

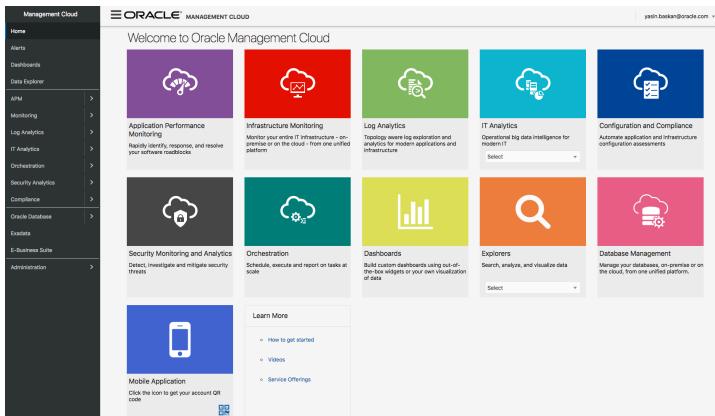


Using Performance Hub with Autonomous Database



DRAFT: Monitoring for Technical Enterprise-Level Personas

Oracle Management Console

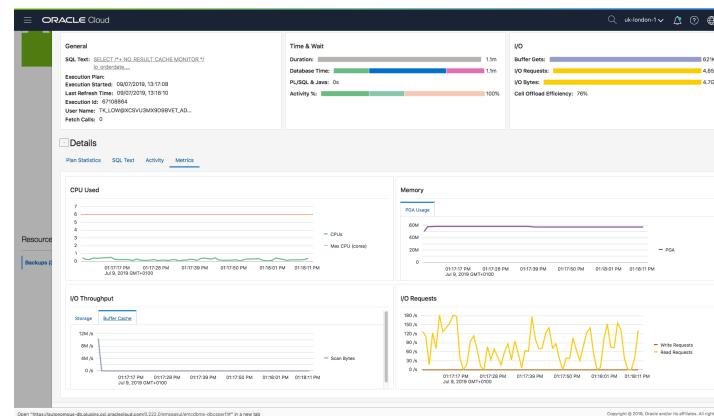


Fleet Administrators

Consolidated view of multiple ADB instances across multiple tenancies



OCI Performance Hub

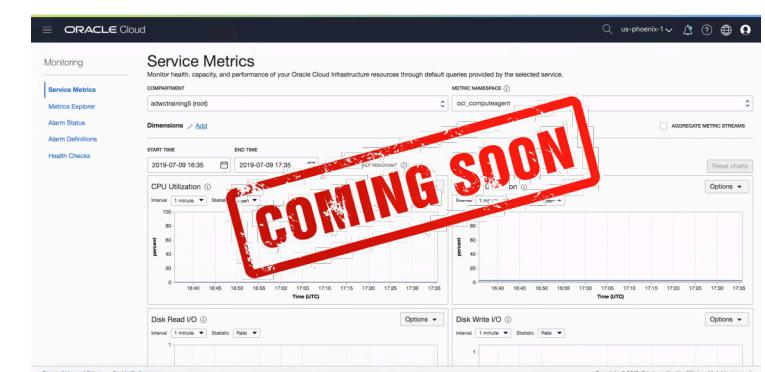


Cloud Administrators

Console for managing/monitoring performance of individual ADB instances. Real time data on database performance and efficiency with drill down capability



OCI Service Metrics



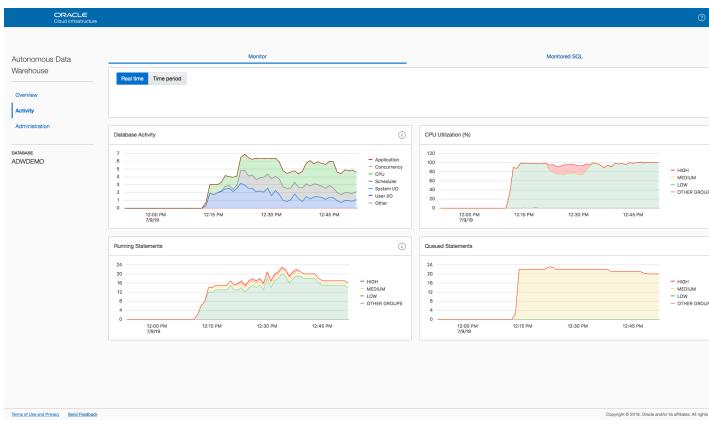
Cloud & Fleet Administrators

Monitoring and notifications management console



DRAFT: Monitoring for Non-Enterprise/Non-DBA Personas

Instance Service Console



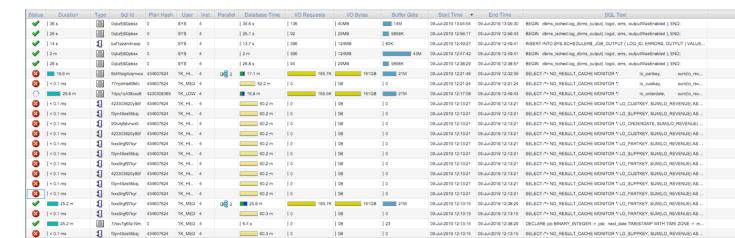
The screenshot shows the Oracle Autonomous Data Warehouse Instance Service Console. It features a navigation bar on the left with sections for Autonomous Data Warehouse, Overview, Activity, Administration, and Service Admin. The main area has tabs for Monitor and Monitored SQL. Under Monitor, there are three charts: Database Activity (CPU Utilization %), CPU Utilization (%), and Running Statements. The Database Activity chart shows activity from 12:00 PM to 12:45 PM. The CPU Utilization chart shows utilization from 12:00 PM to 12:45 PM. The Running Statements chart shows statement counts from 12:00 PM to 12:45 PM. The Monitored SQL tab lists several queries with their execution times and details.

Data Mart/DW Owners Technical Developers

Simple, intuitive high level overview of ADB instance status



SQL Developer Real-Time Monitoring



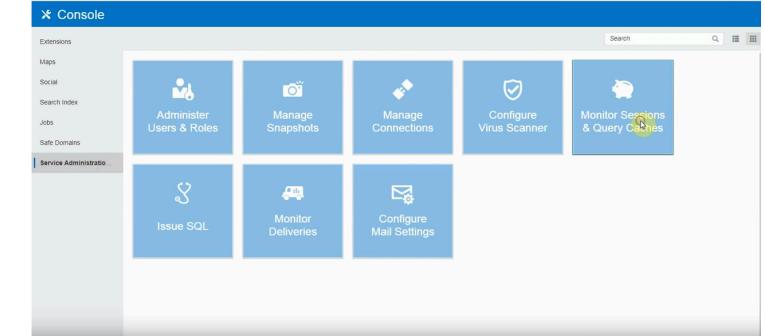
The screenshot shows the Oracle SQL Developer Real-Time Monitoring feature. It displays a grid of database sessions with columns for Session ID, Status, Type, PID, Platform, User, Port, Duration Time, IO Requests, Buffer Get, Disk Get, and End Time. Each session row contains a preview of the SQL statement being executed.

Technical SQL and PL/SQL Developers

Application developers working with ADB instances (dev, test, QA etc.) – needing access to fine-grained SQL performance data



OAC Query Logs



The screenshot shows the Oracle Analytics Cloud (OAC) Service Administration console. It includes a sidebar with extensions like Maps, Social, Search Index, Jobs, and Safe Domains. The main area has several tiles for managing users, snapshots, connections, virus scanning, and monitoring sessions and query logs.

Technical LOB User

LOB users working within Analytics Cloud needing access to query performance data



What is Performance Hub?

What is *Performance Hub*?

Performance Hub can be used to:

- Monitor and diagnose the performance of an Autonomous Database
- Provides access to ASH Analytics and SQL Monitoring features
 - Same information as ASH Analytics and SQL Monitoring tools found in Oracle's EM Express, Oracle Management Cloud (OMC), and SQL Developer Web applications.
- Provides real-time + historical performance data.
 - Historical view uses statistics collected as part of the hourly snapshots of ADB



ADB Performance Monitoring Using Performance Hub

Performance Hub page consists of the following sections:

1. **Time Range** field and time slider
2. **Active Session History (ASH) Analytics** tab
3. **SQL Monitoring** tab



Performance Hub In Action!

Autonomous Database

Autonomous Database

Autonomous Container Database

Autonomous Exadata Infrastructure

List Scope

COMPARTMENT

ADW_Frankfurt

adwc4pm (root)/ADW_Frankfurt

Filters

WORKLOAD TYPE

All

STATE

Any state

Autonomous Databases *in ADW_Frankfurt Compartmet*

Create Autonomous Database

Name	Database Name	State	Dedicated Infrastructure	CPU Core Count	Storage (TB)	Workload Type	Created	⋮
ADWDEMO	ADWDEMO	● Available	No	1	1	Data Warehouse	Mon, 03 Jun 2019 15:18:08 GMT	⋮

Displaying 1 Autonomous Database < Page 1 >

Autonomous Database

Autonomous Database

Autonomous Container Database

Autonomous Exadata Infrastructure

List Scope

COMPARTMENT

ADW_Frankfurt

adwc4pm (root)/ADW_Frankfurt

Filters

WORKLOAD TYPE

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Autonomous Databases *in ADW_Frankfurt Compartment*

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ADWDEMO	ADWDEMO	● Available	No	1	1	Data Warehouse	Mon, 03 Jun 2019 15:18:08 GMT	⋮

Displaying 1 Autonomous Database Page 1



Autonomous Database » Autonomous Database Details

ADWDEMO

[DB Connection](#) [Performance Hub](#) [Service Console](#) [Scale Up/Down](#) [Stop](#) [Actions ▾](#)[Autonomous Database Information](#)[Tags](#)

General Information

Database Name: ADWDEMO**Workload Type:** Data Warehouse**Compartment:** adwc4pm (root)/ADW_Frankfurt**OCID:** ...nwjtoa [Show](#) [Copy](#)**Created:** Mon, 03 Jun 2019 15:18:08 GMT**CPU Core Count:** 1**Storage (TB):** 1**License Type:** Bring Your Own Licence**Database Version:** 18c**Auto Scaling:** Enabled **Lifecycle State:** Available

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: Mon, 08 Jul 2019 13:07:26 GMT

Resources

Backups

Backups are automatically created daily.

[Create Manual Backup](#)

Name	State	Type	Started	Ended	⋮
Jul 08, 2019 13:07:26 PM UTC	Active	Incremental, initiated by Auto Backup	Mon, 08 Jul 2019 12:37:49 GMT	Mon, 08 Jul 2019 13:07:26 GMT	⋮
Jul 04, 2019 23:47:03 PM UTC	Active	Incremental, initiated by Auto Backup	Thu, 04 Jul 2019 23:46:54 GMT	Thu, 04 Jul 2019 23:47:03 GMT	⋮

Autonomous Database » Autonomous Database Details



ADWDEMO

[DB Connection](#)[Performance Hub](#)[Autonomous Database Information](#)[Tags](#)

General Information

Database Name: ADWDEMO**Workload Type:** Data Warehouse**Compartment:** adwc4pm (root)/ADW_Frankfurt**OCID:** ...nwjtoa [Show](#) [Copy](#)**Created:** Mon, 03 Jun 2019 15:18:08 GMT**CPU Core Count:** 1**Storage (TB):** 1**License Type:** Bring Your Own Licence**Database Version:** 18c**Auto Scaling:** Enabled **Lifecycle State:** Available

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: Mon, 08 Jul 2019 13:07:26 GMT

Resources

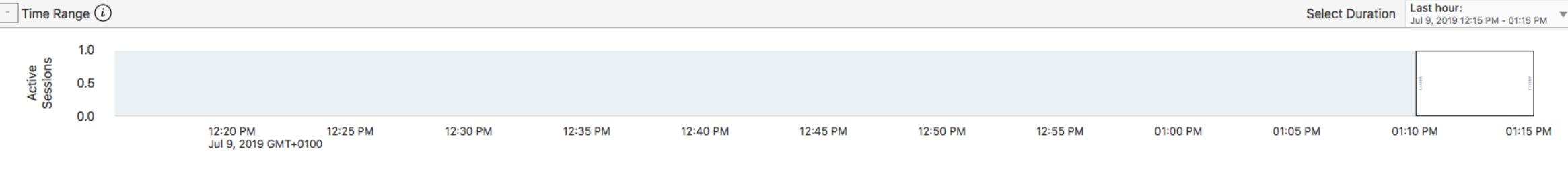
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Backups are automatically created daily.

[Create Manual Backup](#)

Name	State	Type	Started	Ended	⋮
Jul 08, 2019 13:07:26 PM UTC	Active	Incremental, initiated by Auto Backup	Mon, 08 Jul 2019 12:37:49 GMT	Mon, 08 Jul 2019 13:07:26 GMT	
Jul 04, 2019 23:47:03 PM UTC	Active	Incremental, initiated by Auto Backup	Thu, 04 Jul 2019 23:46:54 GMT	Thu, 04 Jul 2019 23:47:03 GMT	

Performance Hub

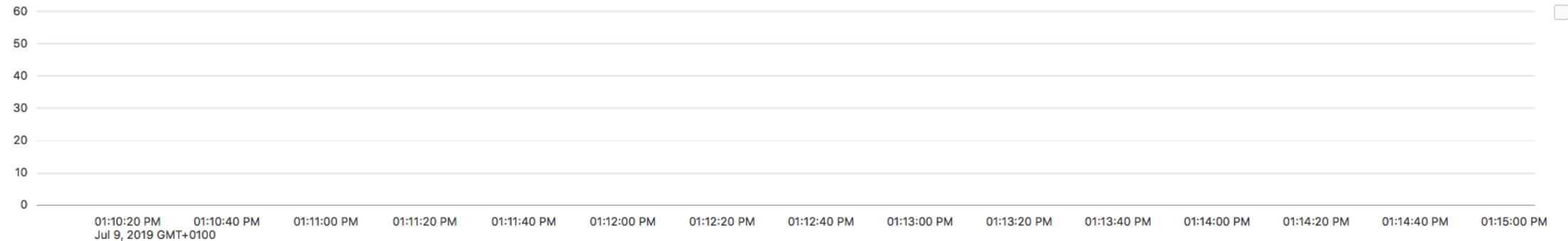
[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

[View Options](#) Average Active Sessions by [Consumer Group](#) ▾

Display

-
- Max CPUs
-
-
- Total Activity

[SQL ID](#) ▾ by Consumer Group

SQL ID

Activity (Average Active Sessions)

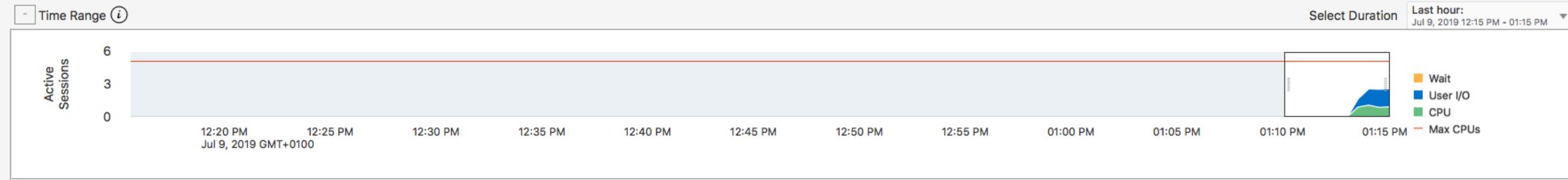
[User Session](#) ▾ by Consumer Group

User Session

Activity (Average Active Sessions)

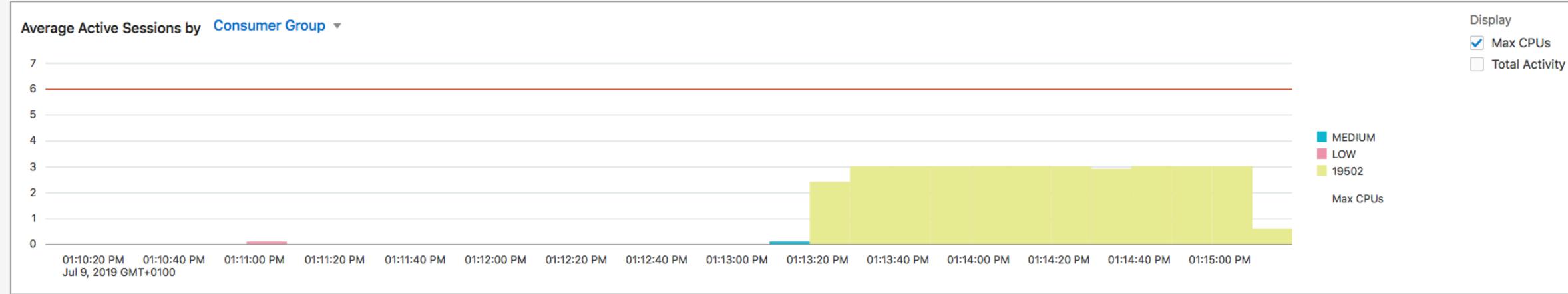
[Refresh](#)

Performance Hub

[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

View Options

[SQL ID](#) [▼ by Consumer Group](#)

SQL ID Activity (Average Active Sessions)

[90tvkj8dvhwr0](#)[User Session](#) [▼ by Consumer Group](#)

User Session Activity (Average Active Sessions)

[4:7236,62552](#)

1

DEMO

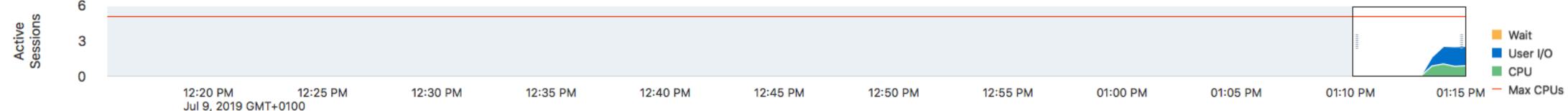
Close

Refresh

Performance Hub

Time Range i

Select Duration

Last hour:
Jul 9, 2019 12:15 PM - 01:15 PM

ASH Analytics SQL Monitoring

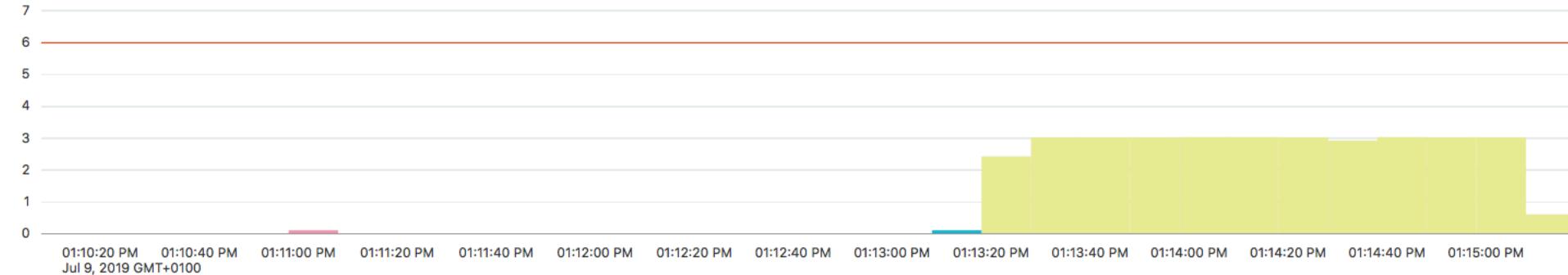
Applied Filters: None

View Options

Average Active Sessions by Consumer Group

Display

-
- Max CPUs
-
-
- Total Activity



Resource

Backups (3)

SQL ID ▾ by Consumer Group

SQL ID

Activity (Average Active Sessions)

90tvkj8dvhwr0

User Session ▾ by Consumer Group

User Session

Activity (Average Active Sessions)

4:7236,62552

0.35

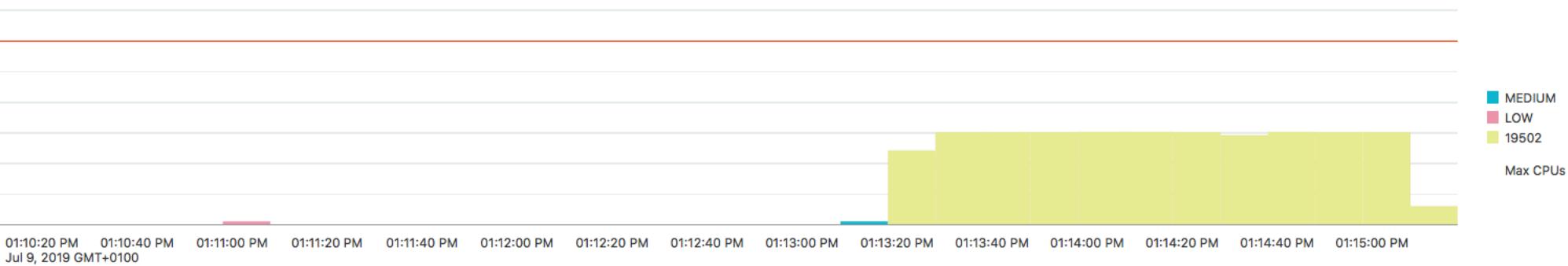
Time Range field and time slider

- Time Range selector is displayed on the top of the Performance Hub page
- Use the Select Duration field to set the time duration
- Default, Last 60 mins is selected
 - Specify to view Last 8 hours, Last 24 hours, Last week
 - Specify a custom time range
- Time Range field shows active sessions in chart form.
 - Active sessions chart displays avg number of active sessions broken down by CPU, User I/O, and Wait.





