Virtual application networking

The key to dynamic IT

On our Regcast today

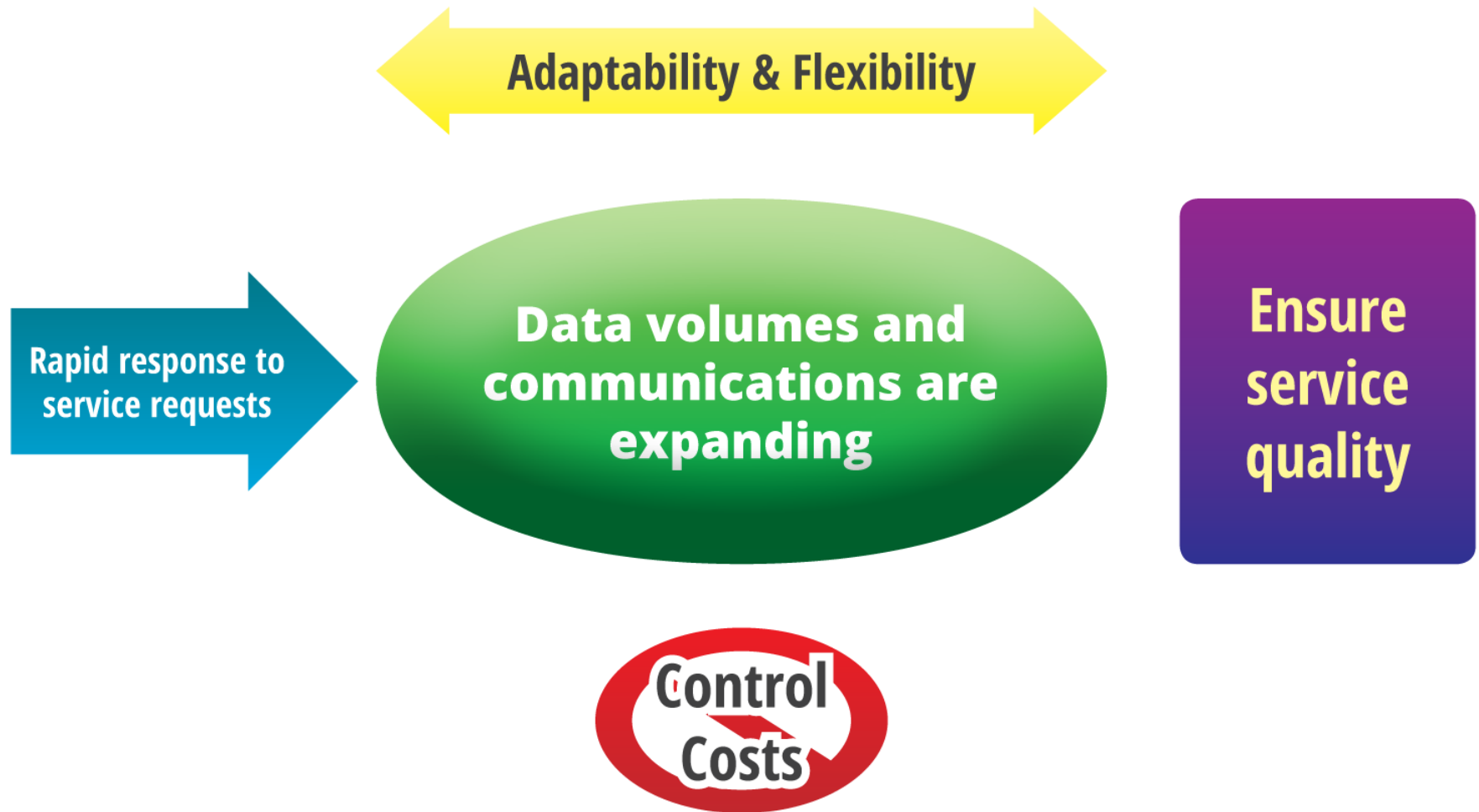**Eugene Berger** HP

Trevor Kelly HP

Andy "A-Bus" Buss Freeform Dynamics

Tim Phillips Regmaster

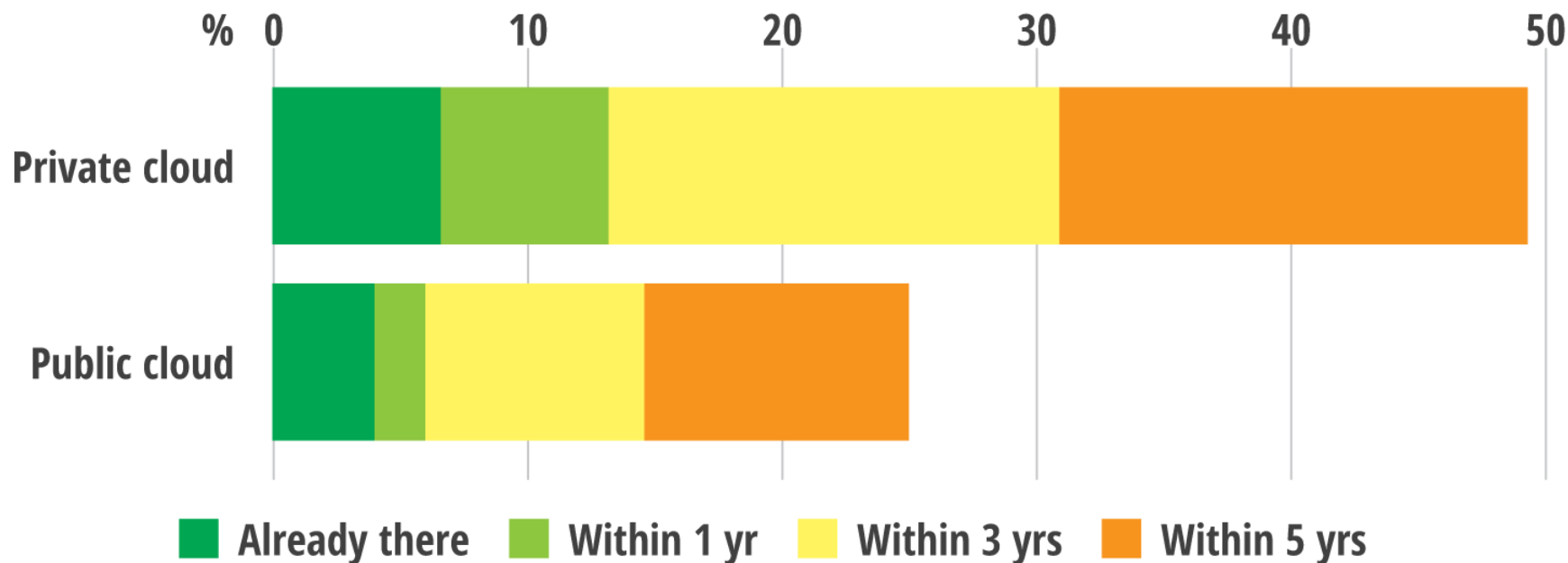Software defined networking makes sense if you have a private or hybrid cloud.

Here's why (and how).

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Responsiveness and agility becoming top priorities

Adaptability & Flexibility

Rapid response to service requests

Data volumes and communications are expanding

Ensure service quality

Control Costs

Private cloud is becoming central to IT strategy
## How soon do you see it before most of your IT is based on...?

% 0   10   20   30   40   50

Private cloud

Public cloud

Legend:
- **Already there**
- **Within 1 yr**
- **Within 3 yrs**
- **Within 5 yrs**

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Dynamic IT needs the whole stack to participate

