



Oracle Integration (OIC) Observability

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OIC Management & Monitoring



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2. OCI Service Metrics for OIC
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4. OCI Logging Analytics for OIC
5. OIC Factory APIs

Observability in Oracle Integration



OIC Observability

- OIC Top Level Dashboard
- View flows based on integration, errors etc.
- Activity Stream
- Observability of Fusion Business Events
- Design-time Dependency Analysis

OIC Observability - Dashboard

Critical

Error rate (past 24 hours)
14.286%

Information

Active integrations
111 of 700 allowed

Information

Connections with errors
2

Critical

Unavailable agents
80%

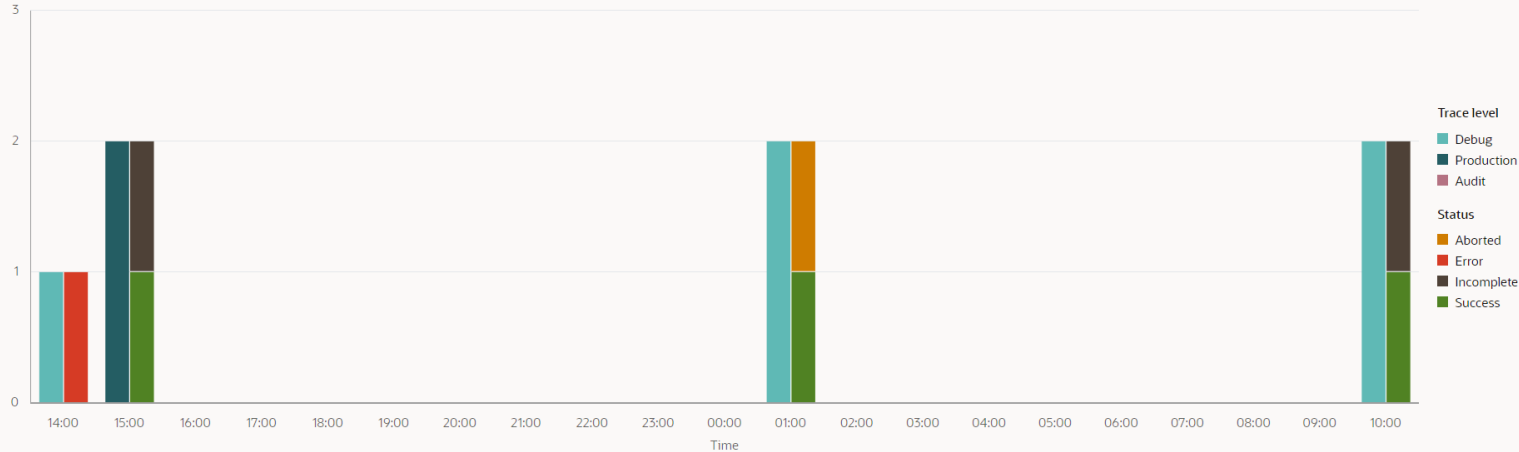
Information

Design time and audit

Instance status

Track instances

Past 24 hours ▾



Overview

14.286%

Error rate

1

Aborted

3

Success

2

Incomplete

7

Instances

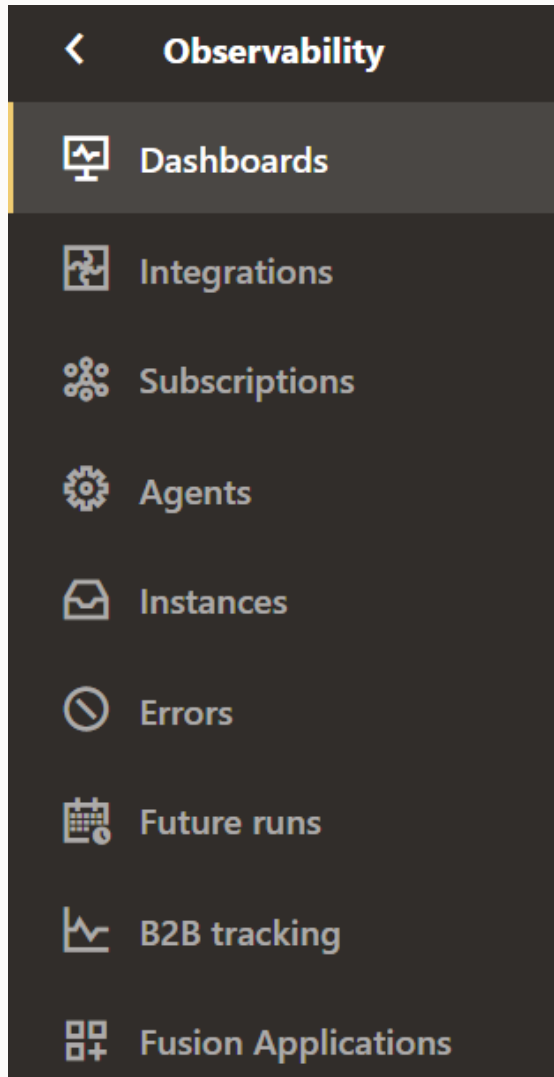
Email service

5 of 10000

Used



OIC Observability - Menu



High level dashboards for Integration & B2B

Integration centric view of flow instances

OIC Event Subscriptions – Subscribers, Events and Status

Connectivity Agent Overview

View of individual of flow instances

Errors – focus on Errors, ability to sort by Integration

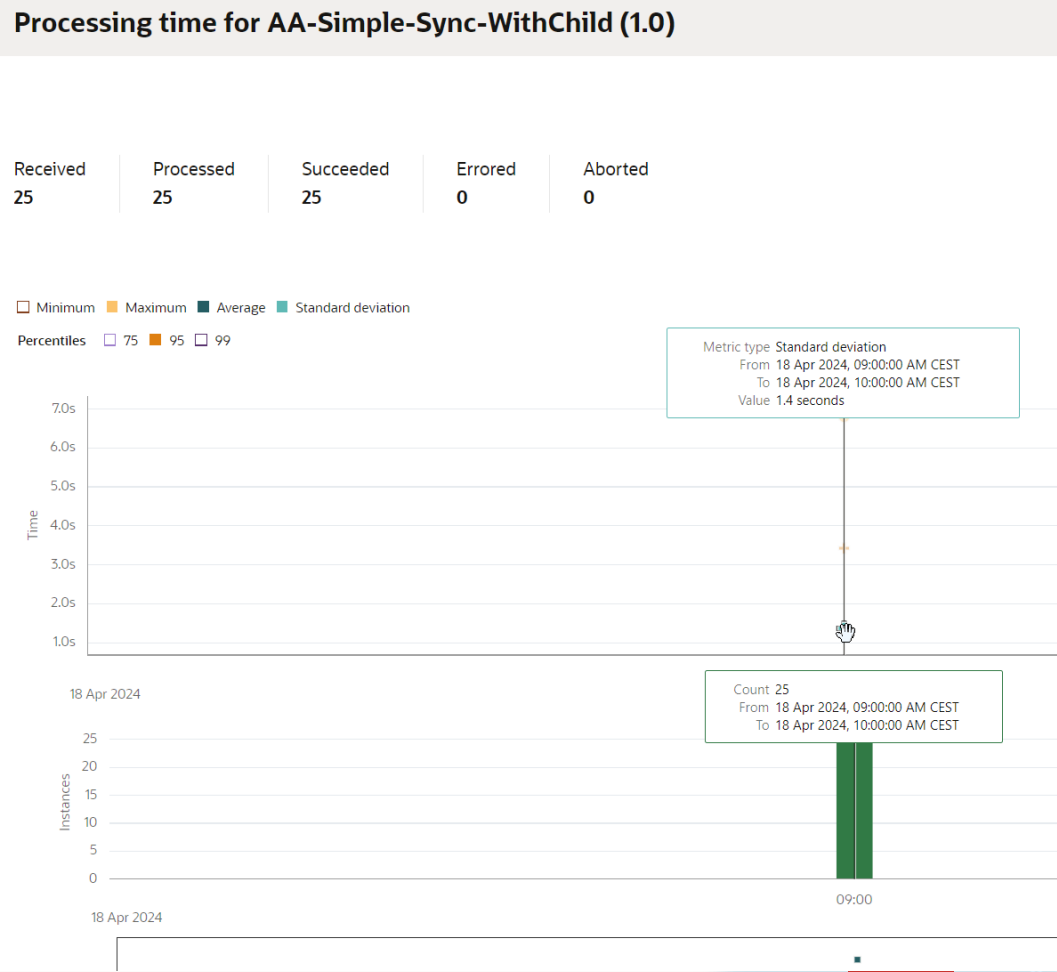
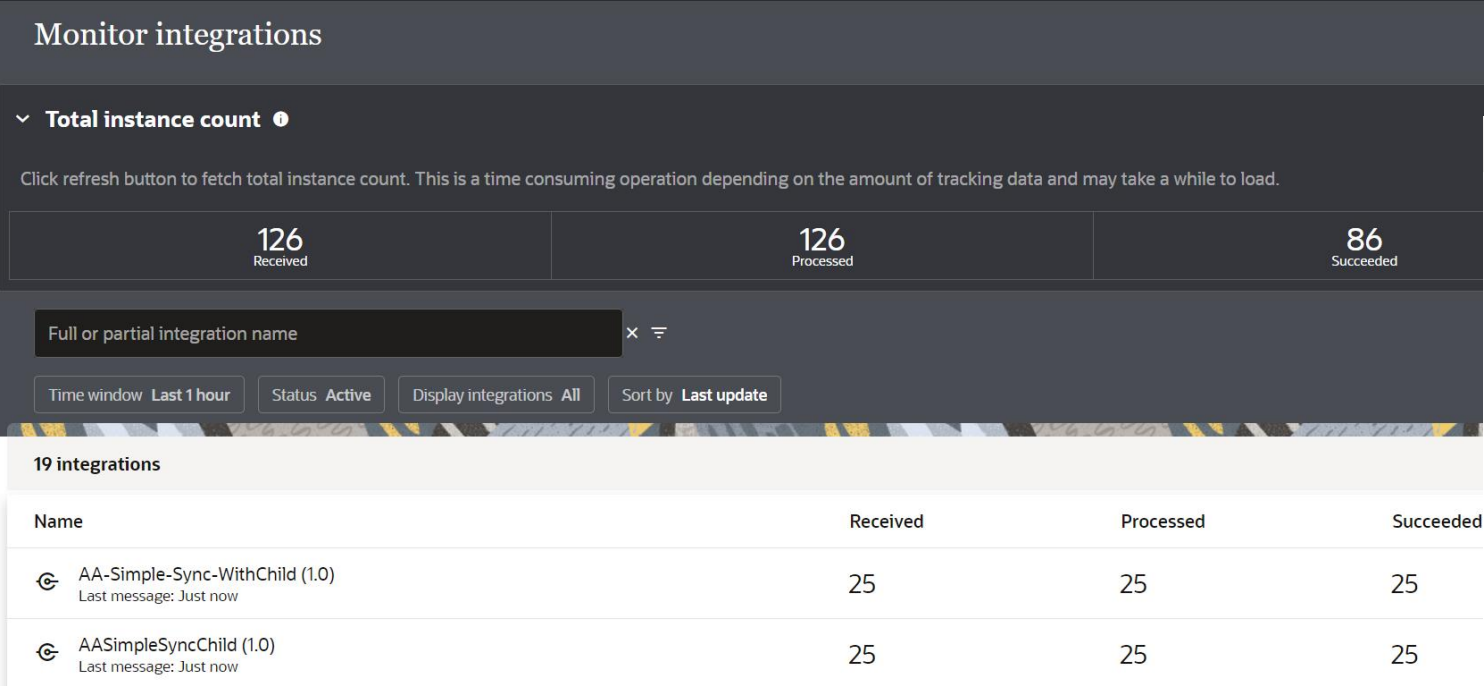
Calendar of Scheduled Jobs

