![The Register]

# 21st century data protection

## Get backup to date

# Why are we here?

We're explaining why your back up and recovery processes need to adapt to way you work today, and how to do it.

# On our Regcast today

Dave Barnes, **HP**

Tony Lock, **Freeform Dynamics**

Tim Phillips, **The Register**

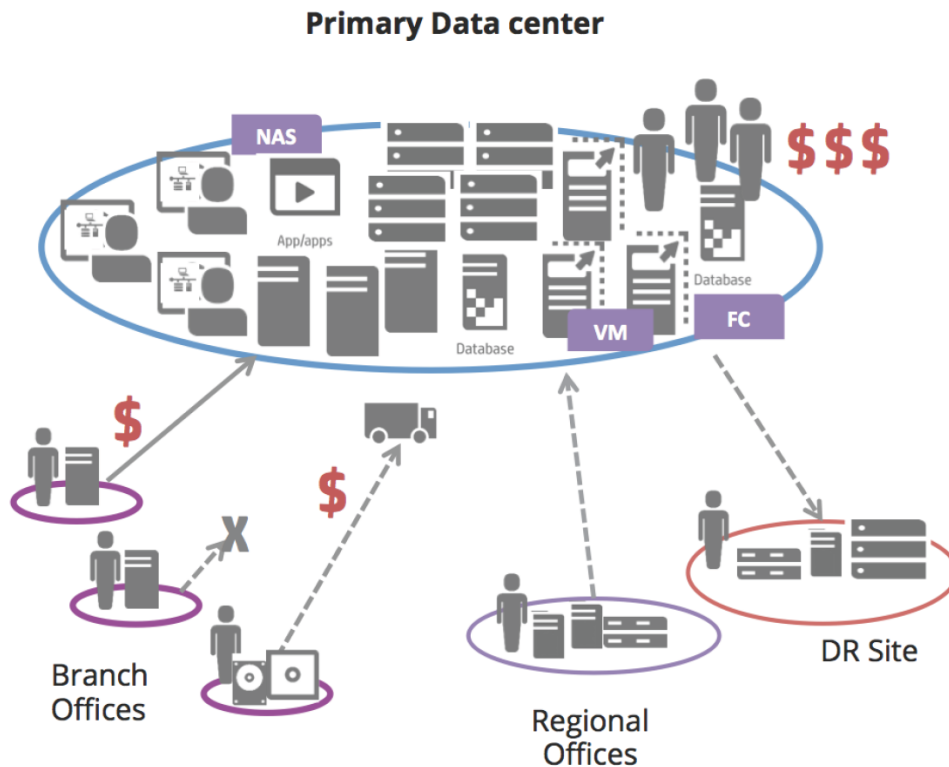# 1. DP is not just backup and recovery

## What Reg readers do today:

- Point fixes = complexity
- Fearful of risk, minimal budgets, uncertainty of what to do

## Need:

- Labour-intensive ISV backup processes no longer good enough and cost loads
- Virtualisation
- Mobile and remote
- Higher expectations; eg from flash

# Changes in the next three years?

**Primary Data center**



**Cost**
Staffing
Multiple backup solutions
Constant storage purchases
to keep up with data growth

**Risk**
Missed SLA's
Backup windows too short
Failed Backup jobs
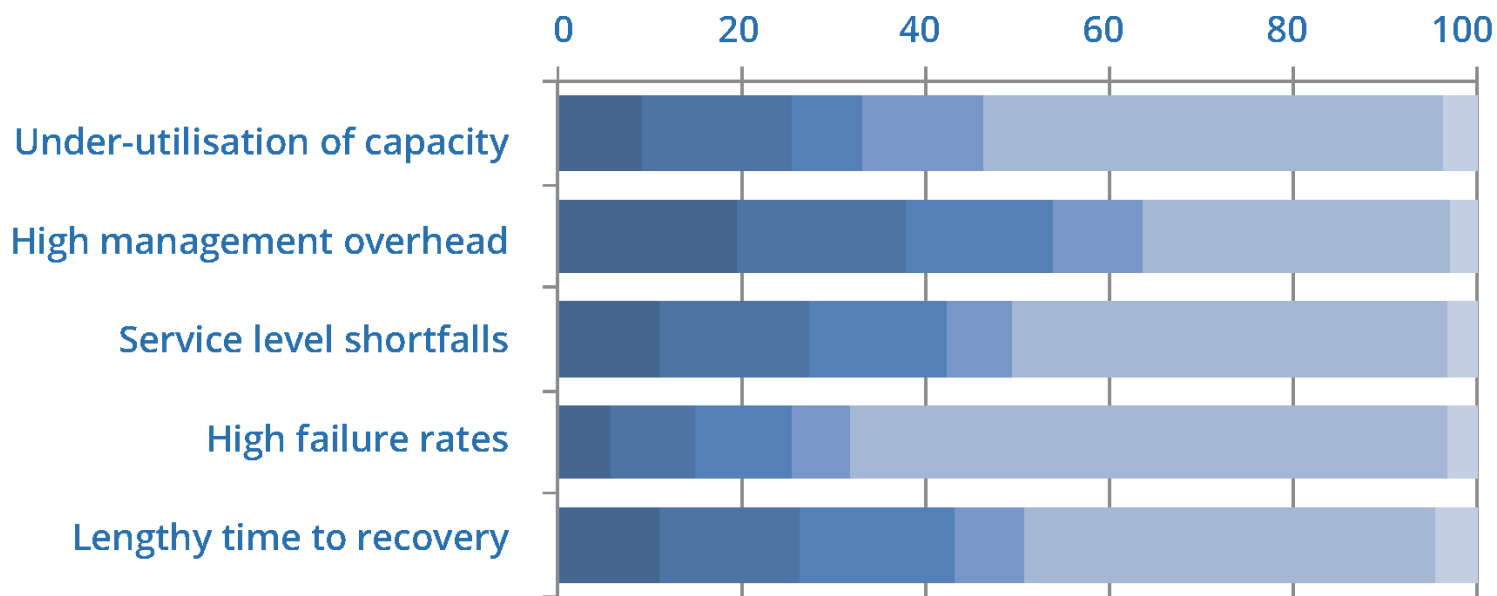Stretched IT resources
Data security