Average Active Sessions by Consumer Group ▾

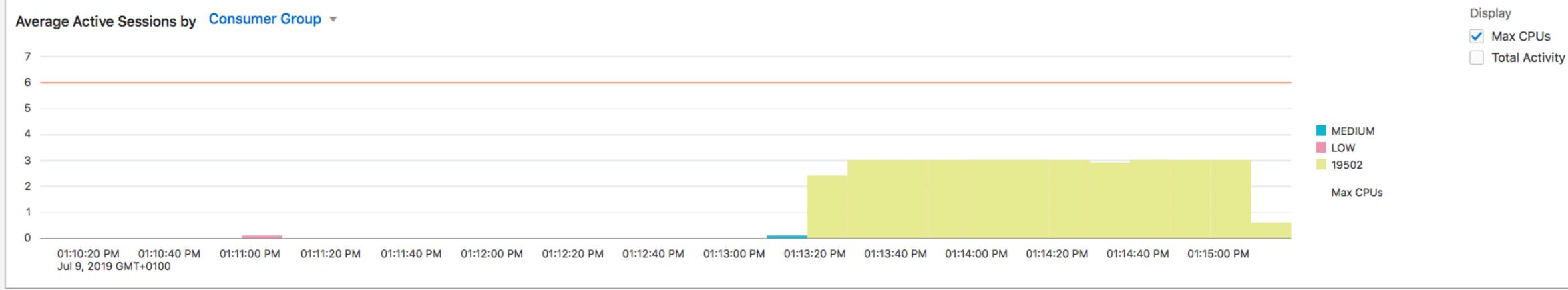


SQL ID ▾ by Consumer Group

SQL ID	Activity (Average Active Sessions)
90tvkj8dvhwr0	0.71
fxxc9rgf97kyr	0.35
Others	< 0.01

User Session ▾ by Consumer Group

User Session	Activity (Average Active Sessions)
4:7236,62552	0.35
4:14943,38169	0.35
4:13640,57960	0.35
Others	0.01



SQL ID ▾ by Consumer Group

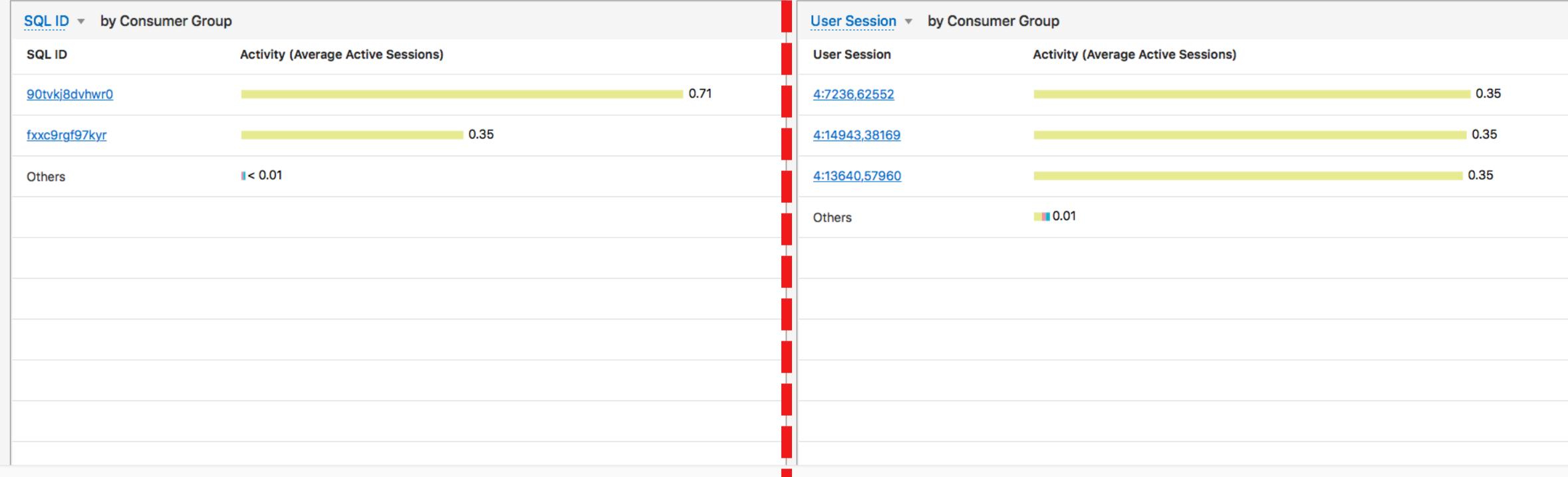
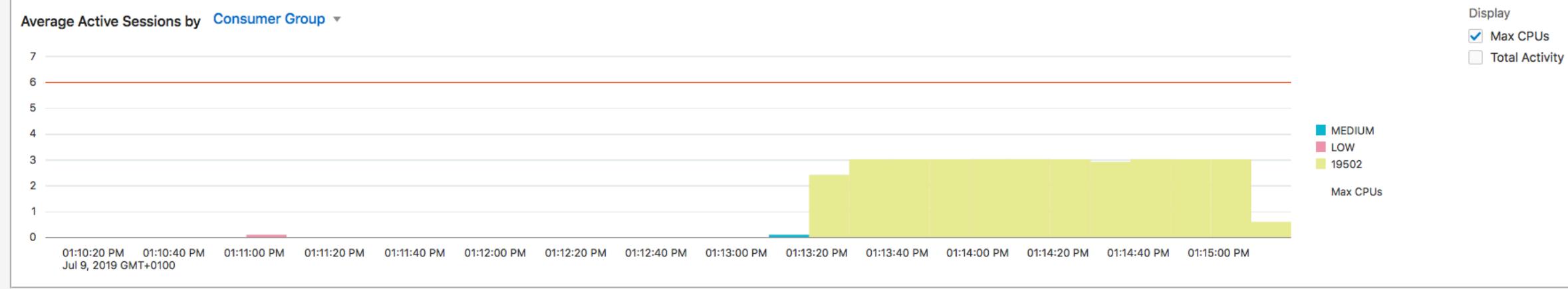
SQL ID	Activity (Average Active Sessions)
90tvkj8dvhwr0	0.71
fxxc9rgf97kyr	0.35
Others	< 0.01

User Session ▾ by Consumer Group

User Session	Activity (Average Active Sessions)
4:7236,62552	0.35
4:14943,38169	0.35
4:13640,57960	0.35
Others	0.01

Resource

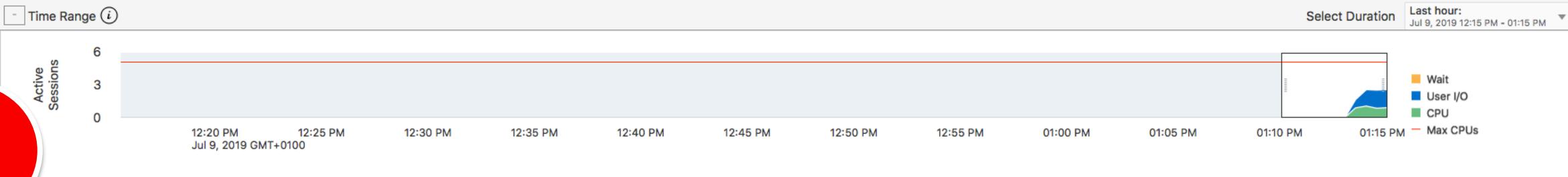
Backups (3)





Performance Hub

Refresh



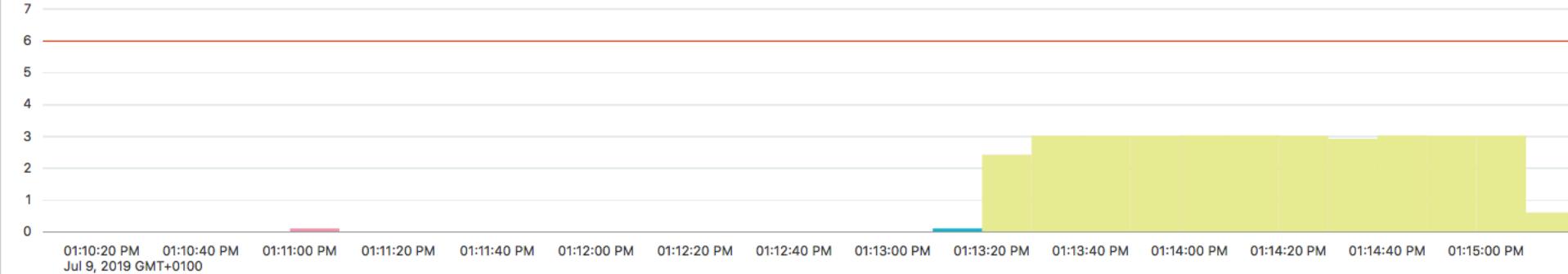
2

ASH Analytics SQL Monitoring

Applied Filters: None

View Options

Average Active Sessions by Consumer Group

Display
 Max CPUs
 Total Activity

SQL ID ▾ by Consumer Group

SQL ID Activity (Average Active Sessions)

90tvkj8dvhwr0

User Session ▾ by Consumer Group

User Session Activity (Average Active Sessions)

4:7236,62552

Active Session History (ASH) Analytics

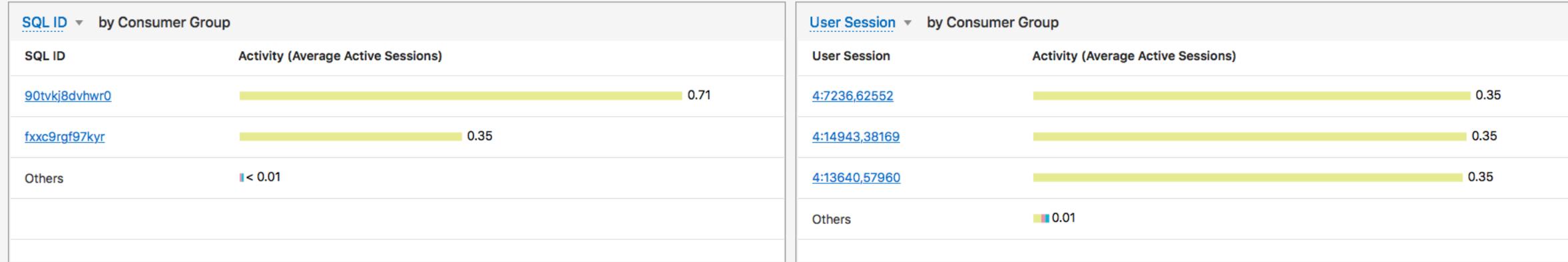
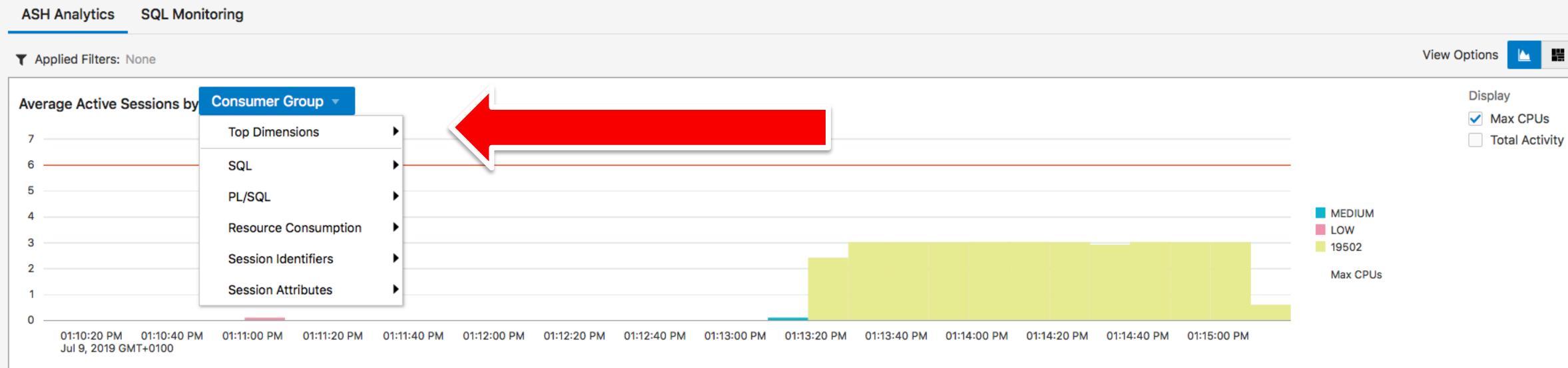
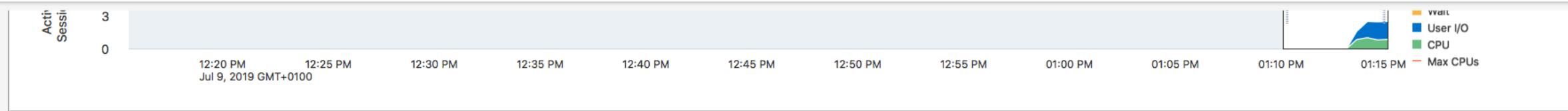
- Shows Active Session History (ASH) analytics charts to explore ASH data
- Drill down into database performance across multiple dimensions such as **Consumer Group**, **Wait Class**, **SQL ID**, and **User Name**
- Select an Average Active Sessions dimension and view the top activity for that dimension for the selected time period.
- For information on ASH, see [Active Session History \(ASH\)](#) in *Oracle Database Concepts*.

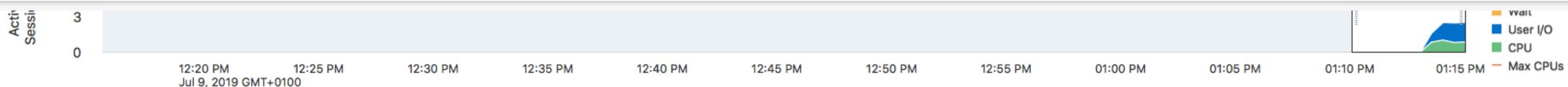


SQL Monitoring

- SQL only monitored if running for at least five seconds or run in parallel
- Displays monitored SQL statement executions by dimensions including **Last Active Time**, **CPU Time**, and **Database Time**
- Displays currently running SQL statements and SQL statements that completed, failed, or were terminated.
- Information includes **Status**, **Duration**, and **SQL ID**
 - **Status** column has the following icons:
 - A spinning icon indicates that the SQL statement is executing.
 - A green check indicates SQL statement completed
 - A red cross icon indicates that the SQL statement did not complete
 - A clock icon indicates that the SQL statement is queued







ASH Analytics SQL Monitoring

Applied Filters: None

View Options



Display

 Max CPUs Total Activity

Average Active Sessions

Consumer Group ▾

- Top Dimensions ▾
- SQL ▾
- PL/SQL ▾
- Resource Consumption ▾
- Session Identifiers ▾
- Session Attributes ▾
- Wait Class
- Wait Event
- Consumer Group
- User Name
- Object
- SQL ID



SQL ID ▾ by Consumer Group

SQL ID Activity (Average Active Sessions)

90tvkj8dvhwr0 0.71

ffxc9rgf97kyr 0.35

Others < 0.01

User Session ▾ by Consumer Group

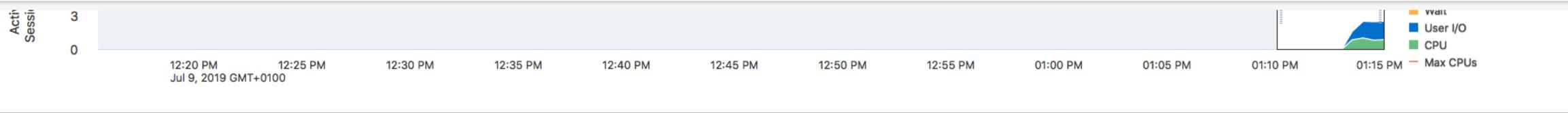
User Session Activity (Average Active Sessions)

4:7236,62552 0.35

4:14943,38169 0.35

4:13640,57960 0.35

Others 0.01

[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

View Options

Display

 Max CPUs Total Activity

Average Active Sessions by Consumer Group

Top Dimensions

SQL

PL/SQL

Resource Consumption

Session Identifiers

Session Attributes

SQL ID

Top Level SQL ID

SQL Force Matching Signature

SQL Plan Hash Value

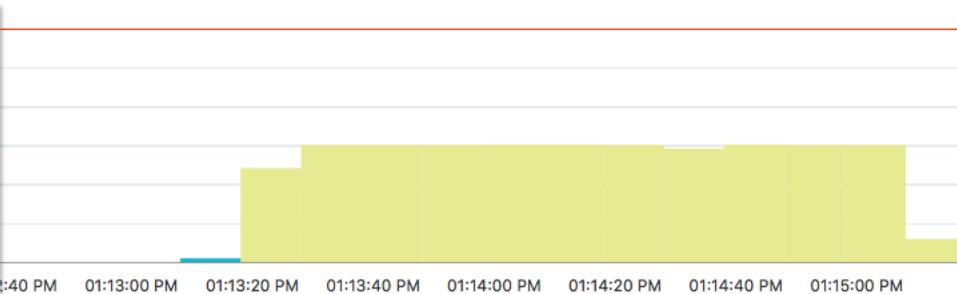
SQL Full Plan Hash Value

SQL Plan Operation

SQL Plan Operation Line

SQL Opcode

Top Level SQL Opcode



MEDIUM

LOW

19502

Max CPUs

SQL ID ▾ by Consumer Group

SQL ID Activity (Average Active Sessions)

