

Krótką historia backup'u

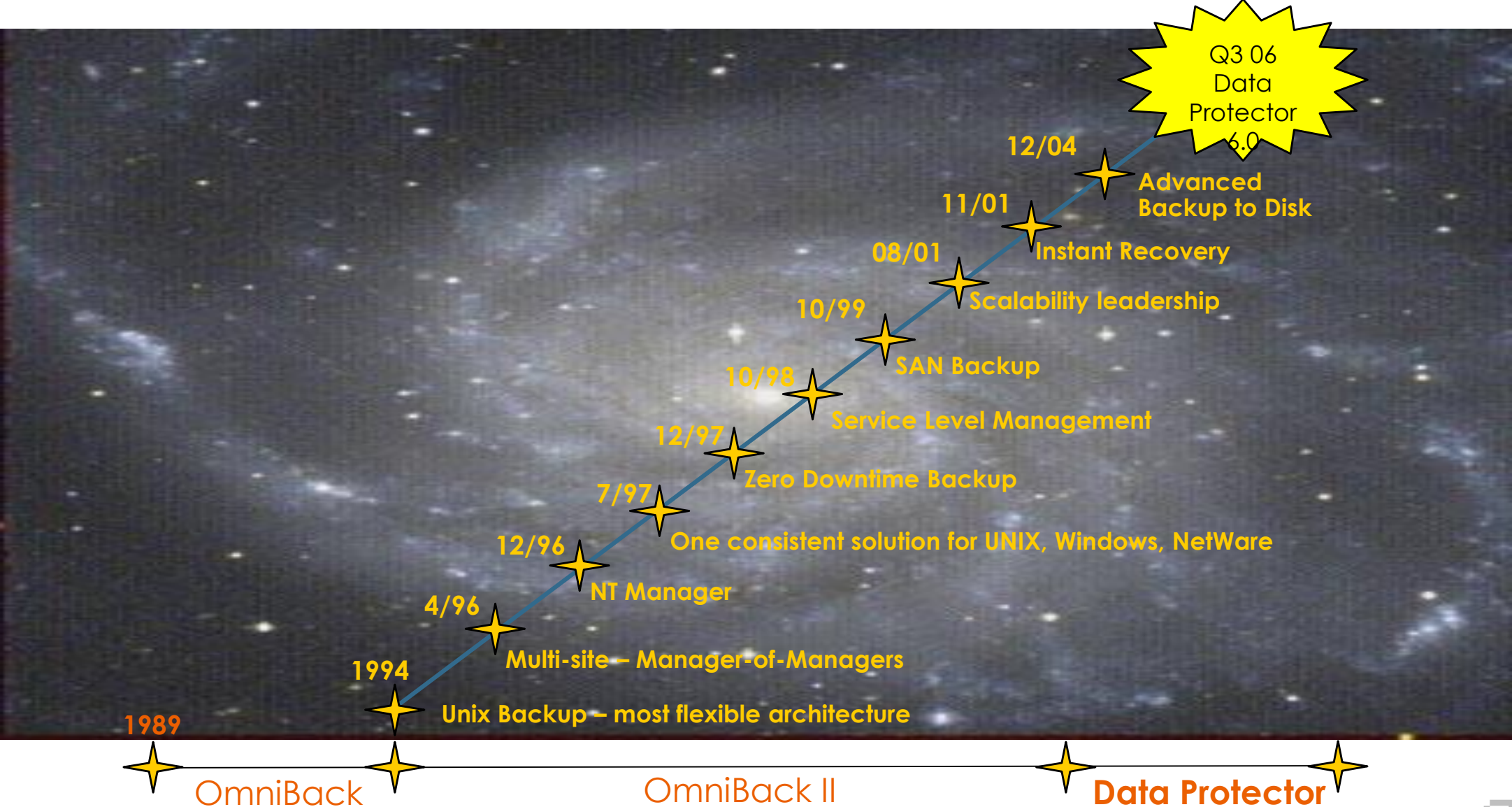
- Od dojrzałości po innowację
- Przykłady wdrożeń

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

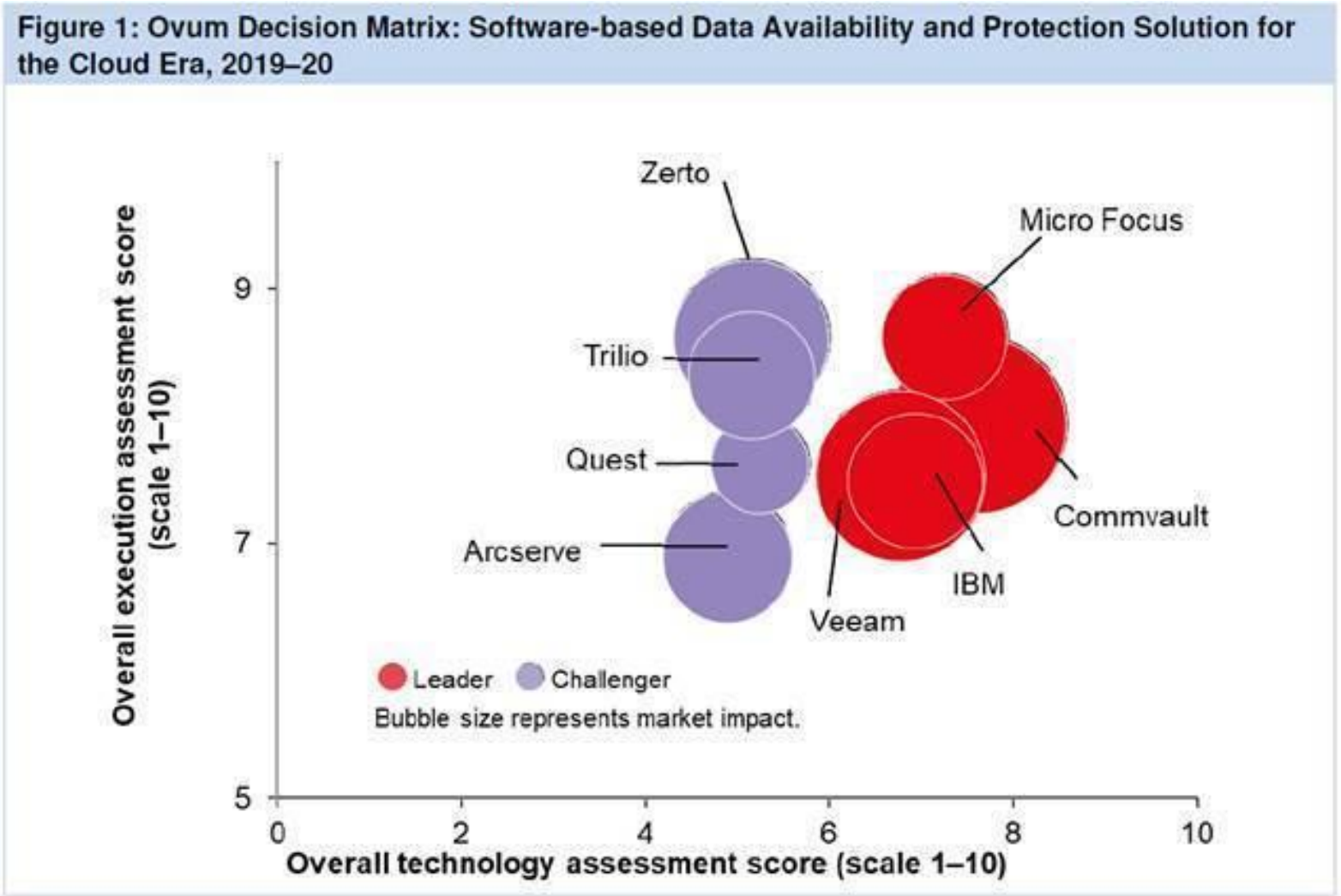
- Containerization, additional virtualization platforms
- Protection of Cloud Applications including to, from, within
- Improved support for virtual environments, including granular recovery, tagging, encryption

