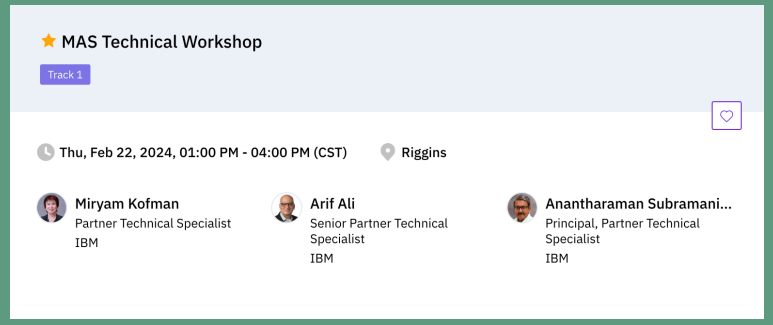
MAS Technical Workshop

Southwest Maximo Users Group 2024

February 21 – 22, 2024

Coppell, TX



Maximo as an enterprise-grade, integrated, containerized suite of software

Why OpenShift?

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Why choose an enterprise platform?

- Kubernetes
  - do-it-yourself
  - vanilla Kubernetes
- An enterprise Kubernetes platform
  - Advanced security
  - Auditing and logging capabilities
  - Simplified deployment
  - Configuration and management capabilities
  - Enterprise Kubernetes include Red Hat OpenShift, Google Anthos, Amazon EKS, Microsoft Azure Kubernetes Service, VMware Tanzu and others.

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Red Hat OpenShift Container Platform

Industry-leading application platform leveraging Kubernetes for containerized applications across public or hybrid cloud, on-premise or edge architecture.

https://www.redhat.com/en/technologies/cloud-computing/openshift/container-platform

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OpenShift's Out-of-the-Box Features

- Platform for deploying custom applications.
- Web-based user interface, command line tools, and an API.
- Access to a wide range of services such as databases, messaging, and storage.
  - These services are provided by Red Hat Ecosystem Catalog, which allows third parties to ensure their software is certified for the platform and provides users an easy way to consume the software within the platform.
- Monitoring and logging capabilities. Security and resource isolation.

Datasheet https://developers.redhat.com/products/openshift/overview

Full breakdown https://www.redhat.com/en/resources/openshift-container-platform-datasheet

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OpenShift Platform Support

- Installing on Alibaba
- Installing on AWS
- Installing on Azure
- Installing on Azure Stack Hub
- Installing on GCP
- Installing on IBM Cloud
- Installing on Nutanix
- Installing on bare metal
- Installing on-premise with Assisted Installer
- Installing an on-premise cluster with the Agent-based Installer

- Installing on a single node
- Deploying installer-provisioned clusters on bare metal
- Installing IBM Cloud Bare Metal (Classic)
- Installing on IBM Z and IBM LinuxONE
- Installing on IBM Power
- Installing on IBM Power Virtual Server
- Installing on OpenStack
- Installing on vSphere
- Installing on any platform

At present, OpenShift is officially documented and supported across various cloud-vendor platforms and on-premise infrastructure.

https://docs.openshift.com/container-platform/4.12/welcome/index.html

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OpenShift Installation Methods

Assisted Installer	Agent-based Installer	IPI Installer	UPI Installer
Involves creating a cluster interactively by using the redhat.com's web-based user interface.	Agent-based installation is like Assisted Installer, except you locally run web-based user interface. Useful for disconnected environment.	Installer-provisioned infrastructure (IPI) acts as an installation wizard, prompting you for values for the automated installation. Easy to install.	User-provisioned infrastructure (UPI) is like IPI except all the infrastructure is created manually and OpenShift is installed on top. Complex; takes some time to set up.

