Future-Proofing the Data Centre

Lessons from the front line

On our Regcast today

Tim Phillips   The Register

Dale Vile   Freeform Dynamics
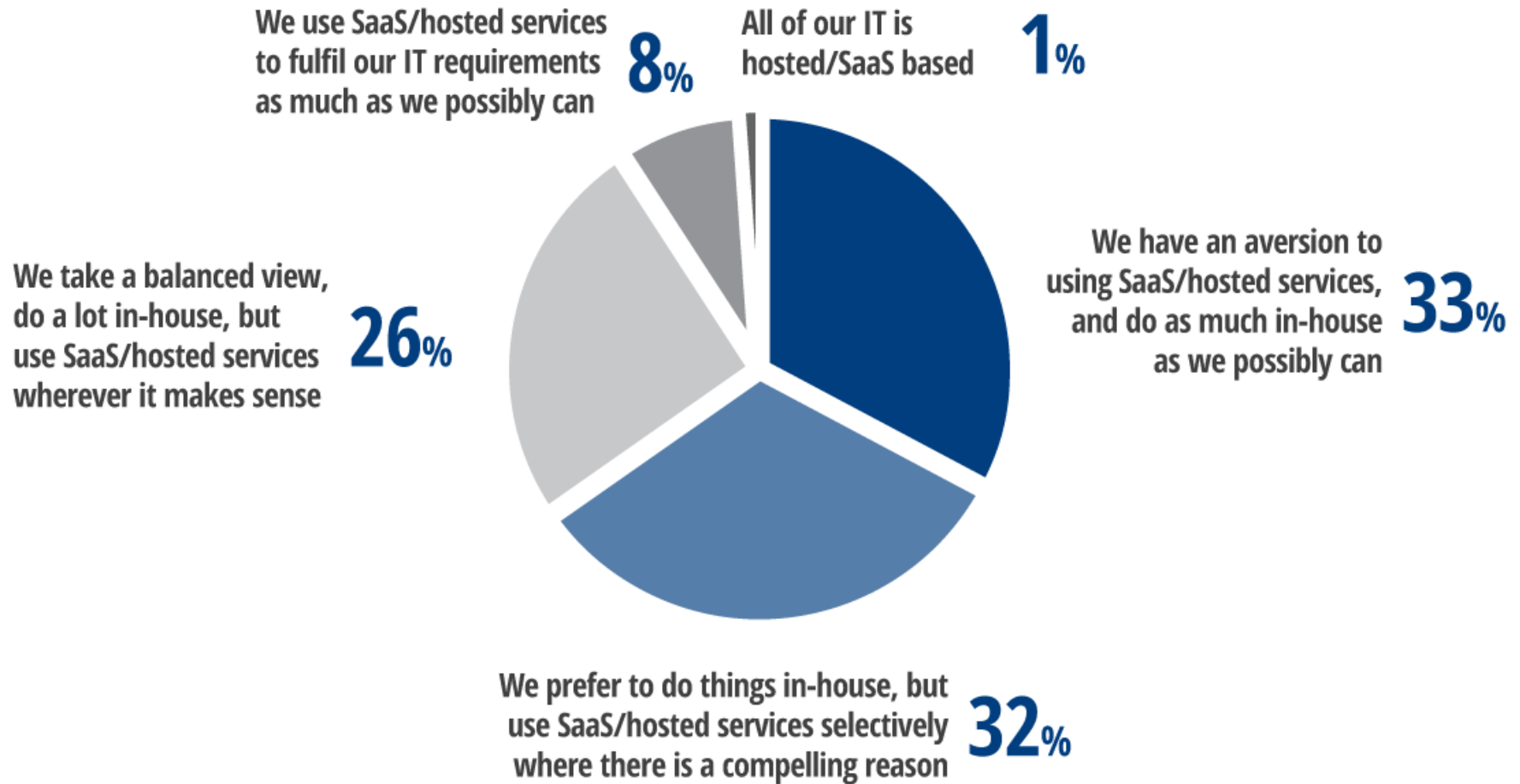
David Chalmers   HP

Why future-proofing? Why now?