**Complexity**
Silos of data
Remote offices
Multiple solutions,
Multiple control points
Virtualized environments

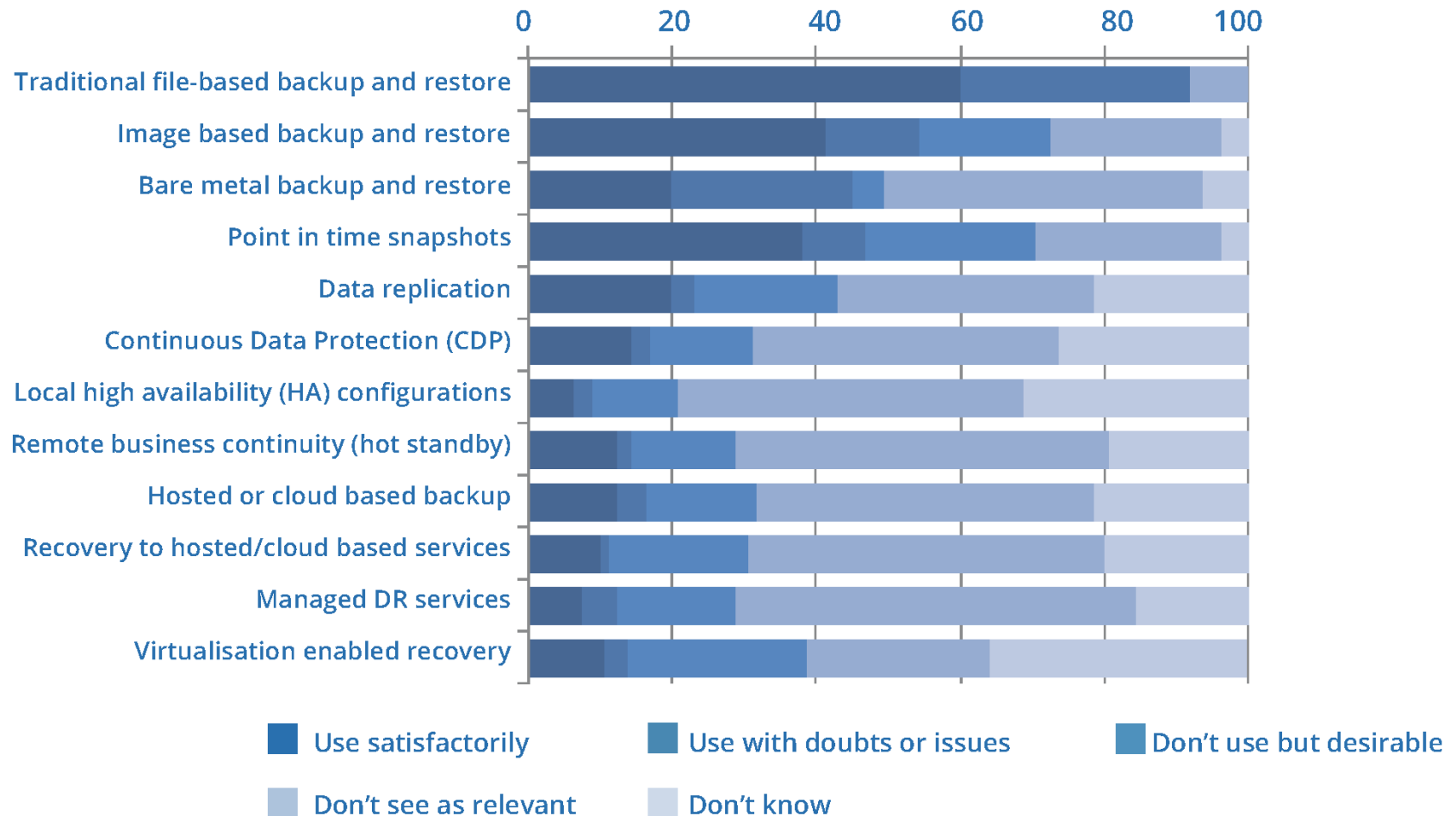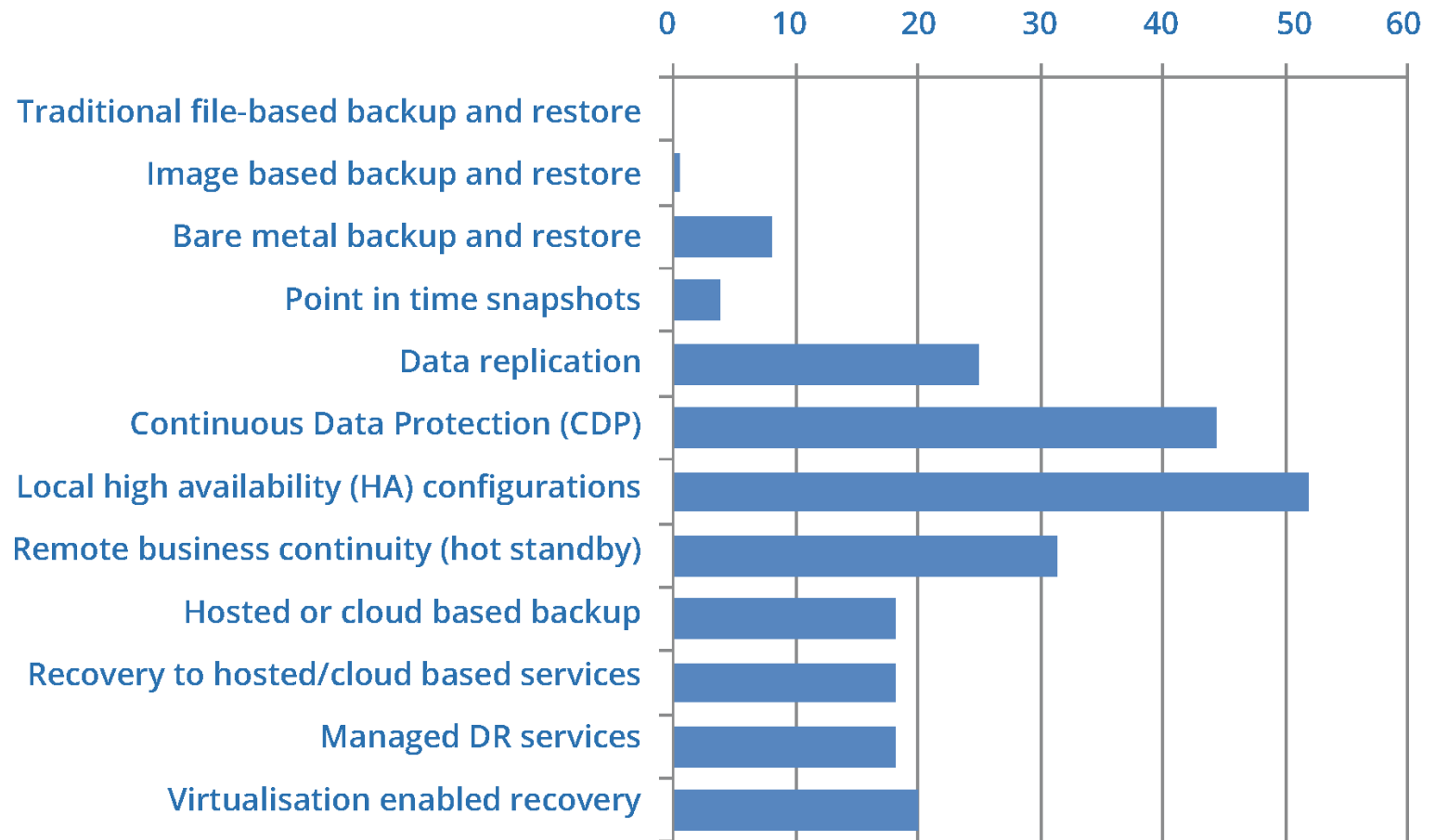# How would you describe the following challenges associated with your storage infrastructure and its management?



Legend:
- Significant ongoing problem
- Ongoing distraction
- Becoming an issue
- Historical issue - now ok
- No issue
- Unsure/NA

Categories (top to bottom):
- Under-utilisation of capacity
- High management overhead
- Service level shortfalls
- High failure rates
- Lengthy time to recovery

# What is your experience or opinion of the following in the context of IT related disaster recovery?



Bar chart categories (top to bottom):
- Traditional file-based backup and restore
- Image based backup and restore
- Bare metal backup and restore
- Point in time snapshots
- Data replication
- Continuous Data Protection (CDP)
- Local high availability (HA) configurations
- Remote business continuity (hot standby)
- Hosted or cloud based backup
- Recovery to hosted/cloud based services
- Managed DR services
- Virtualisation enabled recovery

Legend:
- Use satisfactorily
- Use with doubts or issues
- Don't use but desirable
- Don't see as relevant
- Don't know

# Was a definition required for the following?



| | 0 | 10 | 20 | 30 | 40 | 50 | 60 |
|---|---|---|---|---|---|---|---|

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# Would you be concerned about any of the following issues with the solutions and approaches we have been discussing?



