

# Maximo EAM to MAS

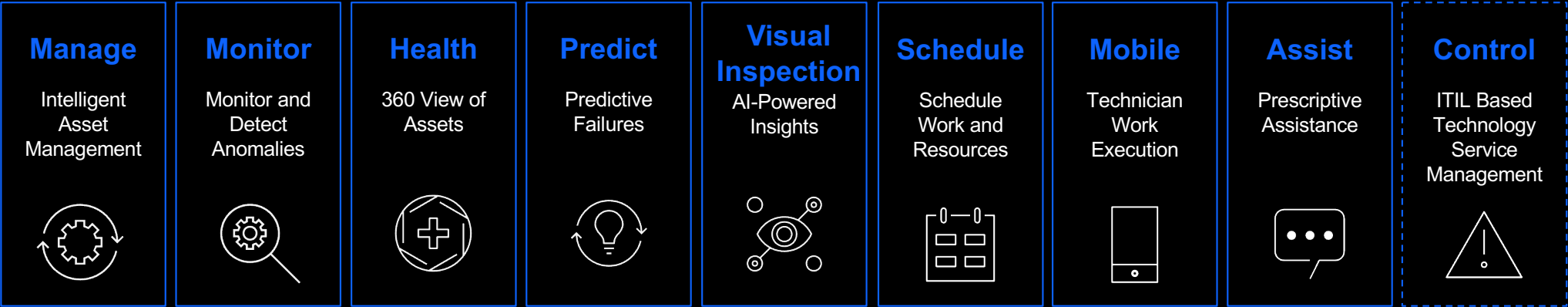
# OpenShift Platform

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# Maximo Overview: Technology Stack



