Cloud Migration and Modernization in the Public Sector

Aug 19
A Webinar on
Cloud Migration & Modernization
in the Public Sector

Aug 19 | 8:00 AM PDT

Will start in a few minutes

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Sr. Director Cloud, GDIT

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Sr. Solutions Architect, AWS
In this Webinar, we will cover

- **AWS**
  - Addressing Government Security requirements
  - Migration
  - Optimization

- **Corent**
  - The Cloud Journey
  - Assessment and Migration
  - Modernization planning and execution

- **GDIT**
  - Challenges in the public sector
  - Solutions

- **Q&A**
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Corent SurPaaS® Manages the entire the Cloud Journey

SurPaaS® Continuo™

Assess
Optimize
Manage
Modernize

On-Premise
Scan - Analyze - Plan

Lift & Shift Applications
Migrate

Optimize Application Topology, Performance, Cost
Cloudify

Automated Integration of Cloud PaaS Services & Containerization
PaaSify

SaaSify Software or enhance your SaaS offering by next gen SaaS capabilities
SaaSify

Corent
Decision driven options for customers to move up the chain

Complete view of customer application landscape

Choose different options to optimize and modernize applications

Corent Confidential
5 Scan methods in SurPaaS®

**Fast Scan**
- For Lift & Shift
- Scans 100s of servers in an hour
- Optimal data gathering

**Detailed Scan Agentless**
- For Lift & Shift/Smart migration
- 15-30 min* per VM/Server
- Comprehensive reports with Dependency mapping

**Extended Scan Agentless**
- Can run for specified days/hours
- Perf data gathered over time
- Accurate sizing

**Deep Scan Agent**
- For Smart migration
- Additional workload specific data
- Re-platforming and Hybrid migration

**Import From Other Tools**
- Import through templates or connectors
- From Asset and Inventory discovery tools
- Lansweeper, Movere, etc.

*Results experienced by study participants*
3 Secure Scenarios for Datacenter Assessment

Secure SaaS
SurPaaS accessed as SaaS, connected to Vanguard
Direct data ingestion

Isolated
SurPaaS accessed as SaaS, isolated from Vanguard
Data uploaded on demand

Embedded
Embedded installation of SurPaaS and Vanguard
Data secured within Datacenter

*Results experienced by study participants
Platforms for Assessment and Migration

- VMware and Hypervisor
- Baremetal
- Other Clouds

- RHEL 6.4 & above
- Ubuntu 10.04 & above
- SUSE LE Server 10
- CentOS 6.x

- Windows Server 2003 till latest

- HP-UX
- Solaris
- IBM AIX

- AWS, Azure, Azure Stack, IBM Cloud, Oracle OCI
An innovative approach for Datacenter Assessment

Assessment
- Best practices & PaaS advisory
- Objective based Sizing & cost modelling
- Multiple What-If scenario analysis, move group analysis and R’lane (6R) charts

Scanning
- Agentless Discovery and Pre-flight checks
- Multilevel parallel scans
- Scans any Server, Hypervisor or VM

TCO & Rightsizing
Migration R’lane Strategy
Connectivity map
Hybrid Cloud migration
Unique integrated Assessment and Migration

You can deliver it 'as a service' using SurPaaS® MaaS™
Integrated multiple Migration options

**Migration**
- Multilevel Parallel Lift & Shift
- Smart, PaaS & Hybrid Shift to Azure/Azure Stack
- Integration of Microsoft ASR/DMS

**Post Migration**
- Application Config Automation
- Zero point sync till Switchover
- Source Server auto shutdown

Advanced migration strategies

Multi Cloud migration

Container migration
Leveraging the different layers on Cloud

**IaaS**
Base infrastructure

**PaaS**
Tools and platforms

**Services**
Containers and Serverless Computing

**SaaS**
Software delivered as Service
Process of Modernization

Assess
- Application Assessment & Planning

Check
- Compatibility Checks & remediation

Planning
- Modernization plan creation

Modernize
- Execute the modernization plan

Configure
- Ensure your application is in working state
Scanning and Assessing your Application

- Multiple methods to scan
  - Quick scan, Agentless, Extended, Deep scanning...

- Assess workloads that match Modernization criteria

- Deeper scan and analysis to check feasibility and compatibility
Application Modernization choices in SurPaaS (PaaS/Containers)

- Where do I look for PaaS and Container candidates in my application?
- How do I modernize?

