

Proactive Oracle Database Monitoring And Capacity Planning With Splunk

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Collateral - bit.ly/conf16-tmuth

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splunk>

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Who Am I?

- Oracle – 16 years
 - APEX Development Team
 - Chief Database Engineer, Public Sector
 - Lead many Exadata POCs
 - Wrote AWR-Miner for Sizing and Capacity Planning, Logger, AWR Formatter

Why Splunk for Oracle?

Security

Performance
Monitoring

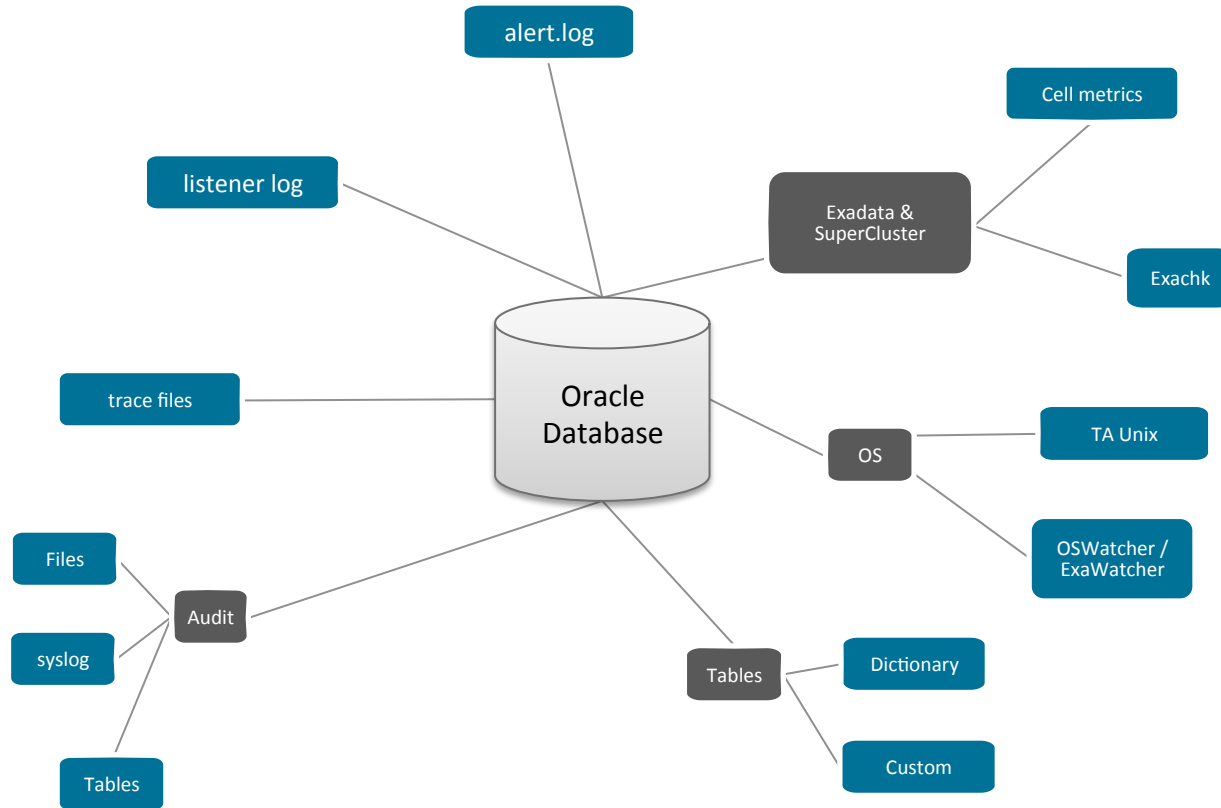
Capacity
Planning

Configuration
Management

Error Analysis

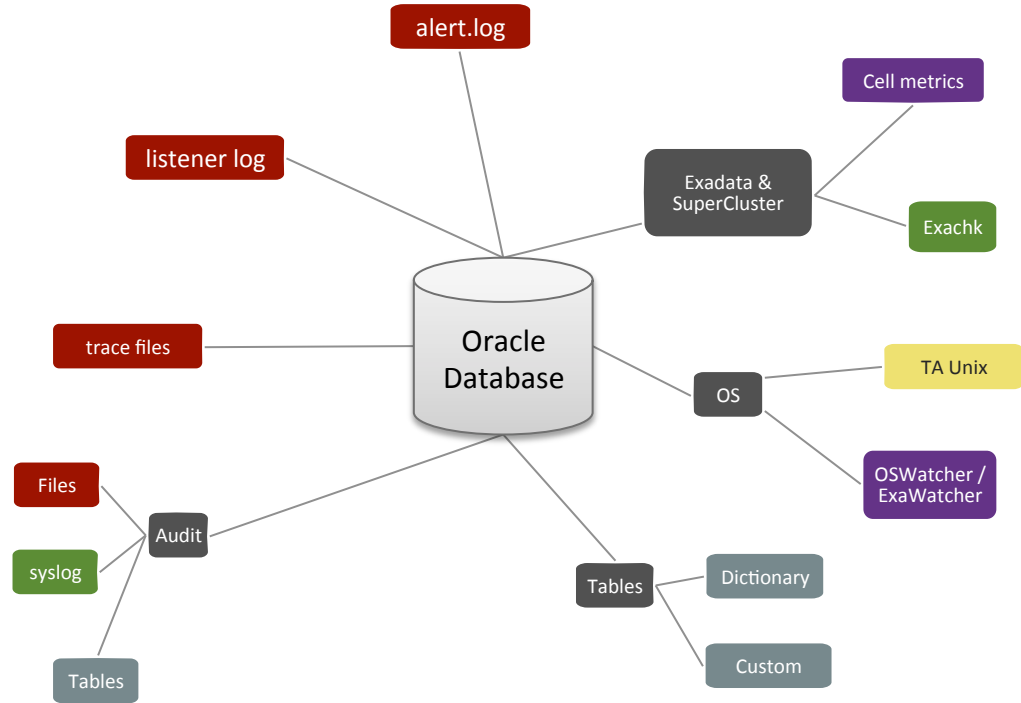
Single-Pane
View of
“Application”

What Can You Splunk?



How Can You Splunk It?

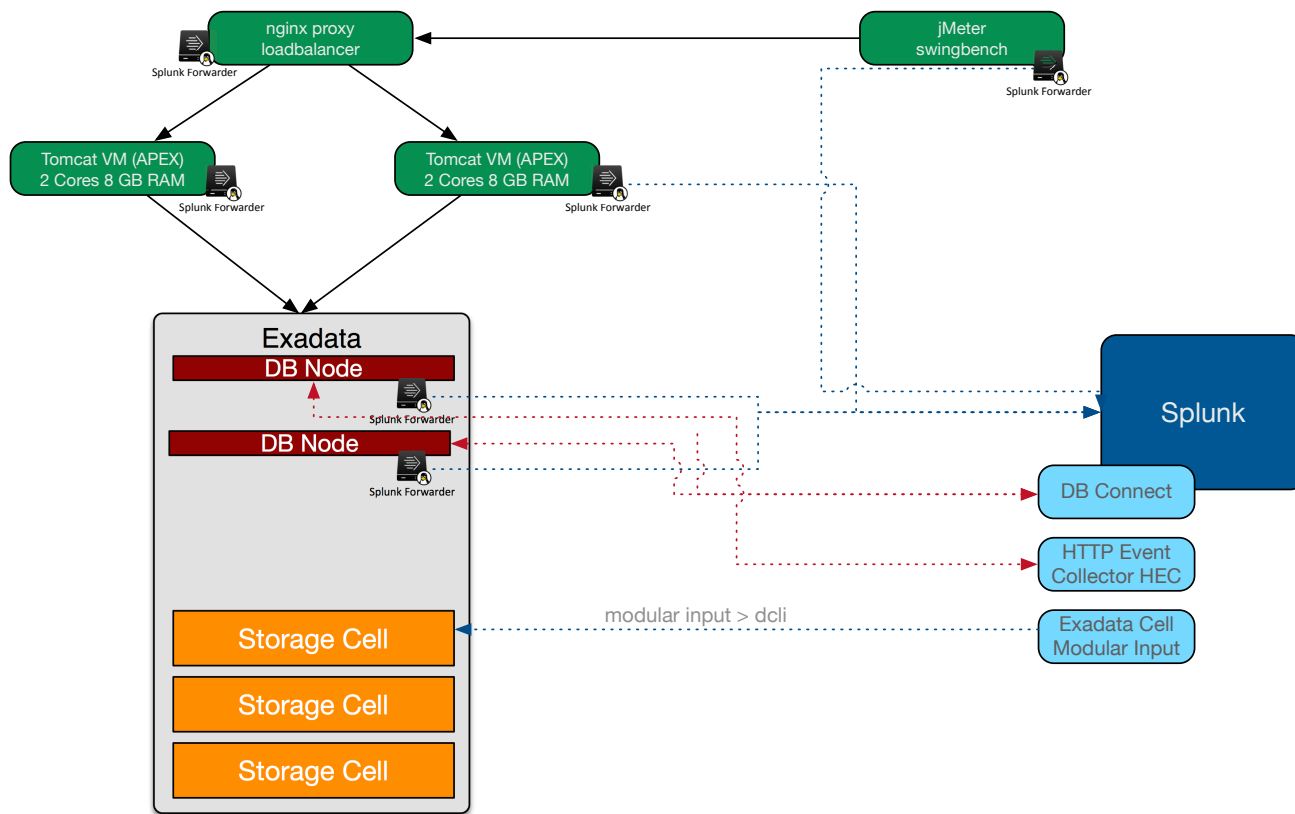
-  Add-on for Unix
-  DB Connect (DBX)
-  Splunk Add-on for Oracle DB
-  Modular Input (in-progress)
-  Standard File Monitor