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

Data Protector vs. the Competition



Introducing Data Protector

Backup and disaster recovery for diverse, dynamic and distributed enterprises

Hybrid Backup and Recovery

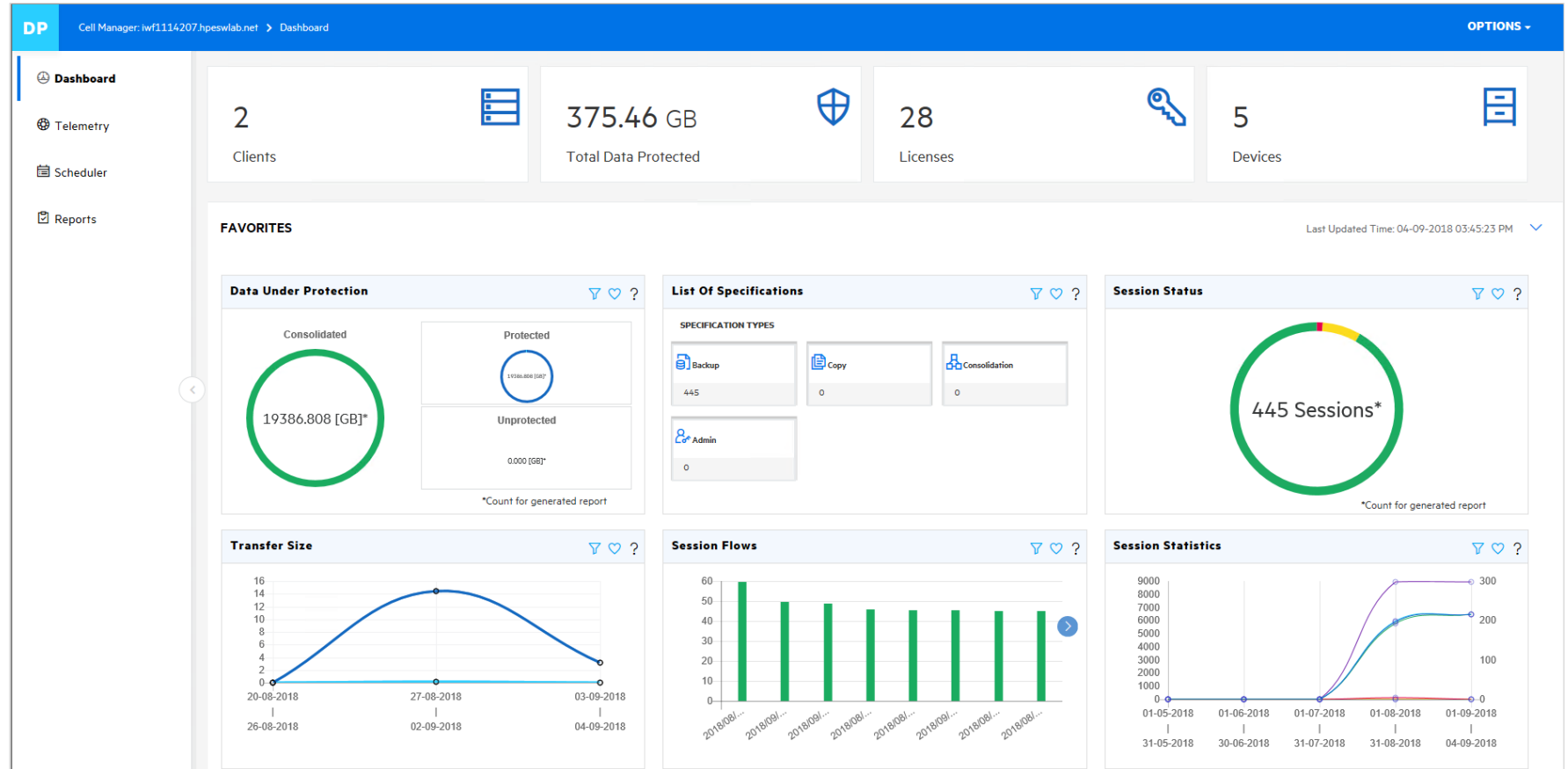
Multi-Cloud Support

Mission-critical Applications

Built-in Security

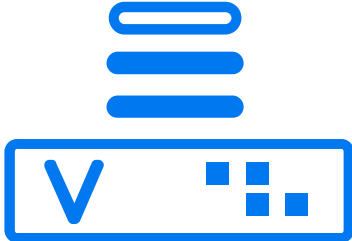
Visibility and Analytics

Power of ITOM



Backup Strategy consolidation

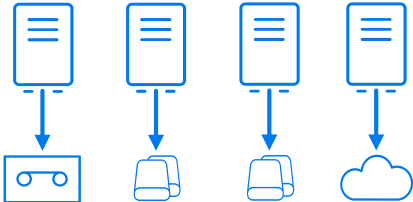
Dedicated VM Backup Tools



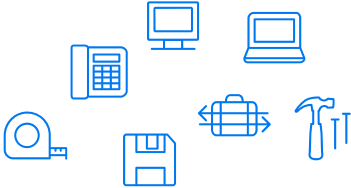
Dedicated BMDR Backup Tools



Individual data dumps per App



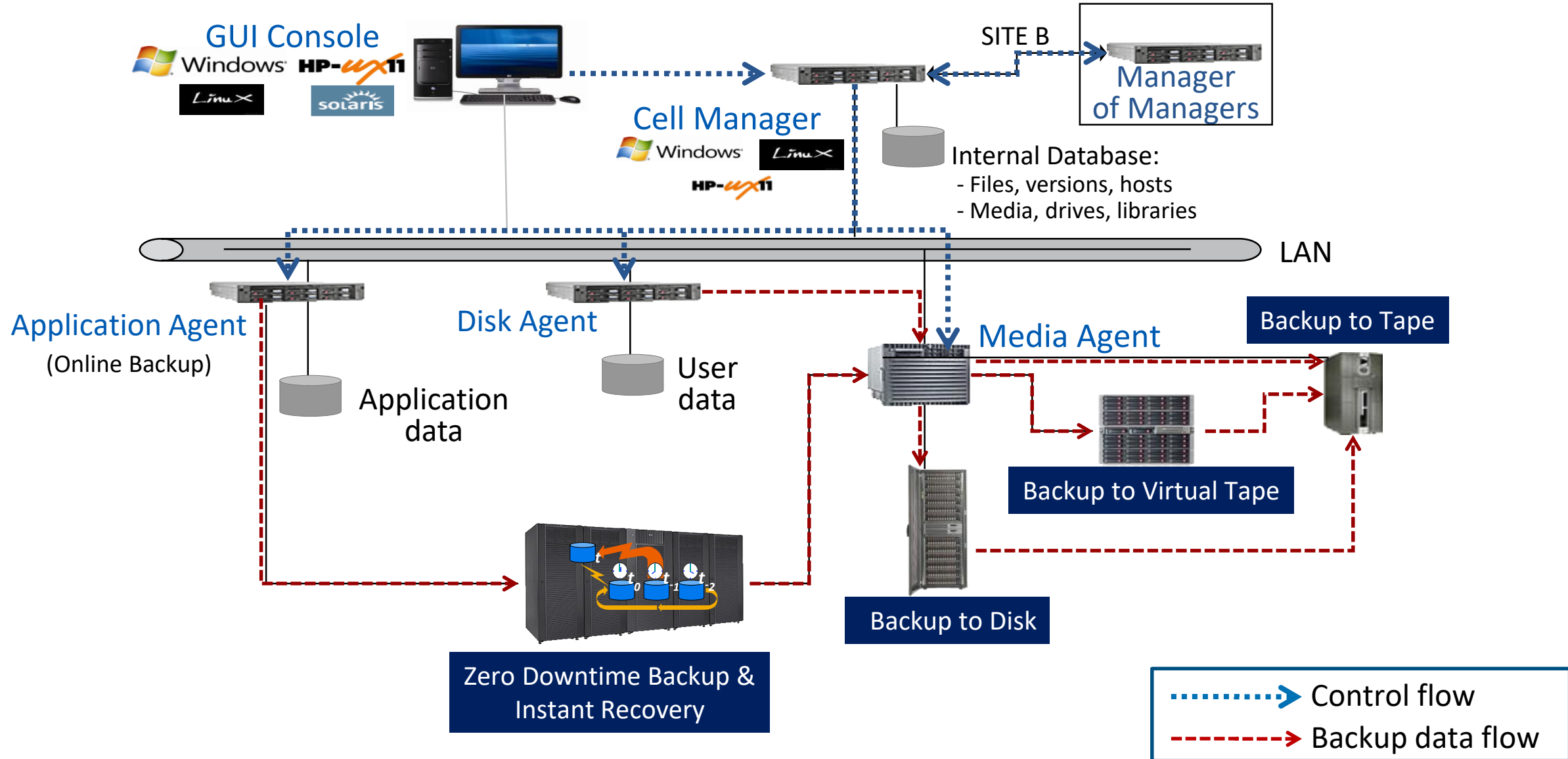
Fragmented monitoring, reporting ...



