

# HP solutions power Lithuanian mobile network provider's connections with customers, new markets

BITÉ



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– Tomas Kalinauskas, IT Infrastructure Manager, BITÉ

#### **Executive summary:**

Lithuanian telecommunications operator BITÉ benefited from strong growth in 2005, outpacing the market in terms of customers, revenue, and EBITDA (corporate earnings). The firm's customer base grew by 80 percent over the year, reaching more than 1.42 million by the end of the third quarter of 2005. To capitalize on its success, BITÉ decided to roll out a mobile network into neighboring Latvia. The provider also wanted to improve efficiency, simplify management, reduce backup times, consolidate storage, and provide a strong platform to better support its Lithuanian customers. In addition, BITÉ needed a strong foundation for a new core infrastructure to power critical billing, enterprise resource planning, customer relationship management, data warehouse, and enterprise relationship-management applications.

BITÉ upgraded its storage and server infrastructure with powerful HP solutions, including HP StorageWorks Enterprise Virtual Array systems equipped with innovative new Fibre Attached Technology Adapted (FATA) disk

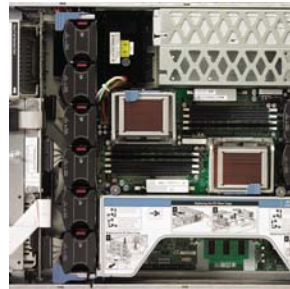
drives, an HP StorageWorks Enterprise Systems Library E-Series tape library, StorageWorks Command View EVA software, and HP ProLiant servers. BITÉ cut the time required for full backups by more than 60 percent, consolidated isolated storage islands, and exponentially expanded total managed disk and tape storage – all without increasing storage-management staff.

#### **Mobile-network provider places call to HP**

Operating in the Lithuanian market for over 10 years, BITÉ is a wholly owned subsidiary of Denmark's TDC Group. BITÉ (pronounced "bee-ta") has built a full-service mobile network, which serves almost 1.7 million customers throughout its home market of Lithuania. BITÉ has benefited from a strong Lithuanian market that has seen nearly a 50 percent increase in the number of mobile phone numbers in the past 12 months, according to that country's communications regulatory authority. The same report noted that Lithuania now has 4.1 million mobile phones for a population of about 3.4 million; yes, more than one phone per person! This enthusiastic adoption of mobile phone technology led BITÉ to begin rolling out a mobile network in the neighboring Baltic republic of Latvia.

From the beginning, BITÉ powered its growth on an internal IT platform based on HP ProLiant and AlphaServer systems, storage area networks (SANs), and software solutions. The BITÉ storage-management team evaluated storage solutions from HP, EMC, Hitachi, and others. BITÉ chose the HP solution, which extended and optimized its investment in HP SAN technology; solved its backup challenges; and provided an adaptable, integrated storage management and business continuity/availability platform to support continued growth.





However, in 2004, BITÉ's huge ERP, CRM, DW, and ERM databases (amounting to approximately 13 TB) were taking up to 40 hours to back up using conventional disk-to-tape technology. In addition, islands of direct attached storage (DAS) associated with the company's non-SAN attached servers were proving increasingly difficult to back up and protect.

**FATA disks mean no more backup hang-ups**

In early 2005, the BITÉ team chose to meet these challenges by expanding two of the six HP StorageWorks Enterprise Virtual Array systems (EVAs) in its existing HP SAN with 12 TB of new HP FATA drives for a total of 44 TB of raw SAN capacity. In addition, the team chose to add an HP StorageWorks ESL322e E-Series tape library (equipped with 12 Ultrium 460 tape drives and 160 LTO2 cartridges). BITÉ's IT Infrastructure Manager Tomas Kalinauskas explains:

- **"The availability of the FATA disk drives and the ESL tape library technology came along at just the right moment for us.** Our use of the HP SAN had grown tremendously and we needed a new approach to ensure backups, business continuity, and availability. This new combination gave us the answer we needed."
- **"We stage all of our backup data to the FATA drives at disk-to-disk speeds, even though our backup software thinks it's backing up to tape.** This virtually eliminates any downtime or performance drain by moving backups to the Fibre Channel SAN and off the corporate network."