90tvkj8dvhwr0 0.71

fxxc9rgf97kyr 0.35

Others < 0.01

User Session ▾ by Consumer Group

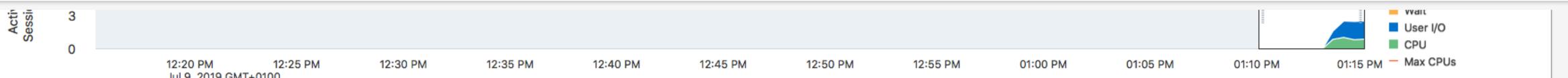
User Session Activity (Average Active Sessions)

4:7236,62552 0.35

4:14943,38169 0.35

4:13640,57960 0.35

Others 0.01

ASH Analytics SQL Monitoring

Applied Filters: None

View Options 

Average Active Sessions by Consumer Group

Consumer Group ▾

Top Dimensions

SQL

PL/SQL

Resource Consumption

Session Identifiers

Session Attributes



PL/SQL

Top Level PL/SQL

Display

 Max CPUs Total Activity

MEDIUM

LOW

19502

Max CPUs



SQL ID ▾ by Consumer Group

SQL ID Activity (Average Active Sessions)

90tvkj8dvhwr0 0.71

fxxc9rgf97kyr 0.35

Others < 0.01

User Session ▾ by Consumer Group

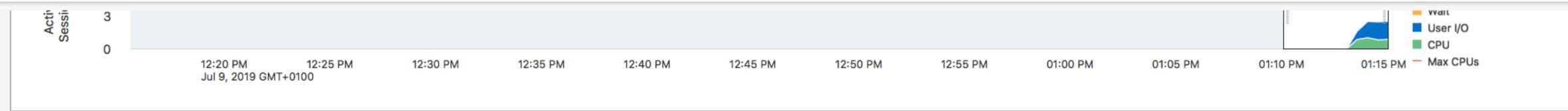
User Session Activity (Average Active Sessions)

4:7236,62552 0.35

4:14943,38169 0.35

4:13640,57960 0.35

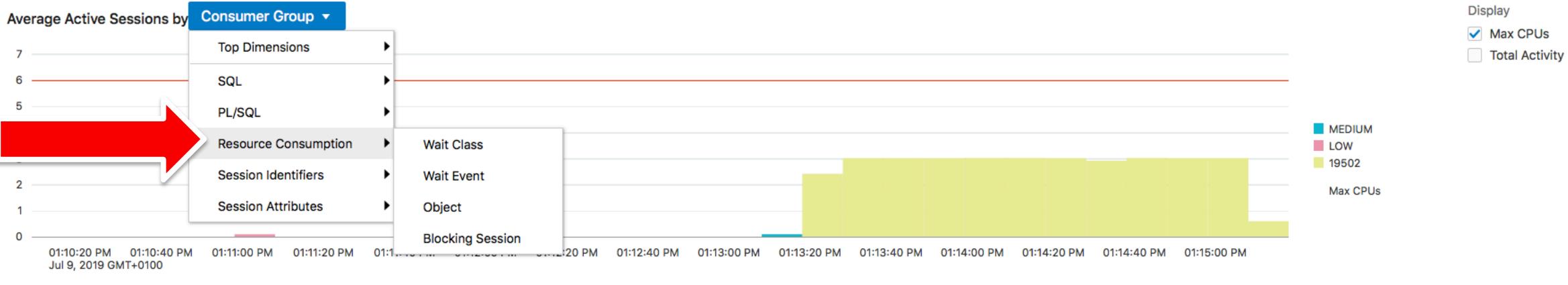
Others 0.01

[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

View Options 

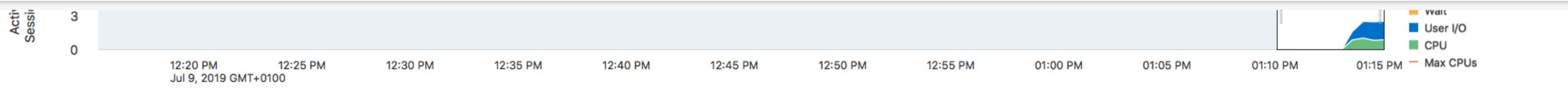
Display

 Max CPUs Total Activity[SQL ID](#) [by Consumer Group](#)

SQL ID	Activity (Average Active Sessions)
90tvkj8dvhwr0	0.71
fxxc9rgf97kyr	0.35
Others	< 0.01

[User Session](#) [by Consumer Group](#)

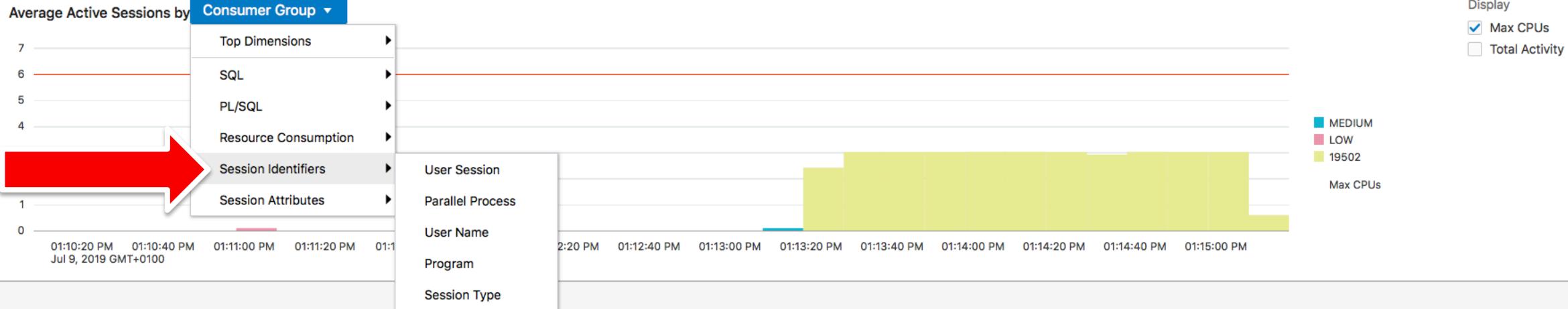
User Session	Activity (Average Active Sessions)
4:7236,62552	0.35
4:14943,38169	0.35
4:13640,57960	0.35
Others	0.01

[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

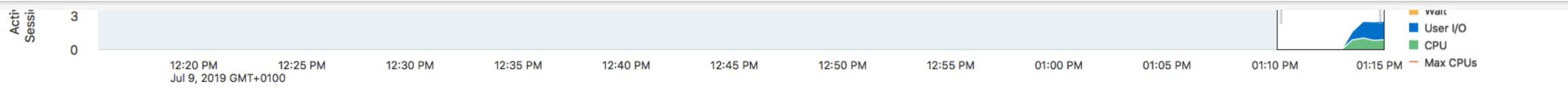
View Options

Display

 Max CPUs Total Activity

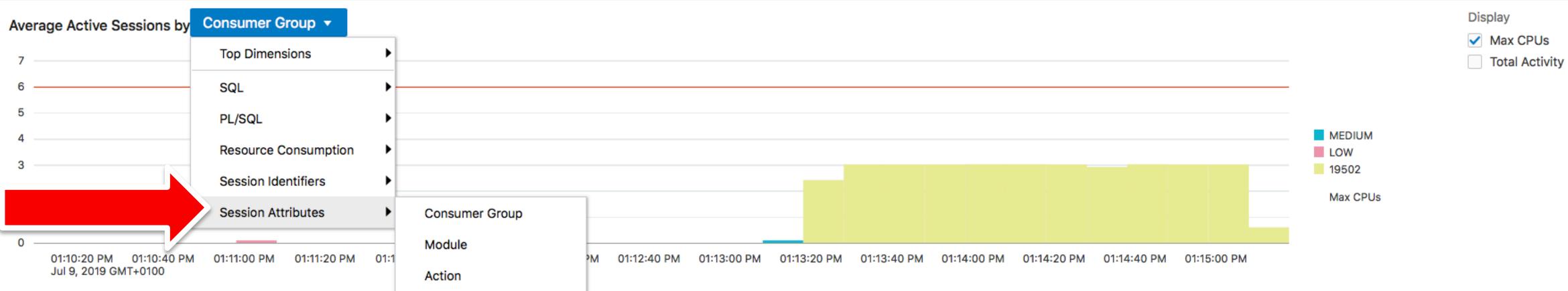
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Others	0.01

[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

View Options

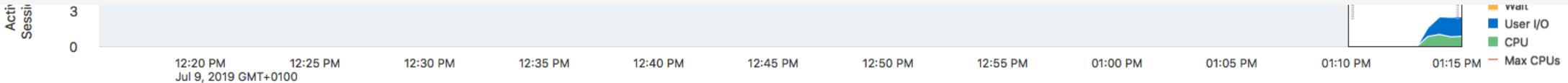


SQL ID ▾ by Consumer Group

SQL ID	Activity (Average Active Sessions)
90tvkj8dvhwr0	0.71
fxxc9rgf97kyr	0.71
Others	< 0.01

User Session ▾ by Consumer Group

User Session	Activity (Average Active Sessions)
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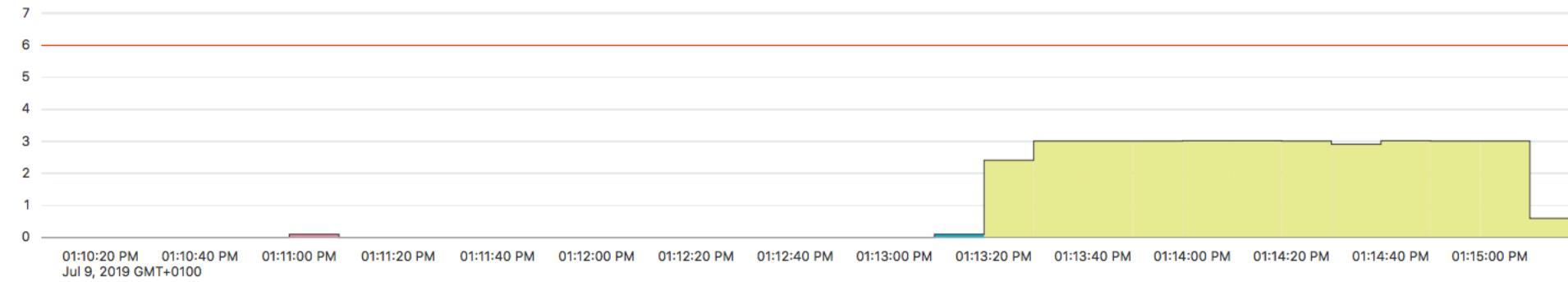
[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

[View Options](#)

Average Active Sessions by Consumer Group

Display

 Max CPUs Total Activity

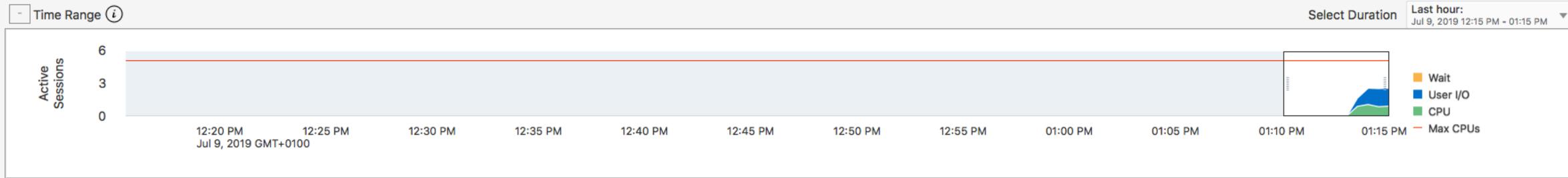
SQL ID ▾ by Consumer Group

SQL ID	Activity (Average Active Sessions)
90tvkj8dvhwr0	0.71
fxxc9rgf97kyr	0.35
Others	< 0.01

User Session ▾ by Consumer Group

User Session	Activity (Average Active Sessions)
4:7236,62552	0.35
4:14943,38169	0.35
4:13640,57960	0.35
Others	0.01

Performance Hub

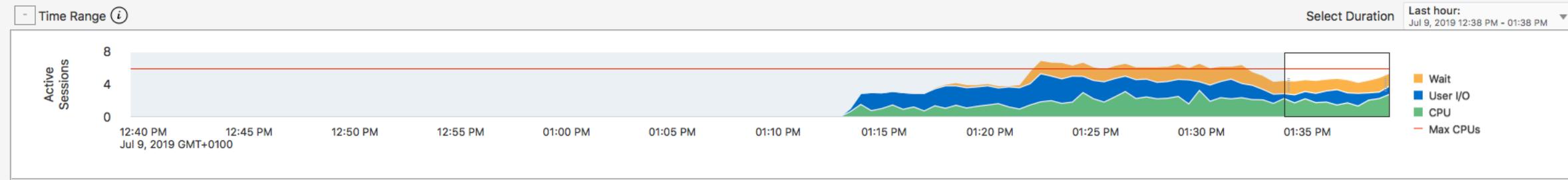
[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

View Options

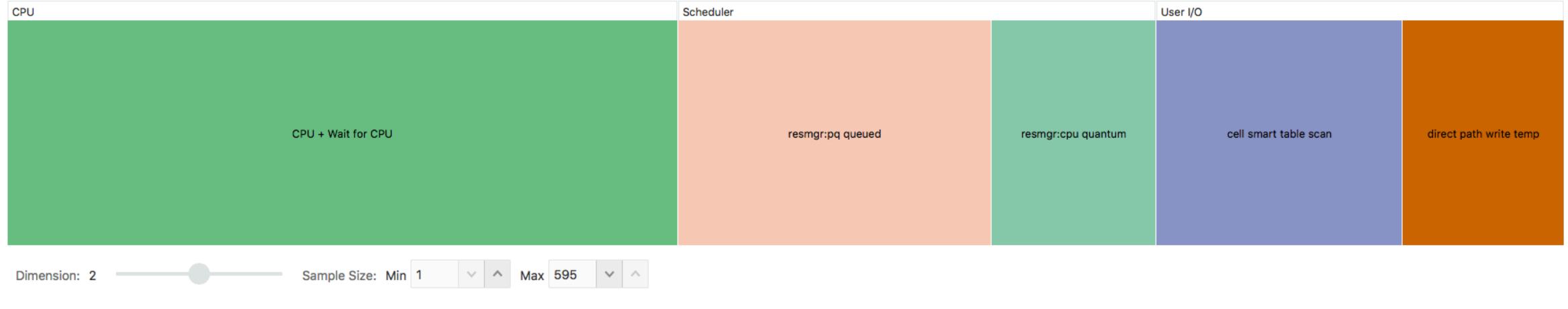
Average Active Sessions by [Wait Class, Wait Event](#)Mode [Simple](#)

Performance Hub

[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

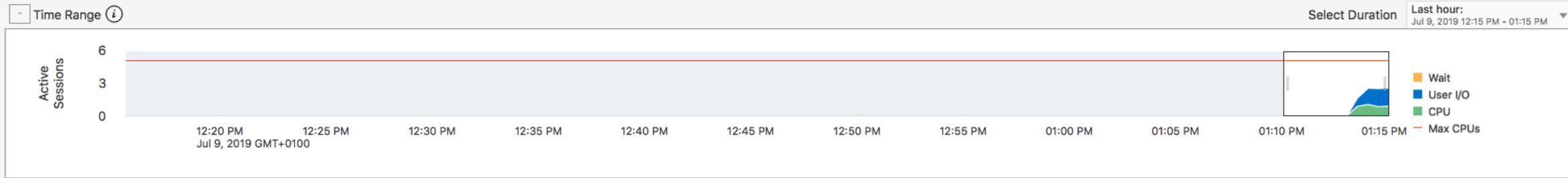
Applied Filters: None

View Options

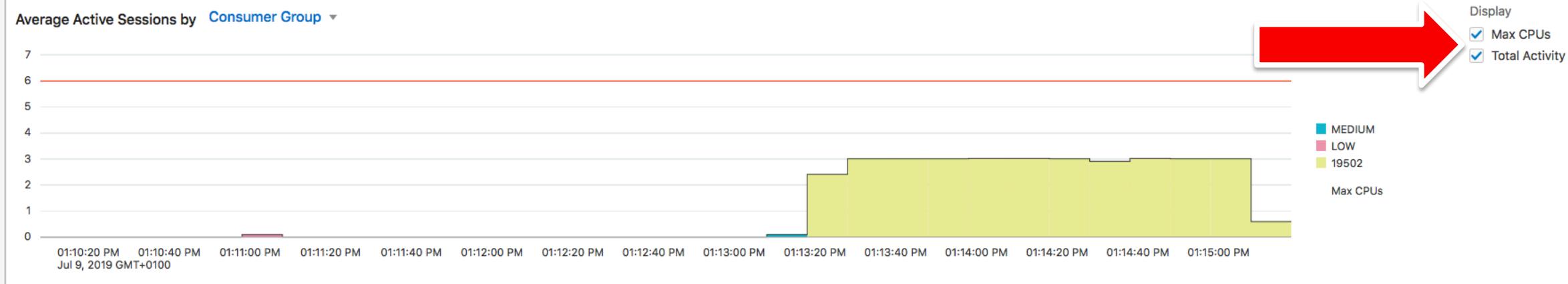
Average Active Sessions by [Wait Class, Wait Event](#)Mode [Simple](#)

View of a slightly busier system.....