Data Protector:
The All-in-One Solution for
your Enterprise

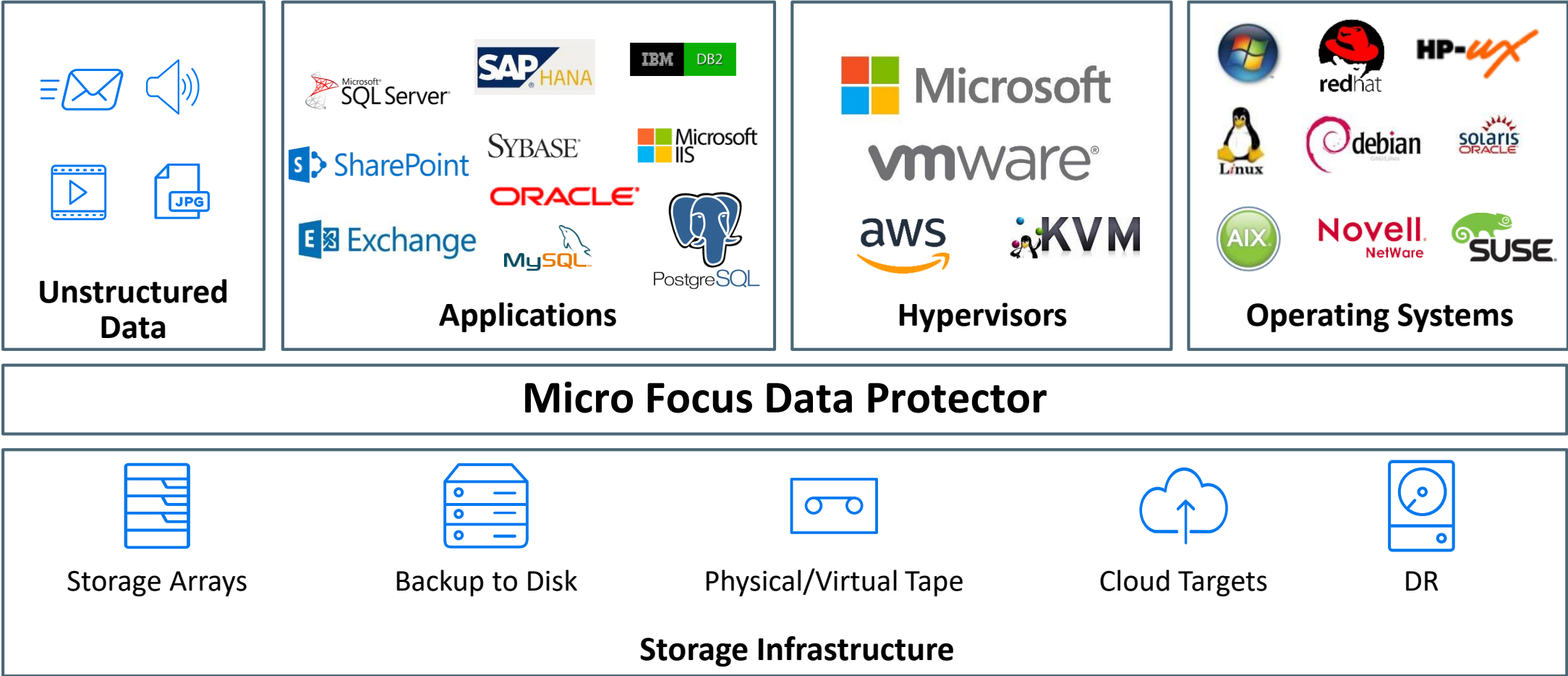
Data Protector Software

Enterprise Architecture Overview



Best-in Class Platform and Cloud Integrations

Standardized protection across the enterprise



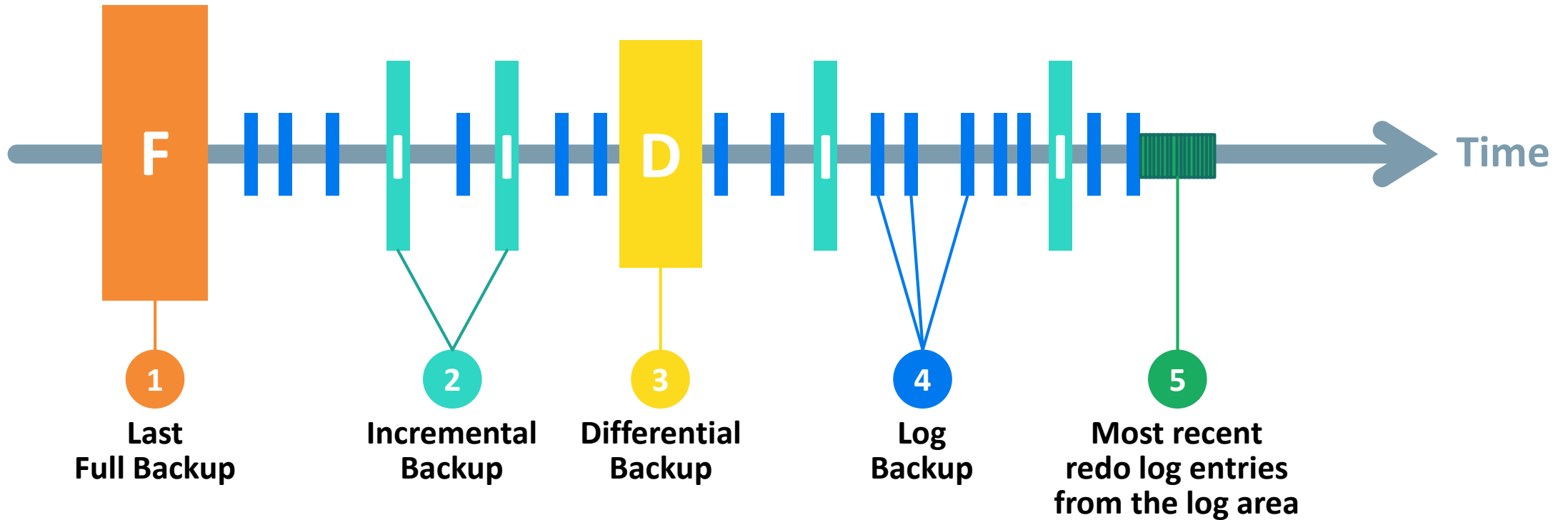
Application-consistent Recovery

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.