Observability of B2B flows

Fusion Apps view of Business Events triggering OIC flows



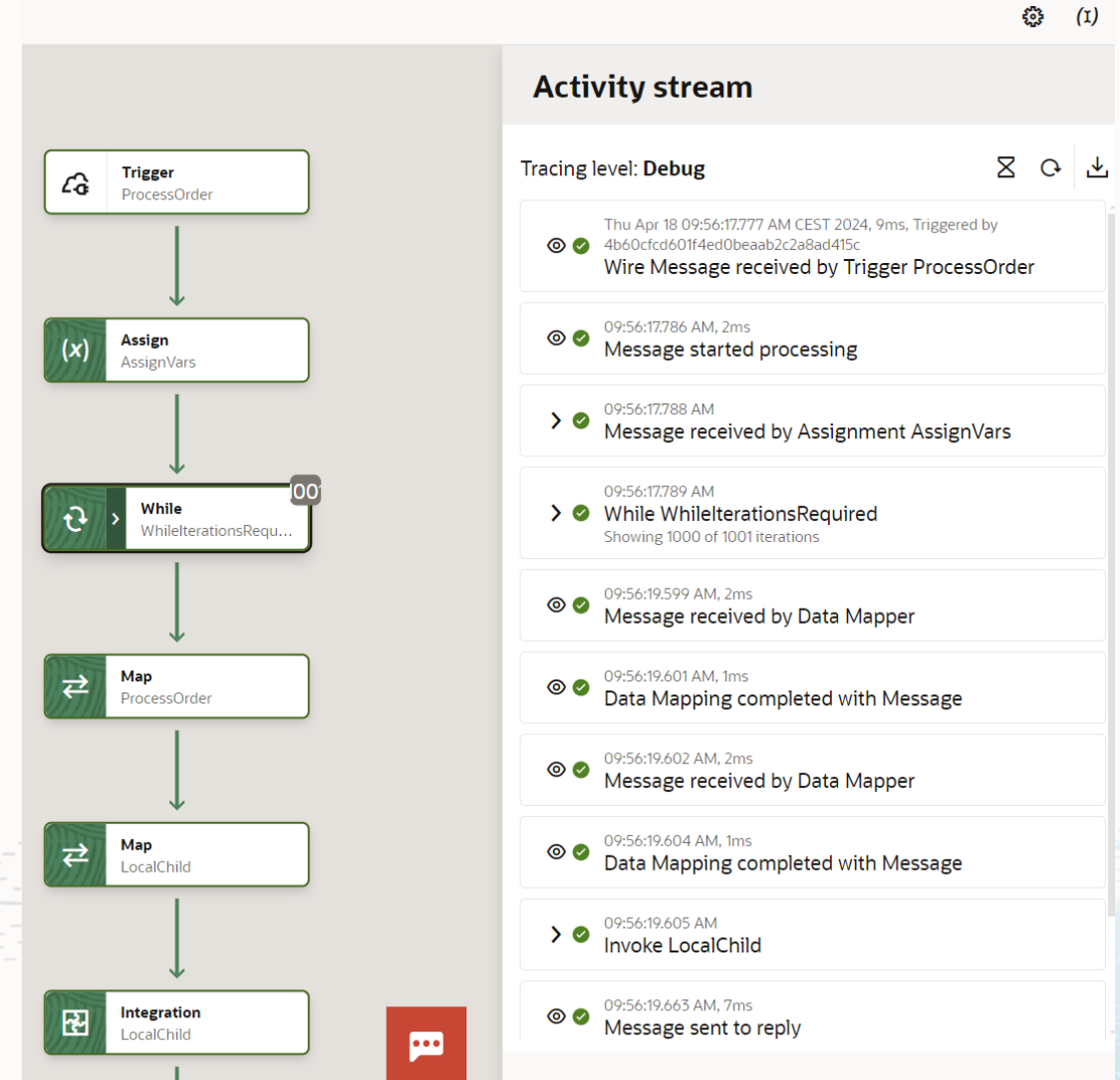
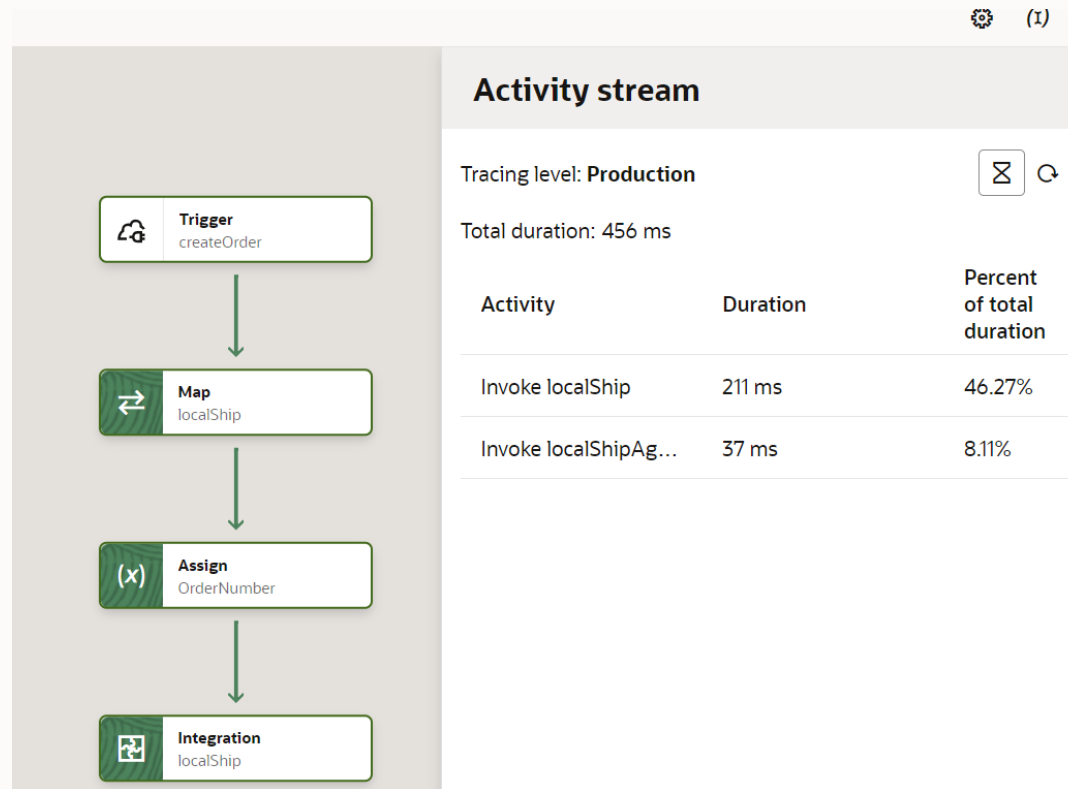
OIC Observability – Integration Tracking



- Min, Max, Average, Standard Deviation
- View Percentiles – 75, 95, 99



OIC Observability – Integration Tracking: Activity Stream



- Design time at Runtime representation of the flow
- Ability to sort activities by time consumed
 - Help identify bottlenecks

OIC Observability – Error Tracking

Errors

Q

≡

Time window

Last 8 days

×

Display instances

Retained

Sort by

Last updated time

Clear

7 Errors

<input type="checkbox"/> Primary identifier	Instance ID	Fault location
<input type="checkbox"/> startTime: 2024-04-18T07:54:54.380+00:00 OCW-Projects... AA-SFDC-Netsuite-Ne... 1.0.0	x2thZfyPEe6KWUlnOX3HRA	Failed at GetNewAccounts Salesforce
<input type="checkbox"/> start Time: 2024-04-18T02:47:10.800+00:00 Oracle FTP NetSuite... 1.0.4	v4mW8fz7Ee6KWUlnOX3HRA	Failed at Re-throw Fault
<input type="checkbox"/> start Time: 2024-04-17T20:47:10.689+00:00 Oracle FTP NetSuite... 1.0.4	bcoUcPzJEe6KWUlnOX3HRA	Failed at Re-throw Fault

- Ability to sort by –
- Integration
 - Connection
 - Recovery Jobs








OIC Observability – Error Tracking

Errors by integration

Time window Last 8 days X Sort by Error count Clear

5 Integrations

Name	Error count
 Oracle FTP NetSuite File to File Cabinet	32
 AA_SFDC_NETSUL_NEWACC_SYNC Project: OCW_PROJECTS_DEMO	8
 AA-SFDC-Poll4ChangedUsers	8
 CREATEORDERPROCESS Project: AA_2404_DEMOS	1
 SHIPORDERPROCESS	1

Errors by integration

Errors

Errors by integration

Errors by connection

Error recovery jobs



OIC Observability – Fusion Applications

Events for https://elor.fa.us2.oraclecloud.com

Includes events for OracleERPCloudConnection

> Status overview

☰

19 Aug 2024, 03:14:44 PM

Time window Last 7 days

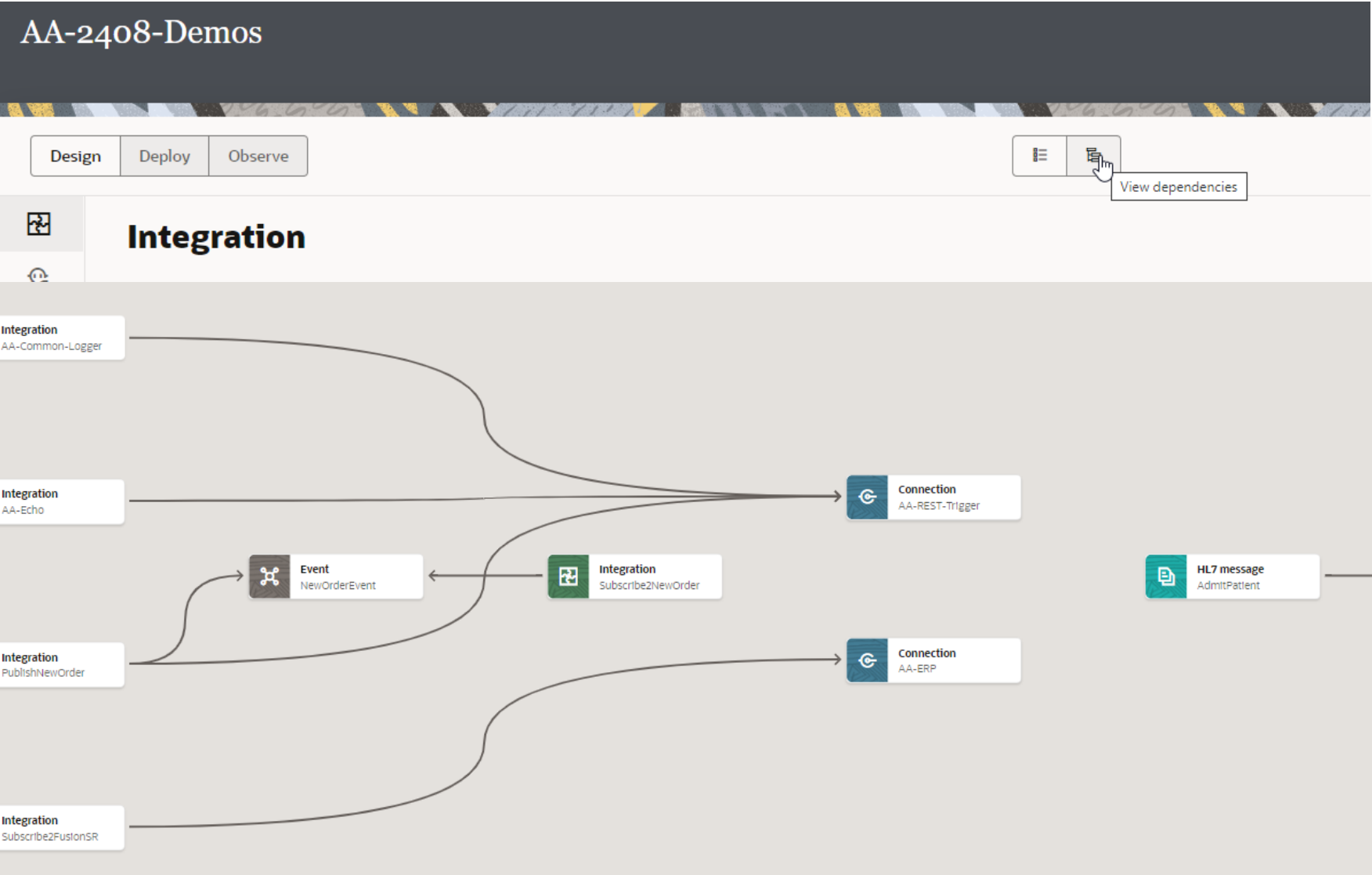
2 events

Name	Subscriptions	Queued	Delivered	Retried	Maxed out retries
ERP Integration Inbound event	2 integrations	0	29	0	0
Account Created Event	2 integrations	0	404	0	0