Server virtualisation

Storage virtualisation

Network virtualisation

Private Cloud
with policy-driven provisioning and orchestration

Tactical Public cloud adoption

Dynamic and integrated Hybrid Cloud environment
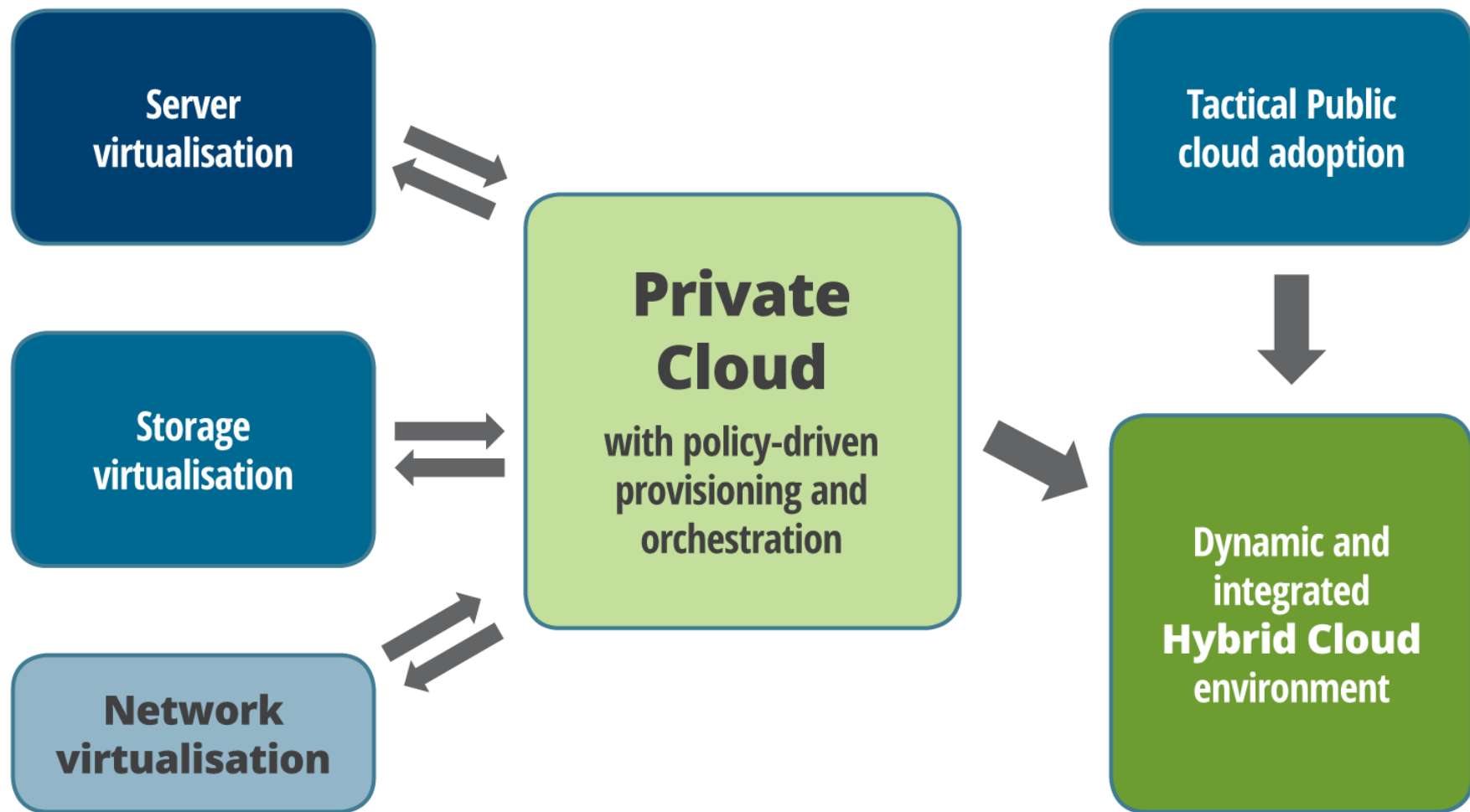
IT departments that are more responsive to change have better integrated teams and tools

