

Maximo EAM to MAS



OpenShift Platform Options

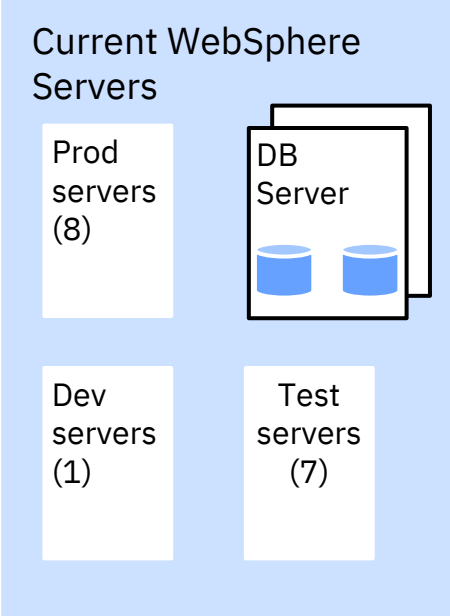
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IBM Cloud Modernization SME

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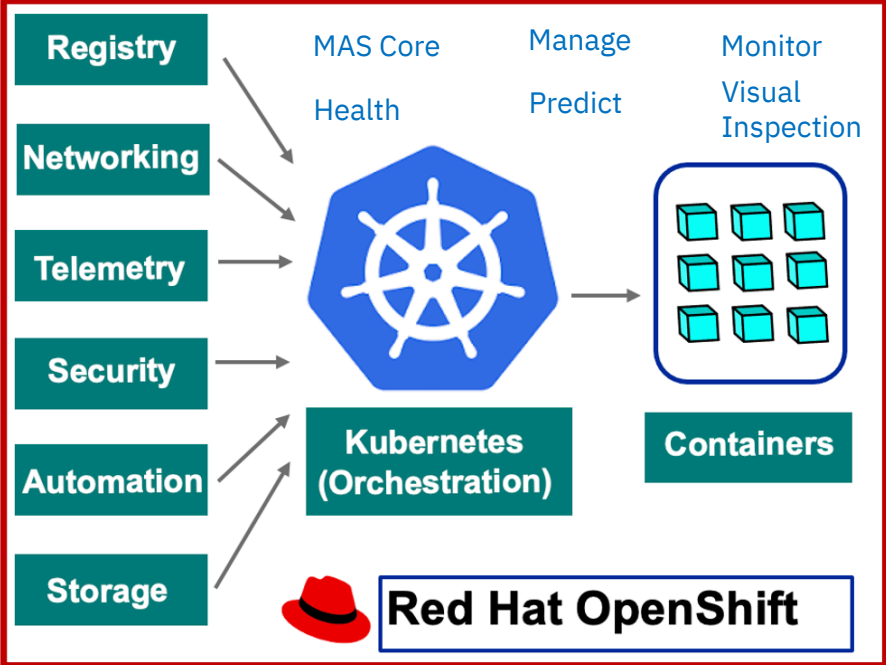
MAS Example - Current and target environments

Maximo 7.6 on-prem



Major Architectural shift

Maximo Application Suite (MAS) runs as Containers on Red Hat OpenShift



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
On Premises Customer Managed	Now	Client purchases MAS from IBM Client provides infrastructure	Client provisions, manages, and operates full stack	<ul style="list-style-type: none"> Maximum operational flexibility
On Premises IBM Cloud Satellite Managed OpenShift	Now 	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, IBM manages platform including OpenShift	<ul style="list-style-type: none"> Manage the OpenShift platform across on prem and hyperscalers in a hybrid or multi cloud topology Lower cost than DIY Cloud benefits in Client data center
Hyperscalers Customer Managed MAS Optional Managed OpenShift	Now IBM / AWS / Azure	BYOL 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"> Simplifies procurement and deployment Allows client to select their Hyperscalers Flexibility for clients to manage and operate their environment
	Now IBM / AWS / Azure	Paid (Marketplace listing) Client purchases software and infrastructure from Hyperscalers	Client manages and operates both software and infrastructure	
SaaS IBM Managed	Now	Client purchase single part (includes software, infrastructure, and operations) from either 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"> Reduced time-to-value Reduced operational costs Allows clients to focus on business priorities
Custom Managed Service	Now	Client procures from a Maximo managed service provider or through IBM Consulting	Maximo MSP or IBM Consulting provision, manage and operate Client's MAS environment on prem, in a co-location facility, or in any cloud	<ul style="list-style-type: none"> Full stack management Allows clients to focus on business priorities Can leverage IBM Cloud Satellite and ROKS for speed and lower costs



“ Because we use **Red Hat OpenShift on IBM Cloud**, we spend **less time managing infrastructure**, and we have **more time to listen to business needs** and **develop new applications to accommodate them.**”



First to market for 4 years and counting!