According to Tomas Kalinauskas, this change reduced the time required for making full backups from as much as 40 hours to about 12:

- **"We're now able to stream data from the FATA staging area to multiple drives in the StorageWorks ESL tape library at optimal speed, further reducing backup latency – we back up far more data in a third of the time.**

- **In addition, we now have time to stream a second cloned copy of the backup to a remote site,** which is located in a building about 180 meters away from the main data center. This strengthened our business continuity and disaster preparedness."

BITÉ's streams its primary backup to an HP StorageWorks ESL322e tape library, while its remote backup and recovery site is powered by a StorageWorks MSL6030 tape library (equipped with two Ultrium drives and 30 Ultrium tape cartridges). Both the ESL and MSL tape libraries integrate into the HP StorageWorks Extended Tape Library Architecture (ETLA), which simplifies backups through improved, automated management of library operations. ETLA also simplifies the installation of the library into the SAN by providing a simple point-and-click integration process.

The HP SAN infrastructure at BITÉ helps accelerate backups – while providing a powerful consolidation platform for enterprise-wide storage management. Tomas Kalinauskas says:

- **"We consolidated almost all of our critical application storage onto our HP StorageWorks EVA arrays and we use one interface to manage that storage - StorageWorks Command View EVA.** Storage configuration and management is much faster, simpler, and easier."
- **"By consolidating isolated server-attached storage onto our HP SAN over the past five years, our management efficiency has grown steadily. We now manage about 22 times the amount of storage** we did five years ago and without increasing our IT staff. We also have a far more adaptable, flexible storage and server environment, which responds quickly to new demands and new projects."

**Critical storage stays on line with HP ISEE**

As BITÉ relies increasingly on its HP SAN for highly available, mission critical storage, its appreciation for HP

Instant Support Enterprise Edition (ISEE) grows. This proactive remote monitoring, diagnostic, and troubleshooting service option is available for most HP storage, server, and network solutions. BITÉ has ISEE coverage for its HP StorageWorks arrays. Notes Tomas Kalinauskas:

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- **"HP ISEE takes a lot of the worry out of monitoring the health of our important SAN assets.** With ISEE, we can address failures or predicted failures promptly."
- **"In addition, HP ISEE automatically escalates our support cases as needed and orders and delivers spare parts quickly and almost automatically, which is very reassuring."**

#### Library partitioning wires development

A powerful feature in the HP StorageWorks ESL E-Series Tape Library is the ability to easily partition the library into up to six virtual tape libraries. Partitioning allows users to subdivide the library logically, simplifying support for multiple SANs or backup software packages.

BITÉ's IT staff plans to use this partitioning feature when they migrate critical databases and backups from its AlphaServer GS160 servers to an HP ProLiant DL585 4-way server equipped with AMD Opteron™ processors. Tomas Kalinauskas says that the firm will use separate partitions on the ESL322e library to support both old and new backups systems in parallel during the migration. BITÉ will also use this feature to support its implementation of Oracle® Database 10g on clustered HP ProLiant DL585 servers.

BITÉ relies on more than 120 HP ProLiant and AlphaServer systems to power its IT infrastructure in Lithuania and to provide support for its growing service in nearby Latvia. HP Systems Insight Manager (SIM) and HP Integrated Lights Out (iLO) technology provide a unified management platform – including fault monitoring, configuration tuning, update management, and remote control/access.

Concludes Tomas Kalinauskas:

- **"The partitioning feature in the HP StorageWorks ESL library allows us to create a parallel backup system to**

**enable our new Oracle-HP ProLiant solution to work correctly.** With 12 drives and 160 cartridges, there's plenty of capacity in the library to support our development efforts."

- **"Soon, we plan to move many of our largest applications to the ProLiant DL585 systems under Red Hat Linux.** Initially, we are developing an Oracle grid system with four ProLiant DL585 servers. We can expand it later as we support more applications with it. Moreover, our HP SAN can support the new Oracle grid and scale easily with it."
- **"HP solutions continue to be the best for our needs.** This latest installment optimizes our investment in HP SAN technology, solves our backup challenges, and provides an adaptable, integrated storage management and business continuity platform to support BITÉ's continued growth."



