# Bank significantly speeds up z/OS UNIX recovery times with Model9

File-level backup and restore processes simplify daily operations

## **CLIENT PROFILE**

A banking institution, one of the top 10 in its region. Over 5,000 employees provide financial services to corporate and private customers in over 100 branches across the region. For the bank, IBM z/OS is the core of its IT architecture.

"Our daily z/OS UNIX backup times were reduced by 90%"

### **EXECUTIVE SUMMARY**

The bank's legacy backup system could not backup and restore specific UNIX files in their mainframe environment. Its lengthy and complex backup and restore processes resulted in extremely long recovery times that sometimes ended in failure. Model9 enabled the bank to restore any UNIX file easily, in a matter of minutes instead of hours. Additional benefits included:

- UNIX file backup times reduced by 90%
- Backup processes now consume less main processor CPU because they run on zIIP engines
- End users can now restore files immediately using a simple and intuitive UI, without any help from the systems group

# A financial services company

- Faced lengthy and complex backup and restore of its entire Unix system
- Adopted Model9 file-level backup for Unix on z/OS to reduce backup and restore times



Shortens backup window, and restore times



Reduces CPU consumption



Provides distributed developer access to self restore their files

"With Model9, restoring z/OS UNIX files is simple and quick. What used to take hours now takes minutes."

### **CHALLENGES**

As a leading financial institution, the bank uses modern technologies, such as Java and web services, in their production applications. Relying heavily on mainframe, these technologies are developed and deployed in a z/OS UNIX environment. Over the years, this environment has become more and more active and today, it is an important part of the application development process and production applications.

The bank's legacy system forced IT to backup the complete file system container (called ZFS) for every change or update. This process led to long backup times and excessive resource consumption on a nightly basis. In addition, there was no way to restore a specific UNIX file. To do this, a developer would have to ask the systems team to restore the whole ZFS in a temporary location. Once the specified file was found, it was extracted and substituted for the file in error. This process not only took hours, but was so complex that only the most experienced system programmers could perform it.

# **HOW MODEL9 HELPED**

With Model9's file-level incremental backup and restore capabilities for z/OS UNIX, only the specific files that have been changed are backed up (instead of the complete ZFS container) greatly reducing backup times. Since the backup process runs on zIIP engines, the number of billable MSUs are reduced, enabling backups to be performed at any time without affecting the monthly R4HA (Rolling 4-Hour Average) peak. Finally, a simple and intuitive user interface, with a powerful quick search capability, lets less experienced users find and restore files all by themselves.

# **RESULTS, RETURN ON INVESTMENT AND FUTURE PLANS**

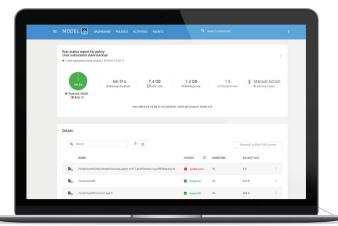
With Model9, the bank benefits from:

- + Shorter backup and restore times
- + Reduced CPU consumption
- + Distributed developer access, enabling end users to restore files by themselves

In the future, the bank plans to use Model9 to replace its existing z/OS backup and restore solution, essentially eliminating its virtual tape library in favor of commodity object storage.

The result:

- Lower storage costs
- Reduced billable MSU consumption
- A more streamlined and simplified recovery process



"Using Model9, our end users can restore their files all by themselves – without any help from the systems group."

