Success Story: Bank Leumi

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Bank Leumi Revolutionizes Its Storage Paradigm after Discovering Superior Performance and Real Single-Tier Storage with the IBM XIV Storage System

"I can list numerous ways in which the IBM XIV Storage System brings us value—the simple fact is that it has given us a real, single-tier solution for the first time, with a host of business benefits, making life simpler and happier for everyone."

Itzik Malach, Executive Vice President, Bank Leumi

At a Glance: Bank Leumi's XIV Solution

Customer	Bank Leumi, one of Israel's largest banks
Industry	Banking & Finance
Environment	Solaris, VMware™, boot from SAN, AIX®, Windows®
XIV Systems	7
Challenge	Deliver excellent high-end storage services while minimizing costs
Features Used	Snapshots, writable snapshots, copy, remote mirroring, storage pools
Results	• Performance superior to its previous, multi-vendor high-end systems, inclusive of snapshots
	• Exceptionally easy and reduced management
	• Consolidation of tiers, creating a single solution for Tier-1 and Tier-2 needs

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Overview

The Leumi Group deals with a diversity of banking, financial and non-banking activities—domestic and international. The bank operates in over 318 branches and agencies across 21 countries, and in leading financial centers. It is one of Israel's largest financial institutions, with over 12,000 employees and annual revenues of $1.73 billion.

Bank Leumi's IT team had objectives typical to those of their counterparts in the finance arena: ensuring high system performance and reliability while utilizing rich features for optimized administration. An ongoing challenge to these objectives was an ever-growing capacity need, as well as tight IT budgets limiting equipment purchases and administration team size. Always seeking a better mousetrap to meet its objectives, the Leumi team opted to put a single XIV system in place. Given that the system was then a newcomer to the storage market, Leumi cautiously anticipated a two-year trial period. Yet within five months, due to overwhelmingly positive results, the

system was put into production. The bank ultimately installed a total of seven XIV systems in the first 19 months, at its primary as well as its disaster recovery sites.

Today, Bank Leumi leverages the XIV system's single-tier architecture to consolidate storage tiers, achieve excellent performance, and dramatically reduce management overhead.

> *"Our most demanding application ran with difficulty on our Tier-1 systems—snapshots were out of the question. The XIV system gives us three times the performance, and with 28 snapshots!"*
>
> Itzik Reuven, Storage Administrator, Bank Leumi IT Center

Putting the XIV system to the test

As part of "proof of concept," the bank's team subjected the XIV system to the rigors of its most challenging high-end application. Based on an Oracle® database, the application uses 7 terabytes in volume, with heavy performance requirements due to intensive writes and demanding analysis processes.

The application had difficulty running on one of their most powerful Tier-1 systems—and only without snapshots—and had failed on another one. "Snapshots were out of the question," explained Itzik Reuven, storage administrator for the bank's IT center. Without snapshots, Leumi's backup solutions were more complex and less effective. On the XIV system, the application ran smoothly from the start, not just keeping pace with write requests but actually completing each analysis process within one-third the time.

The greater surprise came with the system's robustness when using snapshots. The bank discovered that it could sustain 28 differential snapshots—4 a day, over 7 days—while maintaining the same high performance levels. "The XIV system gives us three times the performance, with a whopping 28 snapshots," Reuven declared. In effect, the XIV snapshot feature has given the bank its first true, multi-generation, logical backup solution. Reuven further noted that the easy-to-use mechanism produces snapshots "instantly" and makes light work of writing and maintaining backup scripts.

Ease of use dramatically simplifies system management

The system's ease of management was another surprise. The bank was accustomed to carrying out tedious storage provisioning processes on its high-end storage systems. It spent much time on maintenance, such as monitoring performance levels and migrating volumes between RAID groups. The performance of its systems would otherwise degrade, and quickly, such as when new applications were deployed or application usage patterns changed. The XIV system eliminated the need for such tasks. "We can handle volume provisioning in less than a minute, and without any configuration process, because the XIV system automatically and perfectly balances load across all applications and physical resources," stated Reuven.