Why Would You Splunk These?

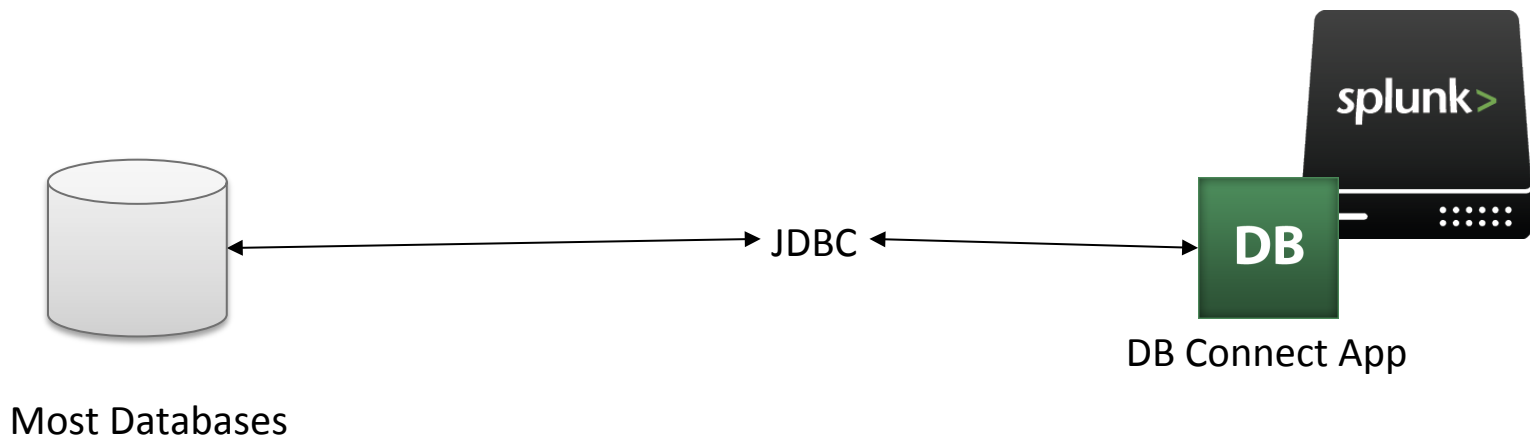
	Security	Performance	Capacity Planning	Configuration Management	Error Analysis
alert.log	✓			✓	✓
trace files					✓
Audit Files	✓				
Audit syslog	✓				
Audit Tables	✓				
Dictionary Tables		✓	✓	✓	✓
Custom Tables					✓
OS – TA Unix	✓	✓			
OS – OSWatcher / Exawatcher	✓	✓	✓		
Exadata - exachk		✓		✓	
Exadata – Cell metrics		✓	✓	✓	