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

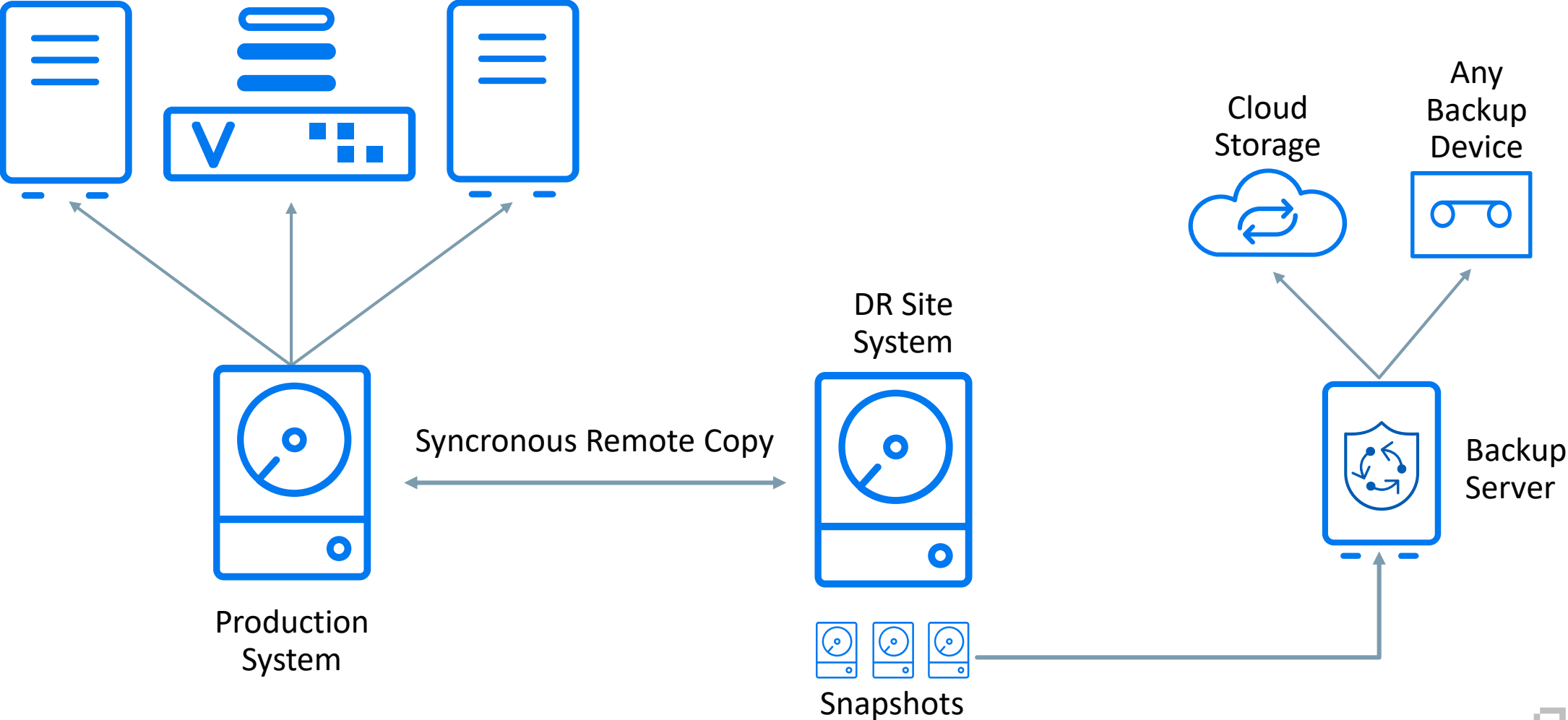


LTO, AIT, Exabyte, STK, IBM,
DAT, DTF, Tandberg

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

Disk and Flash Storage Integrations example

HPE 3PAR example

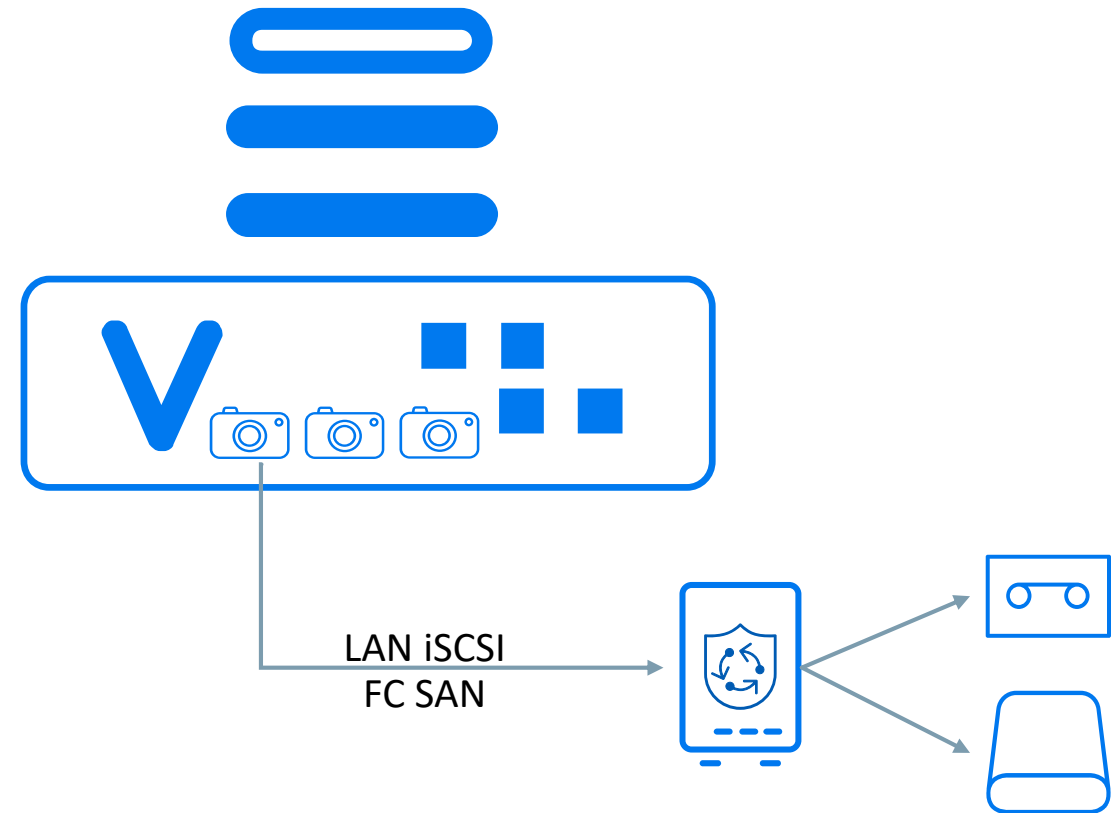


Hypervisor Integrations – VMware

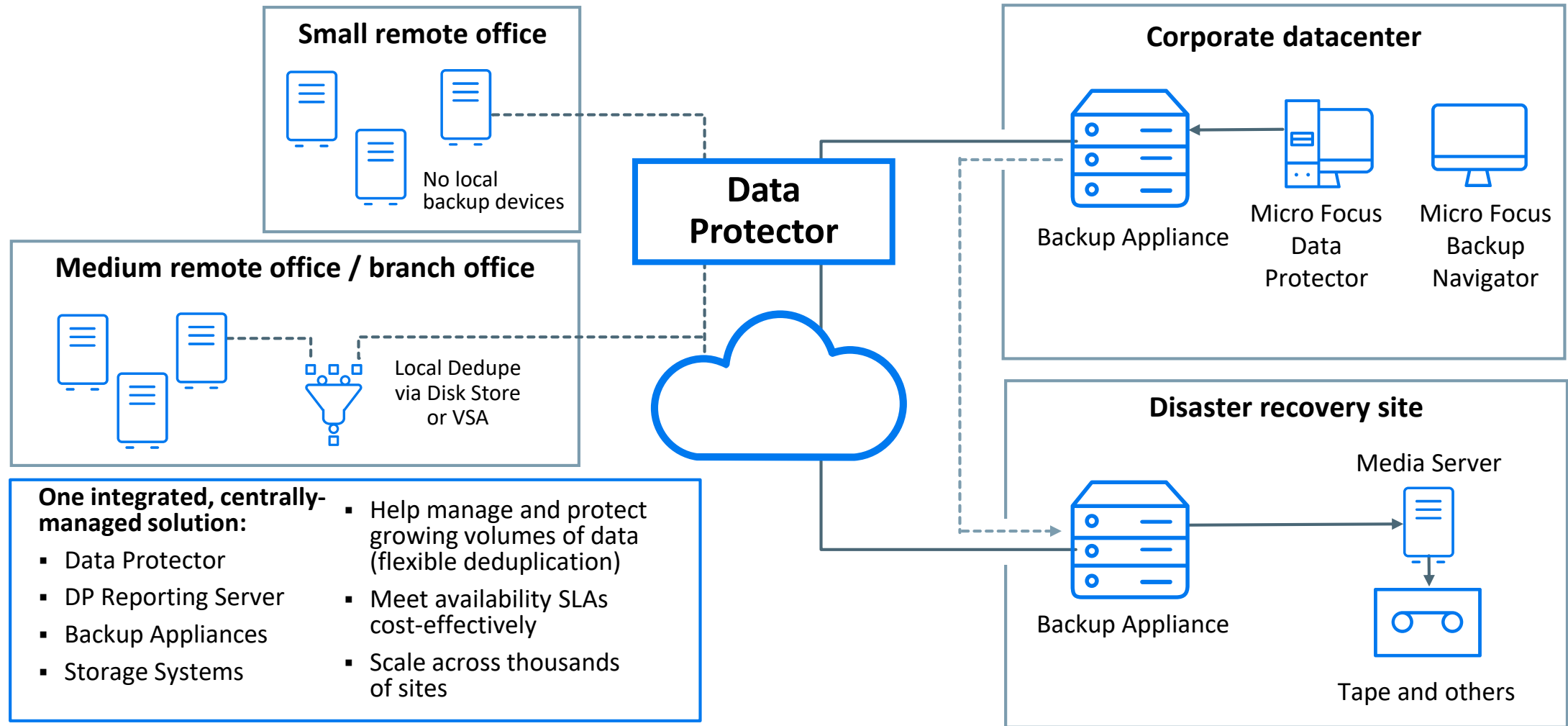


VMware vSphere/vCenter:

- 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)