Performance Hub

[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

[View Options](#)[SQL ID](#) by Consumer Group

SQL ID Activity (Average Active Sessions)

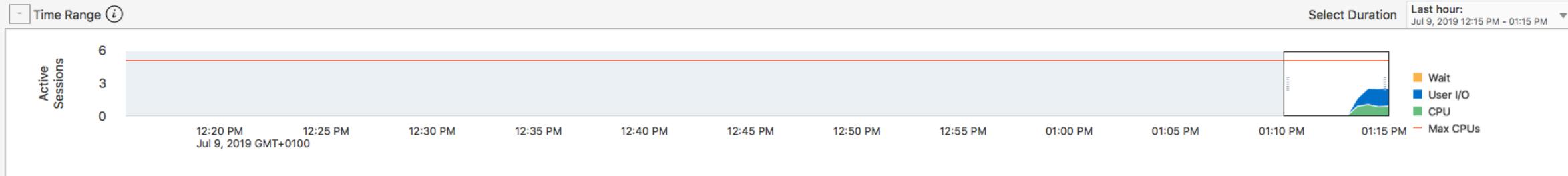
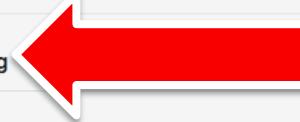
90tvkj8dvhwr0

[User Session](#) by Consumer Group

User Session Activity (Average Active Sessions)

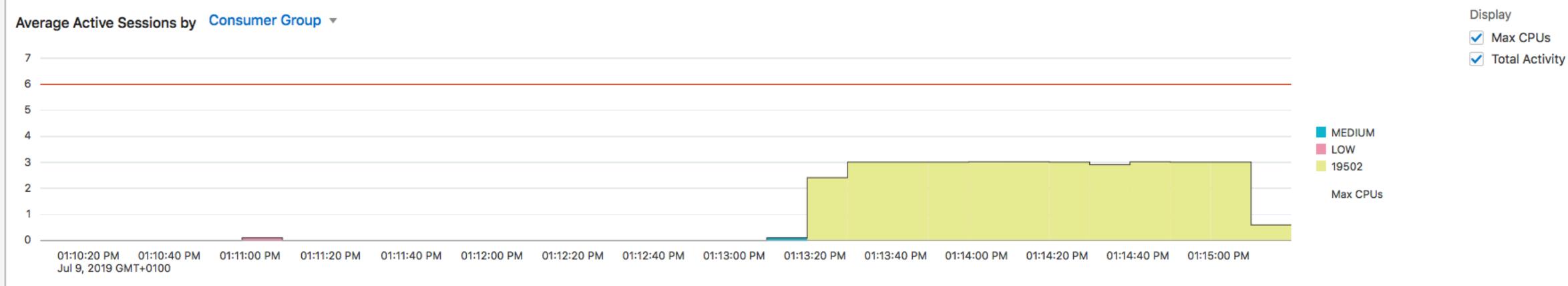
4:7236,62552

Performance Hub

[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

View Options



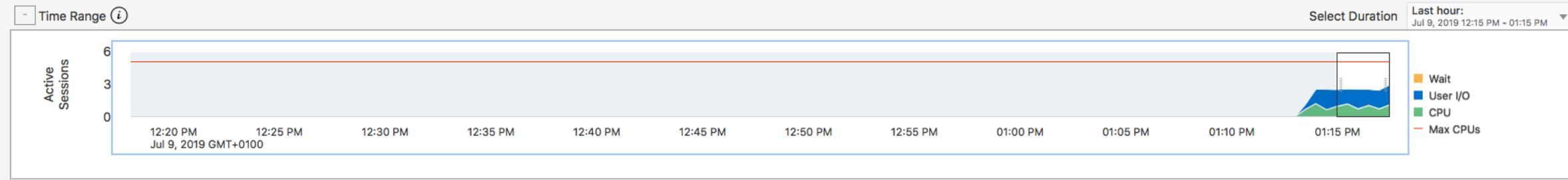
SQL ID ▾ by Consumer Group

SQL ID	Activity (Average Active Sessions)
90tvkj8dvhwr0	0.71

User Session ▾ by Consumer Group

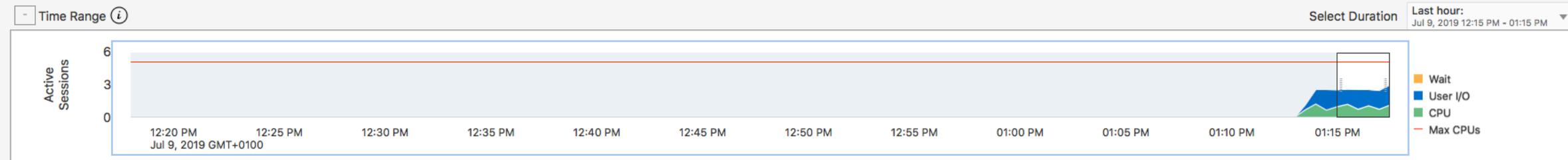
User Session	Activity (Average Active Sessions)
4:7236,62552	0.35

Performance Hub

[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)Top 100 by [Last Active Time](#)[Filter by Status, SQL ID or User Name](#)[Kill Session](#)

Status	Duration	Inst ID	SQL ID	SQL Plan Hash	User Name	Parallel	Database Time	I/O Requests	SQL Text
21.00s	21.00s	4	7dpq1q438cxz8	4230308389	TK_LOW@XCSVU3MX9D9BVET_ADWDEMO	21.03s	1,859	SELECT /*+ NO_RESULT_CACHE MON...	

Performance Hub

[Refresh](#)

AS Analytics SQL Monitoring

To: Last Active Time

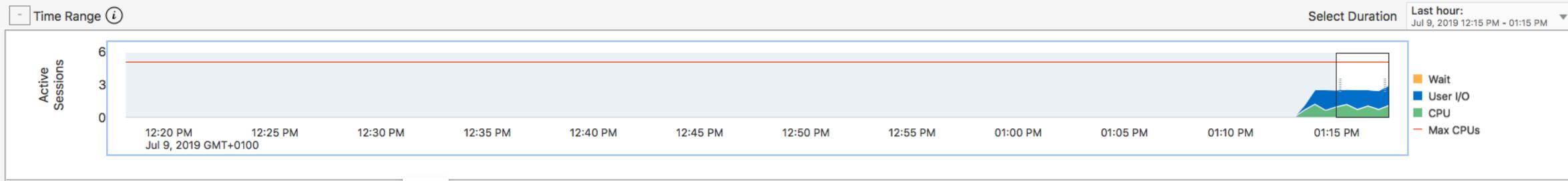
Filter by Status, SQL ID or User Name

Session

Status	Duration	Inst ID	SQL ID	SQL Plan Hash	User Name	Parallel	Database Time	I/O Requests	SQL Text
EXECUTING	21.00s	4	7dpq1q438cxz8	4230308389	TK_LOW@XCSVU3MX9D9BVET_ADWDEMO	1	21.03s	1,859	SELECT /*+ NO_RESULT_CACHE MON...

EXECUTING

Performance Hub

[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)Top 100 by [Last Active Time](#)

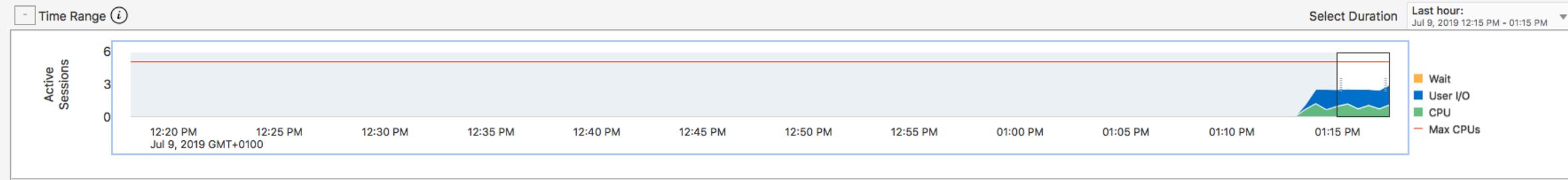
Filter by Status, SQL ID or User Name

[Kill Session](#)

Status	Duration	Inst ID	SQL ID	SQL Plan Hash	User Name	Parallel	Database Time	I/O Requests	SQL Text
	21.00s	4	7dpq1q438cxz8	4230308389	TK_LOW@XCSVU3MX9D9BVET_ADWDEMO		21.03s	1,859	SELECT /*+ NO_RESULT_CACHE MONITOR */ io_orderdate, sum(io_revenue) as revenue FROM ssbl...

 7dpq1q438cxz8
SELECT /*+ NO_RESULT_CACHE MONITOR */
 io_orderdate,
 sum(io_revenue) as revenue
 FROM ssbl...

Performance Hub

[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)Top 100 by [Last Active Time](#)

Filter by Status, SQL ID or User Name

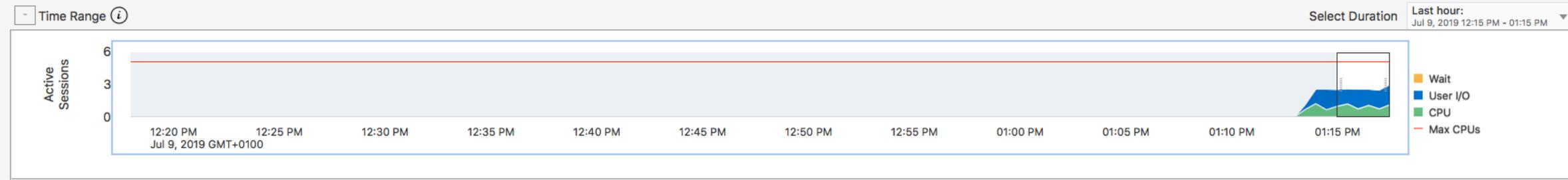
[Kill Session](#)

Status	Duration	Inst ID	SQL ID	SQL Plan Hash	User Name	Parallel	Database Time	I/O Requests	SQL Text
	21.00s	4	7dpq1q438cxz8	4230308389	TK_LOW@XCSVU3MX9D9BVET_ADWDEMO		21.03s	1,859	SELECT /*+ NO_RESULT_CACHE MON...



Session ID: 8379
Session Serial Number: 13168
User ID: 111
Module: SQL Developer
Service:
XCSVU3MX9D9BVET_ADWDEMO_low.adwc.oraclecloud.com
Program: SQL Developer
Container Name:
XCSVU3MX9D9BVET_ADWDEMO

Performance Hub

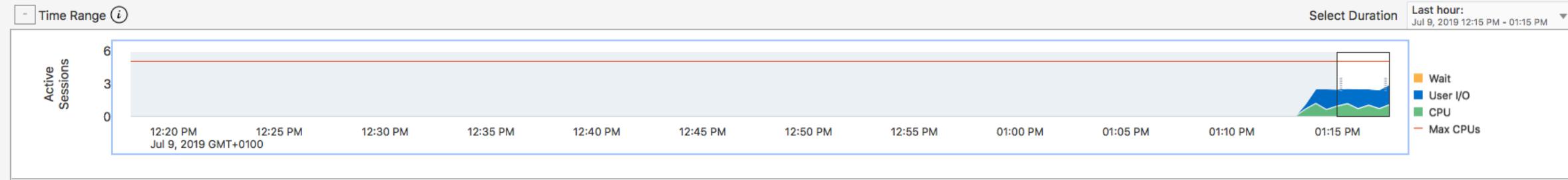
[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)Top 100 by [Last Active Time](#)[Filter by Status, SQL ID or User Name](#)[Kill Session](#)

Status	Duration	Inst ID	SQL ID	SQL Plan Hash	User Name	Parallel	Database	SQL Text
	21.00s	4	7dpq1q438cxz8	4230308389	TK_LOW@XCSVU3MX9D9BVET_ADWDEMO		<div style="display: flex; justify-content: space-between;"><div>CPU Time: 5.76s (27.39 %) User I/O Wait Time: 9.79s (46.55 %) Other Wait Time: 5.48s (26.06 %)</div><div>21.03s</div></div>	1,859 SELECT /*+ NO_RESULT_CACHE MON...



Performance Hub

Refresh



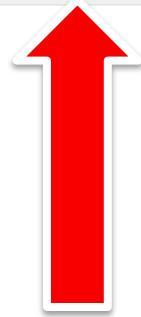
ASH Analytics SQL Monitoring

Top 100 by Last Active Time

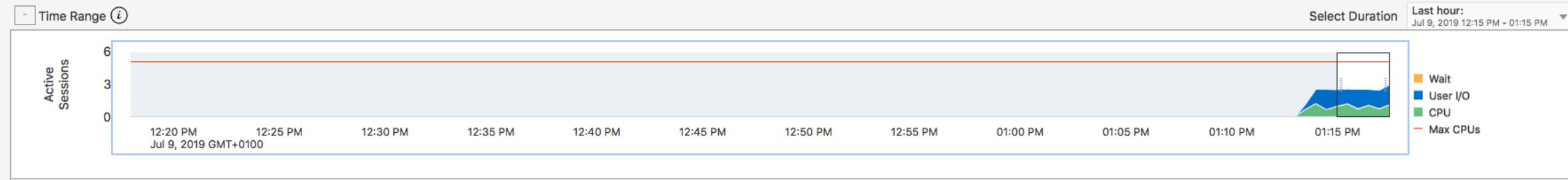
Filter by Status, SQL ID or User Name

Kill Session

Status	Duration	Inst ID	SQL ID	SQL Plan Hash	User Name	Parallel	Database Time	I/O Requests	Read Requests: 1,859 (100.00 %) Read Bytes: 1,944M Average I/O Read Size: 1,046K Write Requests: (0.00 %) Write Bytes: Average I/O Write Size:
Idle	21.00s	4	7dpq1q438cxz8	4230308389	TK_LOW@XCSVU3MX9D9BVET_ADWDEMO	1	21.03s	1,859	SELECT /*+ NO_RESULT_CACHE MON...



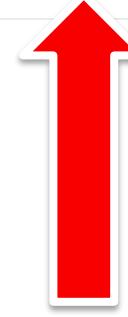
Performance Hub

[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)Top 100 by [Last Active Time](#)

Filter by Status, SQL ID or User Name

[Kill Session](#)

Status	Duration	Inst ID	SQL ID	SQL Plan Hash	User Name	Parallel	Database Time	I/O Requests	SQL Text
21.00s	21.00s	4	7dpq1q438cxz8	4230308389	TK_LOW@XCSVU3MX9D9BVET_ADWDEMO	21.03s	21.03s	1,859	SELECT /*+ NO_RESULT_CACHE MON...



Autonomous

ADWDEMO

[Close](#)[← Back](#)

Real-time SQL Monitoring

SQL ID: N/A Execution ID: N/A

[Save Report](#)[Refresh](#)

Loading Data...

A

Resource

Backups (3)

[Back](#)

Real-time SQL Monitoring

SQL ID: 7dpq1q438cxz8 Execution ID: 67108864 Status: Executing[Save Report](#)[Refresh](#)

Overview

General

SQL Text: [SELECT /*+ NO_RESULT_CACHE MONITOR */
lo_orderdate,...](#)

Execution Plan:

Execution Started: 09/07/2019, 13:17:08

Last Refresh Time: 09/07/2019, 13:18:10

Execution Id: 67108864

User Name: TK_LOW@XCSVU3MX9D9BVET_AD...

Fetch Calls: 0

Time & Wait

Duration:  1.1m

Database Time:  1.1m

PL/SQL & Java: 0s

Activity %:  100%

I/O

Buffer Gets:  621K

I/O Requests:  4,857

I/O Bytes:  4.7GB

Cell Offload Efficiency: 76%

Details

[Plan Statistics](#) [SQL Text](#) [Activity](#) [Metrics](#)

Plan Hash Value 4230308389

[Plan Notes](#)

	Operation	Object	Information	Est. Rows	Timeline	Executions	Rows	Mem	Temp	I/O Requests	Activity %
0	SELECT STATEMENT					1					
1	SORT GROUP BY			7,665M		1		174KB		 14	
2	TABLE ACCESS STORAGE LINEORDER			7,665M		1	13M	12.1MB	 5,342		

[Back](#)

Real-time SQL Monitoring

SQL ID: 7dpq1q438cxz8 Execution ID: 67108864 Status: Executing

[Save Report](#)[Refresh](#)

Overview

General

SQL Text: `SELECT /*+ NO_RESULT_CACHE MONITOR */
 l_o_orderdate,...`
Execution Plan:
Started: 09/07/2019, 13:17:08
Last Refresh Time: 09/07/2019, 13:18:10
Execution ID: 67108864
User: TK_LOW@XCSVU3MX9D9BVET_AD...
Fetches: 0

Time & Wait

Duration: 1.1m
Database Time: 1.1m
PL/SQL & Java: 0s
Activity %: 100%

I/O

Buffer Gets: 621K
I/O Requests: 4,857
I/O Bytes: 4.7GB
Cell Offload Efficiency: 76%

Details

[Plan Statistics](#) [SQL Text](#) [Activity](#) [Metrics](#)

Plan Hash Value 4230308389

[Plan Notes](#)

	Operation	Object	Information	Est. Rows	Timeline	Executions	Rows	Mem	Temp	I/O Requests	Activity %
0	SELECT STATEMENT					1					
1	SORT GROUP BY			7,665M		1		174KB		14	
2	TABLE ACCESS STORAGE LINEORDER			7,665M		1	13M	12.1MB		5,342	

[Back](#)

Real-time SQL Monitoring

SQL ID: 7dpq1q438cxz8 Execution ID: 67108864 Status: Executing

[Save Report](#)[Refresh](#)

Overview

General

SQL Text: `SELECT /*+ NO_RESULT_CACHE_MONITOR */
 lo_orderdate,
 sum(lo_revenue) as revenue
FROM ssb.lineorder
group by lo_orderdate
order by 1`

Execution Plan:

Execution Started: 7/2019, 13:17:08

Last Refresh Time: 7/2019, 13:18:10

Execution Id: 67108864

User Name: TK_L...

Fetch Calls: 0

Time & Wait

Duration: 1.1m

Database Time: 1.1m

PL/SQL & Java: 0s

Activity %: 100%

I/O

Buffer Gets: 621K

I/O Requests: 4,857

I/O Bytes: 4.7GB

Cell Offload Efficiency: 76%

Details

[Plan Statistics](#) [SQL Text](#) [Activity](#) [Metrics](#)

SQL Text

```
SELECT /*+ NO_RESULT_CACHE_MONITOR */  
    lo_orderdate,  
    sum(lo_revenue) as revenue  
FROM ssb.lineorder  
group by lo_orderdate  
order by 1
```

[← Back](#)

Real-time SQL Monitoring

SQL ID: 7dpq1q438cxz8 Execution ID: 67108864 Status: Executing

[Save Report](#)[Refresh](#)

Overview

General

SQL Text: [SELECT /*+ NO_RESUME */ HE_MONITOR */ lo_orderdate,...](#)

Execution Plan:

Execution Started: 09/07/2019, 09:17:17 AM

Last Refresh Time: 09/07/2019, 09:17:17 AM

Execution Id: 67108864

User Name: TK_LOW@XCSVU3

Fetch Calls: 0

Time & Wait

Duration: 1.1m

Database Time: 1.1m

PL/SQL & Java: 0s

Activity %: 100%

I/O

Buffer Gets: 621K

I/O Requests: 4,857

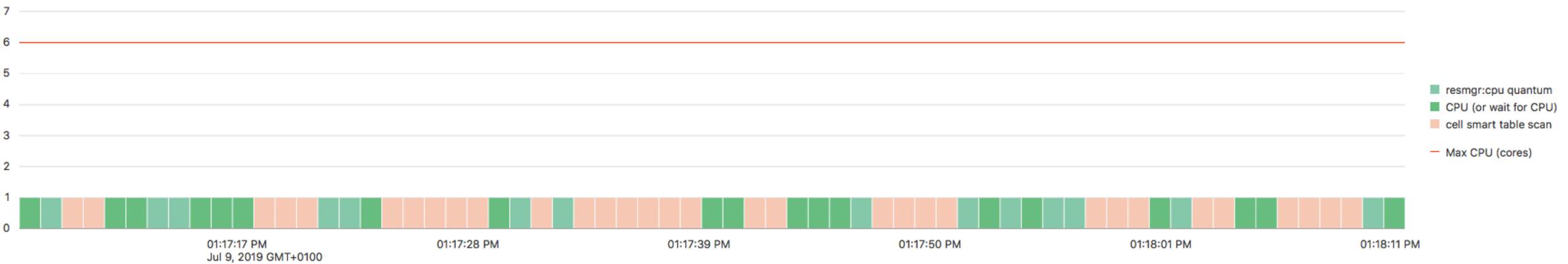
I/O Bytes: 4.7GB

Cell Offload Efficiency: 76%

Details

[Plan Statistics](#) [SQL Text](#) [Activity](#) [Metrics](#)

by Resource Type Max CPU (cores)



[← Back](#)

Real-time SQL Monitoring

SQL ID: 7dpq1q438cxz8 Execution ID: 67108864 Status: Executing

[Save Report](#)[Refresh](#)

Overview

General

SQL Text: [SELECT /*+ NO_RESULT_CACHE MONITOR */
lo_orderdate,...](#)

Execution Plan:

Execution Started: 09/07/2019, 13:17:08

Last Refresh Time: 09/07/2019, 13:18:10

Execution Id: 67108864

User Name: TK_LOW@XCSVU3MX9D9BVET_AD...

