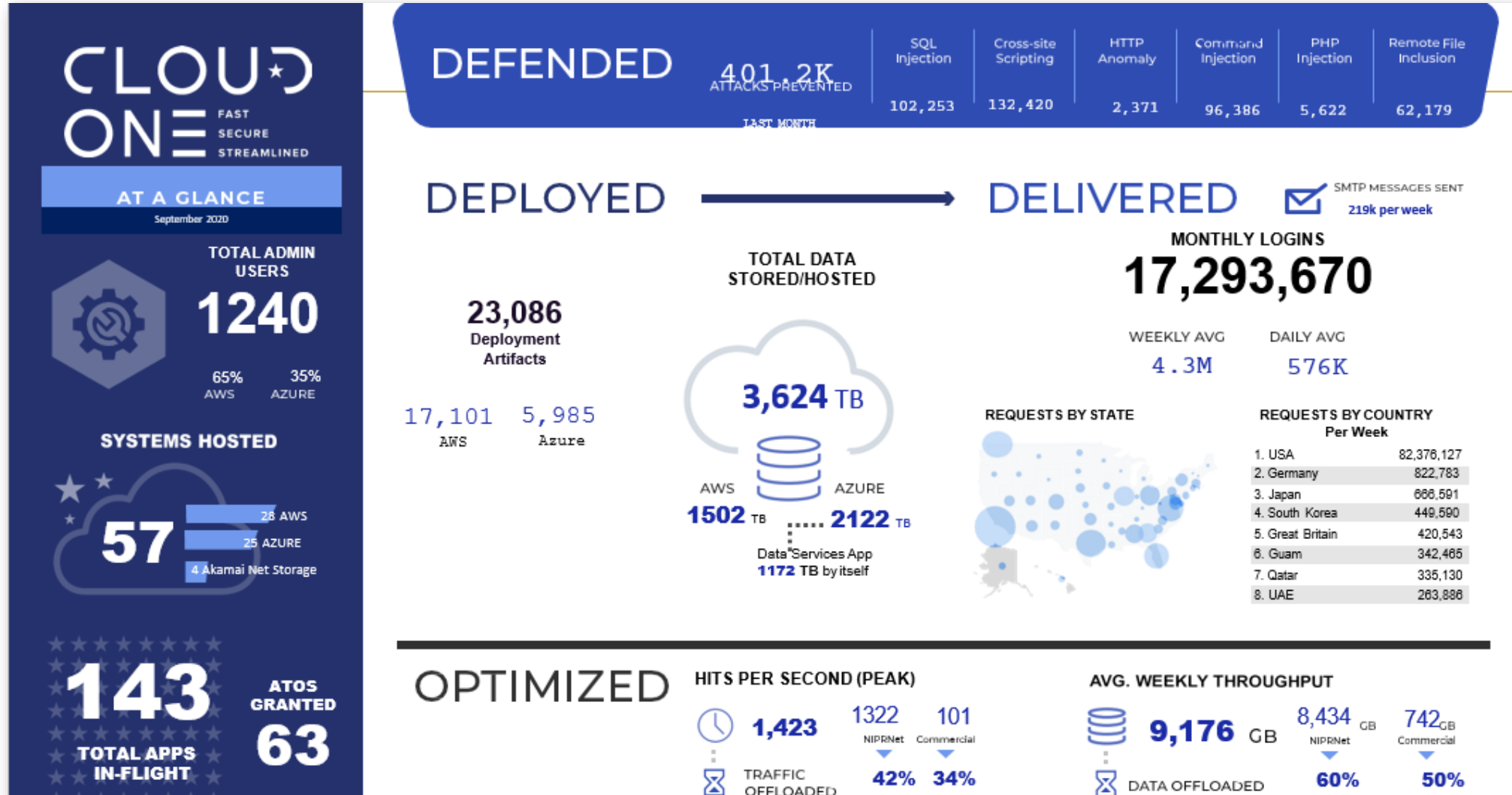
DEOS is a SaaS commercial cloud providing email, web conferencing, and other office productivity solutions.

Cloud One

Cloud One is the leading provider for state-of-the-art cloud computing platforms, technologies, approaches, and solutions.

milCloud 2.0

milCloud 2.0 is a commercial cloud managed by DISA, offering IaaS and PaaS capabilities.





