Avaya Analytics for Oceana - Release 4.0.0.1

Avaya_Analytics_4.0.0.1_319_006 ReadMe

Issue Date (DD/MM/YYYY): 16/10/2020

Patch ID: Patch Type: Avaya_Analytics_4.0.0.1_319_006 Bug Fix

Application Name: Product version: Component versions: Avaya Analytics for Oceana 4.0.0.1

Analytics	Orca chart	4.1.319
	MSTR chart	0.1.77
Required CSP	CSP Version	1.0.101214
	CCM Version	1.0.0.2.101001

Fresh Installs

This patch may be used to perform a fresh install.

- 1. Review the Deploying Avaya Analytics for Oceana guide and follow all install steps from there.
- 2. Do not use install steps from this readme.
- 3. Use the Deployment spreadsheet available with this patch instead of the GA version.
- 4. This will result in GA software and all software delivered in patches up to current patch being installed.

CSP Patch

This patch also delivers IX Common Services Platform Release patch 1.0.0.2 patch 1.

Upgrading to the latest release of IX CSP consists of three procedures:

- 1) Upgrade of the Cluster Control Manager
- 2) Upgrade of the Avaya Analytics cluster
- 3) Upgrade of the Avaya Analytics services

NOTE: The CCM OVA version is 95003 and the CCM upgrade version is 101001. This means on completion of the install the CCM version would be different based on the following:

- Upgrading from previous version CCM version 101001
- Fresh install CCM version 95003

No action is required other than to follow the installation instructions as normal.

Installation Instructions

General

This patch includes:

- Fixing for an issue with 3rd party certificates configuration
- Changes to delete temporary kafka topic in case of failure to synchronize HA caches.
- Fix for Additional Work Duration measure
- Change to routing service csv file one more measure was added
- Update to Excel spreadsheet to fix an issue with memory allocation for some configuration and fix an issue with crunchy pod failure on startup.
- Updates to MSTR reports Agent performance report was reorganized. Each sub report will now have to be run separately and will be open in new tab.
- Reduced logging volume
- Improved air gap install

Current Active Line-up

Analytics 4.0.0.1 follows a cumulative patch line-up. Unless otherwise stated this patch rolls up all previous patches.

Patch Install Timings

The following are indicative and approximate timings to help better plan maintenance windows. These timings may vary based network bandwidth, hardware capacity, etc.

Install Step	Approximate Timing
Upgrade Cluster Manager	0.5-1 hour
Upgrade of Avaya Analytics Cluster	3-4 hours
Upgrade of Avaya Analytics Services	1-2 hours
Upgrade of MicroStrategy	15-30 minutes

A similar amount of time is required to rollback a patch if that is deemed necessary.

Patch Install Steps

This table describes the steps required for each of the supported deployment patch. Links to the appropriate section describing the steps are included.

Install Path	Steps Required
Fresh Install	Fresh Installs
Upgrade Patch 3 to Patch 6	Upgrade Cluster Control Manager
	Upgrade Avaya Analytics Cluster
	Upgrade Avaya Analytics services
	Post Installation Instructions
Upgrade Patch 5 to Patch 6	Upgrade Avaya Analytics Cluster
	Upgrade Avaya Analytics services
	Post Installation Instructions

Pre-installation instructions

A maintenance window is required to perform a patch update. Rolling updates are not currently supported. No contact center activity can occur during this window.

Important:

- 1. Before installing this patch ensure you take a database backup.
 - Take full DB backup using the Analytics control script.
 - See section Configuring database backups in Chapter: Avaya Analytics Maintenance of the Maintaining and Troubleshooting Avaya Analytics for Oceana guide.
 - Once completed, logon to the DB pod using:

- kubectl exec -it crunchy-primary-service-orca-dbmgr-0 --//bin/bash
- Now logged into the Database Pod
- Change directory to the backup folder using:
 - cd pgdata/full backup/
- Compress the backup file using:
- o tar -czvf <your backup file name>.tar.gz <your backup file name>.bkp
- o Transfer the compressed backup file to the CCM using:
- o scp <your backup file name>.tar.gz cust@<CCM IP>:<Desired Directory>/<your backup file name>.tar.gz
- \circ $\;$ Enter the customer account user password when prompted $\;$
- Log off the pod using:
 - exit
- Copy the backup to secure location.
- 2. Before installing this patch ensure all custom reports have been archived.
 - Run ccm release orca analytics
 - Select 4. Historical Reporting
 - Select 7. Backup Metadata
 - Wait for the backup to finish
 - Press b for back
 - Select 4. Historical Reporting
 - Select 8. Export Backups
 - $\circ \quad \text{Wait for export to finish} \\$
 - Press q to quit
 - Verify that the backup is now located in the /home/<customer_account_login>/historical_md_backups/ directory on CCM.
- 3. Before installing this patch ensure the following credentials are still valid.
 - o Harbor
 - o vCenter
- 4. Preparing the deployment spreadsheet
 - a. Use spreadsheet delivered with this patch as primary spreadsheet.
 - b. If current spreadsheet used for earlier deployment and/or patches is available retrieve that.
 - c. Copy values from spreadsheet in step b into spreadsheet in step a.
 - Copy values from green and orange cells
 - If required review Chapter 4: Planning and preconfiguration of the Deploying Avaya Analytics for Oceana guide, section Avaya Analytics[™] deployment spreadsheet overview for instruction on how to complete the spreadsheet.

NOTE: Ensure to copy the values and not formulas, etc. Use Paste Value option in Excel

- 5. Take VM Snapshot of CCM
 - Login to vCenter managing the Analytics Cluster and take a virtual machine snapshot of the Cluster Control Manager.

NOTE: The recommendation is to avoid using a snapshot for more than 72 hours to avoid risking performance degradation of the virtual machine as well as the ESXi host.

6. Scale Down Async Services

NOTE: Only Required if Async is installed. ccm status command can be used to check.

- Connect to the Cluster Control Manager (CCM) using the customer account login.
- Switch to the root user, enter su.
- As root user run the following commands
 - kubectl scale deployment \$(kubectl get deployment | grep async-aggregator-interface | awk '{print \$1}') --replicas=1
 - kubectl scale statefulset \$(kubectl get statefulset | grep async-oceana-adapter | awk '{print \$1}') --replicas=1

Upgrade Cluster Control Manager

Before You Begin

Ensure the correct installation method is chosen. This will most likely be the method used at the original installation time.

Online Procedure:

- 1. Connect to the Cluster Control Manager (CCM) using the customer account login.
- 2. Create upgrade-config.yaml file vi /home/<customer account login>/upgrade-config.yaml

<customer account login> should be replaced by correct login, which has been used to connect to CCM at the step 1). For example, if customer account login is cust then

vi /home/cust/upgrade-config.yaml

put the string "system: 1.0.0.2.101001" and save the file

3. From the directory on CCM that contains the upgrade-config.yaml file, enter the following command:

screen

The screen utility allows the upgrade to run in the background. Important: You must perform this procedure

4. Begin the upgrade of the CCM by running the following command:

ccm upgrade system upgrade-config.yaml

- 5. When prompted
 - a. Enter your Avaya SSO credentials
 - b. Accept the EULA
 - c. Confirm the warning regarding the recommendation of a snapshot for reversion as well as acknowledgement that the CCM will be rebooted after the upgrade is applied.

IMPORTANT: if a snapshot has not been taken, enter "no" and return to the section "Before you Begin" to confirm all steps have been completed before continuing.

d. The CCM upgrade will continue and takes about 15-20 minutes to complete. Progress may be monitored on the screen session or by viewing /var/log/avaya/ccm/upgrade.log. Once complete, the upgrade utility will exit and the CCM will be automatically rebooted.

IMPORTANT: if the ccm upgrade command fails, resolve the issue causing the failure and restart the upgrade. Contact Avaya Support if the failure condition cannot be corrected.

6. Once the CCM is reachable, login using the customer account.

7. Verify the software version of the CCM has been updated by running: swversion

The Cluster Control Manager will report as 1.0.0.2.101001

8. The CCM upgrade is now complete. Proceed with the "Upgrade of the Analytics Cluster"

Offline Procedure

To upgrade Cluster Control Manager (CCM), you must download the CCM upgrade Docker image to your laptop or PC and then upload the image on CCM. Use the ccm-agn-ctl container for the downloading and uploading process.

Downloading the Cluster Control Manager upgrade Docker image

Before you begin you must have:

- Valid Avaya SSO credentials.
- A functional ccm-agn-ctl container on your laptop.
- 1. On the command line of the ccm-agn-ctl container, change the directories to the download directory at cd /root/downloads.
- 2. Create an image directory mkdir images.
- 3. Change to the images directory cd images.
- 4. To log in to harbor.avaya.com, run the following command: docker login harbor.avaya.com
- 5. Run the following command:

docker pull harbor.avaya.com/flex/ccmupgrade:<ccm-upgrade-version>, where
the ccm upgrade version is the version of the ccmupgrade package.
For example: docker pull harbor.avaya.com/flex/ccmupgrade:1.0.0.2.101001.