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Attractive TCO invites Tier-2 data migration

Another important advantage for the Leumi team came in realizing the system's cost-benefit value. "Taking into account direct and indirect costs (management effort, power consumption, density, and more), we found the XIV system to also be cost-competitive for Tier-2 storage," explained Ester Lior, storage director for Bank Leumi. "We are using the system for applications that previously ran on our Tier-1 and Tier-2 systems—in short, we're getting Tier-1 capabilities without Tier-1 costs." By providing a much more effective cost-cutting alternative than the practice of splitting storage solutions between tiers and architectures, the XIV system enabled Bank Leumi to alter and optimize its storage paradigm. By providing high-end performance and features at a total TCO considerably lower than typical Tier-1 systems, the IBM XIV Storage System has enabled Bank Leumi to achieve its dual objective of delivering excellent Tier-1 storage services while minimizing costs.

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Ester Lior, Storage Director, Bank Leumi

Capacity(interabytes)

7 XIV systems and 660 TB in 19 months

700
600
500
400
300
200
100

7th system: Disaster recovery of system #6
6th system: Disk backup with de-duplication
5th system: R&Denvironment
4th system: R&Denvironment
3rd system: DisasterRecoverysite
2nd system: Tier 1 & 2 storage
1st system: Tier 1 & 2 storage

Q2   Q3   Q4   Q1   Q2   Q3   Q4
Year1   Year2
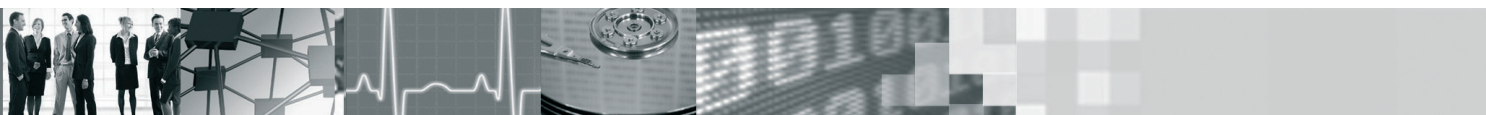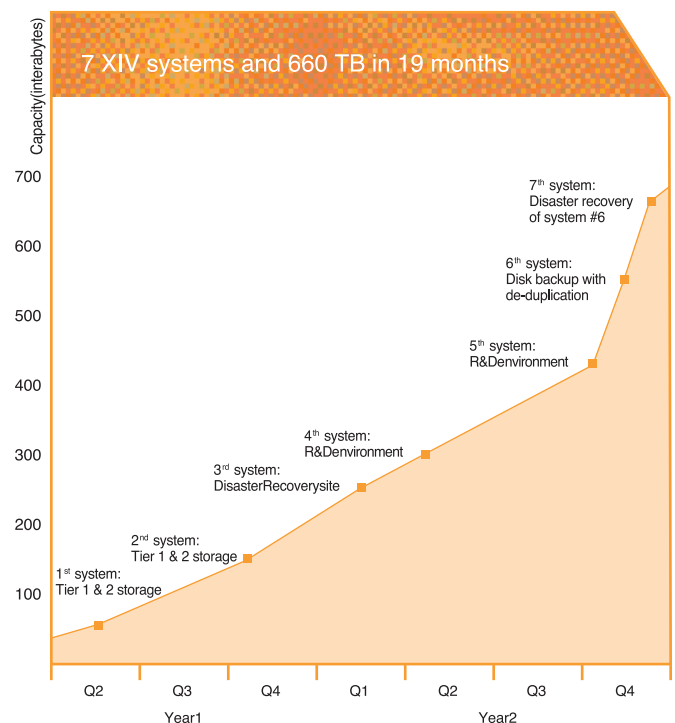
Benefits: Getting extra with the XIV system

IBM XIV Storage System	Business Value to Bank Leumi
Exceptional Tier-1 performance	• Better performance, even with the most demanding applications
Snapshots and other Tier-1 features	• True, first-time-ever, multi-generation, logical backup • Functionality tailored to users, not system limitations
Ease of management	• Reduced efforts, "tighter ship" • Better service to company users • Freeing of administrator resources to other tasks
Single-Tier solution	• Improved organizational efficiency • Simplified operations
Cost advantages	• Cost-benefit value of no tiering

For more information

To learn more about IBM XIV Storage System, contact your IBM representative or IBM Business Partner,
or visit: www.xivstorage.com