#### About BITÉ

BITÉ ([www.bitegroup.net](http://www.bitegroup.net)) is a subsidiary of Denmark's TDC Group. "BITÉ Lietuva" has successfully operated in the Lithuanian market for more than 10 years. During this decade, BITÉ has made its mark by offering customers relevant and useful services at attractive prices. The validity of this strategy is proven by its growing customer base, which reached nearly 1.7 million in 2005. In addition, during the past year, BITÉ was the only operator in the market to grow in all customer segments – including private, business and prepaid.

BITÉ won the tender for the GSM/UMTS license in Latvia in March 2005, and is already providing that market with a choice of easy-to-use mobile services. By the end of 2005, after just three months in operation, "BITÉ Latvija" already secured 55,000 customers.

# HP solutions power Lithuanian mobile network provider

## At a glance

### Hardware

- 6 HP StorageWorks EVAs (44 TB, including 12 TB in FATA drives)
- StorageWorks MSL6030 Tape Library with 2 LTO2 Ultrium 460 drives & 30 tape slots
- StorageWorks ESL322e (E-Series) Tape Library with 12 LTO2 Ultrium 460 drives & 160 Ultrium2 tape cartridges
- StorageWorks SAN Switch 2 GB switches (2/16 & 2/32)
- 120 HP ProLiant servers (including models DL320, DL360, DL380, DL385, DL560, & DL585) running Microsoft® Windows® (2000 or 2003) or Red Hat Linux (v.3 or 4)
- 5 HP AlphaServer systems (models GS160, ES40, & DS10)
- HP Integrated Lights-Out (iLO) boards & software

### Software

- HP StorageWorks Command View EVA & ESL
- HP Tru64 UNIX v5.1b
- HP Systems Insight Manager
- Microsoft Windows Server 2003
- Microsoft Axapta ERP
- Oracle Database 10g-based custom data warehouse
- Oracle Business Intelligence Discoverer
- Red Hat Linux
- Legato NetWorker
- Siebel Systems CRM
- Tytan billing solution from Comarch S.A.

### HP Services

- HP Instant Support Enterprise Edition (HP ISEE) proactive monitoring & problem resolution
- On-going direct HP Services hardware support

## Business needs

- Migrate mission-critical billing system between legacy system and new ProLiant DL585 servers
- Reduce time required for full backups
- Provide new infrastructure support for expansion into Latvia market, including new billing system
- Provide common storage interface for major enterprise storage resources
- Consolidate DAS islands to centralized SAN

## HP solution

- Upgraded storage and server infrastructure supports current BITĒ customers and growth into Latvian market.
- HP Extended Tape Library Architecture (ETLA) and new ESL322e E-series Tape Library provide a powerful platform for effective storage management and flexible development.
- Cost-effective, high capacity FATA drives added to pre-existing HP StorageWorks EVA arrays accelerate disk-to-disk backup performance. Increased total managed disk storage from 1.7 to 44 TB and tape storage from 11 to 70 TB.
- Command View EVA software delivers single-pane view and management of SAN resources.
- Reliable HP ProLiant DL585 servers with Opteron processors provide powerful platform for new Oracle Database 10g grid infrastructure for critical billing, ERP, CRM, data warehouse, and enterprise management applications.
- HP Instant Support Enterprise Edition (ISEE) service provides proactive monitoring and rapid support for critical HP SAN solutions

## Customer benefits

### Simplicity

- Enabled storage capacity growth (1.7 TB to 44 TB in five years) without additional management staff
- Consolidated isolated DAS islands to centrally managed HP SAN

### Agility

- Cut time required for full backups from as much as 40 hours to about 12
- Saved time and simplifies effort in storage management with virtualized, centralized HP StorageWorks EVA SAN

### Value

- Created a parallel backup system to support migration of critical database to a new backup system using ESL partition capability
- Provided investment protection through addition of FATA drives and in-cabinet scalability

For more information on how working with HP can benefit you, contact your local HP representative, or visit us at [www.hp.com](http://www.hp.com).

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