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Infoblox

Hybrid Cloud

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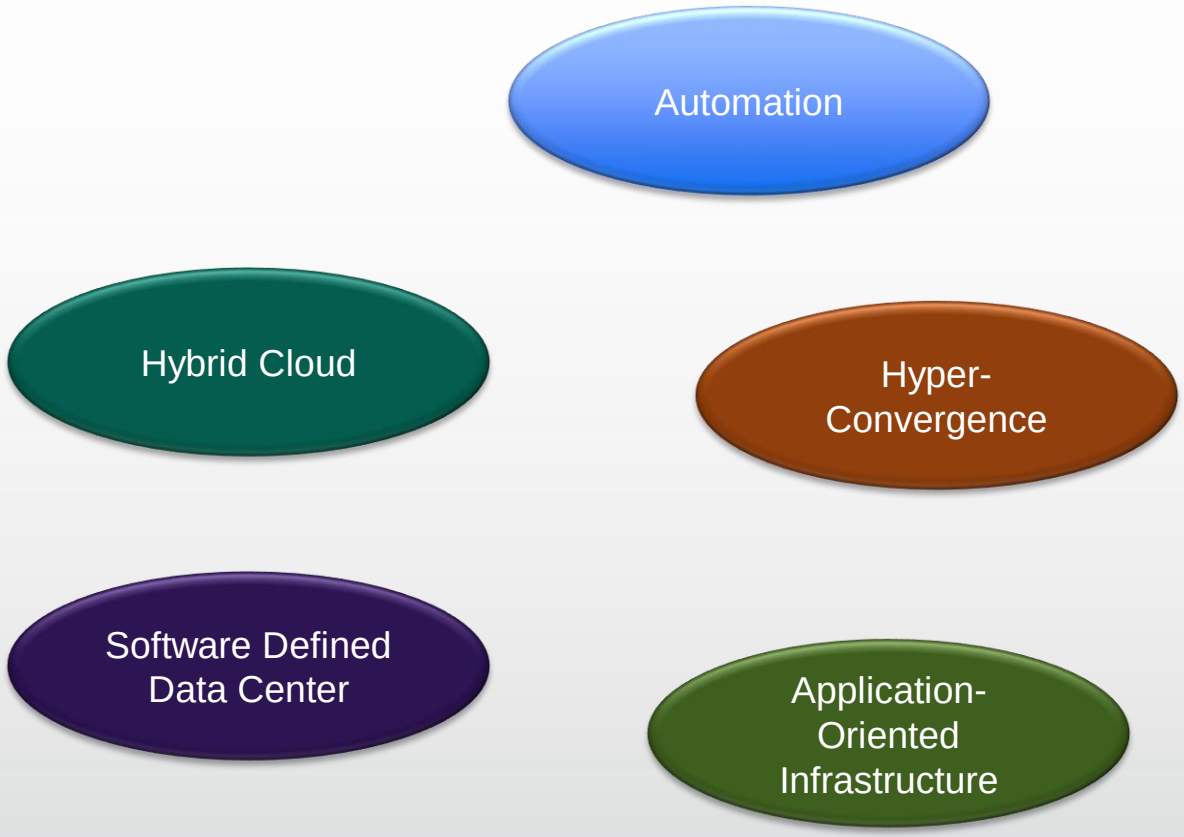
Next Generation Data Centers: Technology Trends



Why these trends?

Need for greater agility

- Serve changing business needs
- Need flexible infrastructure
- Expand as the business grows

Reduce operating costs

- No dedicated physical infrastructure
- Don't want to be in the IT business
- Reduce manual work

Control infrastructure

- Empower lines of businesses
- Complete visibility into infrastructure
- Greater security, audit, compliance controls

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Challenges with Next Generation Data Centers

Manual Paradigms

Manual processes don't work for NextGen DCs

- Too many tickets between server & network teams
- Lack of troubleshooting tools
- Slow IT execution times

Multi-Cloud

vmware

openstack CLOUD SOFTWARE

amazon web services™

Microsoft

Limited support for multi-vendor hybrid clouds

- Multiple management portals
- No consistent policies
- Any platform change disrupts implementation/processes

Security/Compliance

New security/compliance challenges with shift to cloud

- No correlated infrastructure view for entire cloud
- Lack of auditing capabilities
- Requires cross-cloud expertise

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Infoblox Solutions for NGDC

Enabling the Promise of NGDC

Deployment Options: 1) Physical Appliances, 2) Virtual Appliances (ESXi, Hyper-V, Xen, KVM), 3) Public Cloud (AWS)

DDI Automation

Policy-based automation of DNS, DHCP, IPAM services for virtual servers

Open RESTful interfaces for customization

Consistency

Single management interface for multi-cloud solutions

Private Cloud: VMware, OpenStack, Microsoft
Public Cloud: Amazon

Visibility

Discovery of VMs, networks for multi-cloud platforms

Auditing, reporting across clouds for DHCP leases, DNS records, IP addresses

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Cloud Solution – Technology Integrations