IBM Cloud Pak for Data | IBM Watson Studio | IBM Watson ML

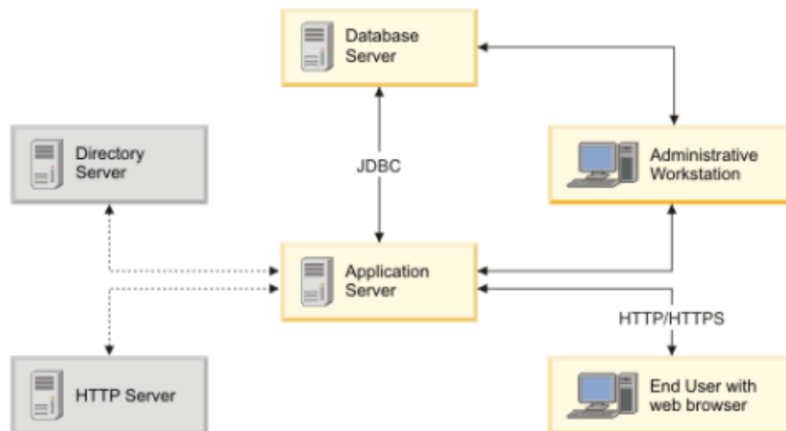


Infrastructure Independent  
Common Operating Environment



# System architecture and components – Maximo and MAS Manage

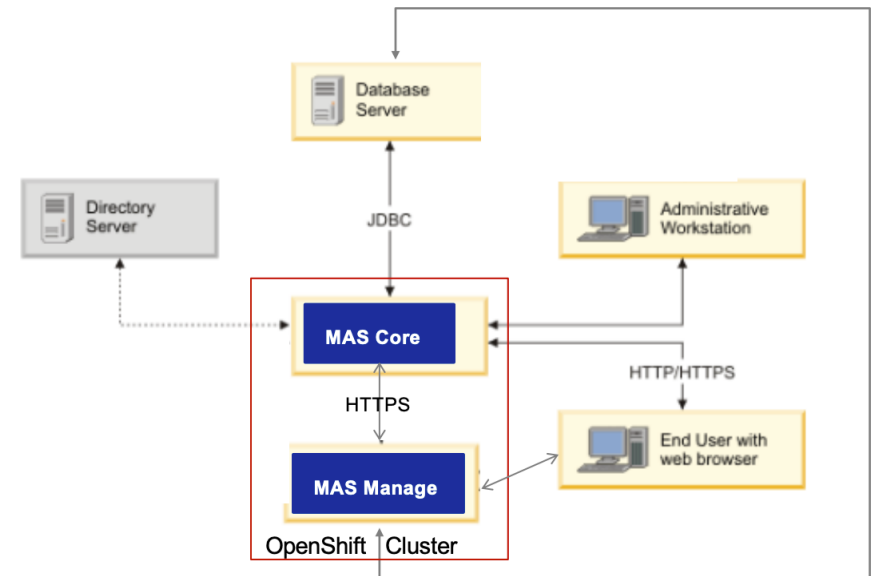
## Maximo Asset Management



Post Migration



## Maximo Application Suite - Manage



- Administration Workstation (Bastion node) – Installs OpenShift Cluster , MAS using ansible scripts
- MAS Core has pods that connects to Directory Server and Database Server. MAS core has configurations to store the user and database info
- MAS Manage has pods that connects to Database Server for migration and data access
- End User connects via OpenShift load balancer to MAS Core and MAS Manage

# We must upgrade to MAS but have challenges:

We have databases and applications on-prem that must integrate with MAS

We don't want to migrate everything to cloud



We have regulatory or latency requirements requiring data to stay on-prem

Not all data can go to the cloud. Regulatory or network latency requirements force application to stay on-prem



Need to deploy and be in production quickly

We don't have months to spend on building and testing a new containers platform



No OpenShift Skills (or not enough)

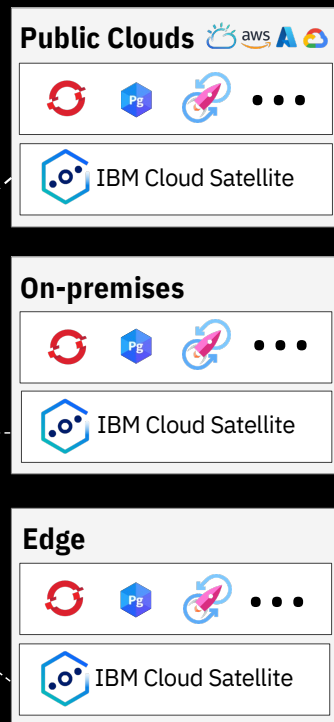
Container skills are in high demand, tough to find (especially in small markets) and can be very expensive



# MAS Deployment Options

Deployment	Availability	Procure	Provision & Operate	Client Benefits
<b>On Premises</b> Customer Managed	<b>Now</b>	Client purchases MAS from IBM Client provides infrastructure	Client provisions, manages, and operates full stack	<ul style="list-style-type: none"> <li>Maximum operational flexibility</li> </ul>
<b>On Premises</b> IBM Cloud Satellite Hybrid managed	<b>Now</b>	Client purchases MAS from IBM Client provides infrastructure  <i>Platform services including IBM Cloud Satellite and managed Red Hat OpenShift</i>	Client provisions and manages infrastructure & application, <b>IBM manages platform including OpenShift</b>	<ul style="list-style-type: none"> <li>Manage PaaS services across on prem and hyperscalers</li> </ul>
<b>Hyperscalers</b> Customer Managed	<b>Now</b> IBM / AWS / Azure	<b>BYOL</b> Client purchases software from IBM and infrastructure from Hyperscalers	Client runs IBM-provided automation scripts to deploy MAS on Hyperscalers' cloud	<ul style="list-style-type: none"> <li>Simplifies procurement and deployment</li> <li>Allows client to select their Hyperscalers</li> <li>Flexibility for clients to manage and operate their environment</li> </ul>
	<b>Now</b> IBM / AWS / Azure	<b>Paid (Marketplace listing)</b> Client purchases software and infrastructure from Hyperscalers	Client manages and operates both software and infrastructure	
<b>SaaS</b> IBM Managed	<b>Now</b>	Client purchase single part (includes software, infrastructure, and operations) from <u>either</u> std IBM sales/channels or AWS Marketplace	IBM provisions, manages, and operates Client's MAS environment on AWS Cloud using IBM's AWS cloud account	<ul style="list-style-type: none"> <li>Reduced time-to-value</li> <li>Reduced operational costs</li> <li>Allows clients to focus on business priorities</li> </ul>
<b>Dedicated (Managed Service)</b> IBM Managed	<b>Now</b> IBM 2021 AWS 1Q23*	Client purchases software and managed service (including infrastructure) from IBM	IBM provisions, manages, and operates Client's MAS environment on IBM Cloud or AWS in an IBM owned account Currently has two flavors <ul style="list-style-type: none"> <li>Shared Cluster (legacy)</li> <li>Dedicated Cluster (new)</li> </ul>	<ul style="list-style-type: none"> <li>Simplifies deployment and operations</li> <li>Provides more flexibility, than SaaS, to customize environment</li> <li>Provides more operational flexibility than SaaS</li> </ul>

