FALCONSTOR

5 Reasons to Use FalconStor StorSafe VTL to Migrate IBM Power Systems Workloads to Power Systems Virtual Server

IBM® Power® is known for its scalability and performance, key reasons it is used with the most demanding workloads, spanning IBM i, AIX, and Linux operating systems. With a leading reliability rating for 14 years running (source: IBM), it is no wonder datacenters worldwide deploy the most business-critical applications on it. With IBM Power Systems Virtual Server (PowerVS), these Power workloads can now run in the cloud, allowing IT departments to take advantage of numerous cloud benefits, while also meeting service level agreements (SLAs) for business objectives, corporate compliance requirements, and regulatory mandates.

FalconStor StorSafe VTL brings enterprise-class data protection, disaster recovery, ransomware protection, and cloud migration to IBM Power workloads.

To help meet these SLAs, IBM and FalconStor have partnered to provide a virtual tape library (VTL) solution. StorSafe VTL is the only VTL solution certified by IBM for hybrid backup to the cloud, along with PowerVS data protection. StorSafe VTL works with leading backup software, limiting the learning curve for IT staff. It also reduces capacity requirements and minimizes replication time by removing redundant copies of data with its integrated and multi-patented deduplication technology.

The same software is used for on-premises and cloud, allowing customers to easily migrate to PowerVS, with an easy-to-execute backup and restore process. This solution brief explores the top five reasons StorSafe VTL is the best solution to migrate IBM Power workloads to PowerVS.

TOP 5 REASONS TO USE STORSAFE VTL FOR MIGRATION TO POWERVS

There are many benefits of moving workloads to the cloud. When the decision is made, it's important to use the right solution for the environment. IBM Power workloads can be moved to IBM Power running in third-party cloud environments or in IBM's bespoke Power cloud environment, PowerVS. With this latter option now available, it is more critical than ever to use the right migration tool and that tool is StorSafe VTL.

The top five reasons to use StorSafe VTL to migrate to PowerVS are:

1) StorSafe VTL is the only IBM-certified third-party solution for PowerVS migration and data protection.
2) The solution reduces IT time and costs by leveraging existing skills and tools.
3) StorSafe VTL includes a central management tool that simplifies ongoing data protection and migration processes by allowing IT staff to view what is happening on-premises and in PowerVS from a single console.
4) With advanced compression and multi-patented deduplication, StorSafe VTL reduces backup images by up to 95%, greatly reducing storage costs.

5) Certified partners that understand how to migrate IBM Power workloads to PowerVS using StorSafe VTL ensure organizations have reliable assistance when they want it.

1) THE ONLY IBM-CERTIFIED THIRD-PARTY SOLUTION FOR POWERVS MIGRATION AND DATA PROTECTION

IBM and FalconStor have a deep and strategic technical partnership that focuses on customer requirements to simplify IT operations, modernize IT infrastructure, and reduce overall costs without sacrificing security, performance, or optimization. With StorSafe VTL, IBM Power customers achieve a non-disruptive and secure migration process that can scale to PB-sized workloads. StorSafe VTL includes many advanced security specifications and an important one for the migration is immutable backups. These are important to the migration as the process begins with on-premises workloads backed up using the preferred backup process and then storing the images to the VTL. The data is secure whether meeting standard backup requirements or for cloud migration.

StorSafe VTL was also selected by IBM for certification as it has deduplication built-in, and this market-leading technology minimizes network load by removing redundant data as migrations are performed over time. This not only reduces the demand on the network for the migration, but also reduces storage requirements. Figure 1 shows how the migration process works with StorSafe VTL. Note that StorSafe VTL can also be used to migrate tapes to PowerVS.
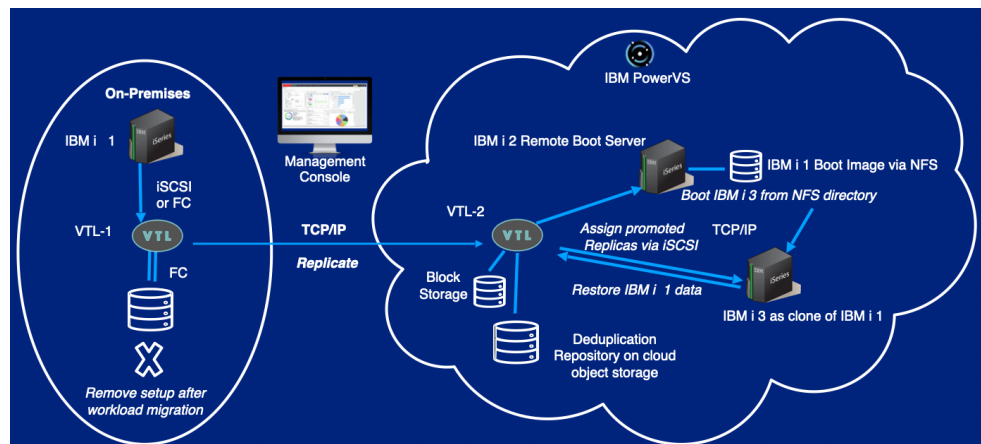

Figure 1. Migrating Power workloads from on-premises to PowerVS

Once workloads are in PowerVS, the same StorSafe VTL used for the migration process is used for backup in PowerVS, again in conjunction with the preferred backup process.