https://docs.openshift.com/container-platform/4.14/installing/index.html

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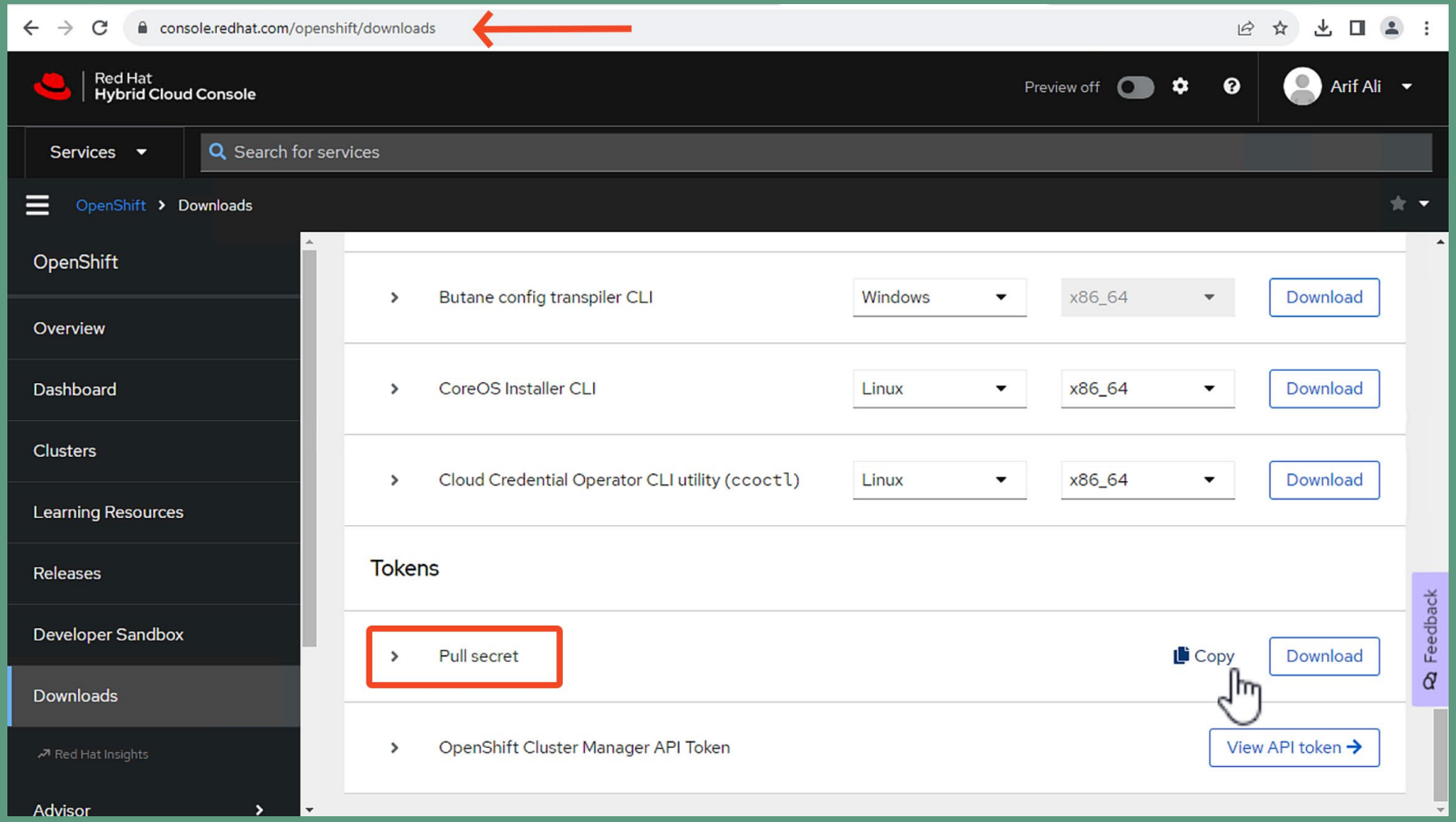
Requirements for OpenShift: Pull secret



OpenShift topology

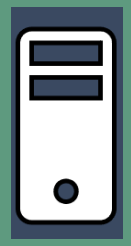
OpenShift is generally supported in 2 topologies

Highly available OpenShift Container Platform cluster (HA):

Three control-plane (master) nodes with any number of worker nodes.