- Monitor Fusion Events that trigger OIC integrations
- Maxed out retries can be resubmitted from this screen




OIC Observability – Design Time Dependencies



OIC Observability – Design Time Dependencies

- Ability to drill into OIC Events & Lookups




NewOrderEvent
Details

Structure Custom Headers Subscribers Publishers

Structure type: JSON Sample

```
1 {  
2   "orderNr": "12",  
3   "product": "iBike",  
4   "customer": "fZappa Inc",  
5   "orderStatus": "open",  
6   "orderValue": 30000,  
7   "country": "Ireland"  
8 }
```



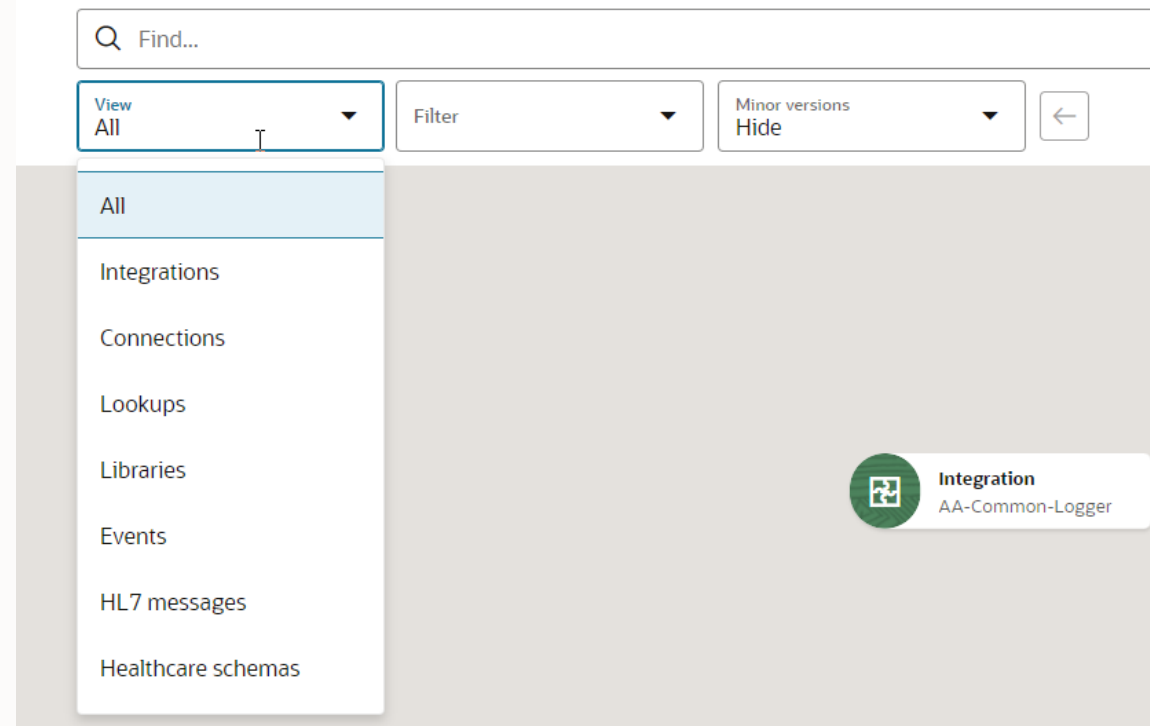
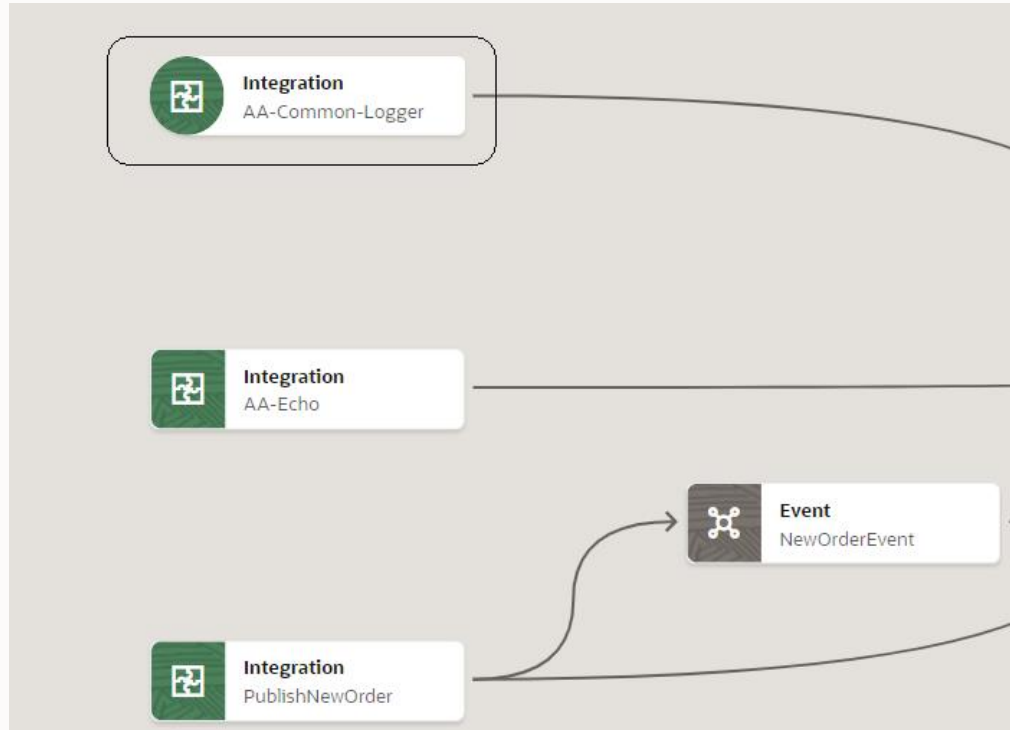
AA-CountryLookup

Configured - View only Updated on 7 Jul 2024, 02:12:49 PM ICT Used in 0 integrations Project AA-2408-Demos

countryCode ▾	
DE	Germany
IE	Ireland
FR	France



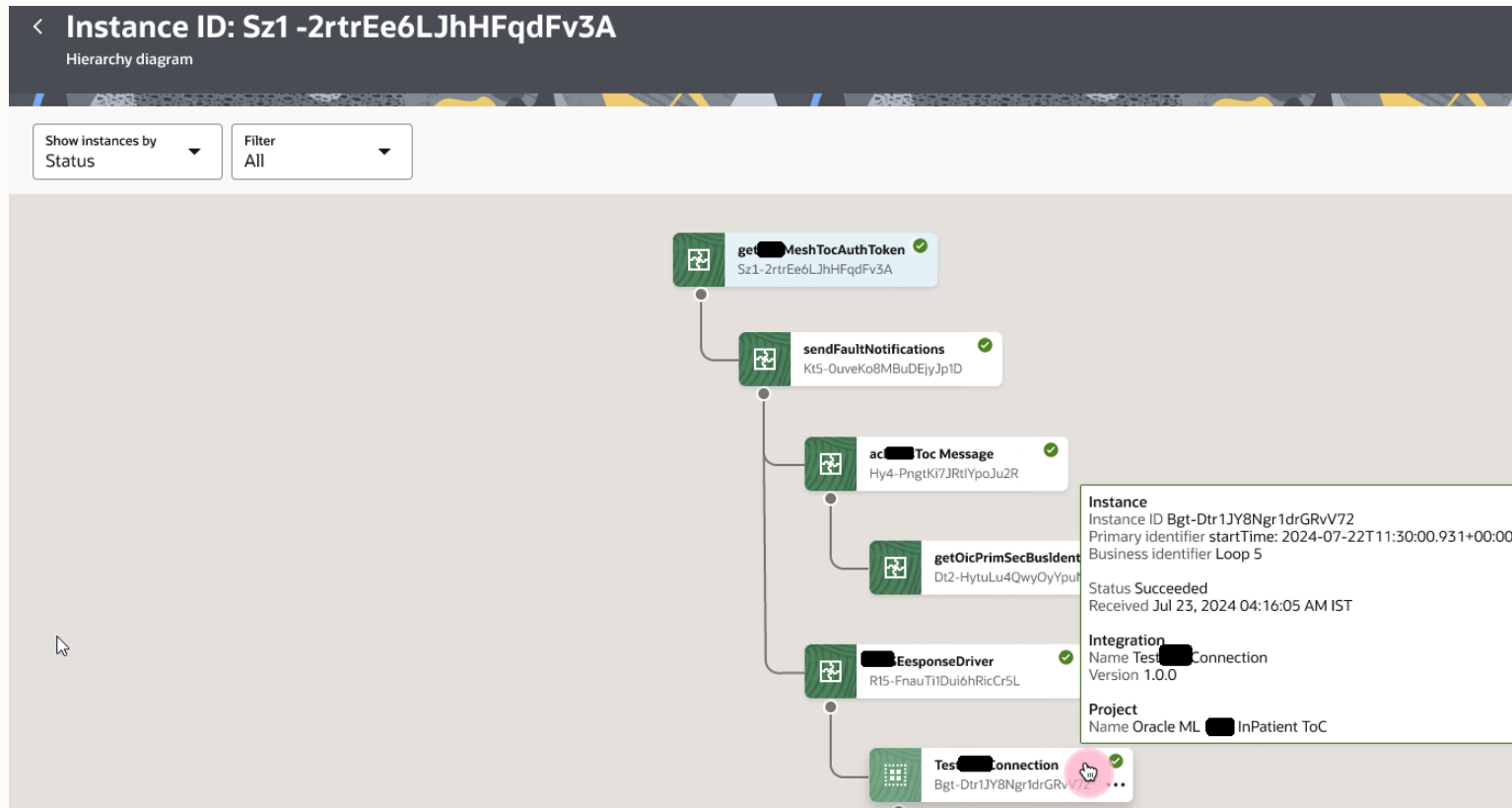
OIC Observability – Design Time Dependencies



- Round icon indicates a shared integration
- Ability to filter on artifact type
- Ability to show/hide minor integration versions

OIC Observability – Runtime Dependencies

- Planned for 24.12 Release
- Hierarchical representation of the business process execution over multiple integration flows