Herwig Bogaert
Senior System Engineer, meemoo

Fully automated. As-a-service. Extend anywhere.

Key Capabilities



OpenShift experience built on Kubernetes

Use the OpenShift tools and APIs you already know for a single, consistent experience, even when working across hybrid environments or different cloud providers.



Heightened cluster and app security

IBM provides security features to protect your cluster infrastructure, isolate your compute resources, encrypt data, and ensure security compliance in your container deployments. Further, OpenShift sets up strict Security Context Constraints for greater pod security by default.



Worldwide, continuous availability

Deploy and scale workloads across the globe in all IBM Cloud multizone regions. OpenShift clusters include a managed master that is automatically spread across zones within the region for high availability.



Integrated OpenShift catalog

Quickly set up a CI/CD with Jenkins or deploy a variety of apps in a guided experience that's fully integrated into your OpenShift cluster.



Innovation with watsonx, Cloud Paks, & the IBM Cloud platform

Easily integrate generative AI with Watson APIs to extend the power of your apps. Access the IBM middleware in IBM Cloud Paks from within the scalable public cloud. You also get built-in services for monitoring, logging, load-balancing, storage, and security to help you manage an app's lifecycle.

Up to 99.99% SLA

24x7 SRE global support

Secure by default

Keep Your Own Key (KYOK) with Hyper Protect Crypto Services, FIPS 140-2 Level 4 Certified

Highly-compliant

Cluster Autoscaler

Worldwide SZRs & MZRs & extend on-prem, at the edge, or public cloud environments with IBM Cloud Satellite

Seamless GPU support

Public Slack workspace

Add-on Capabilities



OpenShift Data Foundation

Manage data, stay consistent everywhere, handle application needs.



OpenShift AI

Build, deploy, and manage AI-enabled applications.



Tekton

Create Kubernetes-native CI/CD pipelines with maximum speed and flexibility.

Our Clients



OpenShift Day 2 Responsibilities

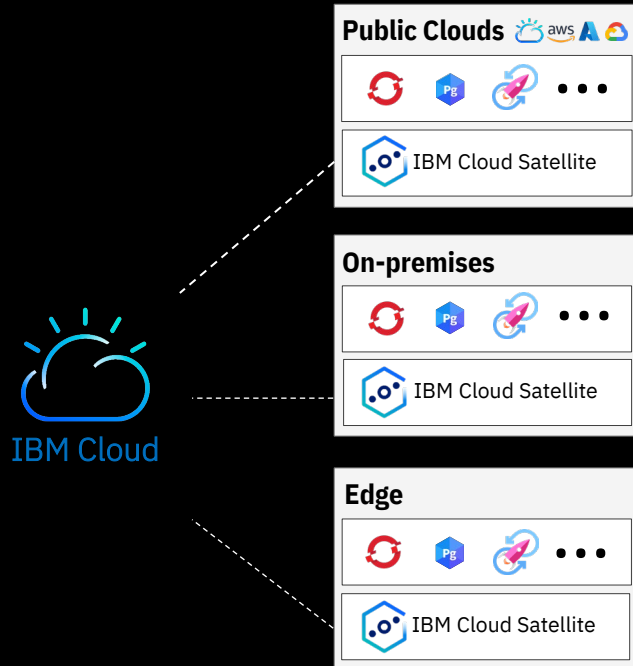
IBM enables you to focus on your core business, not platform management

Responsibilities:

- Customer
- IBM
- Shared

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

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

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

Control

Auditable inventory of all network connections and traffic

Central observability

IBM Cloud for Financial Services Validated

Satellite Reference Architecture for FS Cloud

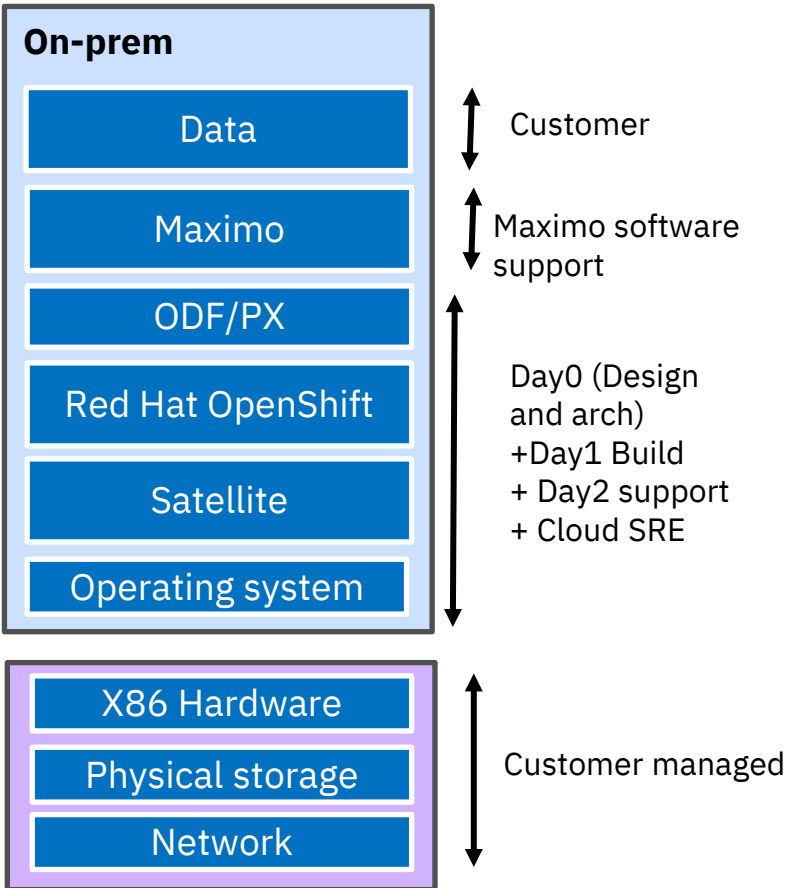
Shared responsibility model for end-user support

IBM :

- Provides support for OS and above
- Includes lifecycle management of managed platform aaS
 - Red Hat OpenShift
 - Satellite
 - Storage - Red Hat OpenShift Data Foundation (ODF)
- IBM Cloud SRE support to help debug platform related problems
- Maximo software support
- **Optional** – Full stack build and Day2 support from OS to Maximo software as single point of support avoiding silos (IBM Consulting)
- **Optional** - Architectural services for DR and multi-cluster/location design(Expert labs)

Customer:

- Owns and manages infrastructure
 - Hardware
 - Storage
 - Network
- Owns and manages Maximo integration to other backend systems
- Respond to end user issues and initiate troubleshooting
 - Work with IBM Cloud SRE teams to debug platform issues



