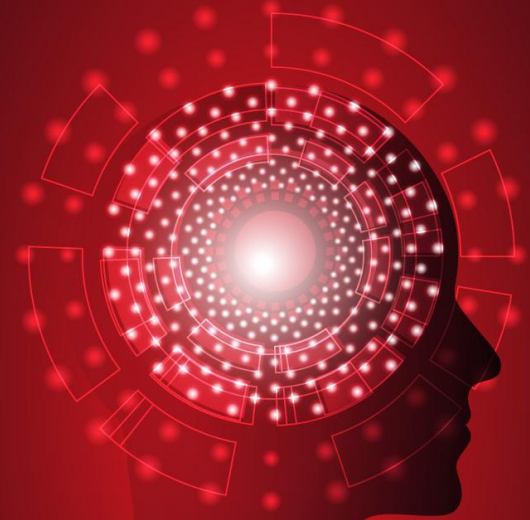


Reimagining IT Change Management for DevOps and Cloud

WEBINAR



Reimagining IT Change Management for DevOps and Cloud



JT Giri

CEO & Co-founder, nClouds



Clive D'Souza

Global Head of Business Development -
Service Catalog, Amazon Web Services



Three things you should learn



Public cloud empowers
rapid innovation



Modern change
management helps solve
“governance vs. speed”
tug-of-war between
IT and Dev



Service catalog &
modern change
management help
optimize cloud cost



Catch the **live demo** to see how easy it is

Cloud is about **innovation**



“**If you’re not in the cloud, you’re isolated from innovation.**”
– Frank Gens, SVP & Chief Analyst

Source: IDC FutureScape: Worldwide IT Industry 2018 Predictions, © 2018 IDC. All rights reserved.



“**Pure cloud enables innovation brought about by continuous delivery of new service capabilities.**”

Source: Cloud Strategy Leadership, Gartner Insights on How and Why Leaders Must Implement Cloud Computing, © 2017 Gartner, Inc. and/or its affiliates. All rights reserved.



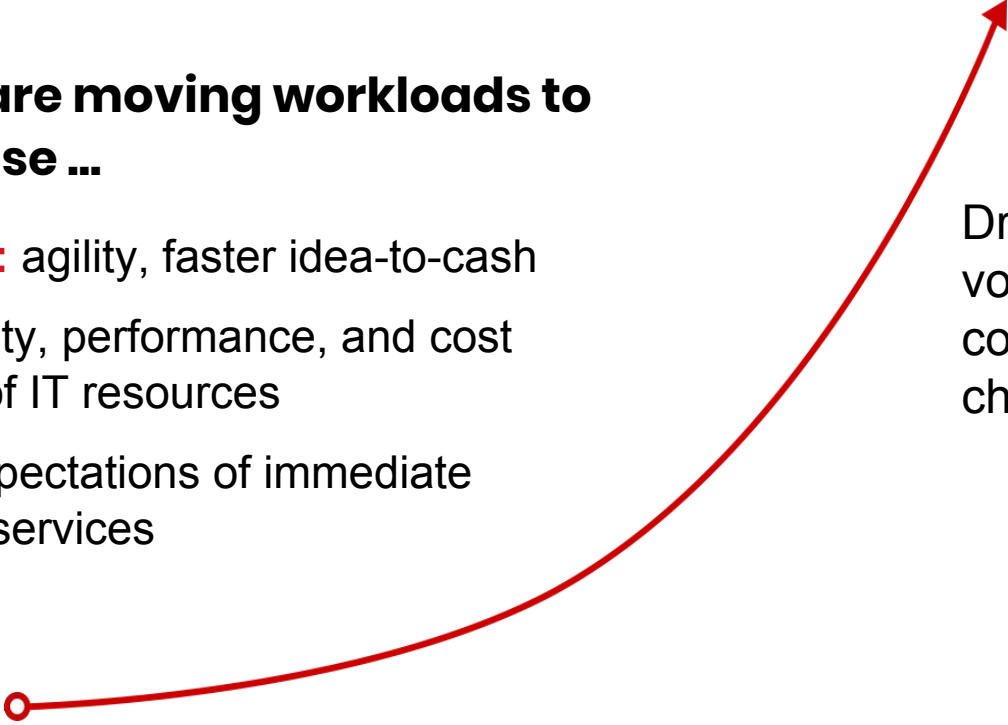
“**CIOs are increasingly using public cloud services to enable business innovation.**”