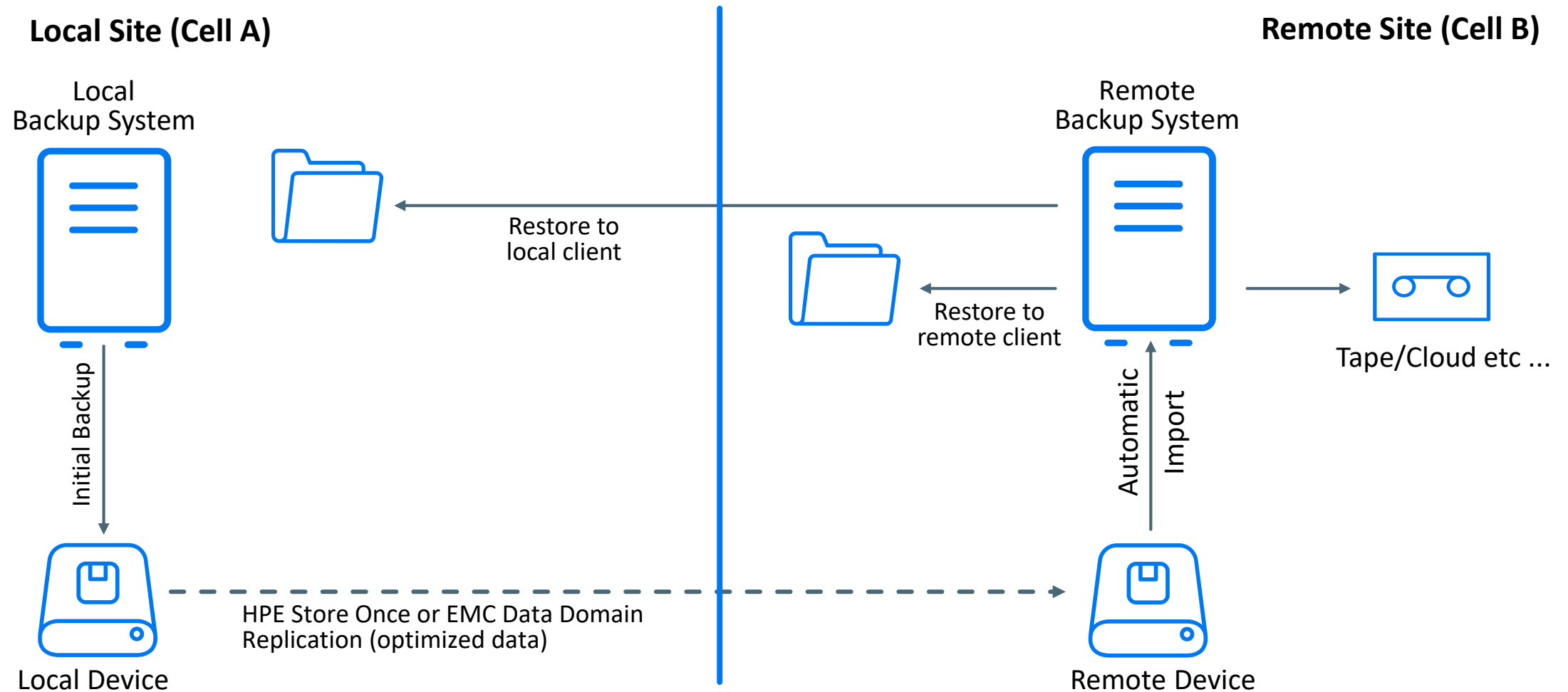
Best-In-Class Availability for Remote and Branch Office



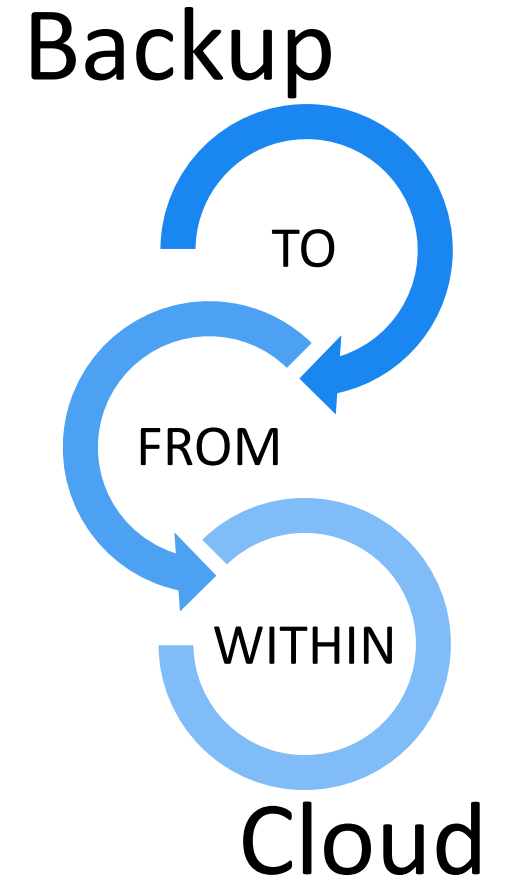
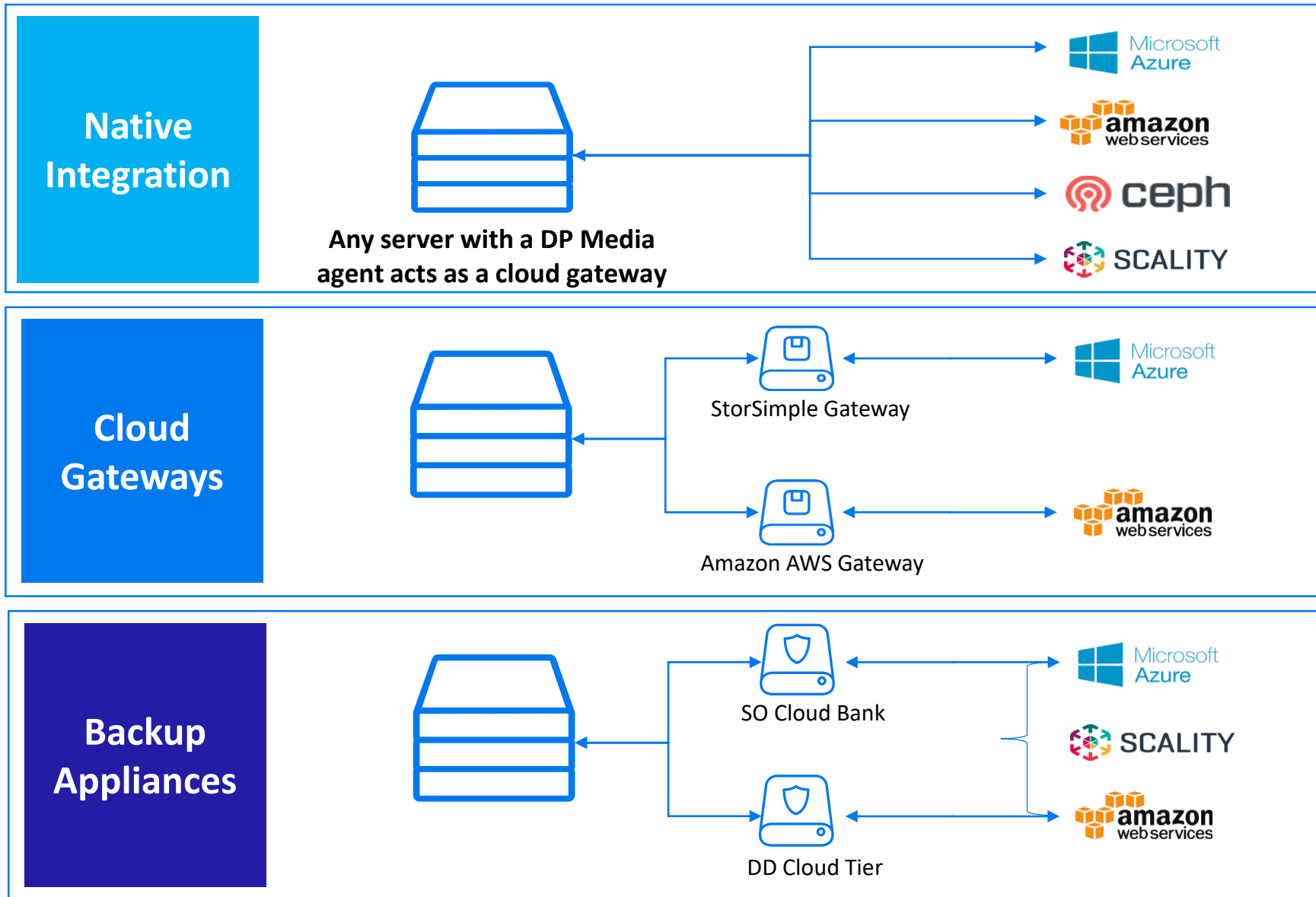
- One integrated, centrally-managed solution:**
- Data Protector
 - DP Reporting Server
 - Backup Appliances
 - Storage Systems
 - Help manage and protect growing volumes of data (flexible deduplication)
 - Meet availability SLAs cost-effectively
 - Scale across thousands of sites