6. To log out from harbor.avaya.com, run the following command: docker logout harbor.avaya.com

Uploading the Cluster Control Manager upgrade Docker image

Before you begin you must download the CCM upgrade Docker image.

- 1. To tag the CCM upgrade Docker image for the CCM registry, do the following:
 - a. To obtain the name of the ccm upgrade Avaya Harbor tagged image for re-tagging, run the following command: docker images --format '{{.Repository}}:{{.Tag}}' | grep ccmupgrade
 b. To apply the new tag, run the following command: docker tag <harbor-tag> <ccm-tag>
 - Note:

- The tag is in the following format: <RegistryFQDN:PORT>/flex/image:version. If the port is 443, you can omit typing the port number.
- The <harbor-tag> tag is part of the Avaya Harbor Docker Registry, which is harbor.avaya.com/flex/<image:version> This tag is the name you obtained in the previous step.
- The <ccm-tag> tag is part of the local CCM Docker Registry, which is <CCM26FQDN>:5010/flex/<image:version>
- 2. To obtain the CCM tagged images to push to the CCM registry, run the following command: docker images --format '{{.Repository}}:{{.Tag}}' | grep :5010 |grep ccmupgrade
- 3. To get a Docker login for the CCM local Docker registry, run the following command: docker login <CCM-FQDN>:5010, where CCM-FQDN is the FQDN of CCM.
- 4. To push the CCM tagged images to the CCM registry, run the following command: docker push <image-tag-name>
- 5. When prompted, enter the username and password of the agn-ctl setup.
- 6. Log out from Docker using the following command: docker logout <CCM-FQDN>:5010, where CCM-FQDN is the FQDN of CCM.
- 7. (Optional) To remove the Avaya Harbor tagged images, run the following command: docker rmi <harbor-tag> The <harbor-tag> tag is part of the Avaya Harbor Docker Registry, which is harbor.avaya.com/flex/<image:version>

The CCM local Docker registry is ready for a CCM upgrade.

Upgrading Cluster Control Manager

Before you begin

- Download the CCM upgrade Docker image to your laptop or PC and
- Upload the CCM upgrade Docker image to CCM
- On the CCM console, create the CCM upgrade file by running the following command: echo "system: <ccm-upgrade-version>" > upgrade.yaml, where ccmupgrade-version is the version to which you are upgrading. Note: ccm-upgrade-version in table on first page of this document
- 2. To start the upgrade, run the following command: ccm upgrade system upgrade.yaml
- 3. At the prompt to enter the credentials, type the CCM local registry username and password.

Upgrade Avaya Analytics Cluster

Before you begin:

1. Verify the operational state of the Avaya Analytics Cluster. Refer to **Chapter 11: Post-installation verification** from *Deploying Avaya Analytics for Oceana; April 2020*

2. Once the cluster has been confirmed to be in a healthy and operational state continue with the upgrade procedure below

Ensure the correct installation method is chosen. This will most likely be the method used at the original installation time.

Online Procedure:

- 1. Connect to the Cluster Control Manager, as the customer account login, after completing "Upgrade of the Cluster Control Manager".
- 2. From the directory on CCM that contains the updated Analytics Excel Spreadsheet file, enter the following command:

screen

The screen utility allows the upgrade to run in the background. Important: You must perform this procedure

- 3. Run the following command to begin the upgrade of the Avaya Analytics cluster patchReleases
- 4. Run the following command to monitor the progress of the upgrade: tail -f /var/log/avaya/ccm/patch-<timestamp>.log

IMPORTANT: if the patchReleases command fails, resolve the issue causing the failure and restart the patchReleases command. For more information about troubleshooting failures, see <insert doc reference> Contact Avaya Support if the failure condition cannot be corrected.

If the Prometheus pod is not starting or an Async pods in a 0/1 Ready state and either of these cause the upgrade to not complete, then the validation checks on these pods can be skipped as follows:

patchReleases --skip-pod-check

For Known Issues with patchReleases command see Issue 2 in Known Issues section.