Chart categories (top to bottom):
- Traditional file-based backup and restore
- Image based backup and restore
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- Data replication
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Legend:
- Impractical in our environment
- Ineffective for our requirements
- Overkill for our requirements
- No issues
- No opinion

# 2. New architectures and options

**Replication/ snapshots / Remote Copy / CBR / active and cold archive**
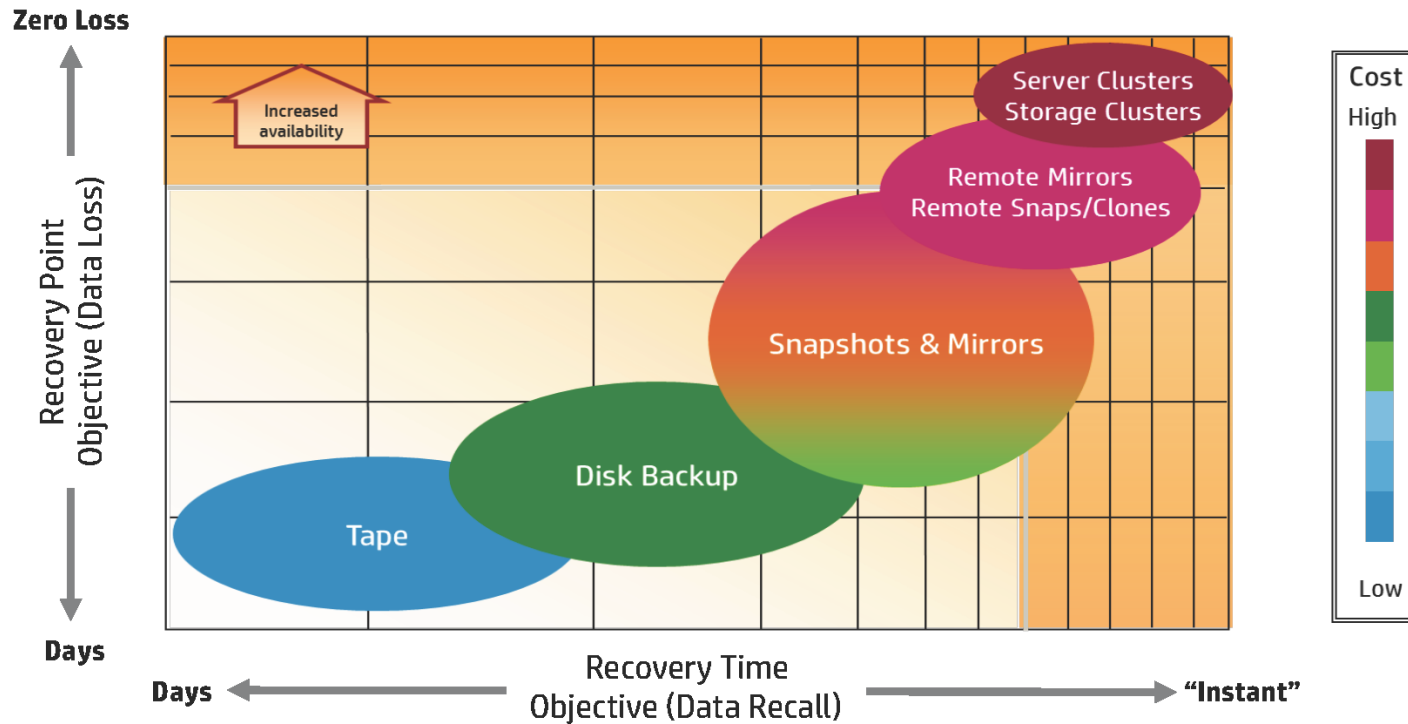
**Reduce volume of backup data stored**

**More efficient technology to move data**

**Eliminate backup silos**

# The Application Availability Continuum



Zero Loss

Increased availability

Recovery Point Objective (Data Loss)

Days

Server Clusters
Storage Clusters

Remote Mirrors
Remote Snaps/Clones

Snapshots & Mirrors

Disk Backup

Tape

Recovery Time Objective (Data Recall)

Days — "Instant"

Cost
High

Low

# 3. Evolution

- Processes to change BURA

- Steps to identify need, discovery, classification

- Not just storage, processes for recovery

# What should I consider?

| Backup Process | Backup Targets | Restore Process | Retention Needs | Business Information | Expenditure |
|---|---|---|---|---|---|
| How are you protecting it? | Where are you protecting it? | How quickly can you get it back? | How long do you have to keep it? | Can you extract value from it ? | How much can you invest in it |
| **Complexity** | **Remote Office & Corporate** | **Recovery** | **Retention Period** | **Insight** | **CapEx and OpEx** |

# 4. Business case

- How much are you spending to do it badly?