Automated Backup Data Replication and Synchronization

Automated setup and workflow, no scripts



Multi-Cloud Support

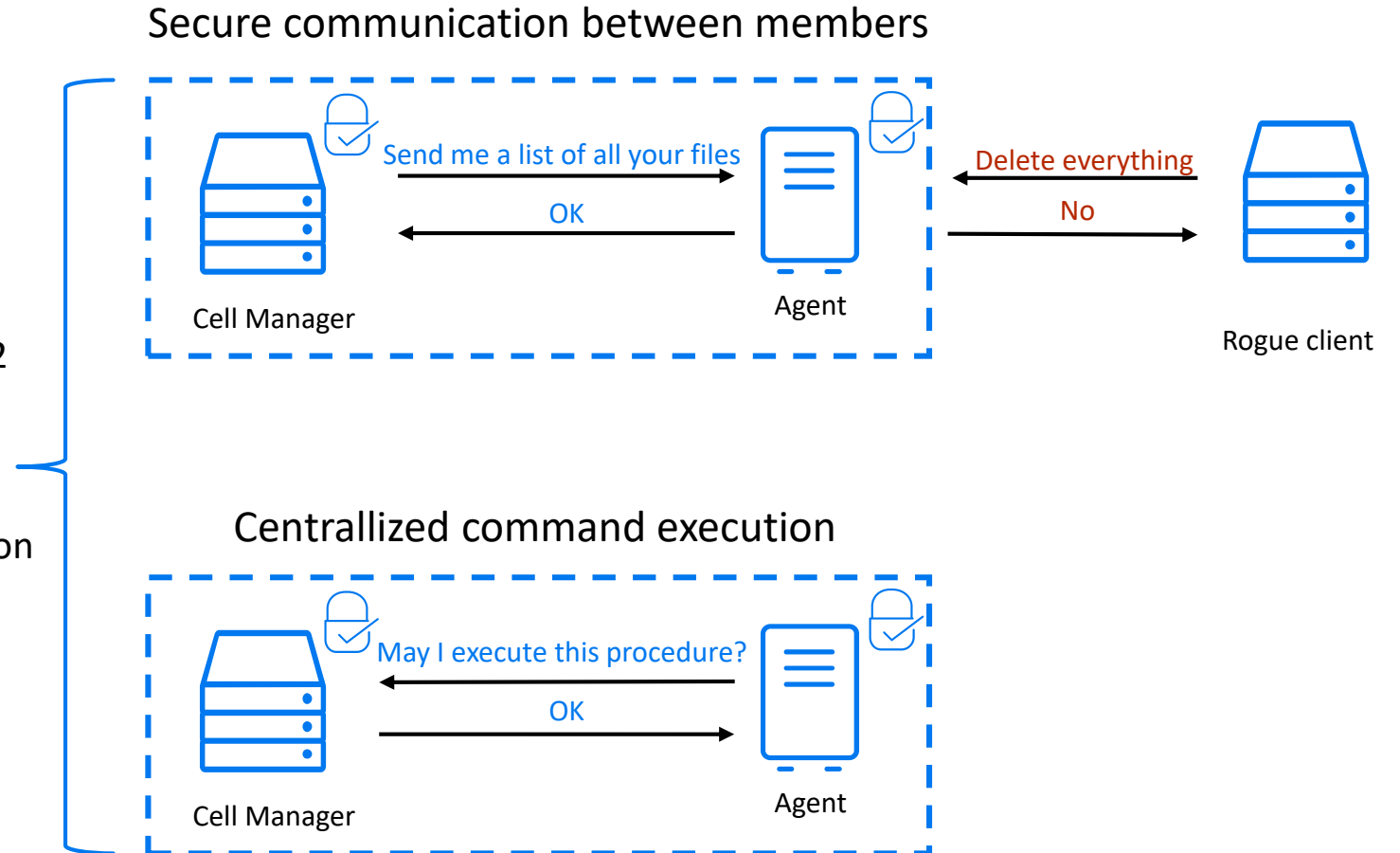


Enterprise Class Scalability and Security

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

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:

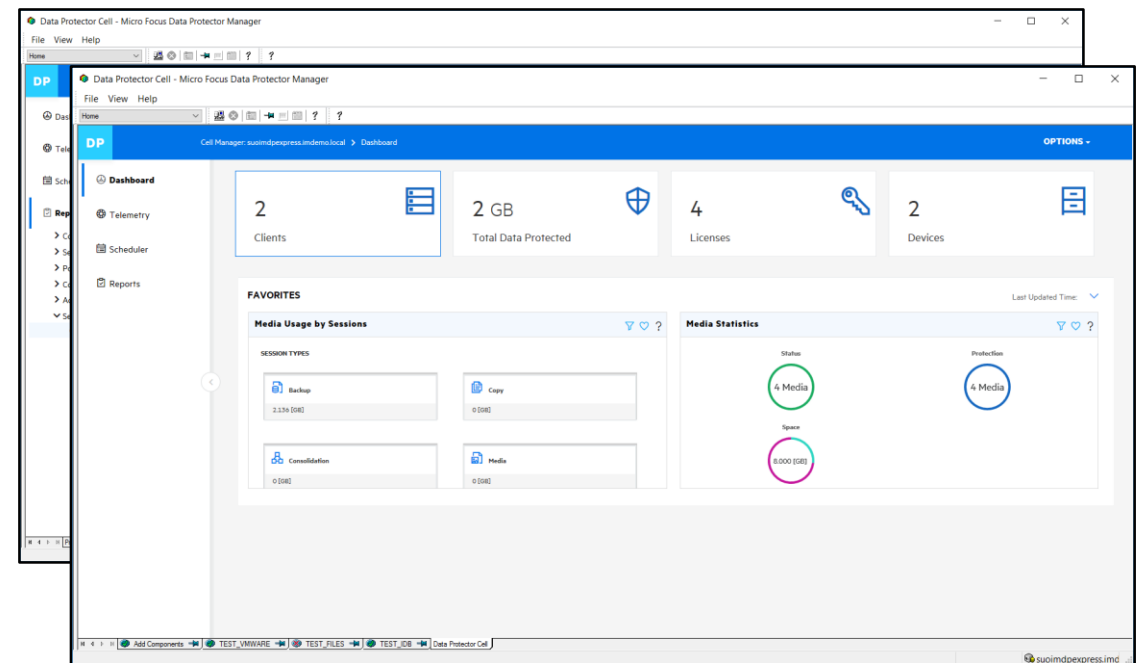


The other advantage is that only the newest builds are available for trial download. Trial customers will benefit from the latest developments, from the very beginning.

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

The screenshot displays the 'RECOVERY POINT OBJECTIVE' configuration page in the Data Protector Cell interface. The page is divided into two main sections: a table of effective SLAs and a configuration panel for RPO/RTO settings.

Effective SLAs Table:

Cell Manager	Client	Application Type	Specification Name	Minimum RP	Maximum RP	Average RP	Status
suoimdppremium.imdemo.local	suoimdppremium.imdemo.local	MS VSS	MSVSSW_TEST_VSS	0	1	0.5	Meet
suoimdppremium.imdemo.local	suoimvcsa1.imdemo.local	VEPA	VEAgent_TEST_VMWARE	2	2	2	Meet
suoimdppremium.imdemo.local	suoimvcsa1.imdemo.local	VEPA Disk	VEAgent_TEST_VMWARE	2	2	2	Meet

RPO/RTO CONFIGURATION Panel:

Cell Manager: suoimdppremium.imdemo.local

Client Name _ Application Type

- suoimvcsa1.imdemo.local_VEPA
- suoimvcsa1.imdemo.local_VEPA Disk
- suoimdppremium.imdemo.local_MS VSS

RPO less than equal to (<=): * 10 Minutes

RTO less than equal to (<=): * 1 Hours

SAVE

Effective SLAs

SLA settings

Chargeback and Custom Reports

The screenshot displays the DP (Data Protector) web interface. The top navigation bar shows the breadcrumb path: **DP** > Cell Manager: suoimdppremium.imdemo.local > Reports > Advanced Reports > Charge Back. The main content area is titled **CUSTOMIZE REPORTS**. A modal window titled **CREATE CUSTOM REPORT** is open, showing the following details:

- REPORT INFORMATION**
- Report Name: MyOwnReport
- Category: Configuration Reports
- Description: Give me everything in one go
- Creation Date: 08-11-2018

The modal also includes a **NEXT** button. The background interface shows a sidebar with navigation options like Dashboard, Telemetry, Scheduler, and Reports. The Reports section is expanded to show sub-categories like Configuration Reports, Sessions in Timeframe, Pools And Media Reports, Compliance Reports, Advanced Reports, Custom Reports, and Settings.

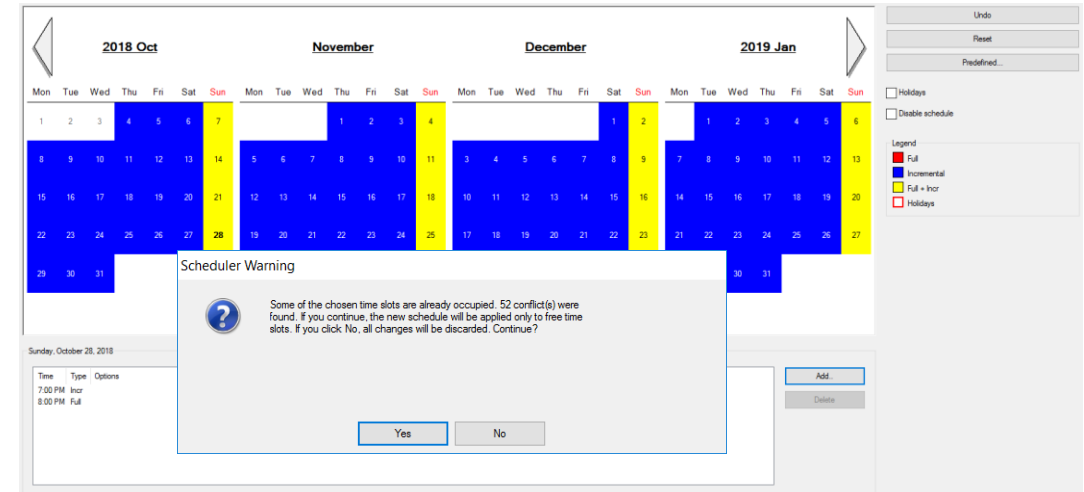
To view the custom report, navigate to the respective category in the navigation bar.