- 5. The patchReleases command will exit once the upgrade is complete. Verify the software version of the Analytics cluster by running: swversion
- 6. The CSP product will report correct CSP Version
- 7. Confirm the operational state of the Analytics cluster. Run the following command: ccm status --pod-details All pods should report running with n/n reporting ready before continuing to the next step. Refer to Chapter 11: Post-installation verification from Deploying Avaya Analytics for Oceana; April 2020
- 8. The upgrade of the Avaya Analytics cluster is complete. Proceed with the "Upgrade of the Avaya Analytics Services"

Offline Procedure:

Downloading Avaya Analytics chart and images

Before you begin you must have:

- Valid Avaya SSO credentials.
- A functional ccm-agn-ctl container on your laptop.
- On your Windows PC or client computer, save the Analytics Excel Spreadsheet in c:\avaya\downloads.
 Note: Windows and the CCM Controller container share a mount point, which are

Note: Windows and the CCM Controller container share a mount point, which are c:\avaya\downloads and /root/downloads respectively.

- 2. In the ccm-agn-ctl container, run cd/root/downloads.
- 3. To download the Avaya Analytics[™] charts and images from the Avaya repository, run the following command:

agn download <Avaya_Oceana_Application_Deployment.xlsm>

- When requested enter credentials. The agn script processes the excel spreadsheet and the Avaya Analytics[™] charts and docker images start downloading. The ccm-agn-ctl container displays an Image Pull Report when the download is complete.
- 5. To view a list of the downloaded images, run the following command: docker image ls
- 6. To view a list of the downloaded charts, run the following command: ls /root/downloads/*.tgz
- 7. (Optional) If you see a docker pull error, you can view or retrieve the logs within the ccm-agn-ctl container at /var/log/avaya/ccm/ccm-main.log.
 For more information on possible issues and the respective troubleshooting solutions, see the Maintaining and Troubleshooting Avaya Analytics for Oceana doc.

Uploading Avaya Analytics chart and images

Before you begin:

- Ensure air-gap running
 - o agn-ctl status
 - If not running, then run the following:
 - agn-ctl setup
 - agn-ctl startup
- 1. Connect to your air gap network using your Windows PC or laptop.
- 2. Start the ccm-agn-ctl container by using the following ccm-agn-ctl.bat file in the Windows PowerShell console: C:\avaya\ccm-agn-ctl.bat

- 3. Using the ccm agn deployed container, run the following command: agn upload <CCM FQDN>, where <CCM FQDN> is the FQDN of your CCM.
- 4. To access the CCM docker registry and ChartMuseum, enter the username when prompted.
- 5. Enter the password.
- 6. Re-enter the password.

The agn command starts the following in a sequence:

- a. Processes the available chart and image data on the Windows PC or laptop.
- b. Starts uploading the charts and images to CCM. When the upload is complete, the console displays an image push report.
- 7. (Optional) If you see a docker pull error, you can view or retrieve the logs within the ccm-agn-ctl container at /var/log/avaya/ccm/ccm-main.log.

For more information on possible issues and the respective troubleshooting solutions, see the Maintaining and Troubleshooting Avaya Analytics for Oceana Release 4.0 document.

8. To copy the <Avaya_Oceana_Application_Deployment.xlsm> file, run the following command in the ccm-agn-ctl container:scp /root/downloads/

<Avaya_Oceana_Application_Deployment.xlsm> <ccmUser>@<CCM FQDN>:,

where <ccmUser> is the CCM customer login account and <CCM FQDN> is the FQDN of your CCM.

Note: Do not skip the colon at the end of the command.

- 9. In the Are you sure you want to continue connecting field, type yes and press Enter.
- 10. At the prompt, enter the CCM user password.

The ccm-agn-ctl container uploads the images and charts, which you earlier downloaded on the Windows PC or client laptop, into the local CCM docker registry and chartmuseum.

Upgrading Avaya Analytics Cluster

- 1. Log in to the Cluster Control Manager (CCM) console as the customer user.
- 2. To switch to the root user, type su and press Enter.
- 3. To confirm that the local CCM Docker registry and ChartMuseum are running, run the following command:

agn-ctl status

- 4. From the directory on CCM that contains the excel file, enter the following command: Screen
- 5. Run the following command to begin the upgrade of the Avaya Analytics cluster patchReleases
- 6. Run the following command to monitor the progress of the upgrade: tail -f /var/log/avaya/ccm/patch-<timestamp>.log

IMPORTANT: if the patchReleases command fails, resolve the issue causing the failure and restart the patchReleases command. For more information about troubleshooting failures, see <insert doc reference> Contact Avaya Support if the failure condition cannot be corrected.

If the Prometheus pod is not starting or an Async pods in a 0/1 Ready state and either of these cause the upgrade to not complete, then the validation checks on these pods can be skipped as follows:

patchReleases --skip-pod-check

For Known Issues with patchReleases command see Issue 2 in Known Issues section.

