



## Success Story

# Makedonski Telekom Unifies Archives on NetApp Systems and Gains One-Stop Shop Efficiency for Any Data



Another NetApp solution provided by:



### KEY HIGHLIGHTS

#### Industry

Telecommunication services

#### The Challenge

Consolidate archival storage, improve efficiency, and integrate active data.

#### The Solution

Unify archives on NetApp® FAS storage to serve Symantec™ and OpenText solutions as well as nonarchival data and applications.

#### Benefits

- Simplified archival storage
- Broadened storage usage with file services, databases, and a VDI
- Combined data consolidation with security
- Lowered administrative burden for PC and server maintenance
- Replaced 20 Windows® file servers and saved license fees
- Saved up to 60% capacity using deduplication
- Accelerated backups
- Avoided additional archival software with built-in WORM capability
- Improved user experience with high data availability and simple restores

### Customer Profile

Makedonski Telekom AD - Skopje ([www.telekom.mk](http://www.telekom.mk)) offers its customers a range of telecommunication services and entertainment content through fixed network, broadband services, and integrated solutions, including IPTV. Its product portfolio includes IP-based services, data transfer, sale and lease of equipment, and services for system integration.

Makedonski Telekom plays a vital role in modernizing and improving the telecommunication market of Macedonia. Innovation has made the company the major national engineer of the information society. One example is the “fiber to the home” initiative to bring 100Mbps speed to every household in the country. Makedonski Telekom belongs to Magyar Telekom Group, since 2001 part of Deutsche Telekom Group.

### The Challenge

#### Consolidate data archiving and go beyond

Archiving helps to save costs, preserve performance, and fulfill internal security and regulatory compliance by offloading data from production and backup systems. At Makedonski Telekom, software from

Symantec and OpenText manages the archiving of e-mail content of more than 2,000 user mailboxes as well as files and SAP® data. However, archiving had become a pain point. Each software solution had its own disk or tape storage from different hardware vendors and was more or less easy to manage and scale. Furthermore, maintenance costs for some legacy systems were higher than buying new hardware. Altogether it was time for a change.

Aco Blazeski, head of the IT data center service management unit at Makedonski Telekom, set the expectations: “We wanted to simplify the archival environment and reduce operational costs by melting compliance, protection, and efficiency into a single platform. Another objective was to gain an open platform that can store and serve literally any kind of data.”

The team put together a tender for a solution that would unify all archive and compliance data; provide data protection, disaster recovery, and WORM capabilities; and serve any other kind of nonarchival data and applications.

## The Solution

### Unify archives on NetApp FAS systems

Makedonski Telekom took a close look at the latest systems on the market and finally chose NetApp as its vendor. "NetApp offered technically and financially the most suitable solution to cover both archival and enterprise data," says Blazeski.

Infinite Solutions took on the project management from detailed planning to data migration and handled several third parties to smooth a two-month process. The NetApp partner is a leading Macedonian specialist for IT system integration, professional services, and software development. This partner worked closely with Blazeski's team to set up the new storage infrastructure. It is based on two NetApp FAS3240HA storage systems and is configured for disaster recovery using NetApp SnapMirror® data replication.

By spanning two data centers over 130 kilometers, the team minimizes geographical risks, including possible earthquakes in the Skopje area. Infinite Solutions leveraged NetApp Snap Creator® to enable simultaneous replication of volumes, which shortens the daily data transfers. Furthermore, Infinite Solutions added a new backup quality to the environment by integrating NetApp Snapshot® technology with existing Symantec NetBackup™ processes.

"NetApp provides a unified architecture, secure virtualization, and seamless integration with Microsoft software. Thus we can bring many different data types on a single, shared platform," says Blazeski. The team configured the OpenText archive as a CIFS share using Microsoft® Active Directory® for access control. NetApp SnapLock® prevents this data from alteration and deletion for a selected period of time. The software is also applied to PDF files such as invoices, which customers can download through a web portal. Symantec Enterprise Vault™ and several Microsoft SQL Server® instances are connected to FC LUNs on the storage.

## Business Benefits

### Save system resources and costs with one-stop shop efficiency

Archive or not, Makedonski Telekom benefits for all data on the storage from NetApp efficiency features, including thin provisioning to improve storage utilization, Snapshot copies for efficient online backups, deduplication to reduce the data footprint, and RAID DP® to support high availability.

Deduplication saved up to 60% capacity. Less data on the storage also shortens the backup time. Thanks to the integration of NetApp Snapshot copies and NetBackup and the use of NDMP, the backups take less time now: 8 million files of approximately 3TB are backed up to tape within 12 hours. NetApp SnapLock integrates with a variety of archiving solutions; however, it also works independently to achieve content authenticity, governance, and compliance archiving.

Makedonski Telekom used NetApp MultiStore® to bring even more users to the same shared storage platform. By creating multiple virtual storage systems on the FAS storage, it is possible to combine data consolidation with privacy and security. "Though MultiStore was a low priority at the beginning, we soon recognized its benefits," recalls Blazeski. "In effect, we save software licenses for file servers, can easily fulfill internal security regulation, and can build dedicated data areas as needed."

Makedonski Telekom replaced 20 Windows Server® instances by serving file data directly from the storage over the network. The team also set up a Citrix VDI with 300 users for one of the departments. Thus, the maintenance for hundreds of physical PCs became superfluous and relieved the administration. NetApp flash technology contributes to the VDI performance with automatically accelerated read access. In case Makedonski Telekom needs to scale the current capacity of 280TB in total, it can do so step by step along with data growth.

## Improved user experience

"Today we can provide our users with a much better IT experience. Everything is working just fine. The access to archived e-mails and files is flawless and stable thanks to the high availability of the NetApp storage," says Blazeski. Users are happy to restore deleted files quickly by themselves through a Windows interface, freeing helpdesk time for more complex tasks.

"NetApp gathers a wealth of features on a single platform, helping us to make the best of it," summarizes Blazeski. "We have reached our goals of less cost, more simplicity, and greater openness for archival storage and beyond."

## SOLUTION COMPONENTS

### NetApp Products

2 NetApp FAS3240HA systems

Data ONTAP® 8 7-Mode

Deduplication

Flash Cache™

MultiStore

Snap Creator framework

SnapDrive® for Windows

SnapLock Compliance

SnapLock Enterprise

SnapMirror data replication

SnapRestore®

Snapshot technology

Storage efficiency

### Protocols

CIFS, NFS, FCP, NDMP

### Third-Party Products

Citrix VDI and XenServer

Microsoft business applications

OpenText

SAP ECC 6.4

Symantec Enterprise Vault

VMware vSphere®

### Partner

Infinite Solutions

[www.infinite.com.mk](http://www.infinite.com.mk)



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