Lab 6 - Multi-Cloud Operations Management

Introduction

Aria Operations Cloud delivers a unified management platform to optimize, plan, and scale hybrid cloud deployments from applications to infrastructure, powered by AI/ML, as a service.

Aria Operations Cloud offers the same great features found in the on-premises version of Aria Operations, but gives customers accelerated access to new innovations. This means that the software is able to deliver self-driving IT through the prediction, prevention, and automatic remediation of issues both at the application level and at the infrastructure level.

Aria Operations Cloud Enables self-driving IT Operations Management across private, hybrid and multi-cloud environments with a unified operations platform that delivers continuous performance, capacity and cost optimization, intelligent remediation and integrated compliance through AI/ML and predictive analytics.



With Aria Operations Cloud you can:

- Maximize ROI for Cloud Operations Examine the potential return on investment (ROI), reduction in unplanned downtime and other benefits that enterprises may realize when deploying VMware vRealize Operations in today's hybrid and multi cloud environments.
- Accelerate the Journey to VMC on AWS Aria Operations Cloud simplifies management for your hybrid cloud from migration assessment and planning to operationalizing the hybrid cloud in production.
- **Unify visibility across multiple clouds** Delivered as a service, Aria Operations meets the needs of modern IT strategies, including VM-based and containerized workloads, across private, hybrid, and multi-cloud deployments.
- Increase Operational efficiency Bring data depth and context to your hybrid cloud by adding <u>VMware Aria Operations for Integrations</u>. Monitor heterogeneous environments and make intelligent management decisions.

Tasks

Task 1 - Configure Aria Operation Accounts

You can extend the monitoring capabilities of Aria Operations Cloud by installing and configuring management packs in Aria Operations Cloud to connect to, and analyze data from external data sources in your environment. Once connected, you can use Aria Operations Cloud to monitor and manage objects in your environment.

A management pack can be Login a connection to a data source, or it might include predefined dashboards, widgets, alerts, and views.

Solutions can include cloud accounts, other accounts, dashboards, reports, alerts, and other content. The cloud accounts and other accounts comprise of adapters, using which Aria Operations Cloud manages communication and integration with other products, applications, and functions. When a management pack is installed and the adapters are configured, you can use the Aria Operations Cloud analytics and alerting tools to manage the objects in your environment.

VMware solutions include adapters for the following:

Storage Devices

- Log Insight
- NSX for vSphere
- Network Devices
- VCM

Third-party solutions include AWS, SCOM, EMC Smarts, and many others.

Other management packs such as the VMware Management Pack for NSX for vSphere, can be added to Aria Operations Cloud.

- 1. From your VDI Desktop launch a web browser and access the VMware Cloud Console <u>https://console.cloud.vmware.com/</u>
- 2. Log using your VMware Cloud Login if required
 - Username: vmcexpert#-xx@vmware-hol.com
 - Password: VMware1!
- 3. Right Click the **VMware Cloud on AWS** tile and choose open in a new window Or, in a new browser tab go to <u>https://vmc.vmware.com/console/sddcs</u>
- 4. Click the VMware Aria Operations Cloud tile

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	Offers a comprehensive cross-cloud automation Solution for self-service, workload governance, Infrastructure as Code, and more for all VMware and common public clouds.	Optimize, plan, and scale hybrid cloud with a unified operations platform powered by Al/ML.
	LAUNCH SERVICE	
	WMware Aria Operations for Logs Analyze logs to promote rapid troubleshooting and root cause analysis across private, public and hybrid cloud environments.	Wware Cloud on AWS VMware's enterprise-class SDDC technologies delivered as an on-demand service on elastic, bare-metal AWS infrastructure.
	LAUNCH SERVICE	LAUNCH SERVICE
	Other services (1)	
	VMware HCX	
	Application mobility and infrastructure hybridity across	

- 5. In the left pane, under **Data Sources**, click **Integrations**
- 6. Click the **ellipsis** (3 horizontal dots), then click **Import Accounts from VMware Aria Automation**
- 7. Click VMware Cloud on AWS

- 8. Select the check box next to your SDDC
- 9. In the Default Collector Group Dropdown select your Aria Operations Proxy Appliance
- 10. Repeat step 9 for **your VMC on AWS vCenter** and **NSX-T Manager** (3 Proxy drop-down selections in total)
- 11. Click Validate
- 12. At the **Review and Accept Certificate Prompt**, click **Accept** to accept the Certificate
- 13. At the bottom of the page click **Import.** The Status will show Warning while the services start and data collection begins. **This process takes up to 5 minutes.**