- 7. The patchReleases command will exit once the upgrade is complete. Verify the software version of the Analytics cluster by running: swversion
- 8. The CSP product will report version 1.0.101214
- 9. Confirm the operational state of the Analytics cluster. Run the following command: ccm status --pod-details
 All pods should report running with n/n reporting ready before continuing to the next step.
 Refer to Chapter 11: Post-installation verification from Deploying Avaya Analytics for Oceana;
 April 2020
- 10. The upgrade of the Avaya Analytics cluster is complete. Proceed with the "Upgrade of the Avaya Analytics Services"

Upgrade Avaya Analytics services

Before You Begin

Ensure the correct installation method is chosen. This will most likely be the method used at the original installation time. Review the following chapters of the Deploying Avaya Analytics for Oceana guide if unsure:

- Chapter 7: Deploying Avaya Analytics online
- Chapter 8: Deploying Avaya Analytics offline

Important:

Manual Config. Map changes are *not supported*. Patches will overwrite these.

Online Procedure

- 1. Connect to the CCM server using the customer account log in.
- 2. Copy Avaya_Oceana_Application_Deployment_4.0.0.1_319_006.xlsm to a location on the CCM server.
- 3. From the directory on CCM that contains the excel file, enter the following command:
 - screen
- 4. Run the following command:

- ccm upgrade spec Avaya_Oceana_Application_Deployment_4.0.0.1_319_006.xlsm
- 5. When prompted:
 - a. Accept the EULA.
 - b. Confirm Upgrade
- 6. The installation starts downloading and installing.
- 7. Run the following command to monitor the progress of the install:
 - tail -f /var/log/ avaya/ccm/ccm-main.log
- 8. The upgrade command will exit when complete
- 9. Confirm the operational state of the Analytics cluster. Run the following command:
 - ccm status --pod-details

All pods should report running with n/n reporting ready before continuing to the next step. Refer to **Chapter 11: Post-installation verification** from *Deploying Avaya Analytics for Oceana; April 2020*

Important:

If the ccm upgrade spec command fails, resolve the issue causing the failure and restart the upgrade by running: ccm upgrade resume command. For more information about troubleshooting installation failures, see Maintaining and Troubleshooting Avaya Analytics[™] 4.0.

Offline Procedure

- 1. Log in to the Cluster Control Manager (CCM) console as the customer account user.
- 2. To switch to the root user, enter su.
- 3. To confirm that the local CCM docker registry and chartmuseum is running, run the following command:
 - agn-ctl status
- 4. Copy Avaya_Oceana_Application_Deployment_4.0.0.1_319_006.xlsm to a location on the CCM server.
- 5. From the directory on CCM that contains the excel file, enter the following command:
 - screen
- 6. Run the following command:
 - ccm upgrade spec
 - Avaya_Oceana_Application_Deployment_4.0.0.1_319_006.xlsm
- 7. When prompted:
 - c. Enter your Avaya SSO credentials.
 - d. Accept the EULA.
 - e. Enter the vCenter user ID and password.
 - f. Re-confirm the password.
- 8. The installation starts downloading and installing the following:
 - The Avaya Analytics[™] software
- 9. Run the following command to monitor the progress of the install:
 - tail -f /var/log/ avaya/ccm/ccm-main.log
- 10. The upgrade command will exit when complete

11. Confirm the operational state of the Analytics cluster. Run the following command:

• ccm status --pod-details All pods should report running with n/n reporting ready before continuing to the next step. Refer to **Chapter 11: Post-installation verification** from *Deploying Avaya Analytics for Oceana; April 2020*

Important:

If the ccm upgrade spec command fails, resolve the issue causing the failure and restart the upgrade by running: ccm upgrade resume command. For more information about troubleshooting installation failures, see Maintaining and Troubleshooting Avaya Analytics[™] 4.0.