Virtual Environment [IMDEMOC] | Live Migrate | Data Protector Cell | suoimdppremium.imdemo.local

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.

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.

The screenshot shows the Micro Focus ITOM Practitioner Portal. The top navigation bar includes the Micro Focus logo, the text 'ITOM Practitioner Portal', a search bar, and a user profile icon. Below the navigation bar are links for 'Products', 'Docs A-Z', 'Discussions', 'Blogs', 'Ideas', 'Marketplace', and 'Support'. The breadcrumb trail reads 'Docs / A-Z List / Data Protector 2019.08 / Install /'. On the right, there is a 'Data Protector 2019.08' dropdown menu. On the left, a 'Filter by title' box is present, and a sidebar menu lists various tasks, with 'Migrate HP-UX Cell Manager' selected. The main content area features the article title 'Migrate HP-UX Cell Manager', a paragraph explaining that Data Protector 2019.08 does not support HP-UX as a platform for Cell Manager and Installation server, and a list of four links: 'Prerequisites for Cell Manager migration', 'Migrate standalone Cell Manager', 'Migrate Cell Manager in MoM setup', and 'Migrate Cell Manager in cluster setup'. On the right, an 'On this page' section lists the same four links.

MICRO FOCUS ITOM Practitioner Portal

Search

Products ▾ Docs A-Z Discussions ▾ Blogs Ideas ▾ Marketplace ▾ Support

Docs / A-Z List / Data Protector 2019.08 / Install /

Data Protector 2019.08 ▾

Filter by title

Migrate HP-UX Cell Manager

Tasks to perform during HP-UX to Linux Cell Manager migration

- Post-installation tasks
- Uninstall Data Protector License
- Install and upgrade using UNIX system

Migrate HP-UX Cell Manager

Starting with version 2019.08, Data Protector does not support HP-UX as a platform for Cell Manager and Installation server. Data Protector continues to support HP-UX as a platform for clients.

If your current environment includes Cell Manager installed on HP-UX system, migrate Cell Manager from a HP-UX system to a Linux system.

- [Prerequisites for Cell Manager migration](#)
- [Migrate standalone Cell Manager](#)
- [Migrate Cell Manager in MoM setup](#)
- [Migrate Cell Manager in cluster setup](#)

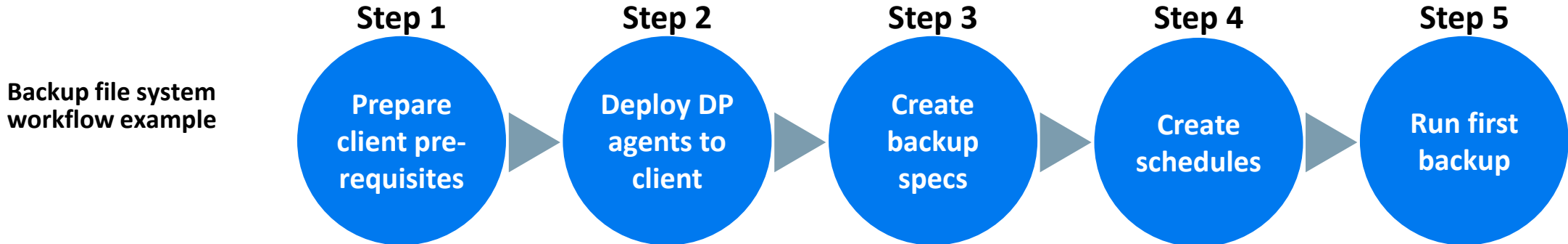
On this page

- [Prerequisites for Cell Manager migration](#)
- Migrate standalone Cell Manager
- Migrate Cell Manager in MoM environment
- Migrate Cell Manager in cluster setup

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

Integrations with ITOM: Operation Orchestration

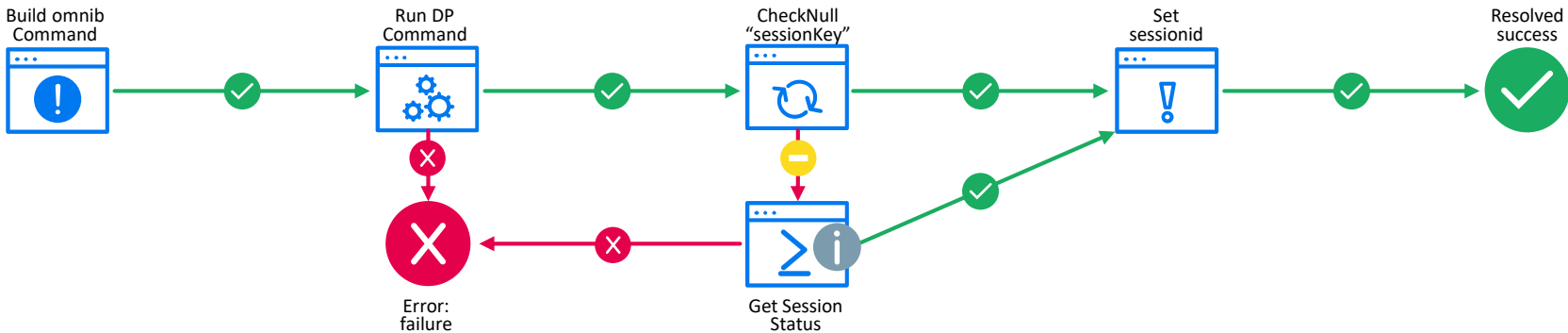
Released in Data Protector 10.04; integration pack available on ITOM Marketplace