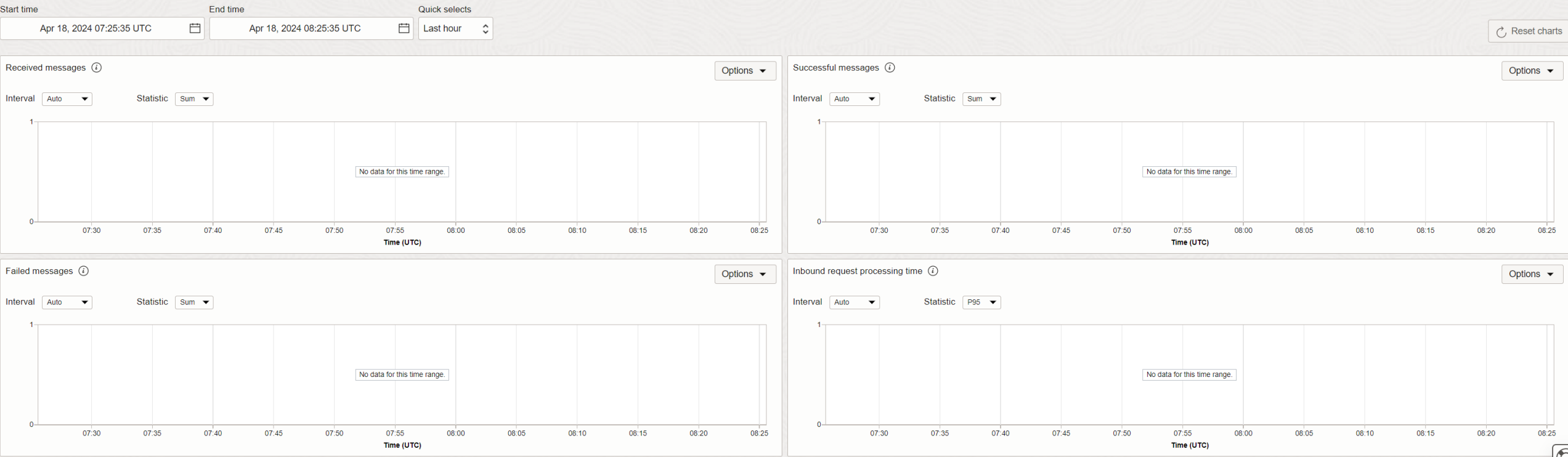


OCI Service Metrics for Oracle Integration

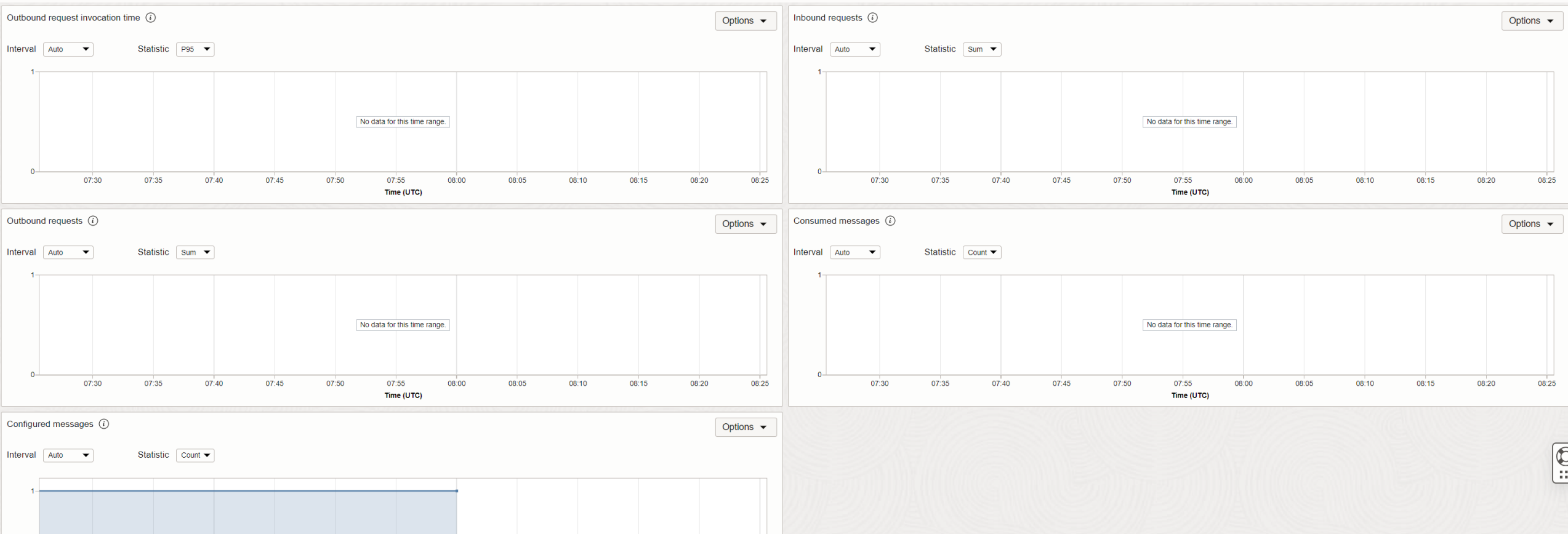


OCI Service Metrics for OIC

Metrics



OCI Service Metrics for OIC



Consumed Messages & Configured Messages – the basis for Billing



OCI Service Metrics for OIC

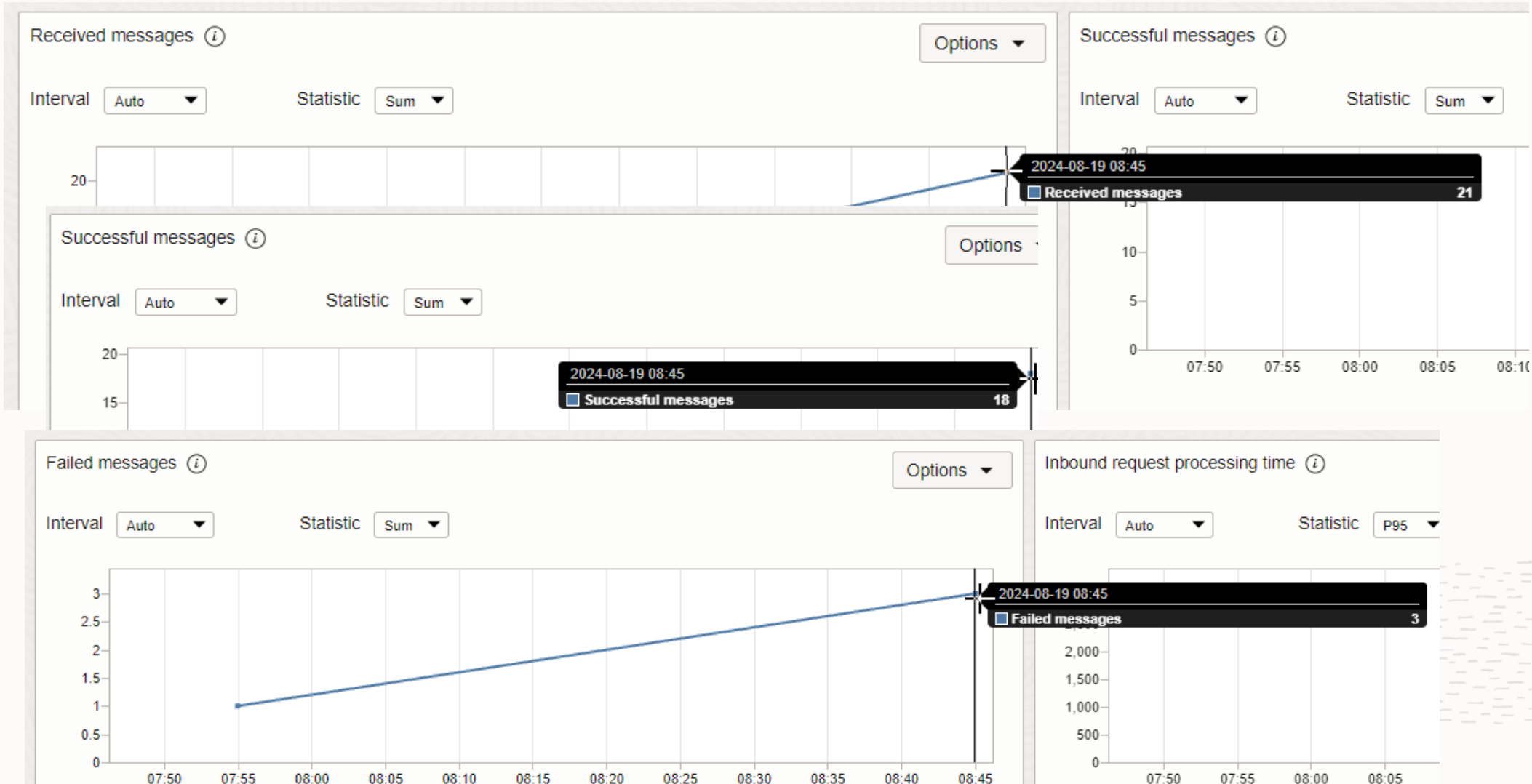
- Received Messages
Message requests that the instance received
- Successful Messages
Message requests that completed successfully
- Failed Messages
Message requests that did not complete successfully for the instance
- Inbound Request Processing Time
For sync requests - total time for processing a request and sending the response.
For async requests, time taken to persist the request and send the ack (http 202).
- Outbound Request Invocation Time
Time spent (msecs) by the adapter during invocation of the target endpoint
- Inbound Requests
Number of requests received by Oracle Integration using any adapter-specific trigger connection.

OCI Service Metrics for OIC

- Outbound Requests
Number of adapter outbound requests for the instance
- Consumed messages
Number of billable messages the instance has used
- Configured messages
Number of Message Packs assigned to the instance



OCI Service Metrics for OIC



OCI Service Metrics for OIC – Metrics Explorer

The screenshot displays the OCI Metrics Explorer interface. At the top, there are tabs for 'Received messages' and 'Successful messages'. Below these, there are controls for 'Interval' (set to 'Auto') and 'Statistic' (set to 'Sum'). A chart area shows a single data point at '20'. Below the chart, there is a 'Query 1' section with fields for 'Compartment' (OICPMCompartment), 'Metric namespace' (oci_integration), 'Resource group' (No resource group), 'Metric name' (MessagesReceivedCount), 'Interval' (5 minutes), and 'Statistic' (Mean). A dropdown menu for 'Statistic' is open, showing options: Mean, Rate, Sum, Min, and Max. Below the 'Query 1' section, there is a 'Metric dimensions' section with two rows. The first row has 'Dimension name' (resourceId) and 'Dimension value' (ocid1.integrationinstance.c). The second row has 'Dimension name' (Select a value) and 'Dimension value' (Select a value). A dropdown menu for the second 'Dimension name' is open, showing options: Select a value, flowCode, and flowVersion.

Received messages ⓘ

Options ▾ Successful messages ⓘ

Interval Auto Statistic Sum

20

Query 1

Compartment OICPMCompartment ⓘ
oicpm (root)/OICPMCompartment

Metric namespace ⓘ oci_integration ⓘ

Resource group Optional ⓘ No resource group ⓘ
No resource groups for selected compartment and namespace

Metric name ⓘ MessagesReceivedCount ⓘ

Interval ⓘ 5 minutes ⓘ

Statistic ⓘ Mean ⓘ
Mean
Rate
Sum
Min
Max

Metric dimensions

Dimension name ⓘ resourceId ⓘ

Dimension value ⓘ ocid1.integrationinstance.c ⓘ

Dimension name ⓘ Select a value ⓘ
Select a value
flowCode
flowVersion

Dimension value ⓘ Select a value ⓘ

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- flowCode = Integration Name
- flowVersion = Integration Version

OCI Service Metrics for OIC – Metrics Explorer

The screenshot displays the OCI Metrics Explorer interface. At the top, there are tabs for 'Received messages' and 'Successful messages'. Below these, there are controls for 'Interval' (set to 'Auto') and 'Statistic' (set to 'Sum'). A chart area shows a bar chart with a value of 20. A dropdown menu is open, showing options: 'View query in Metrics Explorer' (highlighted), 'Copy chart URL', and 'Advanced mode' (unchecked).

Below the chart, the 'Query 1' section contains the following configuration:

- Compartment: OICPMCompartment
- Metric namespace: oci_integration
- Resource group: No resource group
- Metric name: MessagesReceivedCount
- Interval: 5 minutes
- Statistic: Mean

The 'Metric dimensions' section at the bottom shows two dimension fields:

- Dimension name: resourcelid
- Dimension value: ocid1.integrationinstance.c

A dropdown menu is open for the second dimension, showing options: 'Select a value', 'flowCode', and 'flowVersion'.