- Unquantified risk loss: 5% data not backed up

- Regulatory problem?

- What does the business need (not just expect)?

# Backup Needs

## Fast

**Deliver on SLAs** with fast, non-disruptive , application consistent backup and recovery

## Efficient

**Reduce cost and complexity** of traditional ISV infrastructure with express backup direct from 3PAR to StoreOnce

## Reliable

**Protect applications** with the availability of snapshots and the protection of backups
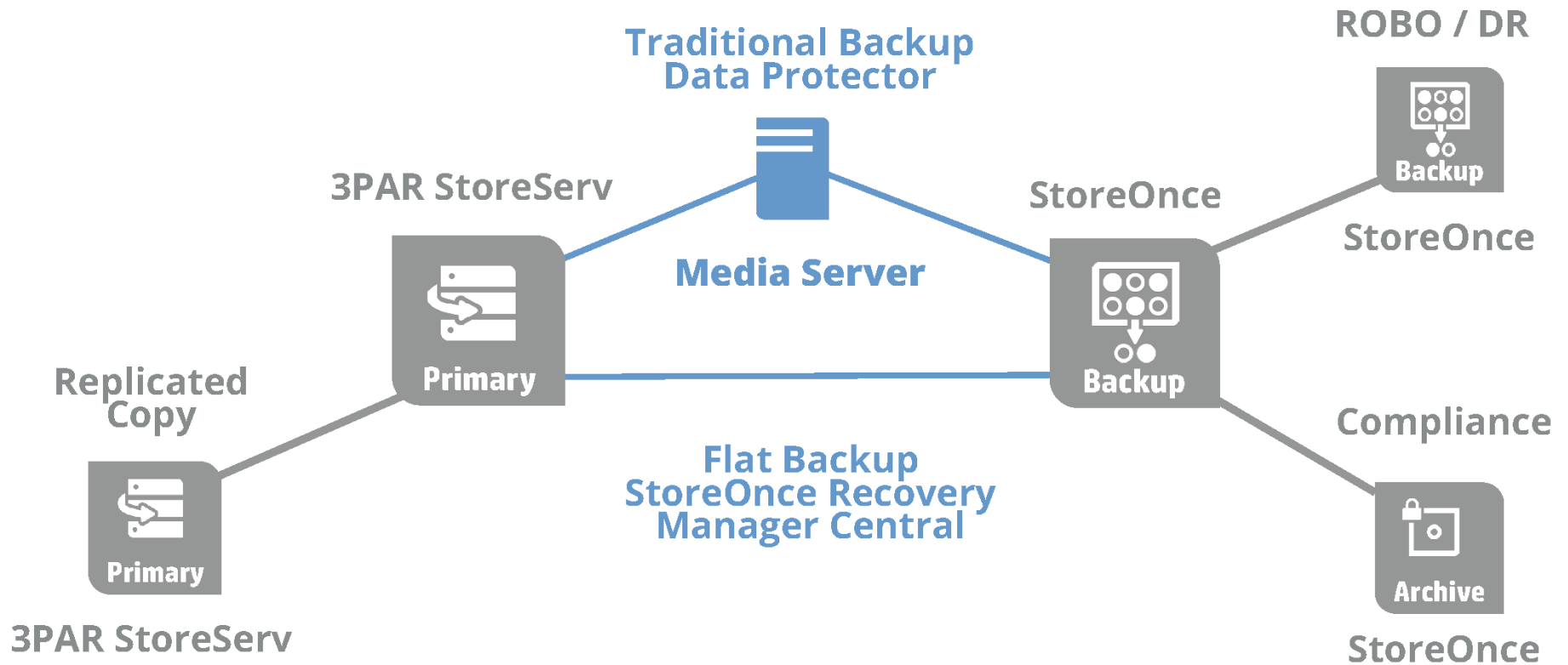
## Simple