- Because a hybrid cloud changes the way a data centre is structured

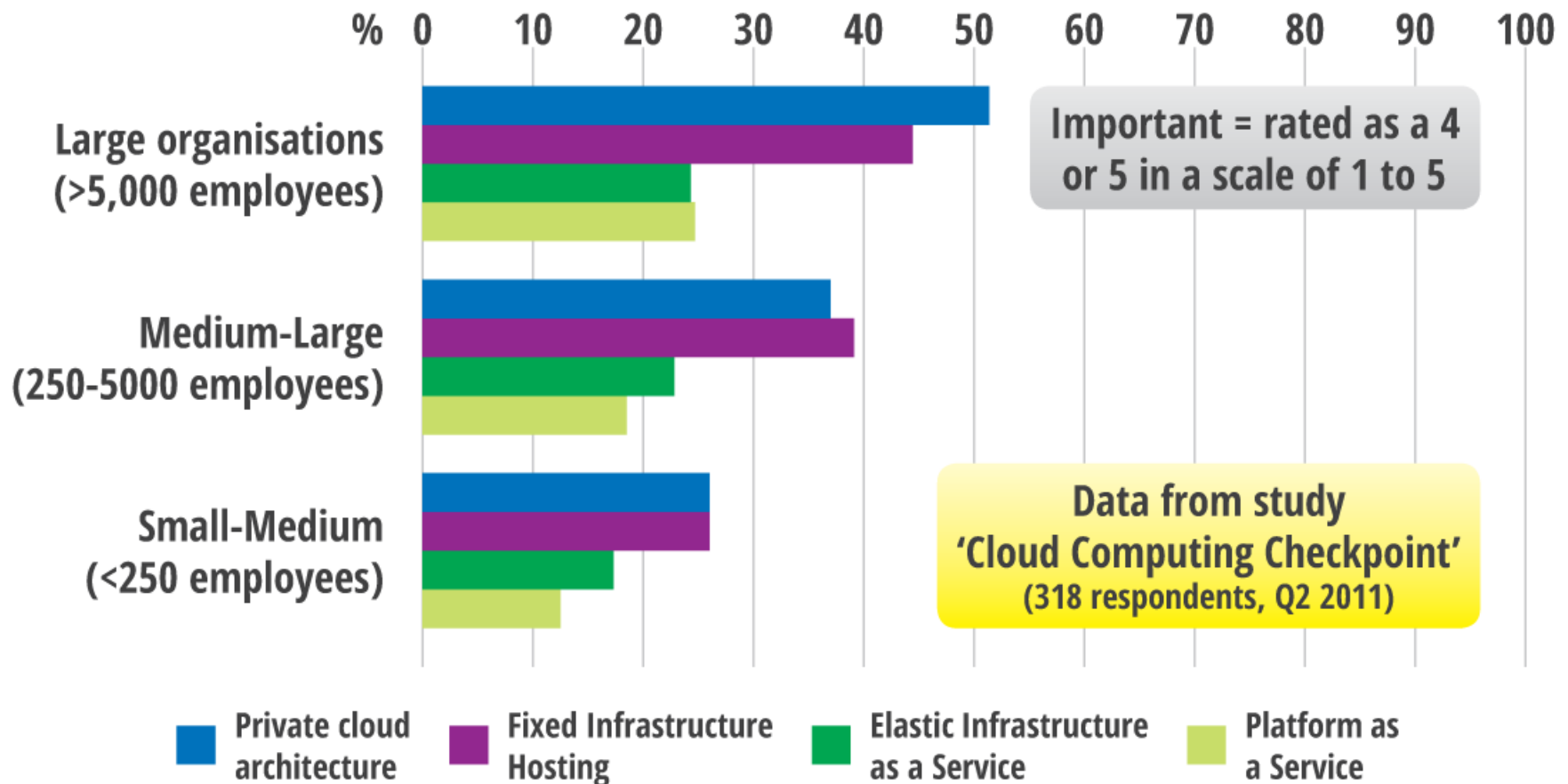- Because you have legacy storage and networks to consider

- "Death of the BOFH"

The year 2020: optimists

- "I would like to think that the 'Cloud' option will be a standard offering from public to private... Security will still be one of the biggest concerns in public cloud given the types of data breaches we have seen over the last few years."