Source: The Public Cloud Can Be Your Enabler Of Business Innovation, January 19, 2018, © 2018 Forrester Research, Inc. and/or its subsidiaries. All rights reserved.

The landscape

Customers are moving workloads to cloud because ...

- **Business:** agility, faster idea-to-cash
- **IT:** reliability, performance, and cost elasticity of IT resources
- **Users:** expectations of immediate access & services



Dramatic increase in volume, velocity & complexity of IT changes

Where does it hurt?



Documentation

- “There’s no visibility to changes, no easy way to see the delta, and what change caused the latest incident?”
- “No holistic process for good and bad changes. Good changes should connect to a user story.”



Cost

- “Everyone is spinning up new services and there’s no information on who, what and why resources are provisioned.”
- “Resources stay active after the project is done, with the meter running.”



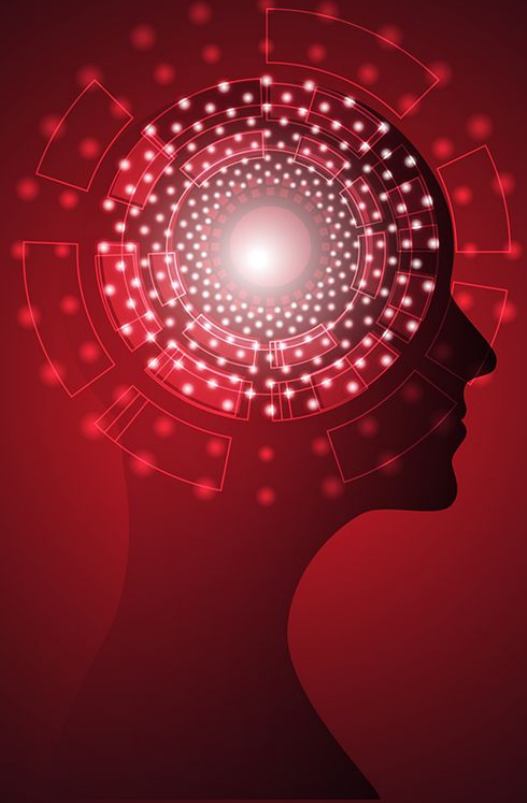
Compliance

- “Every team has a different change process, it’s fragmented, with no audit trail.”
- “Security and compliance audits, like SOC 2 – almost impossible, totally inefficient.”
- “No ability to track changes.”