MAS Deployment Decisions

On-Premises or Cloud/Hosted

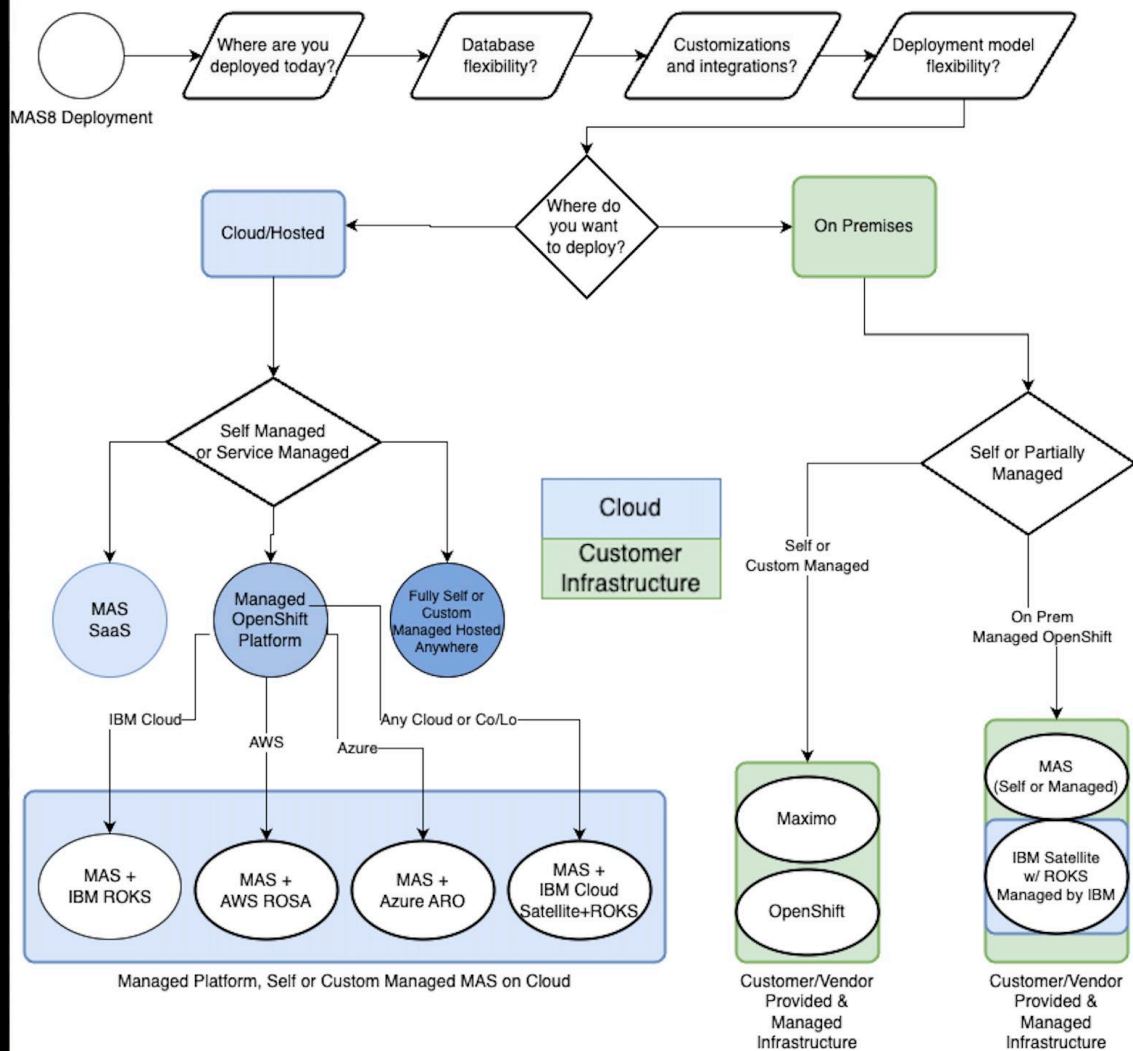
Fully managed, partially managed, managed OpenShift

Hybrid Cloud or Multi Cloud

IBM Cloud Satellite with ROKS can:

Bring managed OpenShift to your data center and/or other clouds with IBM Cloud Satellite

Simplify Hybrid and/or Multi Cloud deploy and management complexity including single pane management