**Empower hypervisor and application owners** to control backup and recovery direct  and seamlessly from their preferred native interfaces
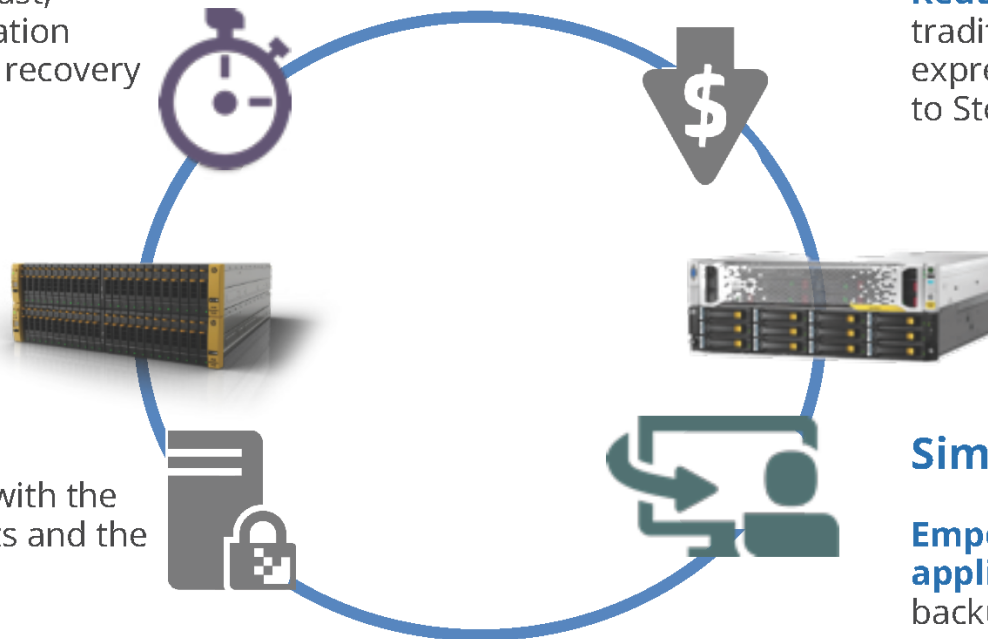