

Overview

Arcus

makes users more successful, productive and secure in <u>any</u> cloud, using <u>any</u> technology.

It is the platform for where & how to get things done!



Arcus is a DoD Software as a Service, providing cloud and security orchestration to program offices and organizations.

The Arcus team has been delivering cloud since the beginning of adoption in the DoD.



The Whole Package

Because just cloud is not enough....

Orchestration

Multiple providers & technologies
Unified portal
Automation framework



Security Ops

DoD ATO Flexible CONOPS DoD Security SMEs

ATO OPS OMES

Cloud & Platform Providers

On-premise, Commercial & DoD Secure access model Consolidated billing options



Responsive support
Training
Pro Services

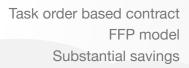


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Collaboration Tools

Atlassian (Jira, Confluence, BitBucket) GitLab (Premium, Ultimate) Migration support







Development

arcus

Continuous development
Weekly releases
User driven features



Physical Resources

Embedded systems
Appliances
Cloud enabled access



How does Arcus work?

Arcus delivers cloud and security and orchestration in Government ...

across multiple clouds and platforms...



with ease of use...



and users' favorite tools.



It provides self service access to automated...

configuration & compliance of cloud infrastructure for creating enclaves;



provisioning of machines, apps, containers, services, data, etc;



source code builds, pipeline automation;



and ElasticTest™, for validation & security scans



Along with...

workable security controls for development thru production



access to shared library of assets for reuse of knowledge investment;



and a whole new level of system design discipline, access, and data sharing.





Collaboration Tools

Services

- GitLab (Premium, Ultimate)
- Atlassian Suite & Plug-ins
 - Jira

Plug-ins: Advanced Roadmap, Agile Poker, Checklist, Configuration Manager, Git Integration, Insight, OKR Board, Optimizer, Prometheus Pro, Risk Management, ScriptRunner

Confluence

Plug-ins: Advanced Roadmap, Agile Retrospectives, Comala Document Mgmt, draw.io, Presenter, Prometheus Pro, Questions, ScriptRunner

BitBucket

Plug-in: ScriptRunner

Features

- Up thru IL5 (unclassified)
- IL6 (secret)
- PKI enabled, single sign-on
- Centralized user management
- Per user pricing
- Migration support
- Transition data storage







How do people use Arcus?

User Communities

DevSecOps

- Continuous integration & delivery
- Infrastructure as code
- Use favorite tools



Integration & Test

- Integrate teams real time
- Uncover issues early
- Hands on collaboration



Cyber Security

- Private space
- Use favorite tools
- Get started today
- Flexible resources
- Remote access



Cloud & Platform Migration

- Compliant architecture
- Accreditation artifacts
- Security tools

CSSP services



Platform Delivery

- Build to specific communities
- Rapid deployment
- Tiered support
- Leverage existing accreditation
- Reuse DoD investment



Exercises & Events

- Connect programs & industry
- Private & joint spaces
- Evaluation phases



Training

- On-demand resources
- Customize curriculum
- Freedom to try & fail
- Rinse/repeat



Desktops in the Cloud

- Simple, easy access
- Multiple uses cases: engineering, coding, mod & sim, ML/Al
- Automated patching & deployment

Major Impact

Key Metrics

- More than 15M+ hours of deployed systems unclassified site
- 5,000+ registered users across all sites
- More than 600,000 systems launched
- More than 50,000 reusable assets including applications, test, security and lockdown
- ATOs at multiple classification levels
- 9+ years of operations
- New features every one-two weeks
- Doubled on premise cloud capacity each of last four years
- 24/7 utilization by user community from CONUS, EUCOM, PACOM



User Accomplishments

- 400% more test coverage
- Shortened time between release from 6 months to 6 weeks
- Reduced bugs from 100+ to 5 per release

- HBBI

Deployed 60 operational (STIG'd) servers on SIPR in two days

- DISA BDC

Critical support for Cyber PlugTest rapid acquisition model

- HNJX

Most comprehensive OT assessment of external system

- DoD Red Teams

- Six dev teams integrating seven applications in HmC [Arcus] every week.
- Reduced Fortify code scan review times from 6-10 weeks to only 1 day

- HBGJ

Potential to save \$1M+ per SIL

- FMS

Team of 20 worked on similar idea for two years with no success

- Intel Agency

87% reduction in test execution time

- DLA

"[HmC/Arcus Team] did some great work, this is crazy!"





