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CDI COMPUTER DESIGN & INTEGRATION LLC

WORK at LIGHTSPEED™

Automated Provisioning of Servers in Minutes with ServiceNow

WILLIAM HUBER
DIRECTOR OF ADVANCED SERVICES
Computer Design & Integration, LLC.

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servicenow

Introduction

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Agenda

- Introduction
  - Who am I and who is CDI?
  - Problems and challenges we were faced with
- The CDI + ServiceNow solution
- Value outcomes and lessons learned

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Speaker Introduction



NAME: William Huber

TITLE: Director of Advanced Services

FUNCTION: Advanced Professional Services

COMPANY: Computer Design & Integration, LLC

EXPERIENCE: 12 years working for professional services organizations in engineering, architecture, pre-sales, and management roles

EXPERTISE: Cloud, datacenter & virtualization, automation, DevOps

ACHIEVEMENTS: VMware Certified Design Expert (VCDX) #81 - Datacenter Virtualization & Cloud, implemented hybrid cloud and automation projects for many large enterprises in financial services, healthcare, telecommunications, oil & gas

CURRENT PROJECTS: Implementing hybrid cloud capabilities for large organizations, internally championing use of ServiceNow at CDI

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Hybrid IT Services – the CDI Portfolio

21 Years, over 600 clients- Thank you

Consulting Services
Public Cloud Services
Unified Collaboration
IT Service Management & Operations Management
Automation/Orchestration
Hyper-Converged Design
SDDC Architecture
End User Computing/VDI
LAN/WAN/SAN Services
Backup/DR Design

Managed Services
AWS/Azure/365
CDI Infrastructure-as-a-Service
CDI Disaster Recovery-as-a-Service
CDI Backup-as-a-Service
End User Help Desk
Database-as-a-Service
24/7 Remote Monitoring
VDI-as-a-Service
ServiceNow MSP

CDI Professional Services Group - Advise, Build, Run, Manage

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CDI Cloud & Technology Services

AUTOMATE/ORCHESTRATE →

ADVISORY SERVICES ↓

CLOUD	ARCHITECT	SELL	MIGRATE	MANAGE
amazon web services™	YES	YES	YES	YES
Microsoft Azure	YES	YES	YES	YES
Office 365	YES	YES	YES	YES
CDI MANAGED SERVICES	YES	YES	YES	YES
vmware vCloud Air™ Network	YES	YES	YES	YES

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Session Overview



Objectives

- Share CDI's experience implementing the automated delivery of servers and solutions for its Hybrid Cloud Solution Center use case