Post Installation Instructions

Install Reporting Patches

- 1. Connect to the CCM server using the customer account log in.
- 2. Copy MSTR mmp file onto the CCM.
- 3. To switch to the root user, enter su.
- 4. As root user run the command: ccm release orca analytics
- 5. Navigate to 4. Historical Reporting -> 6. Package Migration.
- 6. Enter the Historical Reporting Administrator Password.
- 7. Enter the path and package file name where you have saved the MSTR Package file e.g. /tmp/Analytics.mmp
- 8. Wait for installation to complete.
- 9. Restart mstr pod:
 - a. Get name of the pod: kubectl get pods -n mstr | grep mstr-srv
 - Restart the pod: kubectl delete pod <mstr-srv-pod-name> -n mstr

Verify Running Solution

To verify the solution is back running fully:

- 1. Follow the instructions in Chapter 11: Post-installation verification of Deploying Avaya Analytics for Oceana guide.
- 2. Verify Historical Reporting.
 - a. Login to Historical reporting.
 - b. Run one or more reports.
- 3. Verify Real Time reporting.
 - a. Initiate voice or multimedia contact.
 - b. Login into Workspace and verify the real-time reports are updating.
- Remove the CCM Virtual Machine snapshot taken at the beginning of the upgrade procedure. Failure to do so can result in performance degradation of the CCM virtual machine as well as the ESXi host.

Async Services

Install Async Messaging = TRUE

If "Install Async Messaging" parameter was set to TRUE in the deployment spreadsheet and Oceana does not have Async Messaging do the following:

- 1. Log in to the Cluster Control Manager (CCM) console as the cust user.
- 2. To switch to the root user, enter su.

- 3. kubectl edit cm orca-ref-input-adaptor
- 4. Run the following vi command:
- 5. %s/SEND_NOTIFICATION/FORWARD_NOTIFICATION/g
- 6. Save and exit
- 7. Find the pod ids of the input adapter pods:
- 8. kubectl get pods | grep input
- 9. kubectl delete pod <input-adapter-primary-pod-id> <input-adapter-secondary-pod-id>

Scaleup ASYNC Services

NOTE: Only required if Async installed

- 1. Connect to the Cluster Control Manager (CCM) using the customer account login.
- 2. Switch to the root user, enter su.
- 3. As root user run the following commands
 - kubectl scale deployment \$(kubectl get deployment | grep asyncaggregator-interface | awk '{print \$1}') --replicas=2
 - kubectl scale statefulset \$ (kubectl get statefulset | grep async-oceanaadapter | awk '{print \$1}') --replicas=2

Kafka Open Interface

If using the Kafka Open Interface for Analytics, ensure the version number is correct. See instruction in PSN "PSN005625u.

Rollback Procedure

In the event a patch install cannot be completed, and it is required to rollback to the prior release use the following procedure.

- 1. Rollback to previous version of software:
 - i. Connect to the CCM server using the customer account log in.
 - ii. Copy excel sheet backed up during Pre-installation instructions to a location on the CCM server.
 - iii. From the directory on CCM that contains the excel file, enter the following command:
 - screen
 - iv. Run the following command:
 - ccm upgrade spec <previous patch excel file>.xlsm
 - v. When prompted:
 - Accept the EULA.
 - Confirm Upgrade
- vi. The installation starts downloading and installing.
- vii. Run the following command to monitor the progress of the install:
 - tail -f /var/log/ avaya/ccm/ccm-main.log
- viii. To check if the installation is successful, run the following command on the CCM console:
 - ccm status

2. Rollback to previous version of custom reports:

- i. Bash onto mstr-md pod
 - kubectl exec -it <mstr-md-hashed-number> --namespace=mstr -- /bin/bash
- ii. Create directory to save backup to:
 - Mkdir -p /opt/app-root/src/md_full_backup/
- iii. Type 'exit' to exit the pod
- iv. On ccm change directory to where backup was exported
 - cd /home/cust/historical_md_backups
- v. Copy the full MicroStrategy backup file onto the pod
 - kubectl cp <full_backup_Date-Time.bkp> --namespace=mstr <mstrmd-hashed-number>:/opt/approot/src/md full backup/<full backup Date-Time.bkp>
- vi. Bash onto mstr-md pod
 - kubectl exec -it <mstr-md-hashed-number> --namespace=mstr --/bin/bash
- vii. Run the command to restore full backup
 - psql -U postgres -f /opt/approot/src/md full backup/<full backup Date-Time.bkp> postgres
- viii. The output on the console can have to Errors pertaining to the postgres user. These can be ignored.

- psql:/opt/approot/src/md_full_backup/full_backup_2020_05_27_16_20_23.bkp:23: ERROR: current user cannot be dropped
- psql:/opt/approot/src/md_full_backup/full_backup_2020_05_27_16_20_23.bkp:31: ERROR: role "postgres" already exists
- ix. Connect to postgres database
 - psql
- x. List available databases with \I command. Confirm the avaya_analytics_md db.
 - postgres=> \l
- xi. Quit databases with \q command.
 - postgres=> \q
- xii. Type 'exit' to exit the pod
- xiii. Verify that the custom reports have been restored
- 3. Rollback to previous version of database

Important

A database backup taken at an earlier S/W level (i.e. patch level) should not be restored to the current one.