Fetch Calls: 0

Time & Wait

Duration: 1.1m

Database Time: 1.1m

PL/SQL & Java: 0s

Activity %: 100%

I/O

Buffer Gets: 621K

I/O Requests: 4,857

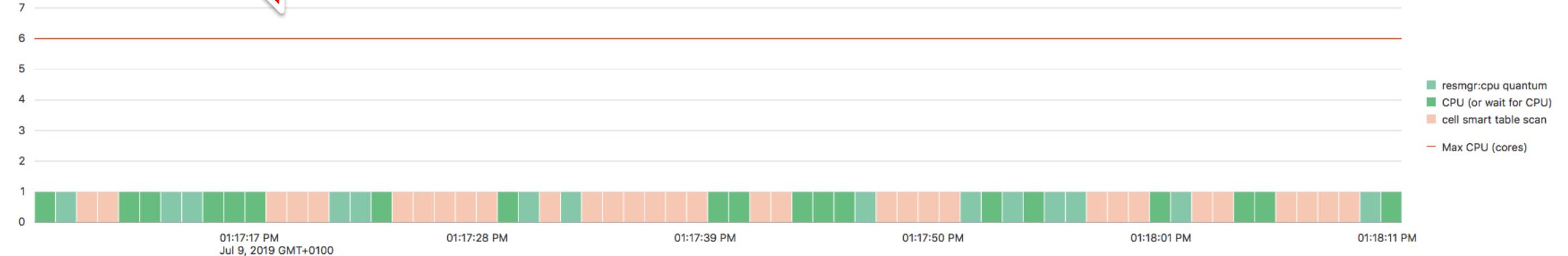
I/O Bytes: 4.7GB

Cell Offload Efficiency: 76%

Details

[Plan Statistics](#) [SQL Text](#) [Activity](#) [Metrics](#)

by Resource Type



[← Back](#)

Real-time SQL Monitoring

SQL ID: 7dpq1q438cxz8 Execution ID: 67108864 Status: Executing

[Save Report](#)[Refresh](#)

Overview

General

SQL Text: [SELECT /*+ NO_RESULT_CACHE MONITOR */
lo_orderdate,...](#)

Execution Plan:

Execution Started: 09/07/2019, 13:17:08

Last Refresh Time: 09/07/2019, 13:18:10

Execution Id: 67108864

User Name: TK_LOW@XCSVU3MX9D9BVET_AD...

Fetch Calls: 0

Time & Wait

Duration: 1.1m

Database Time: 1.1m

PL/SQL & Java: 0s

Activity %: 100%

I/O

Buffer Gets: 621K

I/O Requests: 4,857

I/O Bytes: 4.7GB

Cell Offload Efficiency: 76%

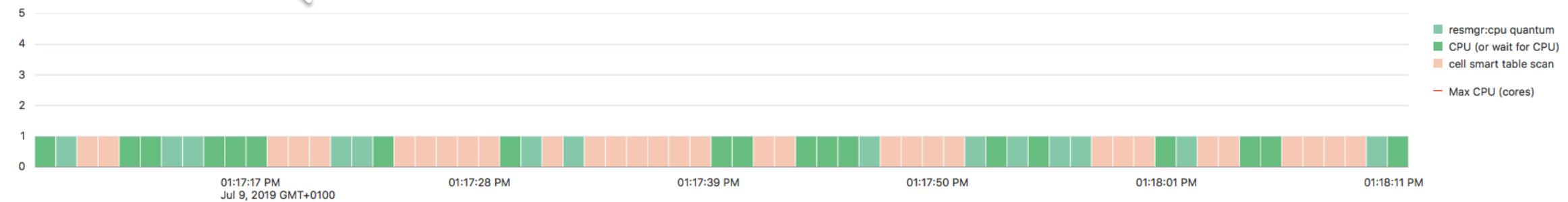
Details

[Plan Statistics](#) [SQL Text](#) [Activity](#) [Metrics](#)

by Resource Type Max PU (cores)

by Resource Type

by Plan Line



[Back](#)

Real-time SQL Monitoring

SQL ID: 7dpq1q438cxz8 Execution ID: 67108864 Status: Executing

[Save Report](#)[Refresh](#)

Overview

General

SQL Text: [SELECT /*+ NO_RESULT_CACHE MONITOR */
lo_orderdate,...](#)

Execution Plan:

Execution Started: 09/07/2019, 13:17:08

Last Refresh Time: 09/07/2019, 13:18:10

Execution Id: 67108864

User Name: TK_LOW@XCSVU3MX9D9BVET_AD...

Fetch Calls: 0

Time & Wait

Duration: 1.1m

Database Time: 1.1m

PL/SQL & Java: 0s

Activity %: 100%

I/O

Buffer Gets: 621K

I/O Requests: 4,857

I/O Bytes: 4.7GB

Cell Offload Efficiency: 76%

Details

[Plan Statistics](#) [SQL Text](#) [Activity](#) [Metrics](#)

by Plan Line Max CPU (cores)

7

6

5

4

3

2

1

0

01:17:17 PM
Jul 9, 2019 GMT+0100

01:17:28 PM

01:17:39 PM

01:17:50 PM

01:18:01 PM

01:18:11 PM

Line 1: SORT GROUP BY
Line 2: TABLE ACCESS STORAGE FULL
Max CPU (cores)

[Back](#)

Real-time SQL Monitoring

SQL ID: 7dpq1q438cxz8 Execution ID: 67108864 Status: Executing

[Save Report](#)[Refresh](#)

Overview

General

SQL Text: [SELECT /*+ NO_RESULT_CACHE MONITOR */
lo_orderdate,...](#)

Execution Plan:

Execution Started: 09/07/2019, 13:17:08

Last Refresh Time: 09/07/2019, 13:18:10

Execution Id: 67108864

User Name: TK_LOW@XCSVU3MX9D9BVE

Fetch Calls: 0

Time & Wait

Duration: 1.1m

Database Time: 1.1m

PL/SQL & Java: 0s

Activity %: 100%

I/O

Buffer Gets: 621K

I/O Requests: 4,857

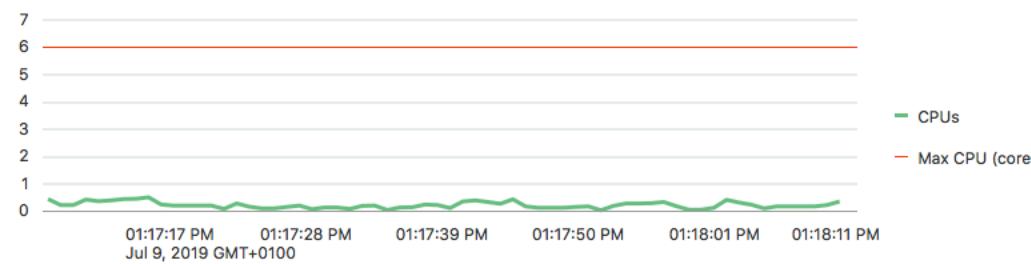
I/O Bytes: 4.7GB

Cell Offload Efficiency: 76%

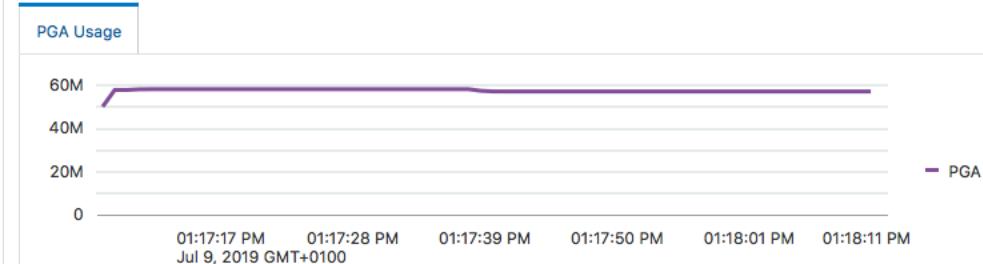
Details

[Plan Statistics](#)[SQL Text](#)[Activity](#)[Metrics](#)

CPU Used



Memory



I/O Throughput

I/O Requests

General

SQL Text: [SELECT /*+ NO_RESULT_CACHE MONITOR */ lo_orderdate,...](#)

Execution Plan:

Execution Started: 09/07/2019, 13:17:08

Last Refresh Time: 09/07/2019, 13:18:10

Execution Id: 67108864

User Name: TK_LOW@XCSVU3MX9D9BVET_AD...

Fetch Calls: 0

Time & Wait

Duration: 1.1m

Database Time: 1.1m

PL/SQL & Java: 0s

Activity %: 100%

I/O

Buffer Gets: 621K

I/O Requests: 4,857

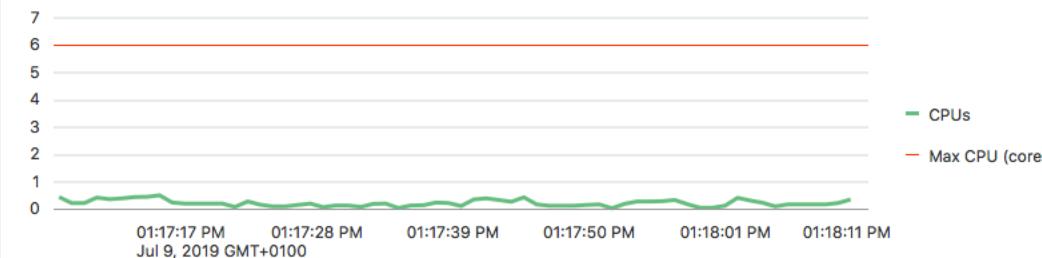
I/O Bytes: 4.7GB

Cell Offload Efficiency: 76%

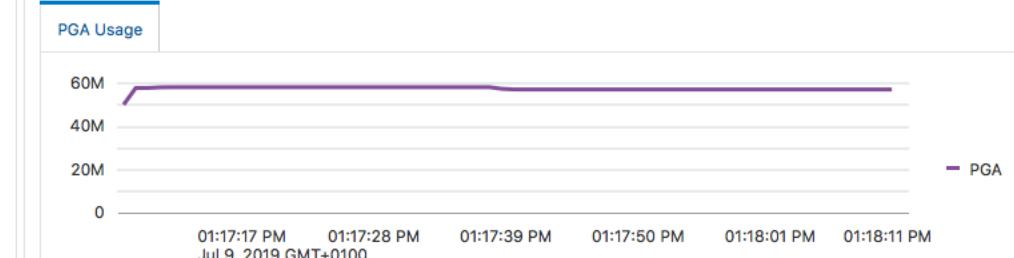
Details

Plan Statistics SQL Text Activity Metrics

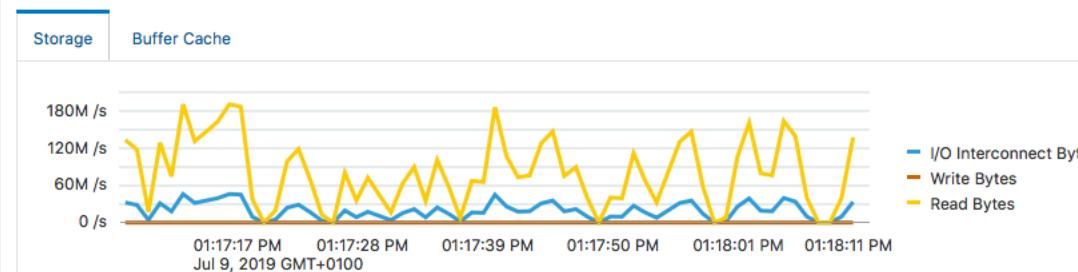
CPU Used



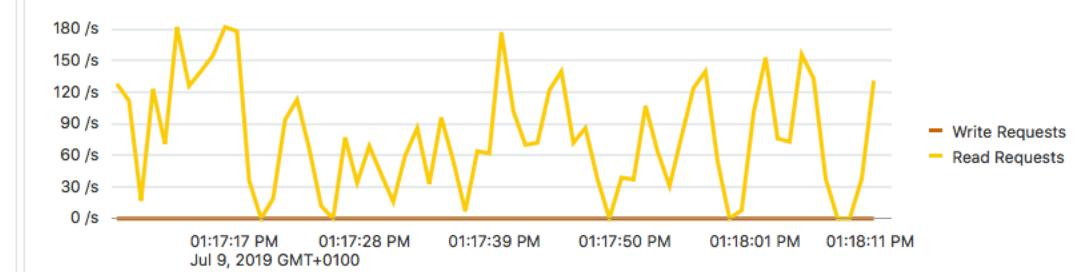
Memory



I/O Throughput



I/O Requests



Resource

Backups (3)

General

SQL Text: `SELECT /*+ NO_RESULT_CACHE MONITOR */
 lo_orderdate,...`

Execution Plan:

Execution Started: 09/07/2019, 13:17:08

Last Refresh Time: 09/07/2019, 13:18:10

Execution Id: 67108864

User Name: TK_LOW@XCSVU3MX9D9BVET_AD...

Fetch Calls: 0

Time & Wait

Duration:  1.1m

Database Time:  1.1m

PL/SQL & Java: 0s

Activity %:  100%

I/O

Buffer Gets:  621K

I/O Requests:  4,857

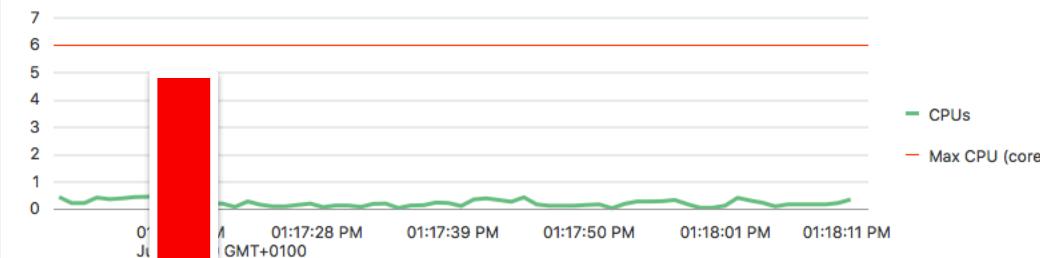
I/O Bytes:  4.7GB

Cell Offload Efficiency: 76%

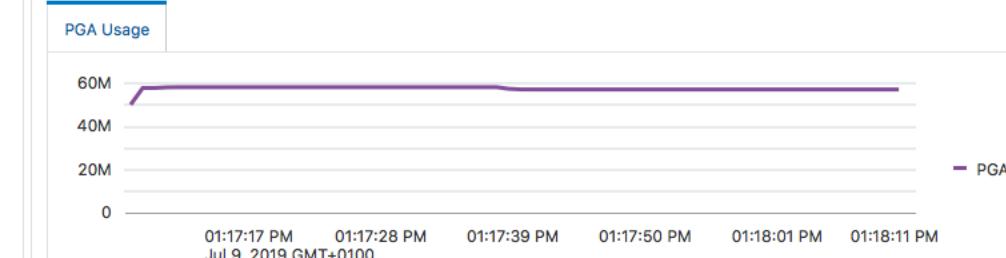
Details

Plan Statistics SQL Text Activity Metrics

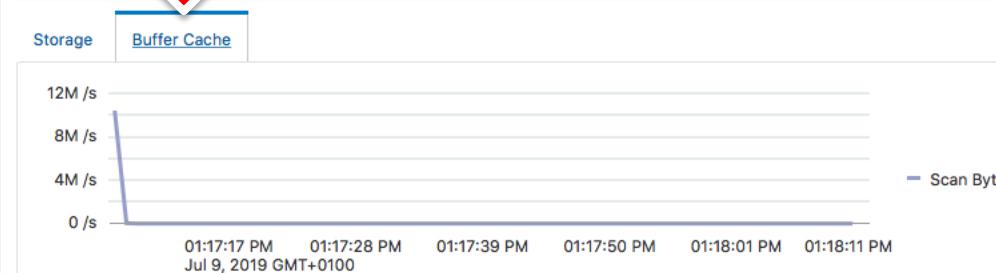
CPU Used



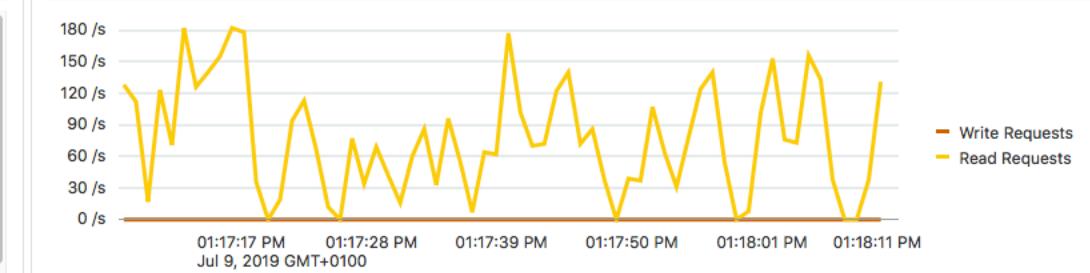
Memory



I/O Throughput



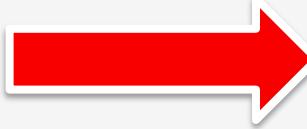
I/O Requests



[Back](#)

Real-time SQL Monitoring

SQL ID: 7dpq1q438cxz8 Execution ID: 67108864 Status: Executing

[Save Report](#)[Refresh](#)

Overview

General

SQL Text: [SELECT /*+ NO_RESULT_CACHE MONITOR */
lo_orderdate,...](#)

Execution Plan:

Execution Started: 09/07/2019, 13:17:08

Last Refresh Time: 09/07/2019, 13:18:10

Execution Id: 67108864

User Name: TK_LOW@XCSVU3MX9D9BVET_AD...

Fetch Calls: 0

Time & Wait

Duration: 1.1m

Database Time: 1.1m

PL/SQL & Java: 0s

Activity %: 100%

I/O

Buffer Gets: 621K

I/O Requests: 4,857

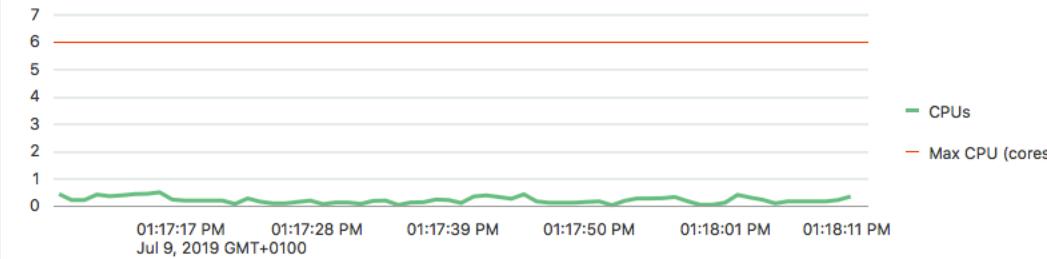
I/O Bytes: 4.7GB

Cell Offload Efficiency: 76%

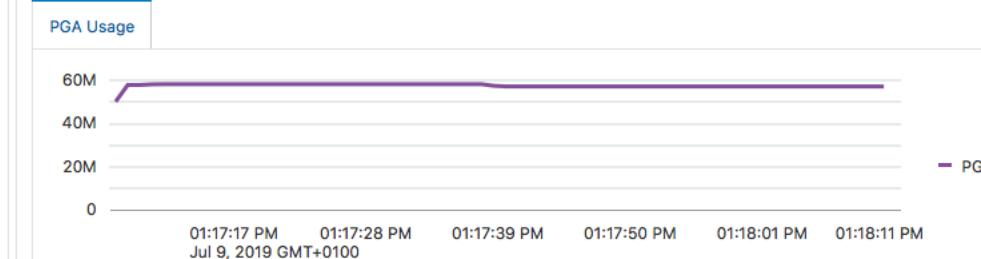
Details

[Plan Statistics](#) [SQL Text](#) [Activity](#) [Metrics](#)

CPU Used



Memory



I/O Throughput

I/O Requests

Viewing SQL Monitor Report

Use Browser to view HTML Web Page report generated from Performance Hub. This is easiest way to share performance information with other DBAs and technical users

Real-time SQL Monitoring

SQL ID 7dpq1q438cxz8 Execution ID 67108864 Status Executing

Overview

General

SQL Text `SELECT /*+ NO_RESULT_CACHE MONITOR */
 lo_orderdate,...`

Execution Plan

Execution Started 09/07/2019, 12:17:08

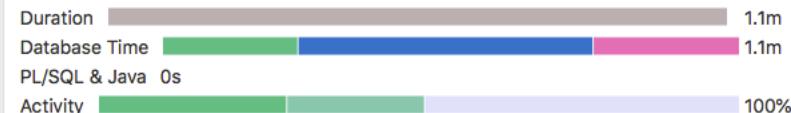
Last Refresh Time 09/07/2019, 12:18:10

Execution Id 67108864

User Name TK_LOW@XCSVU3MX9D9BVET_AD...