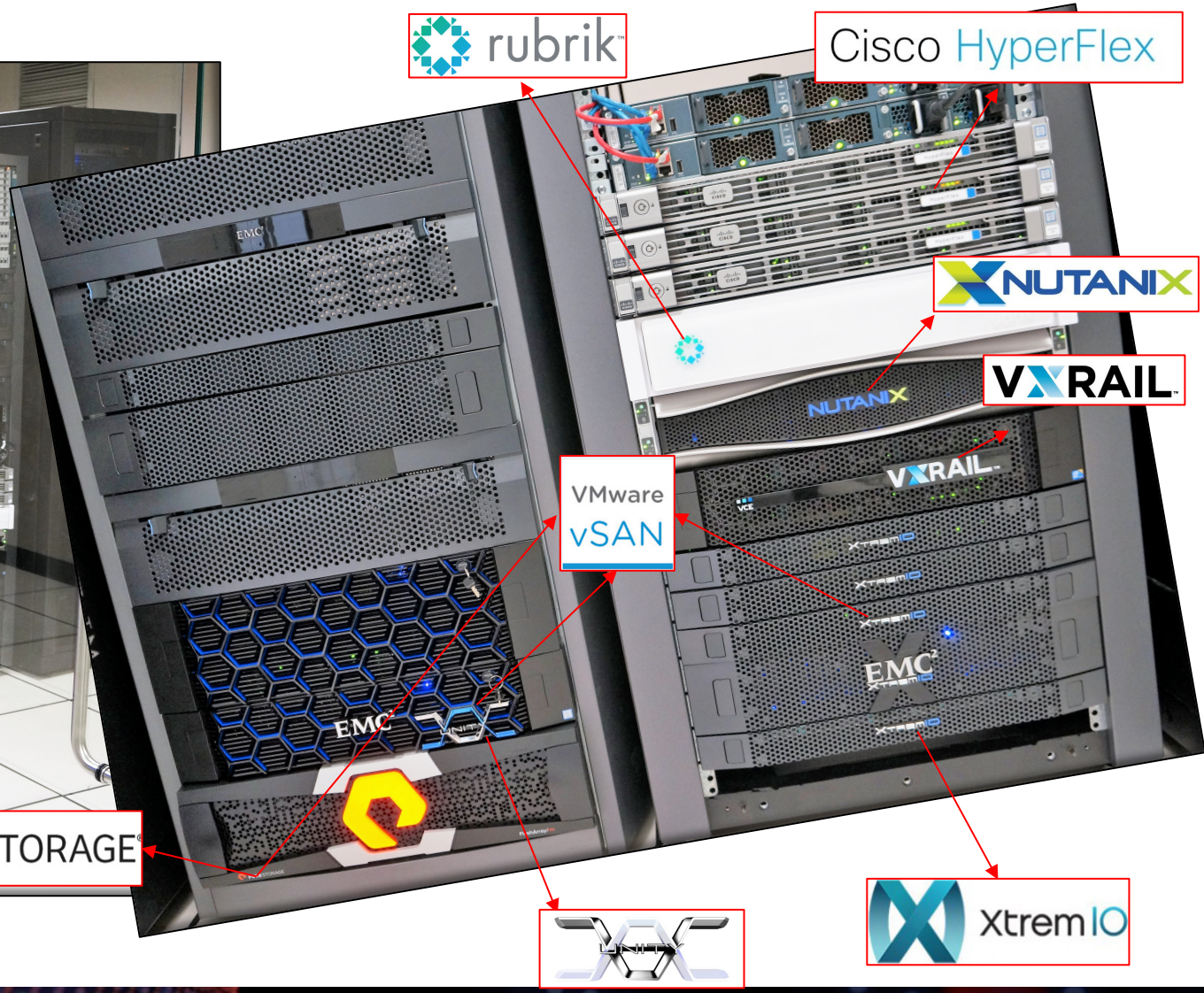
What You Will Learn

- Understand CDI's environment and the challenges we are faced with
- Learn about the CDI Hybrid Cloud Solution Center and how ServiceNow technology plays a key role
- Gather key lessons learned from our experience in building our solution
- Discuss how the lessons may apply to you for your server automation and ITOM projects

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The CDI Hybrid Cloud Solutions Center