A single-node OpenShift Container Platform (SNO – No HA):

A node that is both a control-plane (master) and worker.



A three-node OpenShift Container Platform (No HA):

A compact cluster that has three master nodes that are also worker nodes.

https://docs.openshift.com/container-platform/4.12/installing/installing_with_agent_based_installer/preparing-to-install-with-agent-based-installer.html#agent-based-installer-workflow

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Platforms/vendors

Software As A Service (SaaS / Managed-Hosted	**Self-managed (on cloud or on-prem or hybrid)**
Maximo/MAS	Maximo/MAS
OpenShift	OpenShift

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Installing OpenShift using Red Hat's installer-provisioned infrastructure method

Setting up Red Hat OpenShift Container Platform (RHOCP/OCP) involves various methods, and one of them is the installer-provisioned infrastructure (IPI) method. This method uses a tool called `openshift-install` to help install OCP on different systems like bare metal hardware or virtual servers.

https://docs.openshift.com/container-platform/4.12/installing/installing_vsphere/installing-vsphere-installer-provisioned.html

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Requirements for MAS: AppPoints License & Entitlement key

IBM Maximo Application Suite license file

Access the IBM License Key Center to get the license key of IBM Maximo Application Suite. From **Get Keys > IBM App Point Suites**, select `IBM MAXIMO APPLICATION SUITE AppPOINT LIC` and enter the following information on the next page:

Obtaining your IBM Entitlement key from the IBM Entitled Registry

Last Updated: 2024-01-11

The IBM Entitled Registry key is used during the installation to download the container images for the Suite and its applications from the IBM Entitled Registry. It is also required to install some prerequisites. Download this key from the IBM Container Library.

Complete this task to log in to the IBM Container Library. To verify that your entitlement key is valid for Maximo® Application Suite.

Procedure

1. Log in to the IBM Container Library with a user ID that has software download rights for your company's entitlement.

https://www.ibm.com/docs/en/mas-cd/continuous-delivery?topic=cloud-obtaining-your-entitlement-key-from-entitled-registry

https://www.ibm.com/docs/en/mas-cd/continuous-delivery?topic=cli-prerequisites-installing