# MAS Deployment Options with IBM Cloud Satellite



IBM Cloud Satellite  
*Workloads located where you need them*

## Location

Client-controlled infrastructure outside of IBM Cloud data centers

Client manages their hosts (infrastructure) within a location

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## Flexibility

Run app where it makes sense

For regulated workloads, sovereignty & data gravity concerns, migrations, edge platforms, low latency

Flexible infrastructure options including bring your own – Install on HyperV, Vmware, bare metal, any cloud, integrated appliances

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## Control

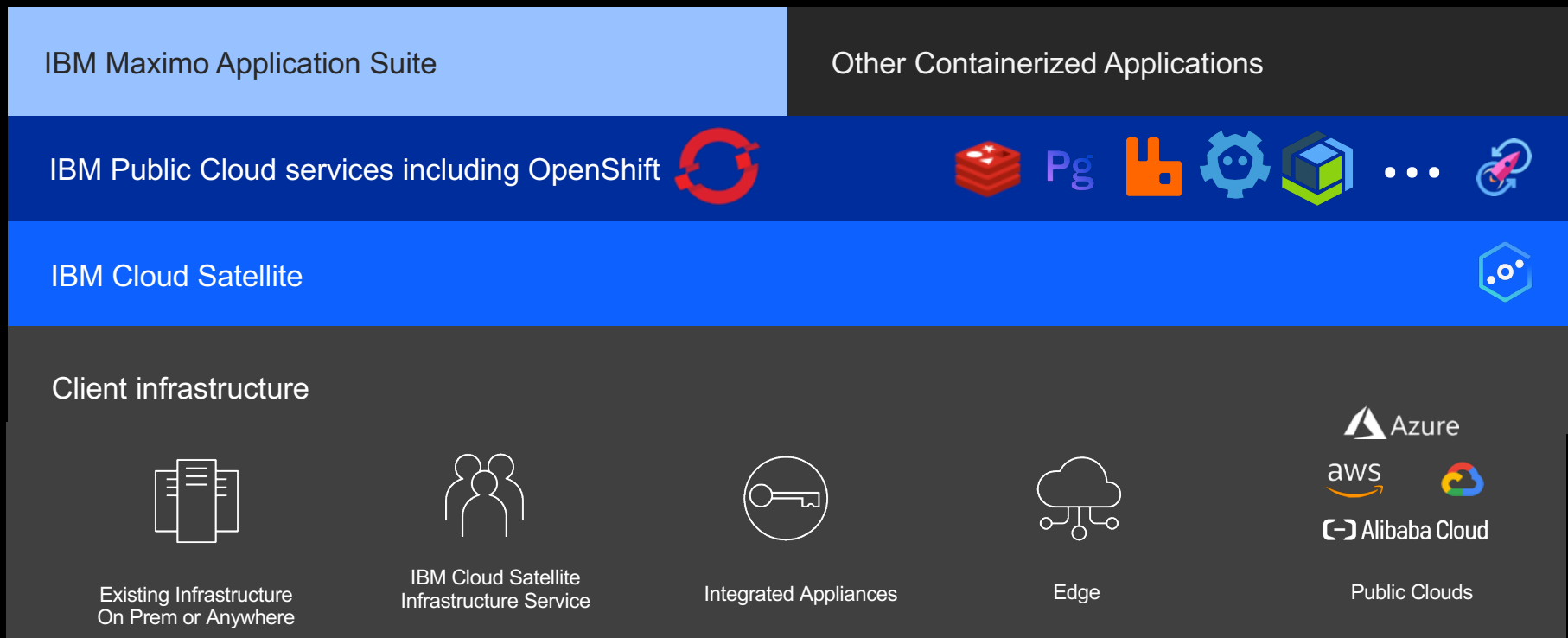
Auditable inventory of all network connections and traffic