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

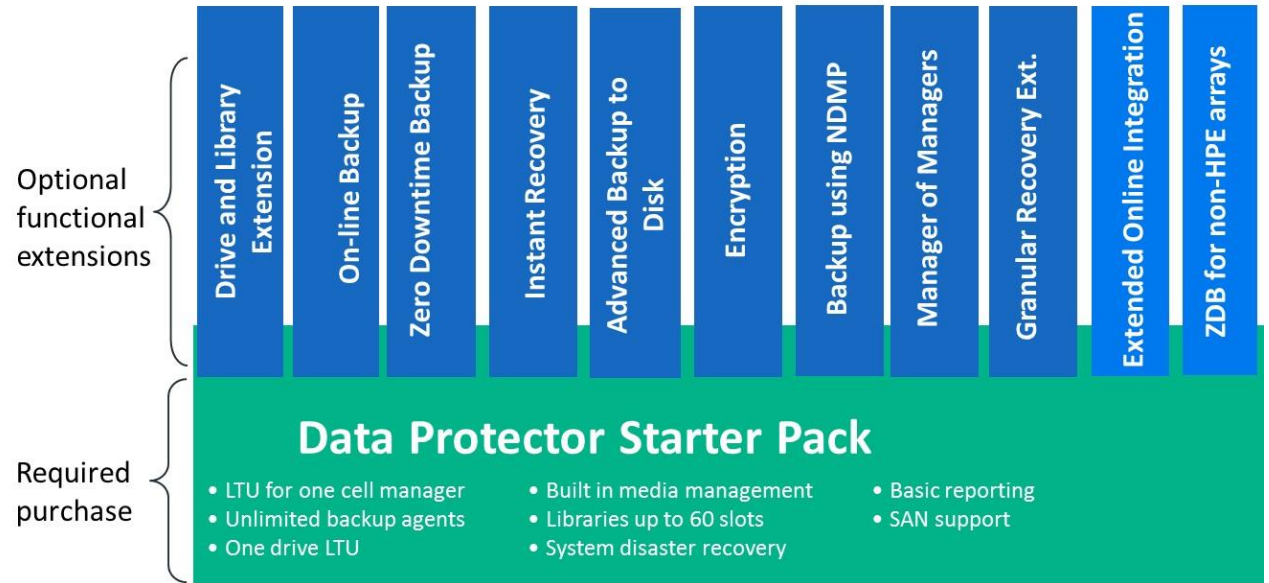


Data Protector Licensing

DP pre-10.10: 82 SKUs

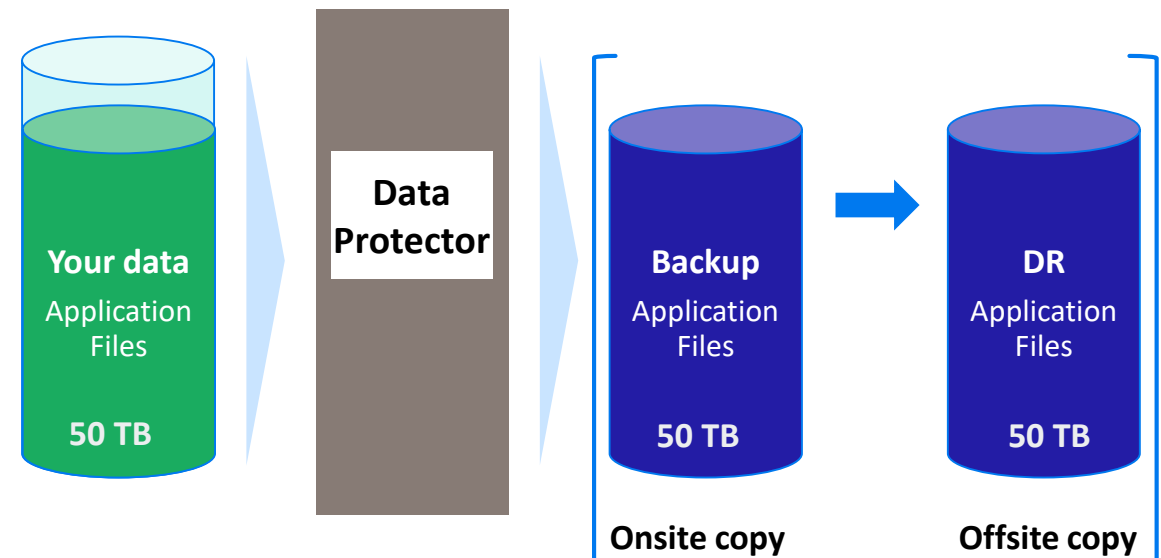
▪ Feature-Based Licensing

- 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



**DATA
PROTECTOR**

1

Express

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

2

Premium

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

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		✓

Data Protector CAP Covers Two Main Scenarios

1

Capacity-Based Licensing



Traditional Licensing



DP Premium

2



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

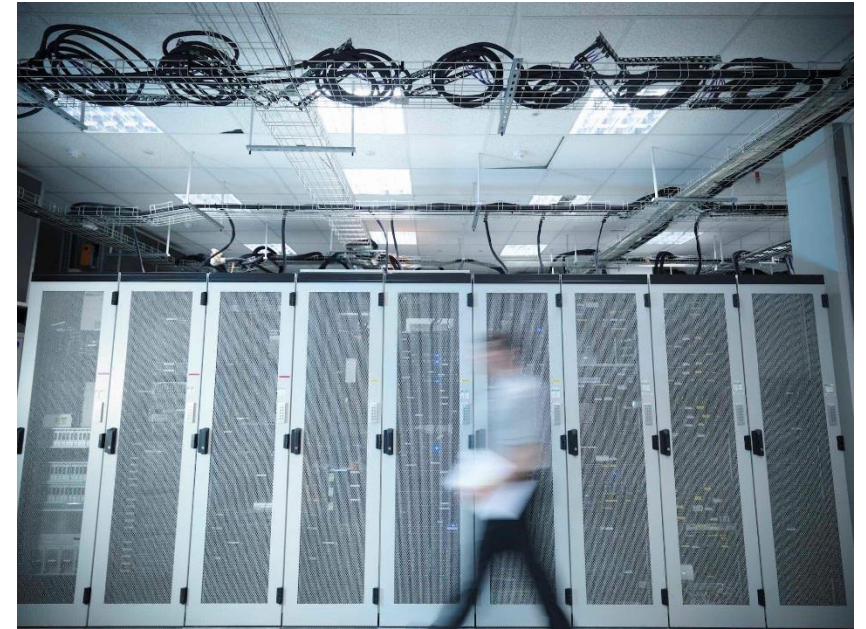


The Bank - CEE Market

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

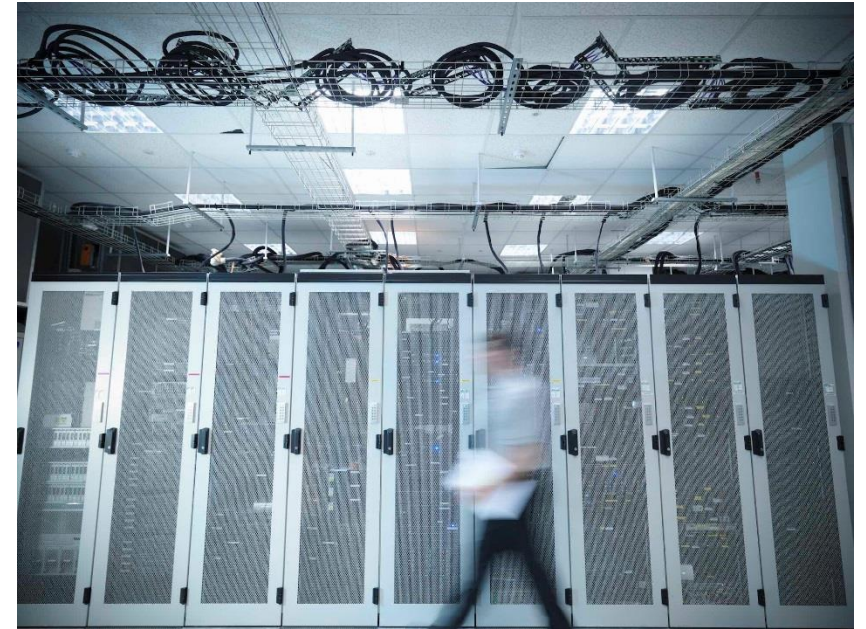


The Bank - CEE Market

Cloud project – backup solution

Deal anatomy

- V...N... has been replaced with DP in the past
- Better TCO thenv....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 support: Education, Implementation trainings
- Support cases - priority
- New projects – Oracle, systems migrations, MF PSO



For More Information, Go To:

Free Trial

Data Protection
Protect data in your physical and virtual environments, supported by real-time analytics and guided optimization.

Your Trial Includes:

- Access to both Data Protector and Backup Navigator
- Access to all features and functionality for 60 days
- Access to technical experts
- Access to Data Protector and Backup Navigator support and news forum
- Access to install training video
- No capacity limit
- No contract or credit card required

Register for Free Trial
No Credit Card Required

First name: Last name:

Email:

Required field

Phone:

Required field

Company name:

Your title:

Country:

Collateral

Data Protector

A comprehensive range of products, including comprehensive and robust backup and recovery software for physical and virtual environments. Micro Focus Data Protector addresses the challenge of complex, multi-tiered and multi-environment IT environments.

Key Features and Benefits

- Comprehensive backup and recovery software for physical and virtual environments
- Robust backup and recovery software for physical and virtual environments
- Comprehensive backup and recovery software for physical and virtual environments

Customer Stories

Telenor Group

Micro Focus Data Protector is the backbone of Telenor's data protection strategy. It provides a comprehensive range of products, including comprehensive and robust backup and recovery software for physical and virtual environments. Micro Focus Data Protector addresses the challenge of complex, multi-tiered and multi-environment IT environments.

Key Features and Benefits

- Comprehensive backup and recovery software for physical and virtual environments
- Robust backup and recovery software for physical and virtual environments
- Comprehensive backup and recovery software for physical and virtual environments

Whitepapers

5 KEY TRENDS THAT COULD CHALLENGE YOUR DATA PROTECTION PLAN IN 2018
By George Crump

Storage Switzerland, LLC

www.microfocus.com/dataprotector
<https://docs.microfocus.com>

Support Forum

Data Protection
Protecting your data from disasters, business failures, and cyber threats.

Community Announcements

Unanswered Topics

Key Links:

- Data Protector 10.04 Release Notes
- Data Protector 10.04 Upgrade Guide
- Data Protector 10.04 Migration Guide
- Data Protector 10.04 Troubleshooting

Idea Exchange

Data Protector Idea Exchange

Announcing Micro Focus Data Protector 10.04

Key Links:

- Data Protector 10.04 Release Notes
- Data Protector 10.04 Upgrade Guide
- Data Protector 10.04 Migration Guide
- Data Protector 10.04 Troubleshooting

Blogs

Announcing Micro Focus Data Protector 10.04

Key Links:

- Data Protector 10.04 Release Notes
- Data Protector 10.04 Upgrade Guide
- Data Protector 10.04 Migration Guide
- Data Protector 10.04 Troubleshooting

Product Documentation

Data Protector 10.04

Release Notes
Get an overview of the latest features and everything that is new in this version.

Get started
Obtain your understanding of the key concepts and architecture of DP.

Install
View these procedures to install, set up, and configure DP.

Upgrade
View these procedures to upgrade from previous versions to current version.

Integrate
View information about integration of other enterprise products with DP.

Administer
View the procedures within this section to administer DP.

Use
Utilize the procedures in this section to optimize the potential use of DP.

Develop
View these resources to develop solutions and maximize the utility of DP APIs.

Troubleshoot
Resolve problems that you might encounter while installing and using DP.

Video Library
Watch the videos in this section for a short introduction to DP.



Thank you

robert.lejnert@microfocus.com