model 9

REFERENCE ARCHITECTURE

Model9's Cloud Data Manager securely delivers mainframe data to any cloud or on-premises storage platform, eliminating tapes and VTLs. It replaces multiple data management products with a single software-only solution handling all common secondary data needs: storage, backup, long-term archive, disaster recovery, lifecycle management and data analytics.

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 the cloud, 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 and any cloud storage

- Compression and encryption uses native mainframe hardware such as zEDC, Crypto Express, or zIIP

- Supports stand-alone restore (bare-metal recovery) with a program that is IPL-ed directly from cloud 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

This document specifies two reference architectures, one for on-premises installation based on Intel Architecture servers, and one for hybrid cloud based on Amazon Web Services (AWS).

FOR MORE INFORMATION OR TO BOOK A DEMO: CONTACT@MODEL9.IO, WWW.MODEL9.IO

REFERENCE ARCHITECTURE – ON-PREMISES

This configuration is designed for modernizing the mainframe while reducing costs and complexity by replacing VTLs with on-premises storage based on Intel Architecture (IA) servers and storage. The off-platform storage makes mainframe data accessible to BI and cloud analytics tools and allows leveraging modern data protection solutions such as WORM. This configuration can sustain a throughput of 1.5 GB/s, sufficient for migrating 5TB of data in and under one-hour space management window. zIIP-eligible Model9 agents are configured in a resource complex for load balancing and high availability, and the Model9 management server running on IA servers is configured in active-standby for recovery. The MinIO software-defined object storage running on IA servers and storage is also configured for load balancing and high availability.
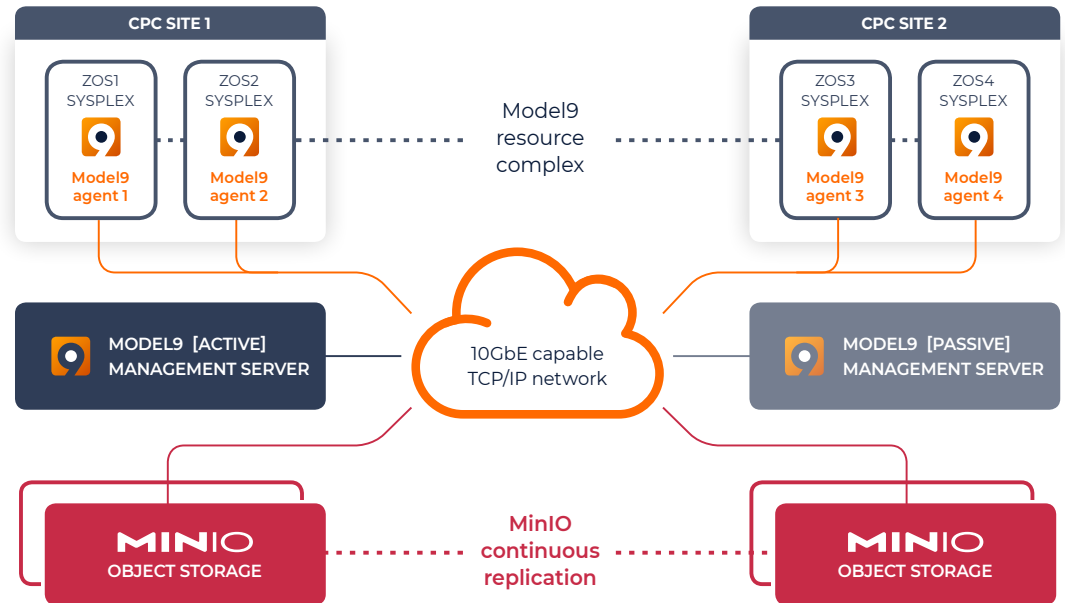
IBM z14 3906-704

Processor:	4x CP, 3x zIIP
Memory:	128GB
Network:	2x 10GbE OSA
Compression:	2x zEDC

Intel architecture VM or server

Processor:	Dual Intel Xeon, 4 cores
Memory:	8GB RAM
Network:	2x 1Gb NIC
Drives:	200 GB, SAS HDDs

Intel architecture server - per server

Processor:	Dual Intel Xeon, 8 cores
Memory:	128GB RAM
Network:	2x 10GbE NIC

REFERENCE ARCHITECTURE – HYBRID CLOUD

This configuration is designed for modernizing the mainframe while benefiting from cloud economics by replacing tapes and VTLs with AWS cloud. It enables cloud backup, archive and disaster recovery, and allows monetizing unlocked mainframe data using cloud BI and analytics services. The architecture supports up to 1GB/s throughput with all S3 data transferred securely over HTTPS. The zIIP-eligible Model9 agent optimizes data transfer using zEDC gzip compression before sending data over the network. Both Model9's management server and the object storage are in the AWS public cloud. For long-term storage, an S3 lifecycle policy may be defined to archive cold data to Amazon S3 Glacier and S3 Glacier Deep Archive.