

1. WHAT IS DOD CLOUD IAC FOR AWS?

2. HOW DOES DOD CLOUD IAC FOR AWS ADD VALUE?

3. WHO BENEFITS FROM USING DOD CLOUD IAC FOR AWS?

Adoption of cloud services in the Department of Defense (DoD) can take time and place onus on mission owners to build out complex environments, implement least privilege models, provide common services, connect to Cloud Access Points (CAPs), and obtain an Authority to Operate (ATO) for their workloads. DoD Cloud Infrastructure as Code (IaC) for AWS is an accelerator to facilitate digital transformation through timely, cost-effective, and secure deployment.

What is DoD Cloud IaC for AWS?

DoD Cloud IaC for AWS is a baseline that enables mission owners to quickly deploy a secure, scalable, multi-account environment based on AWS best practices. The baseline creates a compliant and secure environment for mission owners to deploy mission systems, build software applications, and/or create and migrate data. The infrastructure created by the solution contains preventative and detective controls to ensure compliance and provide automated assessment and reporting of the environment's alignment with NIST 800-53/DISA Cloud Computing Security Requirements Guide (CC SRG) controls.

Using pre-configured, pre-authorized templates, the DoD Cloud IaC for AWS is designed to help DoD organizations create cloud environments and accelerate their adoption of the cloud for workloads up to and including Impact Level 5. This allows for a more rapid delivery of innovative cloud platform as a service (PaaS) technologies and capabilities to the Warfighter. The solution comes with a three-year ATO from DISA's Risk Management Executive (RME) to include the inheritance of 103 Common Controls and 295 Control Correlation Identifiers (CCI) in the Enterprise Mission Assurance Support Services (eMASS), significantly reducing the assessment and authorization burden for mission owners.

The DoD Cloud IaC for AWS provides customers the opportunity to move up the stack and leverage higher level native AWS managed services. This reduces mission owner undifferentiated heavy lifting and increases the amount of controls inherited from the cloud services provider. The baseline is a decentralized approach that offers the desired flexibility of deploying on AWS account IDs that mission owners directly own and control.

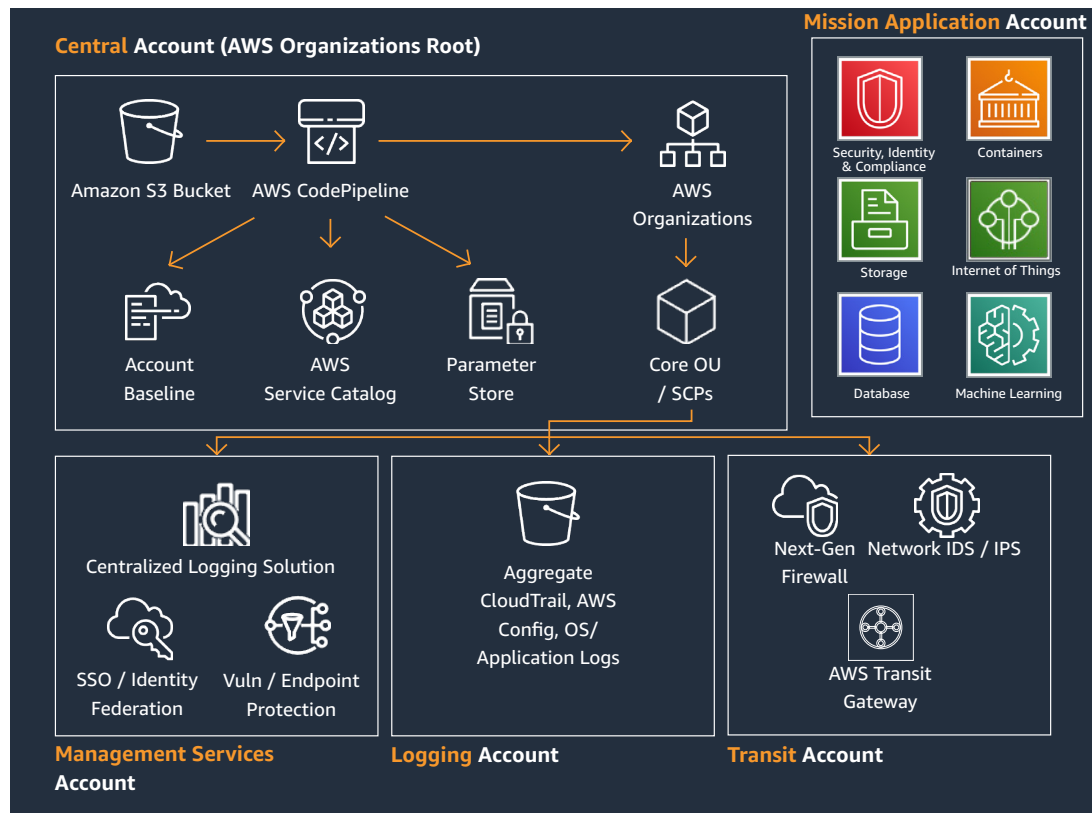
Each Baseline consists of:

- **DoD Cloud IaC for AWS (CDKs and CloudFormation)**
- **Least Privileged Model (IAM Roles)**
- **Security Policies (Configuration Rules)**
- **Common Access Card (CAC) Authentication for DISA Global Directory**

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Services required for deployment and foundational security

- | | |
|--|--|
| AWS Secrets Manager | Service Control Policies (part of Organizations) |
| AWS CloudFormation | AWS Security Hub |
| AWS CloudTrail | AWS Service Catalog |
| Amazon CloudWatch | Amazon Simple Storage Service (S3) |
| AWS Config | AWS Transit Gateway |
| AWS Network Firewall | Amazon Virtual Private Cloud (VPC) |
| Amazon GuardDuty | AWS CodeBuild |
| AWS Identity and Access Management (IAM) | AWS CodeCommit |
| AWS Key Management Service (AWS KMS) | AWS CodePipeline |
| AWS Organizations | AWS Step Functions |
| AWS Shield | Amazon Elastic Block Store (EBS) |

Additional services available to deploy as needed

- | | |
|--|---|
| Amazon AppStream 2.0 | Amazon Aurora |
| Amazon SageMaker | Amazon DynamoDB |
| AWS Lambda | AWS IoT Greengrass |
| Amazon Elastic Compute Cloud (Amazon EC2) | Amazon Elastic Container Registry (Amazon ECR) |
| Amazon Elastic Container Service (Amazon ECS) on AWS Fargate | Amazon Elastic Kubernetes Service (Amazon EKS) on AWS Fargate |

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How does DoD Cloud IaC for AWS add value?

"The DENIX program sees DoD Cloud Infrastructure as Code for AWS as a digital transformation accelerator. By adopting the preapproved baseline, we reduce our deployment timelines, stay within budget, enhance cybersecurity, and expedite the ATO authorization process. DOD IaC helps transform DENIX into customer focused platform service that enables capabilities delivery at the speed of relevance at the least possible cost."

Poppy Harrover, Program Manager, DoD Environment, Safety and Occupational Health Network and Information Exchange (DENIX)

The DoD has a myriad of unique and challenging use cases that require creativity and architectures that operate beyond the bounds of normalcy. The DoD Cloud IaC for AWS provides a foundation for an environment that supports a wide variety of solutions. The security implementations provide a flexible but stable base upon which mission owners can reliably build secure, scalable, functional solutions without restricting innovation. All with an approved set of more than 103 Common Controls and 295 Control Correlation Identifiers (CCI), accelerating mission owners' authorization journeys in a significant way.

Who benefits from using DoD Cloud IaC for AWS?

The DoD Cloud IaC for AWS provides cloud brokers, account owners, application/data owners, and compliance assessors with compliance frameworks to meet their organizational goals.

- **Cloud broker/account owners:** Multi-tenant landing zone with the appropriate guardrails in place to meet or inherit compliance requirements
- **Mission owners:** Baseline infrastructure that has architecture guardrails in place to ensure workloads deployed or data migrated is compliant with the DISA CC SRG
- **Compliance assessors and information system security officers (ISSOs):** Compliant infrastructure which has a single-pane-of-glass dashboard to show the compliance of a cloud environment with the DISA CC SRG along with auditing and monitoring of cloud resources

Next steps

- Get started with the DoD Cloud IaC for AWS by completing the DISA HaCC Product Form at: <https://www.hacc.mil/Contact-Us/Product-Questions/>
- Learn more about the baseline: <https://www.ccpo.mil/Products/DOD-Cloud-IaC/>
- Contact dod-cloud-iac@amazon.com for questions

