Krótka historia backup’u

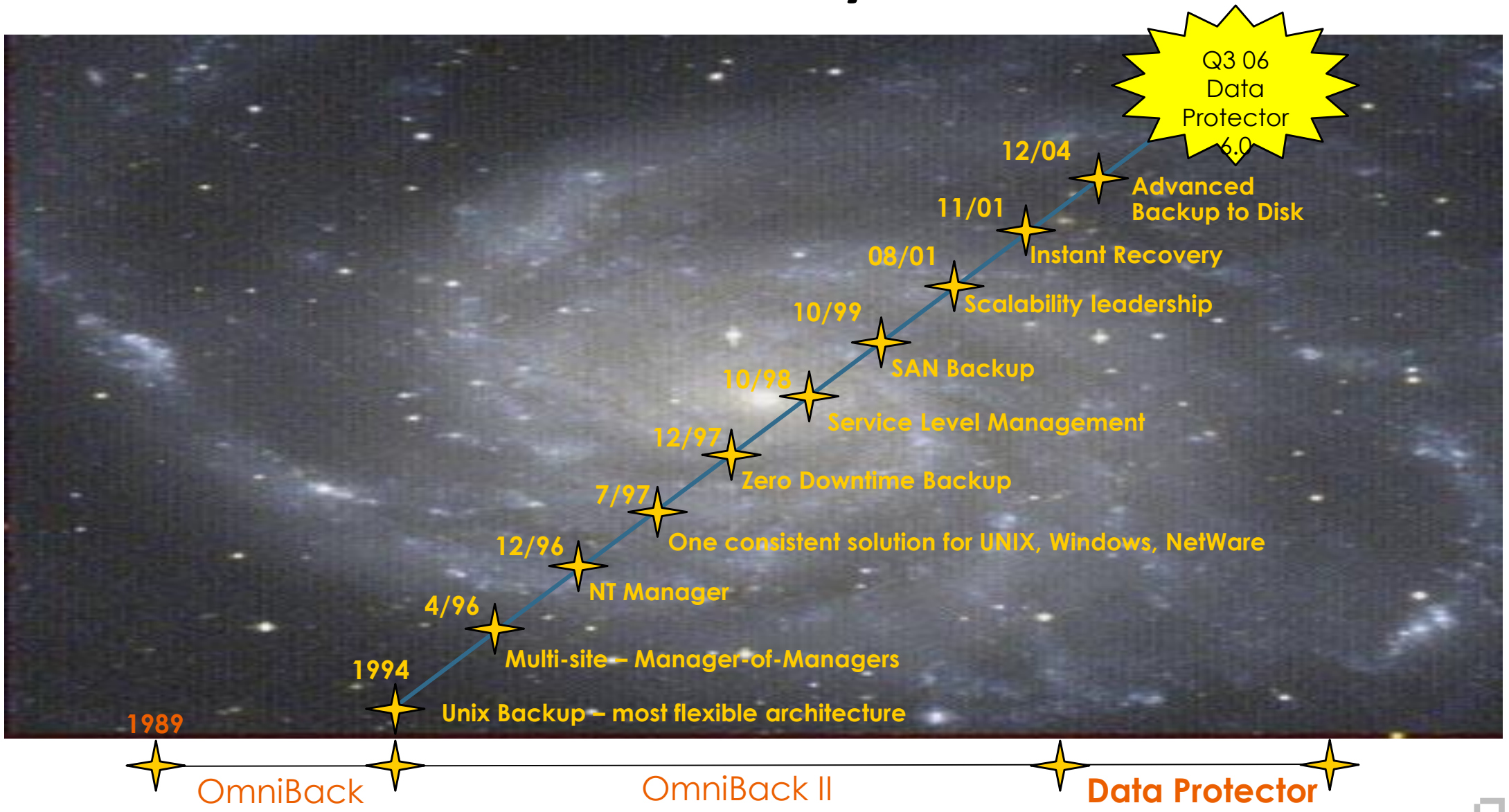
- Od dojrzałości po innowację
- Przykłady wdrożeń

Micro Focus Data Protector

Robert Lejnert

10/2019 :: Experience Tour Poland 2019

Data Protector – A Brief History of Time



Roadmap priorities for Data Protector

Mission Critical Applications and Storage integrations

- Continued Best-in-Class support for Mission Critical Applications including but not limited to SAP-HANA, Oracle, Microsoft Exchange, SQL, PostgreSQL
- Improved Storage Integrations for virtual and mission critical applications including HPE, NetApp, Dell/EMC

Virtualization and Cloud Protection

- Containerization, additional virtualization platforms
- Protection of Cloud Applications including to, from, within
- Improved support for virtual environments, including granular recovery, tagging, encryption

Lower Total Cost of Ownership

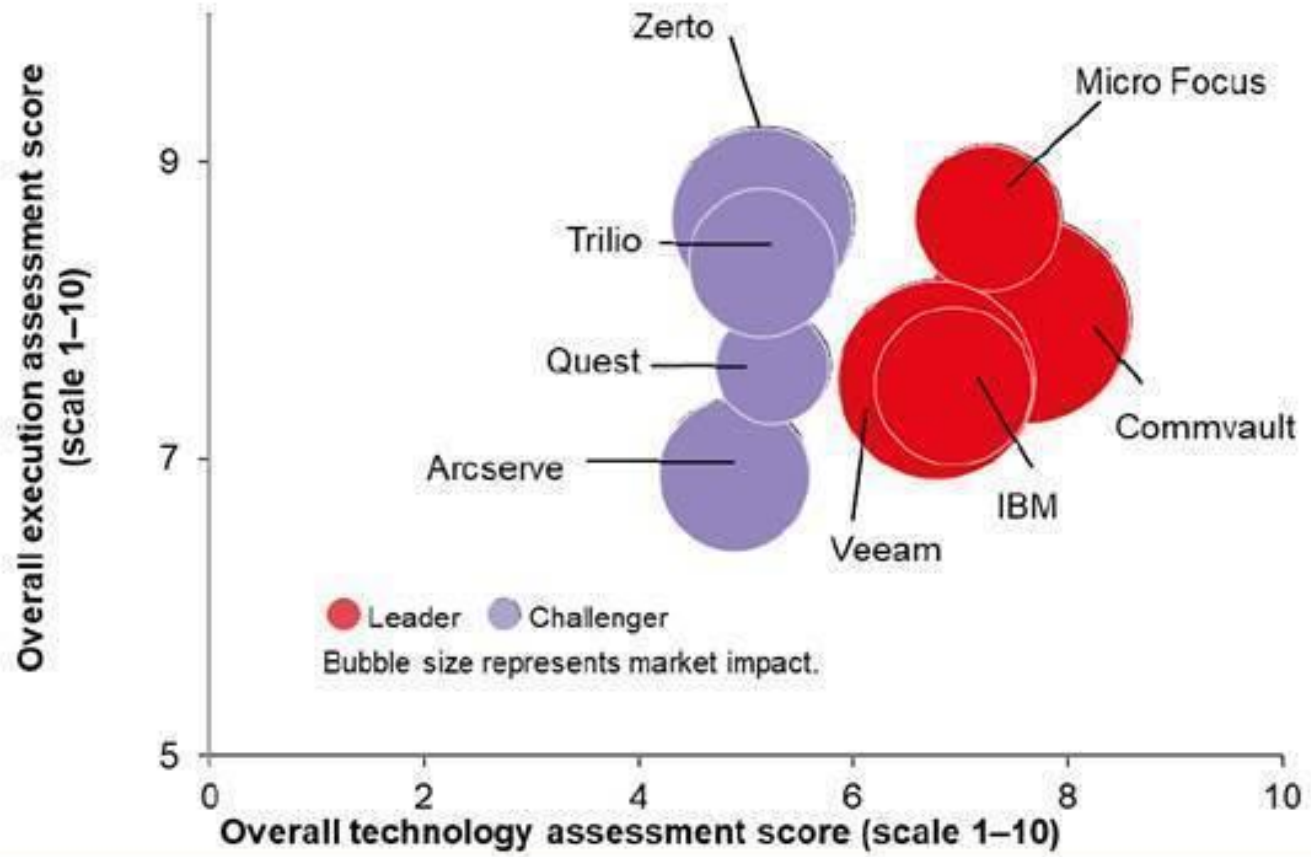
- Multi-tenant architecture offering segregation of objects
- UX Modernization to simplify management (web-based interface, built-in dashboard, platform independence)
- Automation and orchestration of deployment and upgrade tasks

Power of ITOM

Roadmaps are subject to change and are therefore not a commitment to deliver a software product, code or functionality or to meet any specific timetable.

Data Protector vs. the Competition

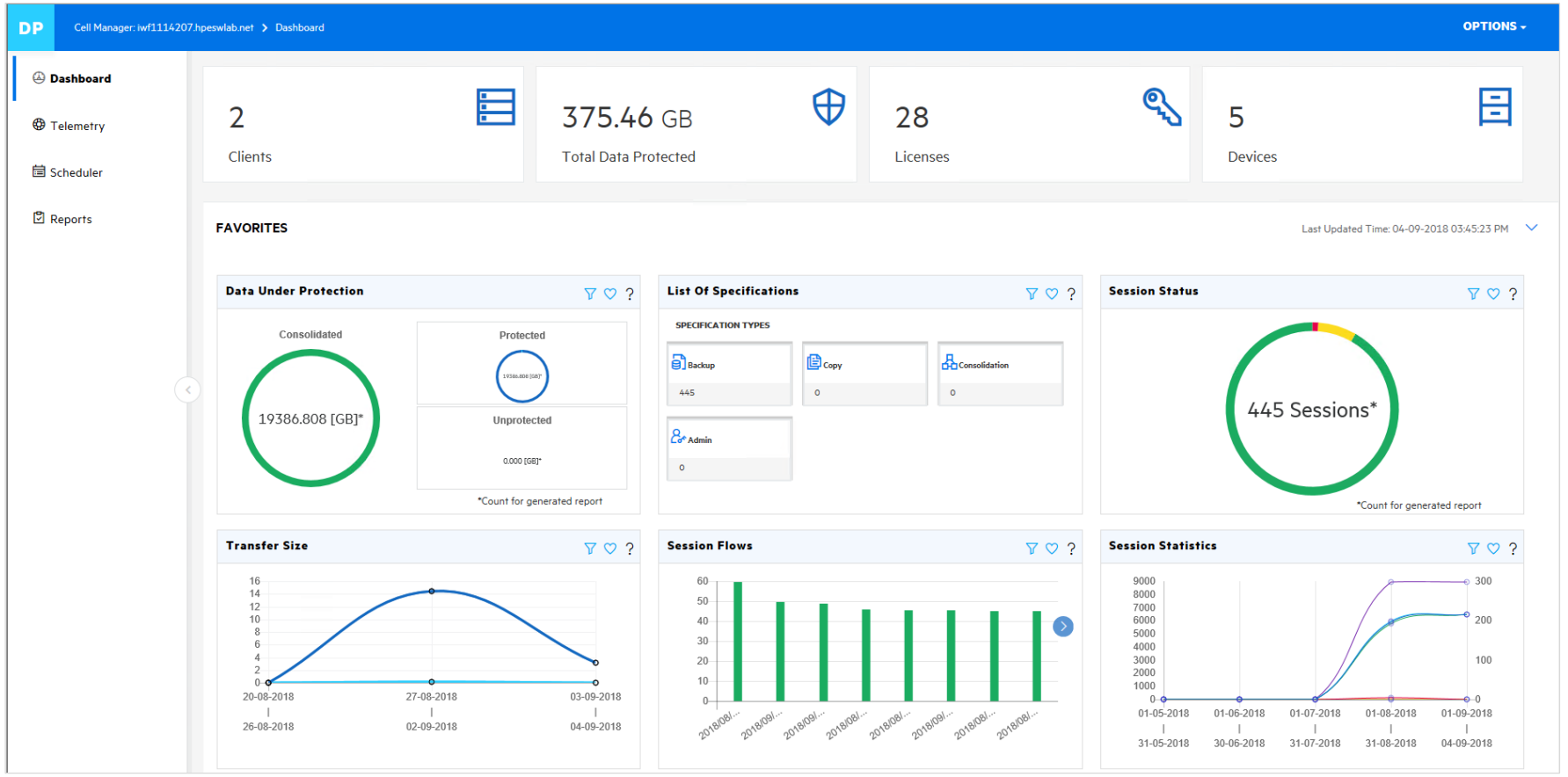
Figure 1: Ovum Decision Matrix: Software-based Data Availability and Protection Solution for the Cloud Era, 2019–20



