vmworld 2019
SESSION ID BCA3199BU
Scottish Government Virtualizes Critical Legacy Apps in VMware Cloud on AWS
Taking the Fast Lane to the Cloud
Neill Smith, Head of IT Infrastructure at The Scottish Government (ARE Directorate)
Nick Walter, House of Brick Technologies
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Agenda

1. Challenges & Solutions
2. Introductions
3. Virtualizing
4. Outcomes & Lessons Learned
5. Q&A

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Challenges & Solutions

The Challenge

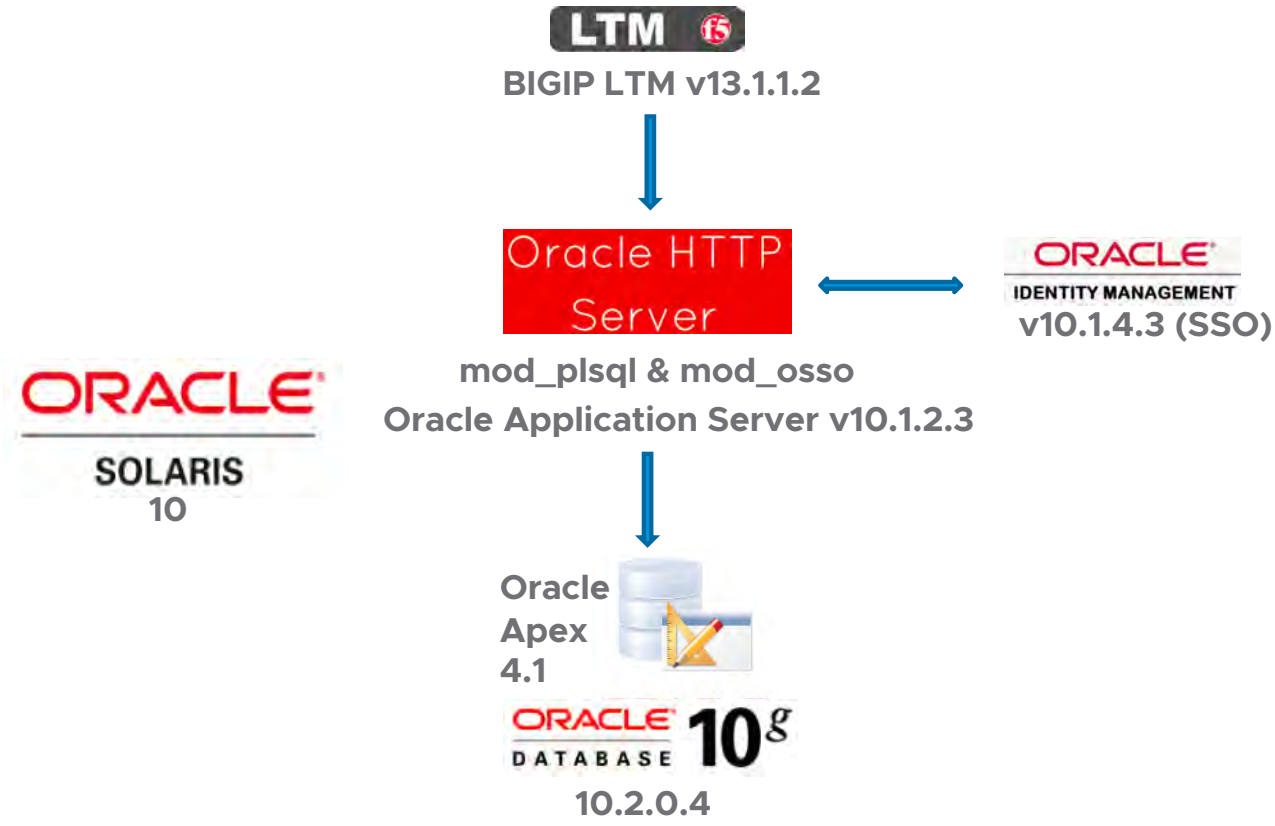
Today: Legacy Business Critical Workloads

- Solaris/SPARC/Oracle 10g
- Difficult to Manage
- Expensive DR Datacenters
- No Developer Resources for Refactor
- Cloud First Policy