- i. Connect to the CCM server using the customer account log in.
- ii. Copy the backup taken during the pre-patch installation steps above onto the CCM.
- iii. Revoke access for the postgres user to the DB
 - As the root user, exec to the crunchy primary pod:
 - kubectl exec -it crunchy-primary-service-orca-dbmgr-0 -- //bin/bash
 - Start psql with:
 - psql
 - Then revoke access with:
 - REVOKE CONNECT ON DATABASE analytics_db FROM PUBLIC, postgres;

iv. End DB connections

- If not already connected to crunchy primary pod then as the root user, exec to the crunchy primary pod:
 - kubectl exec -it crunchy-primary-service-orca-dbmgr-0 -- //bin/bash
- Start psql with:
 - psql
- Then kill connections to the postgres DB with:
 - SELECT pg_terminate_backend(pg_stat_activity.pid) FROM pg_stat_activity
 WHERE pg_stat_activity.datname = 'analytics_db' AND pid <> pg_backend_pid()

- v. Drop the DB
 - As the root user, exec to the crunchy primary pod
 - kubectl exec -it crunchy-primary-service-orca-dbmgr-0 -- //bin/bash
 - Start psql with:
 - psql
 - Then drop the database with:
 - DROP DATABASE "analytics_db";
- vi. Run the CCM control script command to restore the database.
- vii. Run through the Post Patch install steps to verify that the system is restored to its previous state.
- viii. Take a full backup of the database using the CCM control script.

DR Installation

If installing this patch into a solution with a disaster recovery site the following is the recommended order:

- 1. Apply patch to primary side.
- 2. When complete, apply patch to DR site.

Note: Data from the database will be replicated between the primary site and the DR site in the normal way. See Deploying Avaya Analytics for Oceana guide for details.

Known Issues

Issue 1

The following message may be reported during install.

WARNING: Service release "orca" did not become ready in the allotted time. Processing will continue. This usually can be ignored as the it is just a warning that a pod is slower than others to start-up. If after the rest of the install completes all orca pods look healthy, then there is no issue here.

Issue 2

During the execution of patchReleases the below error is encountered and the patchReleases command exits abnormally:

Error captured the logs:

```
Task 33 | 05:55:53 | Updating instance master: master/aa48fb08-e7f2-
4b51-a403-d3641d504d98 (0) (canary) (00:24:49)
L Error: Unknown CPI error 'Unknown' with message
'Invalid configuration for device '0'.' in 'detach_disk' CPI method
(CPI request ID: 'cpi-692978')
```

Resolution:

As the root user, invoke the following

- 1) Invoke cbosh -d cfcr cck
- 2) Select option 2 to reattach the disk to the instance
- 3) At Continue prompt select yes
- 4) Invoke patchReleases again

After the patch install completes:

Check the status of the K8S nodes:

kubectl get nodes -o wide

If an additional node references is seen with a status of NotReady and with the same IP address as another node in a Running state, delete the duplicate node with the NotReady state, i.e. kubectl delete node <node_name>

Check the status of the BOSH cluster nodes: cbosh instances If a node is listed as stopped, recreate the node i.e. cbosh -d cfcr recreate <bosh_node_name>

Compatibility with Existing Data

This Analytics patch does not retrospectively fix data already stored in the database before this patch is applied.

Appendix

Solutions provided in Avaya Analytics 4.0.0.1 319 006

JIRA ID	Title	Impact
WAVE-12482	Engagement Summary Report shows inconsistent data	Only first 256 chars of Destination party field will be saved into DB.
WAVE-12002	Customer unable to add 3rd Party Certs	It will be possible to configure 3rd party certs to be used for internal communications with kafka
WAVE-12491	Kafka unable to start due to large number of Topics registered by Analytics	Analytics will delete temporary cache synchronization topics in case of rest request failures
WAVE-12555	Time zone selection should be mandatory while running Engagement report in MSTR	Time zone will be a mandatory field in Engagement report
WAVE-12045	MSTR reports getting timed out on migrated data from 3.7.0.2	Agent performance report was redesigned. Each subreport will be open in separate tab and will use separate query
WAVE-12885	CONSULT_TIME_DURATION measure requested for Verint routing service csv file	COMP_CONSULT_DURATION measure will be available in csv file with historical data produced by routing service measure processor
WAVE-13322	Crunchy Database POD unable to initialize	Crunchy pod will start correctly
WAVE-13472	100 and 500 Agent deployment have incorrect RAM in Patch 5	Fresh installs done using patch 6 spreadsheet will have correct RAM allocation
CCNXT-39090	When the number of topics is so high zookeeper and kafka expects - Dmax.jute.buffer to be set at 5000000 the default of 1MB is not working	Provides kafka with more headroom to manage topics.
CCNXT-32946	RBAC deployment fails in air gap install	Deployment succeeds without manual workaround being required.
CCNXT-39236	CPS Logs files are consuming available disk space	Logs consume reduced disk footprint.
FLEX-9286	cgroup/memory/kubepods cannot allocate memory	MSTR pod has enough memory to start