Introducing Data Protector

Backup and disaster recovery for diverse, dynamic and distributed enterprises

- Hybrid Backup and Recovery
- Multi-Cloud Support
- Mission-critical Applications
- Built-in Security
- Visibility and Analytics
- Power of ITOM



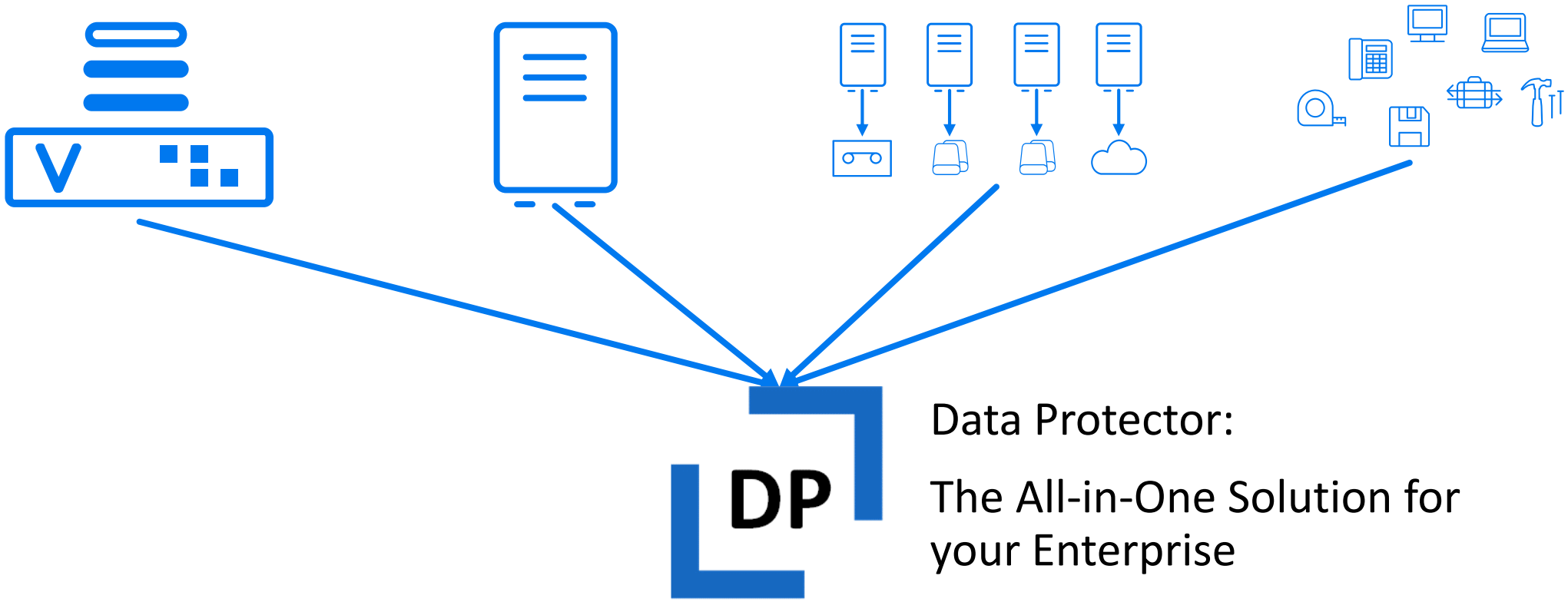
Backup Strategy consolidation

Dedicated VM Backup Tools

Dedicated BMDR Backup Tools

Individual data dumps per App

Fragmented monitoring, reporting …



Data Protector:

The All-in-One Solution for your Enterprise

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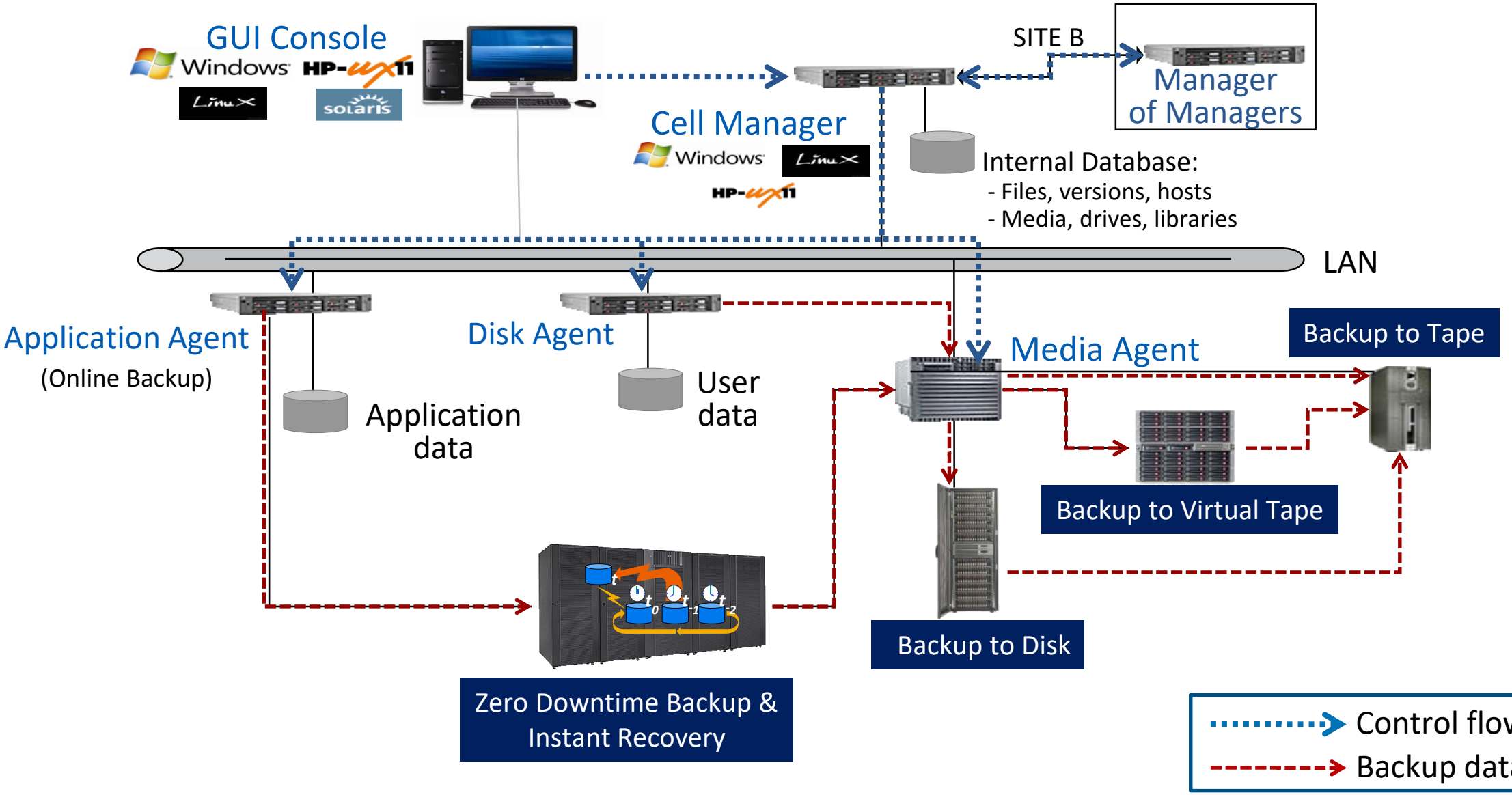
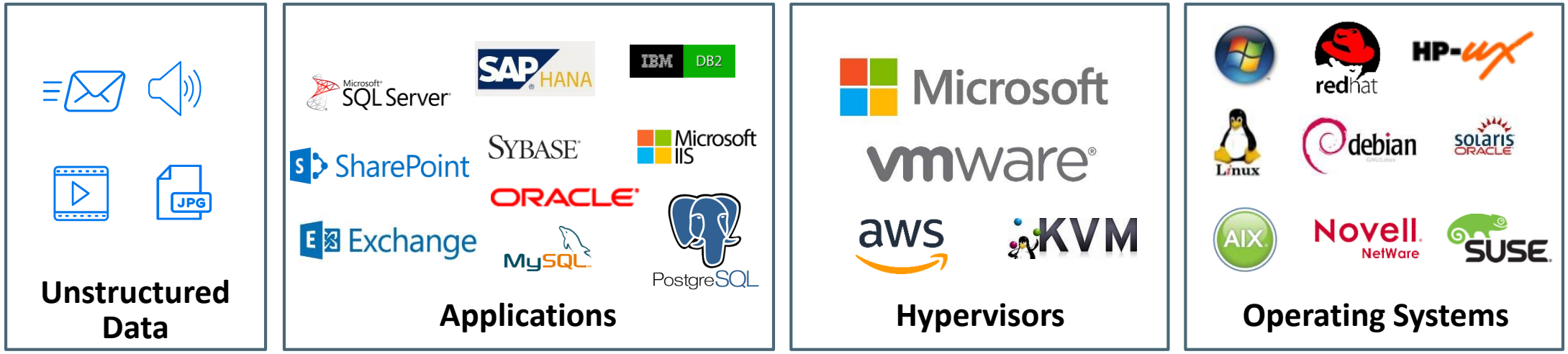
Data Protector Software