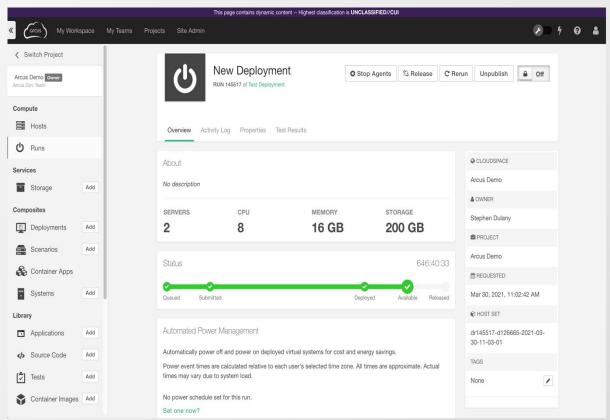
Demo

Demo

Main Page

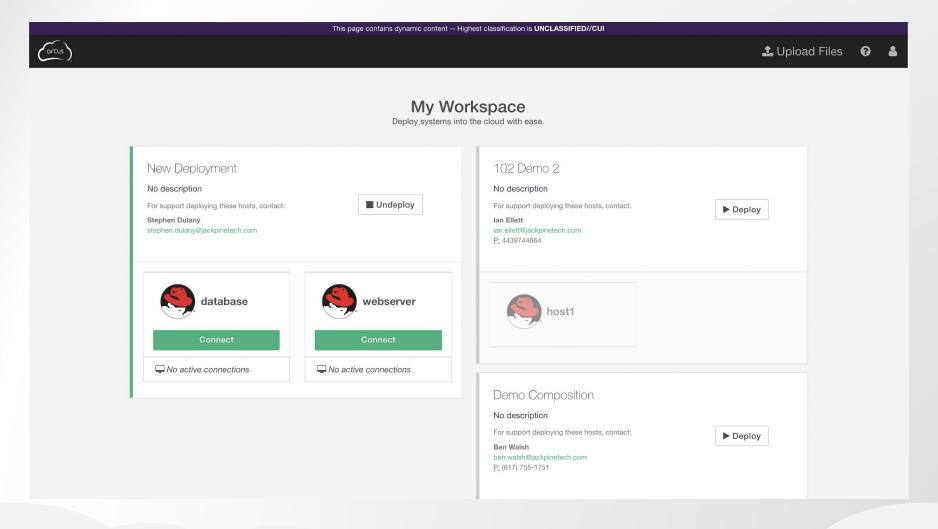


Deployment Run Screen





Express Interface





Key Features

Automated Security

- Baked into design & execution
- Application quality
- Configuration discipline & management
- Source Code Analysis
- Industry Best Practice Lockdown
- Vulnerability Scans
- Penetration Testing
- Patch Management
- Policy Enforcement
- Monitoring Configuration & Analysis
- Entire Ecosystem into Design
- Validate Alternatives in Real Time

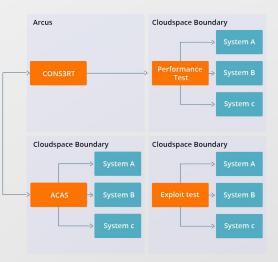


ElasticTest

- Built on-demand
- Tool is local so it can reach its target
- Less disruptive traffic
- Isolated activities
- Efficient use of license investment
- No management of system necessary
- No expertise required to execute but...
- Power users can still customize

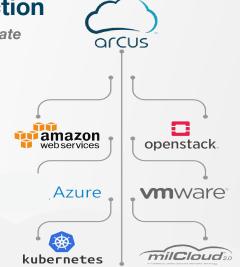
Enabled Tools

- Tenable NessusHP Fortify
- Web Exploit Worksoft Certify
- CA LISAScript, Powershell
- smartBear SoapUI
 Sonarlint



Cloud & Platform Abstraction

- Not Public vs. Private but Public & Private
- laaS is already commodity
- Make choice real time based on:
 - PerformanceCost
 - Security
- Access
- Tasking Location
- Unified interface
- Consistent access to system
- Portability, scalability, availability
- Make elasticity more than a buzz word



Remote Access

- Secure, encrypted access to deployed systems
 - RDP, VNC &/or SSH
- File transfer
- Clipboard to/from local machine
- All via browser, no plugin required!
- Accredited solution
- Proven performance
- Built in load balancing
- Removes major barrier to adoption
- Works across all cloud technologies
- CAC Pass-thru





And many more...