Fetch Calls 0

Time & Wait



I/O



Details

Plan Statistics SQL Text Activity Metrics

Plan Hash Value 4230308389

Plan Notes

	Operation	Object	Information	Est. Rows	Timeline	Executions	Rows	Mem	Temp	I/O Requests	Activity
0	SELECT STATEMENT					1					
1	SORT GROUP BY			7,665M		1		174KB			14%
2	TABLE ACCESS STORAGE FULL LINEORDER	LN		7,665M		1	13M	12.1MB		5,342	

Real-time SQL Monitoring

SQL ID 7dpq1q438cxz8 Execution ID 67108864 Status Executing

Overview

General

SQL Text `SELECT /*+ NO_RESULT_CACHE MONITOR */
 lo_orderdate,...`

Execution Plan

Execution Started 09/07/2019, 12:17:08

Last Refresh Time 09/07/2019, 12:18:10

Execution Id 67108864

User Name TK_LOW@XCSVU3MX9D9BVET_AD...

Fetch Calls 0

Time & Wait



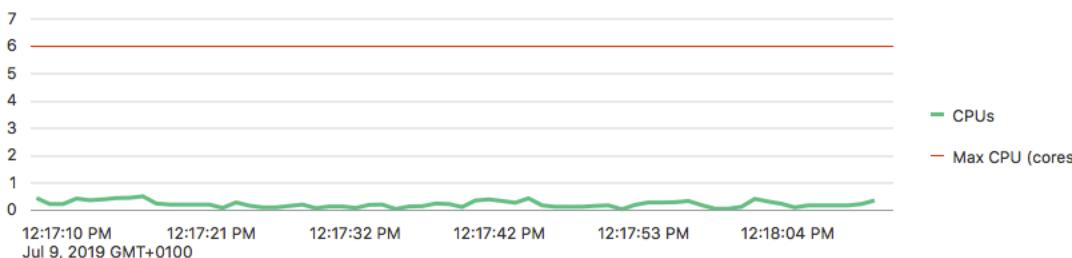
I/O



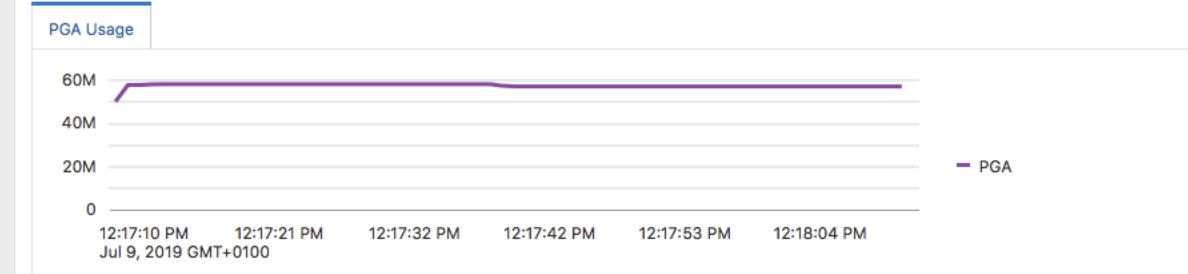
Details

[Plan Statistics](#) [SQL Text](#) [Activity](#) [Metrics](#)

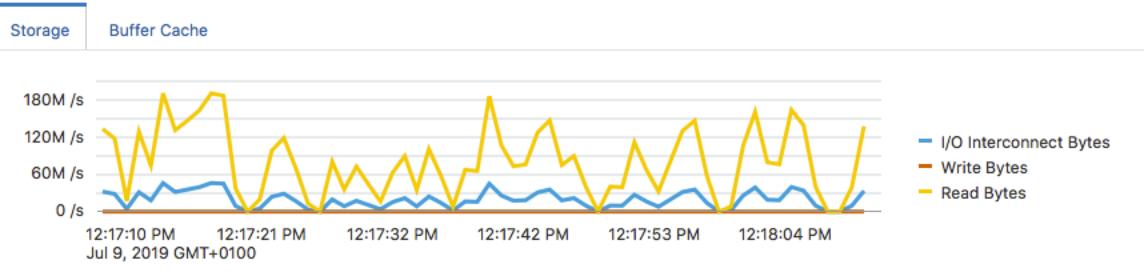
CPU Used



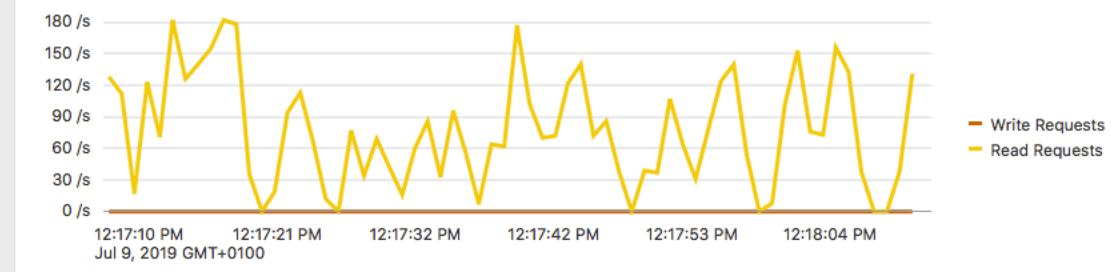
Memory



I/O Throughput



I/O Requests

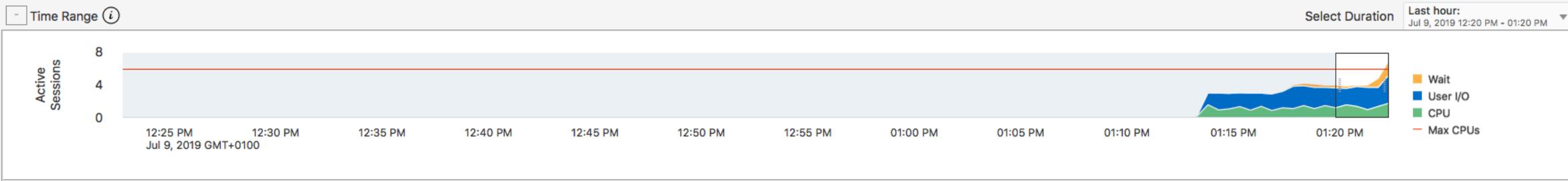


Back To....Using Performance Hub

More graphs and metrics on a busier system...

Performance Hub

Refresh

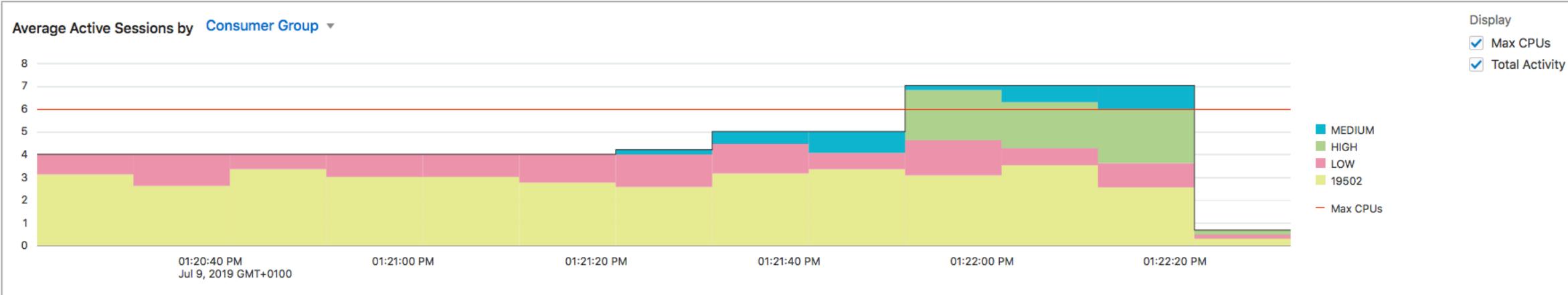


ASH Analytics SQL Monitoring

Applied Filters: None

View Options

Display

 Max CPUs Total Activity

SQL ID ▾ by Consumer Group

SQL ID Activity (Average Active Sessions)

90tvkj8dvhwr0

2.01

User Session ▾ by Consumer Group

User Session Activity (Average Active Sessions)

4:8379,13168

1.12

Autonomous

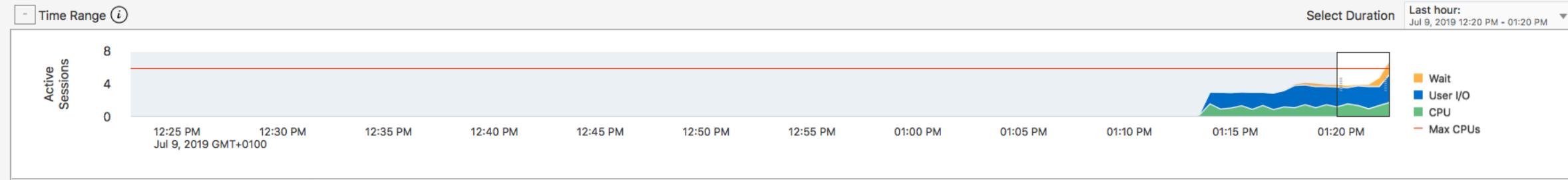
ADWDEMO

Close

A

Performance Hub

Refresh

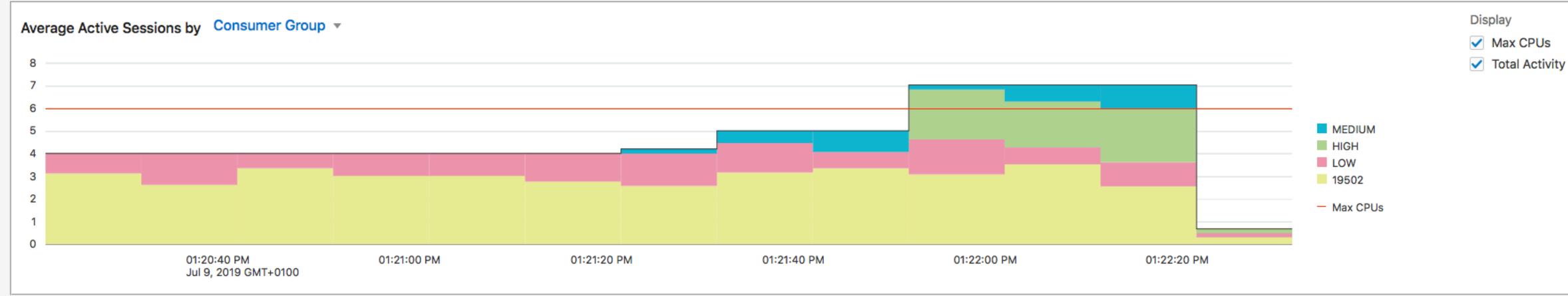


ASH Analytics SQL Monitoring



Applied Filters: None

View Options



Resource

Backups (3)

SQL ID ▾ by Consumer Group

SQL ID Activity (Average Active Sessions)

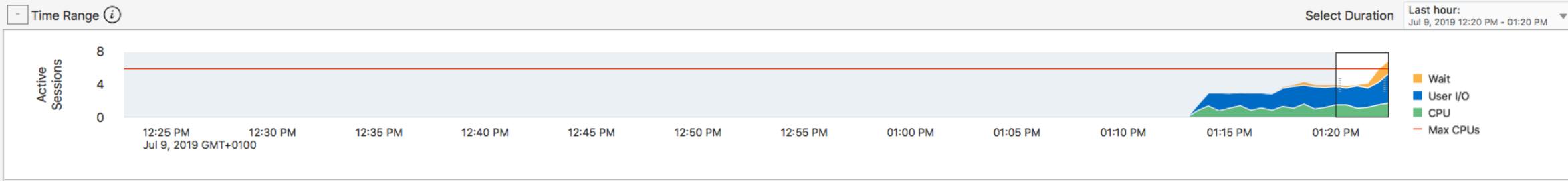
90tvkj8dvhwr0

User Session ▾ by Consumer Group

User Session Activity (Average Active Sessions)

4:8379,13168

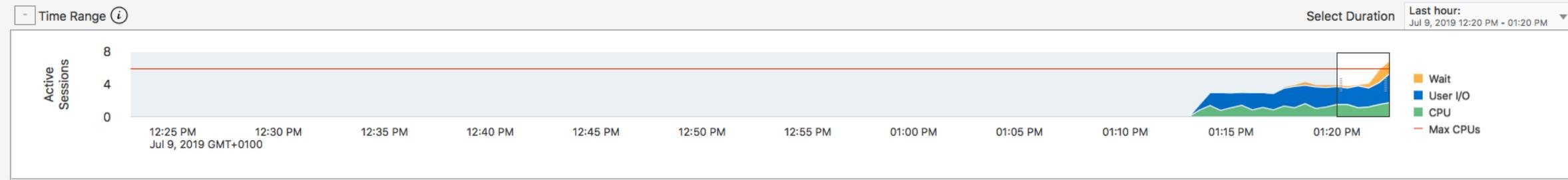
Performance Hub

[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)Top 100 by [Last Active Time](#)

Filter by Status, SQL ID or User Name

Kill Session									
Status	Duration	Inst ID	SQL ID	SQL Plan Hash	User Name	Parallel	Database Time	I/O Requests	SQL Text
⌚	1.10m	4	77nptnhb69hfc	434607624	TK_MED@XCSVU3MX9D9BVET_ADWDEMO		< 0.01s		SELECT /*+ NO_RESULT_CACHE MON...
⌚	43.00s	4	6bf4hzg4cqmw	434607624	TK_HIGH@XCSVU3MX9D9BVET_ADWDEMO	2	1.38m	11K	SELECT /*+ NO_RESULT_CACHE MON...
⌚	5.35m	4	7dpq1q438cxz8	4230308389	TK_LOW@XCSVU3MX9D9BVET_ADWDEMO	5.35m	24K		SELECT /*+ NO_RESULT_CACHE MON...

Performance Hub

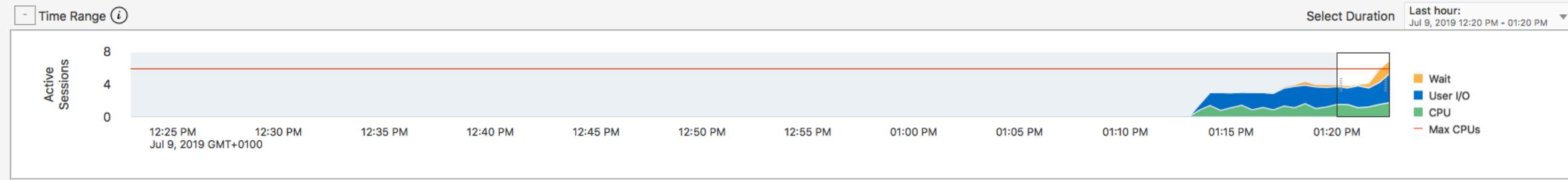
[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)Top 100 by [Last Active Time](#)

Filter by Status, SQL ID or User Name

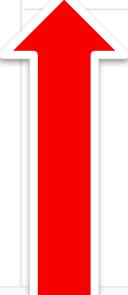
[Kill Session](#)

Status	Duration	Inst ID	SQL ID	SQL Plan Hash	User Name	Parallel	Database Time	I/O Requests	SQL Text
1.10m	1.10m	4	77nptnhb69hfc	434607624	TK_MED@XCSVU3MX9D9BVET_ADWDEMO		< 0.01s		SELECT /*+ NO_RESULT_CACHE MON...
43.00s	43.00s	4	6bf4hzg4cqmw	434607624	TK_HIGH@XCSVU3MX9D9BVET_ADWDEMO	2	1.38m	11K	SELECT /*+ NO_RESULT_CACHE MON...
5.35m	5.35m	4	7dpq1q438cxz8	4230308389	TK_LOW@XCSVU3MX9D9BVET_ADWDEMO	2	5.35m	24K	SELECT /*+ NO_RESULT_CACHE MON...

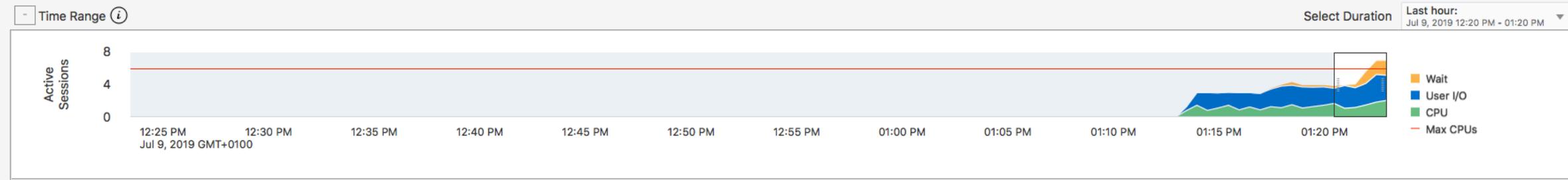
Performance Hub

[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)Top 100 by [Last Active Time](#)[Filter by Status, SQL ID or User Name](#)[Kill Session](#)

Status	Duration	Inst ID	SQL ID	SQL Plan Hash	User Name	Parallel	Database Time	I/O Requests	SQL Text
1.10m	1.10m	4	77nptnhb69hfc	434607624	TK_MED@XCSVU3MX9D9BVET_ADWDEMO		< 0.01s		SELECT /*+ NO_RESULT_CACHE MON...
43.00s	43.00s	4	6bf4hzg4cqmw	434607624	TK_HIGH@XCSVU3MX9D9BVET_ADWDEMO	2	1.38m	11K	SELECT /*+ NO_RESULT_CACHE MON...
5.35m	5.35m	4	7dpq1q438cxz8	4230308389	TK_LOW@XCSVU3MX9D9BVET_ADWDEMO	5.35m	24K		SELECT /*+ NO_RESULT_CACHE MON...