Demo Architecture

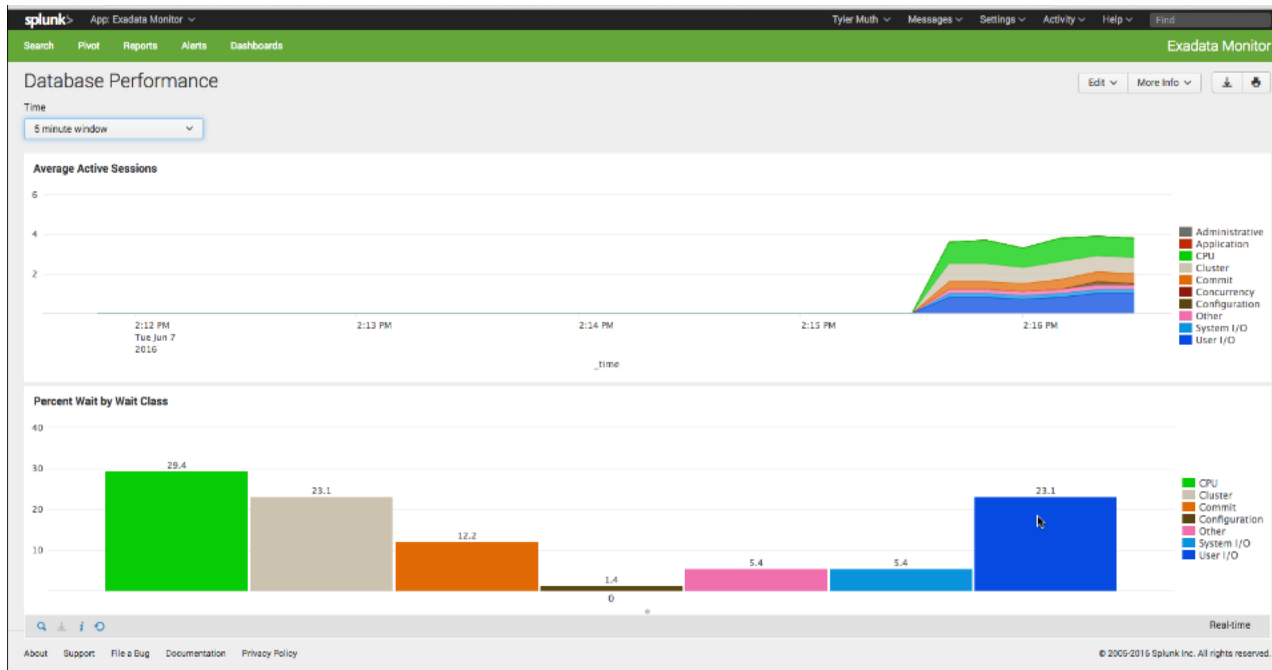


Demo – Average Active Sessions

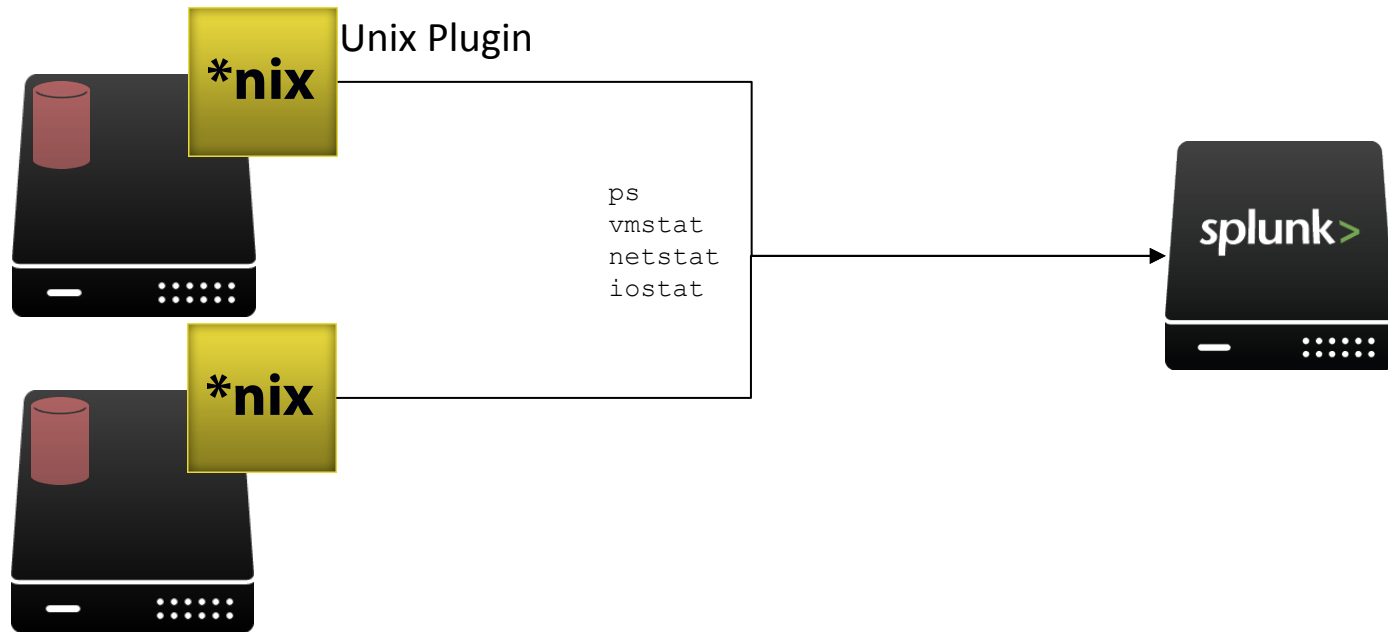
Using DB Connect (DBX) to pull DB metrics stored in tables / views



