Accelerating Innovation with Hybrid Cloud
Using AWS and VMware Cloud on AWS

David Lim, VMware Cloud on AWS
Nathan Wheat, VMware Cloud on AWS
Mithran Naiker, Transurban
Scott Brown, Transurban
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David Lim  VMware Cloud on AWS, AWS Public Sector (APJ)
Nathan Wheat  VMware Cloud on AWS, AWS Commercial Sector (ANZ)

Mithran Naiker  Chief Technology Officer, Transurban
Scott Brown  Head of Technology Operations, Transurban
AWS hybrid cloud infrastructure with VMware

- **VMware Cloud on AWS**
  Migrate and extend VMware environments to the AWS cloud

- **Amazon RDS on VMware**
  Deploy Amazon RDS managed databases in on-premises VMware environments

- **AWS Outposts**
  Run AWS infrastructure on-premises for a truly consistent hybrid experience
VMware Cloud on AWS – seamless experience

VMware Cloud™ on AWS

Native AWS services
- Amazon EC2
- Amazon S3
- Amazon Route 53

AWS Direct Connect

Amazon EBS

AWS Global Infrastructure

vCenter

vSphere

vSAN

NSX
AWS global infrastructure

69 availability zones within 22 geographic regions
16 regions with VMware Cloud on AWS
Improving the lives of our customers
Top 15 ASX listed company
$2.6B revenue in FY19
$41B market cap

17 roads 1500 tollway kms
8 major delivery projects due for completion by FY24
8.5M customers
1.5M daily trips across our roads

700km optic fibre
100K pieces of technology on our roads
18 safety systems
6 petabytes of data

2000+ employees across Australia, USA and Canada
Cloud migration
Pay as you go

Pay up front and depreciate over three years

Pay a month later for the number of hours used
Customer-driven Use-cases

Aligning intended use to long term cloud strategy

Cloud Migration
- Consolidate
- Migrate

Data Center Extension
- Maintain
- Expand

Disaster Recovery
- Primary
- Secondary

Next-Generation Apps
- New DR

Application Specific
- Business Critical Apps: SAP, Oracle, ...

Data Center Wide
- Footprint Expansion / On-demand Capacity
- Virtual Desktops & Published Apps

Infrastructure Refresh
- Test/Dev

Disaster Recovery
- Replace Existing DR
- Compliment Existing DR

Next-Generation Apps
- New Application Build out
- Hybrid Applications

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Why migrate to AWS in the first place?

What is it?

- **Cost Savings (TCO)**: Infrastructure cost savings/avoidance from moving to the cloud
- **Staff Productivity**: Efficiency improvement by function on a task-by-task basis
- **Operational Resilience**: Benefit of improving SLAs and reducing unplanned outages
- **Business Agility**: Deploying new features/applications faster and reducing errors

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More than 90% of value comes from beyond infrastructure cost savings...

- IT infrastructure cost reductions: $9.84 M (47%)
- Risk mitigation - user productivity benefits: $2.63 M (13%)
- IT staff productivity benefits: $1.76 M (8%)
- Business productivity benefits: $6.74 M (32%)

Source: IDC, 2018
Amazon’s Culture of Innovation

- I want to develop a new digital offering to meet a customer need
- I want to leverage the cloud to accelerate our pace of innovation
- I want to transform or reorganize our company for innovation

Organizational Transformation

Cloud Migration

Digital Innovation

Working with AWS to Innovate
We developed chatbots to simplify and speed up access to automation through natural language for everyone!
Here’s how our chatbot works…

1. User sends a message to the bot in Webex Teams
2. Teams sends all event data involving the bot to API Gateway
3. API Gateway forwards all event data to a custom-written Python Lambda function
4. Once authenticated, we send the person id and message text to Lex
5. Lex receives the data and attempts to assign an intent based on public cloud of private cloud
6. Lambda function for access to publicly accessible services
7. Lambda access to private cloud (eg Active Directory, Puppet), Lex will execute a “proxy” Lambda function located in the same region
8. Lex returns the message\custom response to the “handler” function
9. The “handler” function posts the response to the originating user in Webex Teams
Using the chatbot to interrogate puppet facts of server infrastructure

Puppet is part of the automated build process enabling on-going integration for:

- Day to day operations
- Deployments
- Health checks, etc.

Now that we know about the server from code we can trigger:

- Self tests
- Security patching
- Compliance checks
- Vulnerability mgmt
We created sickbot

Making everyone’s life easier with chatbots…

We looked for creative ways to help our end users benefit from automation.

We’ve DevOps’d taking sick leave.

From a simple command anyone taking sick leave can let the automation:

- SMS manager
- Set ‘out of office’
- Cancel meetings
- Update Workday
“There are many advantages to a customer-centric approach, but here’s the big one: Customers are always beautifully, wonderfully dissatisfied, even when they report being happy and business is great. Even when they don’t yet know it, customers want something better, and your desire to delight customers will drive you to invent on their behalf.”

- Jeff Bezos, 2016 letter to shareholders
AWS – The broadest and deepest platform
AWS Services within a customer managed VPC

Customer managed VPC

VMware managed VPC
Application protection using Amazon ELB

- Private subnet 10.2.1.0/24
- Subnet1 10.2.1.0/24
- VPC Network 10.2.0.0/16
- VPC
- AWS Cloud

- Public subnet
- Subnet2 10.2.2.0/24
- VPC Network 10.2.0.0/16
- VPC
- AWS Cloud

- Amazon S3 Endpoint
- ENI
- 192.168.2.0/24
- 192.168.1.0/24

- Elastic Load Balancing (ELB) (Configured in ALB mode)
- IP Target Group 192.168.2.10 192.168.2.11

- Route table
- 192.168.1.0/24
- 192.168.2.0/24

- Amazon CloudFront
- IGW
- AWS WAF

- Management Network (Overlay)
- Compute Network (Overlay)

- VMware managed VPC
- VPC Network 10.1.0.0/16
- CGW

- AWS
- WAF

- 192.168.1.0
- 192.168.2.0

- vCenter
- Metal Instance
- Amazon EC2

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The best-in-class hybrid answer to business imperatives

**Accelerate innovation**
- New application development
- Application modernization
- Dynamic capacity needs

**Respond faster to change**
- M&A activities
- Data sovereignty, closeness to end-user, new capacity
- Continuity of ops

**Optimize costs**
- Cloud mandate
- Shift from Capex to Opex
- Application portability
Talk to us about Accelerated Cloud Migration

Unleash innovation while reducing IT cost

Play the game!

Innovation with AWS
Come talk to our Solution Architects about innovation with AWS, and test your knowledge at our fun booth game!

Define the change

Cloud Adoption workshop
Align stakeholders and create a shared vision for business outcomes as you plan your migration.

Create a case

AWS business case service
Create a CFO ready business case that captures infrastructure cost savings and productivity gains.

Cloud Business Value Framework
Thank You!
Join the conversation

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