

# BindPlane for Microsoft Azure Monitor

# What we do

## Monitoring Data Acquisition

We connect monitoring and analytic engines to customer IT stacks



### Agentless

Always on, always updated, API-based



### Dimensional data

Exploit deeper visibility and relational “dimensionality”



### Make Monitoring better

Our integrations enhance monitoring engines, not replace them



### Pure data

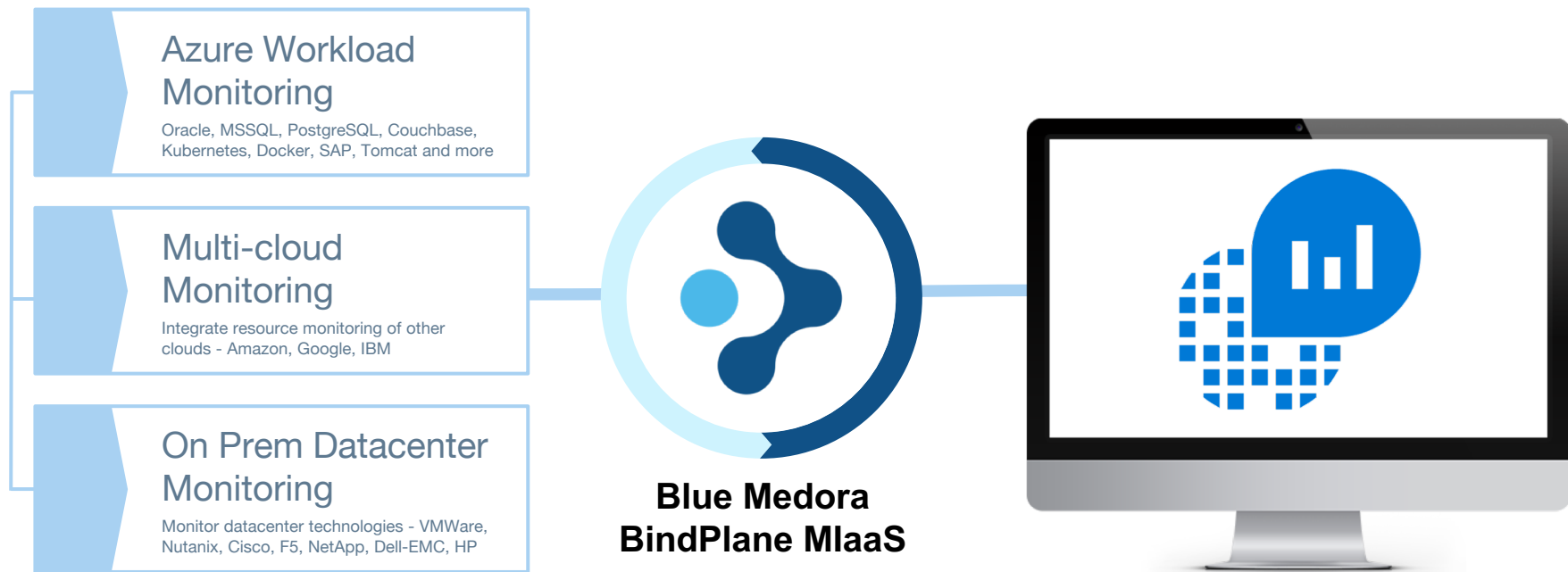
We only deliver high quality data to enable advanced analytics



### Seamless

Monitor more things for more customers with no impact to experience

# Widening Azure Monitor / Log Analytics with a single integration...



**~200+ enterprise  
technologies in 2018**

# Our Value to Customers



## Rapid Root Cause Analysis

Empower customers to move past symptoms to quickly find the root cause.



## Simplify Tools

Full visibility in Azure Monitor allows clear concise remediation of issues.



## Proactive Problem Resolution

Shift from reactive to proactive approach to management and monitoring.




## Expand Monitoring to Azure Workloads


Leverage the strength of the Microsoft Azure Monitor, Application and Workload Insights with the breadth of data providers from Blue Medora BindPlane



# The best tool is the one you already love



 You've got the data.