Enterprise Architecture Overview



Best-in Class Platform and Cloud Integrations

Standardized protection across the enterprise

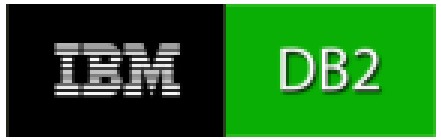


Micro Focus Data Protector

Storage Infrastructure

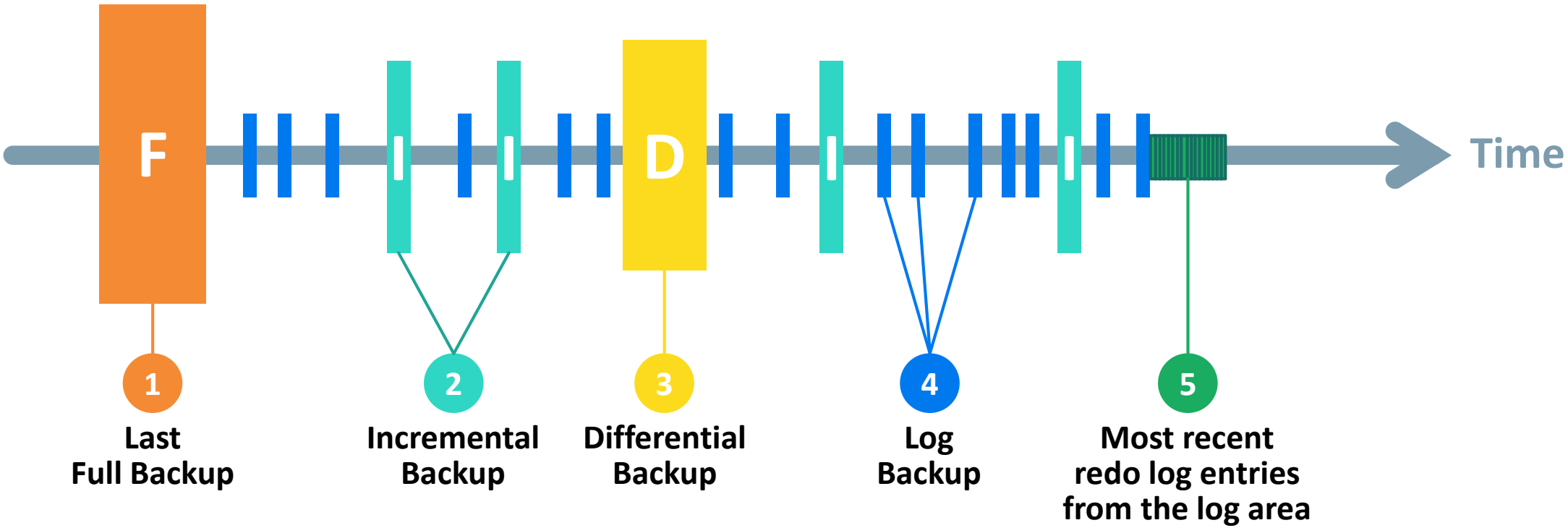
Application-consistent Recovery

Consistent data protection and compliance for select applications and databases



Why Need to Focus on Recovery First

The recovery options should define the way you structure your backup. This approach will help you to not be surprised when you need to recover from a failure and you can‘t get to a certain point in time. And of course you want to recover in the fastest way possible.



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Data Protector Backup Device Integrations

VTL/Appliances

HPE Store Once
Dell EMC Data Domain

Tape Libraries

HPE StoreEver, Quantum/Adic,
IBM, StorageTek, Overland

Tape Drives

LTO, AIT, Exabyte, STK, IBM,
DAT, DTF, Tandberg

Please check the DP Support Matrix for a full list of supported devices

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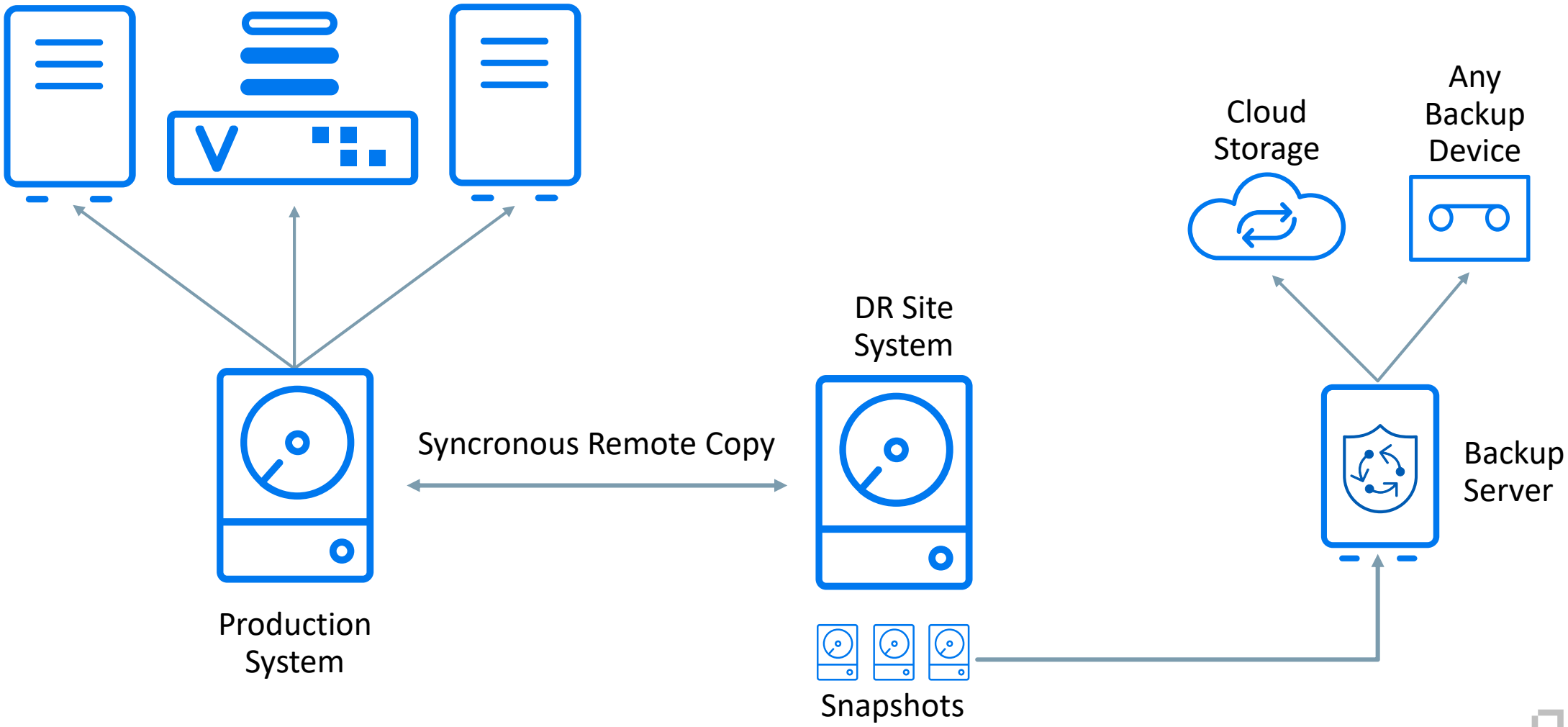
Disk and Flash Storage Integrations example

HPE 3PAR example

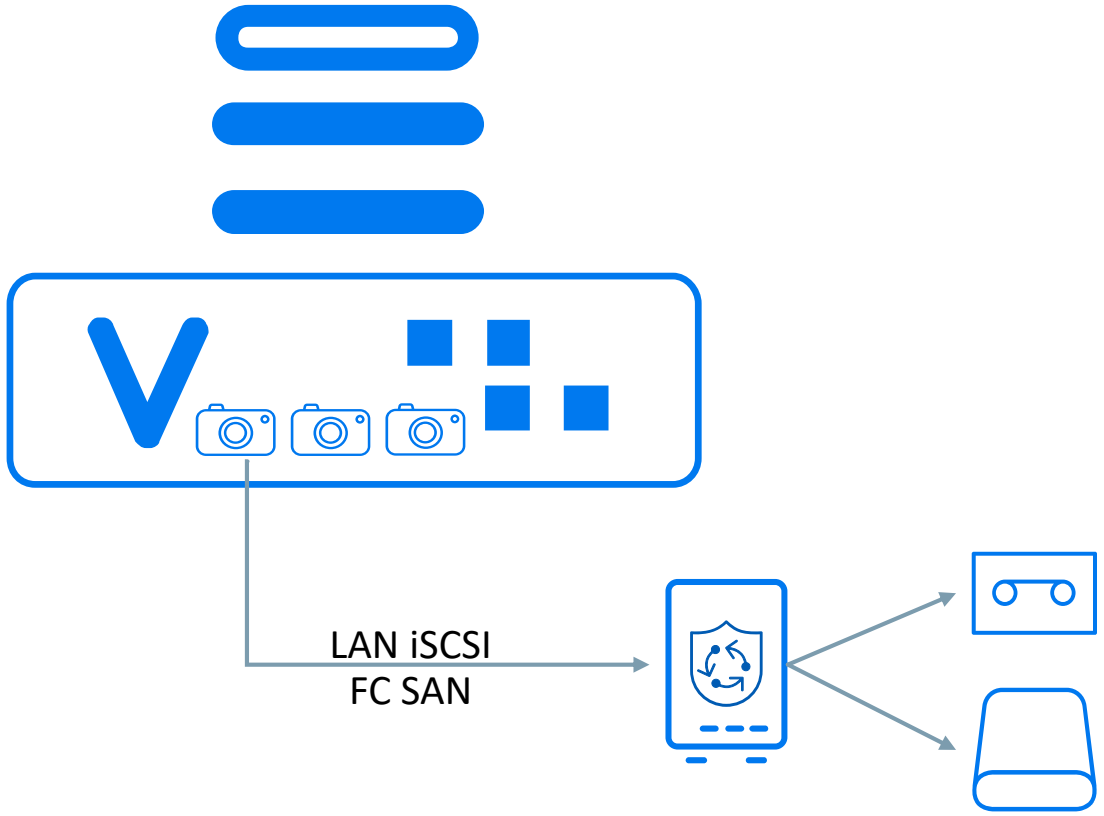


Hypervisor Integrations – VMware

vmware READY

VMware vSphere/vCenter:

- FC SAN/LAN Snapshot Backup
- VM Power On and Live Migration
- Granular File Recovery
- Change Block Tracking
- Parallel vDisk backup
- Restore VM with diff. Name
- Redirected restores
- Storage System Snapshots (ZDB)