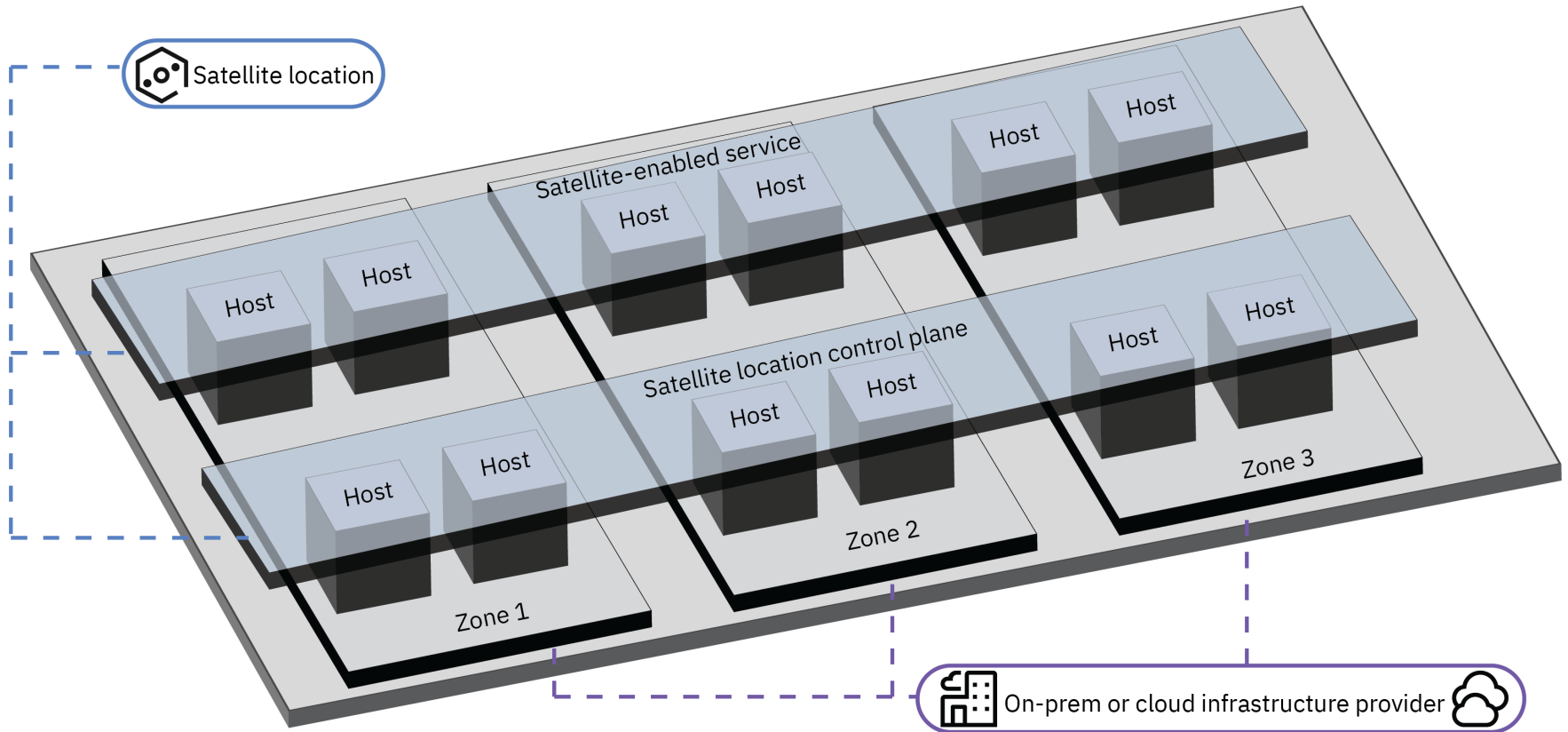


**Why ROKS Hosted
in the IBM Cloud?**

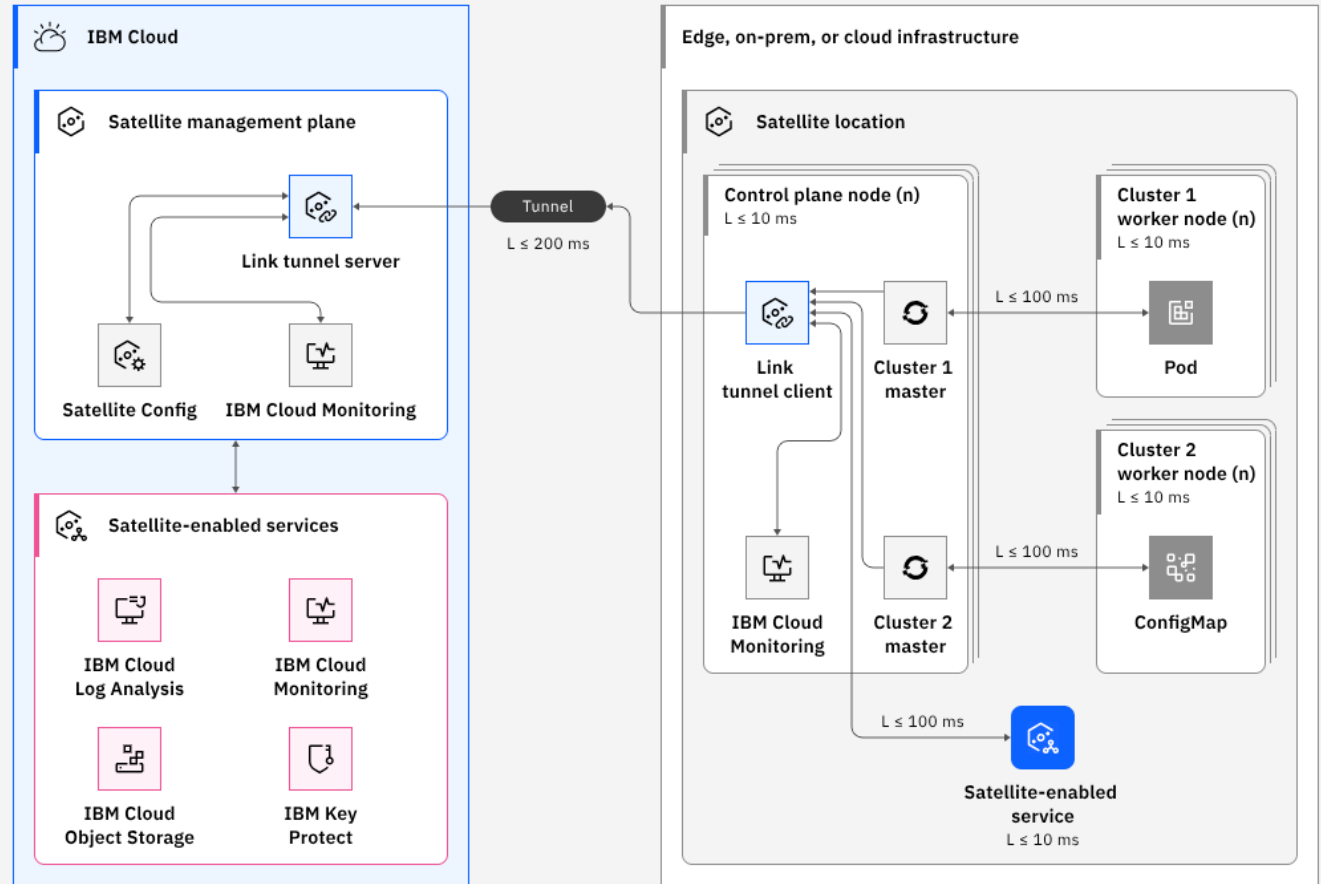
Backup

Satellite Architecture

Multi-Zone HA Architecture Built on Kubernetes