Scan and Assess for Modernization

Re-platforming to redeploy workloads

DB PaaS Service mapping and Migration

Serverless Application Services mapping and Migration

Containerization of workloads

Migration Kubernetes Services
Assessment, Migration and Modernization using SurPaaS

SurPaaS® Continuo™

Assess

Manage

Optimize

Modernize

On-Premise

Scan - Analyze - Plan

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- **Q&A**
Public Sector Migrations

Neil Kronimus
GDIT Sr. Director, Cloud Services
About GDIT

Diverse and Talented Workforce

- 30,000+ Employees
- 14,000+ Technologists
- 7,000+ Veterans

Global Operations

- 400 Customer Locations
- 229 Facilities
- 30 Countries

Experience

- 50+ Years of Service
- 90+ Alliance Partners
- 4,000 Contracts

Who We Serve

- Defense
- Health
- Federal Civilian
  - Intelligence Community
  - State
  - National Security

Cloud transformations made clear.

TALENT

- 3,000+ Cloud professionals supporting the federal government and state/local
- 14,000+ Cleared professionals
- 500+ Cloud certifications

EXPERIENCE

- 10+ Years of cloud experience
- 60,000+ Managed cloud instances
- 80+ Cloud projects
- 500+ Applications migrated
- 100+ PB data migrated
- 200,000+ Migrated email accounts

gdit.com/cloud
Challenges in the Public Sector

QUESTIONS HEARD FROM THE PUBLIC SECTOR

What are IaaS, PaaS, SaaS? More importantly, what can they do for my application?

What can the cloud do for my business?

How do I migrate to the cloud? What happens afterwards?

What applications do I have? Can they be moved to the cloud?

How do licenses work in the cloud?

Can I model my cloud architecture?

Is the cloud secure? Does the CSP share in security tasks?

How do I migrate a production application to the cloud without interruption?

How do I determine the cost difference in the cloud?

How do I stay informed of the latest cloud technologies?
GDIT Move 2 Cloud Solution (Cloud Migration)

Move 2 Cloud (M2C) is a structured and secure framework to move an agency’s legacy systems and data to the cloud. The framework is platform agnostic, which allows the best technologies from our extensive cloud partner ecosystem to be used to meet customer technology and budget needs.

M2C gives our customers an audit trial through each migration phase:

- Discover and Assess: Understand the portfolio and planning
- Plan & Migrate: Rapidly plan, prepare and move workloads
- Operate and Optimize: Monitor, sustain and ensure optimal performance

**GDIT STRENGTHS**

<table>
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<tr>
<th>Workload insights enriched by automated discovery tools</th>
<th>Risk mitigation through migration pilots and security &amp; test planning</th>
<th>Performance optimization through continuous monitoring, measurement &amp; tuning</th>
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<tbody>
<tr>
<td>Smart rationalization through 6-R Decision Framework</td>
<td>Rapid delivery through agile sprints and migration &amp; recovery automation</td>
<td>Cloud ROI assurance through resource monitoring, economic analysis and service tuning</td>
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**Discover & Assess**
- Strategy Workshops
- Portfolio Discovery
- App Rationalization & Disposition
- Security Assessment
- Cloud Suitability & Architecture
- Roadmap

**Plan & Migrate**
- App Categorization
- Migration Planning
- Security & Test Planning
- App Migration
- Migration & Security Testing
- Application ATO Support
- Production Deployment

**Operate & Optimize**
- Post Migration Support
- Steady State Support
- Infrastructure Optimization
- Service Automation
Choosing the Right Tool
Analysis of Alternatives (AOA) Methodology

Review
• Reviewed past and current public sector migrations
• Analyzed past three years of public sector RFI and RFPs

Findings
• 80% of migration requirements were the same
• 20% were unique to the agency

Use Cases
• Created use cases based on categorization
• Paper Analysis of Alternatives (AOA) against all COTS, CSP, and Open Source migration tools available on the market

Testing
• Tested top 10 in a lab and narrowed to top 5
• Corent SurPaaS rose to the top
Public Sector Lessons Learned

- Cloud Education, Communication and Training
- Focus on Business Outcomes
- Prioritize Customer Experience
- Establish a Partnership
- More than just Technology or Tools
- Collaborate Across the Organization
- Post-Migration Considerations
- Achieve Authority to Operate (ATO)
- Multiple Clouds Require More Planning

A proper migration process is key when coupled with the right tool and experienced people for modernization success.
Questions ?