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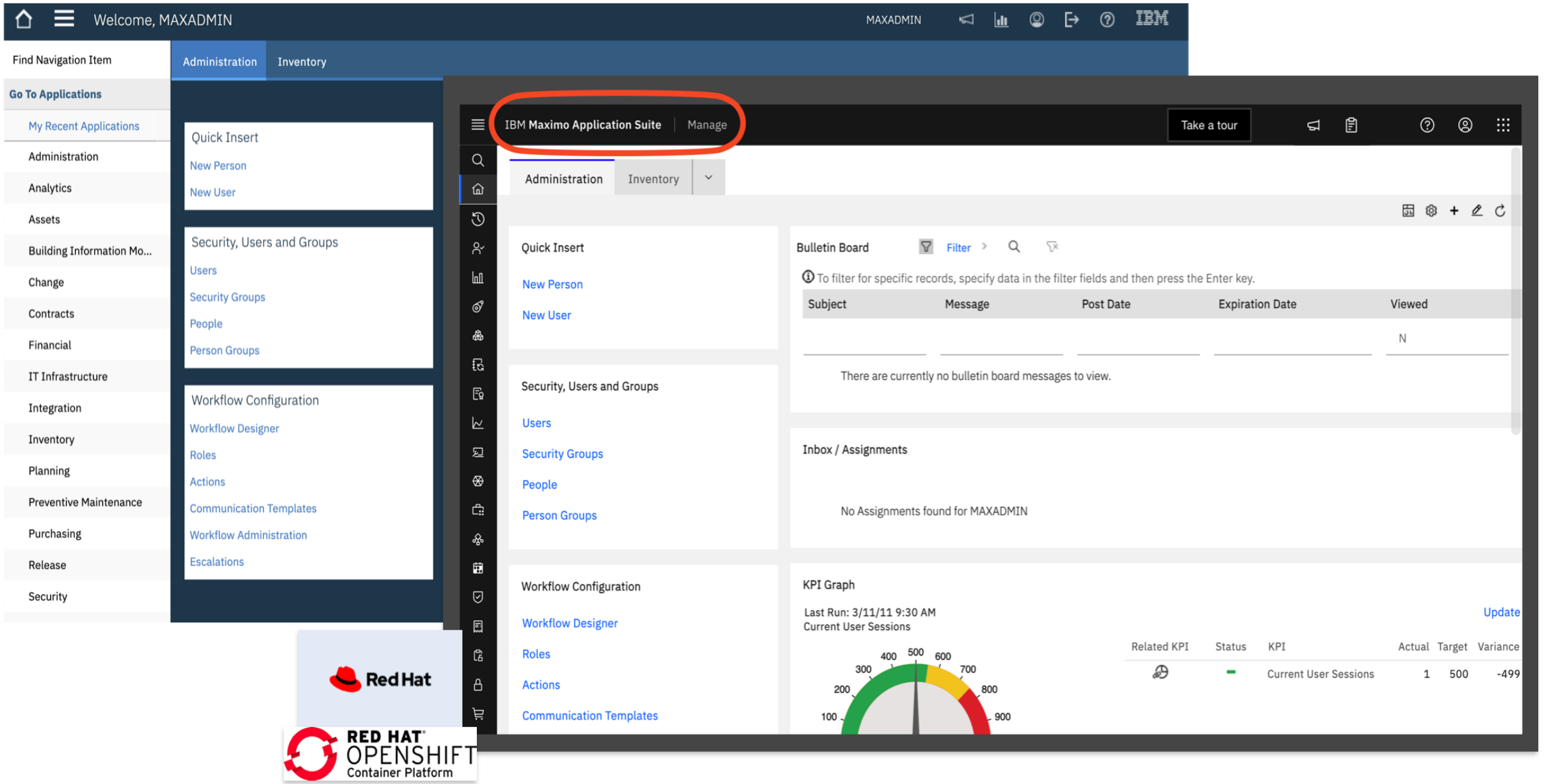
Upgrading from Maximo Asset Management to IBM Maximo Manage