- "Applications and data can be simply and easily migrated to different XaaS providers or hosted across a combination of providers."

- "Quality of service and dynamic workload adjustments are commonplace."

- "Service brokers will become prevalent, allowing clients to dynamically move services between their internal private clouds and multiple providers."
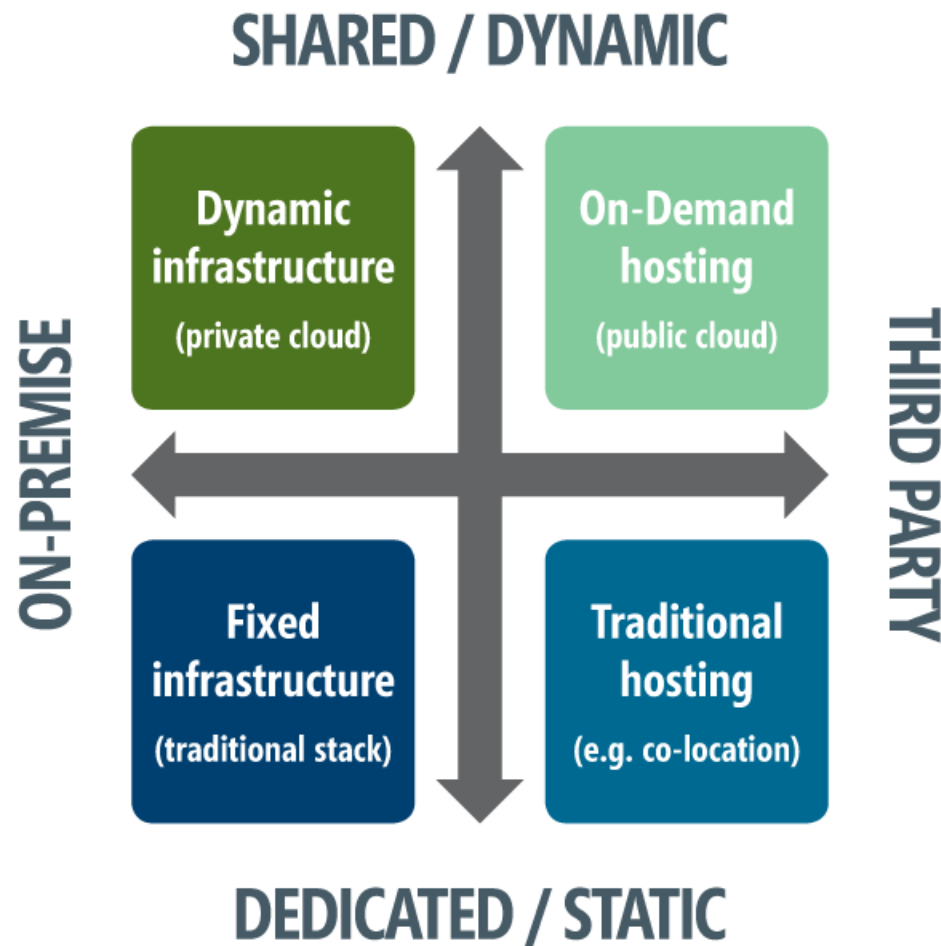
Attitudes to cloud and hosted services

We use SaaS/hosted services to fulfil our IT requirements as much as we possibly can **8**%

All of our IT is hosted/SaaS based **1**%

We have an aversion to using SaaS/hosted services, and do as much in-house as we possibly can **33**%

We take a balanced view, do a lot in-house, but use SaaS/hosted services wherever it makes sense **26**%

We prefer to do things in-house, but use SaaS/hosted services selectively where there is a compelling reason **32**%

Regarded as important in next three years

Important = rated as a 4 or 5 in a scale of 1 to 5

Data from study
'Cloud Computing Checkpoint'
(318 respondents, Q2 2011)

Large organisations
(>5,000 employees)

