Reduce storage complexity with IBM deduplication gateway

A single device to handle deduplication and backup without compromising performance

Highlights

- Streamline data protection with a solution that reduces the amount of data for backup and provides a physical target for backed-up data

- Rely on the IBM® ProtecTIER® HyperFactor® deduplication algorithm to preserve data integrity

- Deploy with IBM FlashSystem™ technology to boost performance

- Control all backup and recovery activities from the centralized IBM Spectrum Protect™ platform

Today's explosive data growth today shows no signs of slowing. One consequence of this phenomenon is that organizations are finding data deduplication and backup increasingly costly and complex. That's because of the need to add more deduplication devices to handle more data—coupled with the tendency to deploy piecemeal solutions in the effort to keep up with the massive influx of data.

The result is often a hodge-podge that not only makes the deduplication and backup environment expensive and difficult to maintain, but that can also compromise data integrity, reliability and durability. Under the weight of growing data demands, backup windows grow ever longer, threatening recovery time objectives (RTOs) and recovery point objectives (RPOs). The deleterious effects reverberate throughout the enterprise as the resulting bandwidth issues and sluggish network performance disrupt end users.

IBM ProtecTIER TS7650G Deduplication Gateway addresses all of these issues. A purpose-built backup appliance with deduplication capabilities, it enables organizations to handle data growth without compromising backup performance or disrupting enterprise operations.

IBM ProtecTIER TS7650G Deduplication Gateway

The gateway simplifies backup by eliminating the need to add more deduplication devices to handle growing amounts of data; incorporates FlashSystem arrays and other features to enhance backup performance; and integrates smoothly with the IBM Spectrum Protect platform to centralize data protection.

Reducing the storage burden by streamlining backup

ProtecTIER TS7650G Deduplication Gateway does two things to streamline backup. It provides deduplication capabilities to reduce data volumes, and it provides a flexible, physical storage target designed for capacity growth. So there's less data to back up and a storage target that easily accommodates the data. As the amount of data increases, you simply add more disk space; there's no investment beyond the management license for the additional capacity, and no interruption to the flow of backup or recovery. The solution easily scales to 1 petabyte (PB) of physical storage and supports one-to-one, many-to-many and many-to-one replication.

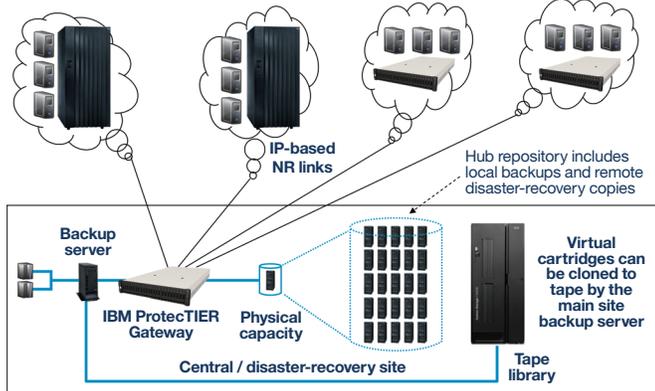## Enhancing performance while maintaining data integrity

ProtecTIER TS7650G Deduplication Gateway provides a host of capabilities to improve backup and recovery performance. Its HyperFactor deduplication algorithm can dramatically reduce storage needs to reduce costs—and without sacrificing data integrity, since it performs bit-by-bit data comparisons to reduce the risk of discarding data in error. It delivers sustained inline deduplication throughput rates up to 2,500 MBps and even faster recovery throughput rates of up to 3,200 MBps. And when deployed with FlashSystem storage, the gateway brings the high performance of flash to the backup environment, helping to shorten backup windows and meet RTO and RPO requirements.

Working in concert with IBM Spectrum Protect storage management

By combining IBM Spectrum Protect storage management software with ProtecTIER TS7650G Deduplication Gateway, organizations can dramatically reduce the time and cost required to manage backup and recovery. IBM Spectrum Protect is the data protection platform that provides a single, consolidated point of control for backup and recovery activities. It enables reliable, scalable and cost-effective backups, as well as fast recovery for virtual, physical and cloud environments. In fact, IBM Spectrum Protect can reduce backup infrastructure costs by up to 38 percent.[1]

Data replication from remote sites

**Up to 12 branch offices: Gateways and/or appliances
One target: Appliance, gateway, single or two-node cluster**

IP-based
NR links

Hub repository includes
local backups and remote
disaster-recovery copies

Backup
server

IBM ProtecTIER
Gateway

Physical
capacity

Virtual
cartridges can
be cloned to
tape by the
main site
backup server

Central / disaster-recovery site

Tape
library

Consolidating storage to reduce management overhead

Having a single repository for growing amounts of data, along with a streamlined view of backup and recovery operations, does more than simplify backup. It reduces the overall effort associated with managing the storage infrastructure. Because administrators no longer have to spend time and effort viewing multiple silos of data to check the status of storage, or to determine the need for additional storage pools, they're free to focus on storage innovation and strategic planning.

IBM ProtecTIER TS7650G Deduplication Gateway customer stories

arvato Systems: Improving backup performance and leveraging centralized management

To improve backup performance in two data centers, systems integrator arvato Systems GmbH deployed a ProtecTIER TS7650G Deduplication Gateway at each site. The deployment provides 900 TB total capacity, achieves backup and recovery performance of 3.4 TB per hour per site, and integrates seamlessly with existing IBM Spectrum Protect storage management to enable multi-device management from a single point.

Banque du Liban: Bolstering availability to support near-continuous operations

The central bank of Lebanon chose a ProtectTIER TS7650G Deduplication Gateway as part of a virtualized solution to support near-continuous business operations. The solution brings together IBM Storage technology, IBM Real-time Compression™ technology and IBM Spectrum Protect storage management software to bolster system availability while reducing latency and elevating I/O performance. The result is five times more available storage capacity than the bank had previously.

Henan Province: Ensuring reliable daily database backup

The Department of Public Safety of Henan Province, a government security agency in China, relies on IBM Spectrum Protect software to back up its Oracle database to a ProtecTIER TS7650G Deduplication Gateway every day. An IBM Storwize® V5000 storage device serves as the gateway's disk-based storage repository, rounding out a highly effective backup and restore solution.

Why IBM?

Only IBM Storage provides the combination of software-defined and appliance-based backup that's essential for efficient, cost-effective deduplication and backup in high-growth data environments. Today's ProtecTIER TS7650G Deduplication Gateway is part of a comprehensive set of offerings designed to meet ambitious backup and recovery performance goals as well as handle long-term data retention—all in a simplified, streamlined environment with centralized storage management.

For more information

To learn more about IBM ProtecTIER TS7650G Deduplication Gateway, please contact your IBM representative or IBM Business Partner, or visit the following website:
ibm.com/systems/storage

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