Solutions and enhancements included in previous patches and also included in the current patch :

Enhancements provided in Avaya Analytics 4.0.0.1 305 005

The patch contains changes allowing data migration from Analytics 3.7.0.2 DB to Analytics 4.0.0.1 DB. See Analytics Data Migration documents for more details.

Solutions provided in Avaya Analytics 4.0.0.1 305 005

JIRA ID Title Impact	Title Impact
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WAVE-12259	Analytics ignores end-timestamp which calculating Active Time Duration	Duration measures will correctly handle cases when start time stamp is equal to end time stamp
WAVE-11102	Abandon-Abandon time Duration-Abandon from queue measures are increasing in case of agent 1 transfer to Agent 2 and customer disconnect the call	Abandoned and Abandoned duration measures will not increment in transfer to user scenarios
WAVE-11255	Measure "Agent Time In Not Ready Reason" is not showing time when agent moved to not ready	Agent Time In Not Ready Reason measure will correctly show value in scenarios when agent sets Not Ready while being on a call
WAVE-11206	Abandoned count is not getting incremented in real time Agent Group report.	Abandoned measure will work correctly for agent group dimension (realtime)
WAVE-10212	Reports show inflated numbers for Active Time and After Call Work	ACW duration measure will work correctly for voice contacts when there are more than one ACWs active
WAVE-10586	Consult Transfer accepted by agent is not tracked by measure COMP_TRANS_ACCEPT_FROM_AGENT	COMP_TRANS_ACCEPT_FROM_AGENT will correctly increment in consult transfer scenario
WAVE-10596	Agent's Active Time sometimes larger than their Logged In Time	Analytics will correctly handle scenario when a channel having an active call is unassigned from agent in ACM
WAVE-9380	Abandon Time duration is getting increased in Routing Service RT-in case of Consult transfer to Service and cancel consult	Abandoned duration measures will not increment in consult transfer to service scenarios
WAVE-9576	Caller dropping from conference results in NULL CUSTOMER_CONTACT_END_TIMESTAMP	Analytics will correctly handle scenarios when ACW is completed before the call is completed

Solutions provided in Avaya AnalyticsForOceana_4.0.0.1_297_003

JIRA ID	Title	Impact
WAVE-11664	While doing package migration getting	It allows migrating custom reports.
	login failure message, using post install	
	scripts	
WAVE-11096	Analytics Hist Report data not being saved -	Procedure to create partitions has been
	partition tables not created as expected	corrected
WAVE-11240	Restore metadata is failing while restoring	Restore of mstr backup is fixed.
	it from backup	

Solutions provided in Avaya AnalyticsForOceana 4.0.0.1 290 002

JIRA ID	Title	Impact
WAVE-9822	AVERAGE_SPEED_ANSWER_DURATION column in WFM CSV file is mostly zero	Formula for AVERAGE_SPEED_ANSWER_DURATION measure available in csv files has been corrected

WAVE-11096	Analytics Hist Report data not being saved -	Procedure to create partitions has been
	partition tables not created as expected	corrected
WAVE-11177	4.0.0.1 patch 1 deployment workbook does	Deployment workbook has been
	not contain correct link to download	corrected
	software from Harbor	

Solutions provided in Avaya AnalyticsForOceana 4.0.0.1 289 001

JIRA ID	Title	Impact
WAVE-10171	Agent Login/Logout: Missing list of Timezones	Database procedures will correctly handle case where there is no partition for data produced by Agent LoginLogout application
WAVE-10304	Agent ID is missing from WFO CSV file	Agent ID column will be available in the csv file produced by Agent By Account application

Further Support Assistance

For further assistance please contact your Avaya Support representative for any queries on this patch or readme.

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