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- flowCode = Integration Name
- flowVersion = Integration Version

OCI Service Metrics for OIC – Metrics Explorer

Show Graph



AA_SHIP_ORDER, 01.00.0000, ocid1.integrationinstance.oc1.phx.ama...mbhdtq	
Time Stamp	Value
Mon, Aug 19, 2024, 08:45:00 UTC	5
AA_APPROVE_ORDER, 01.00.0000, ocid1.integrationinstance.oc1.phx.ama...mbhdtq	
Time Stamp	Value
Mon, Aug 19, 2024, 08:45:00 UTC	8
AA_PROCESS_ORDER, 01.00.0000, ocid1.integrationinstance.oc1.phx.ama...mbhdtq	
Time	Value
Mon, Aug 19, 2024, 08:45:00 UTC	8
Time	Value
AA_S	1
Time	Value
Mon, Aug 19, 2024, 08:45:00 UTC	1

Metric dimensions

Dimension name ⓘ

resourceId



Dimension value ⓘ

ocid1.integrationinstance.oc

Dimension name ⓘ

flowCode



Dimension value ⓘ

Select a value

☐ Aggregate metric streams ⓘ

Leaving flowCode blank will
Aggregate on integration



OCI Service Metrics for OIC – Metrics Explorer

- Ability to create Alarms – e.g. on failure to process an order

Query 1 □

Compartment oicpm (root)/OICPMCompartment

Metric namespace oci_integration

Resource group *Optional* No resource group
No resource groups for selected compartment and namespace

Metric name MessagesFailedCount

Interval 5 minutes

Statistic Count

Metric dimensions

Dimension name flowCode

Dimension value AA_PROCESS_ORDER

☐ Aggregate metric streams

+ Additional dimensions

Update Chart Create Alarm

OCI Logging for Oracle Integration

Enable OCI Logging for OIC

Integration instances

Integration instance details

OIC

ACTIVE

Dev_OIC_PM3

Service console

Edit

Move

Add tags

More Actions

Integration instance information

Tags

Created: Mon, 29 Aug 2022 20:49:03 UTC

Updated: Fri, 09 Jun 2023 11:02:29 UTC

Version: Oracle Integration 3

Consumption model: Metered (universal credit)

Edition: Enterprise

OCID: ...bbqymbhdtq

Service console URL: ...cloud.com/

Show

Copy

Shape: Development

License type: Subscribe to a new Oracle Integration license

Message packs: 1 (You can transmit up to 5,000 messages per hour)

File Server: Enabled

Visual Builder: Enabled

Process Automation: Enabled

Resources

Metrics

Work requests (0)

Associated services (2)

Private endpoints (1)

Network access

Custom endpoint


Logs

Logs

Category	Status	Log Name	Log Group
Activity Stream	Active	DEV_OIC_PM3_ActivityStream	OIC_DEV_PM3LogGroup



Enable OCI Logging for OIC



ACTIVE

OIC_PM3_IDCS

Service console

Edit

Move

Add tags

More Actions ▾

Integration instance information

Tags

Created:

Thu, 22 Dec 2022 06:48:43 UTC

Updated:

Wed, 10 Jan 2024 08:27:08 UTC

Version:

Oracle Integration 3

Consumption model:

Metered (universal credit)

Edition:

Enterprise

OCID:

...xj7x6lkqiq

Show

Copy

Service console URL:

...cloud.com/

Show

Copy

Shape:

Production

i

License type:

Subscribe to a new Oracle Integration license

Message packs:

1 (You can transmit up to 5,000 messages per hour)

File Server:

Enabled

i

Visual Builder:

Enabled

i

Process Automation:

Enabled

i

Resources

Metrics

Work requests (0)

Associated services (2)

Private endpoints (1)

Network access

Custom endpoint

Logs

Logs

Category	Status	Log Name	Log Group
Activity Stream	● Active	OIC_PM3_IDCS_activitystream	OIC_DEV_PM3LogGroup



Enable OCI Logging for OIC

As you have seen, multiple OIC instances can push their activity stream logs to the same OCI Logging Log Group

- This is the basis for easy fleet management in OCI Logging Analytics

Logs

Category	Status	Log Name	Log Group
Activity Stream	● Active	DEV_OIC_PM3_ActivityStream	OIC_DEV_PM3LogGroup

Logs

Category	Status	Log Name	Log Group
Activity Stream	● Active	OIC_PM3_IDCS_activitystream	OIC_DEV_PM3LogGroup



OCI Logging for OIC

Logging

Search

Saved Searches

Logs

Log Groups

Agent Configurations

Connectors

Audit

Saved Searches

Compartment

oicpm (root)/OICPMCompartment

Saved Searches

Enter or select a value

Quick Start Queries

Quick Start Queries

Enter or select a value

Search

You can now visualize your Logging queries using [OCI Dashboards](#)

Custom filters

Enter search filters

Filter by time

Past hour

Select logs to search

OICPMCompartment/OIC_DEV_PM3LogGroup x

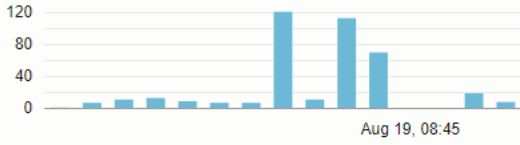
Reset Search

Save search

Explore

Visualize

Number of log events per minute




Time (UTC)	Number of log events per minute
08:30	10
08:35	15
08:40	10
08:45	120
08:50	10
08:55	110
09:00	70
09:05	20
09:10	10
09:15	5

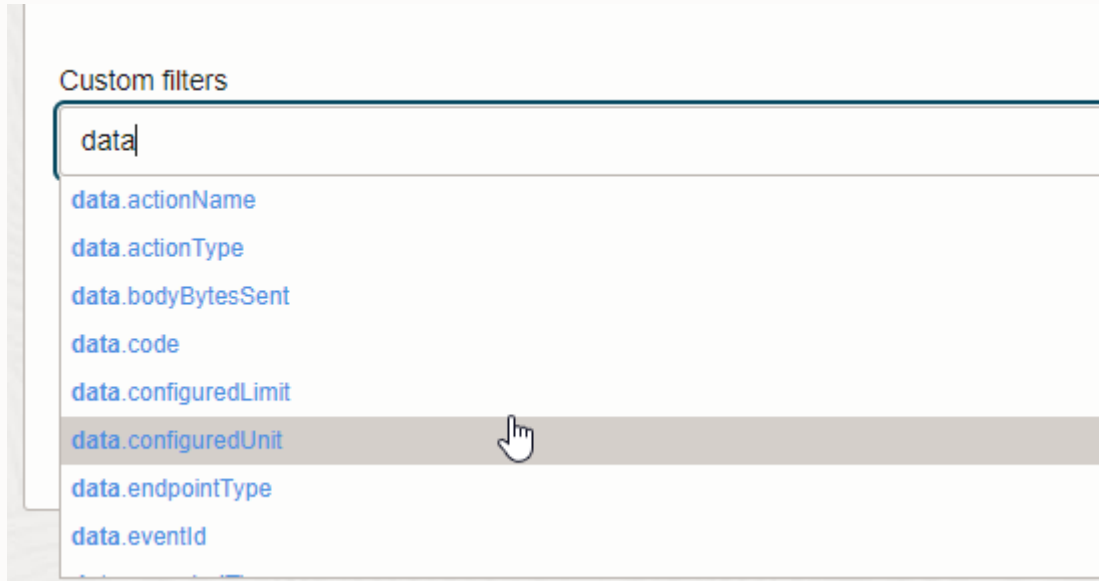
Showing 410 log event(s) for the **past hour** starting at Mon, Aug 19, 2024, 08:34:44 UTC

datetime	type	data.message
Aug 19, 2024, 08:48:51 UTC	integration.integrationinstance.activitystream	Scheduled Run started executing
Aug 19, 2024, 08:48:35 UTC	integration.integrationinstance.activitystream	Scheduled Run started executing

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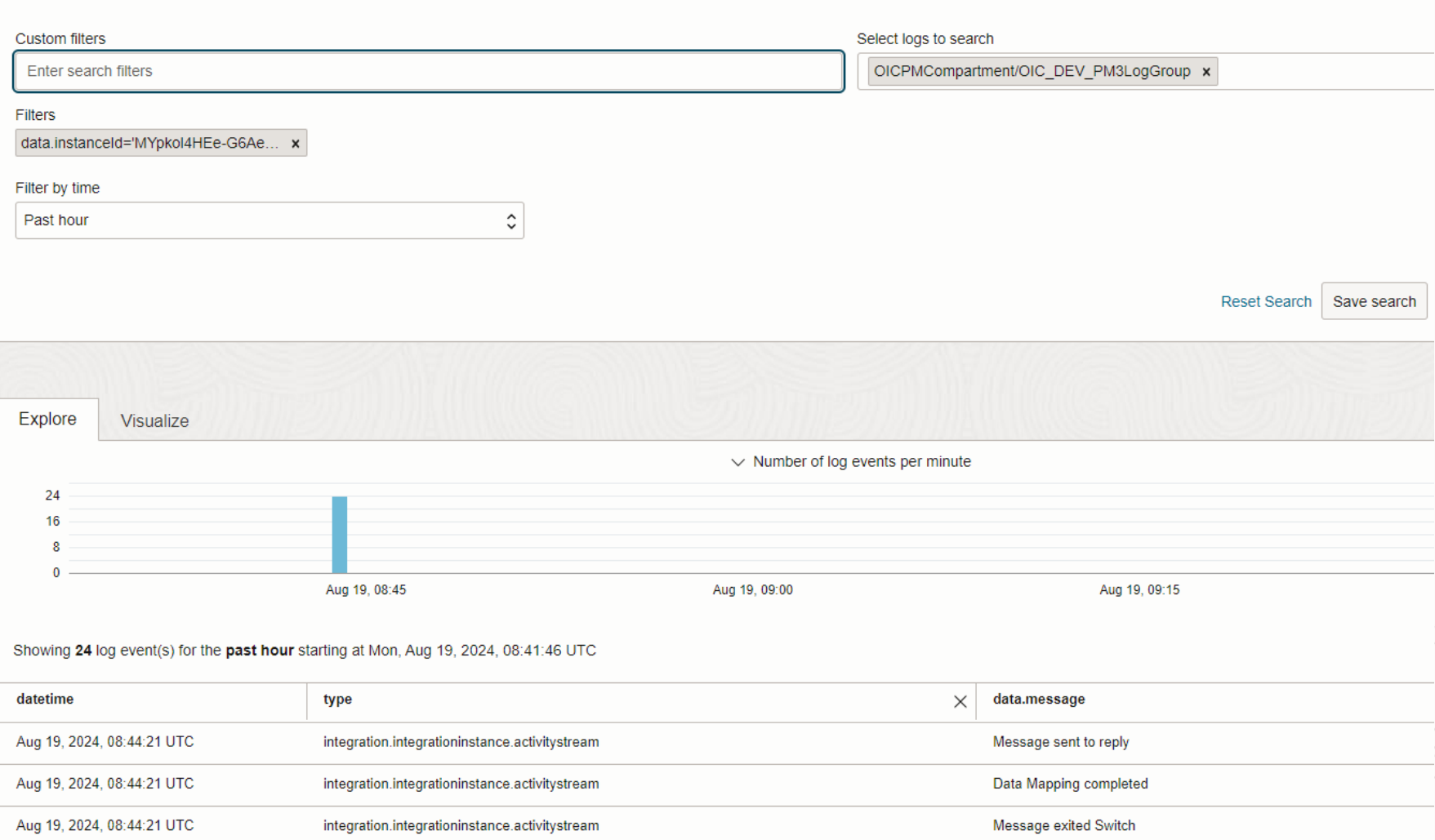
OCI Logging for OIC - filters