- Express Interface
- Data Impact Level (IL) Governance
- Mobile Devices & IoT Clouds
- Cloud Resource Manager (Cost Control)
- Snapshots
- Containers
- System Resource Resizing
- Instance Limits
- Asset states
- Smart Card Pass Thru
- Certified Assets
- CloudOne Support

- Cloud Network Management
- Offline System Install & Config
- Cloud & Cloudspace Security
- ReST API, Jenkins Plugin, & SDKs
- Cloud portable system designs
- On-demand Platforms
- Teams
- Slack Integration
- Custom User Properties
- Storage Service
- Asset Builder Wizard
- vGPU capabilities



Key Services

For organizations that don't have the resources for a DIY approach, the Arcus team offers additional services:

Asset (Automation) Development

- Software components
- Simple to complex environments
- Training

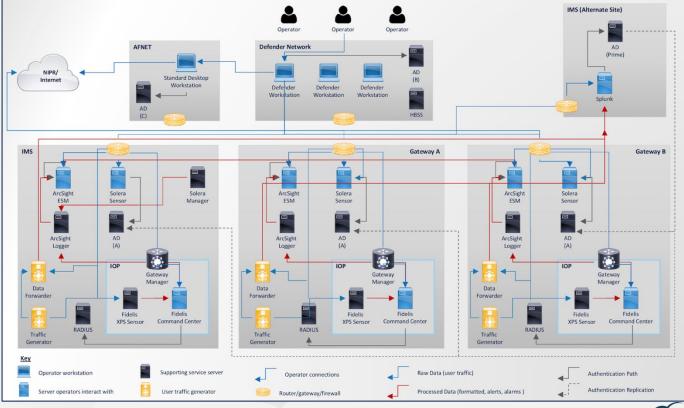
Cloud Migration

- Architecture
- Application Migration
- CSSP services

Event Support

- Program management support
- Subject matter expertise
- Evaluation and assessment

Example: Complex Environment





Getting Started

Adoption

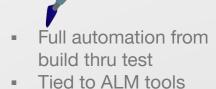
Investmen



- Basic system provisioning
- Simple assets
- Working in cloud
- Dev Team adoption



- Data collection
- Test/security artifacts
- Build automation
- Extensive use of properties
- Stateless vs. stateful designs
- Ops Team adoption



- Scalability
- Self documenting
- COOP/DR

Test automationTest Team adoption

Fully automated

Multi system assets

provisioning

provisioning

Network



Training & Resources

User Training

- Standing sessions
 - 101 Arcus Overview (First Thursday)
 - 201 Getting Started (Second Thursday)
 - 301 Power User (Third Thursday)
 - 401 Asset Development (Fourth Thursday)
- Access Info
 - Time: 1200-1300 EST
 - Presentation: https://join.me/arcus-community
 - Audio: (857) 444-6500,755461813##
 - For those unable to use join.me, please use the Teams link
- Also available on-demand, direct to your team

Help Center

- Knowledge Base
- Video Tutorials
- Support links
- Getting Started information
- API Documentation