2) LEVERAGE EXISTING SKILLS AND TOOLS TO SAVE RESOURCES

Whether an organization performs the migration themselves or engages a partner, the process is greatly simplified because whatever backup process is used already, the same process is used for the migration. In fact, adding StorSafe VTL for on-premises backups is cost-effective and non-disruptive since the VTL works just like tapes while the deduplication greatly reduces storage costs. Leading backup processes, such as BRMS, SAVE21, Veeam, Commvault, TSM, are supported.

3) SINGLE MANAGEMENT CONSOLE FOR ON-PREMISES AND POWERVS

As shown in the middle of Figure 1, there is a single management console, with an easy-to-use GUI, that manages Power and PowerVS VTLs from one console. The management tool:

- Manages all StorSafe VTL instances and licenses
- Provides real-time visibility into status, health, and integrity
- Delivers Smart Rules, Analytics, Reports (see Figure 2), and Forecasts

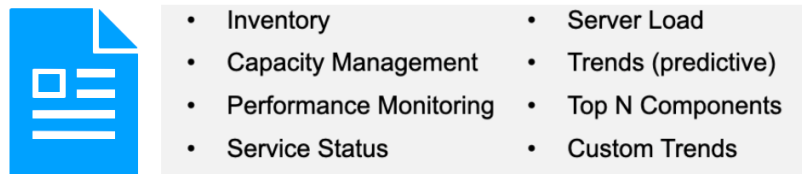| • Inventory | • Server Load |
• Capacity Management	• Trends (predictive)
• Performance Monitoring	• Top N Components
• Service Status	• Custom Trends

Figure 2. Reports provided in central management tool

Migrating from on-premises to cloud creates some feelings of the unknown. StorSafe VTL with its central management console helps alleviate these feelings by allowing IT staff to view what's happening, whether they do the migration themselves or engage a partner.

4) REDUCED STORAGE REQUIREMENTS

Once an organization has migrated IBM Power workloads to PowerVS, the deduplication that made the migration perform faster now greatly reduces storage requirements in perpetuity. Recall that the same StorSafe VTL used for the migration is now used for PowerVS backups. Figure 3 provides a high-level overview of the deduplication
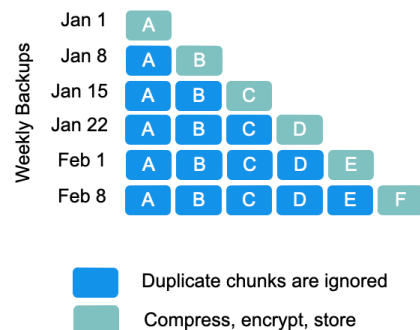

Figure 3. Multi-patented built-in deduplication greatly reduces storage requirements

process applied to weekly backups. As time goes on, redundant data is stored only once. Historical data collected by FalconStor shows a 20:1 deduplication ratio for IBM i workloads (often much higher) and 5:1 for AIX workloads. Go the FalconStor solution and sizing calculator for additional information.

With StorSafe VTL and PowerVS, customers also enjoy knowing that back-ups will always complete as they now have unlimited storage to work with. And when a restore is required, it is a much faster process.

5) CERTIFIED PARTNERS AND REPEATABLE PROCESSES

IBM Power Systems workloads are usually mission-critical and the leap to move them from on-premises to the cloud can be daunting for a number of reasons, such as scarcity of resources, fear of business disruption, or financial pressures. FalconStor and IBM make the decision a lot easier by certifying top tier partners, addressing many of the reasons organizations hesitate. Certified partners use repeatable processes, and when the actual migration is put into motion, it happens with just three scripts. Figure 4 shows, at a high level, the steps recommended for the migration and who is responsible for what.

	Customer/ Partner Services	MSP/TS/ Cloud Experts	FalconStor
PHASE: PLAN			
STAFFING	X		
GATHER BUSINESS REQUIREMENTS	X		
GATHER TECHNICAL REQUIREMENTS		X	X Online VTL Sizing
DEVELOP PROJECT PLAN	X	X	X
PHASE: EXECUTE			
PREPARE ON-PREMISES VTL SOURCE	X	X	X Provision VTL
CLOUD DEPLOYMENT		X	X Provision VTL
BACKUP SOURCE SYSTEM(S)	X	X	
RESTORE TO CLOUD SYSTEM(S)		X	
BOOT CLOUD SYSTEM(S)		X	

Figure 4. Migration with StorSafe VTL checklist

SUMMARY

It's time to take the leap and move IBM Power workloads to PowerVS. With StorSafe VTL, IBM and FalconStor offer a cost-effective, fast, and secure solution that also includes long-term benefits. Organizations get:

• A non-disruptive and secure migration process that can scale to PB-sized workloads
• Built-in deduplication and replication that improves performance and reduces storage capacity

- Simplicity as the same tool used for on-premises and cloud enables both workload and tape migrations
- PowerVS data protection using the same tool on premises and cloud

Next steps:

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