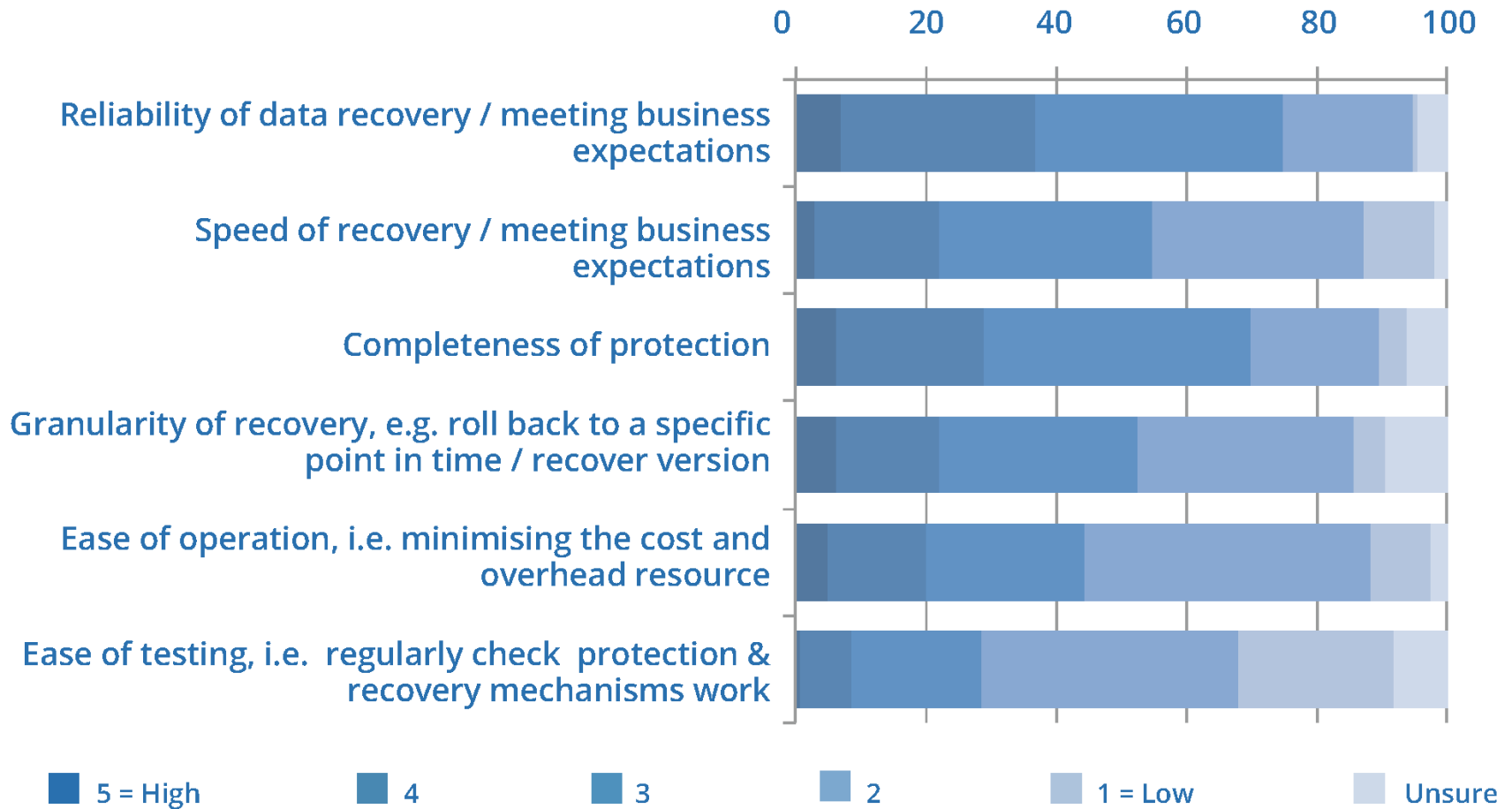
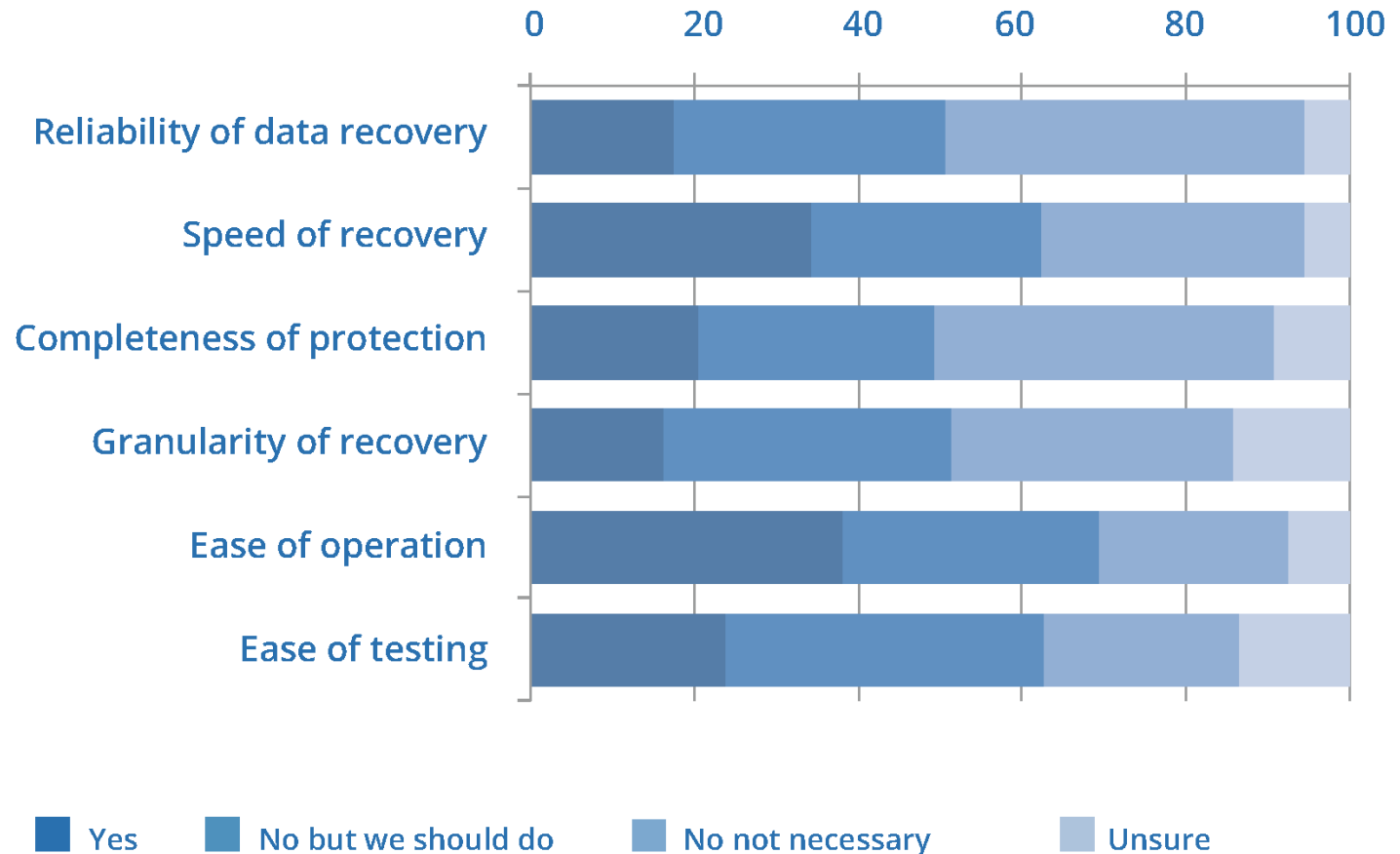### Welcome to Converged Data Protection
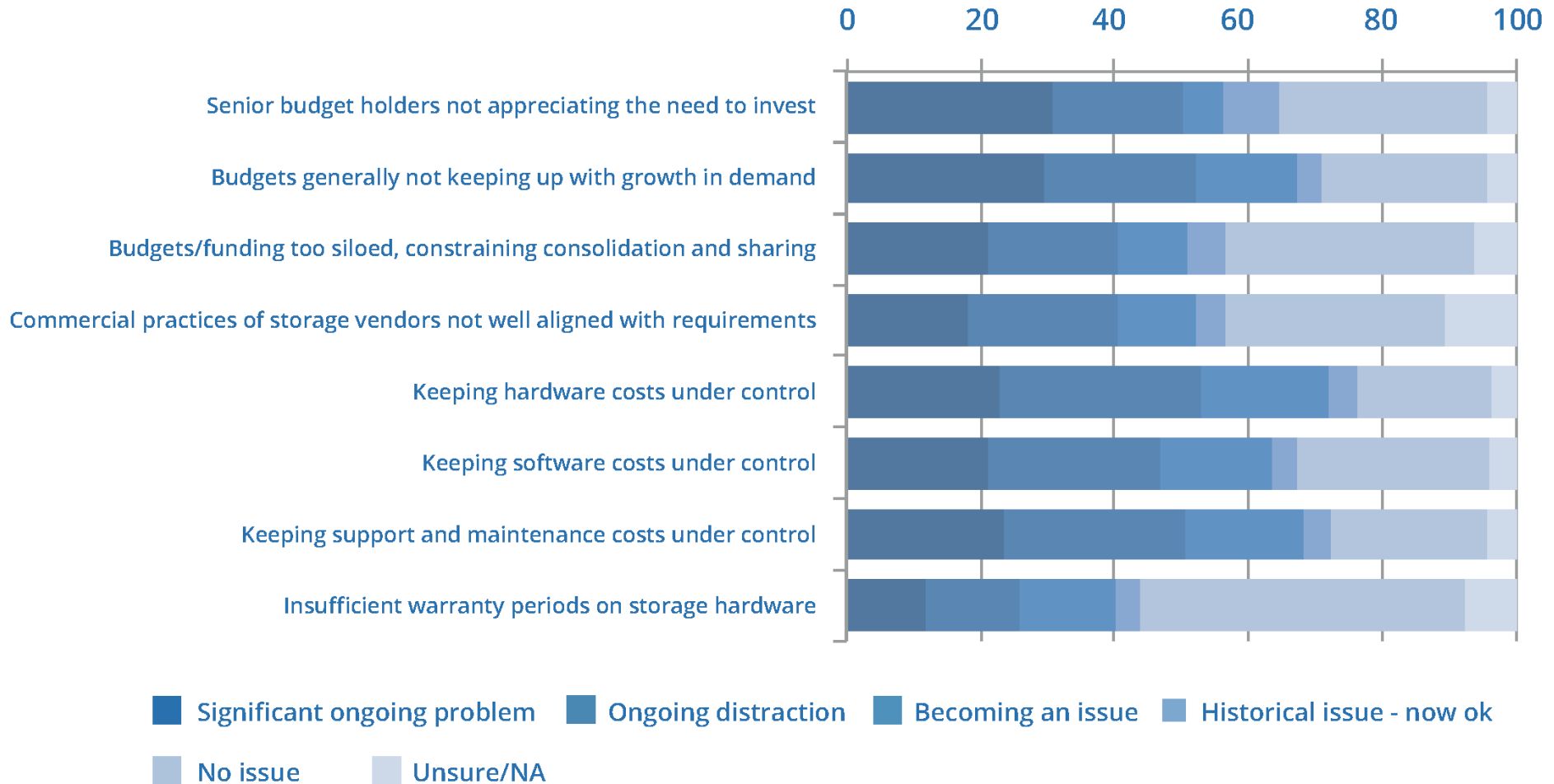
# Converged Data Protection