The **tools** we use for managing servers, storage and networking work well together
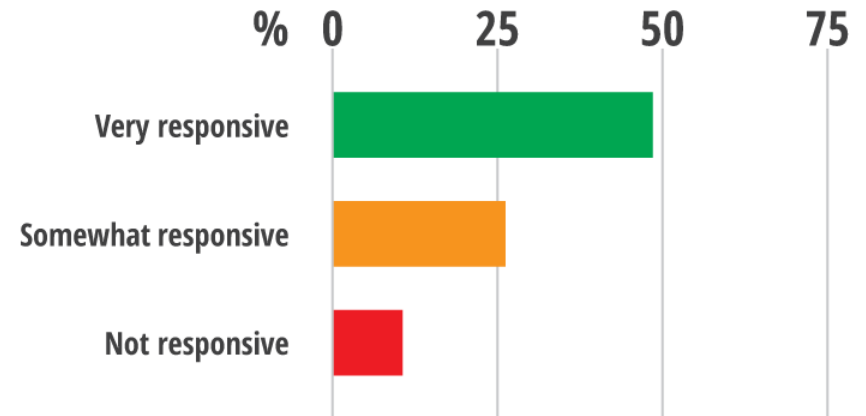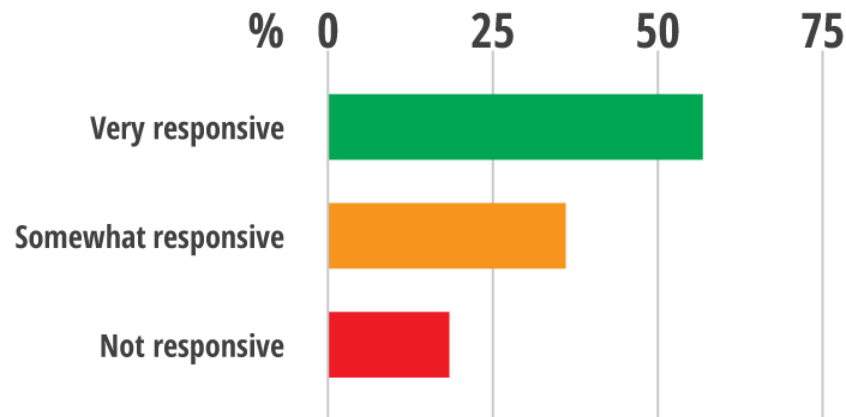
Ops teams are well integrated across servers, storage and networking

Today's networks can't meet next wave expectations

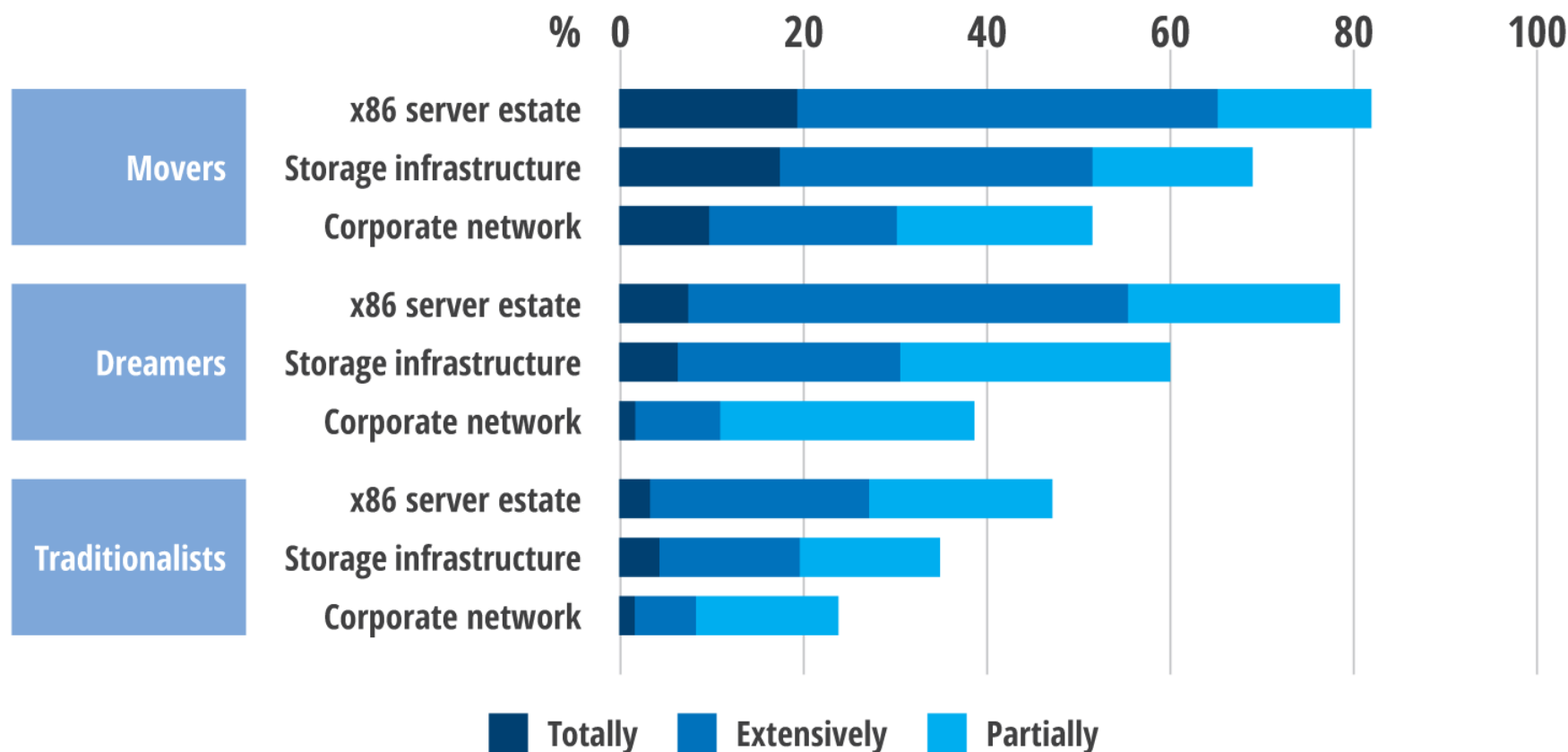|	
Application Indifferent	Challenge to identify applications and meet diverse service levels
Rigid Physical Networks	Architected for one tenant, user type & location - lacking programmability
Manual Management	Slow response to new app requirements & hampered by manual errors