 You've got the technology

## Full stack visibility

01

Install the agentless collector



02

Select the key technologies running in your stack

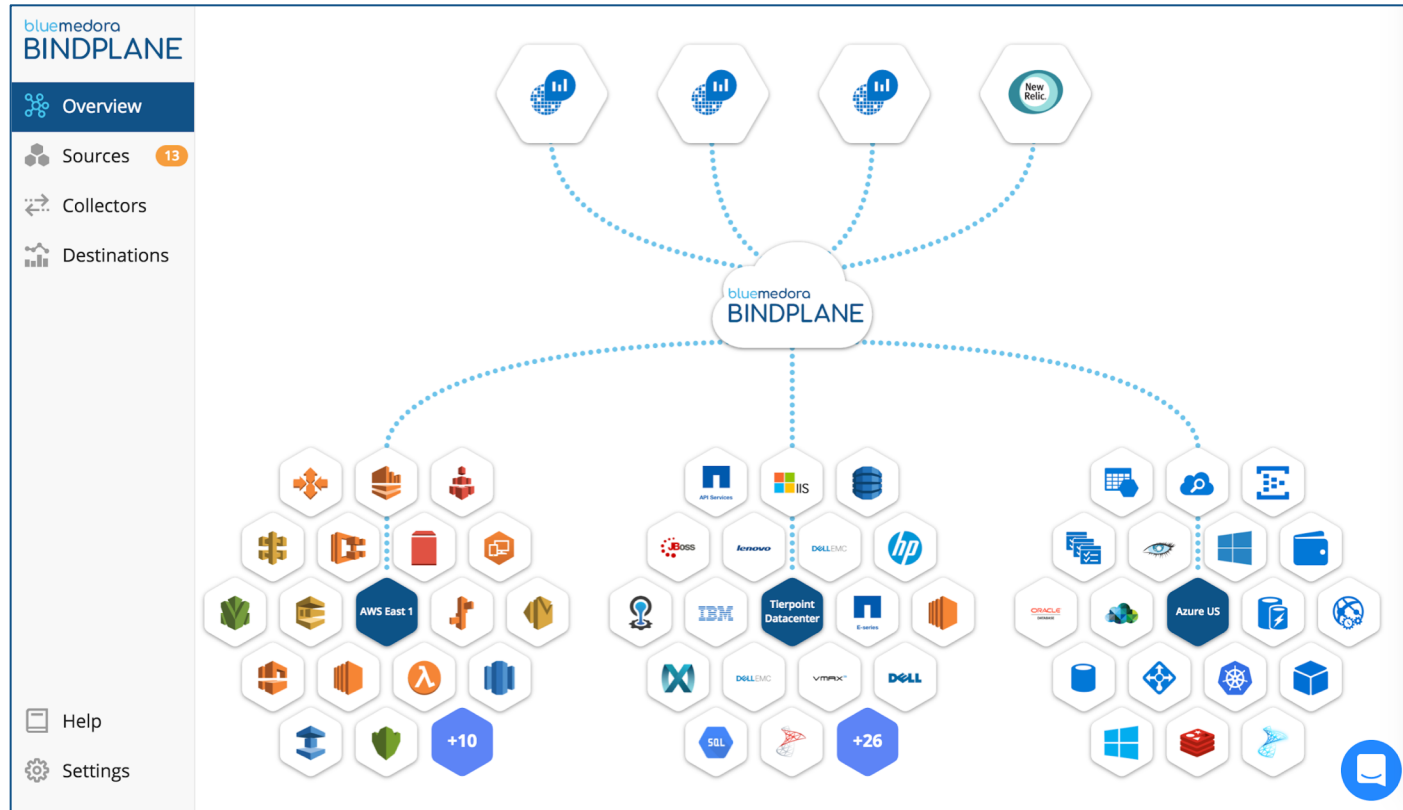


03

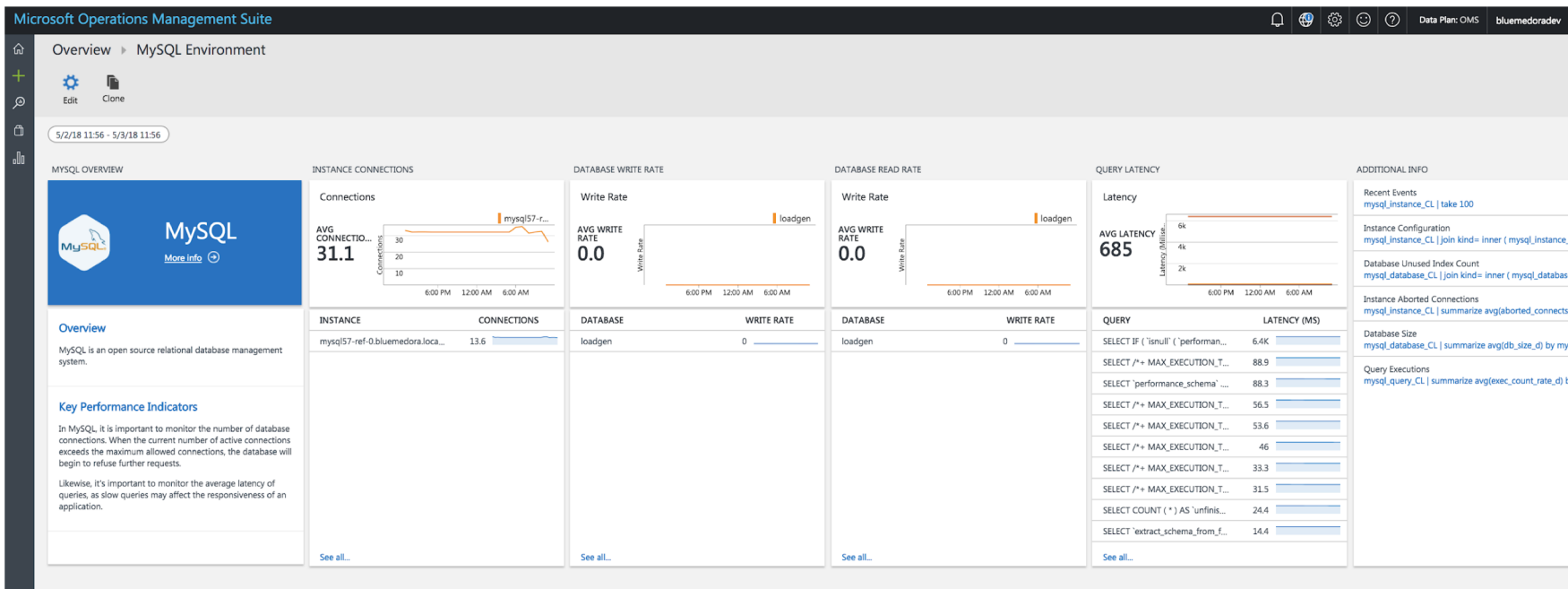
Connect Azure Monitor



# BindPlane: Monitoring Integration as a Service



# MySQL Database

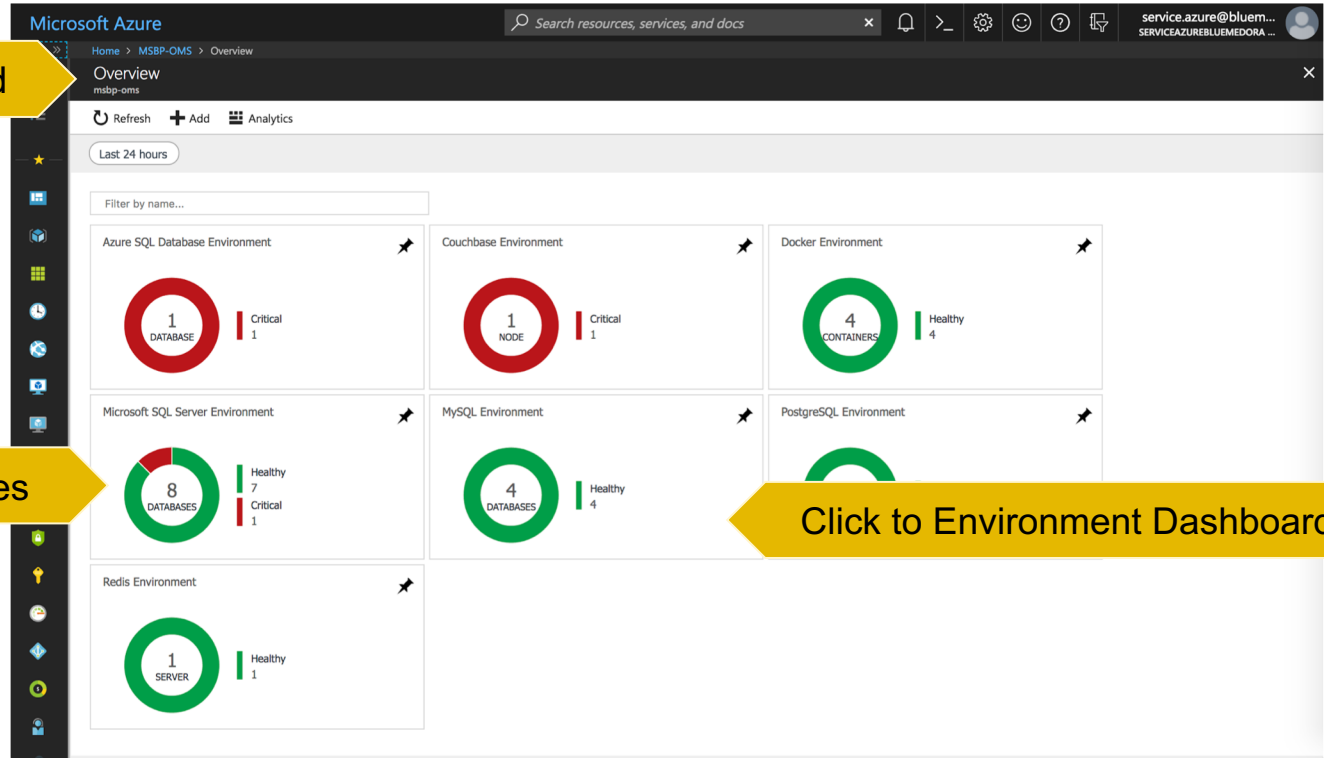


# Azure Workload Monitoring with BindPlane

Dashboards Included

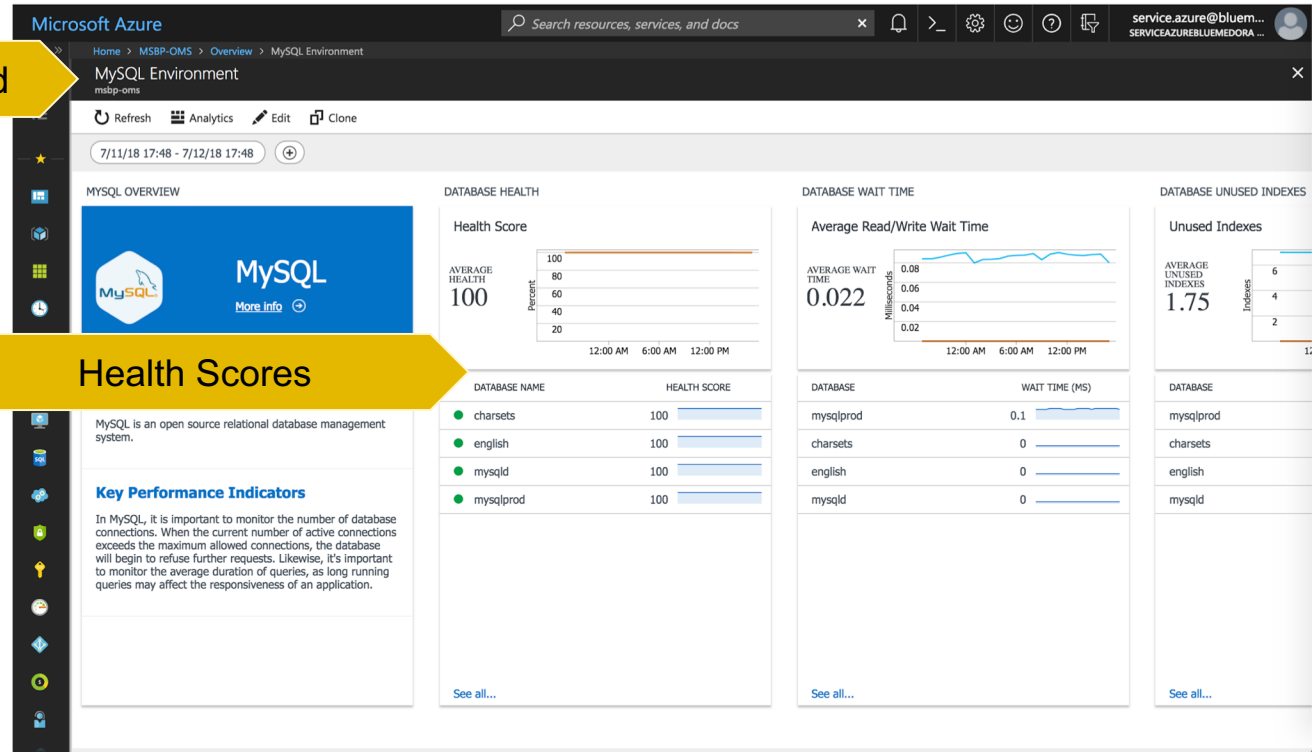
Health Scores

Click to Environment Dashboard

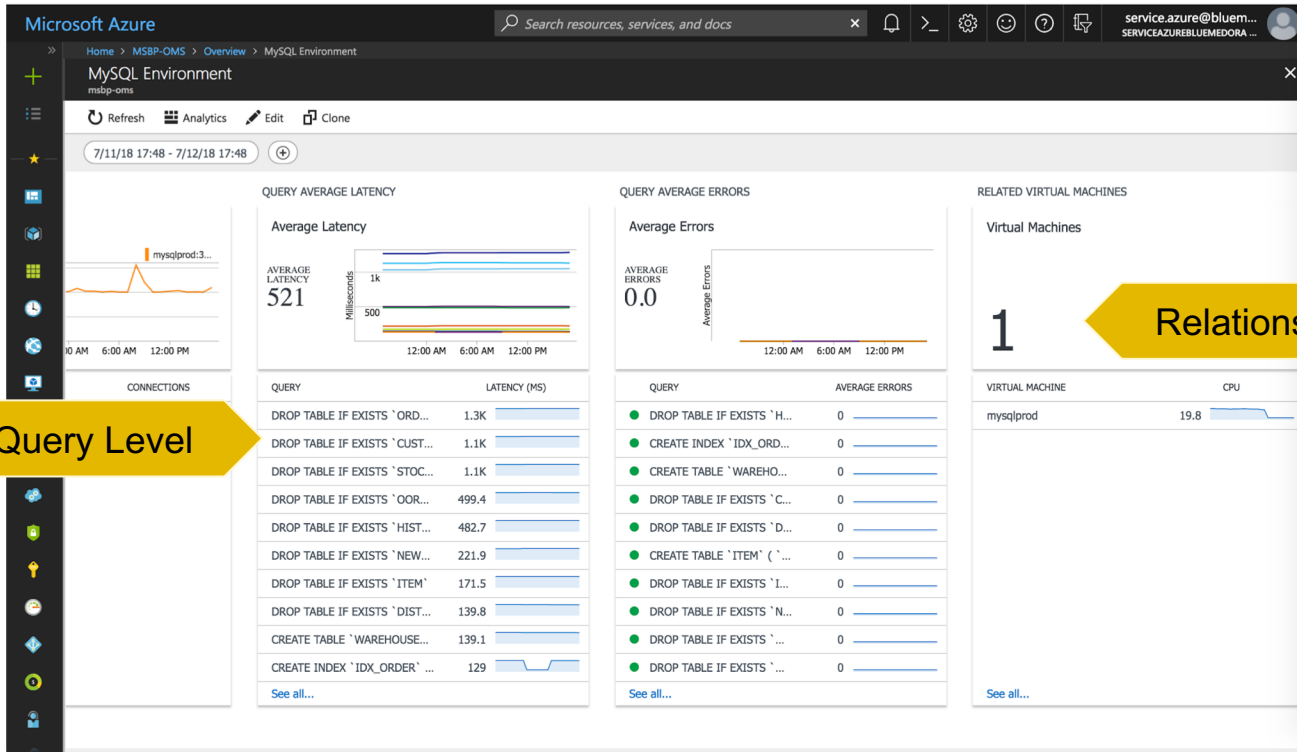


# Azure Workload Monitoring with BindPlane

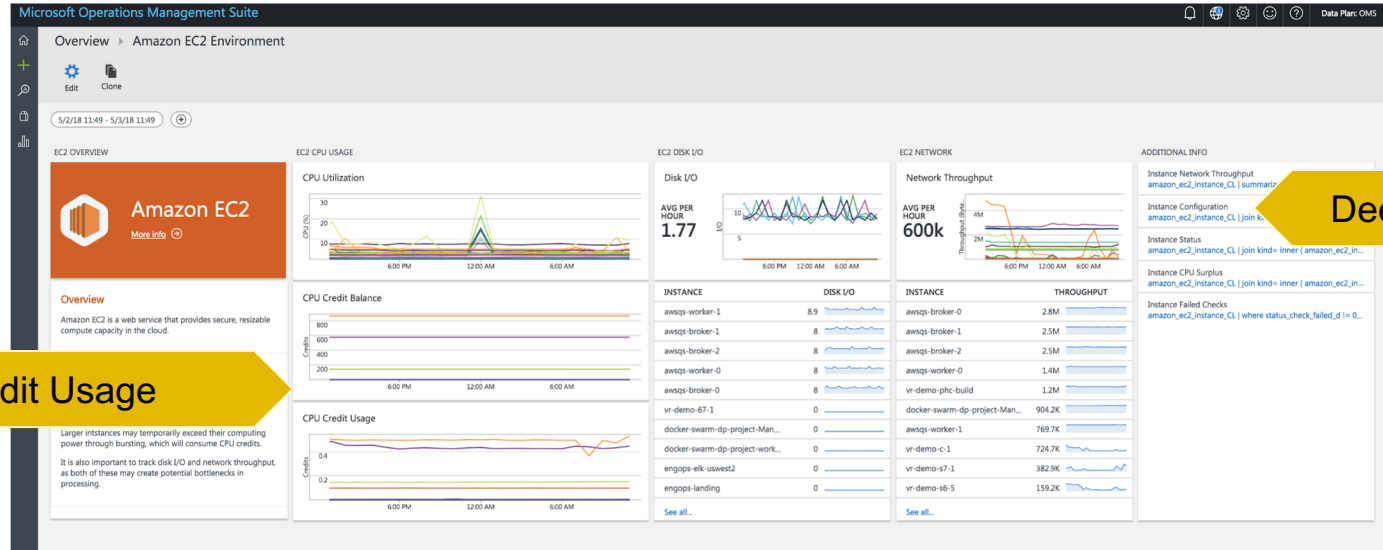
## Dashboards Included



# Azure Workload Monitoring with BindPlane



# Multi-Cloud Monitoring with BindPlane

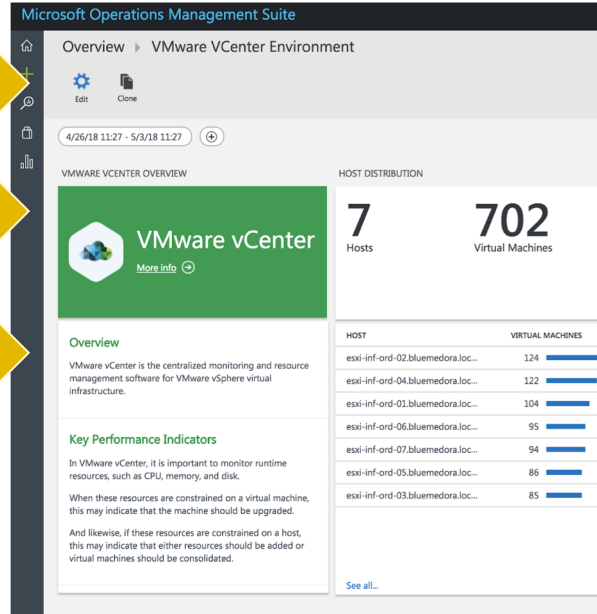