Central observability

IBM Cloud for Financial Services Validated

Satellite Reference Architecture for FS Cloud

# Maximo Application Suite and OpenShift: Flexibility without the hassle



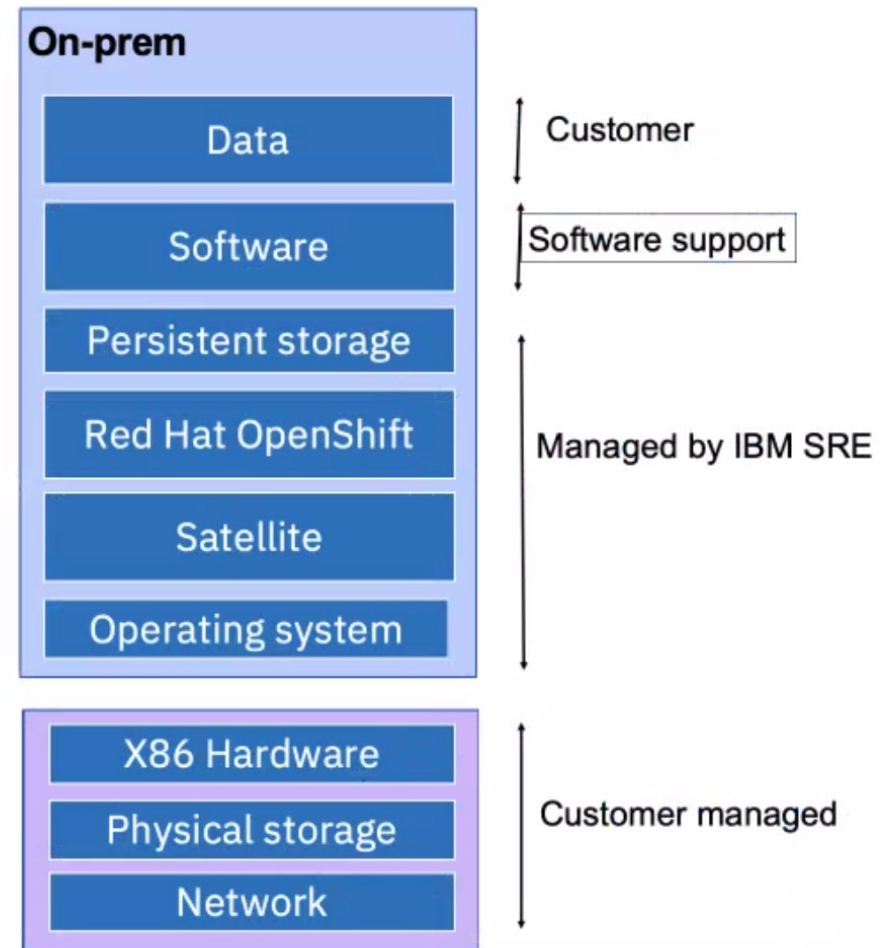
# IBM Cloud Satellite - Roles and responsibilities