Goal: Modernize Business Critical Workloads

- X86/vSphere/Oracle 12c
- Cost Efficient Public Cloud DR

Existing Stack



The Solution

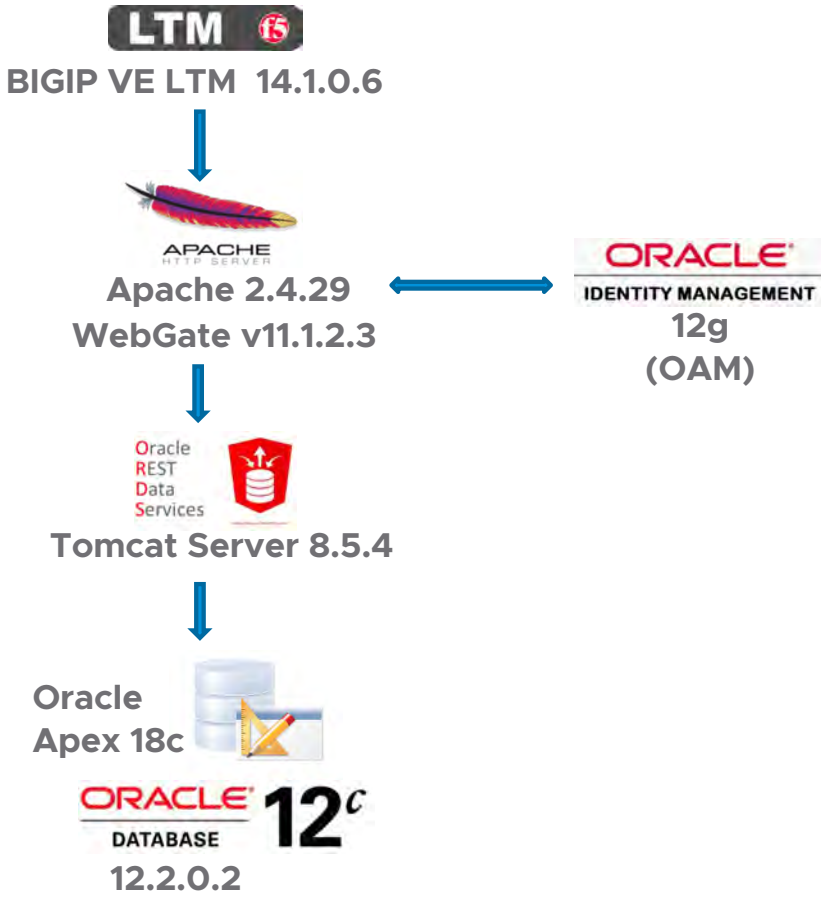
Modernize Application Stack

Virtualize Legacy Apps Using vSphere

Leverage VMware Cloud on AWS for DR

New Stack

Red Hat Enterprise Linux 7



Old Stack v. New Stack

Product	Old Stack	New Stack
Operating System	Solaris 10	Red Hat Enterprise Linux 7
F5 BIGIP Load Balancer	LTM 13.1.1.2	LTM 14.1.0.6 (Virtual Edition)
HTTP Server	Oracle HTTP 10.1.2.3	Apache HTTP 2.4.29
Oracle Identity Management	10.1.4.3 (SSO)	12g (OAM)
Oracle Apex	4.1	18c
Oracle Database	10.2.0.4	12.2.0.2

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Introductions

Your Presenters

Neill Smith

- Head of IT Infrastructure (Agriculture and Rural Economy)
- Background: Software Developer, Sys Admin, Virtual Admin & Infrastructure Architecture
- Manage multi disciplined teams
  - Sys Admins (Linux, UNIX, Windows)
  - Virtualization Admins (VMware)
  - Cloud Admins (AWS)
  - Oracle DBAs
  - Identity Management
  - Creativity & Innovation: Forward Looking

NEILL SMITH
HEAD OF IT INFRASTRUCTURE
(AGRICULTURE & RURAL ECONOMY)

About the Agriculture and Rural Economy

Click to edit optional subtitle

- Scotland has a vibrant agriculture and rural sector that The Scottish Government supports.

  The Scottish Government promotes sustainable economic growth in agriculture, the food industry, and in rural areas.

- We pay out circa **€800m ($900m)** in subsides every year.