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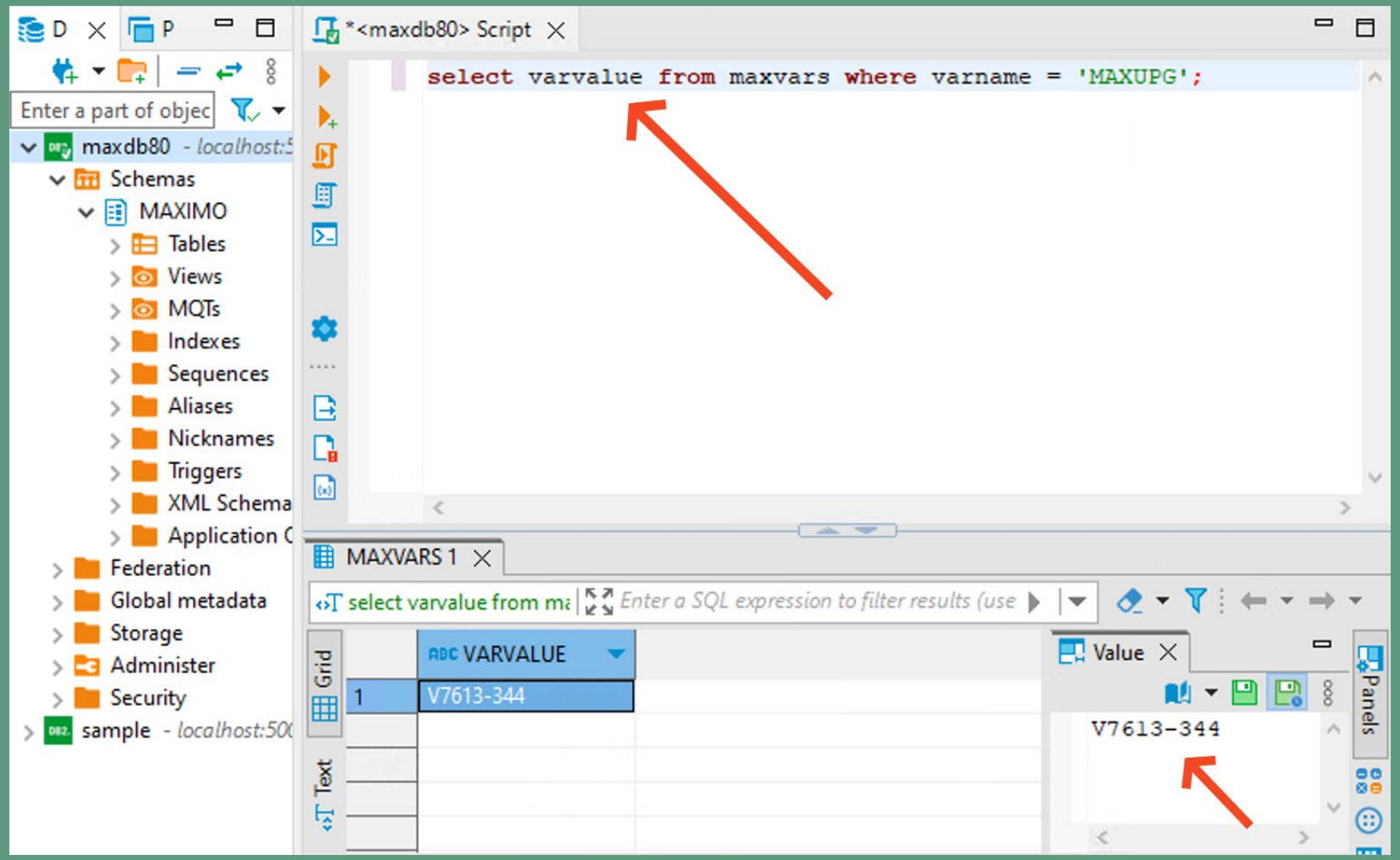
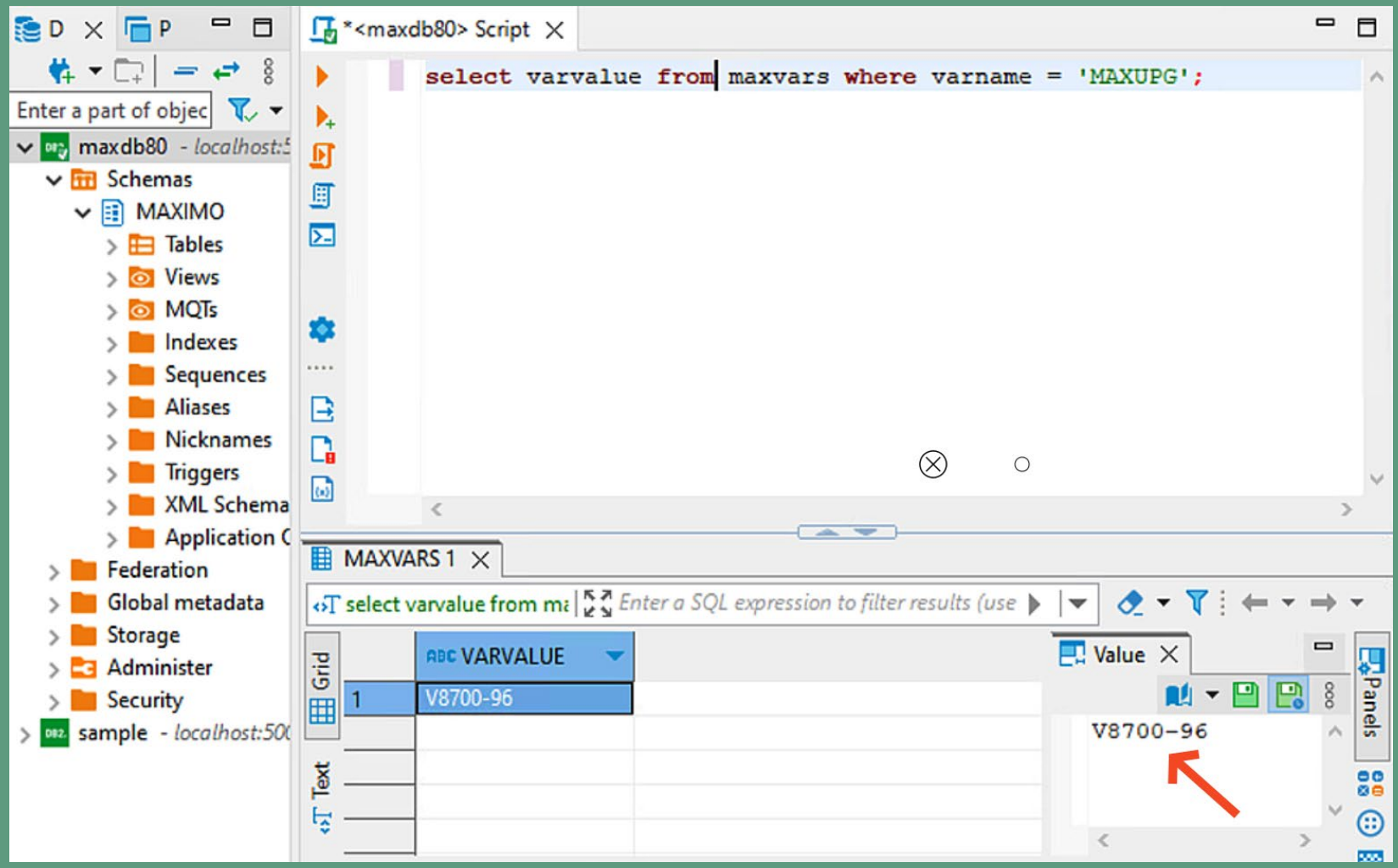
Your Maximo Database: Before