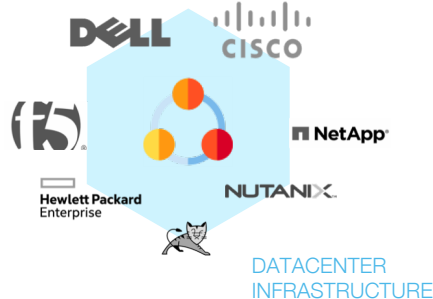


# On Premise Datacenter Monitoring with BindPlane

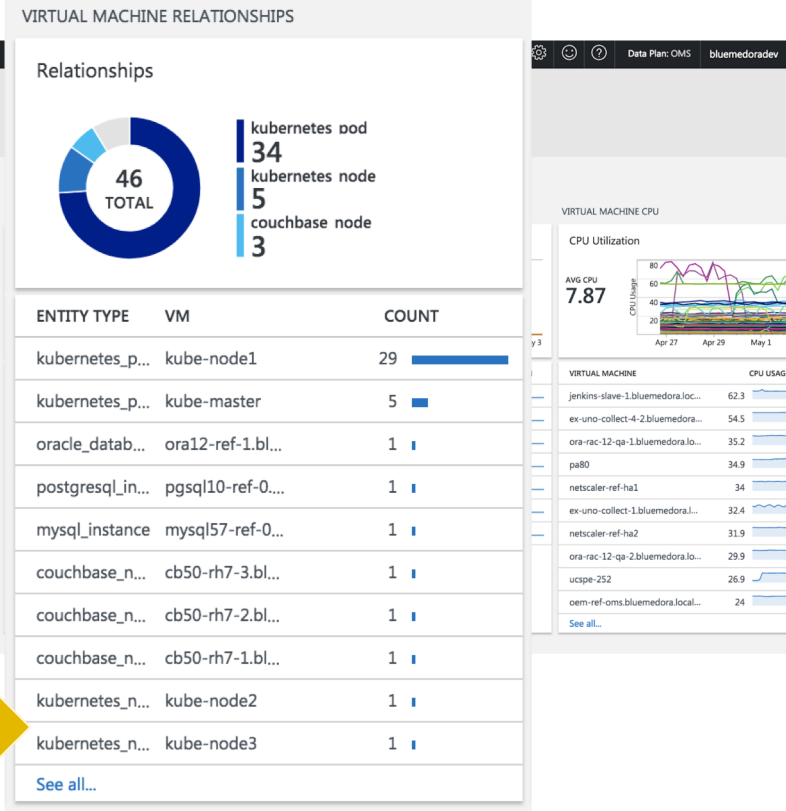
Migrate from SCOM

Support Hybrid Cloud

Cloud vs. On Prem  
Compare



Relationship Mapping





# Blue Medora history

**1st**

## Category Defining

The first  
Monitoring  
Integration as a  
Service (MaaS)  
provider

**150+**

## Breadth

Large and  
growing catalog  
of endpoint  
integrations

**350+**

## Proven

Enterprise  
customers like  
BOSCH,  
Safeway, JP  
Morgan Chase



# Next Steps



## Schedule a Demo

BindPlane is in free preview until the end of August.  
To schedule a demo and activate a free preview account, contact:

Daniel Jefferies, Director of Platform Products  
**[daniel.jefferies@bluemedora.com](mailto:daniel.jefferies@bluemedora.com)**



## Learn More

BindPlane Pitch at Microsoft - <https://youtu.be/bo1s9r0-MYw?t=42s>

BindPlane for Microsoft product page -  
<https://bluemedora.com/products/bindplane-for-microsoft/>

Backup

# Customer perspective

## Ryan Schuttloffel

System Engineer,  
Border States



“  
Amazement. I now have an entire systems view,  
which is rare. I have to check my phone a whole  
lot less over evenings and weekend.”

## Richard Esteve

Tech Leader,  
Orange Business Services



“  
To effectively manage their IT environments,  
our customers require an understanding of  
what is happening across the environment.  
Blue Medora's out-of-the-box dashboards  
provide exactly that, which is greatly improving  
our overall customer experience.”