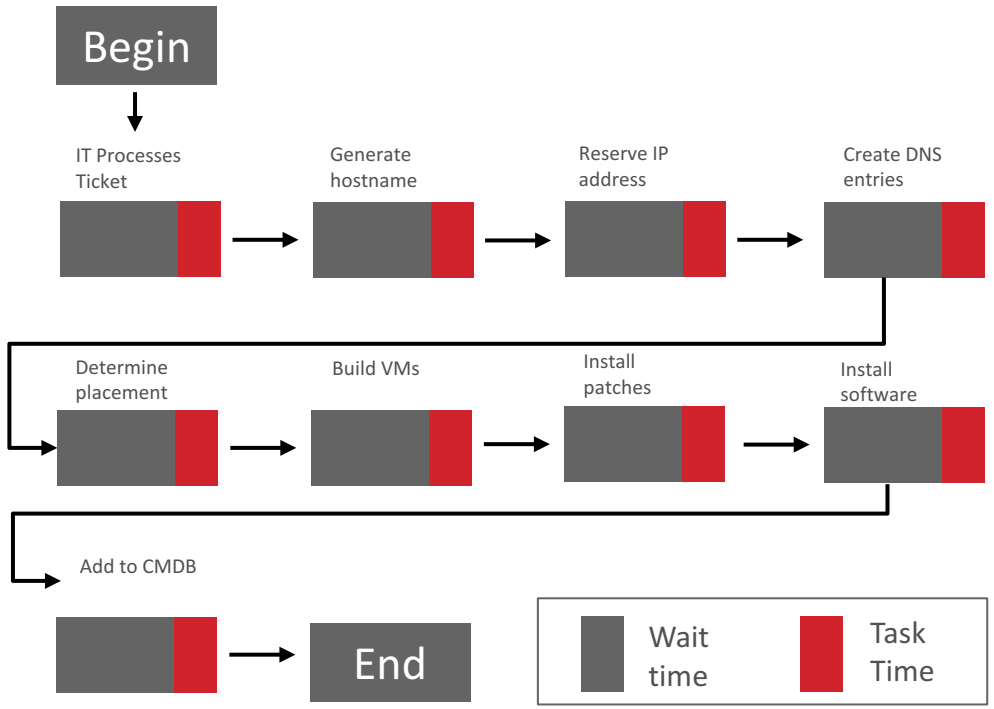




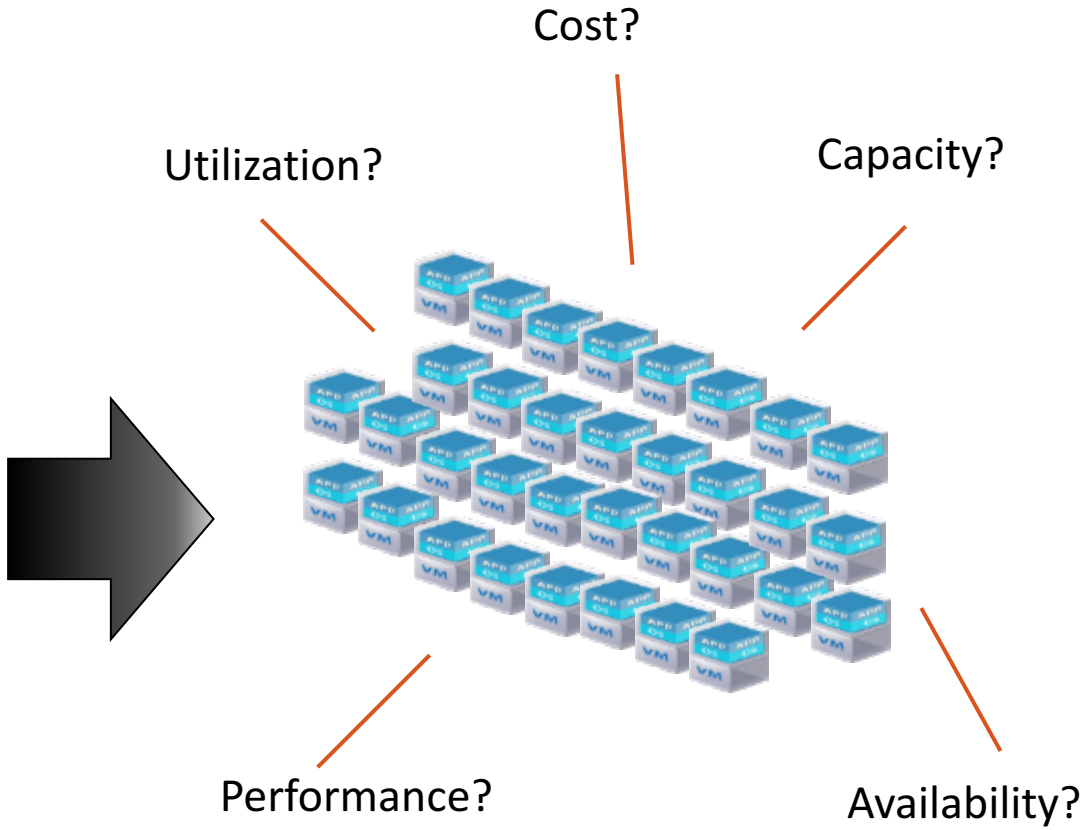
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Manual Process and Wait Times Create Pain



Average 5 Days

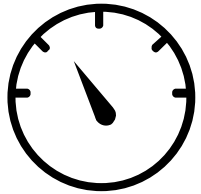


Day 1 Provisioning

Day 2 Operations

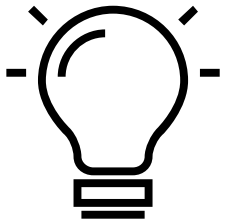
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Goals and Objectives for the Hybrid Cloud Solution Center



Speed

- Customers request demos of product environments daily – need to be able to deliver these in as close to an “on demand” model as possible



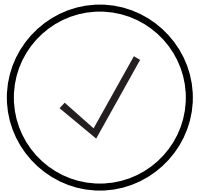
Focus on innovation – not infrastructure

- CDI R&D teams need to stop wasting effort manually provisioning servers and more time evaluating new technology partner technologies – quicker time to market
- Give internal R&D and dev teams the tools required to enable rapid experimentation



Increase staff productivity

- Decrease troubleshooting of issues caused by human error
- Provide an ability to centrally manage and monitor all internal infrastructure