Demo – Average Active Sessions

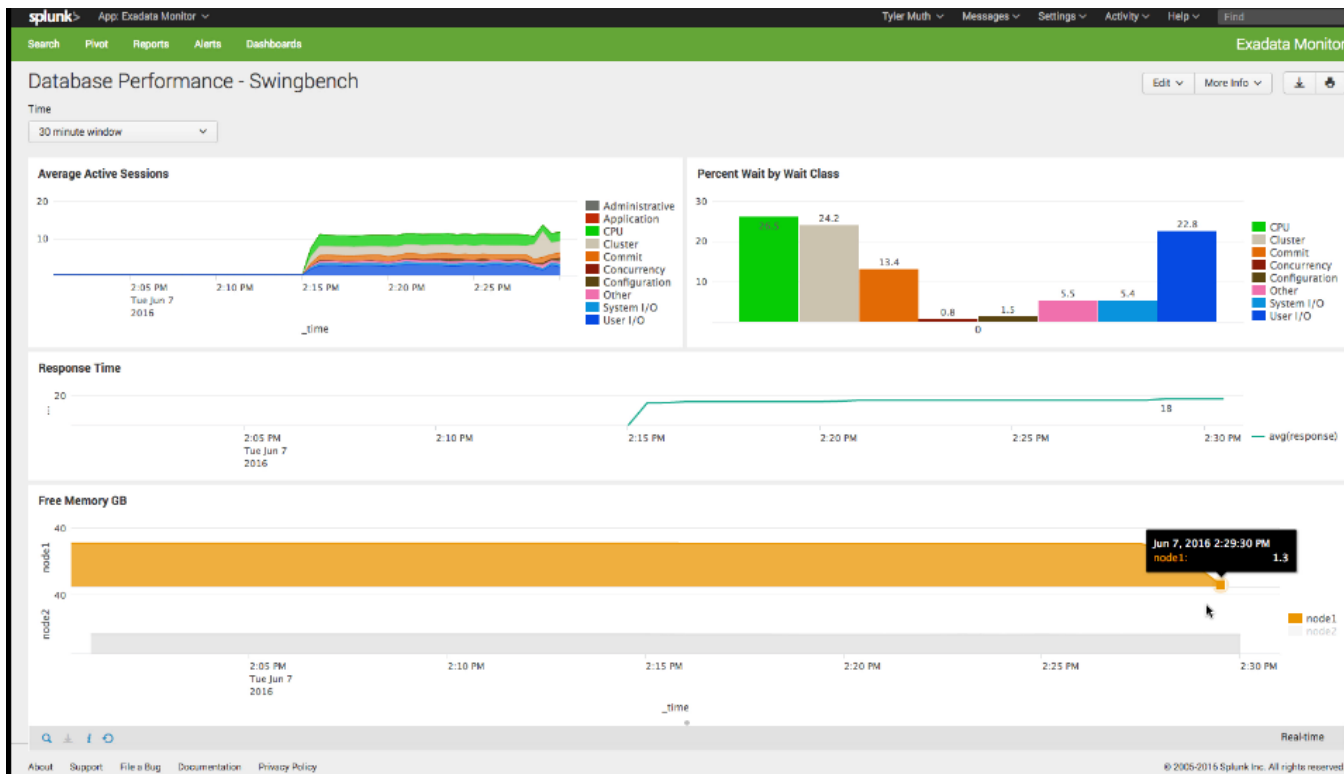


Demo – DB Memory & CPU

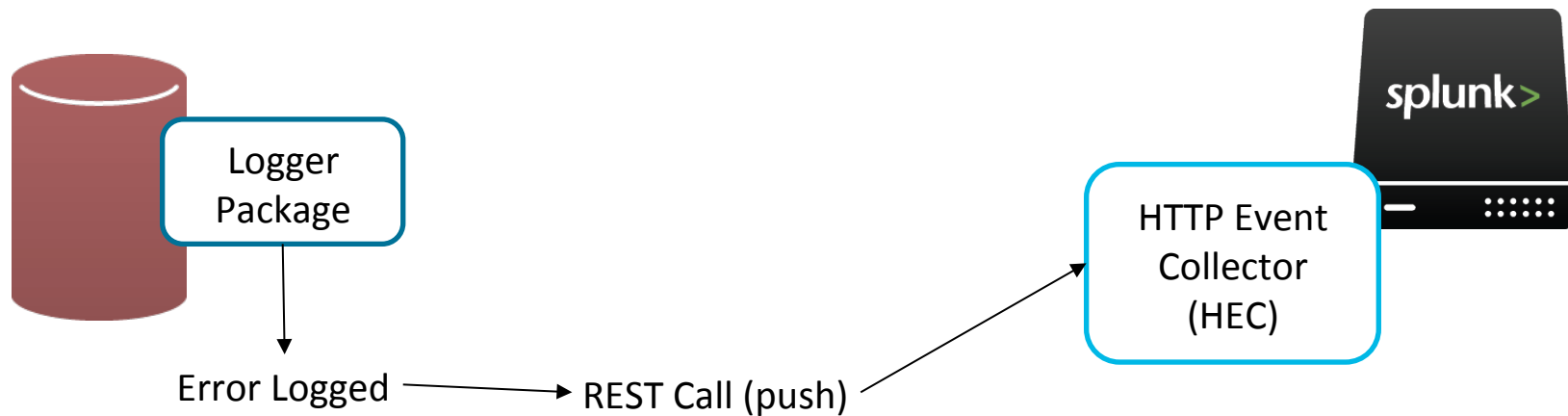


Exadata Virtual

Demo – DB Memory & CPU



Demo– Logger Plugin



Demo- Logger Plugin

The screenshot displays the Splunk web interface. On the left, the 'New Search' panel shows a search query: `index="logger_hec" | table _time id module logger_text`. Below the search bar, a table of results is shown with columns: `_time`, `id`, `module`, and `logger_text`. The first row of data is: `2016-06-07 14:44:30`, `4390`, `SQL Developer`, and `hello e4 crc`. A red arrow points from the `logger_text` column header to the `LOG_ERROR` table in the 'Connections' panel on the right. The 'Connections' panel shows a tree view of database objects, including `LOG_ERROR` under the `logger_user` schema. The 'Query Builder' panel on the right shows a query: `exec logger_user.logger.log_error('hello e4 crowd');`. A red arrow points from the `LOG_ERROR` table in the 'Connections' panel to the `log_error` function in the query.