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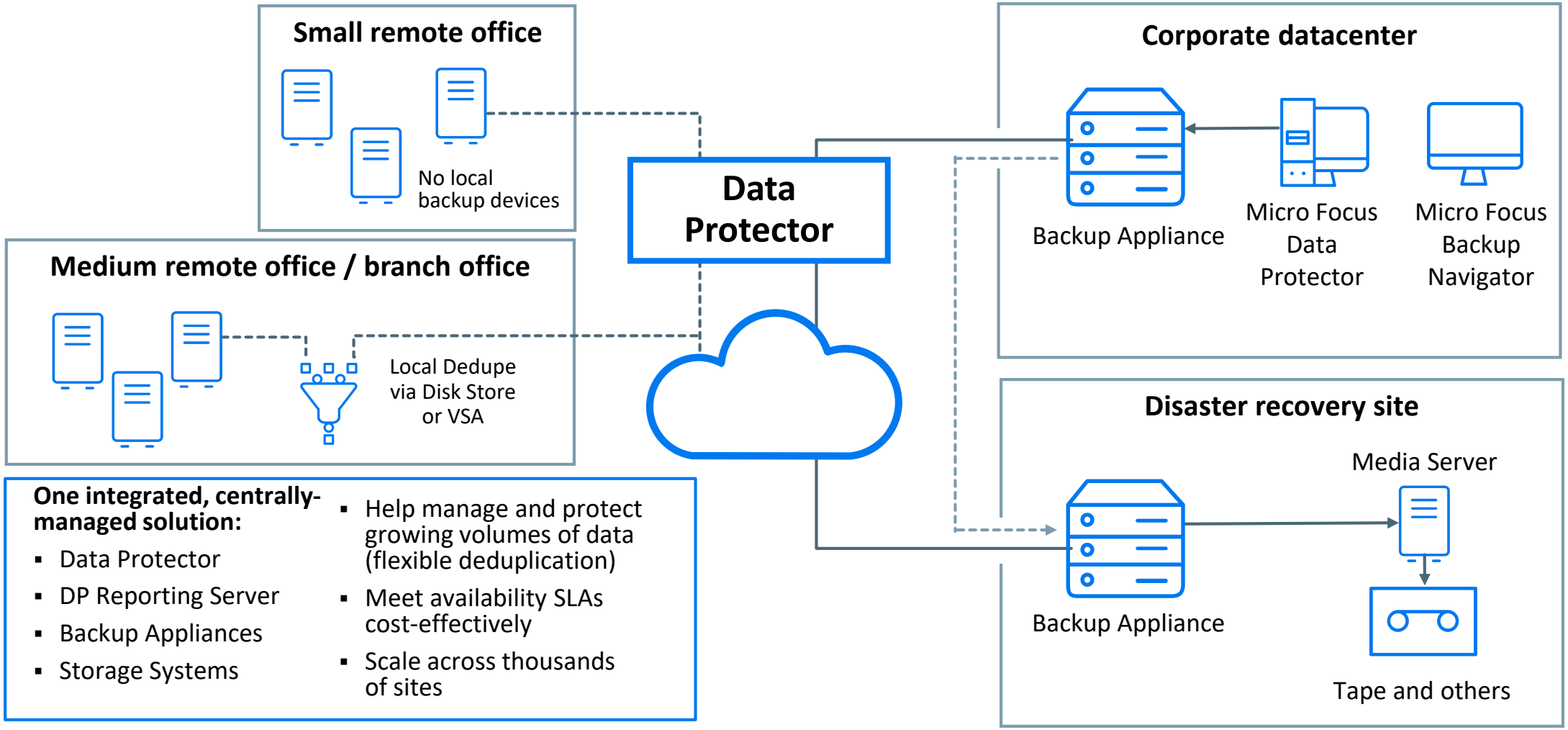
Best-In-Class Availability for Remote and Branch Office



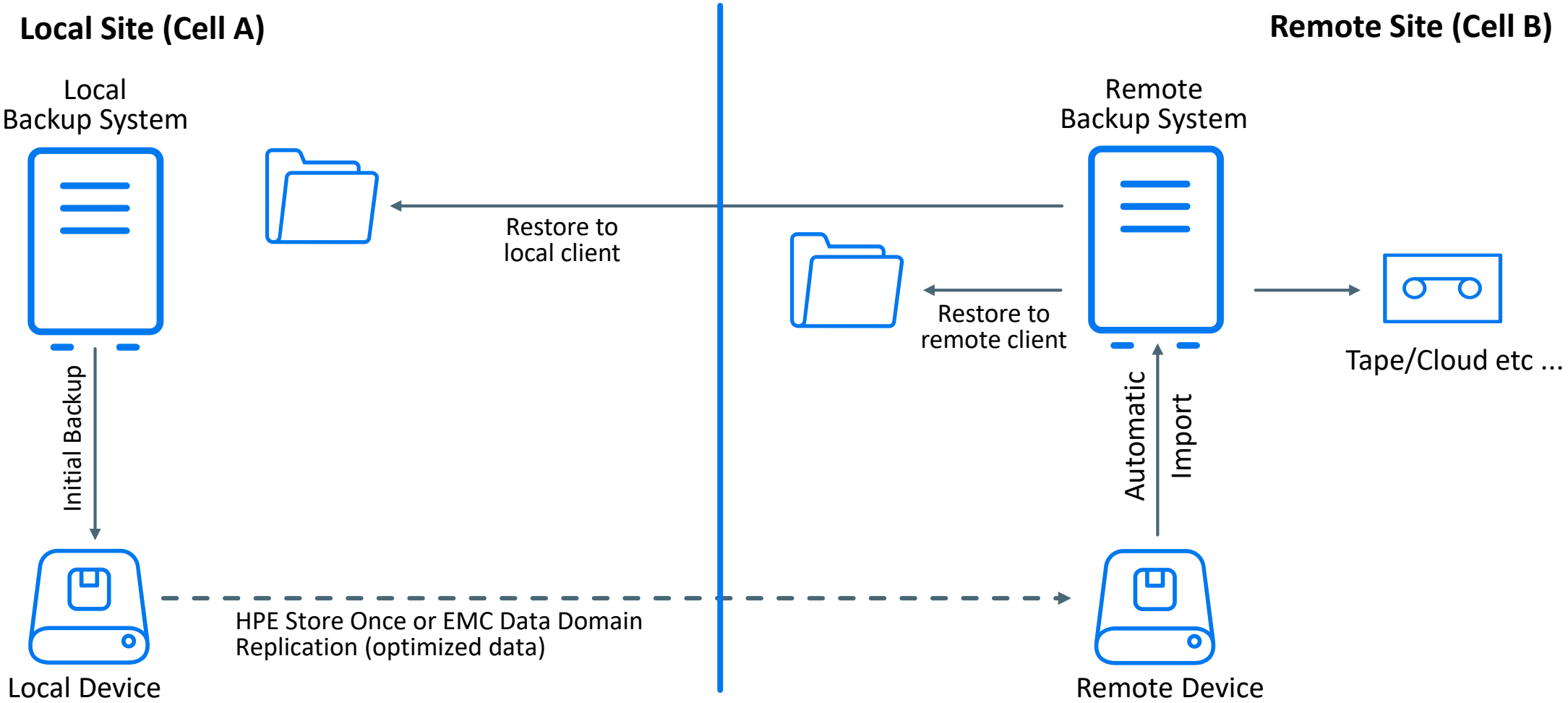
One integrated, centrally-managed solution:

- Data Protector
- DP Reporting Server
- Backup Appliances
- Storage Systems

- Help manage and protect growing volumes of data (flexible deduplication)
- Meet availability SLAs cost-effectively
- Scale across thousands of sites

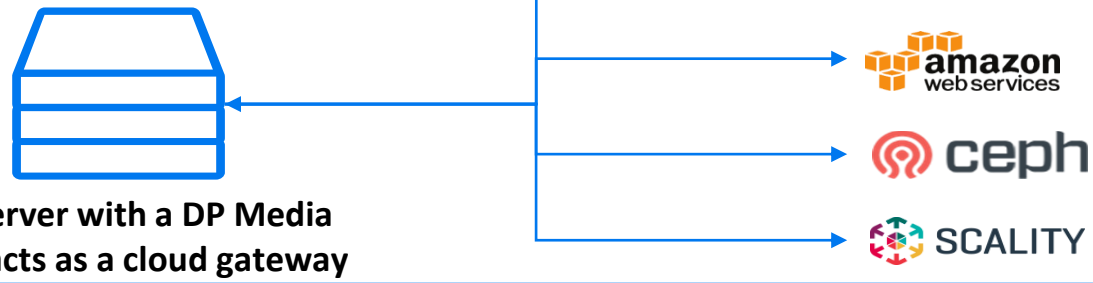
Automated Backup Data Replication and Synchronization