Your Maximo Database: After



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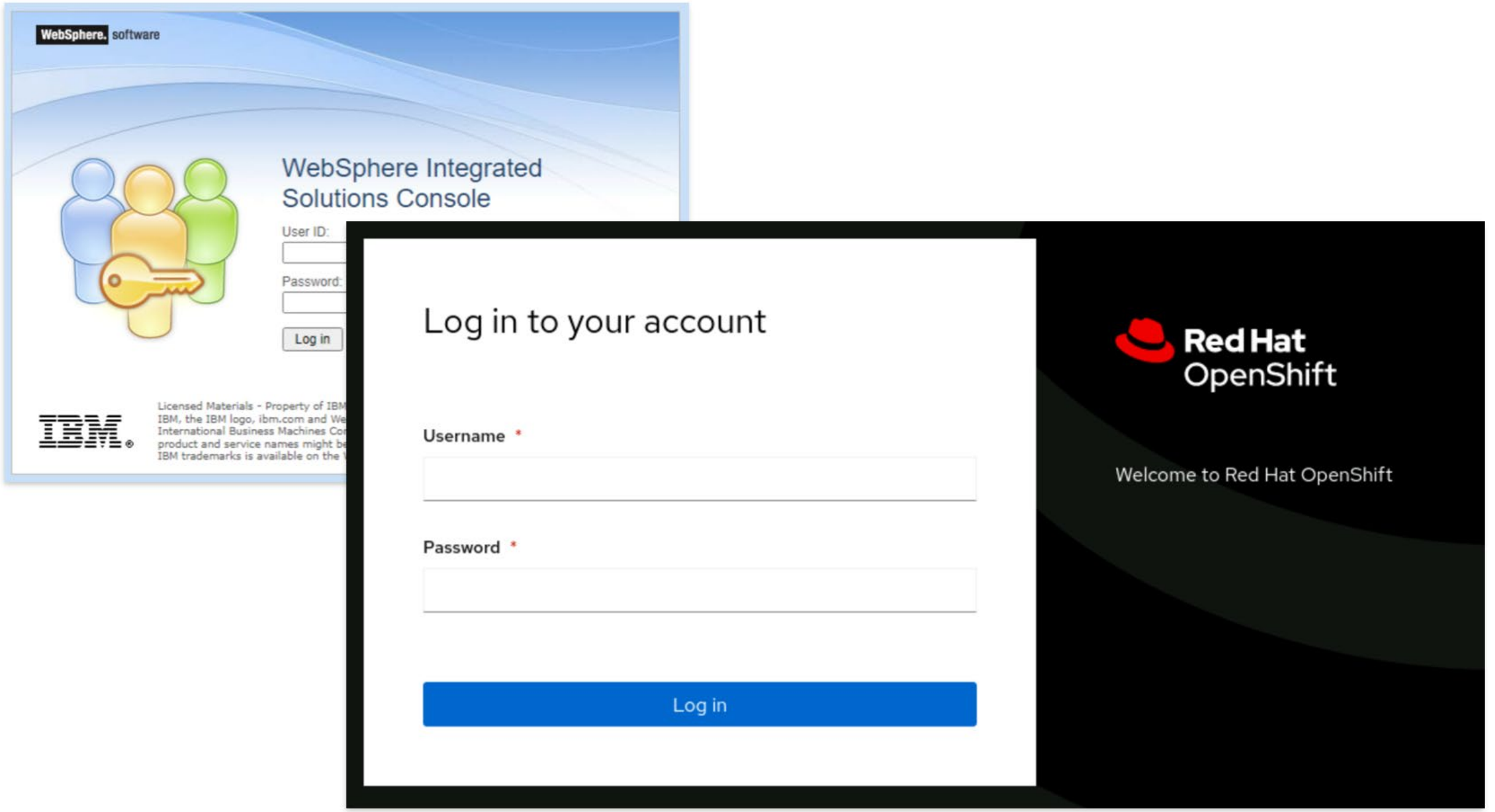