Increase reliability, consistency, and security

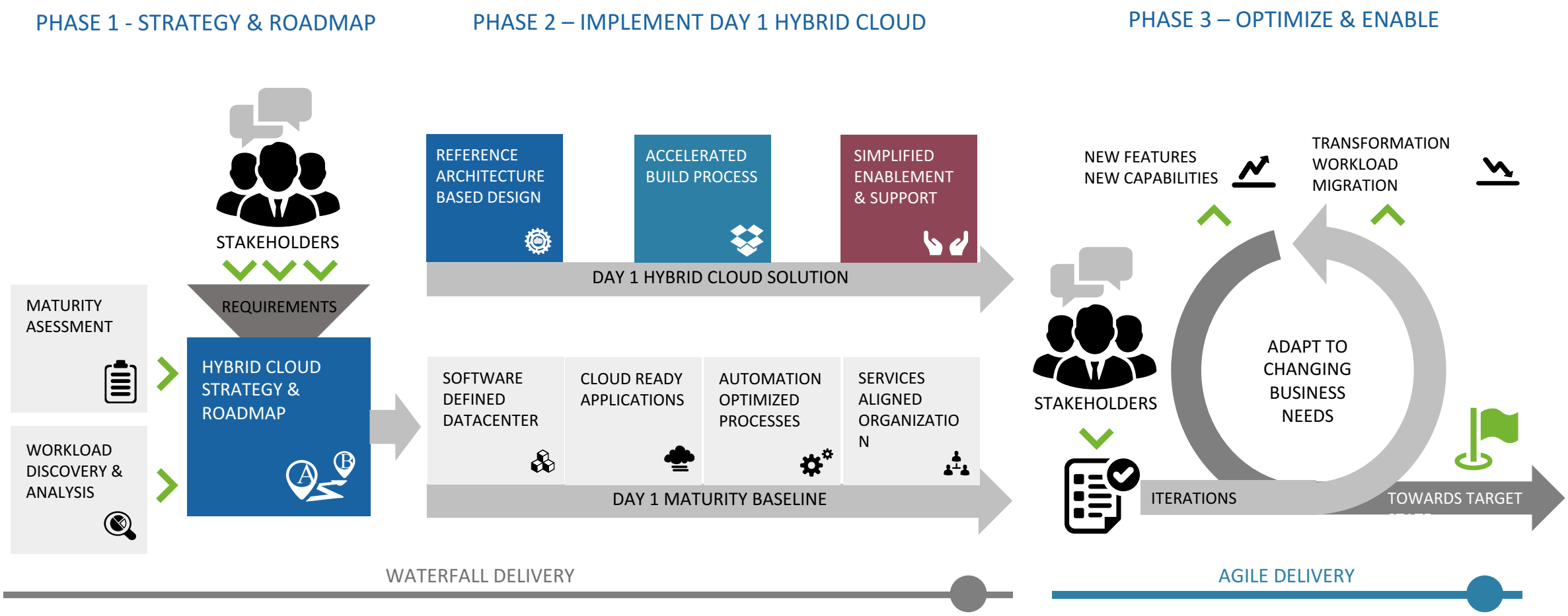
- Drive standards through automation

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The CDI + ServiceNow Solution