Automated setup and workflow, no scripts

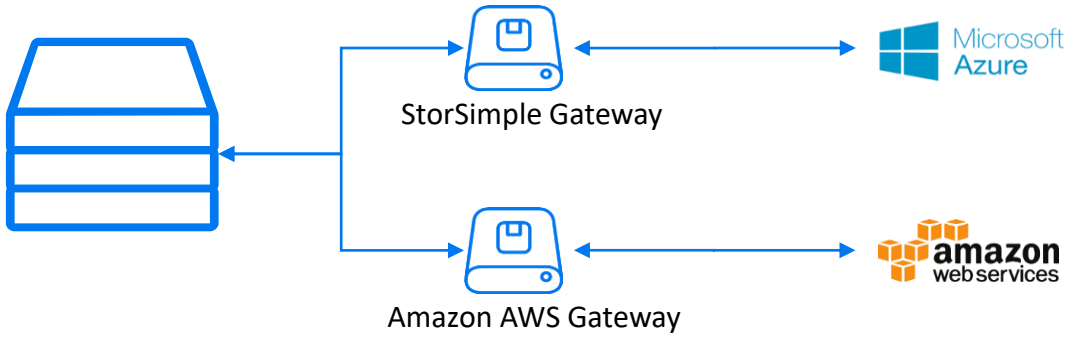


Multi-Cloud Support

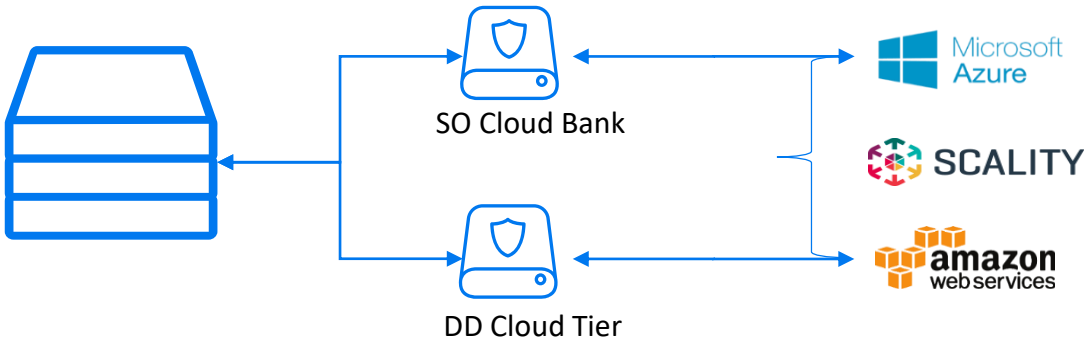
Native Integration

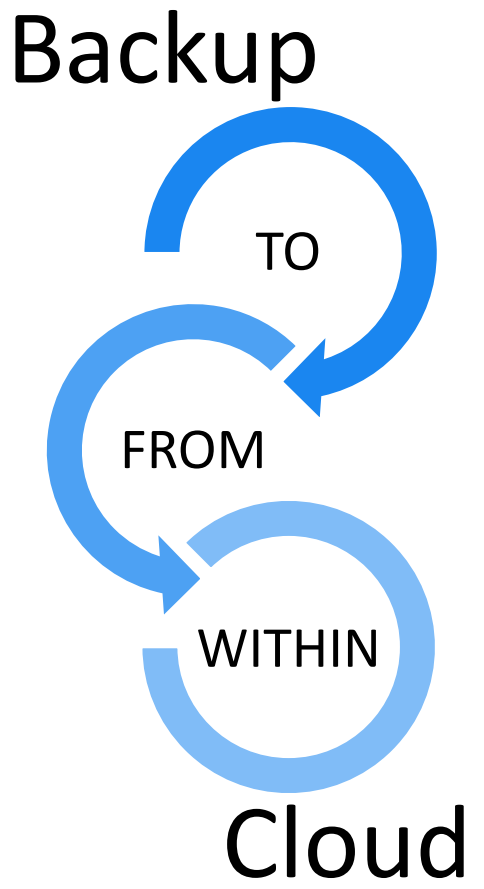


Cloud Gateways



Backup Appliances





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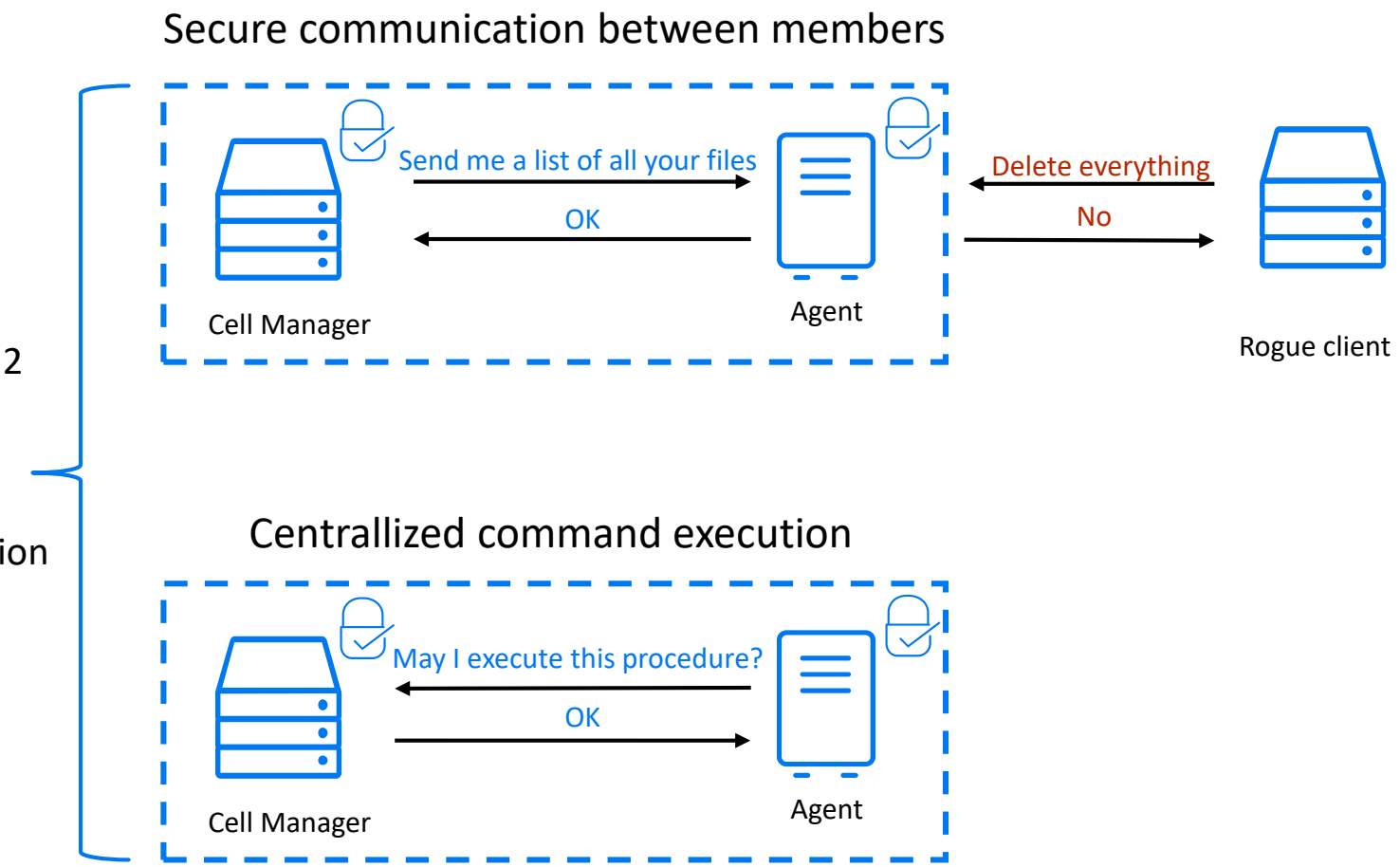
Enterprise Class Scalability and Security

Built-in security against growing threats

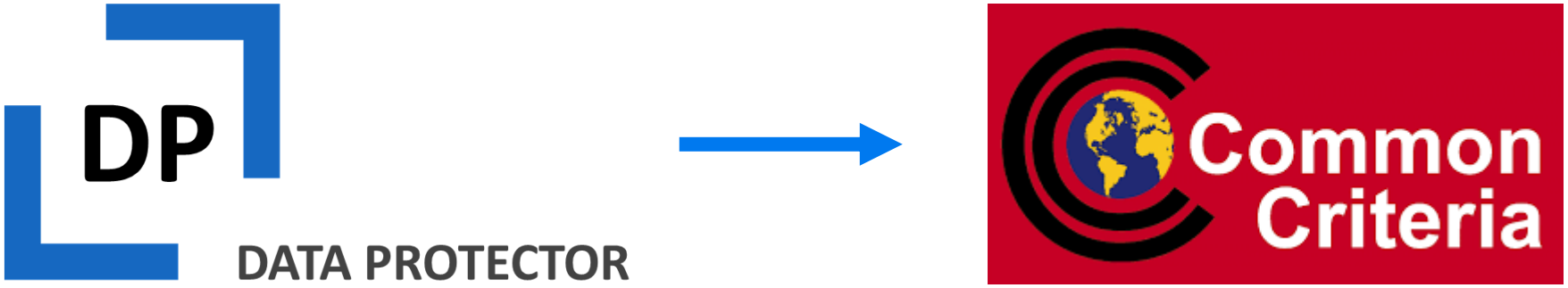
Data Protector Security Model

- Centralized command and control
- Secure client communication via TLS 1.2
- Configurable Data encryption
- AES-256 bit encryption per client
- User authentication and LDAP integration
- Network Port Consolidation - from hundreds to three



DP 2019.08 submission for Common Criteria

The **Common Criteria for Information Technology Security Evaluation** (referred to as **Common Criteria** or **CC**) is an international standard (ISO/IEC 15408) for computer security certification. It is currently in version 3.1 revision 5.
Common Criteria is a framework in which computer system users can *specify* their security *functional* and *assurance* requirements (SFRs and SARs respectively) in a Security Target (ST), and may be taken from Protection Profiles (PPs). Vendors can then *implement* or make claims about the security attributes of their products, and testing laboratories can *evaluate* the products to determine if they actually meet the claims. In other words, Common Criteria provides assurance that the process of specification, implementation and evaluation of a computer security product has been conducted in a rigorous and standard and repeatable manner at a level that is commensurate with the target environment for use.



Data Protector Releases: Key Features and Themes

Data Protector 8.x

- **Enterprise class scalability**
- Advanced reporting and analytics
- SmartCache
- SAP HANA 1.0 Backint support
- Advanced integrations:
  - EMC Data Domain
  - ZDB for HPE 3PAR

Data Protector 9.x

- Automated replication sync
- Microsoft Azure Integration
- **Advanced integrations**
  - HPE StoreOnce Catalyst
  - HPE 3PAR Remote Copy
  - HPE StoreOnce RMC
  - HPE LTO-7 libraries
  - NetApp ZDB
  - VMware enhancements

Data Protector 10.x

- **New GUI and dashboard**
- Cloud enhancements
- **New security model**
- Secure REST APIs
- Advanced integrations:
  - StoreOnce integration
  - VMware integrations
  - MS Hyper-V integrations
  - NetApp
- **SAP HANA 2.0**
- **DP Express and DP Premium**
- Integrated **reporting**

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How to upgrade?

Before upgrading make yourself familiar with our Data Protector 10.x documentation provided on DocOps!
Beginning with Data Protector 2018.09 (aka v10.10) all install images are full installs which can be used to set up a brand new Data Protector Cell Manager or to upgrade from a previous version in a single step. The same image is also used to install/upgrade the Reporting Server.

Upgrade examples:

The other advantage is that only the newest builds are available for trial download.
Trial customers will benefit from the latest developements, from the very beginning.

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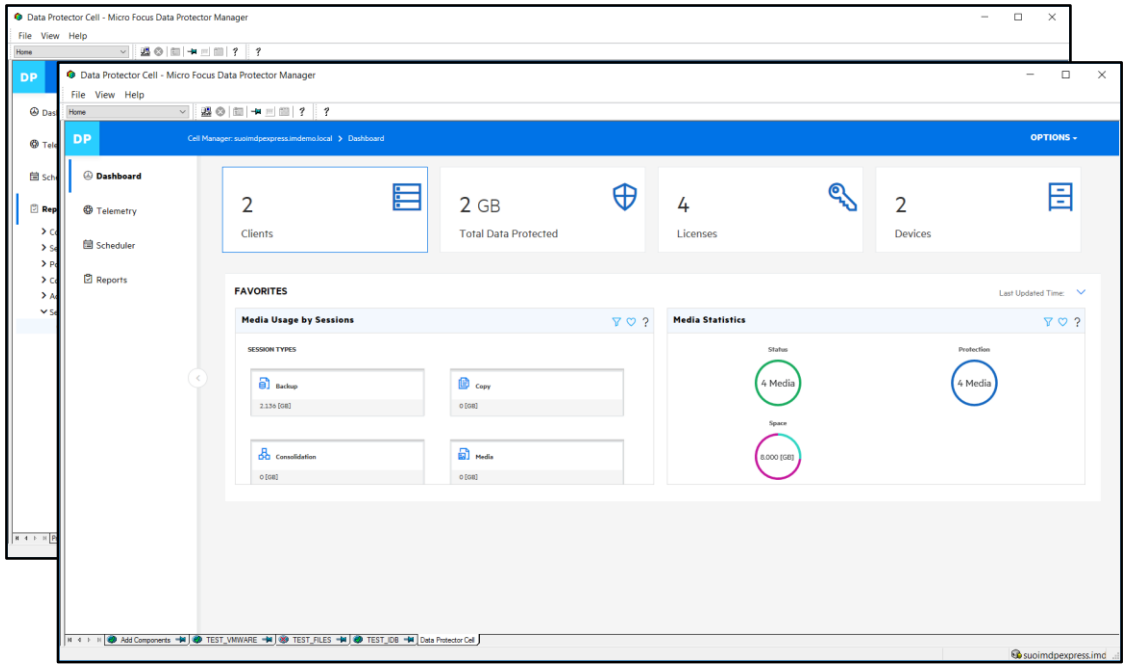
New Data Protector reporting overview

