

# A major media and entertainment company enables tape-free global backups and restores

*With IBM ProtecTIER and the IBM XIV Storage System*

---

## Overview

### Challenge

With more than a petabyte of data in its global storage infrastructure, a major global media and entertainment company wanted to find a more efficient way to handle its 20 TB overnight backups, and to accelerate restore processes.

### Solution

Working with IBM Lab Services, the company implemented a virtual tape library solution based around IBM System Storage® ProtecTIER® deduplication gateways, IBM XIV® Storage System technology, and IBM Tivoli® Storage Manager.

### Benefit

- Reduces backup data volume by 10:1
  - Eliminates tapes, simplifying management
  - Enables rapid, centrally managed global restores
- 

This company is a global leader in the media and entertainment sector; it creates, produces, distributes, licenses and markets entertainment content across all major media, platforms and channels. As a global business operating from more than 35 locations across the world, the company generates huge volumes of data. Its main storage infrastructure, which holds everything except its digital movie portfolio, manages more than one petabyte of data, and is growing all the time.

## Dealing with vast quantities of data

“Most large companies need a lot of storage capacity for corporate e-mail, documents, ERP, applications and databases,” explains a client spokesperson. “But in our business, we also have all the movie posters, comic books, video games and so on, which take up an enormous amount of space.”

The sheer volume of data was creating a significant challenge for the IT team, particularly in terms of backup and restore processes.

“Our overnight backups were up to 20 TB of data, and it was getting difficult to process them within a viable window,” says the client spokesperson. “At our main data center, we had a huge StorageTek L5500 tape silo with 50 LTO-1 drives, and about 50,000 tapes stored off site. Maintenance costs for the silo were high, and it was reaching end of life, so we needed to decide on a new solution.”

## Choosing the right option

One option would have been to invest in a new, smaller tape library with faster, higher-capacity LTO-4 drives—but the company was keen to find a solution that would, as far as possible, eliminate the need for tapes altogether.

“We realized that there was no real reason to keep copies of any business data older than 30 days, except in the case of specific legal requirements,” comments the client spokesperson. “This meant that less than 2 percent of our data actually needed the kind of long-term retention that physical tape storage provides. As a result, we decided to research the possibility of a virtual tape library (VTL) solution.”



---

*“IBM ProtecTIER and the IBM XIV Storage System both align perfectly with our storage strategy... we have been able to build a global storage architecture that will deliver real value to the business both now and for the future.”*

—Storage Services at a major media and entertainment company.

---

### Proving the concept

The company consulted analyst reports from Gartner, and evaluated several VTL solutions from competing vendors. The IT team was impressed by reports about IBM System Storage ProtecTIER deduplication technologies, and requested a proof of concept.

“The proof of concept was impressive—the deduplication technology enabled us to reduce backup data volumes by a ratio of more than 10:1, which made disk-based backup a cost-effective option for us,” says the client spokesperson. “The ability to multistream data to a large number of virtual tape drives also enabled a 66 percent reduction in the backup window. This helped us make a strong business case for the adoption of the ProtecTIER solution.”

### A leading-edge solution

The company decided to go ahead with a full-scale implementation, and planned to integrate the ProtecTIER solution with IBM XIV Storage System technology.

“At the time, the recommended storage system for ProtecTIER was a traditional Fibre-Channel storage system—but we had recently started migrating our tier-two storage to IBM XIV systems, and we were really impressed with its performance and reliability. It’s pretty incredible that you can get this level of performance from SATA disk drives. We were keen to use XIV systems with ProtecTIER too, and we asked IBM Lab Services if this would be possible.”

Following a period of intensive testing, IBM Lab Services confirmed that XIV systems could deliver the level of performance required, and the implementation went ahead. IBM Tivoli Storage Manager servers, running on IBM Power® 570 hardware, send backup data to a dual-node TS7650G ProtecTIER cluster, which deduplicates the data and stores it on three fully populated IBM XIV Storage System arrays. This data is automatically replicated from the main data center to a similar infrastructure at a second site more than 2,500 miles away.