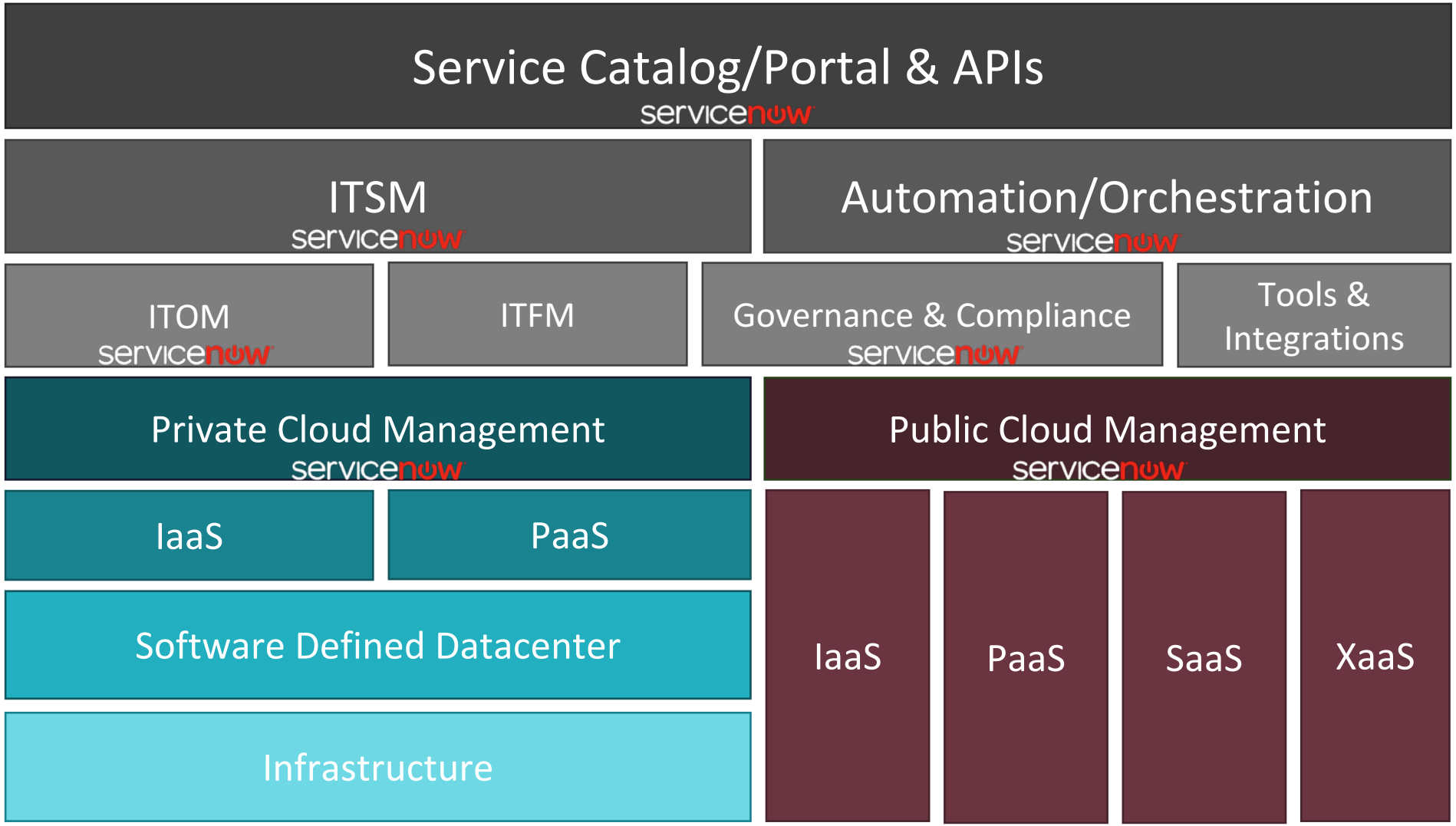
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Solution Strategy, Approach, Methodology