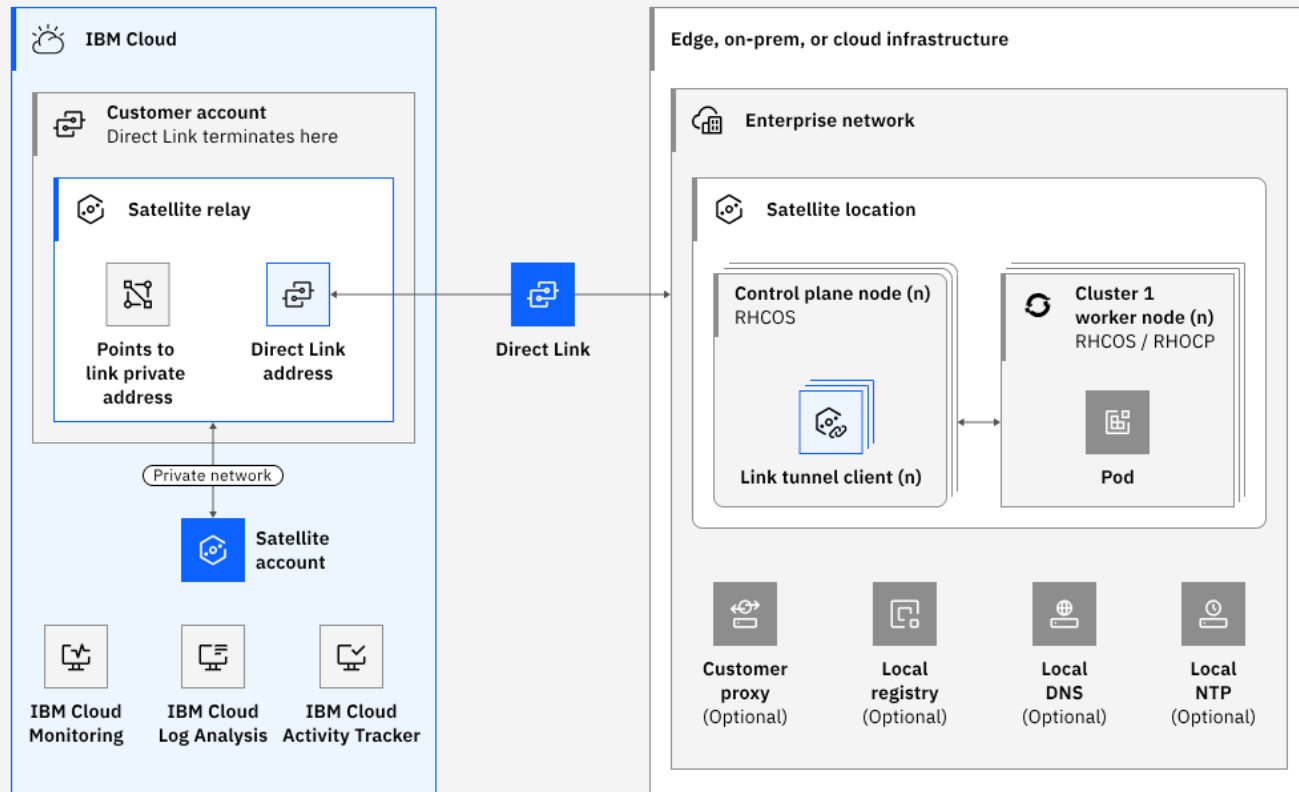


Satellite Architecture



Logical node
 Prescribed node
 Multiple instances, where $n \geq 1$
L = latency requirement