## IBM :

- Provides support for OS and above
- Includes managed platform aaS
  - Satellite
  - Red Hat OpenShift
- Includes managed Software defined storage
  - Red Hat OpenShift Data Foundation (ODF)
- Maximo software support

## Customer:

- Owns and manages infrastructure
  - Hardware
  - Storage
  - Network
- Owns and manages data ingestion





Do it  
yourself  
(DIY) or have  
everything  
done for  
you?

	DIY	With Satellite
Create and configure OpenShift clusters, including geographic deployment options	●	●
Integrate CI/CD pipeline to appropriate endpoints & manage your applications	●	●
<b>Automated provisioning</b> and configuration of Infrastructure (compute, network and storage)	●	●
Automated <b>installation and configuration of OpenShift</b> , including HA cross zone configuration	●	●
<b>Automatic upgrades</b> of all components (operating system, OpenShift components, and in cluster services)	●	●
<b>Security patch management</b> for OS and OpenShift	●	●
Automatic <b>failure recovery</b> for OpenShift components and worker nodes	●	●
Automatic <b>scaling</b> of OpenShift configuration	●	●
Automatic <b>backups</b> of core OpenShift ETCD data	●	●
<b>Built in integration</b> with cloud platform - monitoring, logging, KeyProtect, IAM, ActivityTracker, Storage, COS, Security Advisor, Service Catalog, Container Registry and Vulnerability Advisor	●	●
Built in <b>Load Balancer, VPN, Proxy, Network edge nodes, Private Clusters and VPC</b> capabilities	●	●
Built-in Security including <b>image signing</b> , image deployment enforcement, and <b>hardware trust</b>	●	●
<b>24/7 global SRE</b> team to maintain the health of the environment and help with OpenShift	●	●
Global SRE has deep experience and skill in IBM Cloud Infrastructure, Kubernetes and OpenShift, resulting in much <b>faster problem resolution</b>	●	●
Automatic compliance for your OpenShift environment ( <b>HIPAA, PCI, SOC1, SOC2, SOC3, ISO</b> )	●	●
Capacity expansion through a single click	●	●
Automatic <b>multi-zone deployment in MZRs</b> , including integration with CIS to do cross zone traffic routing	●	●
Automatic Operating System <b>performance tuning and security hardening</b>	●	●

# Why IBM Cloud Satellite for MAS

## Benefits

- **Distribute Cloud capabilities anywhere** – at thousands of sights at EDGE, AWS, Azure, or On-Prem managed through one control plane
- **Single Pane of Glass** visibility for all MAS and other Satellite locations.
- **Run Analytics** where data resides to address data sovereignty and latency.
- **Replicate** data sets back to Azure, IBM Cloud, on prem, etc

## WHY IBM?

- **Use your own hardware** and can use where needed
- **IBM takes care of Day 2** operations easing the OpenShift skills need
- **“Cloud in the Box”** Workloads, data, and services where clients need them.
- **Ready for Cloud Native and other Containerized Apps:** Unlimited Cloud Services distributed to all locations, no need to rearchitect or ask for additional funds

## WHY for You?

- **Speed** – Reduce your MAS upgrade by weeks or months.
- **Skills** – Easily address the OpenShift skills requirement of MAS
- **Must stay on prem** – Regulatory, latency, skills, etc... You can with Satellite
- **Not ready for cloud?** – Don't force a move a MAS to cloud just because you don't have OpenShift skills