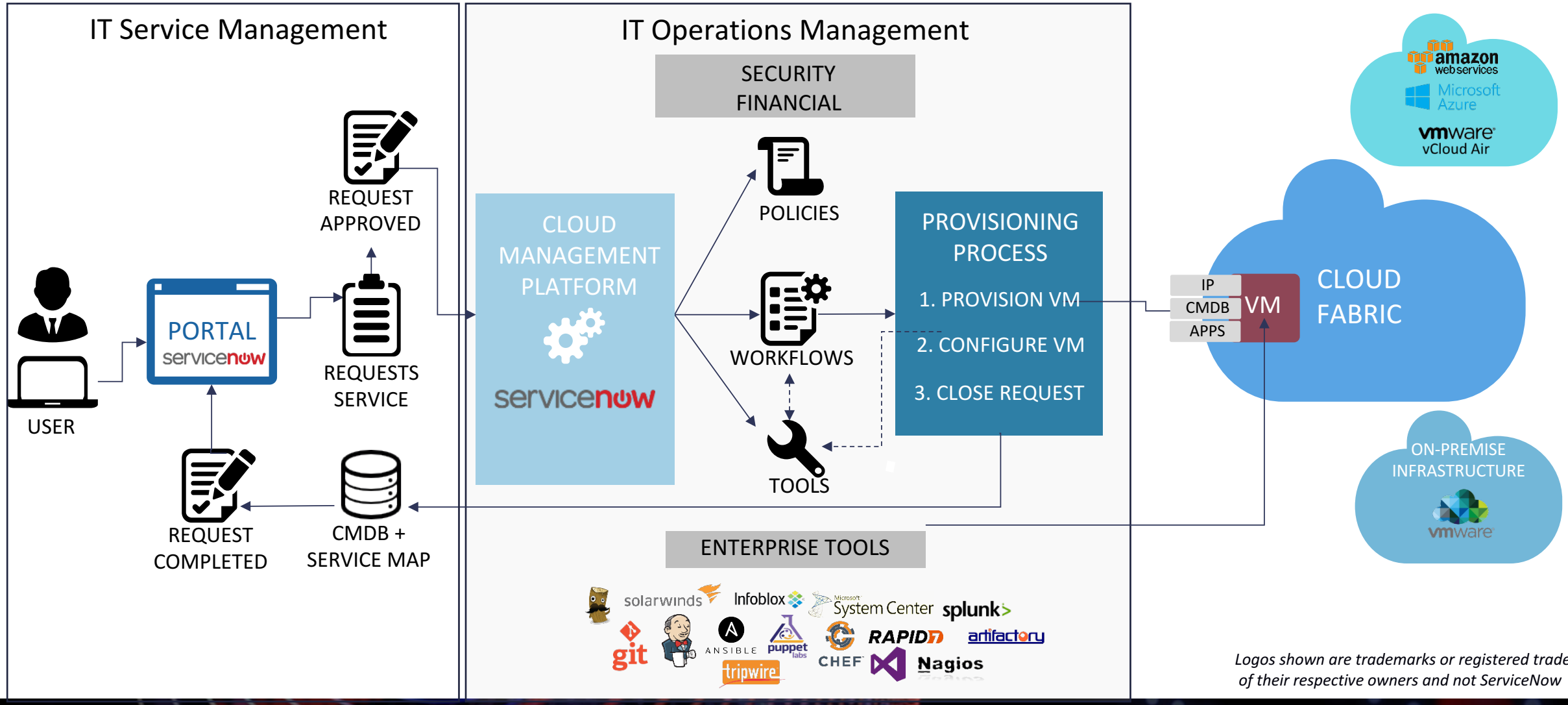
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Reference Architecture Taxonomy



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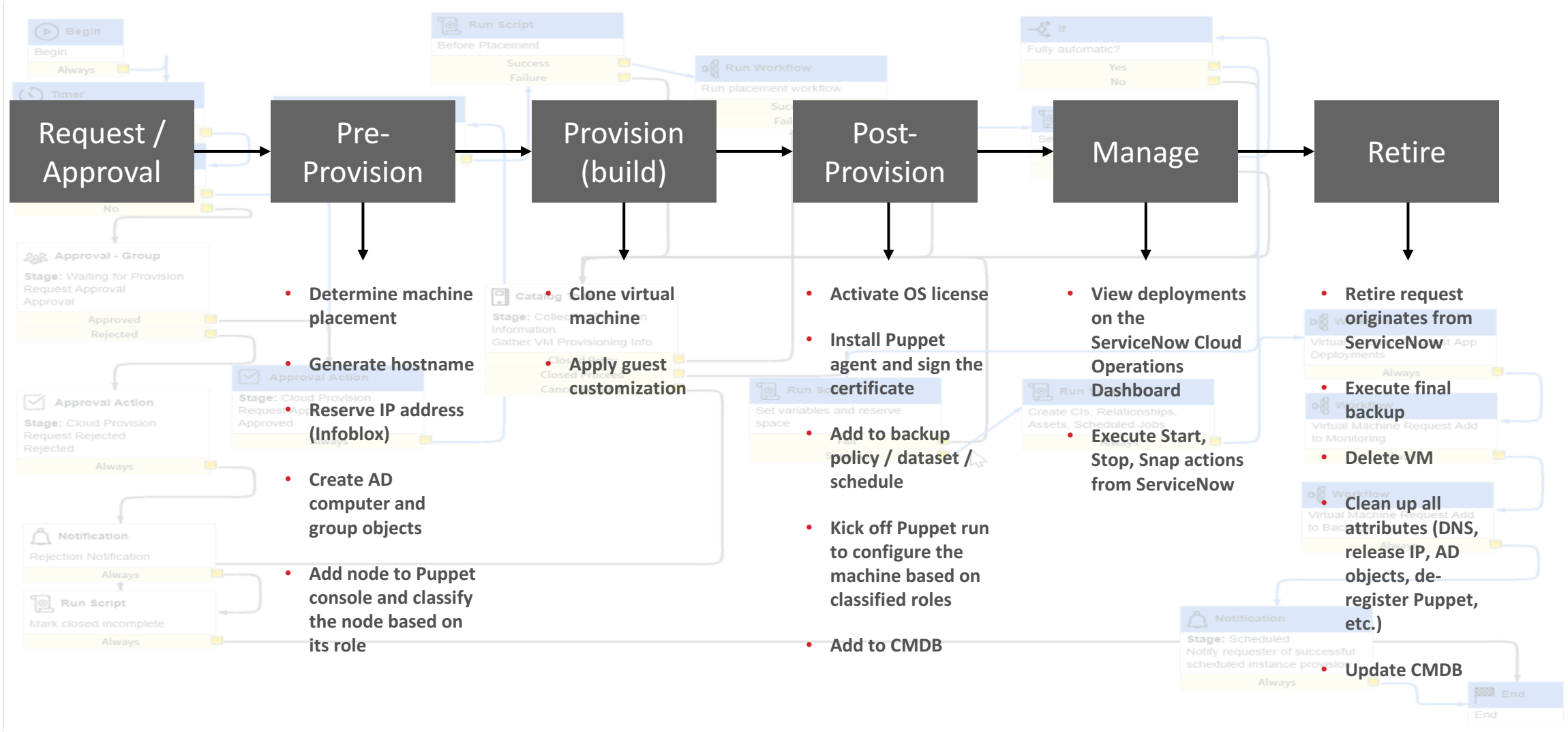
Self Service Provisioning