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Advantages of Cloud One

- Cloud One is a multi-hybrid cloud environment with centrally-funded hosting that utilizes both Amazon Web Services and Microsoft Azure to host the Air Force's enterprise general purpose applications at the Impact Levels (IL) 2, 4 and 5. As of May 2021, Additionally, Cloud One is able to support IL2 workloads in Google Cloud Platform (GCP) and will soon host higher levels of classification in both GCP and Oracle cloud offerings. When you are ready to begin or continue your cloud journey, the Cloud One team will discuss your capability needs and provide a way forward with an approved delivery partner.
- Cloud One provides a plethora of services that will accelerate the accreditation process, ensure continuing compliance with security controls, and facilitate rapid future deployment of capabilities. We need to take advantage of the rapid ATO-inheritance and Real-time Compliance that Cloud One offers. Additionally, Cloud One offers a wide range of native cloud services, including DISA-approved “guardrails” that allow system and application owners to focus on maintaining their applications rather than spending valuable time managing their own hosting environment and underlying infrastructure.

Cloud One Hosted – Mission Partners



SISTE
BRVICE



309TH SWEG



AIR FORCE
DATA
SERVICES



AFMC
SOCCER



BRICE
(EMAS/LOGUX)

ESCAPE-ODS



ETAC



AFSP
C



BARS



AMAS



AAIE

F M



AFBEAT
Air Force Budget & Execution Analysis Tool



CRIS
COMMANDER'S RESOURCE
INTEGRATION SYSTEM



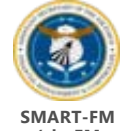
FM FAMS



FMDQS



PBES



SMART-FM
(aka FM
FACTS)



T2

AFCLM
C

SAMRS

JA
G



AFCCA



AFLOA
BOARDS



AFLOA
COURTS



AFLOA
LEGAL
ASSISTANCE

PEO BES



AFRIMS
Air Force Records Information
Management System



BaS&E
Base Support & Expeditionary Planning Tool

CDRS

D040

D072

WSP

OWRMR



EMOC



ILS-S



IMDS CDB
(Mainframe) PAMS
WEB SERVICES

ISMT



LOGMOD



MARKS
Networks-Airborne-Target-Linking-System



OLVIMS
DISPATCH



PRPS



REMIS



TRON SOC

WSMIS
REALM

DATA
ANALYTIC



DATA
INTEGRATION
PLATFORM
(DIP)