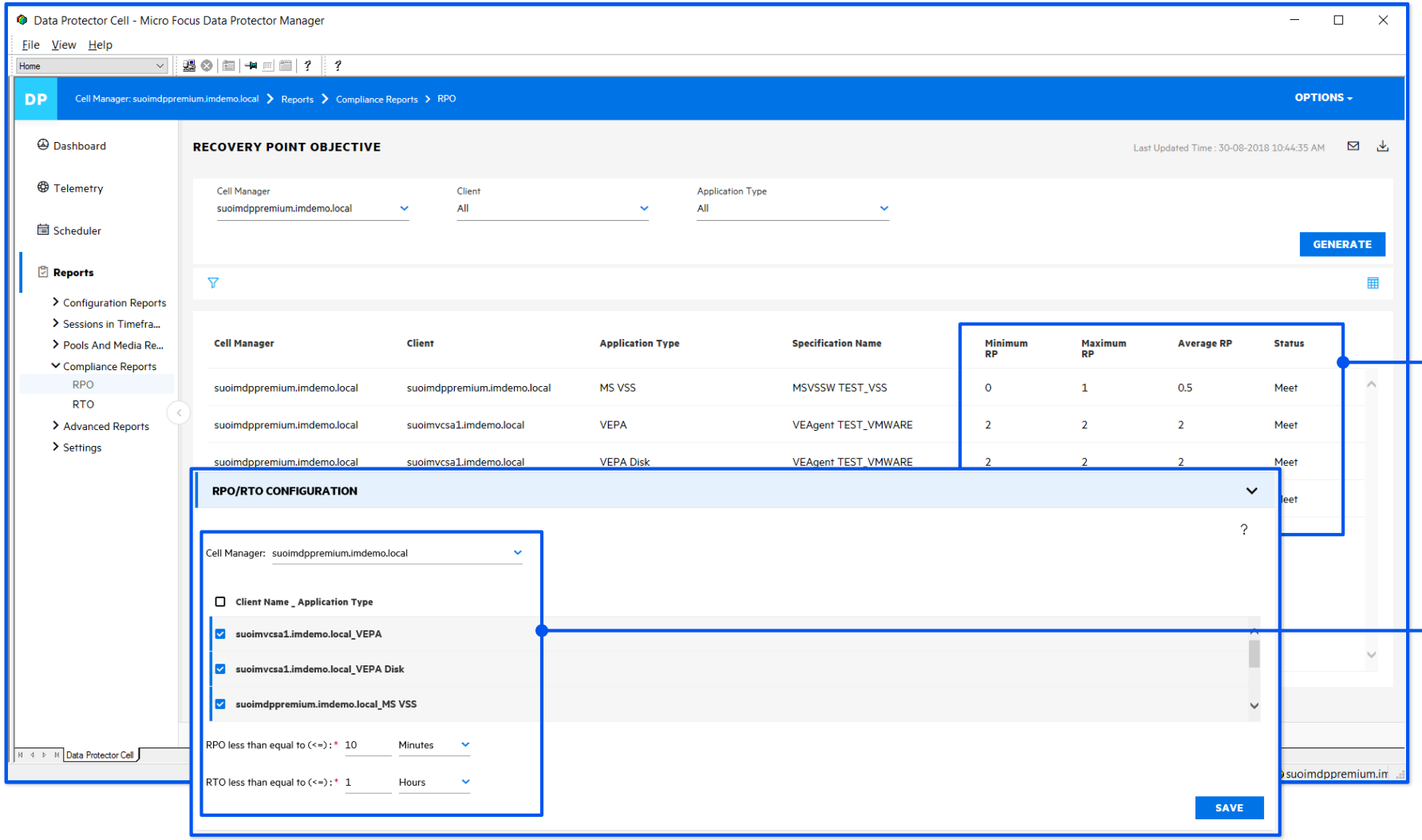
The reporting service is grouped in several sections

- Configuration Reports
- Session in Timeframe Reports
- Pools and Media Reports
- Compliance Reports
- Advanced Reports
- Settings

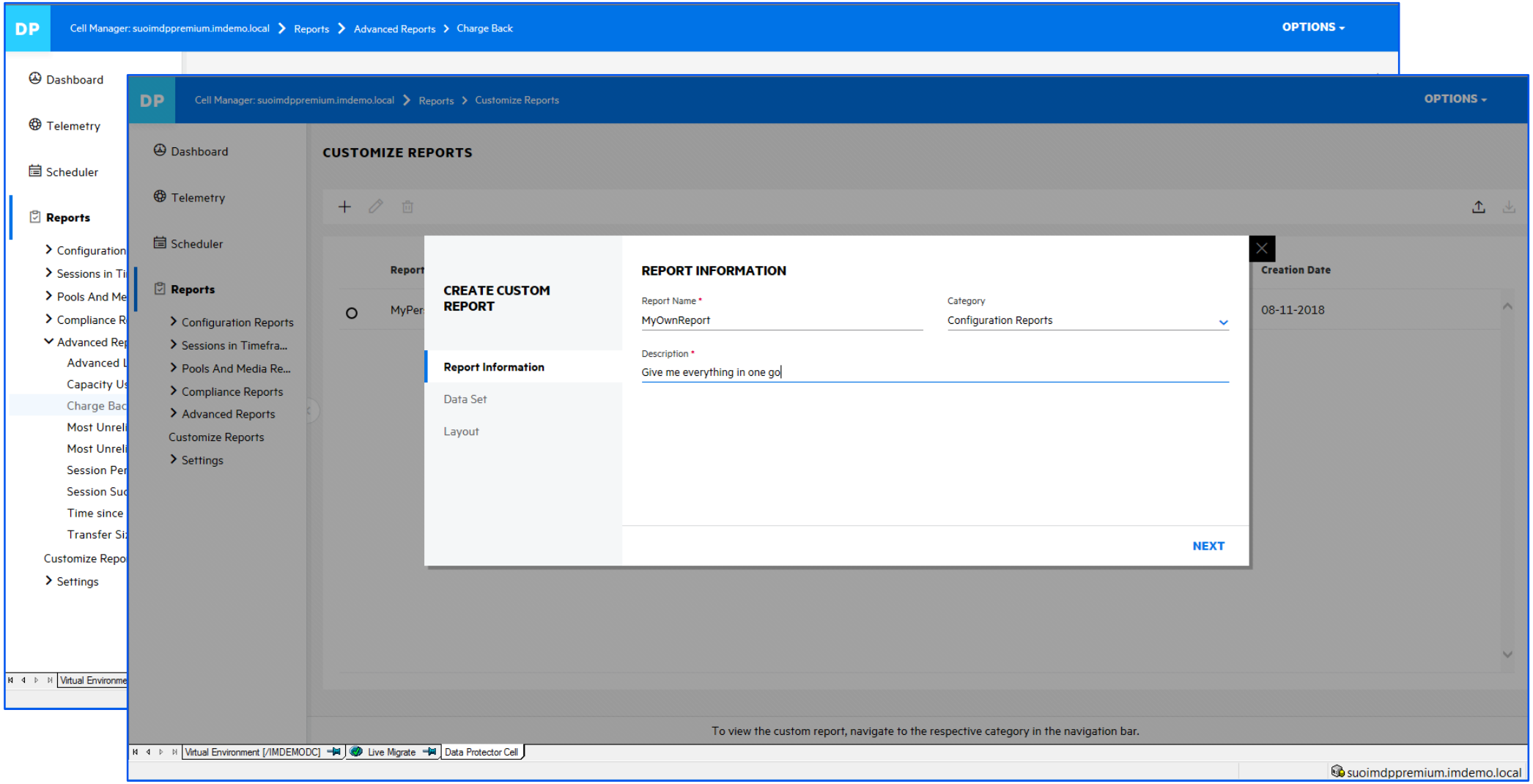


- Reporting data can be exported/imported
- Log files and eMail are created
- Marking a report as "Favorite" makes it show up in the general Dashboard
- Standard CM <-> Reporting Server sync frequency is 30 minutes. Manual sync is available.

Application Overview for SLAs, RPO & RTO



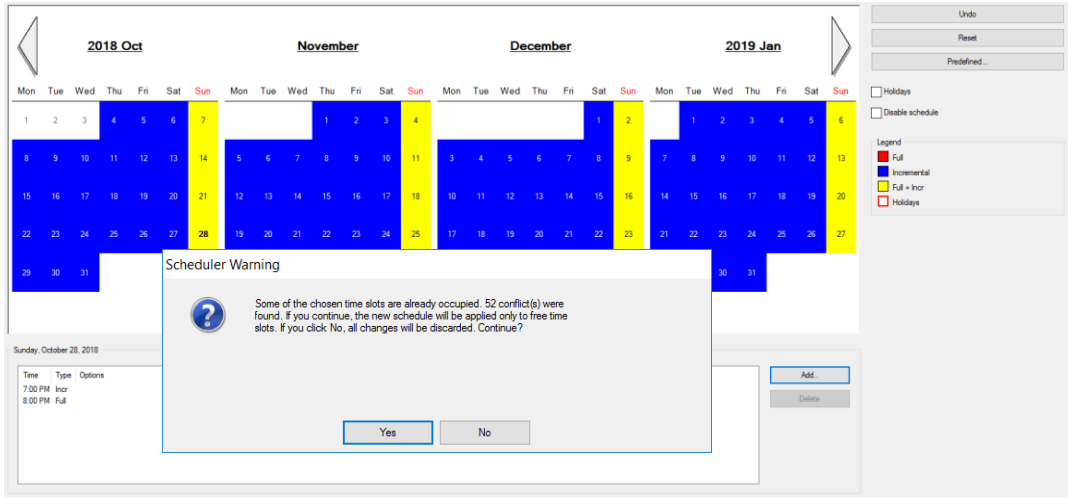
Chargeback and Custom Reports



Legacy Scheduler (LS) use cases

Typical use-cases handled by this introduction:

- Direct/Fresh install of DP 10.20
- Upgrade from 8.x/9.x -> 10.20
- Upgrade from 10.x -> 10.20
- Upgrade from 8.x/9.x ->10.x->10.20



Cross-over behavior:

- Schedules created in LS can be migrated to WBS (omnidbutil -migrate_schedules ...)
- Schedules in WBS can be reinstated in legacy scheduler (omnidbutil -reinstante_legacy_schedules …)
- LS is compatible with WBS conflicts checking (as seen in the warning message above)

Tip: Keep migrated LS files (*.migrate) if you're thinking about switching in both directions.