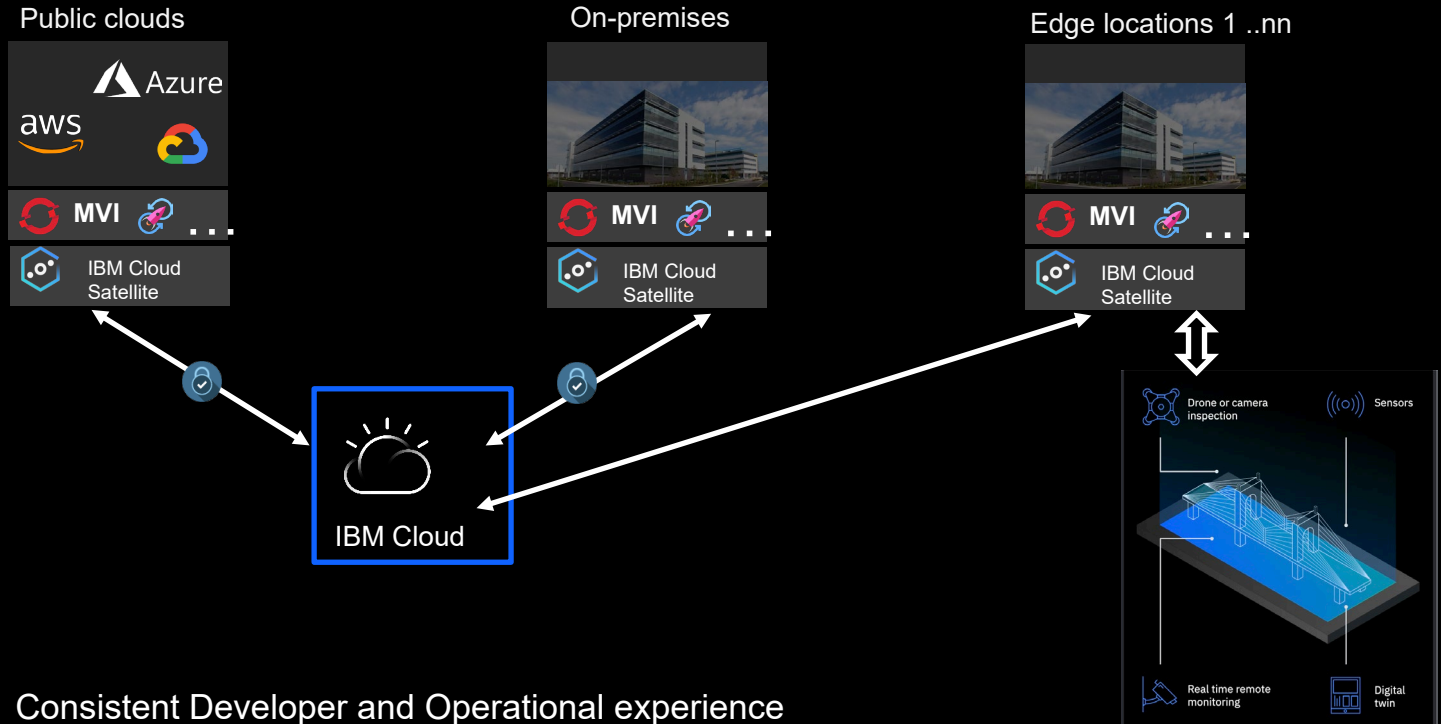
Satellite Architecture with Direct Link



Logical node Prescribed node Multiple instances, where $n \geq 1$

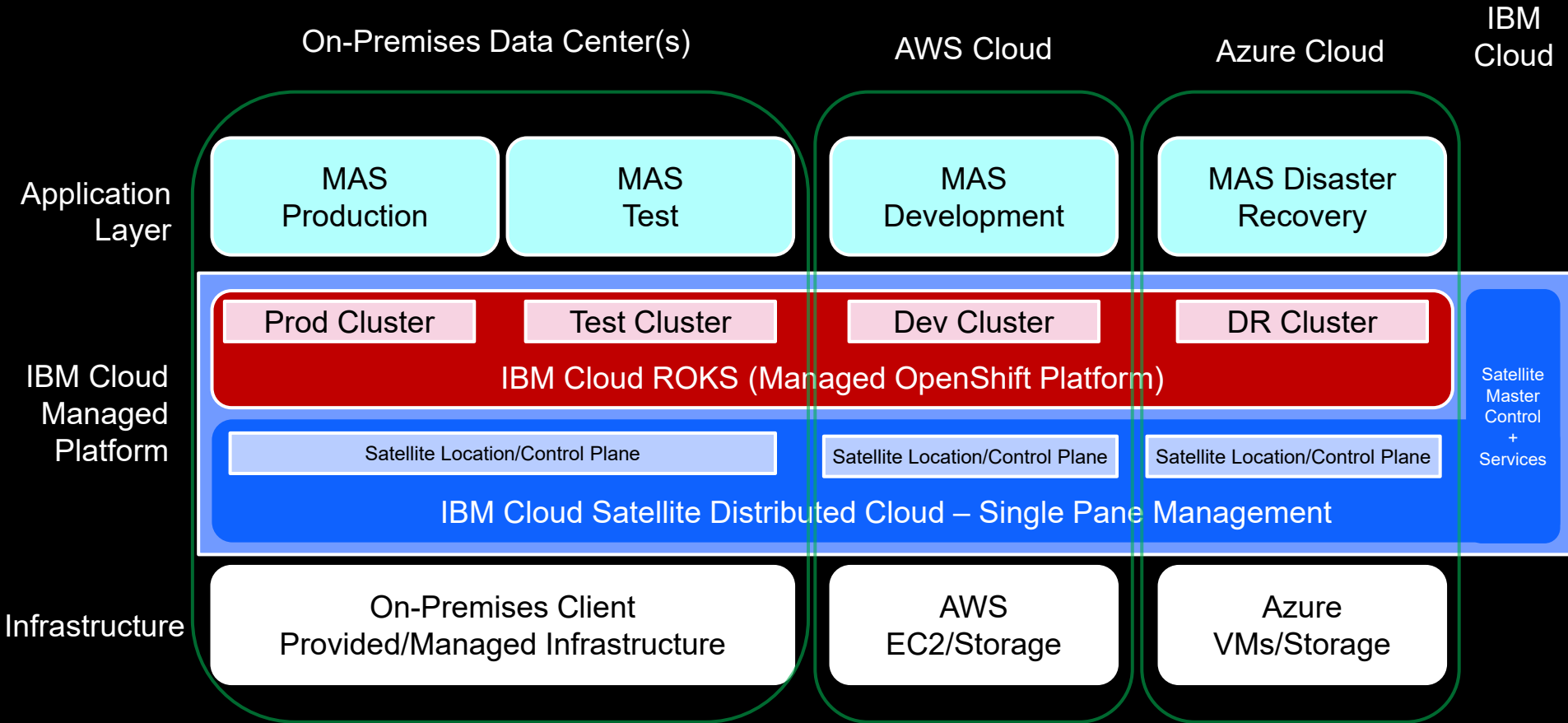
RHCOS = Red Hat Enterprise Linux CoreOS RHOCP = Red Hat OpenShift Container Platform

Consistent Architecture and tools across Hybrid multi-cloud and Edge locations



1. Consistent Developer and Operational experience
2. Fully Automated Deployments on other Clouds

Example MAS Hybrid and Multi-Cloud Management



IBM