Your Presenters

Nick Walter

- Principal Architect
- Background: Solution Architect, DBA, Virtual Admin & Infrastructure Architecture
- Experience:
  - Business Critical Systems
  - Cloud Architecture & Migration
  - DevOPS principles
  - Cloud Admins (AWS)
- Certifications:
  - VMware
  - Amazon Web Services
  - Oracle

NICK WALTER
PRINCIPAL ARCHITECT
HOUSE OF BRICK TECHNOLOGIES

About House of Brick

- Founded in 1998
- Oracle, Microsoft, VMware, and Cloud
- Focus on Business Critical Applications
- House of Brick Services
  - Oracle and MS license review and optimization
  - Application re-platforming and data migration
  - Virtualization of business critical applications
  - HA, DR, and private cloud architectures
  - Managed services for operations and license management

Virtualizing

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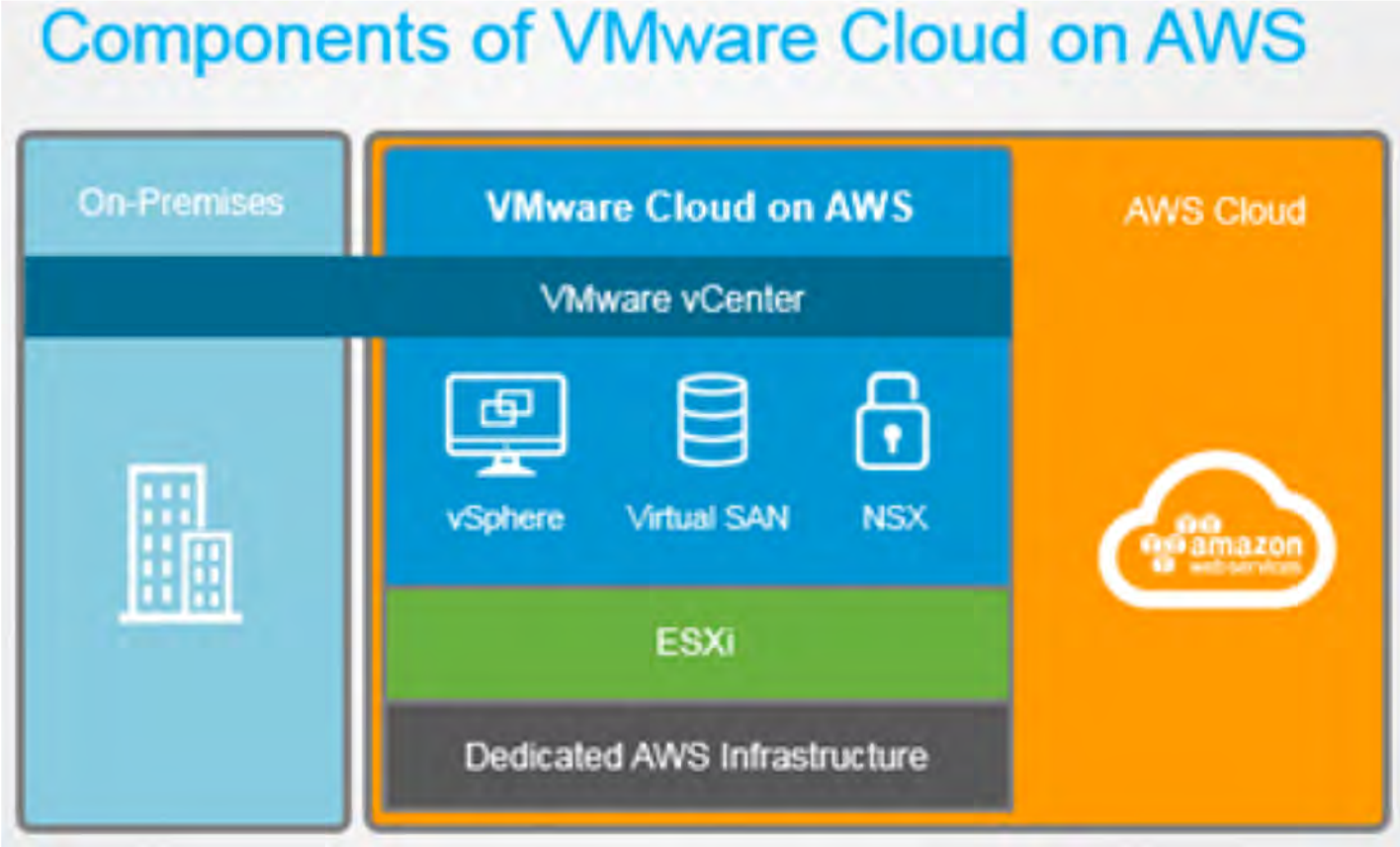
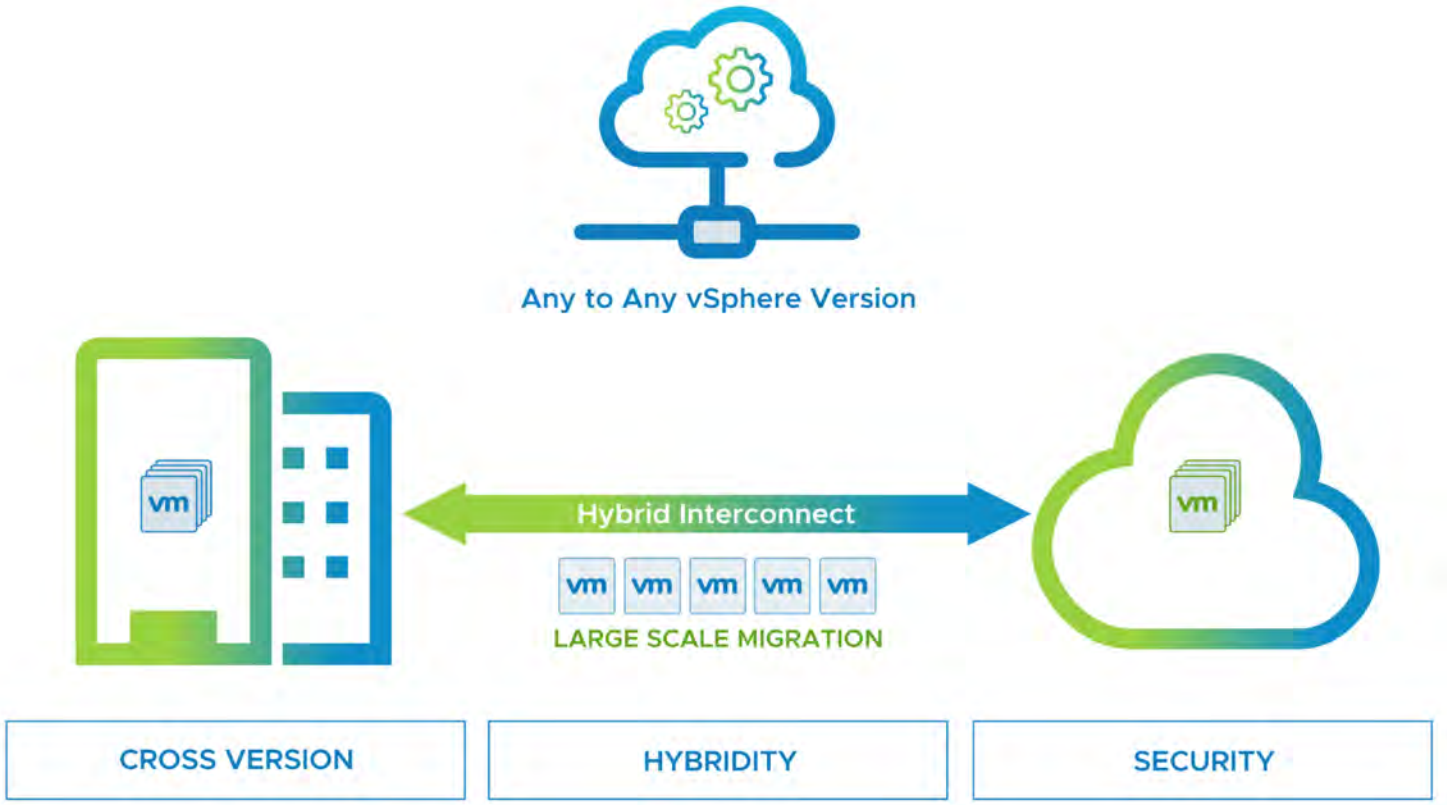
Virtualize