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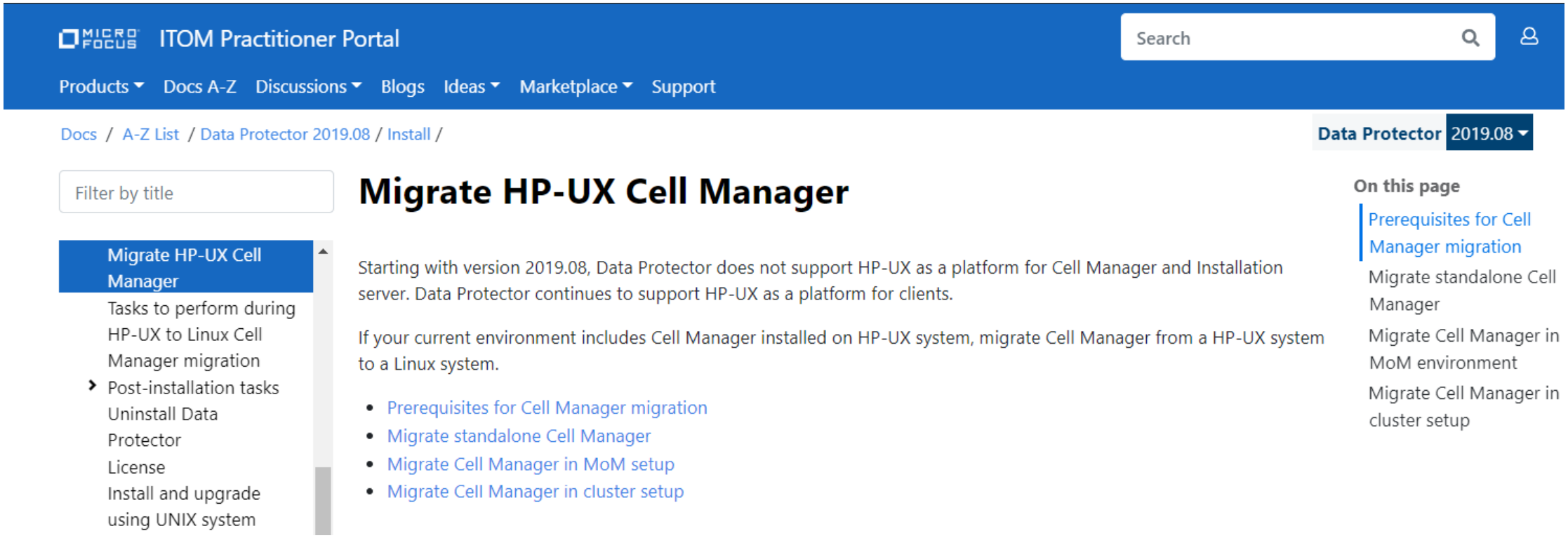
Migrating an HPUX CM to Linux

DP 2019.05 was the last DP version shipping a Cell Manager for HP/UX. We have now taken the necessary steps and documented a migration path on DocOps.

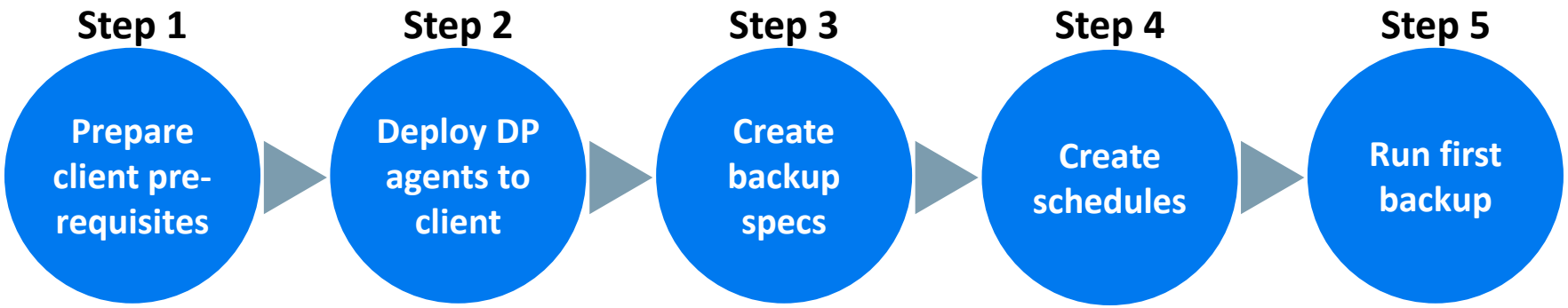


https://docs.microfocus.com/itomw/Data_Protector:2019.08/MigrateHPUXCellManager

Integrations with ITOM: Operation Orchestration

Released in Data Protector 10.04; integration pack available on ITOM Marketplace

Backup file system workflow example



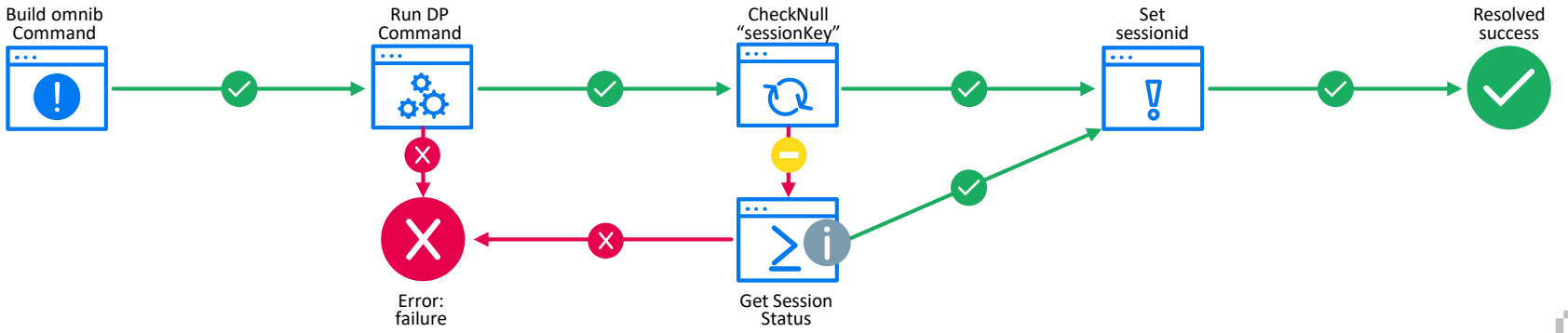
Without orchestration

~15 minutes per client*

- Set up each step manually
- Check documentation for specifications
- Apply patches
- Wait for each step to complete
- Resolve error messages
- Engage the next step

With orchestration

Seconds per client*



*Based on internal testing

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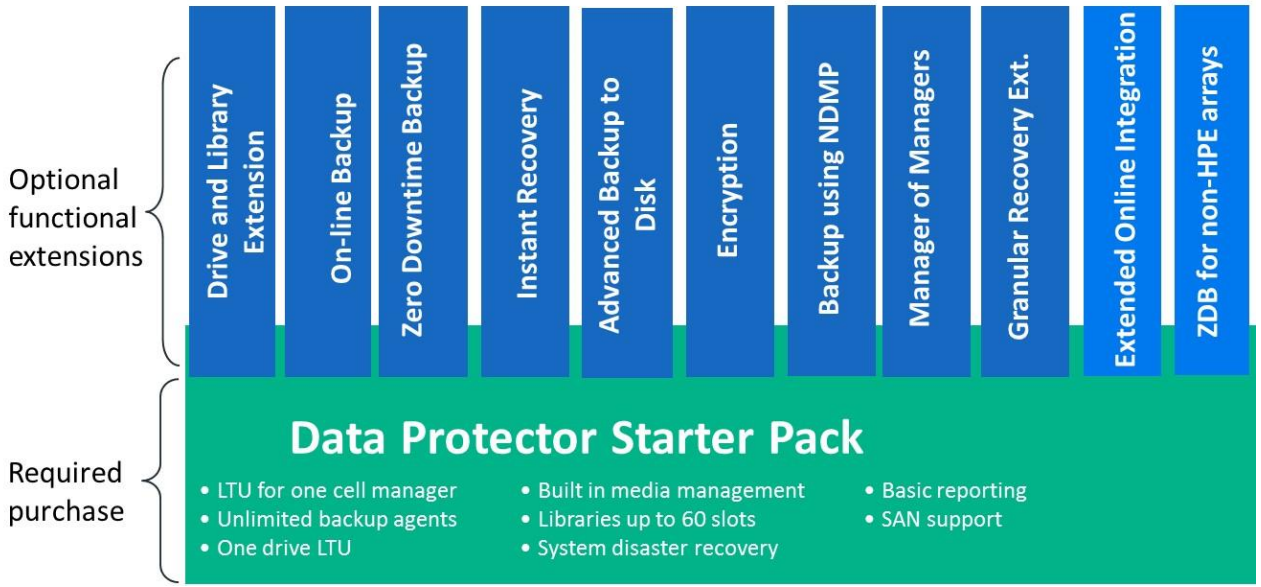
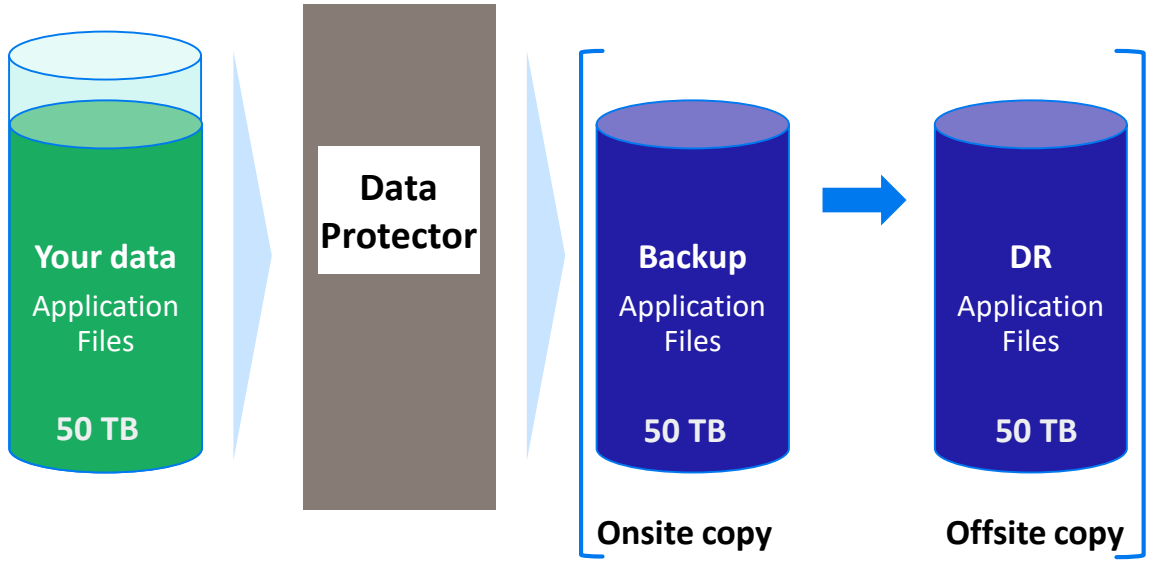
Data Protector Licensing

DP pre-10.10: 82 SKUs

- **Feature-Based Licensing**
  - License only the features and functionality required
  - **Advantage**: Often the lower cost option
  - **Disadvantage**: Multiple keys to manage and track



- **Capacity-Based Licensing**
  - Licensed based on Front-end Capacity
  - Most features covered under a single license
  - Does not include access to management packs or encryption; these are sold separately.
  - **Advantage**: Easy to quote, easy to manage – doesn't matter what happens to the data downstream
  - **Disadvantage**: May be more expensive



DP 10.10: New Editions

Express

- Virtual environments only
- Socket-based licensing
- $1000/Socket

Premium

- Hybrid IT environments
- Capacity licensing per TB
- $5000/TB

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DP Express Protects Hypervisors and Guests; DP Premium Protects the Entire Enterprise

