CLOUD DATA MANAGEMENT
FOR MAINFRAME

MODEL9 SHIELD - PROTECT YOUR MAINFRAME DATA FROM CYBER THREATS

Ensure data is protected from cyberattacks such as ransomware, and comply with relevant regulations

PRODUCT OVERVIEW

Mainframes have traditionally been perceived as less susceptible to cyber attacks, but this viewpoint has changed over the past years as mainframe attacks have increased. One of the most damaging cyber attacks on mainframe systems is ransomware, which focuses specifically on encrypting mainframe data and making it inaccessible until a hefty ransom is paid. Since mainframe data is mission critical to the organization, a single mainframe vulnerability could lead to a major breach, significant financial losses, and painful reputational damage.

Model9 Shield protects your mainframe data from cyber attacks such as ransomware by transferring the data to immutable cloud-based storage, creating multiple copies of the data, and ensuring all copies are protected. In addition, the data is protected by end-to-end compression and encryption. When sent to the cloud, the data can also be air-gapped — meaning an additional copy is isolated from the network and sheltered from malicious attacks. These measures enable swift recovery from attacks and allow you to remain compliant with regulatory requirements for data retention.

BENEFITS

- Quickly recover from cyber attacks such as ransomware, and reduce the risk of data loss
- Maintain compliance with regulatory requirements for enterprise data retention
- Cut costs by reducing expensive mainframe CPU consumption and avoiding the need for multiple software licenses
- Shorten time-to-value through the efficient usage of compute, network, and storage resources on the mainframe and in the cloud
- Reduce risk, as mainframe applications do not need to be modified

OFFERING STRUCTURE

Model9 offers a suite of Cloud Data Management for Mainframe products. All products are built on top of the Model9 Cloud Data Platform, an operating environment which includes a full set of core data management functions.
In addition **to Model9 Shield,** the suite also includes **Model9 Gravity,** which connects mainframe data with cloud based AI/ML & analytics applications, and **Model9 Manager,** which provides data protection & management of mainframe data in the cloud.

Model9 Gravity

Make your mainframe data actionable by connecting it with cloud AI/ML & analytics

Model9 Shield

Protect your mainframe data from cyber threats

Model9 Manager

Provide cloud native mainframe backup, recovery and data management

Model9 Cloud Data Platform

Scale | Security | Availability | Reliability | Data Movement | ELT | Management | Web-based UI

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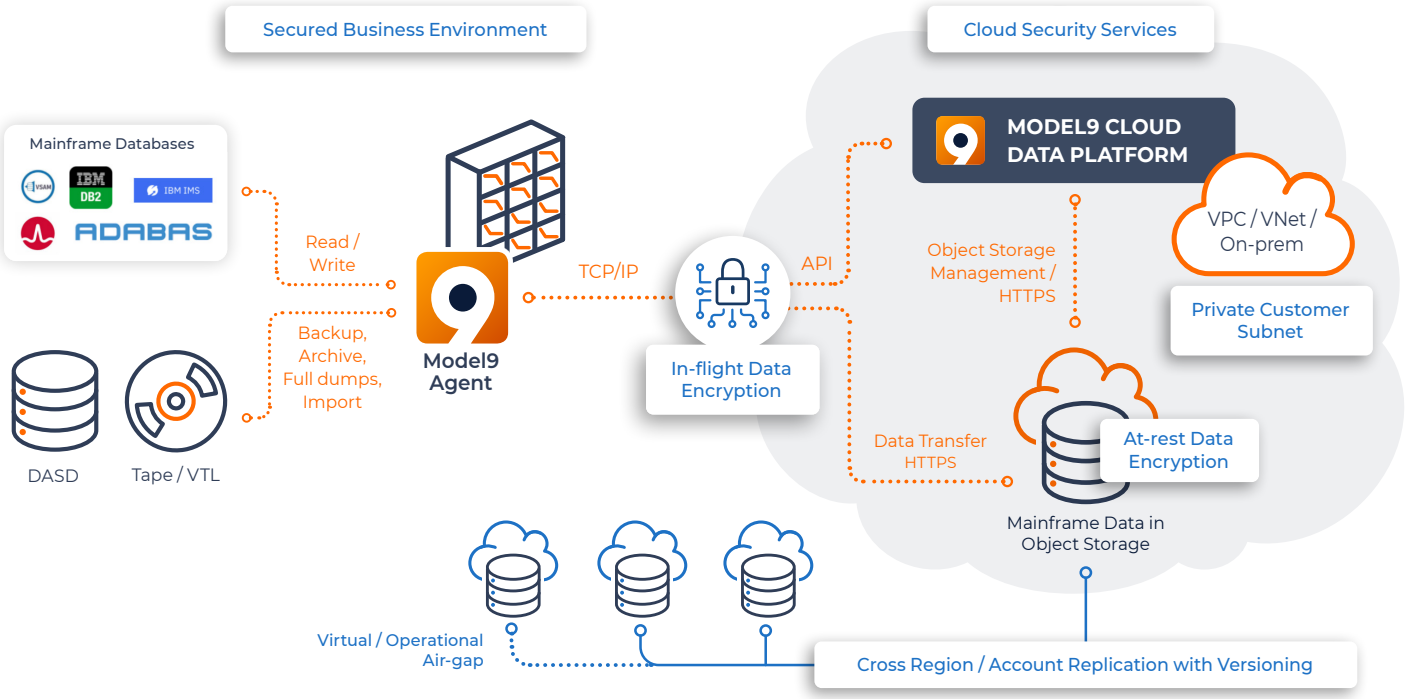
PRODUCT ARCHITECTURE

Model9 Shield is comprised of two components - 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 cloud storage over secure TCP/IP connections, where the data is encrypted in-flight. In the cloud the data is stored on immutable storage, and is also encrypted at-rest. The mainframe data can also be copied to an air-gapped environment, for increased security. Below is a detailed diagram of the architecture.



FEATURES

- Counters cyber attacks such as ransomware, by allowing data recovery from a "clean room" or directly from the cloud without relying on a compromised system
- Allows "surgical recovery", i.e., recovering specific parts of the data, based on predefined rules
- Automatically Performs periodical recovery tests, in order to ensure recoverability at all times
- Supports cyber forensics, i.e., the extraction of data for legal purposes / as proof for a crime
- Maintains enterprise compliance with regulatory requirements for data retention, through object locking and versioning techniques available on cloud storage
- Performs compression and encryption using native mainframe hardware such as zEDC or Crypto Express
- SAF-compliant, integrates with existing mainframe security software for user authorization control
- Offloads data management processing to zIIP engines, thus significantly reducing CPU consumption
- Mainframe storage agnostic: Supports any DASD and any tape system
- Cloud agnostic: Runs on any cloud, public or private, including AWS, Azure, GCP, HCP and IBM
- Automatically discovers and migrates both active and historical data to the cloud
- Ensures quick delivery from the mainframe to the cloud, using a set of techniques such as parallel processing, data compression, and load balancing

ADDITIONAL SECURITY MEASURES

To tighten security measures, Model9 Shield employs standard mainframe security protocols when deploying the Model9 agent on the mainframe. In addition, the Model9 management server is set up on a virtual private cloud (VPC) or locally in a secure on-premises environment. Shield also protects from data loss by utilizing object storage capabilities such as versioning, immutability (via object locking) and encryption. In case data transformation services are required, Model9's products provide them on-cloud without accessing the mainframe which might have put the original data at risk.

SUPPORTED HYBRID MULTI-CLOUD PLATFORMS

aws Azure Google Cloud IBM Cloud NetApp HITACHI DELL EMC COHESITY

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