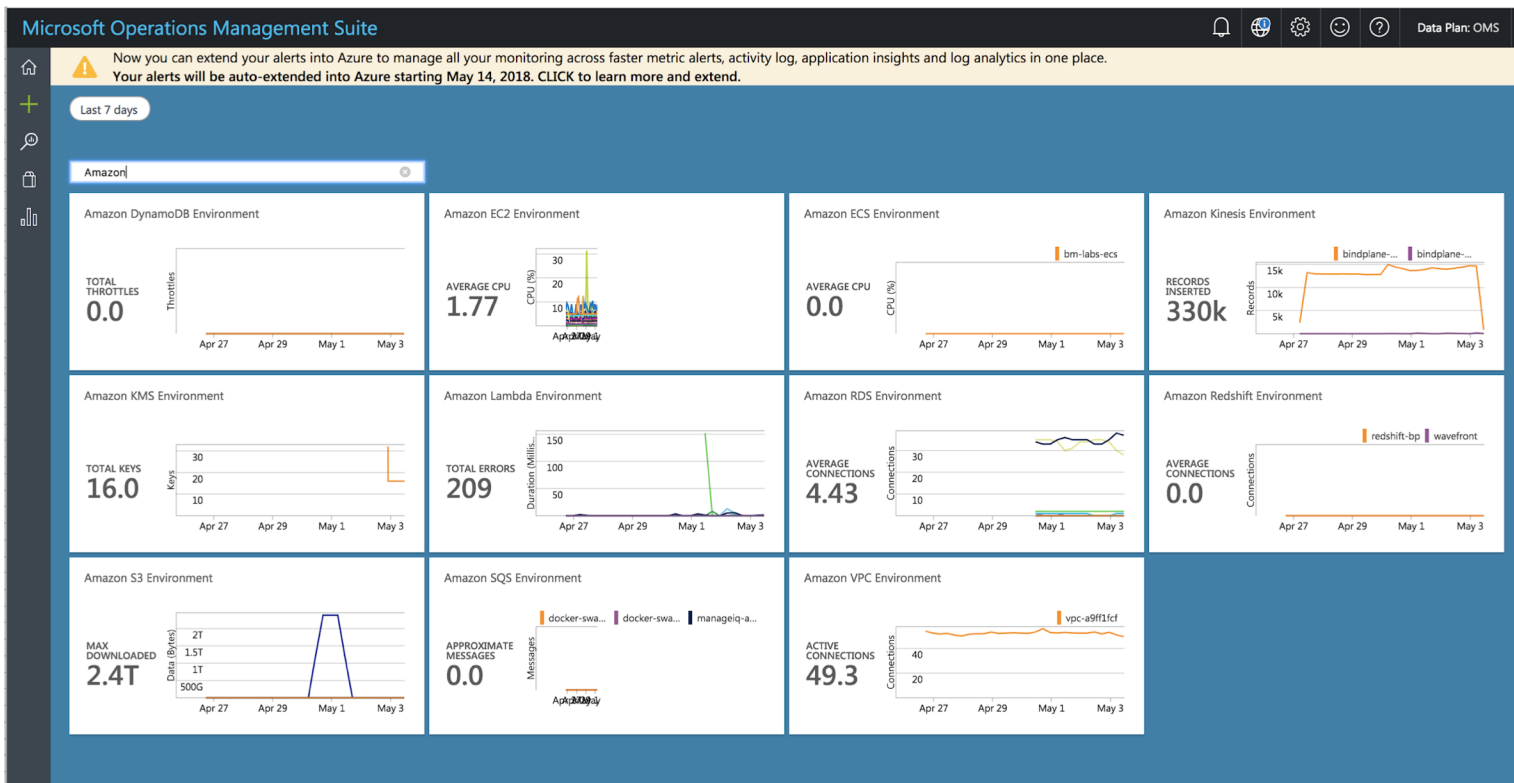
## Ron Kozakowski

Data Services Manager,  
Alliant Credit Union








“  
We can show our development department  
things on their servers that we could never  
have done before.”

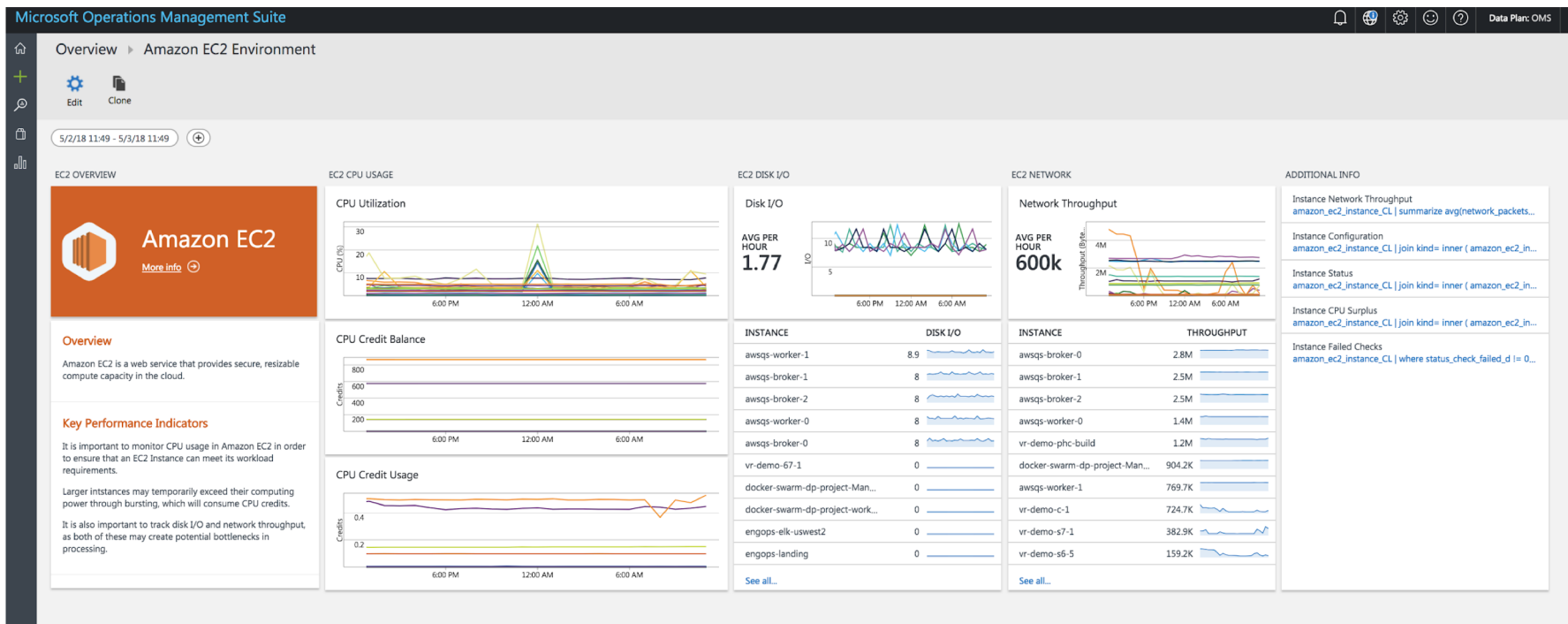
# MSFT Log Analytics for Multi-Cloud (Preview Launched in May)



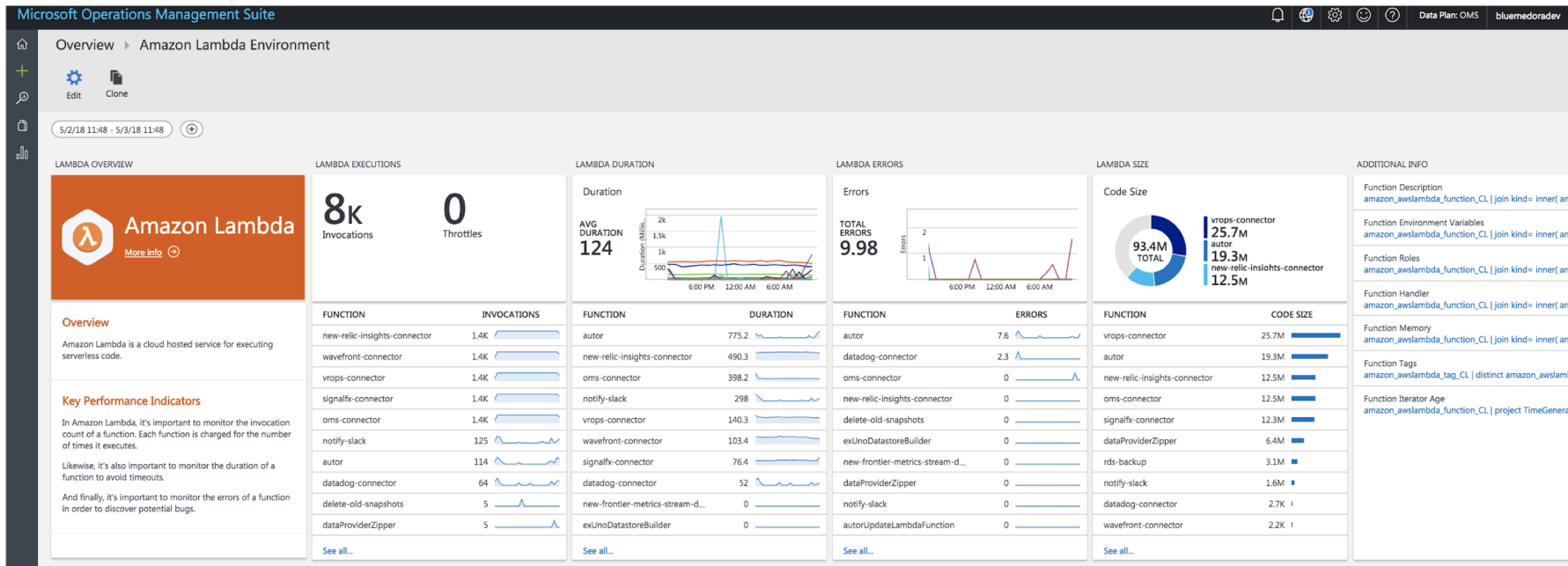
# Deep Insights for 38 distinct AWS Services