Capabilities	DP Express Data Protector for Virtual Environments	DP Premium Data Protector for Hybrid Environments
Agentless VMware, Hyper-V Granular Recovery Extension (GRE) with Power On / Live Migration	✔	✔
Recovery to Cloud	✔	✔
Snapshot integration	✔	✔
HPE StoreOnce Catalyst Integration	✔	✔
Basic Reporting	✔	✔
REST API	✔	✔
Encryption	✔	✔
Agent-based application-consistent Backup and Recovery		✔
Exchange, SharePoint GRE		✔
Advanced Reporting		✔
Management Pack for SCOM integration		✔

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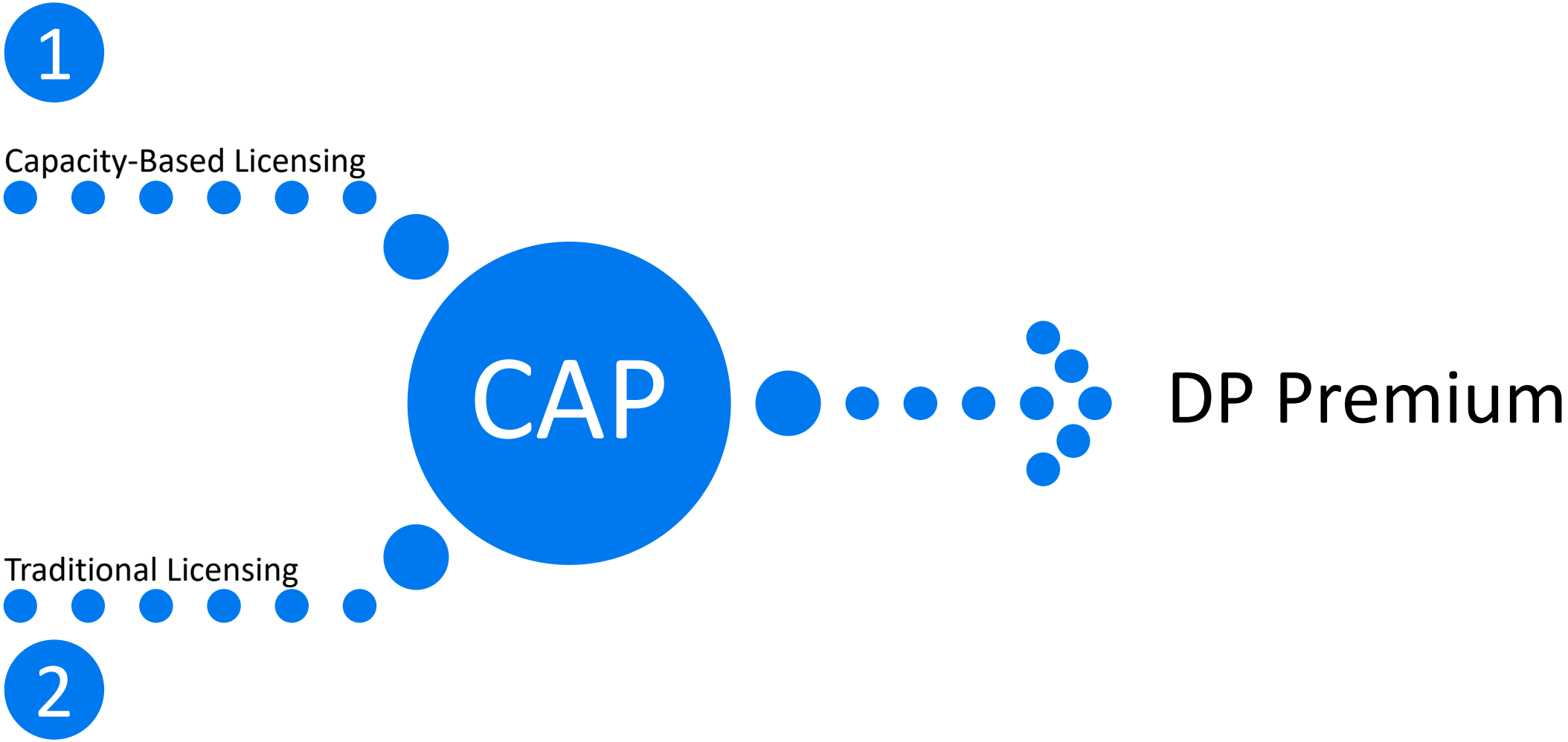
Data Protector CAP Covers Two Main Scenarios



DP Case Study

The Bank - CEE Market

Cloud project – backup solution

Challenge

- New cloud services project
- Consolidate backup systems and related HW
- Optimize business model

Solution

- Micro Focus® Backup Navigator, Data Protector, ELA

Result

- Reliable vm/cloud data protection
- Comprehensive approach to: backup (SW/HW), reporting & analytics, education, support
- TCO reduction, usage flexibility, contract extension – new services (PSO), new licenses

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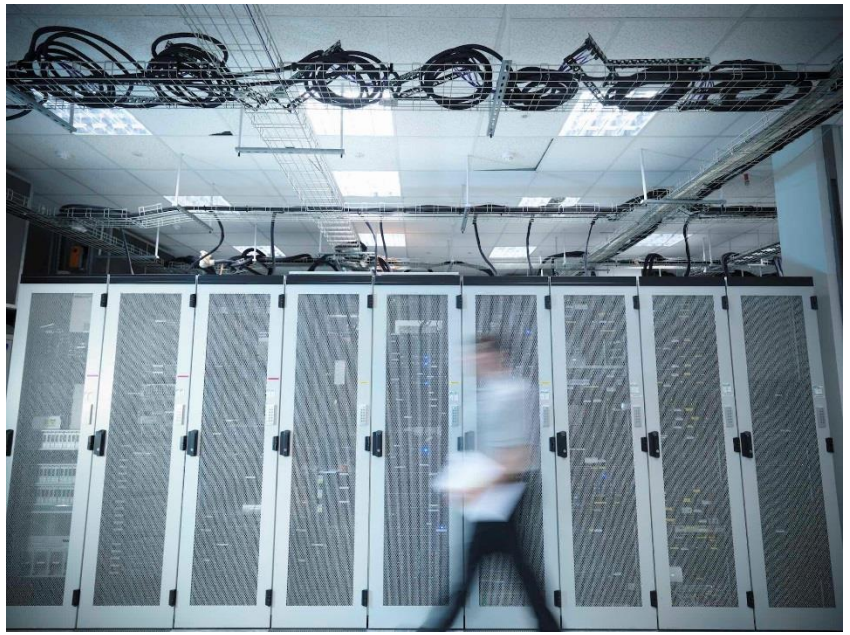
The Bank - CEE Market

Cloud project – backup solution

Environment

- 3 x DP Cell Managers (DP 10.x) – a few and up to 1000+ agents
- Critical apps, Vmware, Oracle
- Multisite
- HPE Storeonce 6500 (1PB+), tape libraries 200+ slots
- Migration/upgrade projects – DP 10, Oracle 19c
- Environment dynamics – cloud services, migration



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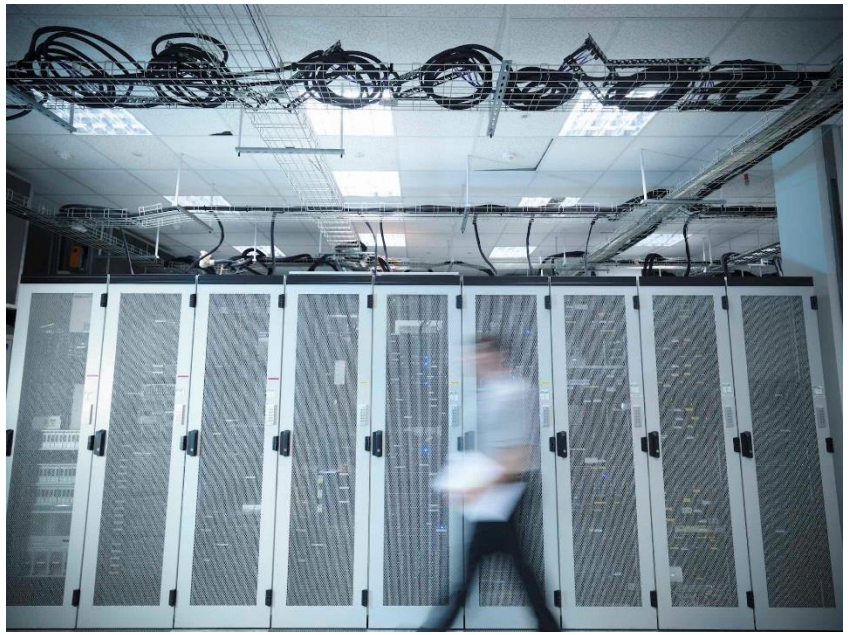
The Bank - CEE Market

Cloud project – backup solution

Deal anatomy

- V…N… has been replaced with DP in the past
- Better TCO then ….v….t
- Enterprise hybrid backup – no V……
- Enterprise License Agreement - TCO, growth, flexibility
- Teamed-up with all partners to align on the strategy
- HW integration – including HPE Storeonce
- Additional suport: Education, Implementation trainings
- Support cases - priority
- New projects – Oracle, systems migrations, MF PSO



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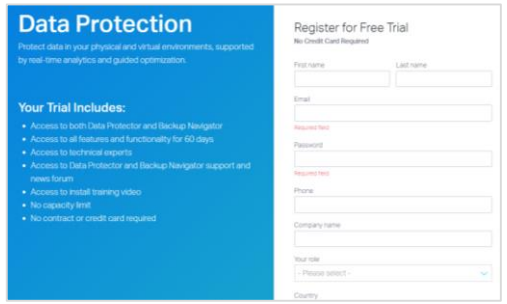
For More Information, Go To:

Free Trial



Collateral

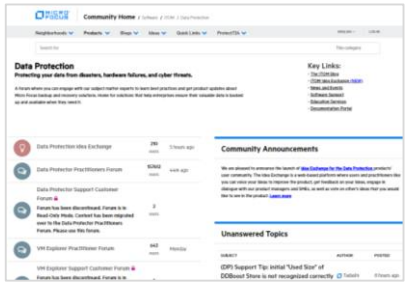
Customer Stories

Whitepapers

www.microfocus.com/dataprotector

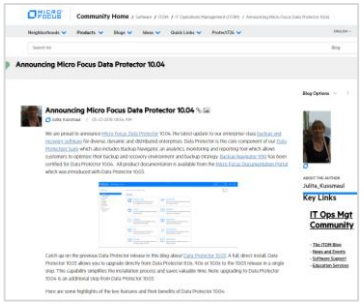
https://docs.microfocus.com

Support Forum

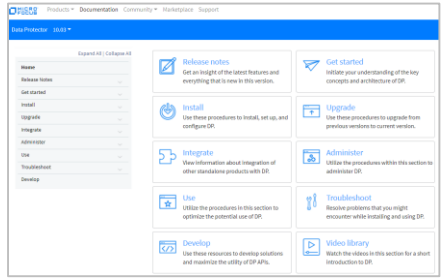


Idea Exchange

Blogs



Product Documentation



Thank you

robert.lejnert@microfocus.com