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Infoblox NGDC Solution Components

Cloud Platform Appliances (virtual) CP-V800 CP-V1400 CP-V2200	• DDI grid member for higher API scale • Delegation of networks/zones management to LOBs
Cloud Network Automation (software) 	• Consolidated view of your Hybrid Cloud resources • Automate policy based actions on discovered data
Infoblox Adapters (software) openstack™ vmware® Microsoft amazon web services™	• Infoblox supported adapters • Automate DNS and IP provisioning for Hybrid Cloud

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SpotLight: Deployment Scenarios

#	# AWS Regions and/or Availability Zones	Data Center (On-premise/Private Cloud)	Where is Orchestrator?
1	1 or many	DC available	On-prem
2	1 or many	No DC available (all enterprise infrastructure is in AWS)	AWS
3	1 or many	DC available	On-prem and in AWS

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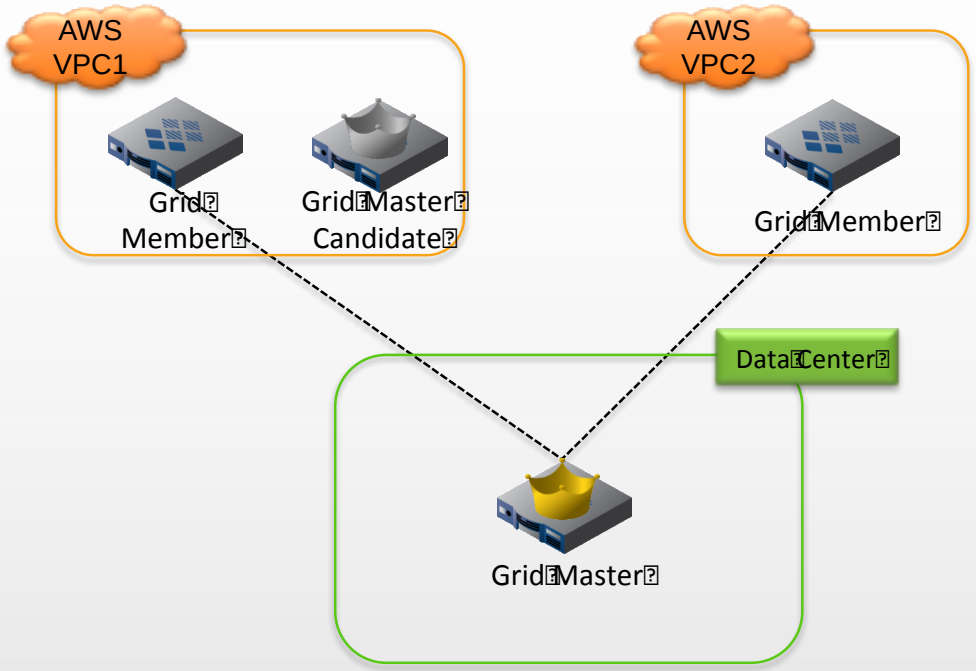
Hybrid Grid serving DNS