									
	Amazon Elastic Compute (EC2)		AWS Key Management Service (KMS)		Amazon Route 53		Amazon ElastiCache Memcached		Amazon DynamoDB
	Amazon Simple Storage (S3)		Amazon Elasticsearch		Amazon Kinesis Analytics		Amazon ElastiCache Redis		Amazon RDS - Oracle DB
	Amazon Elastic Load Balancer (ELB)		AWS Billing / Budget		Amazon Kinesis Firehose		AWS Elastic Beanstalk		Amazon RDS - Microsoft SQL Server
	Amazon Simple Queue Service (SQS)		Amazon VPC		Amazon Kinesis Video Streams		Amazon Auto Scaling		Amazon RDS - PostgreSQL
	Amazon Simple Notification Service (SNS)		Amazon CloudFront		Amazon Kinesis		AWS OpsWorks		Amazon RDS - MySQL
	Amazon CloudSearch		Amazon WorkSpaces		Amazon API Gateway		Amazon Glacier		Amazon RDS - MariaDB
	Amazon Elastic Block Storage (EBS)		Amazon EC2 Container Service		Amazon Simple Email Service (SES)		Amazon Elastic File System (EFS)		Amazon RDS - Aurora

# Enabling drill-down into AWS EC2

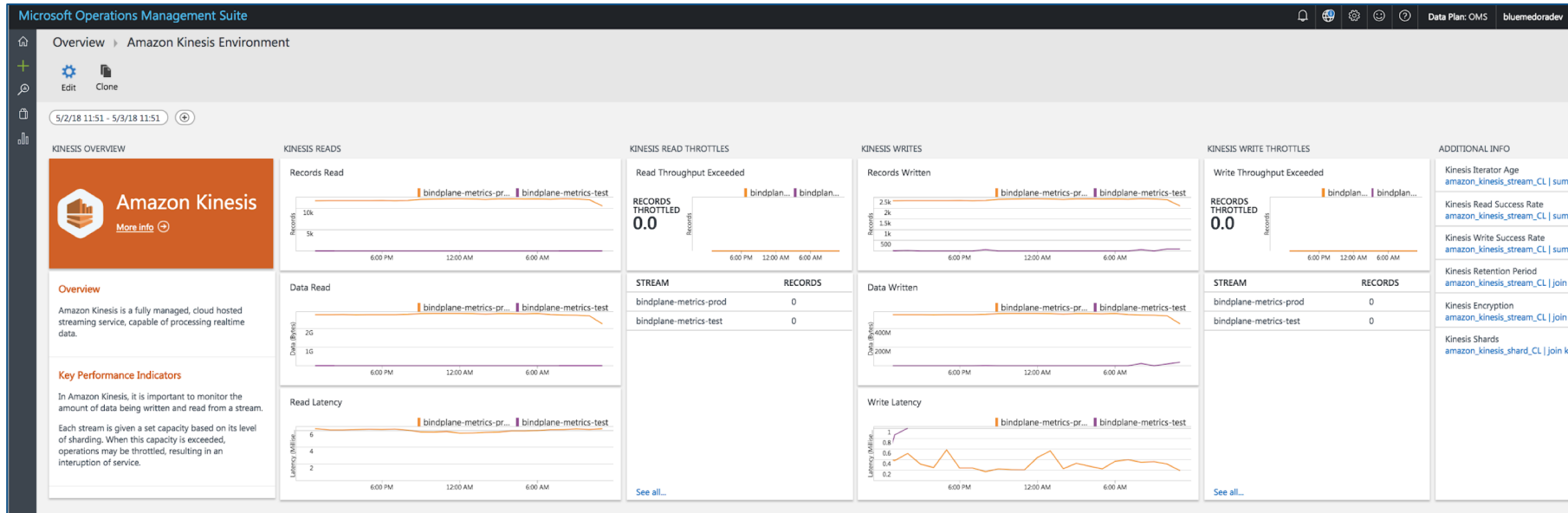


# Enabling drill-down into AWS Lambda





# Enabling drill-down into AWS Kinesis



# Google Cloud SQL

Microsoft Operations Management Suite

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Overview ▶ Google Cloud SQL Environment

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5/2/18 11:44 - 5/3/18 11:44

GOOGLE CLOUD SQL OVERVIEW



Google Cloud  
SQL  
[More info](#)

## Overview

Google Cloud SQL is a fully-managed database service for administering relational databases on Google Cloud.

## Key Performance Indicators

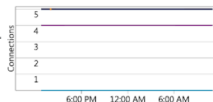
In Google Cloud SQL, it is important to monitor the number of connections to a database instance. This will help indicate the load on an instance and gauge its current scale.

Likewise, it's also important to monitor the queries and operations of an instance. Abnormally high transactions can have an adverse effect on the responsiveness of the database.

INSTANCE CONNECTIONS

Connections

AVERAGE  
CONNECTIO...  
**3.03**



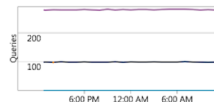
INSTANCE	CONNECTIONS
mysql-test-1	5
mysql-test-1-failover	4
postgres-test-1	0

[See all...](#)

QUERY COUNT

Queries

AVERAGE  
QUERIES  
**126**



INSTANCE	QUERIES
mysql-test-1-failover	278.9
mysql-test-1	98.3
postgres-test-1	0

[See all...](#)

INSTANCE READS

Read Ops

AVERAGE  
READS  
**0.0044**



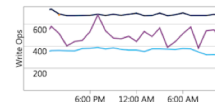
INSTANCE	READ OPS
mysql-test-1-failover	0
mysql-test-1	0
postgres-test-1	0

[See all...](#)

INSTANCE WRITES

Write Ops

AVERAGE  
WRITES  
**518**



INSTANCE	WRITE OPS
mysql-test-1	678
mysql-test-1-failover	452
postgres-test-1	319.6

[See all...](#)

ADDITIONAL INFO

Recent Events  
[google\\_cloudsql\\_instance\\_CL | take 100](#)

Instance Configuration  
[google\\_cloudsql\\_instance\\_CL | join kind= inner \( goog](#)

Instance Tier  
[google\\_cloudsql\\_instance\\_CL | join kind= inner \( goog](#)

Instance Location  
[google\\_cloudsql\\_instance\\_CL | join kind= inner \( goog](#)

Instance Memory  
[google\\_cloudsql\\_instance\\_CL | summarize avg\(memor](#)

Instance CPU  
[google\\_cloudsql\\_instance\\_CL | summarize avg\(cpuUtil](#)

# Google Compute

Microsoft Operations Management Suite  
Microsoft Operations Management Suite

49 Data Plan: OMS bluemedora dev  
49 Data Plan: OMS bluemedora dev

Overview ► Google Compute Environment

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5/2/18 11:53 - 5/3/18 11:53

GOOGLE COMPUTE OVERVIEW



## Google Compute

[More info](#)

### Overview

Google Compute Engine is a cloud hosted service that delivers virtual machines running in Google's data centers and worldwide fiber network.

### Key Performance Indicators

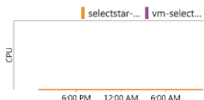
In Google Compute, it is important to monitor runtime resources, such as CPU, network traffic, and disk.