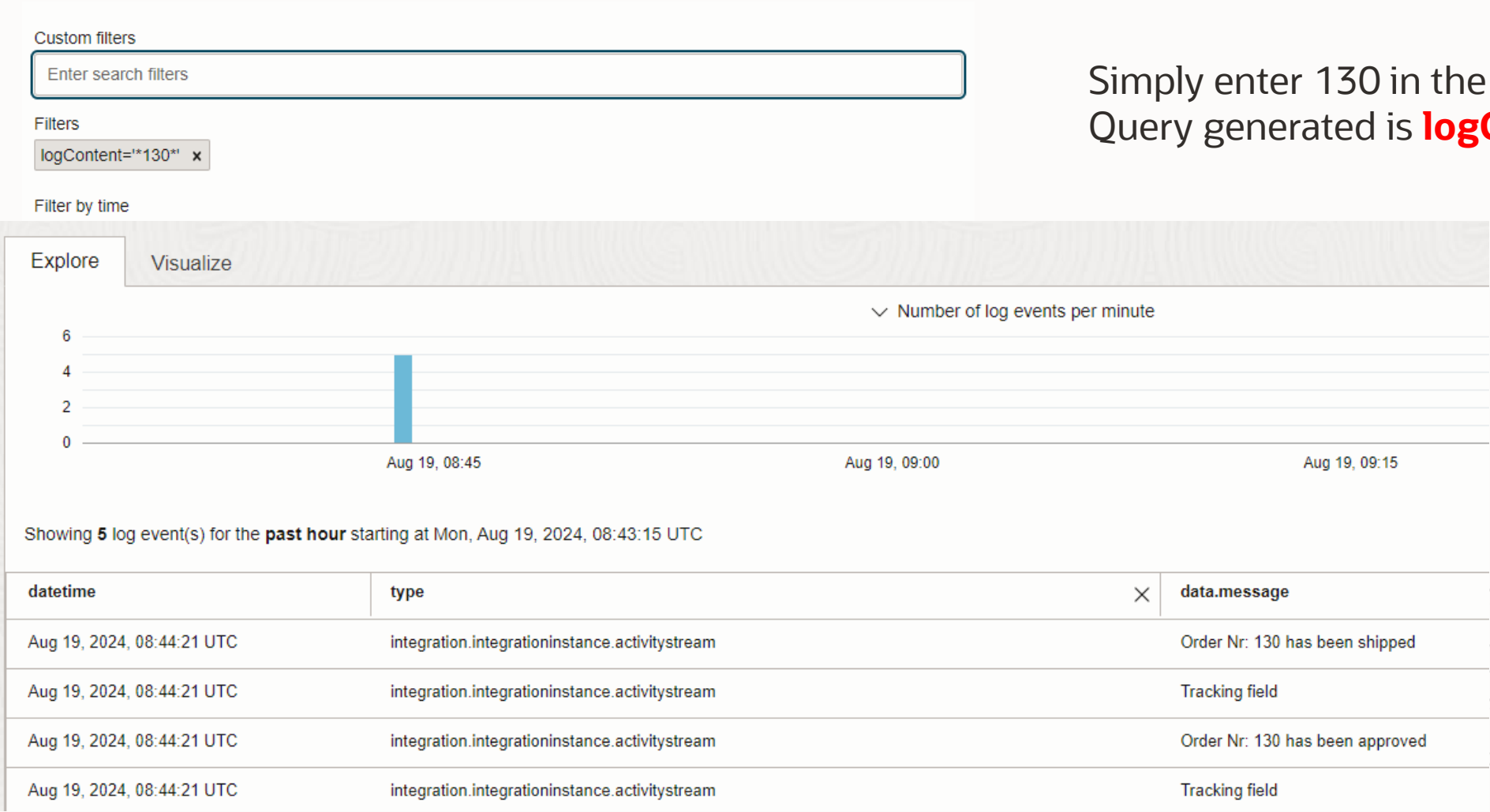
Interesting filters for OIC include -

- data.actionName
- data.actionType
- data.endpointType
- data.instanceId
- data.integrationFlowIdentifier
- data.instanceCompletionState
- data.projectCode

OCI Logging for OIC - filters



OCI Logging for OIC – checking for orderNr 130



Simply enter 130 in the **Custom filters** box
Query generated is **logContent='*130*'**



OCI Logging & Dashboards for OIC

OCI Logging Dashboards for OIC

Get started **Dashboard**

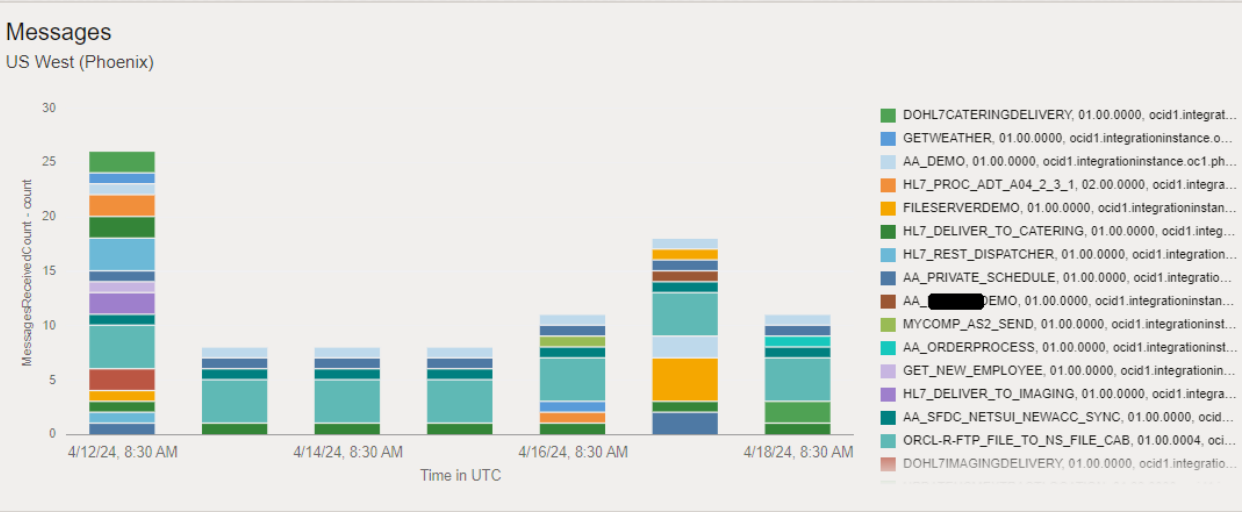
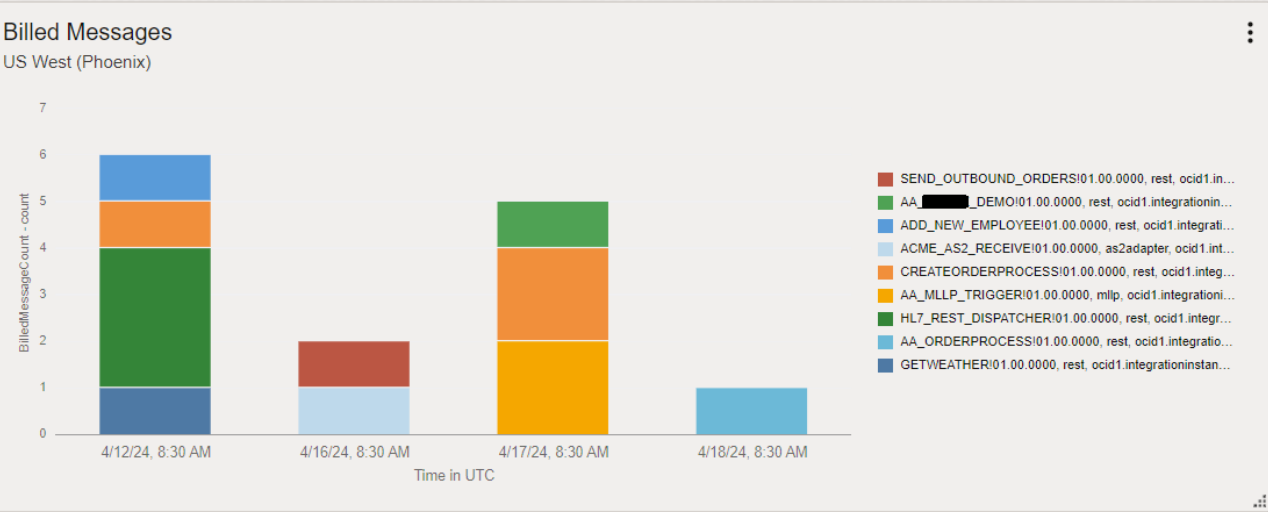
Billing OIC3-IDCS

Filter by time

Past 7 days

Auto refresh

Off



- Simple to build
- Based on Service Metrics



OCI Logging Dashboards for OIC

Configure metric query ⓘ

Region

US West (Phoenix) ⌵

Namespace in ██████████ Compartment [\(Change compartment\)](#)

oci_integration

Metric Name

Select metric name ⌵

BilledMessageCount

ConfiguredMessages

InboundRequestProcessingTime

MessagesFailedCount

MessagesReceivedCount

MessagesSuccessfulCount

NumberOfInboundRequests

NumberOfOutboundRequests

OutboundRequestInvocationTime

Statistic

Select statistic

Dimension value

Select dimension value



OCI Logging Analytics for Oracle Integration

OCI Logging Analytics for OIC

- Create rich dashboards based on OIC Activity Stream and Service Metrics data
- Seeded with 3 OOTB Dashboards for OIC
 - OIC Health Overview
 - OIC Key Metrics
 - OIC Time Taken Analysis
- OIC Fleet Management
 - Monitor all of your OIC instances in one place
 - Drill down into individual integrations

Logging Analytics

Home

Home

Log Group Compartment

OICPMCompartment

☒ Subcompartments

Entity

Enter or select an entity.

OIC Environment (OCI Resource Name)

Enter or select a OCI Resource Name

ocid1.integrationinstance.oc1.phx.amaaaaaajfhkgfya3ew3fmwmm2fzfmcgre5pj6uqon2sdqolgbqym

ocid1.integrationinstance.oc1.phx.amaaaaaajfhkgfyaz6nj2kedomeqjhnitzjjsgi7staron2jryxj7x6ikqiq

☒ Dependent Entities

Integration Identifier

Enter or select a Identifier

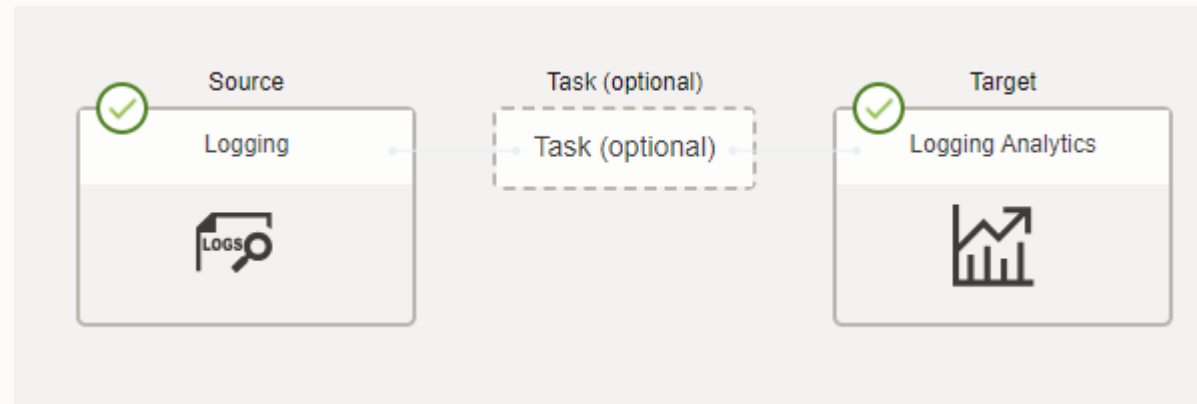
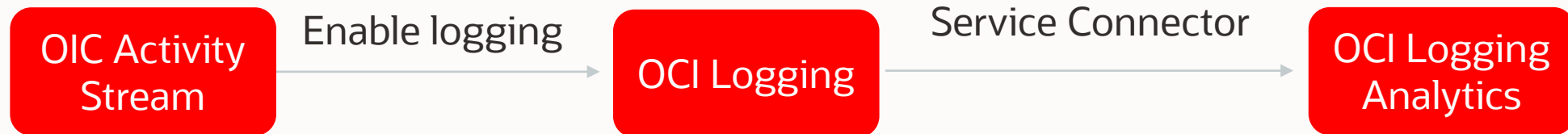
Integration InstanceID

