

# LEVERAGE ANALYTICS AND CLOUD ECONOMICS WITH MODEL9 AND AZURE CLOUD

## MODERNIZE YOUR INFRASTRUCTURE, MOVE TO AND FROM CLOUD AS NEEDED — AND GET FULL VALUE FROM YOUR MAINFRAME DATA

The mainframe's role in modern enterprises remains critical. However, the information silos created by the mainframe limit the ability to expose an organization's most critical data to agile and sophisticated cloud analytics such as those available through Microsoft Azure, for example, Microsoft Power BI, Synapse Analytics and Data Lake Analytics

Model9's patented technology connects the mainframe directly over TCP/IP so you can take advantage of modern analytics and any Azure Cloud Storage product, with highly durable, scalable, geographically dispersed and flexible low-cost Azure Blob Storage and Archive Storage.



### ACCELERATE AND SIMPLIFY MAINFRAME DATA MIGRATION TO CLOUD

Transfer any disk or tape data (current or historical) directly to the cloud with no need for interim disk storage. An auto-discovery function allows you to map and list all storage groups, volumes and data sets available for migration, and then deliver the defined data to the target cloud.



### MONETIZE MAINFRAME DATA FOR USE IN BI TOOLS AND ANALYTICS

Mainframe data can be migrated to object storage in the Azure cloud and can be transformed to standard data formats without requiring any access to the mainframe, instantly providing it for use in cloud applications and analytics tools.



### SLASH MAINFRAME DATA MANAGEMENT COSTS BY OFFLOADING TO zIIPs

Model9's software-only paradigm saves on storage costs, software licenses, and reduces MSU consumption by 90% by offloading backup and space management processing to zIIP engines, eliminating the need for costly tape hardware and multiple software licenses.



### BACKUP, ARCHIVE, SPACE MANAGEMENT AND DISASTER RECOVERY

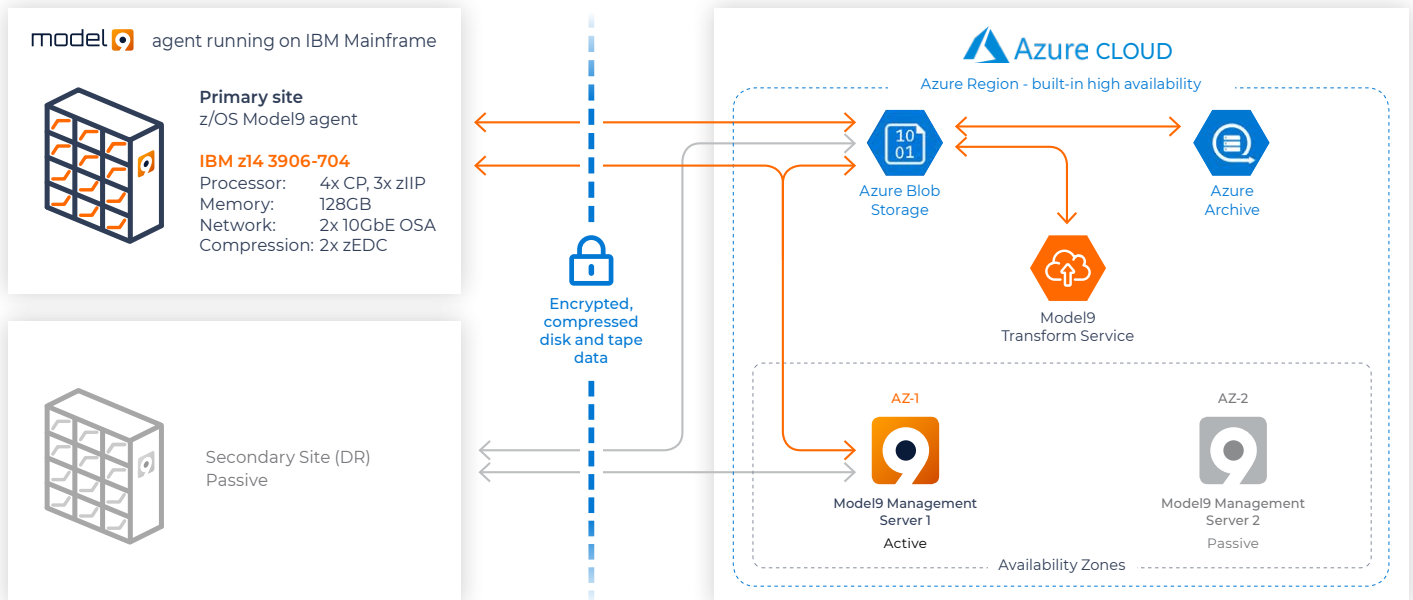
Implement cloud backup and recovery directly from Azure to a mainframe or any on-premises storage system. Perform backup, archive, space management and on-premises DR using object storage and fully replace legacy storage management software. Long-term archiving can use cold storage services such as Azure Archive Storage, and if disaster strikes, data can be restored directly from the cloud.

## TECHNOLOGY OVERVIEW

The Model9 architecture consists of a zIIP-eligible agent running on z/OS and a management server running in a Docker container on Linux, Linux on Z, or zCX. The agent reads and writes mainframe data from DASD or tape directly to Azure cloud storage over TCP/IP using DFDSS as the underlying data mover.

Other standard z/OS data management services are also used by the agent, such as system catalog integration, SMS policy compliance, and RACF authorization controls. Compression and encryption are performed either using zEDC and CryptoExpress cards if available or using zIIP engines.

A data set import policy provides automatic discovery of tape data sets and facilitates migrating large amounts of tape data to the Azure cloud. Using Model9's data transformation capabilities, tape data sets can also be accessed directly from the Azure cloud by other non-mainframe applications, such as data analytics and business intelligence tools.



## KEY FEATURES

- Transforms mainframe data, including DB2, VSAM, sequential and partitioned data sets, to standard formats such as JSON and CSV in the cloud without consuming any Mainframe MIPS
- Provides storage, backup, archive, and full volume dumps directly to object storage, on-premises or in Azure Blob storage, requiring no additional hardware, software, tape emulation or interim disk storage
- Offloads 90% of data management processing to zIIP engines
- Runs side-by-side with existing backup and tape management software for simplified migration
- Hardware agnostic - supports any DASD, any tape system as well as Azure Archive
- Compression and encryption use native mainframe hardware such as zEDC, Crypto Express, or zIIP engines
- Supports stand-alone restore (bare-metal recovery) with a program that is IPL-ed directly from Azure Blob storage
- Managed through a modern and intuitive web-based GUI
- DFSMS-compatible -- does not require redefinition of storage management policy
- SAF-compliant, integrates with existing mainframe security software for user authorization control

## SOLUTION BENEFITS

- Model9 and Azure help monetize unlocked mainframe data, current and historical, for use by BI and cloud analytics tools such as Azure Synapse Analytics and Power BI. Leverage the latest Azure cloud technology to replace proprietary tape with cloud or open storage systems
- Cut costs by offloading data management processing to zIIP engines, reducing MSU consumption by 90%, consolidating software licenses, and utilizing more cost-effective Azure cloud storage
- Leverage the abundance of non-mainframe skills to accommodate increasing data management needs with Model9's easy-to-use software and UI