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Maximo 7.x ➔ Manage 8.x

What's new in Maximo Manage

Last Updated: 2024-01-02

Learn more about what's new and changed in Maximo Manage.

- **What's new in Maximo Manage 8.7**
  Learn more about what's new and changed in Maximo Manage.
- **What's new in Maximo Manage 8.6**
  Learn more about what's new and changed in Maximo Manage.
- **What's new in Maximo Manage 8.5**
  Learn more about what's new and changed in Maximo Manage.
- **What's new in Maximo Manage 8.4**
  Learn more about what's new and changed in Maximo Manage.
- **What's new in Maximo Manage 8.3**
  Learn more about what's new and changed in Maximo Manage.
- **What's new in Maximo Manage 8.2**
  Learn more about what's new and changed in Maximo Manage.
- **What's new in Maximo Manage 8.1**
  Learn more about what's new and changed in Maximo Manage.
- **What's new in Maximo Manage 8.0**
  Learn more about what's new and changed in Maximo Manage.

https://www.ibm.com/docs/en/mas-cd/maximo-manage/continuous-delivery?topic=overview-whats-new-in-maximo-manage

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Maximo Mobile

Learn more about what's new and changed in Maximo Mobile.

- **What's new in Maximo Mobile 8.11**
  Learn more about what’s new and changed in Maximo Mobile 8.11.
- **What's new in Maximo Mobile 8.10**
  Learn more about what’s new and changed in Maximo Mobile 8.10.
- **What's new in Maximo Mobile 8.9**
  Learn more about what’s new and changed in Maximo Mobile 8.9.
- **What's new in Maximo Mobile 8.8**
  Learn more about what’s new and changed in Maximo Mobile 8.8.

https://www.ibm.com/docs/en/mas-cd/maximo-manage/continuous-delivery?topic=overview-whats-new-in-maximo-mobile

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Technical Workshop (Interactive)

Intro: Platforms in use

Red Hat OpenShift Container Platform

Industry-leading application platform leveraging Kubernetes for containerized applications across public or hybrid cloud, on-premise or edge architecture.

https://www.redhat.com/en/technologies/cloud-computing/openshift/container-platform