Performance Hub

[Refresh](#)

ASH Analytics



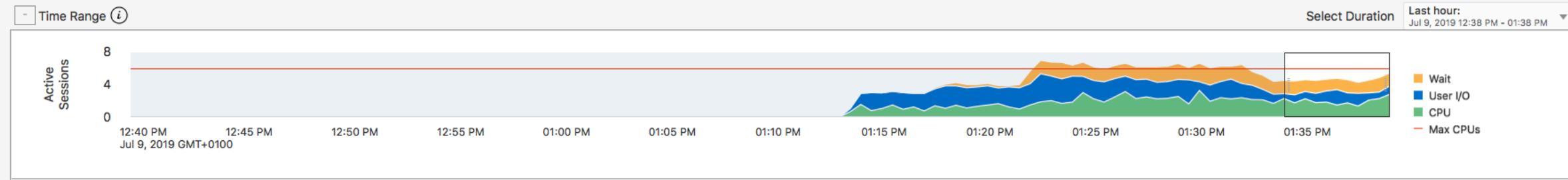
Top 100 by Last Active Time

Filter by Status, SQL ID or User Name

[Kill Session](#)

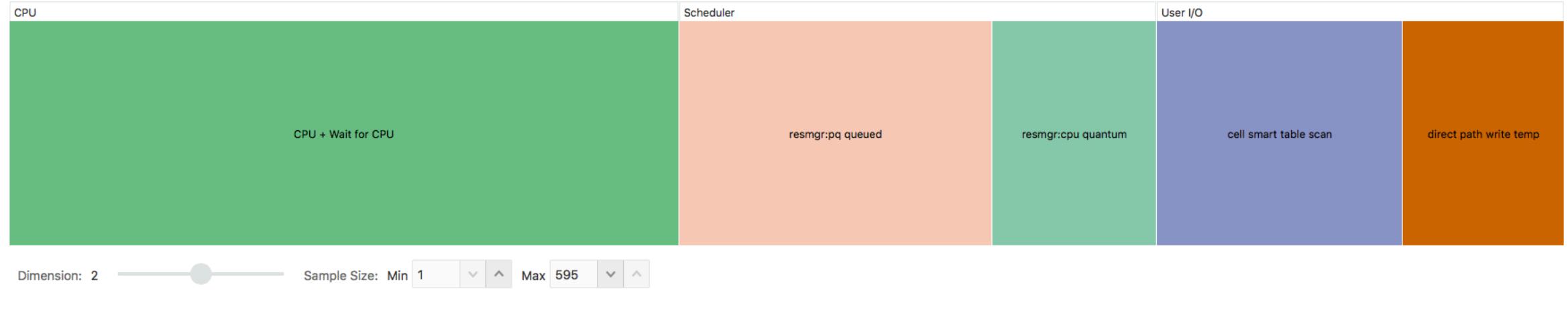
Status	Duration	Inst ID	SQL ID	SQL Plan Hash	User Name	Parallel	Database Time	I/O Requests	SQL Text
	1.10m	4	77nptnhb69hfc	434607624	TK_MED@XCSVU3MX9D9BVET_ADWDEMO		< 0.01s		SELECT /*+ NO_RESULT_CACHE MON...
	43.00s	4	6bf4hzg4cqmw	434607624	TK_HIGH@XCSVU3MX9D9BVET_ADWDEMO	2	1.38m	11K	SELECT /*+ NO_RESULT_CACHE MON...
	5.35m	4	7dpq1q438cxz8	4230308389	TK_LOW@XCSVU3MX9D9BVET_ADWDEMO	2	5.35m	24K	SELECT /*+ NO_RESULT_CACHE MON...

Performance Hub

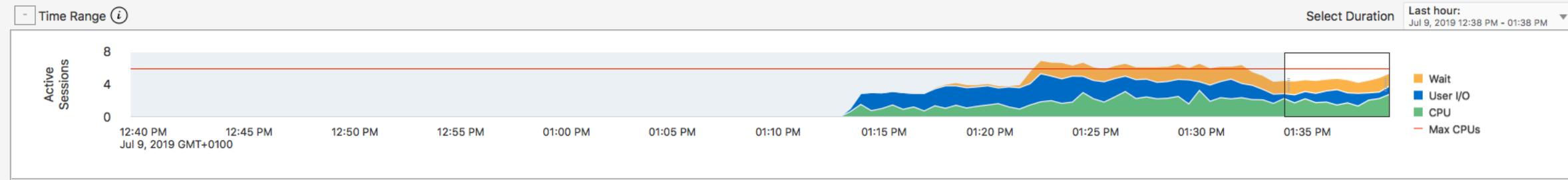
[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

View Options

Average Active Sessions by [Wait Class, Wait Event](#)Mode [Simple](#)

Performance Hub

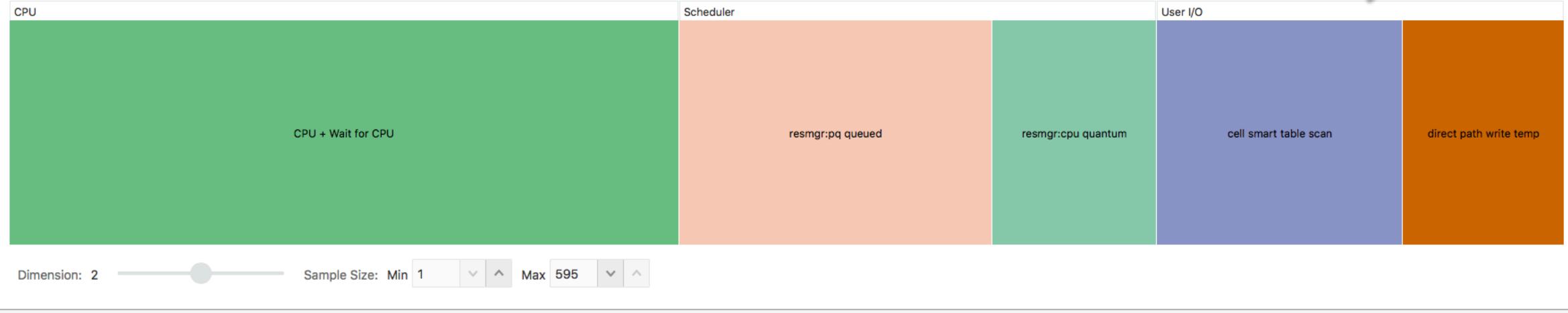
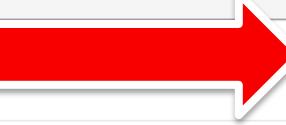
[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

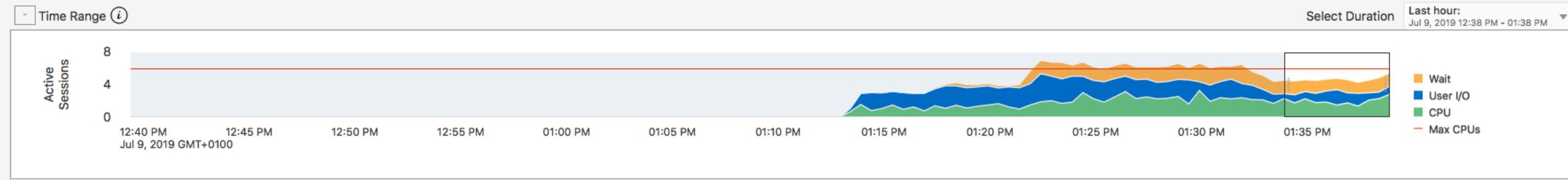
View Options

Average Active Sessions by Wait Class, Wait Event

Mode Simple



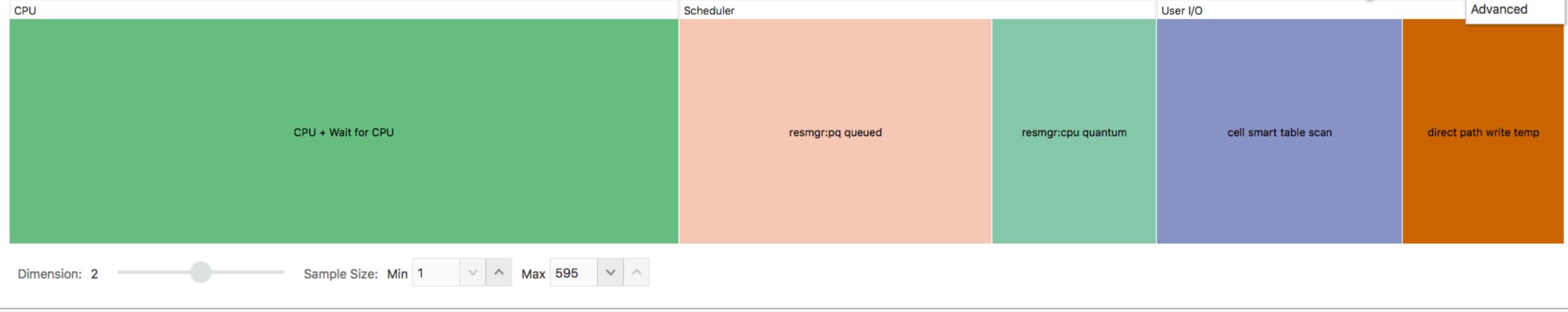
Performance Hub

[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

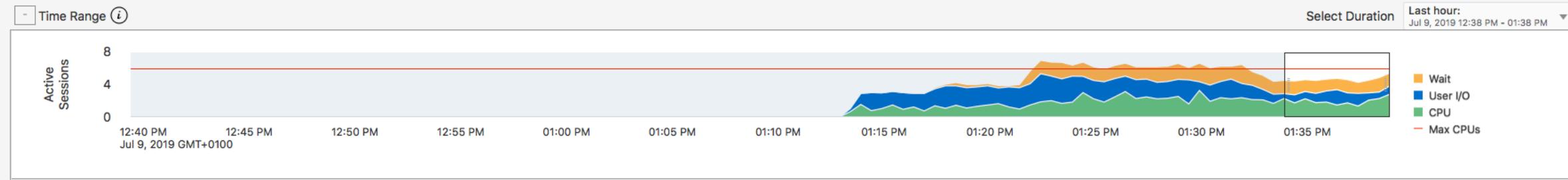
Applied Filters: None

View Options

Average Active Sessions by Wait Class, Wait Event

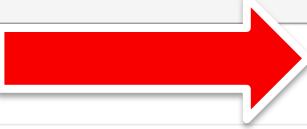
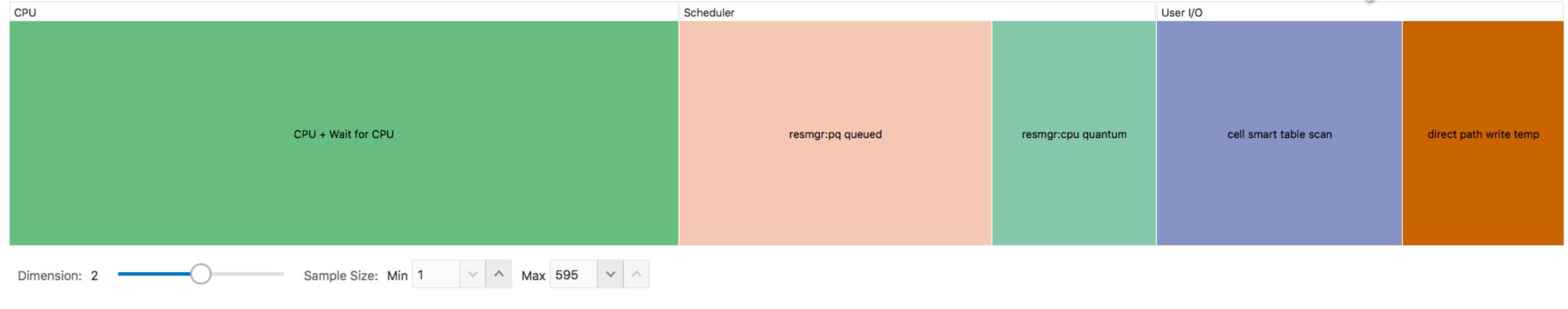


Performance Hub

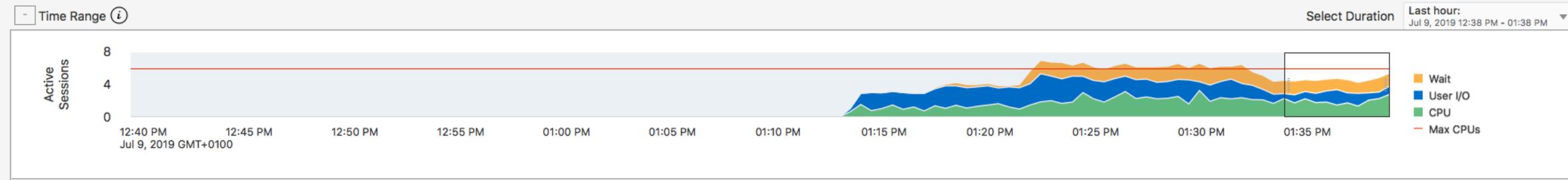
[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

View Options

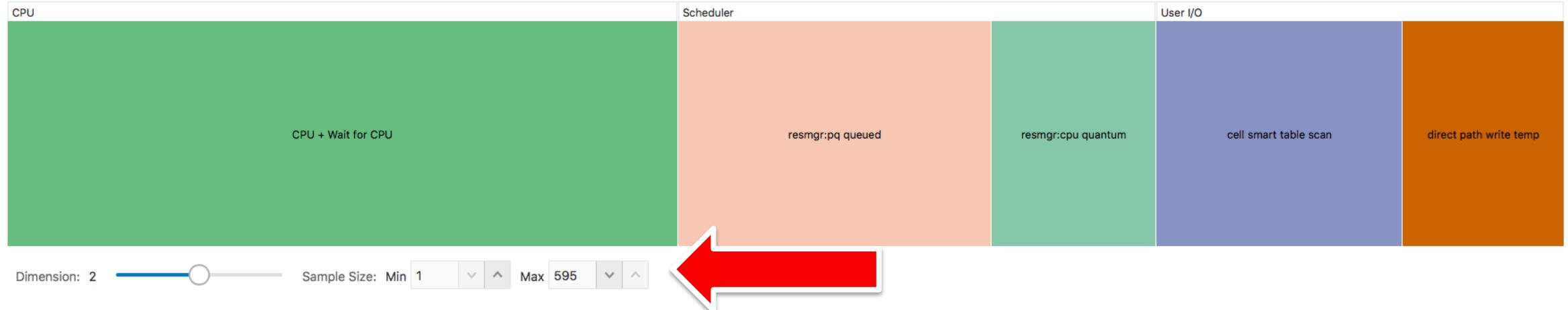
Average Active Sessions by [Wait Class](#) > [Wait Event](#)Mode [Advanced](#)

Performance Hub

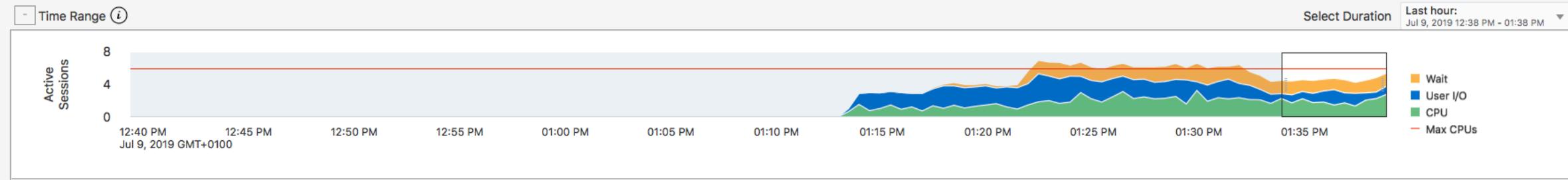
[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

View Options

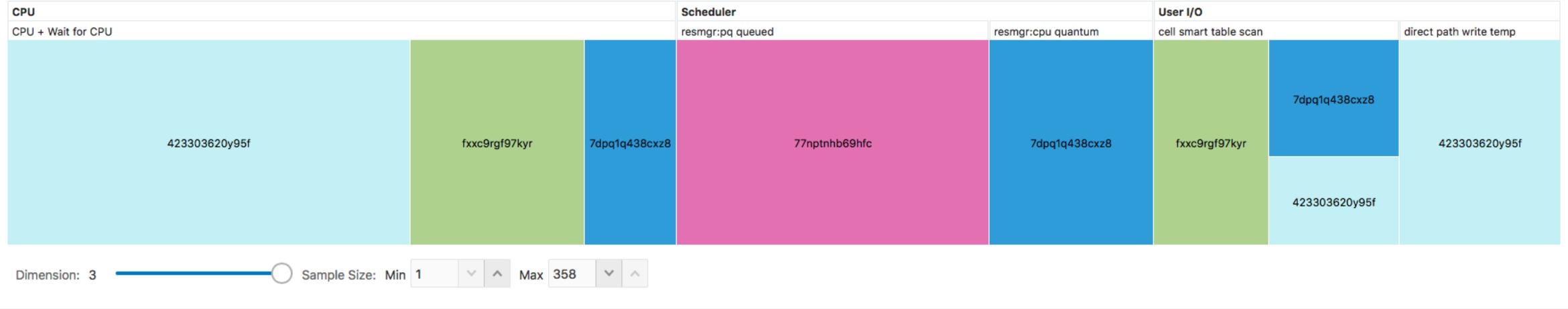
Average Active Sessions by [Wait Class](#) > [Wait Event](#)Mode [Advanced](#)

Performance Hub

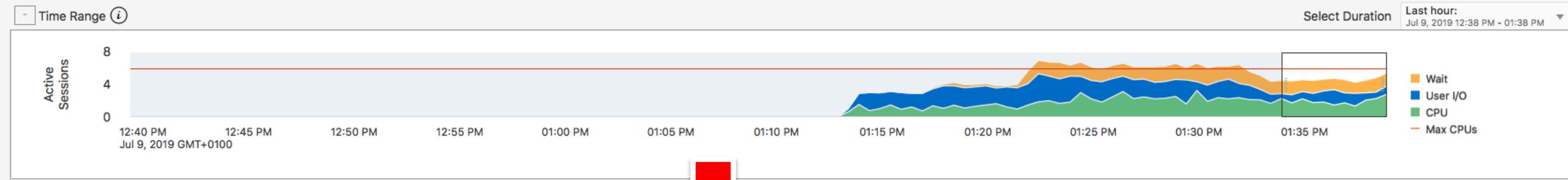
[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

View Options

Average Active Sessions by [Wait Class](#) > [Wait Event](#) > [SQL ID](#)Mode [Advanced](#)

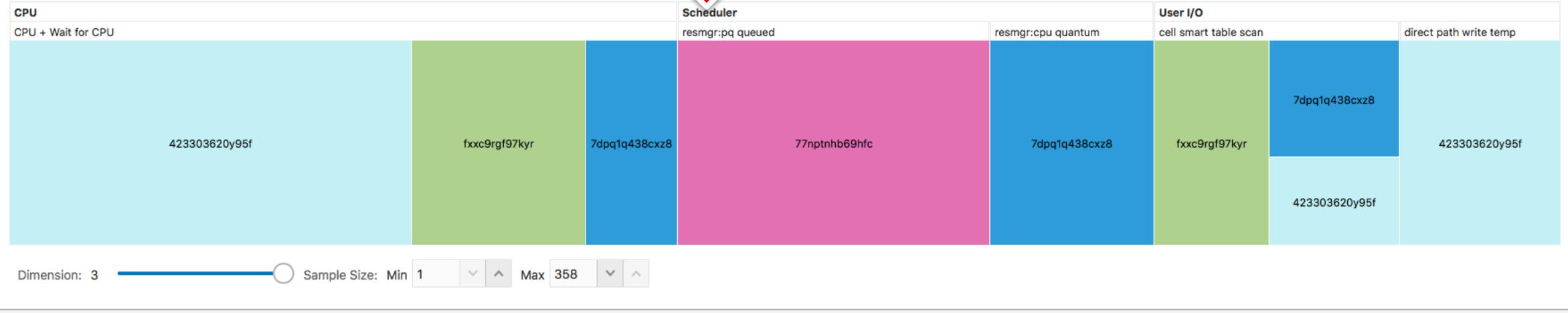
Performance Hub

[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

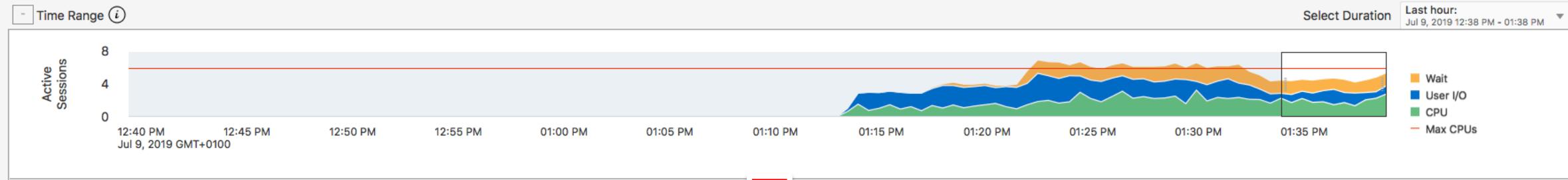
View Options

Average Active Sessions by Wait Class > Wait Event > SQL ID

Mode [Advanced](#)