Reimagining IT change management

Key tenets

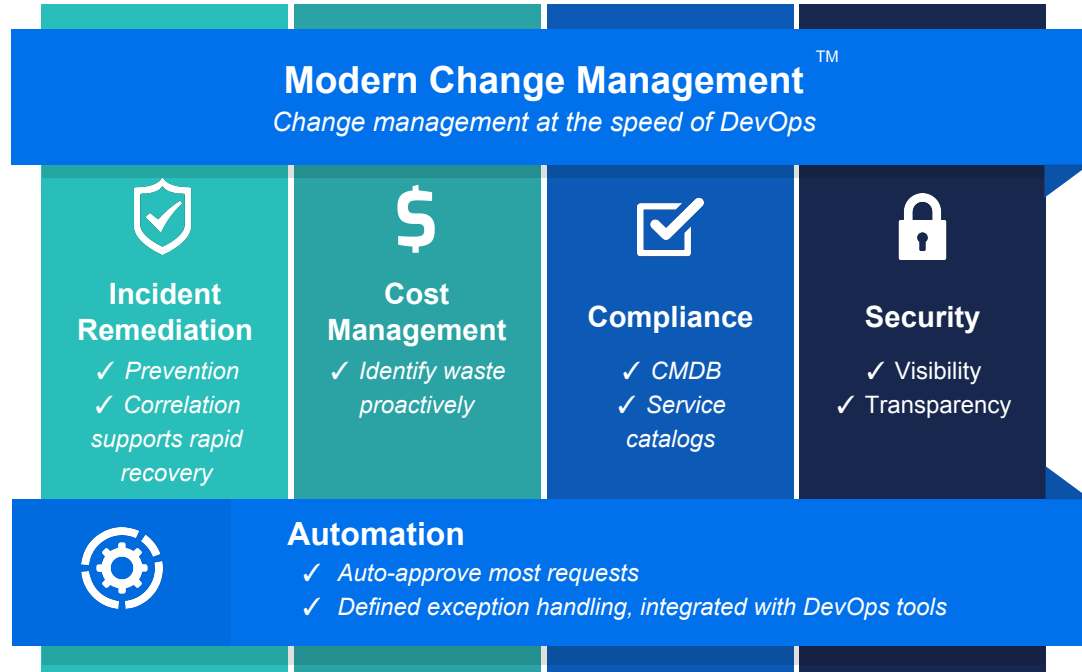
- Public cloud changes everything
- No process is bad business
- Borrow from existing frameworks (ITSM, ITIL, Agile, DevOps)
- Automate -- it's how you go faster
- Fail fast, but learn-pivot-recover even faster
- Know your costs, remove waste
- Make security and compliance a priority



Modern change management

Go faster, with control

- Automate extensively to help teams go faster
- Manage cloud costs proactively
- Improve compliance & security of cloud services
- Correlate changes to prevent & remediate incidents



Key concepts of modern change management

Getting started with modern change management

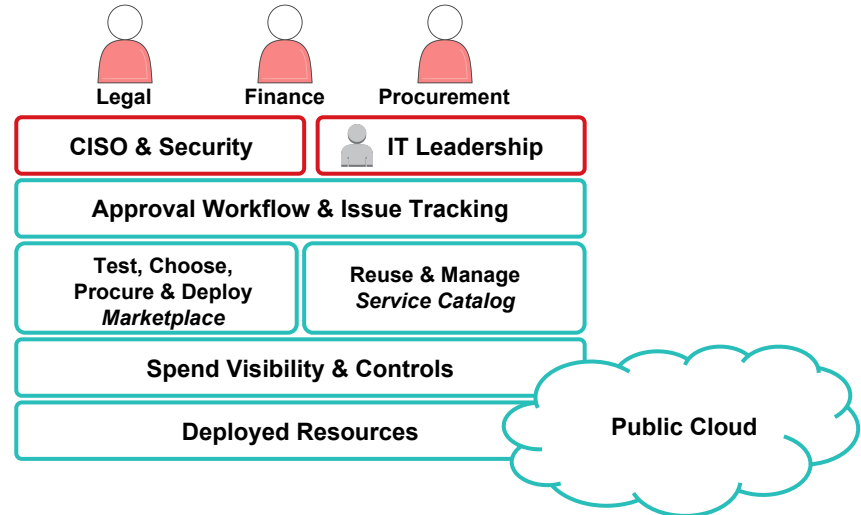


Automate your change management process. It's the only way to scale, and it's how you go faster. Auto-approve standard changes like auto-scaling, resources from service catalogs, and changes reviewed previously through peer review (like a GitHub pull request).



Leverage service catalogs to improve compliance, increase auto-approvals, reduce exceptions, and speed deployment. Since IT builds these services templates following company guidelines, they should comply with company policies already.

Enhancing customer self-service



Getting started with modern change management *(cont.)*



Connect changes to user stories so you're prioritizing the customer. You should be able to trace each resource and change in the cloud to a user story (in Jira, or whatever ticketing system you use). It reinforces a healthy culture of thinking in terms of client value -- so easy to forget on cloud since it's so easy to provision resources.