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Server Lifecycle Workflow Breakdown



Request / Approval

Pre-Provision

- Determine machine placement
- Generate hostname
- Reserve IP address (Infoblox)
- Create AD computer and group objects
- Add node to Puppet console and classify the node based on its role

Provision (build)

- Clone virtual machine
- Apply guest customization

Post-Provision

- Activate OS license
- Install Puppet agent and sign the certificate
- Add to backup policy / dataset / schedule
- Kick off Puppet run to configure the machine based on classified roles
- Add to CMDB

Manage

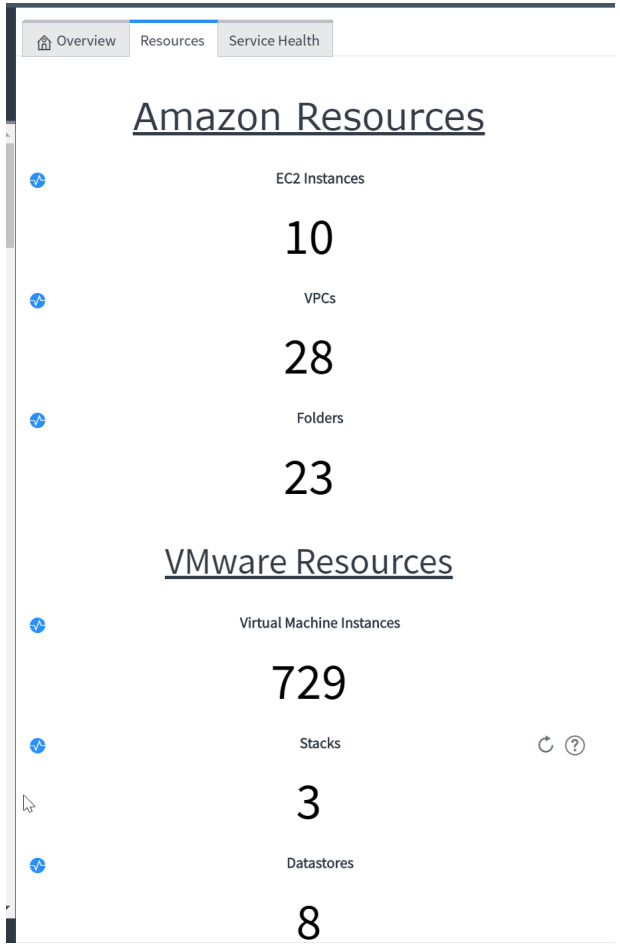
- View deployments on the ServiceNow Cloud Operations Dashboard
- Execute Start, Stop, Snap actions from ServiceNow