GitHub

https://github.com/cons3rt

Asset Development

- Training
- Service

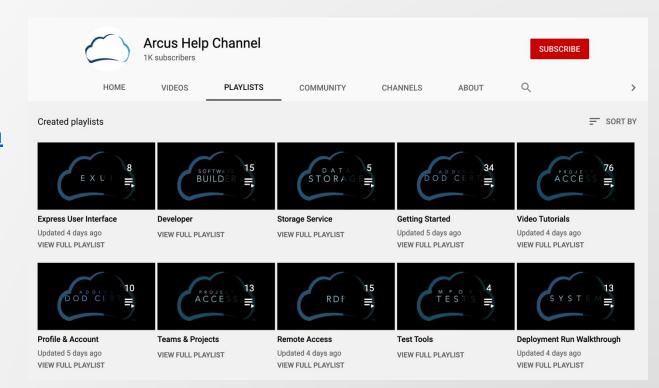
Contact Us

Contact Us link on the site Email: support@arcus-cloud.io



Video Tutorials

- If you would like to see Arcus in action, feel free to check out the video tutorials:
 - On the Arcus Help Channel at https://www.youtube.com/c/arcushelpchannel
 el
 - Embedded in the articles on our <u>Help Site</u>
- If you have any suggestions for future videos, let us know by submitting a ticket





Thank you

User Communities

Community: DevSecOps

- Continuous integration
- Continuous delivery
- Infrastructure as code
- Continue to use favorite tools
 - Ansible
 - Salt
 - Chef
 - Puppet
 - Scripts
- Deploy true hybrid environments
 - virtual machines
 - containers
 - physical systems





Community: Integration & Test

 Reduce effort on environment building to focus resources on testing

Increase available test resources

 Integrate teams real time with development Uncover issues early

Hands on collaboration

Leverage automated testing

Automate bug entry





Community: Cyber Security

- Ranges on demand
- Customizable scenarios
- Multiple Uses
 - Training
 - Exercises
 - Missions
- Battle tested
 - Joint Forces HQ (JFHQ-DODIN)
 - NSA Certified Red Teams
 - Range as a Service (RaaS)
 - USAF Cyber Defense Squadron
 - Persistent Cyber Training Environment (PCTE)





Community: Exercises & Events

Product Evaluations

- Real world scenarios
- Actual results
- CyberPlug Test model
 - problem statement
 - identical workspace
 - evaluation phase
- Supports acquisition requirements

Exercises

- Collaborative space
- Easy access
- Controlled sharing





























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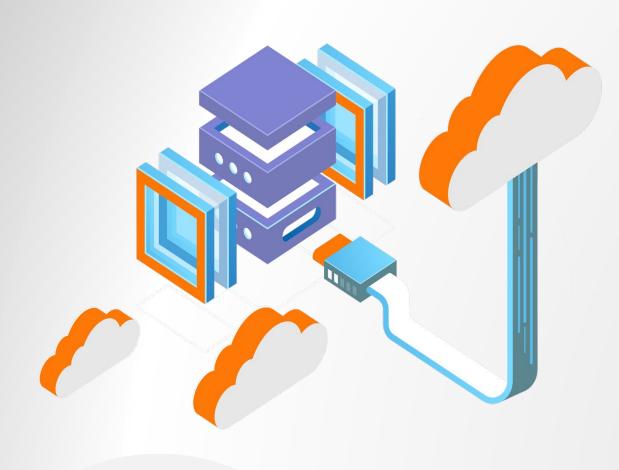








Community: Cloud & Platform Migration



- Evaluate the current state of application
- Implement a compliant architecture
- Accreditation artifacts
- Security tools
- Tier 3 CSSP services
- Navigate DoD CAP and Cloud SRG
- Multiple cloud support
- Create cloud neutral designs
- Even move to other DoD platforms
 - milCloud/milCloud2
 - CloudOne
 - PlatformOne



Community: Training Platform

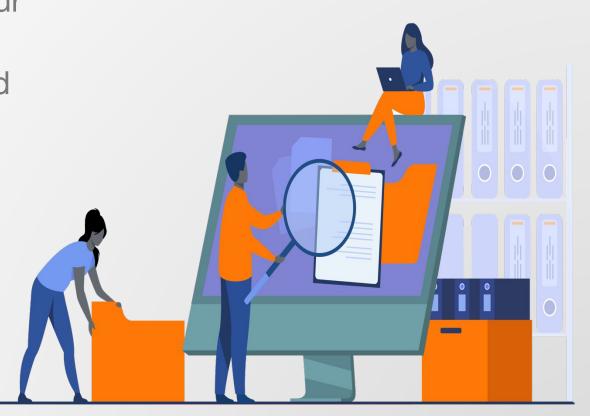


- On-demand & elastic resources
- Customizable curriculum
- Freedom to try & fail
- Express vs. full user mode
- Single or multi-user options
- Real world scenarios
- Self service
- Instructor control over content