Enter or select a Instance

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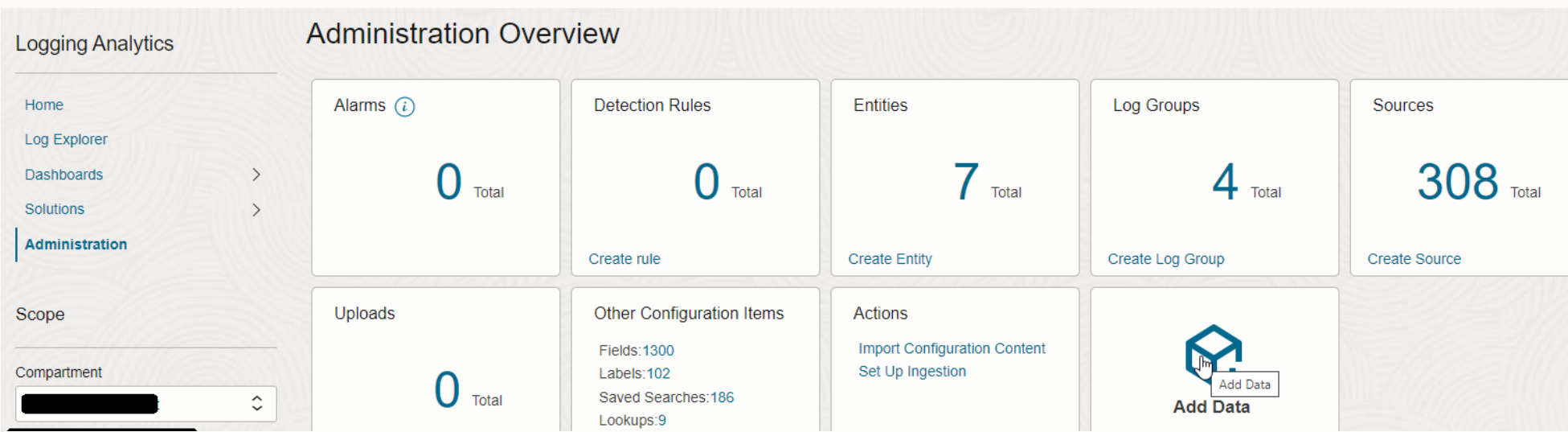
OCI Logging Analytics - ingesting OIC activity stream data

Top Down



OCI Logging Analytics - ingesting OIC activity stream data

Bottom Up



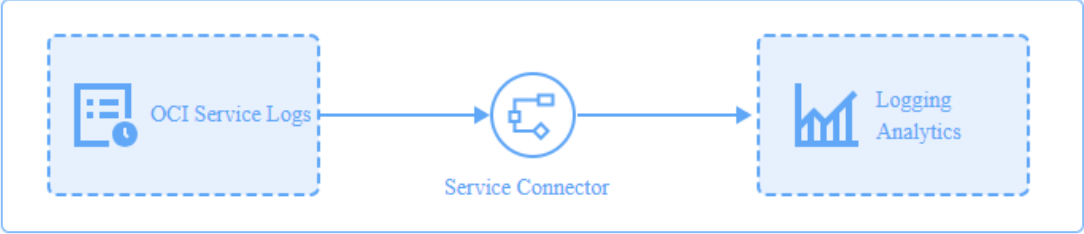
Add Data

Monitor OCI resources

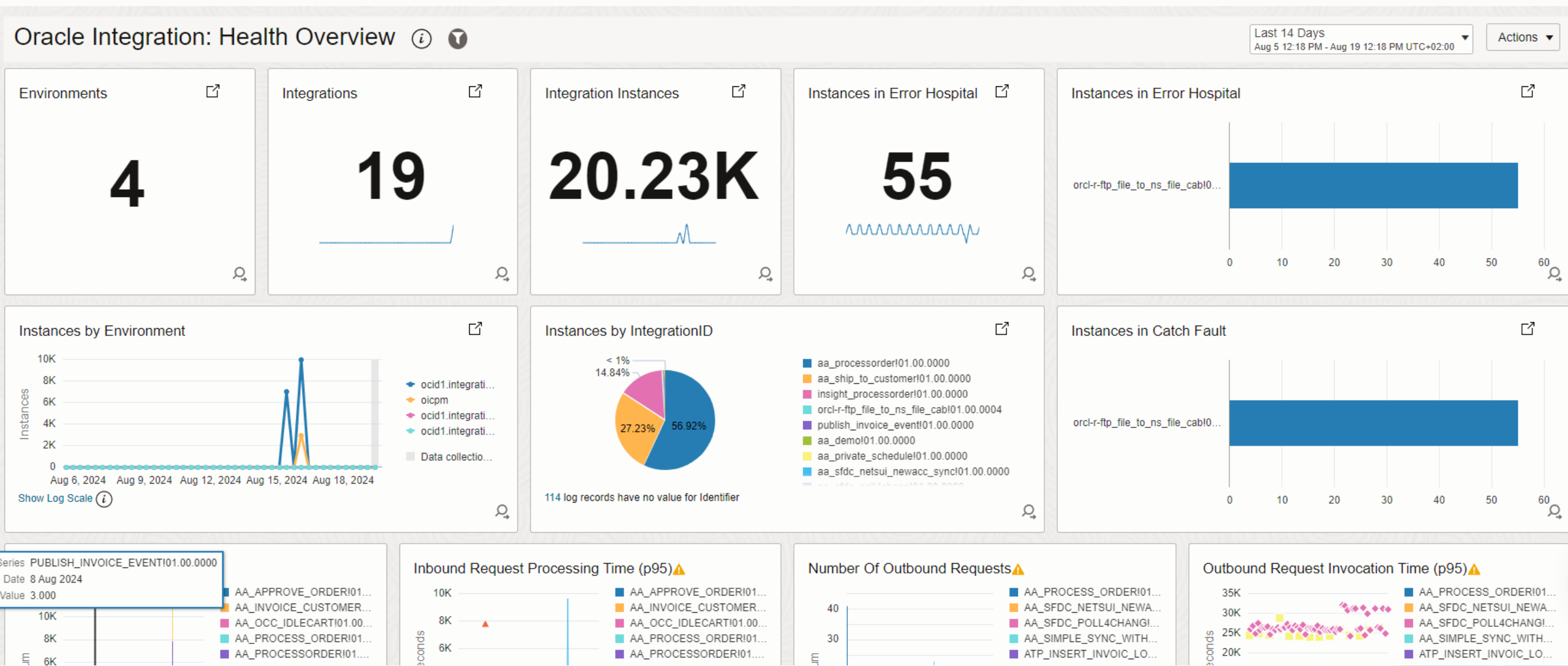
OCI Core Infrastructure

Configure log collection for OCI resources

To complete this task, you must have the permission to create and update Log Group, Service Connector, logs, and IAM policies.



OCI Logging Analytics for OIC – OIC Health Dashboard



OCI Logging Analytics for OIC – OIC Health Dashboard Filters

Oracle Integration: Health Overview ⓘ ⚙

Log Group Compartment
OICPMCompartment ⌵ ☒ Subcompartments

Entity
Enter or select an entity.

OIC Environment (OCI Resource Name) ⓘ
Enter or select a OCI Resource Name
ocid1.integrationinstance.oc1.phx.amaaaaaajfhkgfya3ew3fmwmm2
ocid1.integrationinstance.oc1.phx.amaaaaaajfhkgfyapjnnhzhppcycf
ocid1.integrationinstance.oc1.phx.amaaaaaajfhkgfyz6nj2kedomeq
oicpm

Integration Identifier
Enter or select a Identifier

Integration InstanceID
Enter or select a Instance

Environments ⌵ Integrations ⌵ Integration Insta

Integration Identifier ⓘ
Enter or select a Identifier
aa_approve_order!01.00.0000
aa_demo!01.00.0000
aa_invoice_customer!01.00.0000
aa_private_schedule!01.00.0000
aa_process_order!01.00.0000
aa_processor!01.00.0000
aa_sfcdc_netsui_newacc_sync!01.00.0000

Filter by –

- OIC Instance
- Integration
- Specific Integration Flow

OCI Logging Analytics for OIC – OIC Key Metrics Dashboard

Oracle Integration: Key Metrics ⓘ

Last 14 Days
Aug 5 12:22 PM - Aug 19 12:22 PM UTC+02:00

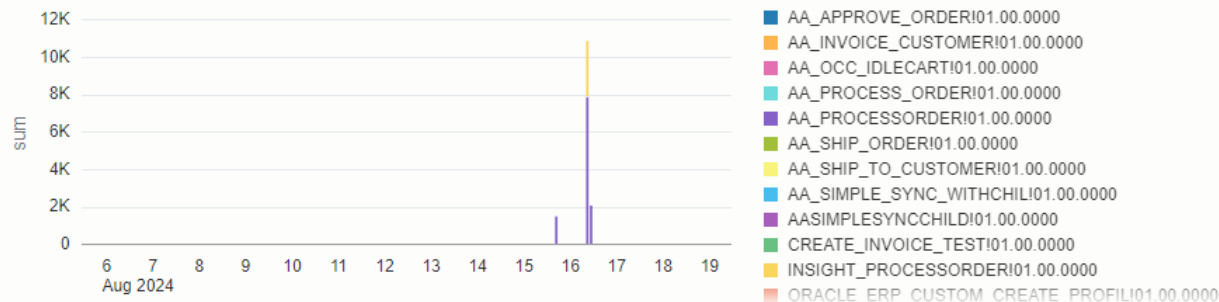
Actions

Environments

OCI Resource Name

ocid1.integrationinstance.oc1.phx.amaaaaaajfhkg
ocid1.integrationinstance.oc1.phx.amaaaaaajfhkg
ocid1.integrationinstance.oc1.phx.amaaaaaajfhkg
oicpm

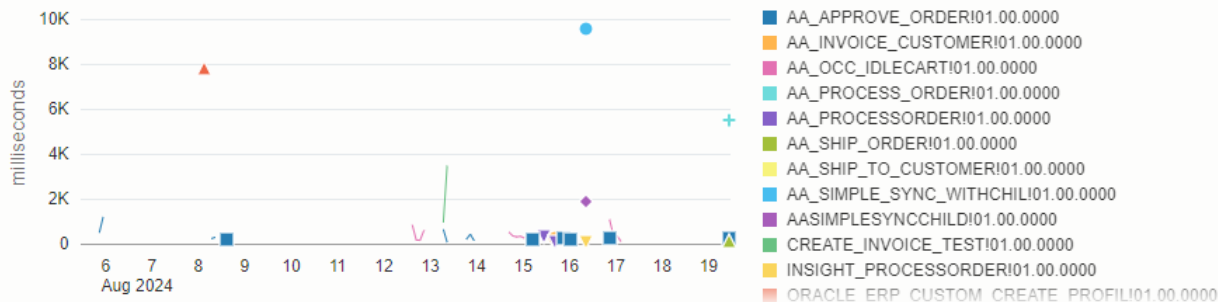
Number Of Inbound Requests ⚠



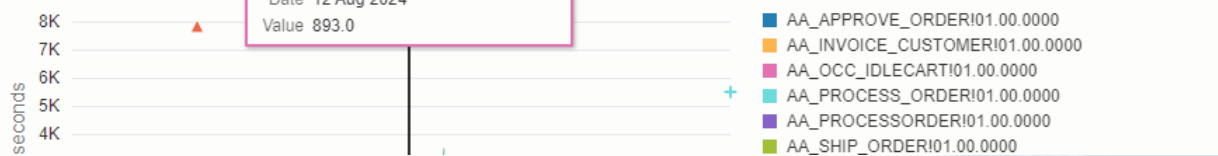
Number Of Inbound Requests with GroupBy ⚠