Contention in these resources will inevitably degrade the performance of applications running on a Google Compute instance.

INSTANCE CPU

CPU Utilization

AVG CPU  
0.0



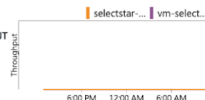
INSTANCE	CPU
selectstar-collector	0
vm-selectstar-collector-again	0

[See all...](#)

INSTANCE RECEIVED THROUGHPUT

Received Throughput

RECEIVED THROUGHPUT  
0.0



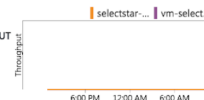
INSTANCE	RECEIVED THROUGHPUT
selectstar-collector	0
vm-selectstar-collector-again	0

[See all...](#)

INSTANCE SENT THROUGHPUT

Sent Throughput

SENT THROUGHPUT  
0.0



INSTANCE	SENT THROUGHPUT
selectstar-collector	0
vm-selectstar-collector-again	0

[See all...](#)

DISK THROTTLING

Throttled Ops

THROTTLING OPS  
0.0



INSTANCE	THROTTLING OPS
selectstar-collector	0
vm-selectstar-collector-again	0

[See all...](#)

ADDITIONAL INFO

Recent Events

[google\\_computeengine\\_instance\\_CL | take 100](#)

Instance Configuration  
[google\\_computeengine\\_instance\\_CL | join kind=inner \(google\\_computeengine\\_instance\\_CL\)](#)

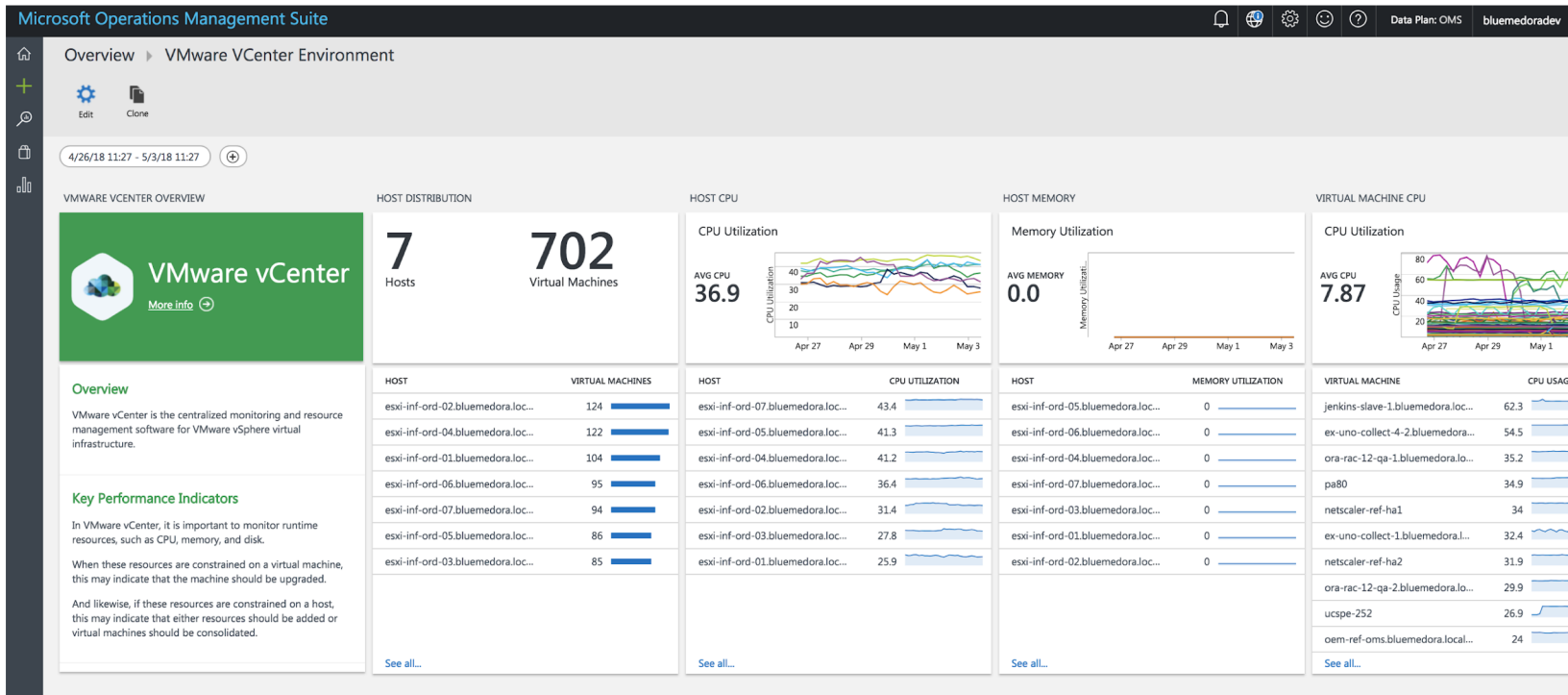
Instance Location  
[google\\_computeengine\\_instance\\_CL | join kind=inner \(google\\_computeengine\\_instance\\_CL\)](#)

Disk Configuration  
[google\\_computeengine\\_disk\\_CL | join kind=inner \(google\\_computeengine\\_instance\\_CL\)](#)

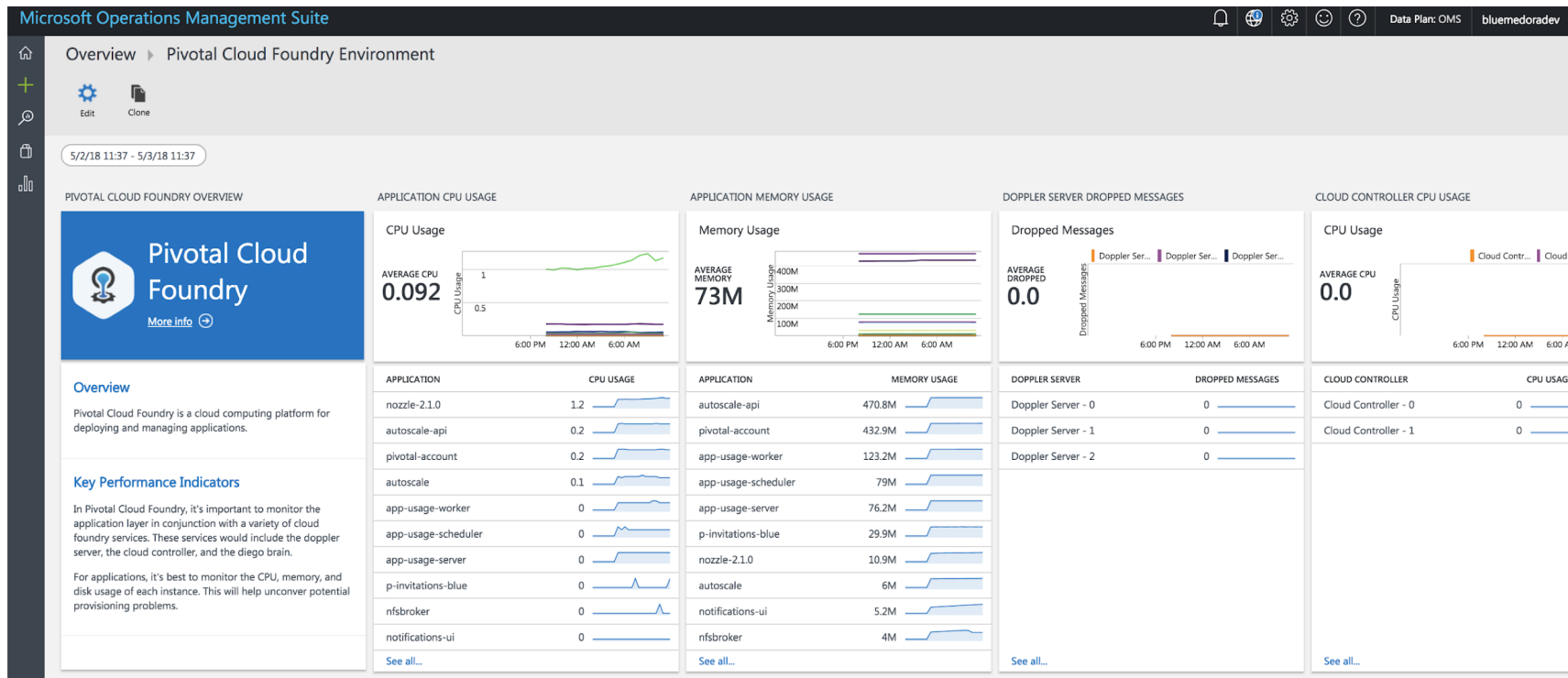
Disk Throughput  
[google\\_computeengine\\_disk\\_CL | summarize avg\(writes\)](#)