The most advanced in vision are tackling network virtualisation
How much have you virtualised the following elements of your IT

% 0   20   40   60   80   100

Movers
- x86 server estate
- Storage infrastructure
- Corporate network

Dreamers
- x86 server estate
- Storage infrastructure
- Corporate network

Traditionalists
- x86 server estate
- Storage infrastructure
- Corporate network

■ Totally   ■ Extensively   ■ Partially

Legacy networks slow application deployment

System Admin

| Deploying an Exchange VM ... ready! | Rack 3 Server 5 | VLAN 10 | Subnet .16.31 | 10M CIR 20M PIR | Priority 4 | IP TOS | Are you ready yet? |

Time in Days/Months

| Which server? | Which VLAN? | Which Subnets? | How much bandwidth? | QoS Priority? | QoS Method? | Ok, starting switch config |

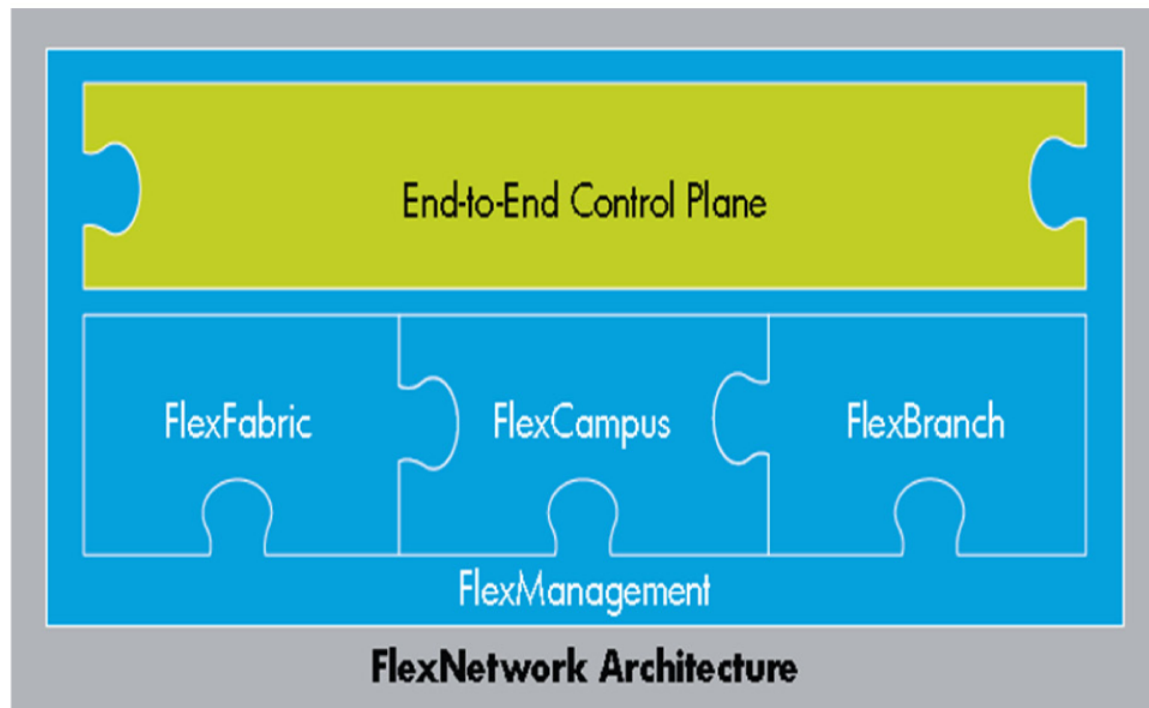... 250,000+ CLI entries for typical data centre With 500 Servers
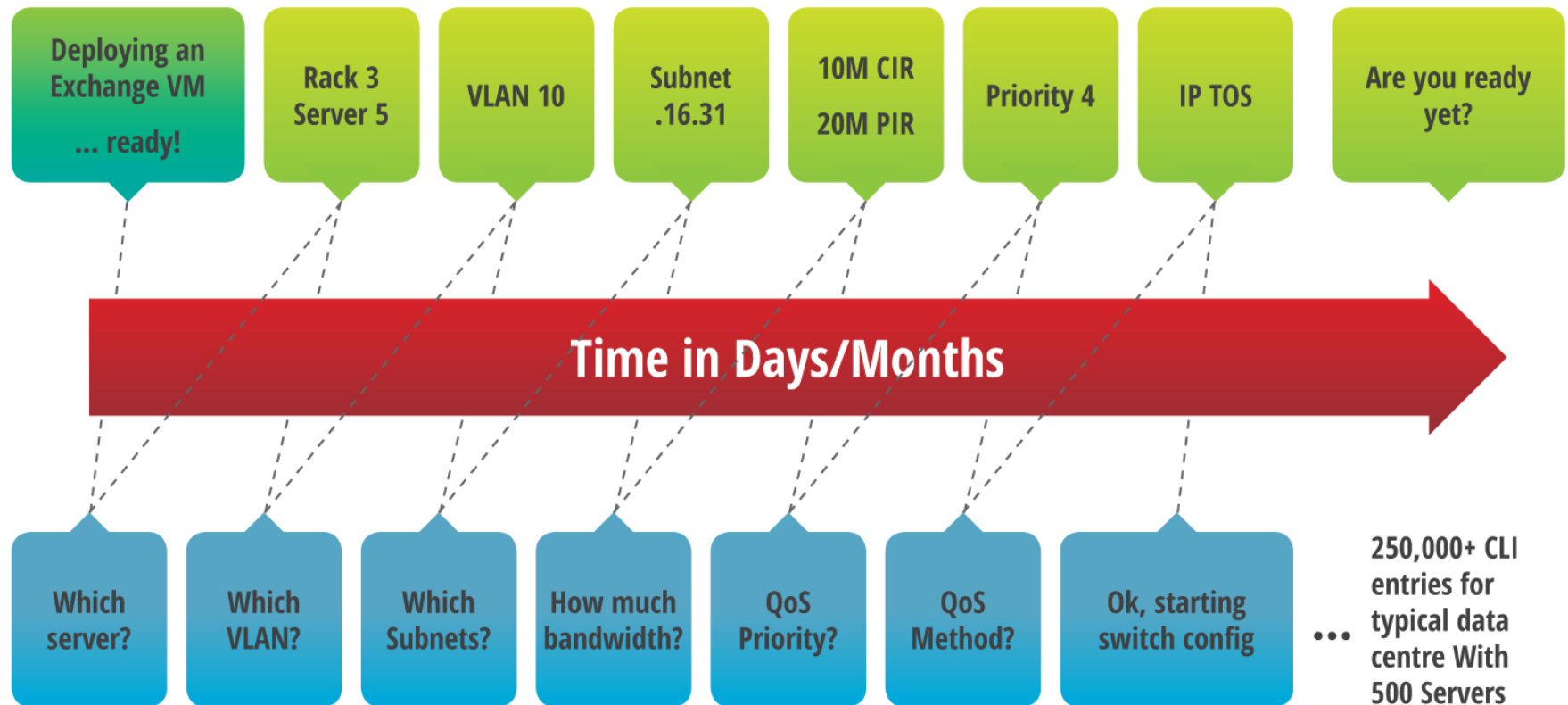
Network Admin