# Considering the measures you have in place at the moment, how would you rate your current IT disaster recovery capability according to the following criteria?



Bar chart categories:
- Reliability of data recovery / meeting business expectations
- Speed of recovery / meeting business expectations
- Completeness of protection
- Granularity of recovery, e.g. roll back to a specific point in time / recover version
- Ease of operation, i.e. minimising the cost and overhead resource
- Ease of testing, i.e. regularly check protection & recovery mechanisms work

X-axis: 0 20 40 60 80 100

Legend: 5 = High | 4 | 3 | 2 | 1 = Low | Unsure

# How would you characterise the following budget and commercial challenges in relation to your storage infrastructure?



Categories (left to right):
- Senior budget holders not appreciating the need to invest
- Budgets generally not keeping up with growth in demand
- Budgets/funding too siloed, constraining consolidation and sharing
- Commercial practices of storage vendors not well aligned with requirements
- Keeping hardware costs under control
- Keeping software costs under control
- Keeping support and maintenance costs under control
- Insufficient warranty periods on storage hardware

Axis: 0 — 20 — 40 — 60 — 80 — 100

Legend:
- Significant ongoing problem
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- No issue
- Unsure/NA

# Single Backup Platform: HP StoreOnce

**ONE Architecture**

From small sites to enterprise
Backup and replicate anywhere
Software, virtual and hardware appliances

**6500 Series**

**4900 Series**

**4700 Series**

StoreOnce inHP
Data Protector

Scalable to
1.7PB usable

**4500 Series**

**2700 Series**

**VSA Series**

1,4,10,50
TB usable

**StoreOnce Catalyst**
Backup App & Source Deduplication

**StoreOnce Recovery Manager Central**
StoreOnce RMC

# Where to start to make BURA better?

**Data Discovery & Classification**

**Business 'SLA' Requirements**

**Current Capabilities? / New Options**

**Business Trigger to invest**

**Operational Process Modification**

# Further reading

The business value of HP Storage Solutions for backup, recovery, and archive
http://reg.cx/2b2X

Video: Backup, recovery and archiving
http://reg.cx/2b2Y

The HP solution to backup complexity and scale
http://reg.cx/2dsN

Regcast - Flash Storage: see the light
http://reg.cx/2dsP

# Thanks for joining us

An archived version of today's event will be made available on The Register