_time	id	module	logger_text
2016-06-07 14:44:30	4390	SQL Developer	hello e4 crc

Demo– Logger Plugin

index="logger_hec"
| table _time id module logger_text

1 of 2 events matched No Event Sampling

Events (1) Patterns Statistics (1) Visualization

20 Per Page Format

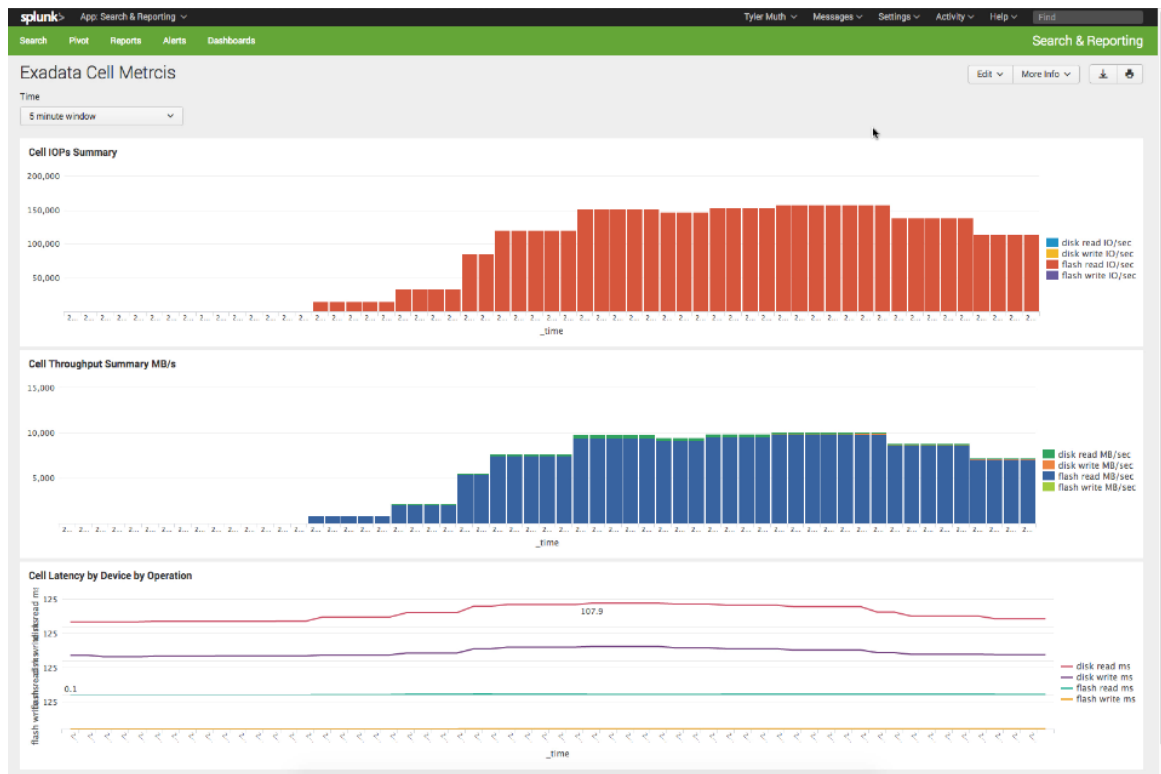