VMware vSphere

Leading server virtualization platform designed for data center consolidation and improved application availability.

https://www.vmware.com/products/vsphere.html

IBM Technology Zone (TechZone)

TechZone provides technical “show me” content and environments together in one place. Users of TechZone can find and reserve a wide range of live environments across infrastructures and platforms.

https://techzone.ibm.com/dashboard

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Outline

1. Review Maximo 7.x
2. Install OpenShift
3. Prepare customization archive
4. Prepare Maximo database for migration
5. Upgrade Maximo 7.x to IBM Maximo Manage 8.x

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Two questions, quick anonymous survey

https://wkf.ms/49fECyn

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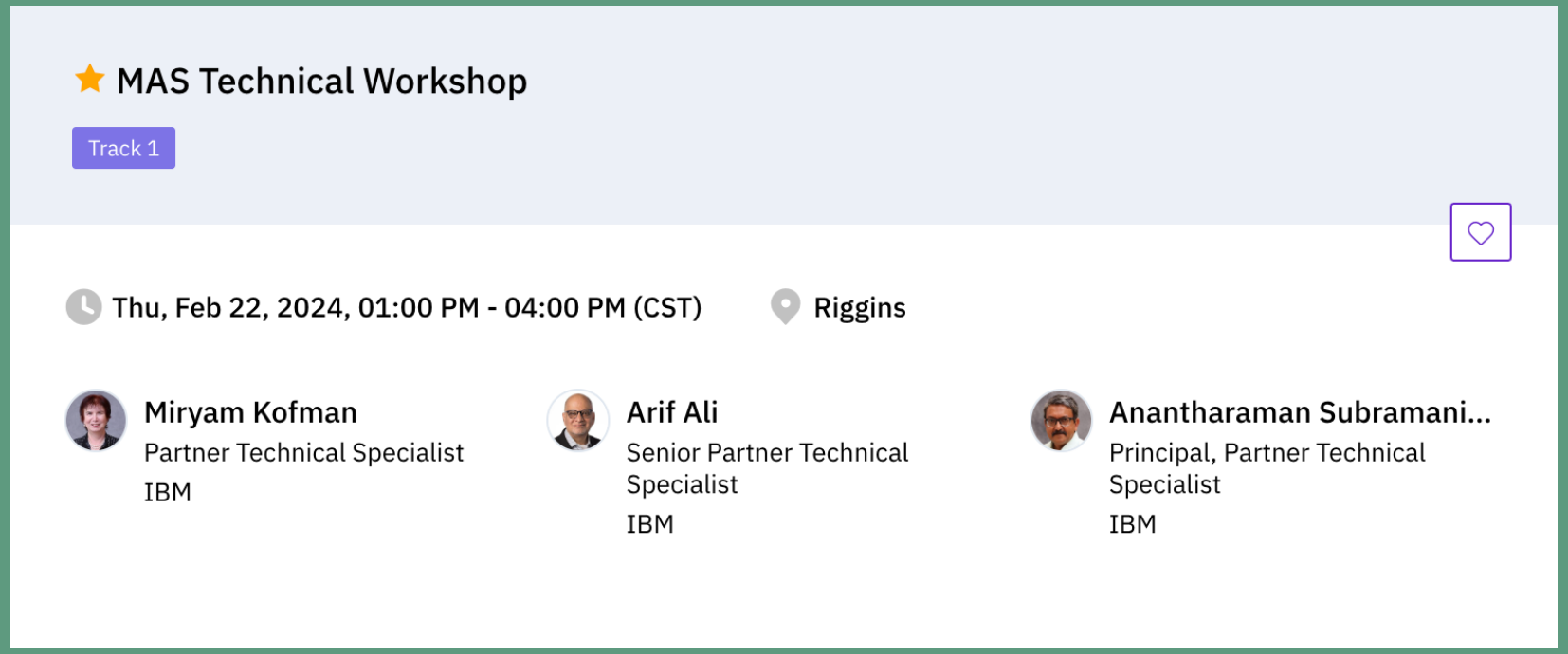
Thank you!



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