LIMS-EV



DIGITAL
ENGINEERING

DIGITAL
ENGINEERING
ECOSYSTEM

FACTORIES/
PLATFORM



BESPIN



BLACK PEARL

LEVELUP
CODE WORKS

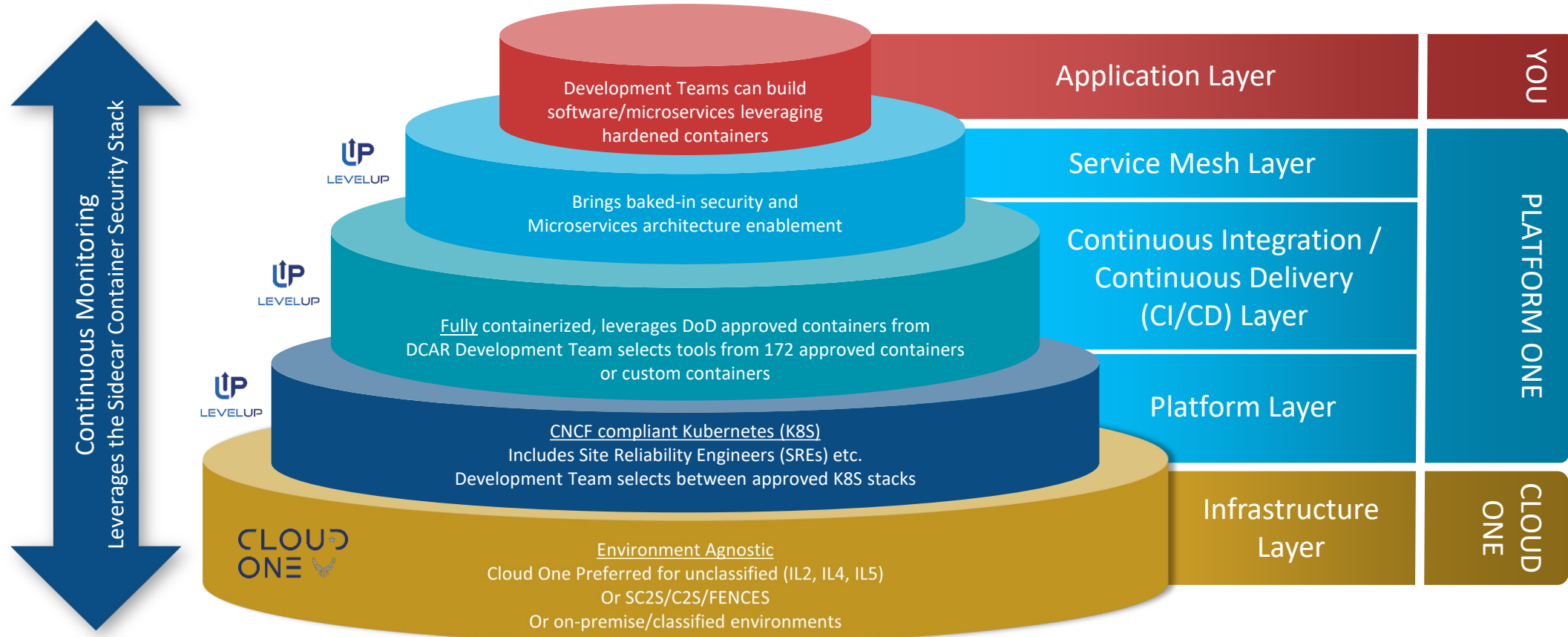


Cloud & DevSecOps AO Summit



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DevSecOps/Platform One/Cloud One Relationship





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<https://www.cloud.mil/milcloud-20/>



milCloud[®] 2.0 Capabilities





milCloud® 2.0 Benefits

Secure



Dozens of inherited critical security controls not available in commercial clouds, including:

- DoD Information Network Security Boundary Controls
- DISA Data Center Physical Facility Security Controls DECCS
- GDIT's FedRAMP High Accreditation & Controls
- DISA's IL-5 Provisional Authority Accreditation & Controls (IL-6 coming soon)
- Virtual Trusted Platform Manager (vTPM) provided through VMWare, providing encrypted virtual machines and storage

Easy to Use



Customers can buy cloud services in as few as 48 hours, compared to typical months-long acquisition processes

- Self-service model for service ordering, service provisioning, and account management and funding
- Customers can use MIPR funds or a credit card to buy any services on contract (all FFP)
- Funds are fungible: infrastructure hosting, engineering & migration services, and consulting & professional services
- Funds can cross fiscal years depending on color of money

Affordable



Compute, storage, and network cloud services priced at commercial parity – with enhanced security

- “Pay-as-you-go” model – customers only pay for what they use
- No a la carte bandwidth or transaction fees charged to access applications or data
- FFP Services enable predictable spend patterns and transparent cost understanding
- One-stop shop for hosting, engineering, consulting, and professional services

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Software Ecosystem Multiple Innovation Hubs, One Platform





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Cloud Threat Landscape

www.dc3.mil

- >>DIB Cybersecurity
- >>DCISE Analytics





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References

- DISA CC SRG: <https://dl.cyber.mil/cloud/SRG/index.html>
- FedRAMP Marketplace (DOD Cloud Service Offerings)
<https://disa.deps.mil/org/RMED/cas/SitePages/CSOCatalog.aspx>
- DAF ATO Process: https://static.e-publishing.af.mil/production/1/saf_cn/publication/afi17-101/afi17-101.pdf
- DIDB Cyber Threats: <https://www.dc3.mil/Organizations/DIB-Cybersecurity/DCISE-Slick-Sheets/>
- Cloud One: <https://www.cloudone.com/>
- Platform One: <https://p1.dso.mil/>
- Mil Cloud: <https://www.cloud.mil>
- DFARS 252.239-7010 Cloud Computing Services
<https://www.acq.osd.mil/dpap/dars/dfars/html/current/252239.htm#252.239-7010>
- Fast Track ATO Process Blue Cyber Briefing: <https://www.safcn.af.mil/Organizations/CISO-Homepage/Small-Business-Cybersecurity-Information/>



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Any Questions?

- This briefing is not a substitute for reading the FARs and DFARS in your contract.
- This presentation and other presentations in the DAF CISO Blue Cyber Educational Series and be found on the DAF CISO webpage:
www.safcn.af.mil/ciso/
 - Select Quick Link: Small Business Cybersecurity Information
- Please provide questions, feedback or if you just want to talk about your cyber security /data protection questions to Kelley.Kiernan@us.af.mil
 - Daily Office Hours for answering/researching **your** questions about DAF Small Business cybersecurity and data protection!