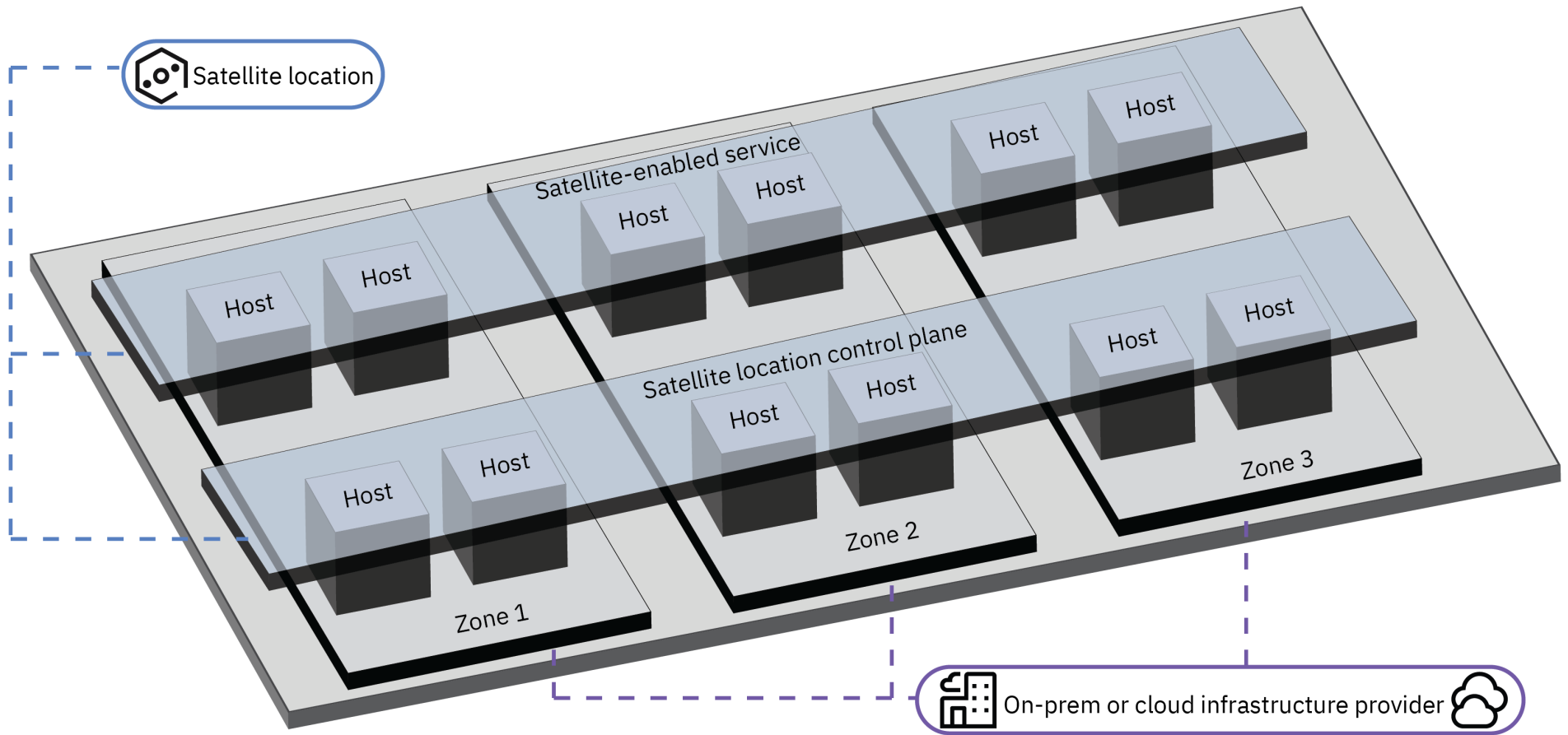
**600% ROI each year with provided flexibility, speed, and managed platform across all locations**