Performance Hub

Refresh



ASH Analytics SQL Monitoring

View Options

 Applied Filters: None

Average Active Sessions by Wait Class ▾ > Wait Event ▾ > SQL ID

Mode Advanced ▾

CPU

CPU + Wait for CPU

Scheduler

resmgr:rq queued

User I/O

cell smart table scan

direct path write temp

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77nptnhb69hfc

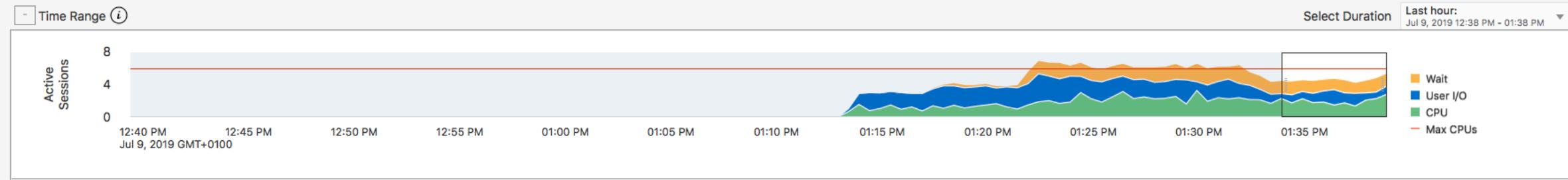
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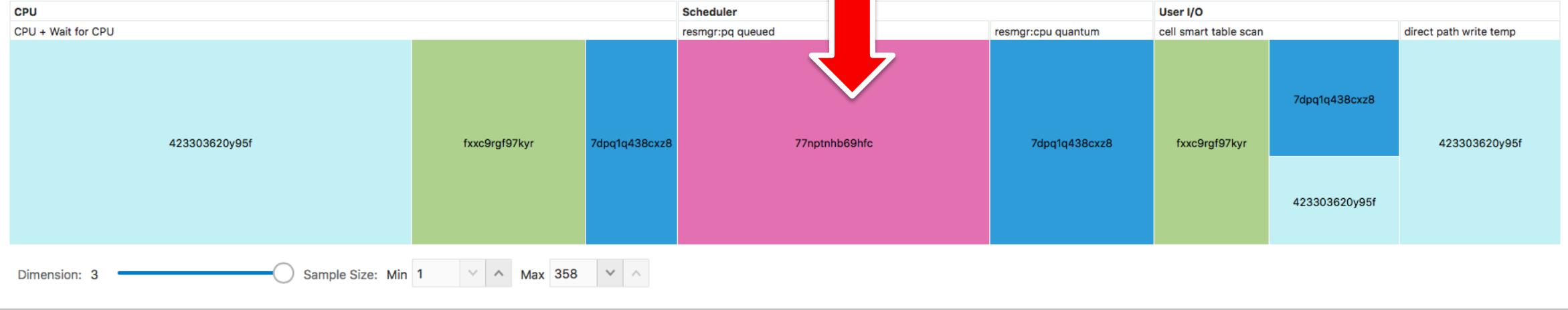
Performance Hub

[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

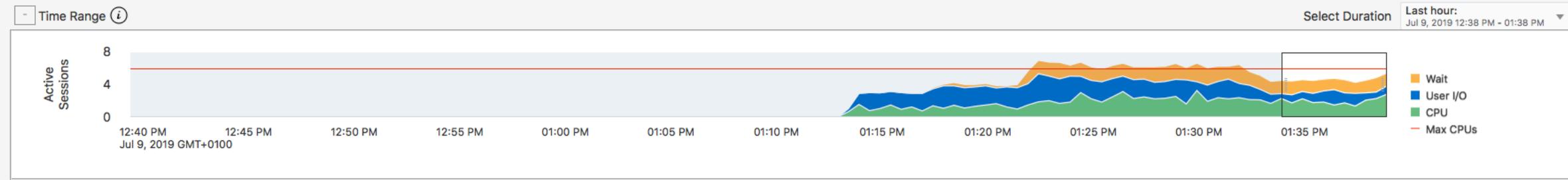
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View Options

Average Active Sessions by Wait Class > Wait Event > SQL ID

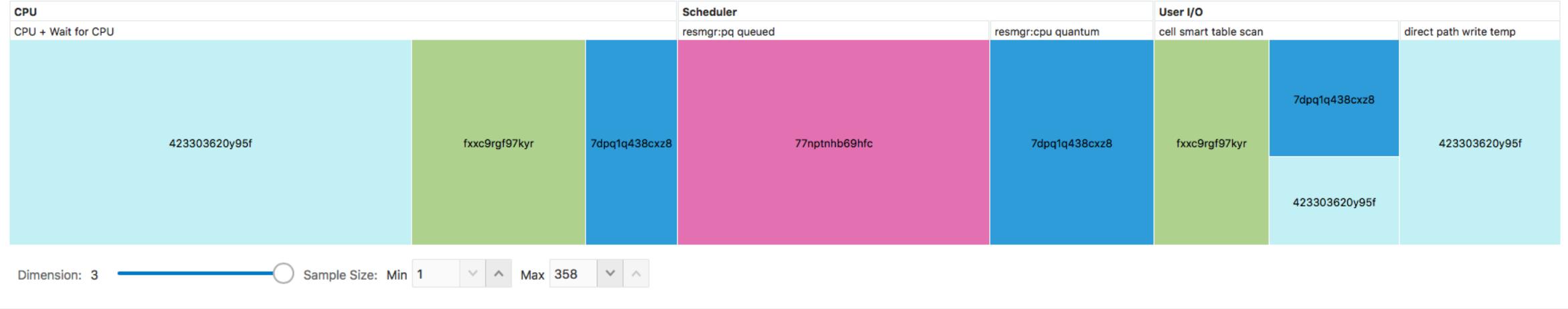
Mode [Advanced](#)

Performance Hub

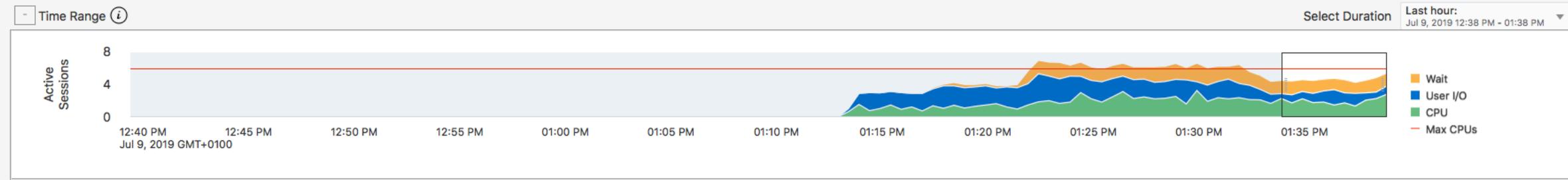
[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

View Options

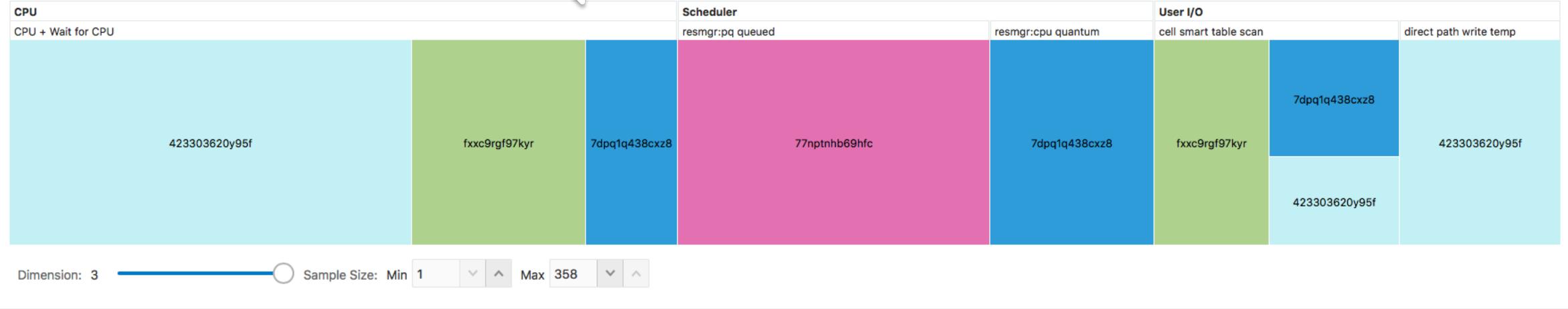
Average Active Sessions by [Wait Class](#) > [Wait Event](#) > [SQL ID](#)Mode [Advanced](#)

Performance Hub

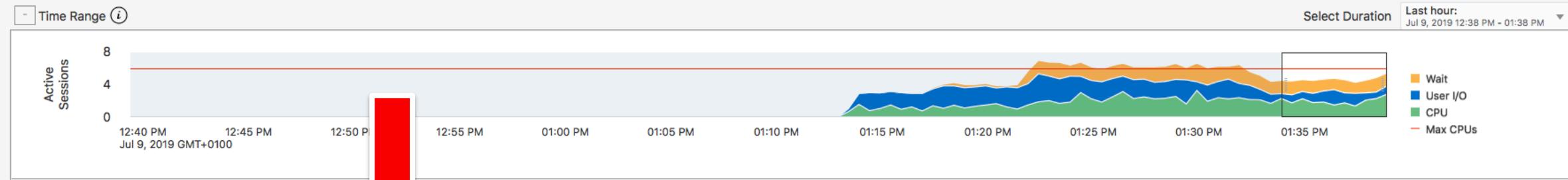
[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

View Options

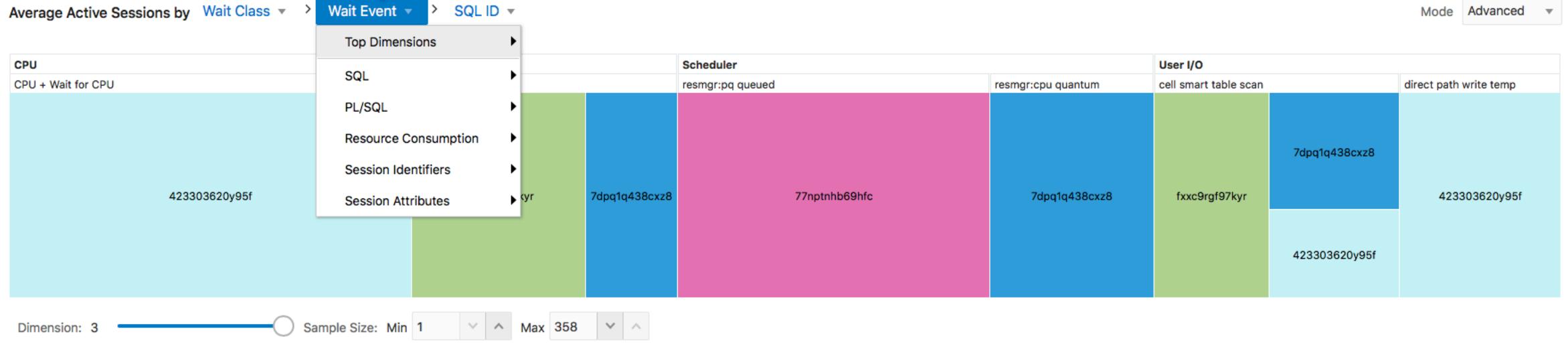
Average Active Sessions by Wait Class Wait Event SQL ID
Mode [Advanced](#)

Performance Hub

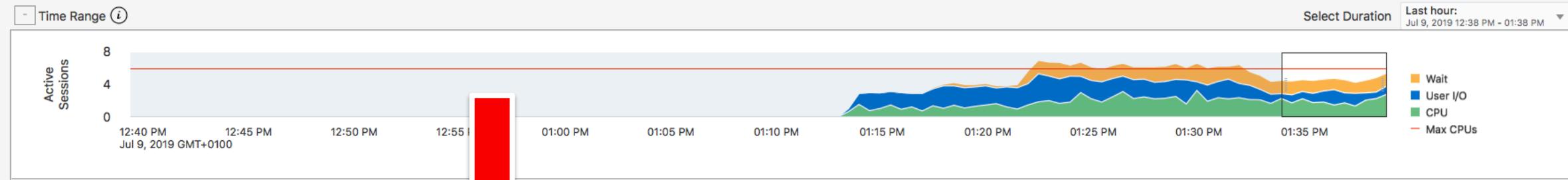
[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

View Options

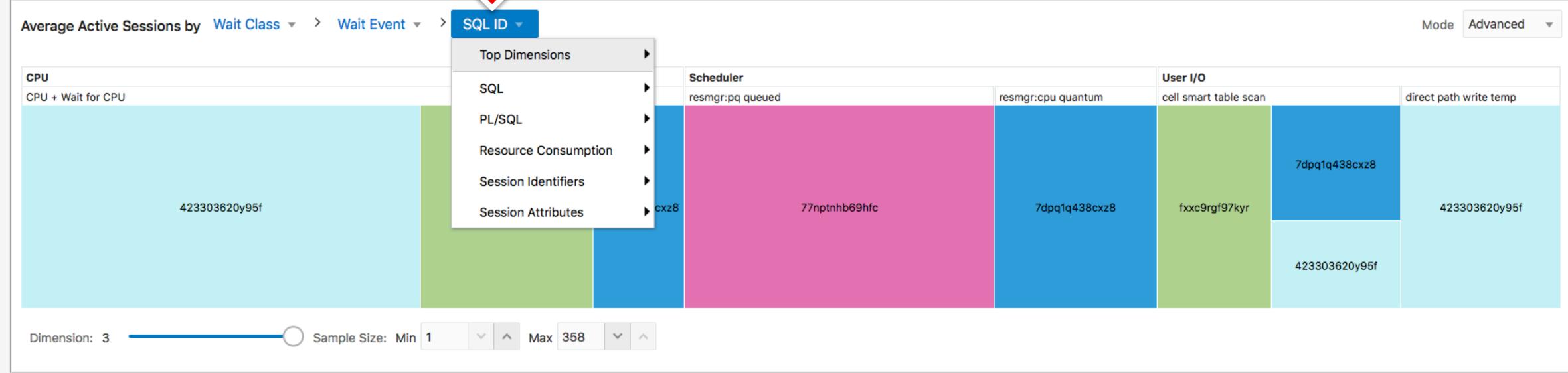


Performance Hub

[Refresh](#)[ASH Analytics](#) [SQL Monitoring](#)

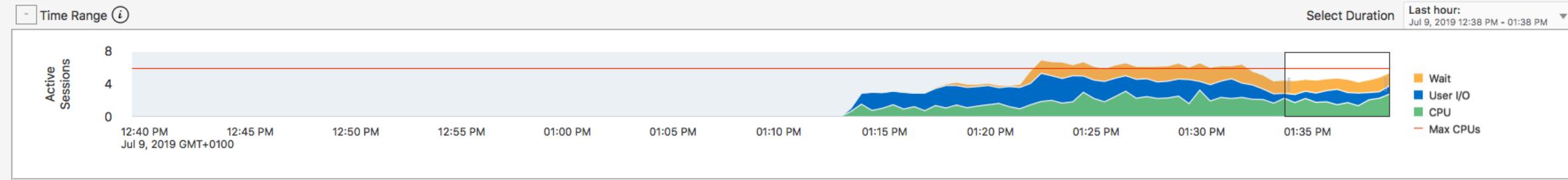
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View Options



Performance Hub

Refresh

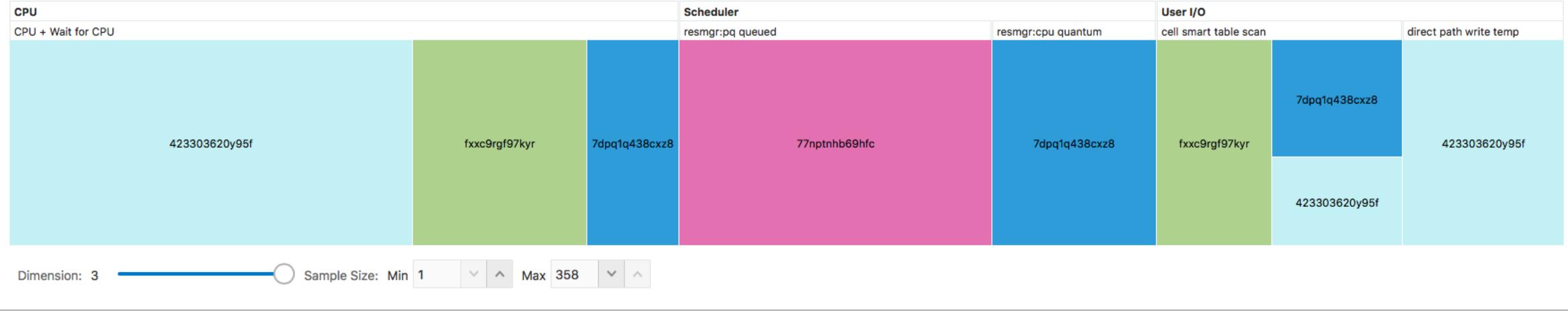
[ASH Analytics](#) [SQL Monitoring](#)

Applied Filters: None

View Options

Average Active Sessions by Wait Class > Wait Event > SQL ID

Mode Advanced



Autonomous Database » Autonomous Database Details

ADWDEMO

[DB Connection](#) [Performance Hub](#) [Service Console](#) [Scale Up/Down](#) [Stop](#) [Actions ▾](#)[Autonomous Database Information](#)[Tags](#)

General Information

Database Name: ADWDEMO**Workload Type:** Data Warehouse**Compartment:** adwc4pm (root)/ADW_Frankfurt**OCID:** ...nwjtoa [Show](#) [Copy](#)**Created:** Mon, 03 Jun 2019 15:18:08 GMT**CPU Core Count:** 1**Storage (TB):** 1**License Type:** Bring Your Own Licence**Database Version:** 18c**Auto Scaling:** Enabled **Lifecycle State:** Available

Infrastructure

Dedicated Infrastructure: No

Backup

Last Automatic Backup: Mon, 08 Jul 2019 13:07:26 GMT

Resources

Backups

Backups are automatically created daily.

[Create Manual Backup](#)

Name	State	Type	Started	Ended	⋮
Jul 08, 2019 13:07:26 PM UTC	Active	Incremental, initiated by Auto Backup	Mon, 08 Jul 2019 12:37:49 GMT	Mon, 08 Jul 2019 13:07:26 GMT	⋮
Jul 04, 2019 23:47:03 PM UTC	Active	Incremental, initiated by Auto Backup	Thu, 04 Jul 2019 23:46:54 GMT	Thu, 04 Jul 2019 23:47:03 GMT	⋮