Medium-Large
(250-5000 employees)

Small-Medium
(<250 employees)

■ Private cloud architecture
■ Fixed Infrastructure Hosting
■ Elastic Infrastructure as a Service
■ Platform as a Service

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A hybrid world

Hybrid delivery engineered for the future
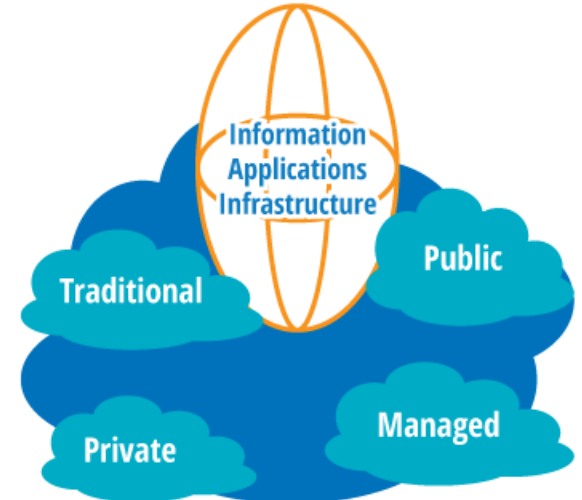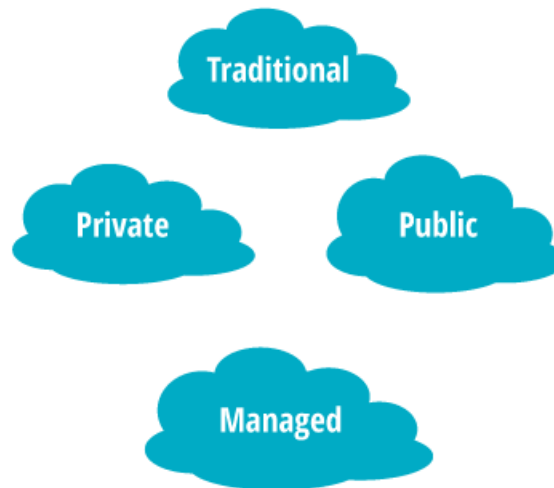
Traditional IT

- Dedicated
- Physical
- Homogenous
- Inflexible

Evolving current state

- Disparate architectures
- Different management and security
- Inconsistent development environments
- Increased complexity

Future

- Common architecture
- Converged management and security
- Open and standards based
- Develop once, run anywhere
- Flexibility and portability

Information
Applications
Infrastructure

Traditional

Private

Public

Managed

The year 2020: pessimists

- "I work for a hospital system with 9 hospitals, including some speciality hospitals. I don't see the patient database ever being hosted in total anywhere offsite. We use application vendors cloud services for some things but they never get more than bits and pieces."

- "Business will buy direct - and the organisation will go backwards in terms of integration and common standards."

- IT still doesn't have an integrated funding model across all parts of the organisation, still doesn't have complete supply chain control of services and applications, and still doesn't have complete business C-level support."

- "In 8 years? Nothing will change."

Avoid costly common pitfalls

- Believing cloud computing does not impact organisation, processes, business operations

- Believing there is no need to modernise

- Not aligning to benefit from the service delivery model

IT needed to compete, market, and sell differently

1. You know your customer better than any cloud provider

2. Traditional IT Service Catalogues provide no value to your business users

The service, not the technology

Multi million investment in cloud technology
- Converged networking
- Latest servers and storage
- Killer software suite

Built it but they DID NOT come?
- No traction with the users
- Limited use of provisioning
- Consolidated traditional environment

50% of the project should be on service definition and delivery

Automate the business process

Deploy converged infrastructure in minutes
- VMs, servers, storage, networking

Built new "cloud" provisioning templates
- One template for storage provisioning
- One template for network provisioning
- One template for server provisioning
- That is how they were organised and how the work got done