Community: Platform Delivery

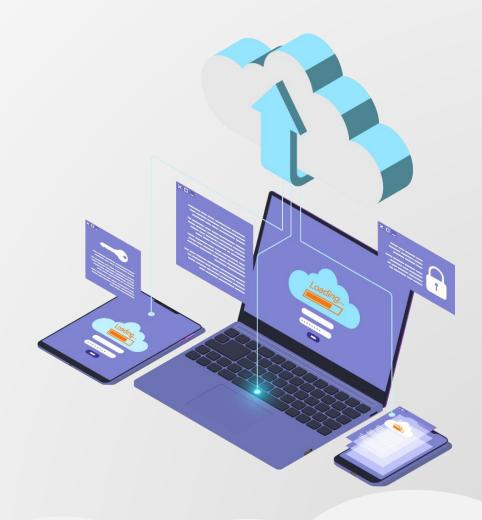
- Build to your solution and focus on your community needs
- Rapid deployment of infrastructure and applications
- Dramatically reduce ramp up time
- Elastic resources
- Minimal upfront costs
- Tiered support
- Leverage existing accreditation
 - inherited controls
 - control responses
- Reuse investment DoD has already made





Community: Desktops in the Cloud

- Simple, easy access for users
 - with controlled access to meet security requirements
- Multiple uses cases:
 - engineering workstations
 - software development
 - modeling & simulation
 - machine learning & artificial intelligence
- Access to physical systems too:
 - IoT
 - Appliances
 - Non-traditional equipment
- vGPU resources
- Automated patching & deployment





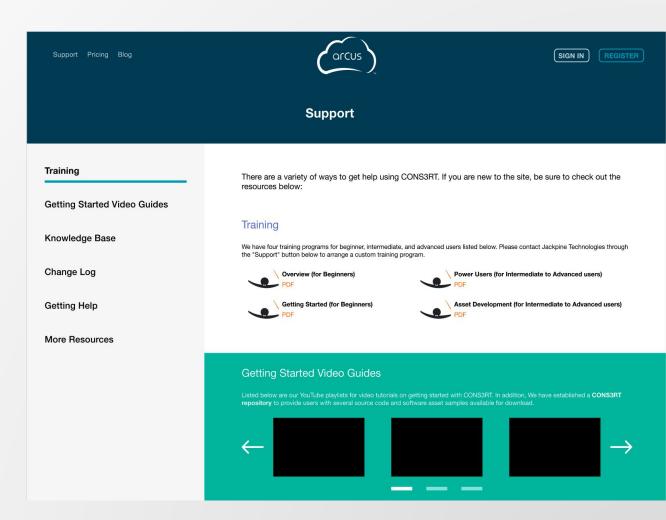
Support

Support

- https://arcus.mil/support
- Submit a ticket through...
 - the Support link on the home page
 - the *Help* icon when signed in
 - Help icon tickets provide more data on what the user was working on

Email

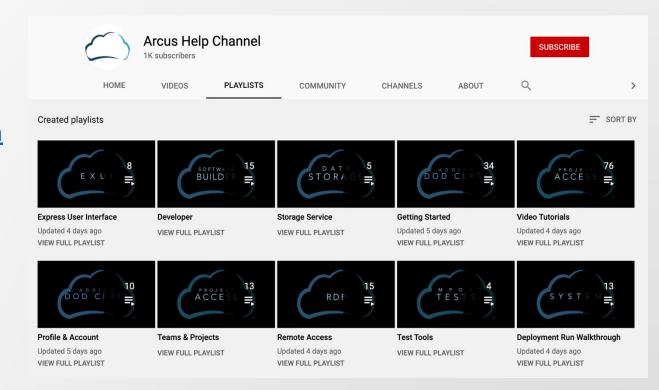
- support@arcus-cloud.io
- Knowledge Base
 - https://arcus.mil/kb/
 - The Knowledge Base expands on all the topics covered in this training.
- Github Sample Assets
 - https://github.com/cons3rt





Video Tutorials

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Thank you!