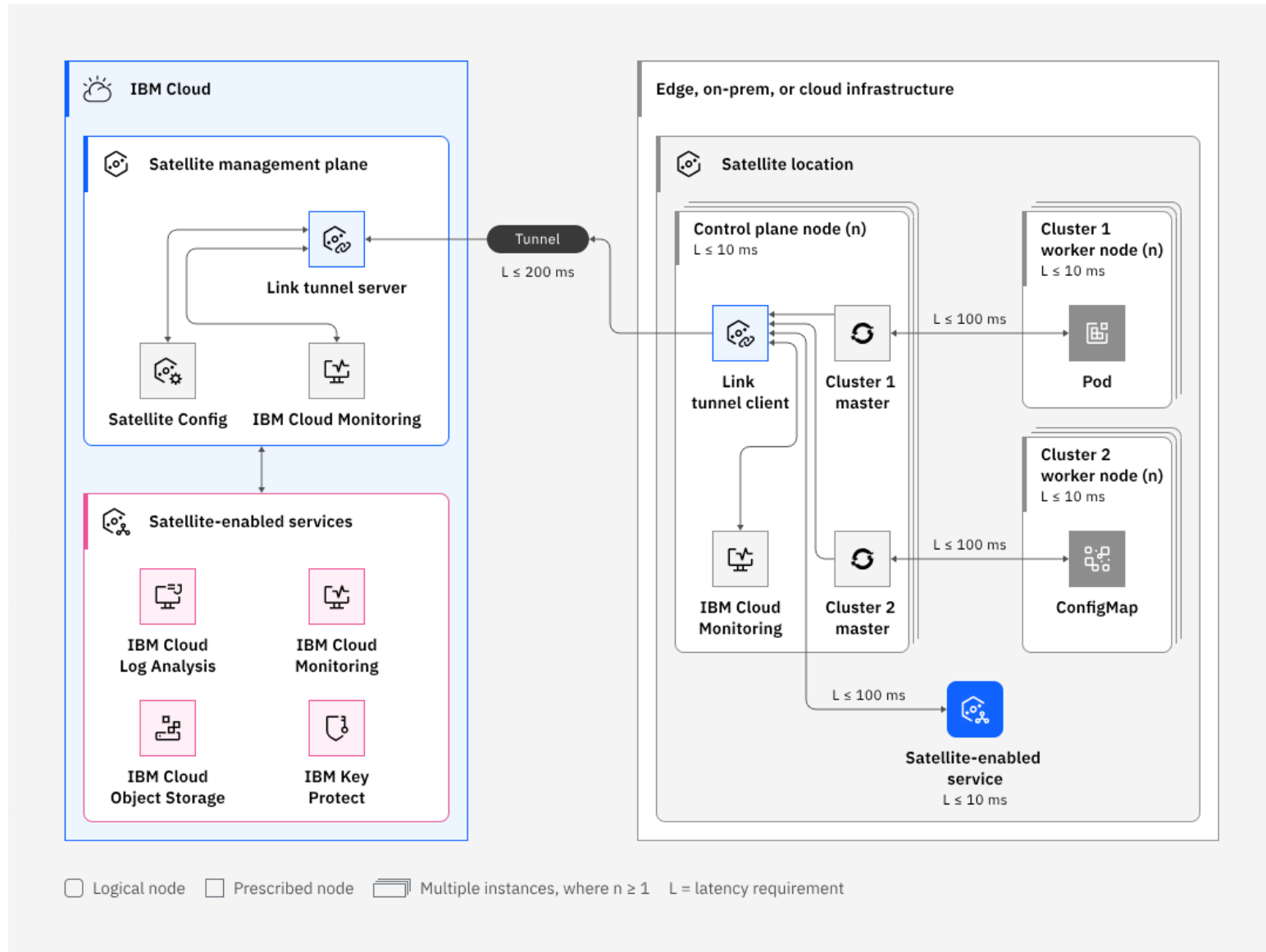
Backup

# Satellite Architecture

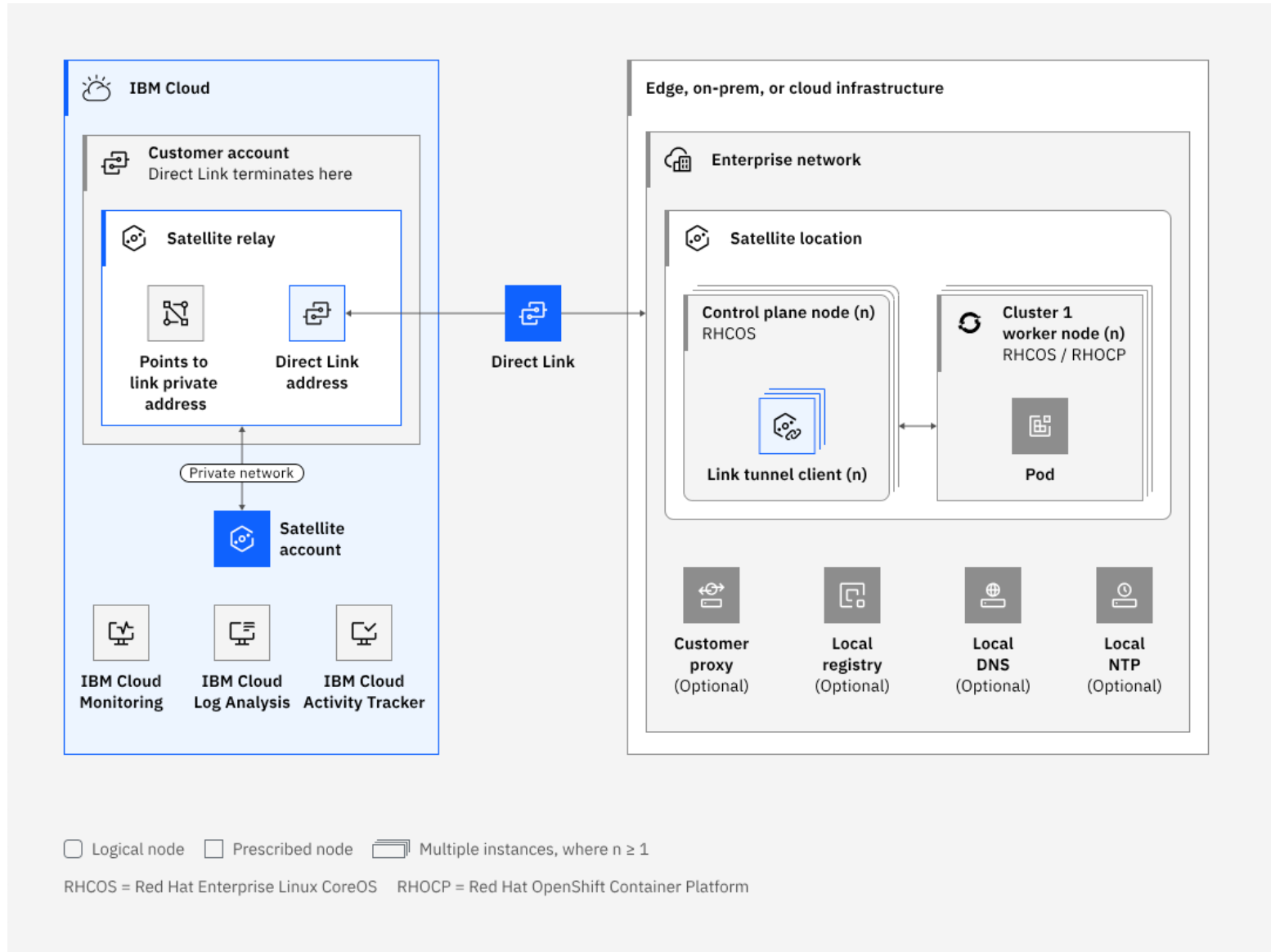
## *Multi-Zone HA Architecture Built on Kubernetes*



# Satellite Architecture



# Satellite Architecture with Direct Link



IBM