New service teams
- Integrated IT Service Teams
- Organisation design change

Four mistakes when building your hybrid cloud

1. Losing **control and security** of your IT: Be a Broker of Hybrid Clouds

2. Poor virtualisation **platform** designs

3. Legacy **storage** technology

4. Legacy **network** designs

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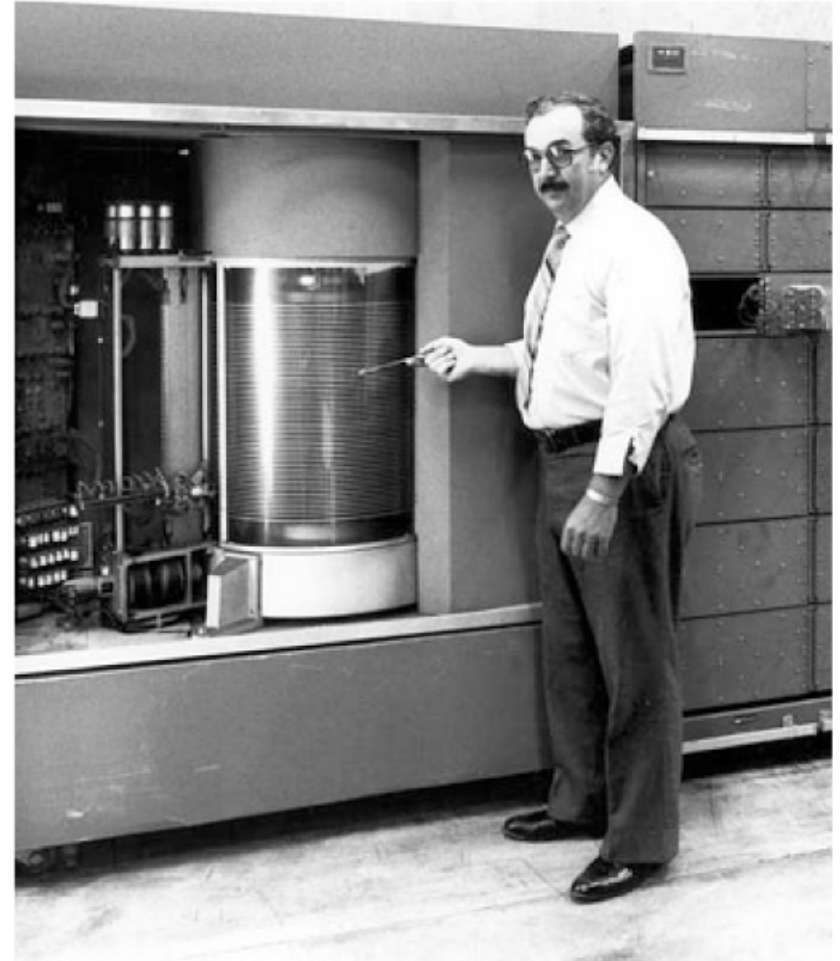
1. Losing control and security of your IT

- Be your own broker of Hybrid Clouds, avoiding shadow IT

- Stay efficient and open

- Security is a requirement, from the application, to the VM to the entire network.

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2. Poor virtualisation platform designs