Inbound Request Processing Time (p95) ⚠



Inbound Request Processing Time (p95) ⚠



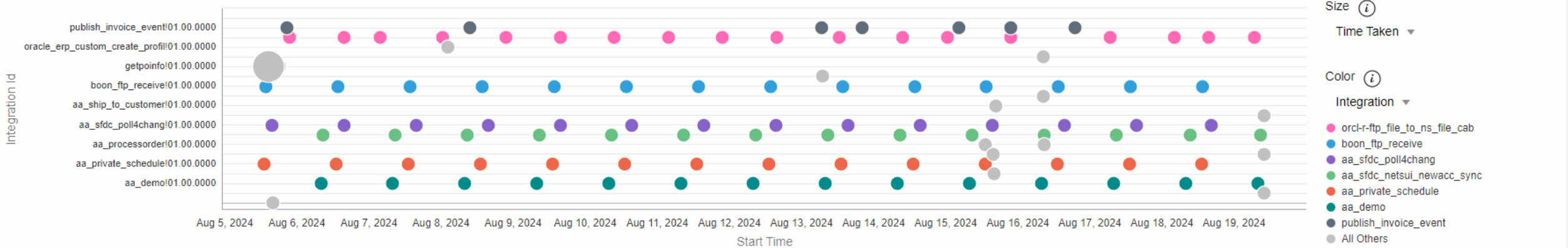
OCI Logging Analytics for OIC – Time Taken Analysis Dashboard

Oracle Integration: Time Taken Analysis ⓘ ⚙

Last 14 Days
Aug 5 12:25 PM - Aug 19 12:25 PM UTC+02:00 Actions ▾

Integration Time Taken Analysis

56,842 Groups		2.2M Log Records	
Environments 4	Users 5	Integrations 18	Instances 20,225



Size ⓘ
Time Taken ▾

Color ⓘ
Integration ▾

- orcl-r-ftp_file_to_ns_file_cab
- boon_ftp_receive
- aa_sfdc_poll4chang
- aa_sfdc_netsui_newacc_sync
- aa_private_schedule
- aa_demo
- publish_invoice_event
- All Others

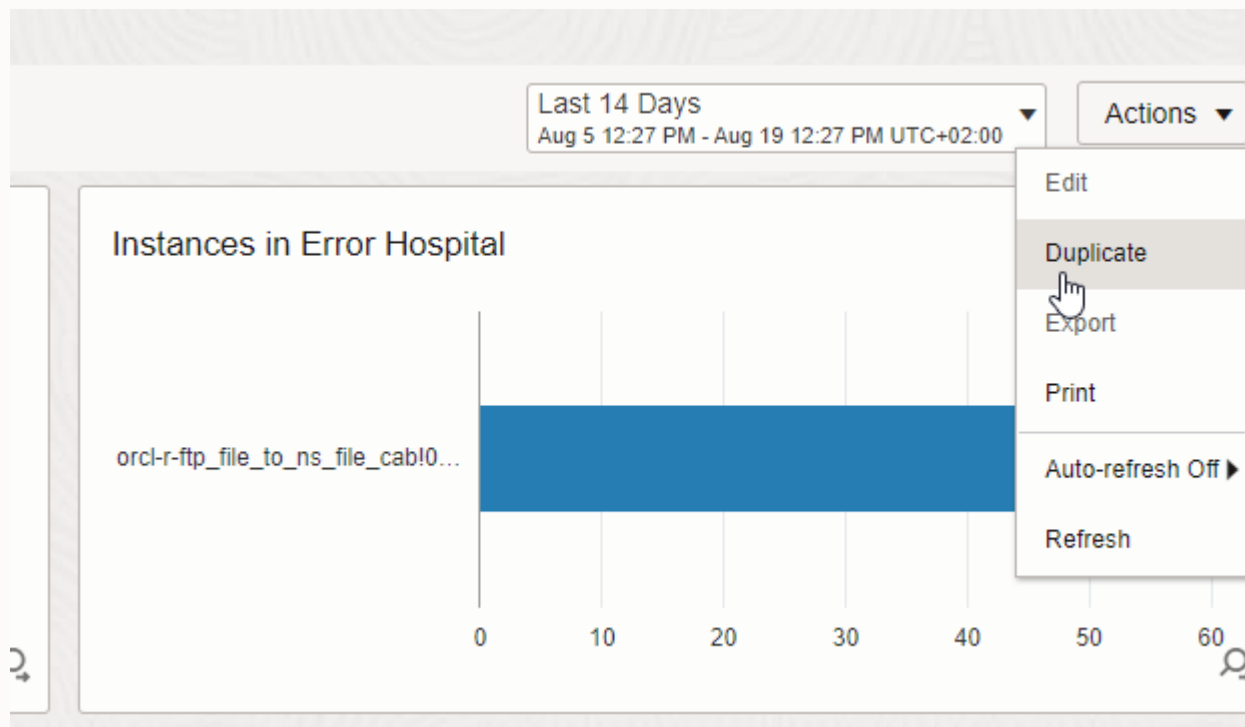
Size ⓘ
Groups ▾

Color ⓘ
Action Type ▾

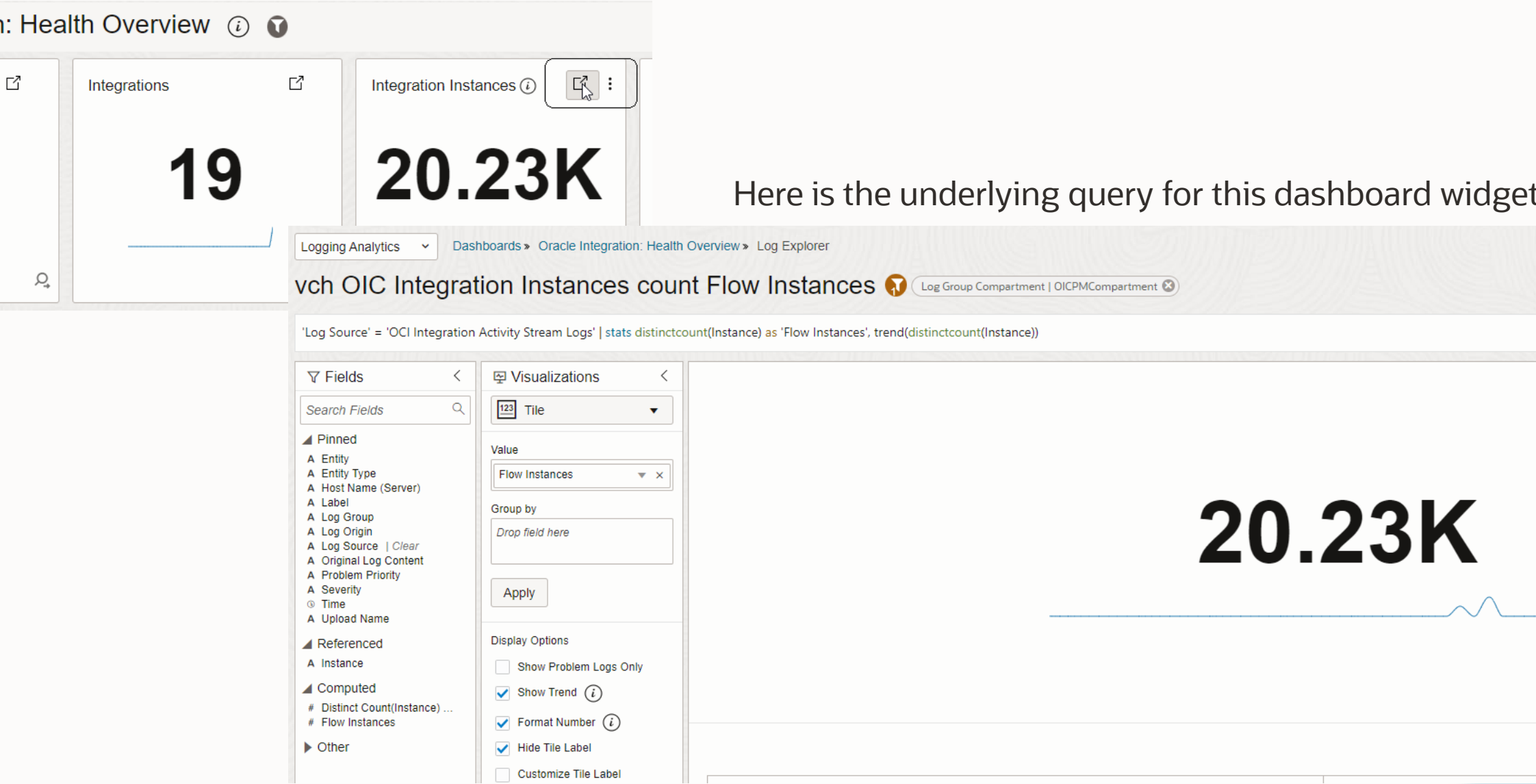


OCI Logging Analytics for OIC – Dashboards

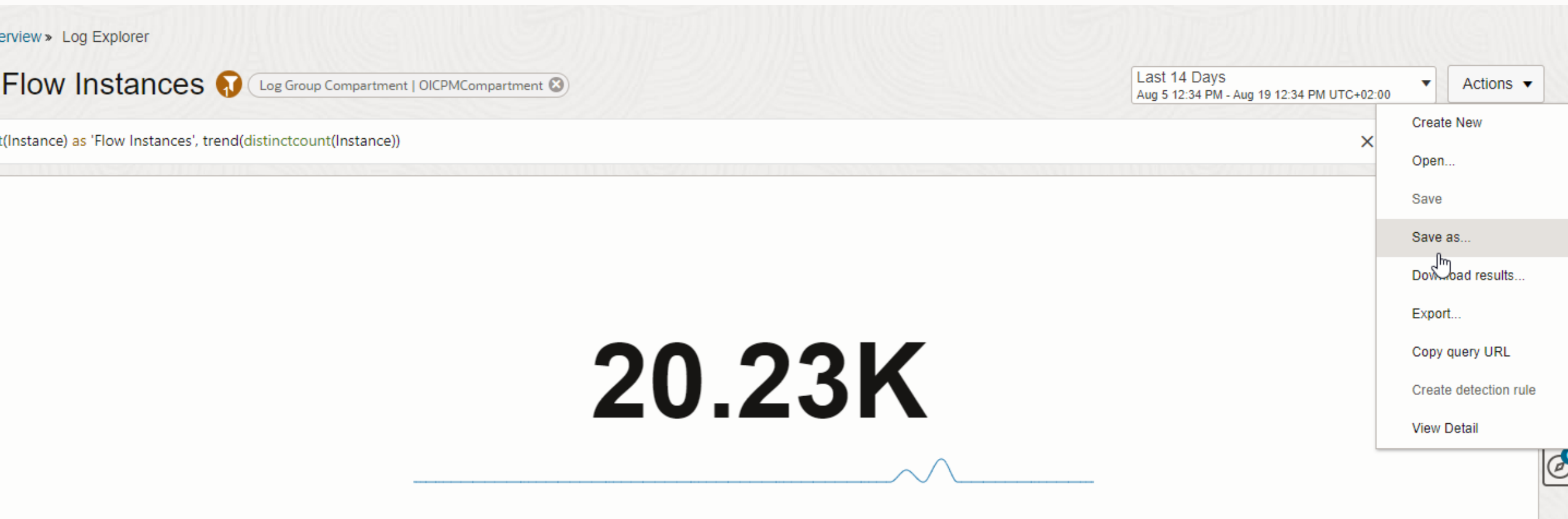
- You can create your own Dashboards based on OIC Service Metrics & Activity Stream
- The 3 Dashboards we deliver cannot be edited, however, you can duplicate and then edit



OCI Logging Analytics for OIC – Dashboards drill downs



OCI Logging Analytics for OIC – Dashboard widget creation



Queries can be changed and saved as a new widget