Establish corporate policies and rules that can be integrated into your automated process. For example, send alerts (or trigger AWS Lambda) if a user launches instances without tags, or disables inactive keys when they haven't been used for more than a week. Empower people to go fast while adhering to established policies.

Getting started with modern change management *(cont.)*



Integrate your change management process with your DevOps tool stack for better collaboration, visibility, and faster resolution. Produce automation feedback right in Slack, for example. Send output like “these instances are getting stopped because of missing tags.” Since the information is provided in the context of chat, engineers readily collaborate and discuss any required changes.



Jira Software



Hipchat



slack



nOps



Jenkins



aws service catalog



AWS CloudWatch



AWS CloudTrail

servicenow

bmc Remedy



Cloud costs increase for two reasons:

- Cloud is **inexpensive & easily accessible**.
- Ease of access and lower costs drive developers and administrators to consume more, thereby spending more, and **forget to control or limit consumption**.
- Unit costs stay low, but total costs increase.

Source: The cloud transformation journey: Great expectations lead to a brave new world. FEBRUARY 27 2018, BY OWEN ROGERS WILLIAM FELLOWS JEAN ATELSEK. 451 Research



Characteristics of next-gen ITSM teams with extremely high success rates:

- **2x** more likely to **leverage cloud** as a resource & environment to optimize for IT effectiveness.
- **2x** more likely to invest in advanced levels of **automation for change**.
- **2x** more likely to have a **CMDB** deployed
- **8x** more likely to have **ADDM deployed** – asset management, **change management**, more.
- **2x more likely to have a service catalog deployed**.

Source: *Crossing the Legacy ITSM Chasm: A Risk/Benefits Assessment, An ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) White Paper, February 2018*

Next-gen service catalog in the cloud



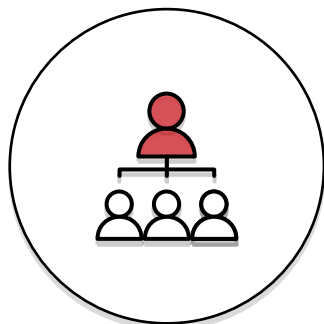
Definition of a service catalog

A structured service used for management, maintenance, and deployment of services made available to customers.



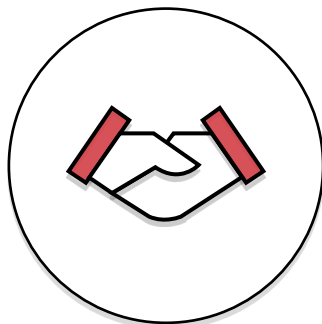
AWS Service Catalog allows you to centrally manage commonly deployed AWS services and provisioned software products, and helps your organization achieve consistent governance and compliance requirements, while enabling users to quickly deploy only the approved AWS services they need.

Solving for the organization – go faster, in control



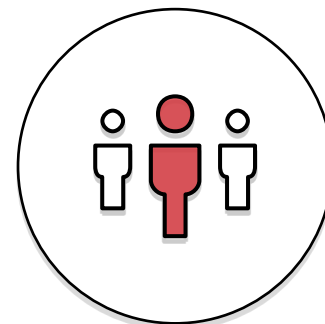
IT
**(Ops, Config,
Security)**

Standardization
Control & Compliance
Governance & Security



**Deliver
Innovation
Faster**

Agility
Self-Service
Time-to-Market



**DevOps
teams**

*...allows organizations to create and manage catalogs of
IT services and software on AWS*

Why use AWS Service Catalog?