- Must be mission critical **and open**

- Must be designed for speed and redundancy. **Keep it simple.**
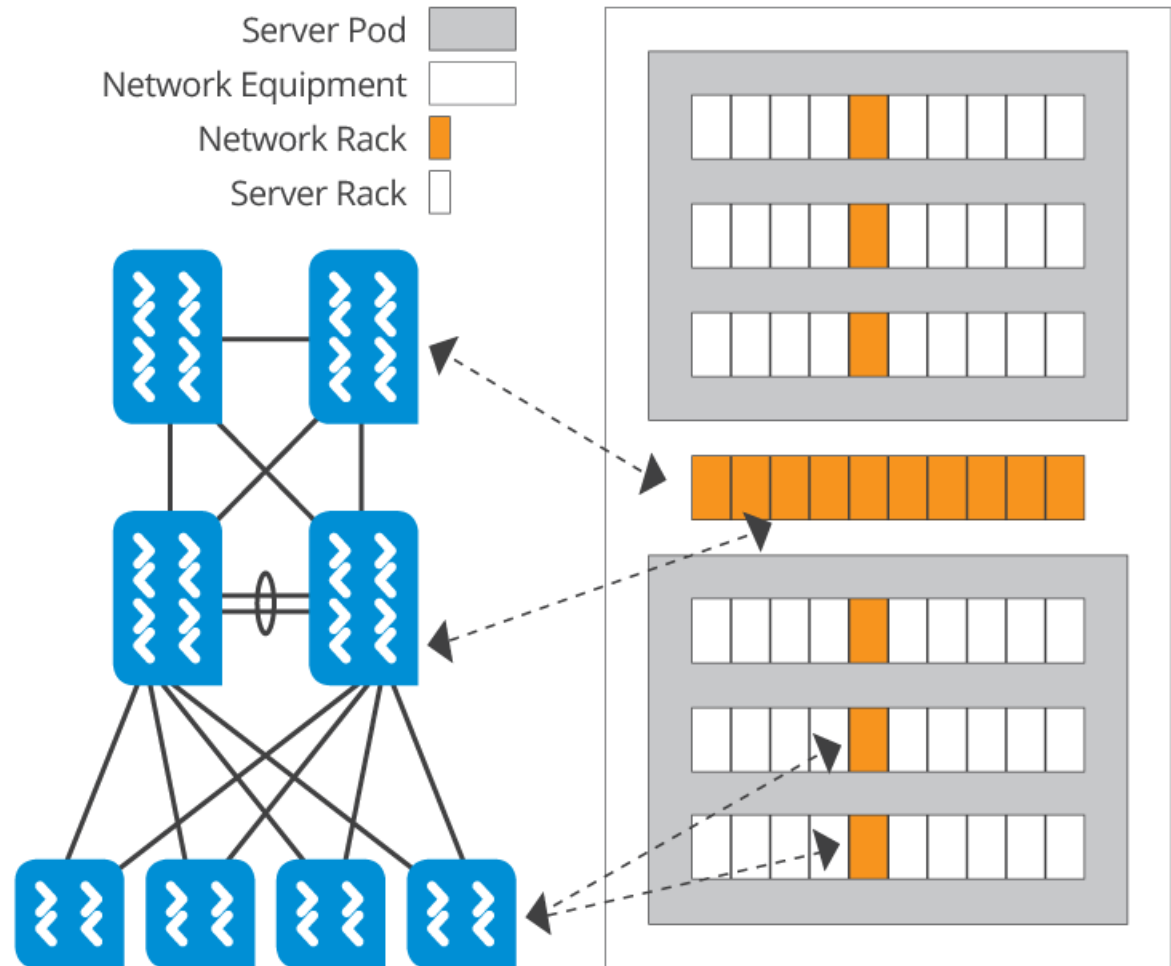
- Must have tight partner integration

3. Legacy storage technology

- Storage and recovery is still the big bottleneck

- SANs today need to be designed for multi-tenant, automated and efficient (get thin and stay thin)