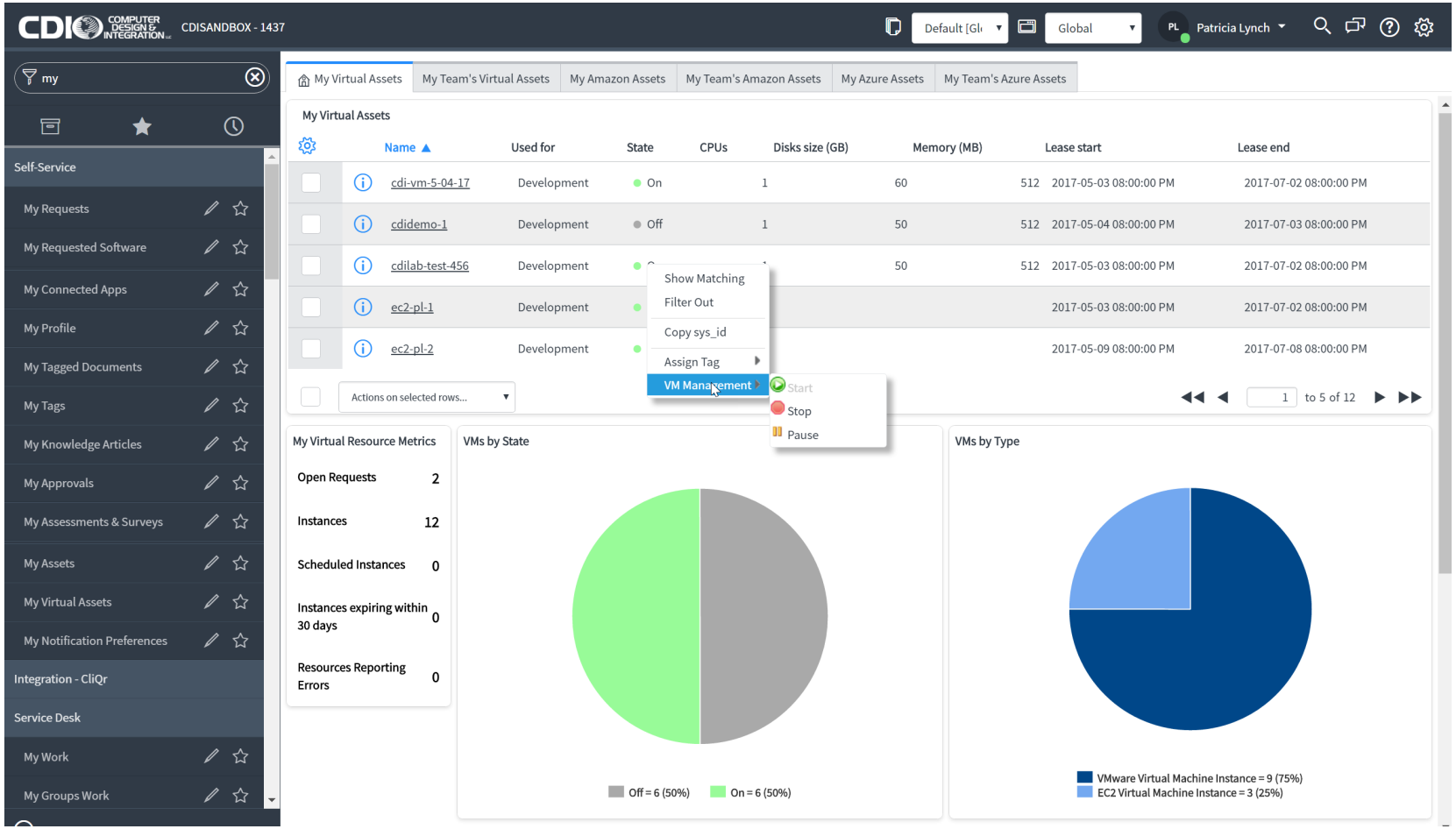
Retire

- Retire request originates from ServiceNow
- Execute final backup
- Delete VM
- Clean up all attributes (DNS, release IP, AD objects, de-register Puppet, etc.)
- Update CMDB

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Visibility, Management, and Day 2 Actions Simplified





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Value Outcomes and Lessons Learned

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Value Outcomes

An increase of

50

Deployments per month

Significantly more systems are deployed due to automation



Average server delivery time (network ready)

~24,000%

FASTER

5 days average to 29 minutes

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Lessons Learned

1. Take the time to understand what services the business really need, and understand their impact to the company/customers
2. Always use agile methodology and project management for automation projects
3. Don’t try to boil the ocean – you will fail
4. Fail often, and fast (early on) – get used to it, recover, and improve
5. Leverage the partner and community ecosystems – chances are what you are doing has already been done before
6. Shorten the feedback loop as much as possible – keeps you flexible and open to change along the way, and ensures alignment with the business

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Thank You

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Q & A

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William Huber

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