Use Cases

Centrally Manage IT Service Life Cycle

Control AWS Provisioning (Cost, Security, Governance)

Self Service Portal – One Stop Shop

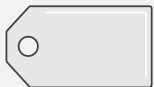
Standardized Deployments

Version Control for AWS Users

Enforce Governance and Compliance Proactively

Integrate with ITSM Tools

Key features you need



Tag Enforcement



Portfolio-level Access Management



Denial of End-user Access to Underlying Services



Constraints on Infrastructure as Code Parameters



Share Service Portfolios



Version & Re-use Products







API, CLI, Console, ITSM Tools Integration







Library of Solutions

Key benefits

Governance

	Standardize
	Enforce Consistency and Compliance
	Limit Access
	Enforce Tagging, Security Groups

Consume

	Developer Autonomy
	One-Stop Shop
	Automate Deployments
	Agile Governance

Case study: **CM & service catalog**

Transforming the end-to-end supply chain for cell and gene therapies

- Cloud-based cell and gene therapy orchestration platform.
- Addresses the regulatory challenges faced by the cell and gene therapy industry.
- Ecosystem includes biologics manufacturers, contract manufacturers, couriers, and other stakeholders.

The higher agenda

The current supply chain and manufacturing process for breakthrough cell and gene therapies is a manual, outmoded process that carries the risk of inefficiency and human error, placing unnecessary roadblocks in the way of serving the most vulnerable patients.



Leadership

Co-founders: GE Ventures & Mayo Clinic

Vineti CEO, Amy DuRoss, Named 2016 Health Innovator Fellow at Aspen Institute

Clients



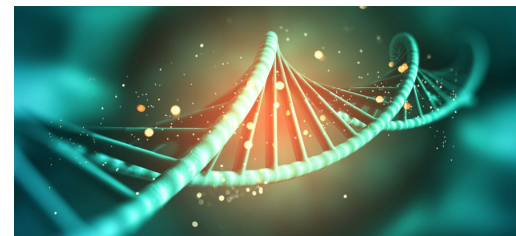
American
Red Cross



Investors & Board



GE VENTURES



Situation

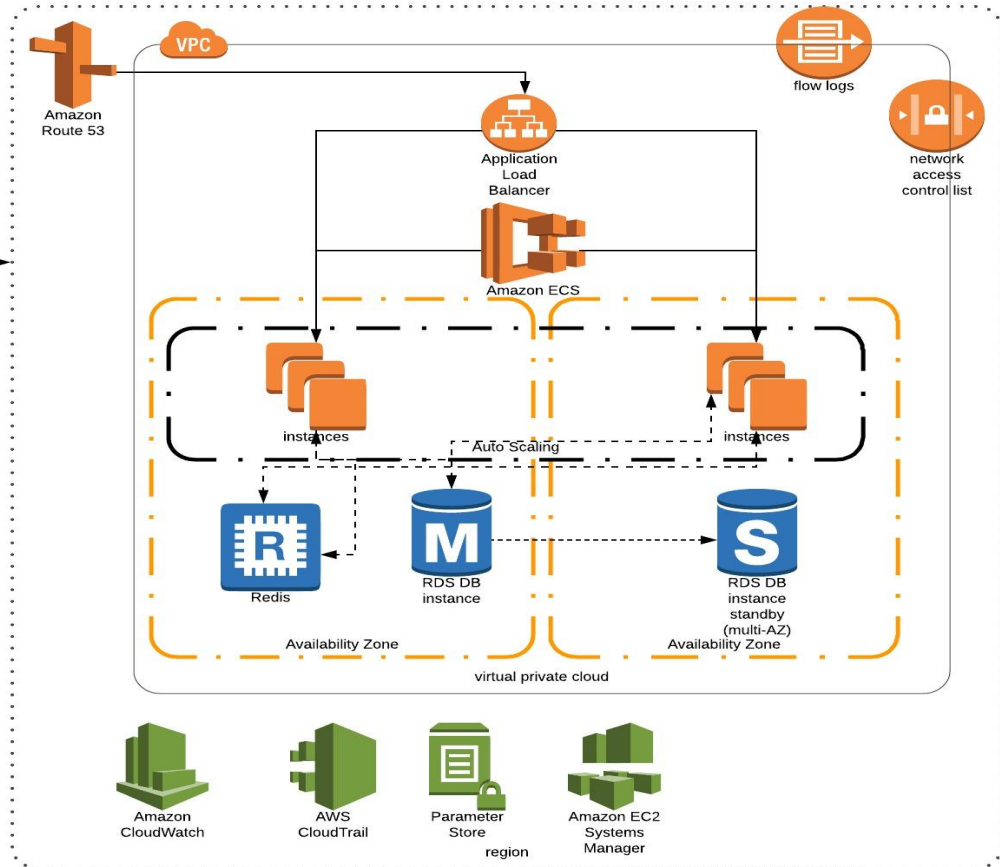
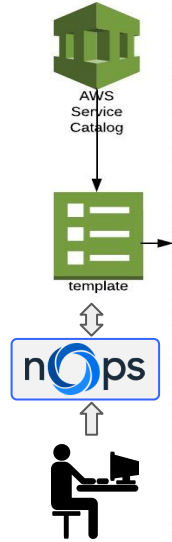
- Rapid innovation, fast pace.
- HIPAA/HITRUST environment – not viable to provide all team members access to everything on AWS.
- Shortage of AWS CloudFormation skills on Vineti team.
- Objective: reduce costs, improve control, and accelerate code deployments, customizations, and product delivery.