_time	id	module
2016-06-07 14:47:02	4351	SPLUNK/APEX:APP 100:2

An unexpected internal application error has occurred. Please get in contact with your system administrator and provide reference# for further investigation.

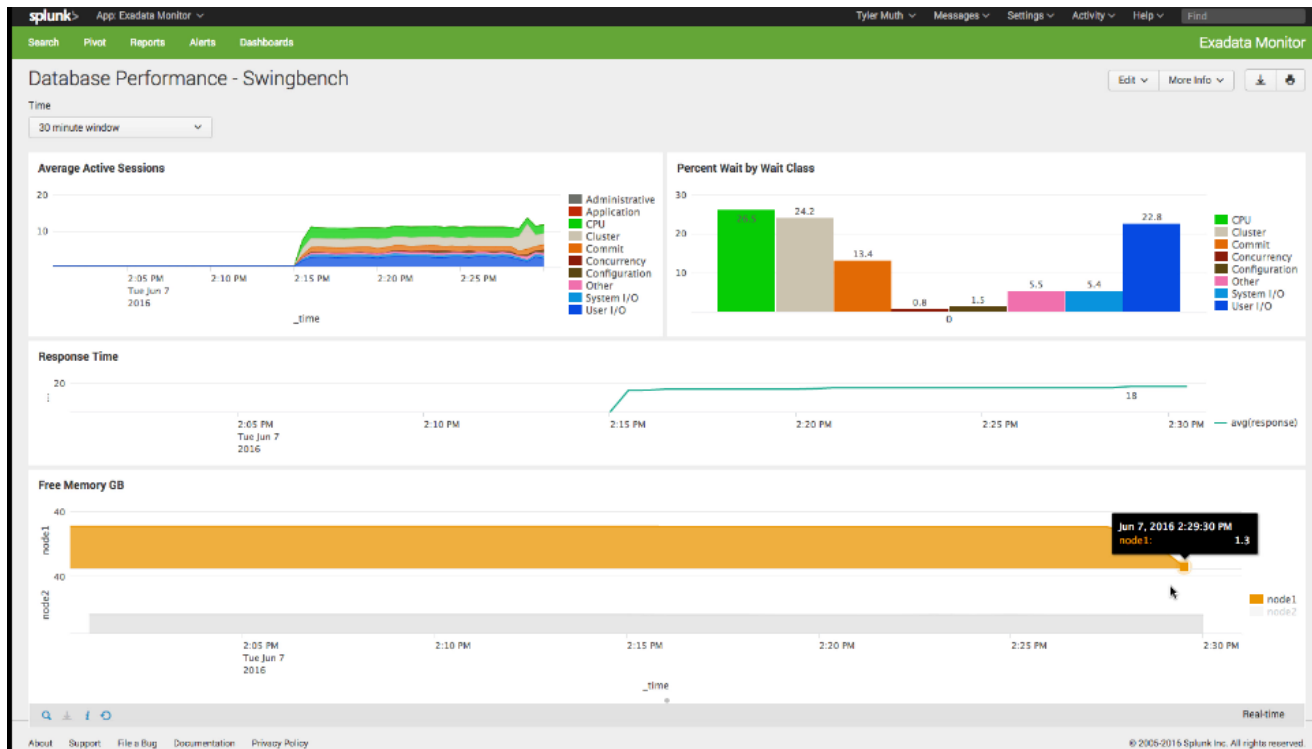
© Technical Info (only visible for developers)