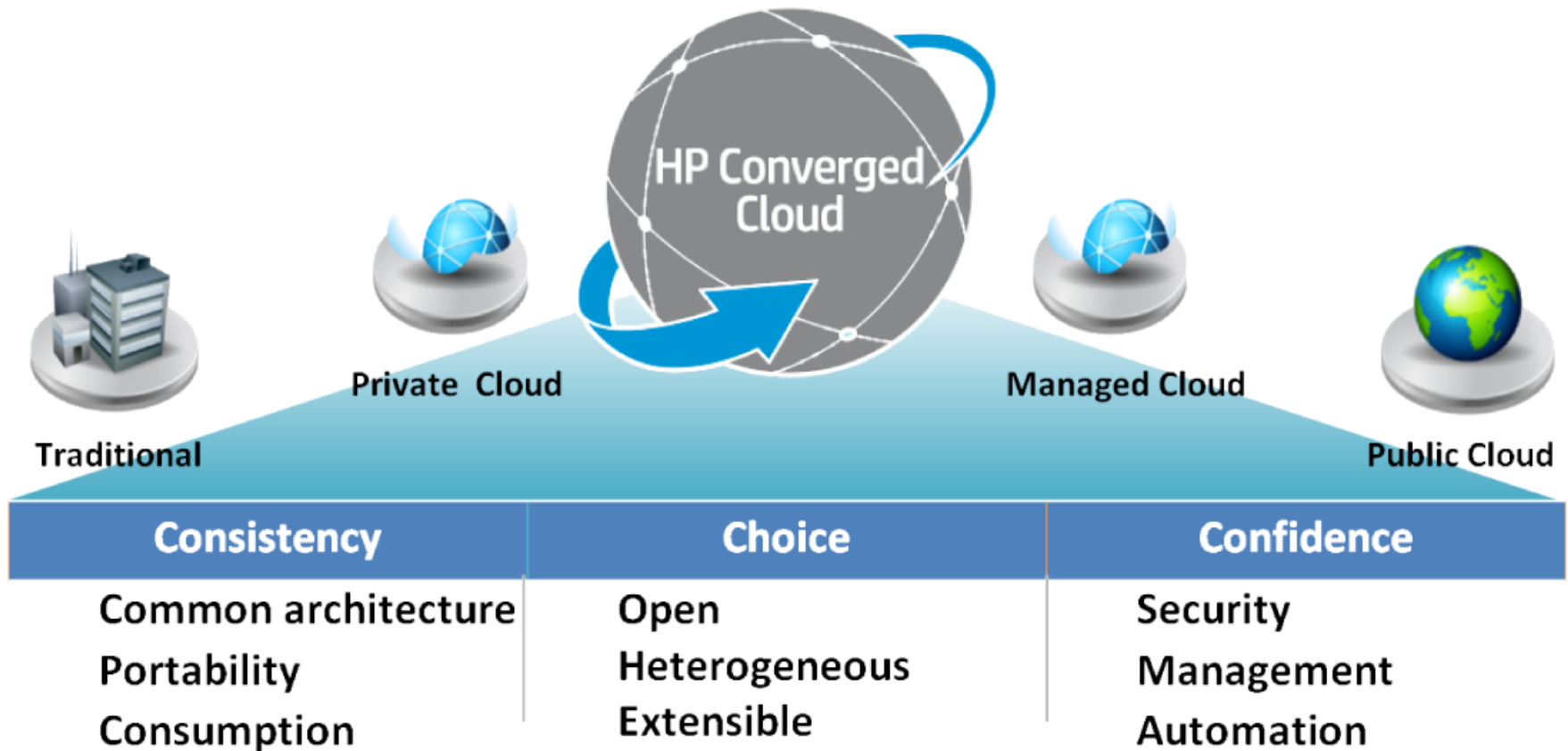- Storage today needs to handle tier 1 apps being virtualised

4. Legacy network designs

- Flatter is faster (more east-west traffic)

- Must be open and designed for virtualisation

- Must not break the bank

Server Pod

Network Equipment

Network Rack

Server Rack

HP Converged Cloud brought to you by Intel®

- Integrated by design

HP Converged Cloud

Private Cloud

Managed Cloud

Traditional

Public Cloud

Consistency	Choice	Confidence
Common architecture	Open	Security
Portability	Heterogeneous	Management
Consumption	Extensible	Automation

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The year 2020: Dale's pick

"Server, network and storage will have blended into pure application delivery in an amorphic compute platform. Computing and network speeds will have increased to the point that there will be no need for fixed working locations and everybody will be mobile...

The year 2020: Dale's pick

"…The PC/Workstation concept could well disappear by this time, with access technology built into whatever touch display the user requires…

The year 2020: Dale's pick

"…and managing all this is going to be an absolute bloody nightmare - I hope I'm retired by then!"

Further reading

- **HP CloudSystem**
  www.hp.com/uk/masterthecloud

- **Private Cloud in Context**
  http://is.gd/FFDcontext

- **The Impact of Private Cloud in IT**
  http://is.gd/FFDimpact

- **Cloud Computing Checkpoint**
  http://is.gd/FFDcloudcheck

- **Applied Cloud Computing**
  http://is.gd/FFDappliedcloud

Thanks for joining us

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