Solution Highlights

- HIPAA-compliant, fully-automated infrastructure on AWS.
- Built-in scalability, performance, cost optimization, high-availability.
- End-to-end deployment pipelines to deliver code fast.
- AWS Service Catalog enables teams to launch new environments for testing and/or demo purposes, with limited AWS access.
- Self-serve:
 - CloudFormation stack converted to a product and made available on Service Catalog; developers provided access allowing them to input parameters and within 30 minutes have an environment up and running with centralized logging, etc.
 - CI/CD pipeline converted to a product and made available on Service Catalog.

Solution architecture

- View of Vineti solution architecture
- Service Catalog abstracts complexity
- Developers can provision the complete stack, or CI/CD stack, in minutes.
- DevOps team uses nOps to launch resources using Service Catalog



Benefits

Key takeaways

- Enabled customer to execute rapidly against business plan -- rapid innovation, with minimal CF skills.
- Positioned Service Catalog as central management hub for testing, demo & production services in HIPAA/HITRUST environment.

Speed

- Developers can provision entire CF stack in 30 minutes, and CI/CD product instantly.

Productivity

- Leveraged existing engineering skills by creating standard services, available centrally.

Compliance

- Approved core services available to developers via Service Catalog
- Developers provisioned standardized services without access to AWS

Cost

- Reduced costs while improving control of their environment
- Regional services
- Management VPC

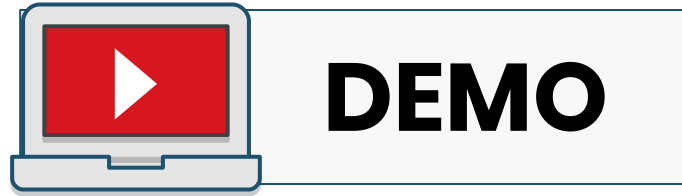


I've never been so impressed with an architecture in my entire career. The thought, care and detailed in-depth knowledge of cloud methodologies that went into this is incredible. This will set up Vineti for success both in the near term and far into the future. Just awesome.”

– Jim Walnum, Senior Manager – DevOps, Vineti



Live **demo** up next



Thank you & next steps



Learn

- **White paper**
[Modern Change Management for AWS](#)
- **Blog:** [Can you add change management rigor to AWS and still go fast? \(Hint: Absolutely!\)](#)
- **Article:** [5 Reasons AWS Service Catalog is Sexy for DevOps and Cloud](#)
- **Service Catalog:**
<https://aws.amazon.com/servicecatalog/>
- **Case study:** Vineti video (*late 2Q*)



Act

- **nOps.io - Free 30-Day Trial**
https://www.nops.io/free_trial/
- **nClouds contact:** Leilani Miller, nClouds,
leilani@nclouds.com, 707-803-8224
- **AWS contact:** aws-sc-bd@amazon.com