- Porting Process
  - No P2V
  - Modern VMs Built From Scratch (Oracle 12c/RHEL7/Tomcat/Apache)
  - Data Migration with Oracle Data Pump
  - Application Migration via Direct Copy
- vSphere Environment
  - vSphere 6.7
  - Multiple Clusters
  - One vCenter

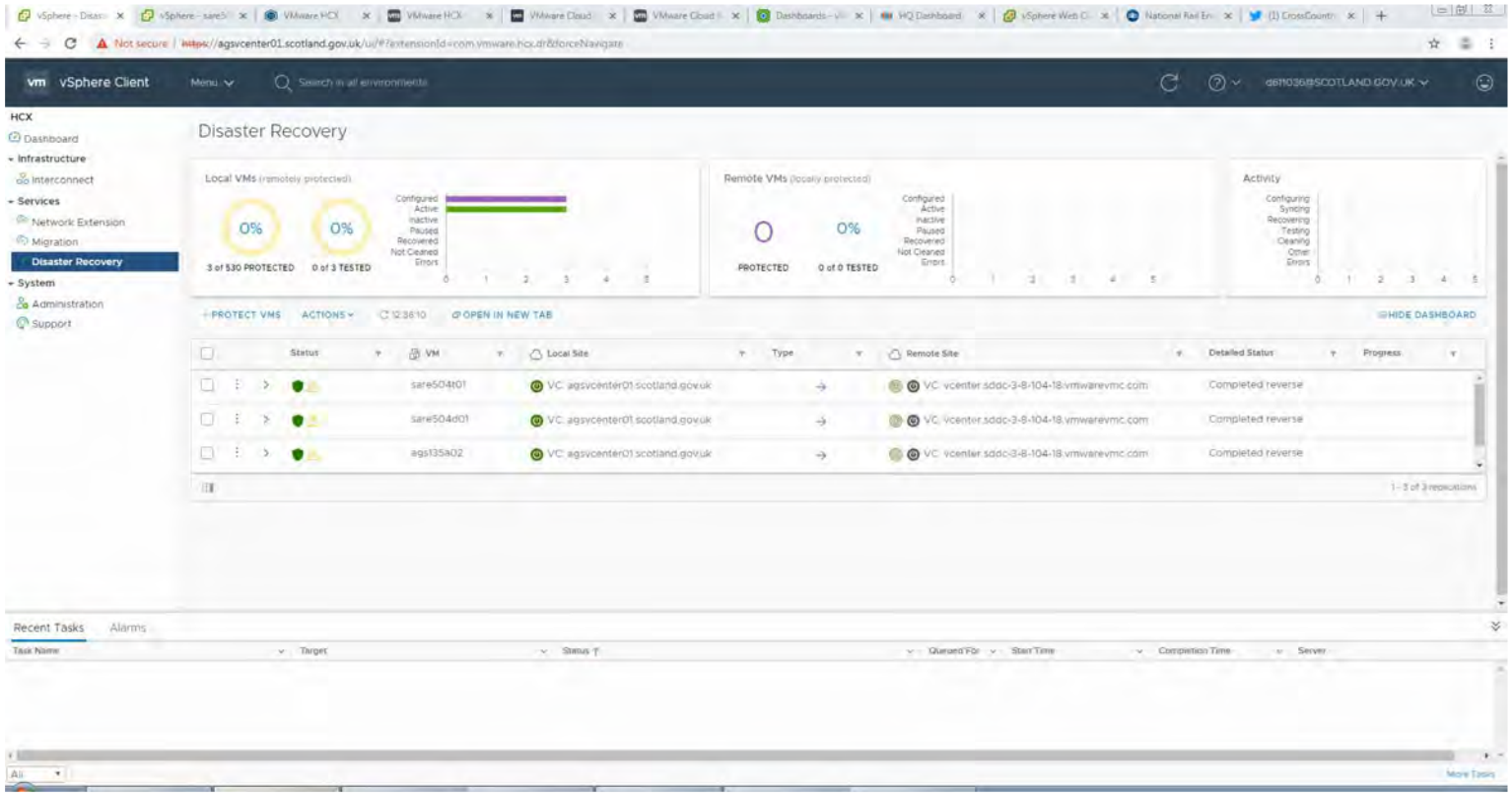
VMware Cloud on AWS



VMware HCX


Any to Any vSphere Version
vm
Hybrid Interconnect
vm vm vm vm vm
LARGE SCALE MIGRATION
vm
CROSS VERSION
HYBRIDITY
SECURITY

HCX In Action



Outcomes &

Lessons Learned

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Outcomes

- Successfully Virtualized Pilot Application
- Successfully Provisioned VMC
- Successfully Provisioned HCX
- Extremely Fast Implementation
- Successfully Implemented and Tested DR

Lessons Learned

Modernize Application Stack

- No Need For Rewrite

Virtualize Legacy Apps Using vSphere

- Backup Tools
- Get Latest Documentation

Q&A

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Thank you!

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