Virtual application networks
Virtualise by extending a control plane across the entire network

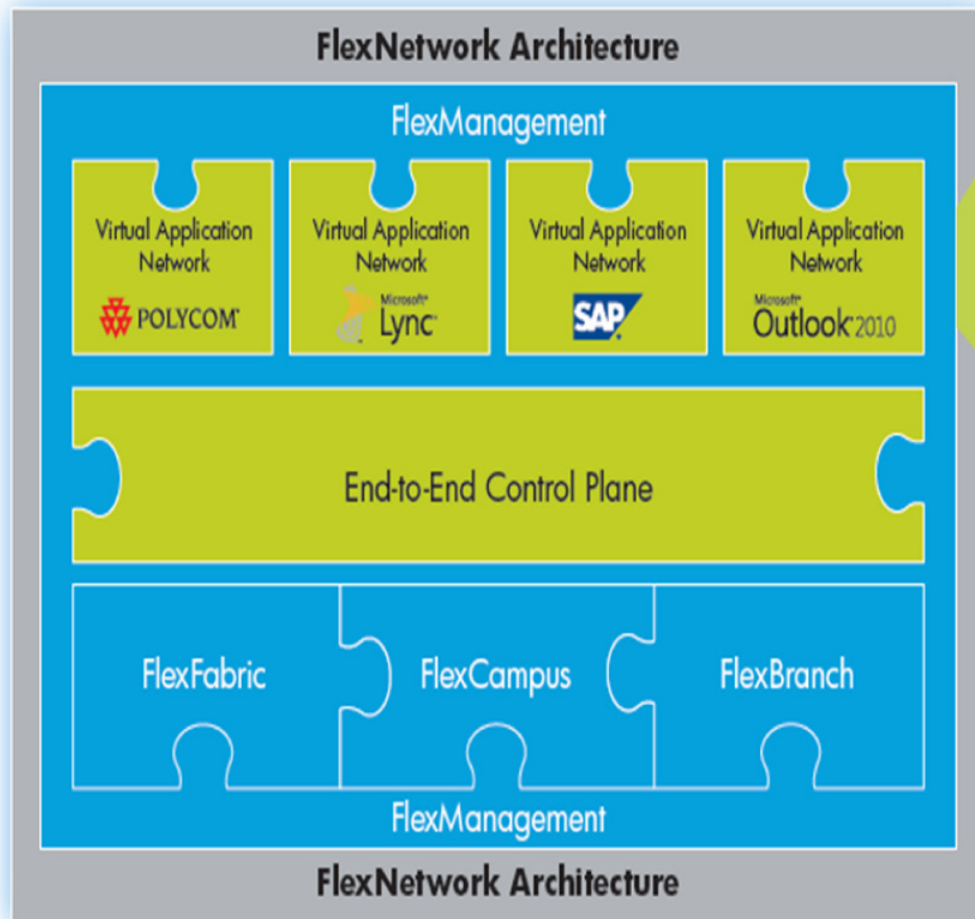Built on HP Innovations

Intelligent Resilient Framework (IRF)

OpenFlow™

End-to-End Control Plane

FlexFabric   FlexCampus   FlexBranch

FlexManagement

FlexNetwork Architecture

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Creating virtual application networks
IMC Virtual Application Network Manager Module

FlexNetwork Architecture

FlexManagement

| Virtual Application Network POLYCOM | Virtual Application Network Microsoft Lync | Virtual Application Network SAP | Virtual Application Network Microsoft Outlook 2010 |