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Click Accept if you trust the certificate. Use the credentials to connect.
CANCEL ACCEPT

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- 14. Under Accounts, expand VMware Cloud on AWS
- 15. Expand your VMware Cloud on AWS Collection (i.e. vmcexpert3-31_VMConAWS)
- 16. Expand your VMC on AWS SDDC (i.e. VMCEXPERT3-31)
- 17. Click the three vertical dots to the left of your SDDC, click Edit
- 18. Check Near Real-Time Checkbox to Activate it
- 19. In the **Real-Time Monitoring** dialog check the **I Understand the affects of near real-time monitoring** checkbox
- 20. Click **OK**
- 21. Click Validate Connection
 - If prompted, Accept the certificate presented
- 22. Click the **NSX-T** Tab
- 23. Move the **slider to enable** the collection of NSX-T configuration
- 24. Click Validate Connection
- 25. Click **OK**
- 26. Click Save

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Click Accept if you trust the certificate. Use the credentials to connect.	
CANCEL	

- 27. Under Accounts, expand VMware Cloud on AWS
- 28. Expand your VMware Cloud on AWS Collection (i.e. vmcexpert3-31_VMConAWS)
- 29. Expand your VMC on AWS SDDC (**i.e. VMCEXPERT3-31**)
- 30. The status for all SDDC components should read **OK**.
 - Note: You may need to wait for up to 5 mins and refresh as data collection happens

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We will now add your AWS account to Aria Operations Manager by importing the account information from Aria Automation. Importing accounts from Aria Automation ensures we don't share cloud accounts details with multiple users, management of those accounts can also therefore be done centrally.

31. Click the **3 horizontal dot**s next to Add Account

32. Click Import Accounts from VMware Aria Automation

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33. Select AWS

• **NOTE:** If **AWS** isn't listed as an option, the cloud account has already been imported by the student using the other SDDC in your org. An AWS account can only be imported by

a single Aria Operation Proxy. **Skip to task 1.1 and complete the remaining tasks.** Recall that Aria Operations is ORG based, not SDDC based.

- 34. Select CAS-Imported-aws-AWS from the credential drop-down
- 35. Select your AOPS Proxy in the Collector/Group drop-down
- 36. Click Validate
- 37. Click **Import** (at the bottom of the page)

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- 38. Expand the **AWS** Account Category
- 39. Select the **3 vertical dots** next to your AWS account and click Edit
- 40. In the Regions field select the **region your lab environment is deployed within NOTE: We only use us-west-2 (US West Oregon) for these labs**
- 41. Click Save

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Task 1.1 - Confirm the account visibility in Aria Operations Cloud

- 1. In the left pane, Expand **Environment**
- 2. Click **Object Browser**
- 3. Expand VMC Cloud on AWS
- 4. Expand VMC Hosts and Cluster
- 5. Select **VMC World** and confirm you can see information about the following:
 - VMC Organization
 - SDDC
 - Host System
 - vCenter
 - Virtual Machines



- 6. Expand AWS
- 7. Expand AWS Accounts
- 8. Select AWS Cloud Account to see an overview
- 9. Expand AWS Cloud Account
- 10. Select AWS US West (Oregon) to see a summary of the region
- 11. Expand AWS US West (Oregon)
- 12. Scroll down and select your student ID ie VMCEXPERT#-##
- 13. View the summary data for your VPC
- 14. Expand your VMCEXPERT#-## account
- 15. Take note of the following
 - Active Alerts
 - Metrics
 - Relationship
- 16. Expand **AWS Regions**
- 17. Select AWS US West (Oregon)
 - Instances
 - Relationship
- 18. Expand US West (Oregon)
- 19. Select your VMCEXPERT#-## Account
- 20. In the **Relationship** tile hover the mouse over the **IGW**
- 21. Click Details
- 22. Hover your mouse over **VPC (VMCEXPERT#-XX)** where # is your lab environment number and xx is your student number
- 23. Click Details

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- 24. Review the following
 - Metrics
 - Tags
 - Relationship
 - Subnet
 - Security Group
 - Internet Gateway
 - Load Balancer (the Load balancer should be visible if you completed lab 4)

Conclusion