Deployment Scenario



Grid members in AWS to serve DNS

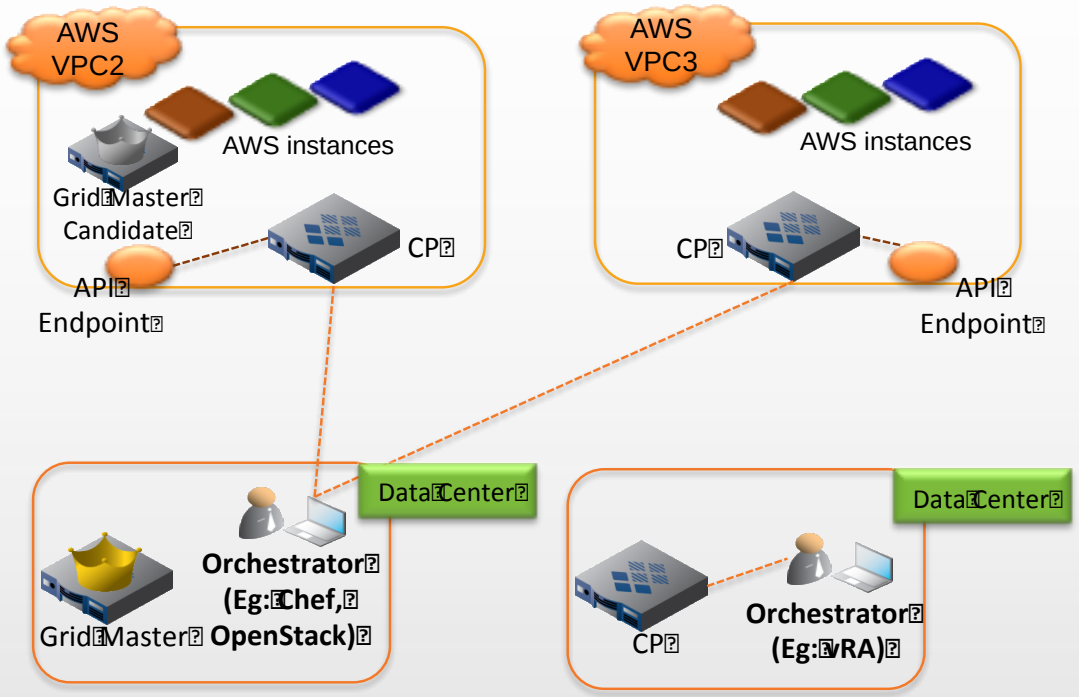
Single grid across on-prem DC and AWS

GMC in AWS for redundancy and DR

Grid members serving DNS

Hybrid Grid for Scalability and Automation

Deployment Scenario



Single grid across multiple DC and AWS Regions

CPA grid members allow horizontal API scaling

CPA grid members for redundancy across Regions

CPA grid members serve APIs locally in AWS Region and DCs

Q&A

Thank You

Multi-Cloud Architecture

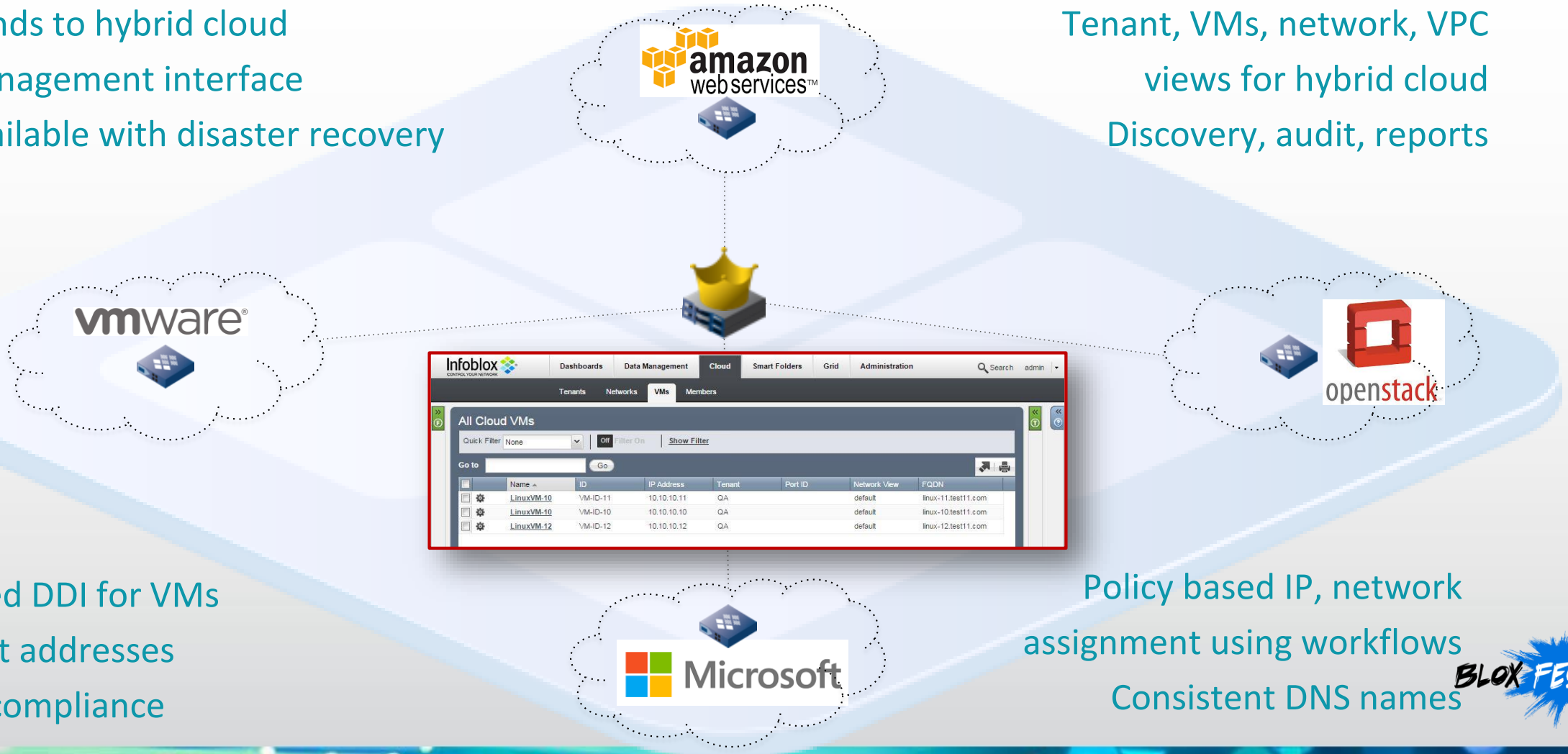
Grid extends to hybrid cloud

Single management interface

Highly available with disaster recovery

Tenant, VMs, network, VPC views for hybrid cloud

Discovery, audit, reports



Automated DDI for VMs

Consistent addresses

Security/compliance

Policy based IP, network assignment using workflows

Consistent DNS names

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