### Going global

The success of this implementation led the company to extend the solution—for example, creating a separate VTL solution for its SAP environment, and introducing similar solutions in London, UK, and other international locations.

“The solution has gone global: we have created a hub-and-spoke network where small sites use either IBM Tivoli Storage Manager clients or TSM FastBack to send backup data to the VTLs at larger data centers in several major metropolitan cities around the world,” says the

---

## Solution Components:

### Hardware

- IBM System Storage® TS7650G ProtecTIER® Deduplication Gateway
- IBM XIV® Storage System

### Software

- IBM Tivoli® Storage Manager FastBack

### Services

- IBM Lab Services
- 

client spokesperson. “These hub sites then replicate all their VTL data to a global disaster recovery site—which gives us a single point of control from which we can remotely restore any server, anywhere in the world.”

“As a result, we have been able to practically eliminate physical tape storage across our entire global infrastructure, and implement a single, consistent, streamlined backup and restore process that saves a great deal of maintenance work for our worldwide IT teams.”

## Simplifying the infrastructure

In addition to introducing a simpler, more efficient way to back up and restore data, the solution has also delivered significant benefits in terms of physical infrastructure.

“We have been able to retire almost all of our physical tape libraries, including the massive StorageTek silo,” says the client spokesperson. “We have also replaced a large number of EMC CLARiiON storage servers with XIV systems, which effectively give us three times as much capacity in the same physical footprint. As a result, we have freed up a significant amount of space in our data centers, which should enable us to support business growth for several years to come.”

By moving from physical tapes to a virtual solution, the company has also significantly reduced operational costs and enhanced reliability. The StorageTek silo alone used to cost thousands of dollars a month to maintain, and often suffered from drive failures and other mechanical faults; by contrast, the ProtecTIER solution requires little maintenance and offers very high levels of availability.

## Faster backups and restores

Most important of all, the new solution enables the in-house storage team to deliver a high level of service to the business, meeting targets for both backup and recovery times. In the sites where the first phase of the implementation took place, the backup window has been reduced from 12 hours to eight; and server restores, which previously might have taken several days, can now be completed in minutes.

## Looking forward

Looking to the future, the company plans to complete the migration of its remaining systems onto the VTL platform, and is considering extending its use of the IBM XIV Storage System platform to handle the storage needs of “tier 1.5” applications like SAP.

“We’re constantly looking for solutions that provide a smarter way to manage our infrastructure, save space, reduce power requirements and streamline operational costs,” concludes the client spokesperson. “The combination of ProtecTIER, XIV Storage System and Tivoli Storage Manager align perfectly with our storage strategy: the combined

solution gives us a safe way to protect our data without relying on cumbersome tape storage, while providing us very high levels of performance at a much lower cost than a traditional enterprise SAN solution. As a result, we have been able to build a global storage architecture that will deliver real value to the business both now and for the future.”

### For more information

Contact your IBM sales representative or IBM Business Partner, or visit us at:

[ibm.com/systems/storage](http://ibm.com/systems/storage)



---

© Copyright IBM Corporation 2010

IBM Systems and Technology Group  
Route 100  
Somers, New York 10589  
U.S.A.

Produced in the United States of America  
May 2010  
All Rights Reserved

IBM, the IBM logo, [ibm.com](http://ibm.com), ProtecTIER, System Storage, and XIV are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at “Copyright and trademark information” at [ibm.com/legal/copytrade.shtml](http://ibm.com/legal/copytrade.shtml)

Other company, product and service names may be trademarks or service marks of others.

References in this publication to IBM products, programs or services do not imply that IBM intends to make these available in all countries in which IBM operates. Offerings are subject to change, extension or withdrawal without notice. All client examples cited represent how some clients have used IBM products and the results they may have achieved.

THE INFORMATION IN THIS DOCUMENT IS PROVIDED “AS-IS” WITHOUT ANY WARRANTY, EITHER EXPRESSED OR IMPLIED.



Please Recycle