OK

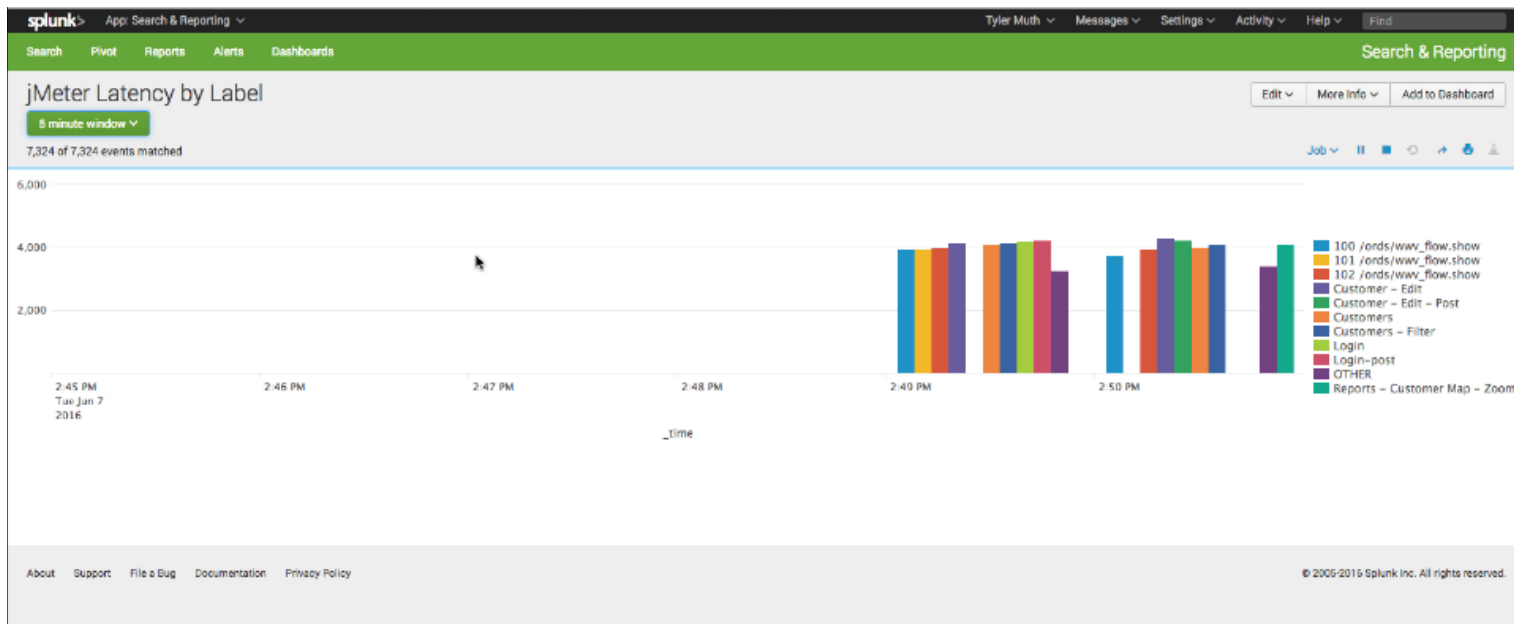
Demo – Cell Metrics



Demo - Swingbench



Demo jMeter



Conclusion

- Oracle Databases
 - Are part of many high-visibility systems
 - Are highly instrumented
 - Lack good tools to aggregate and visualize this data
- Splunk
 - Can consume , visualize and aggregate this data
 - Can correlate this data with other parts of the “system”
 - Can add tremendous value to Oracle customers

THANK YOU

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