End-to-End Control Plane

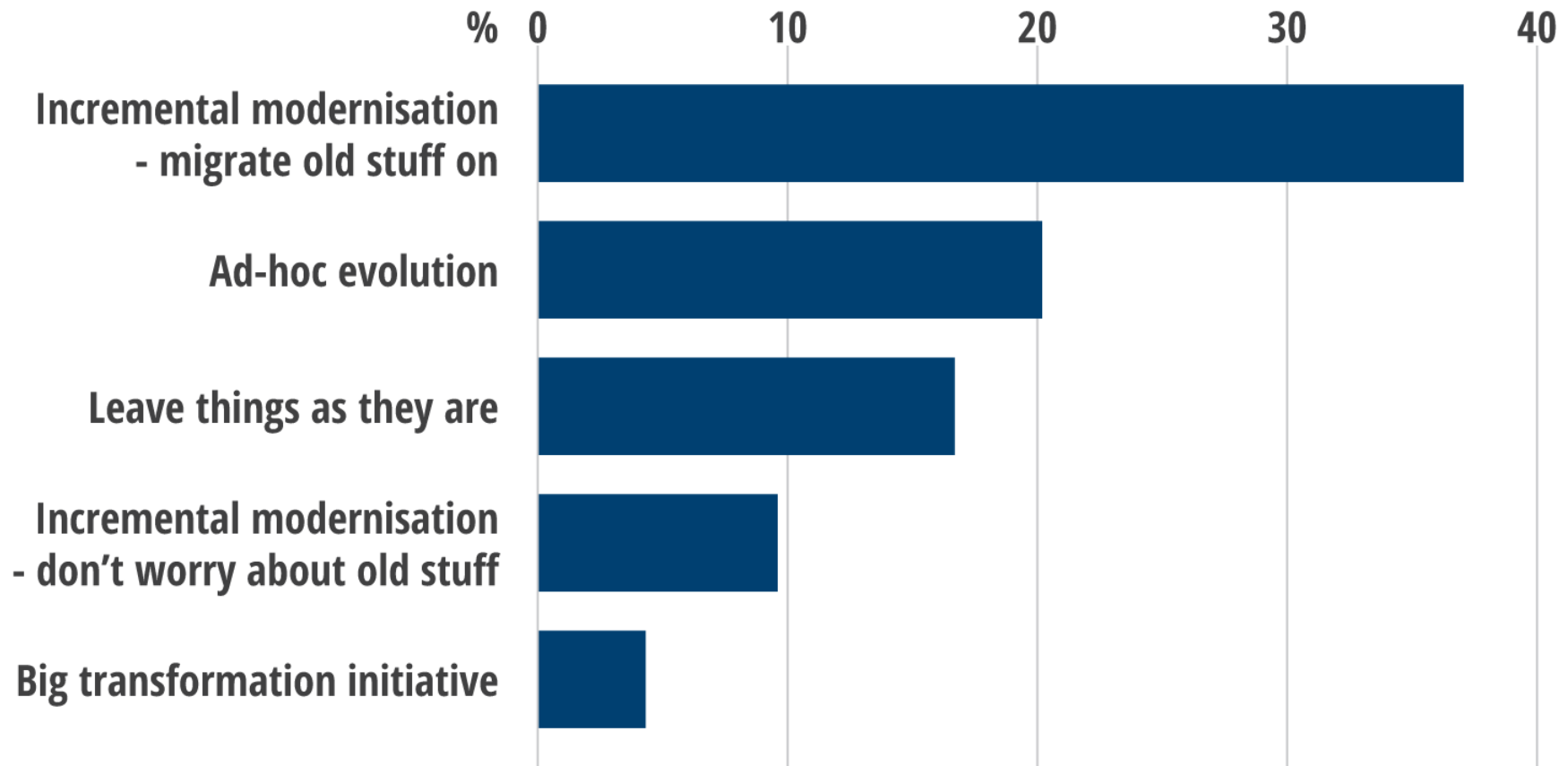| FlexFabric | FlexCampus | FlexBranch |

FlexManagement

FlexNetwork Architecture

Virtual Application Networks

- Characterise applications
- Virtualise the network
- Automate orchestration

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hp

Enable private cloud with virtual application networks
Delivering new applications in minutes versus weeks

Tune network to the application delivery requirements

Virtualise the network end to end, from application to user

Enable IT to manage the network with policies rather than CLI, scripts

Single pane-of-glass management for the physical and virtual network

Ensure choice with open, standards-based approach

Further reading

- **A vision for the data centre**
  bit.ly/YlhMLS

- **From virtualisation to private cloud**
  bit.ly/V1lx4Z

- **Flatter, faster, more manageable networks**
  bit.ly/U2m25y

- **HP Cloud Infrastructure Zone - Network**
  bit.ly/XnyPvT

Thanks for joining us

An archived version of today's events will be made available on The Register in the near future.