[avg\(memory\)](#)  
[avg\(cpuUtil\)](#)

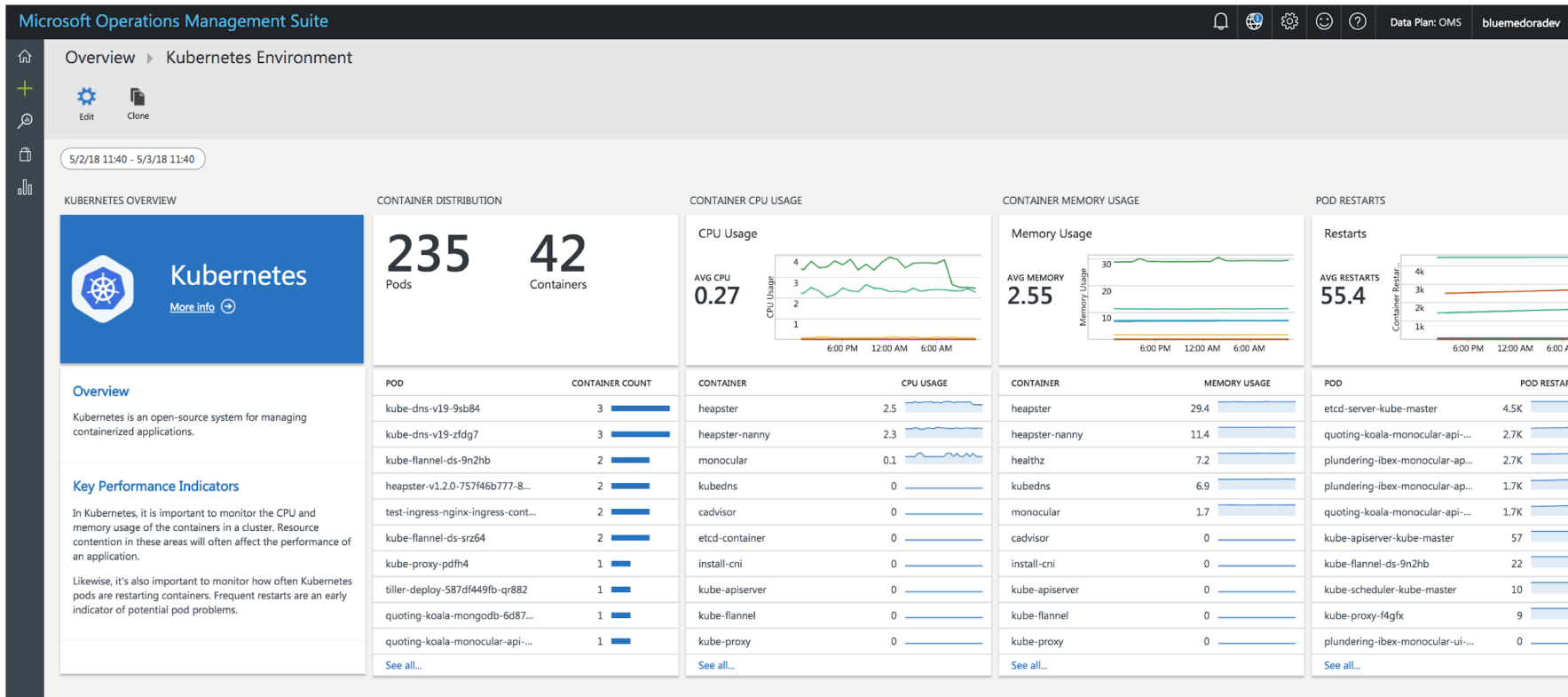
# VMware vSphere



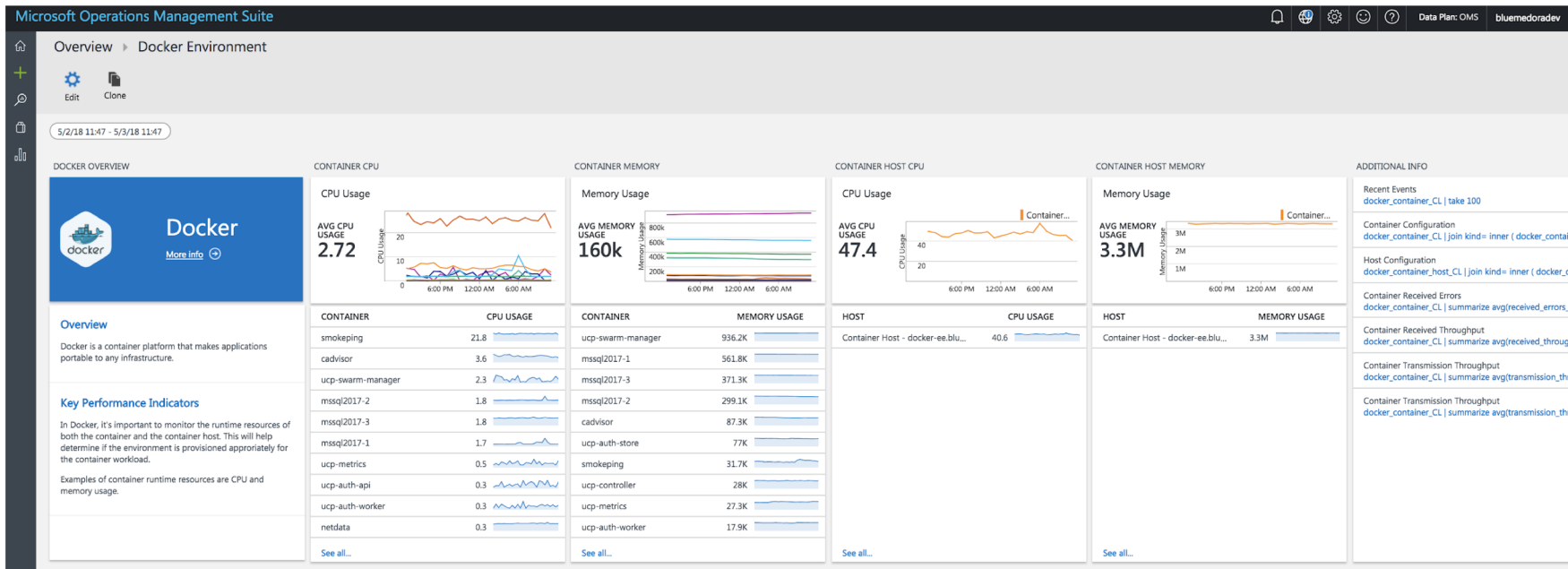
# Pivotal Cloud Foundry



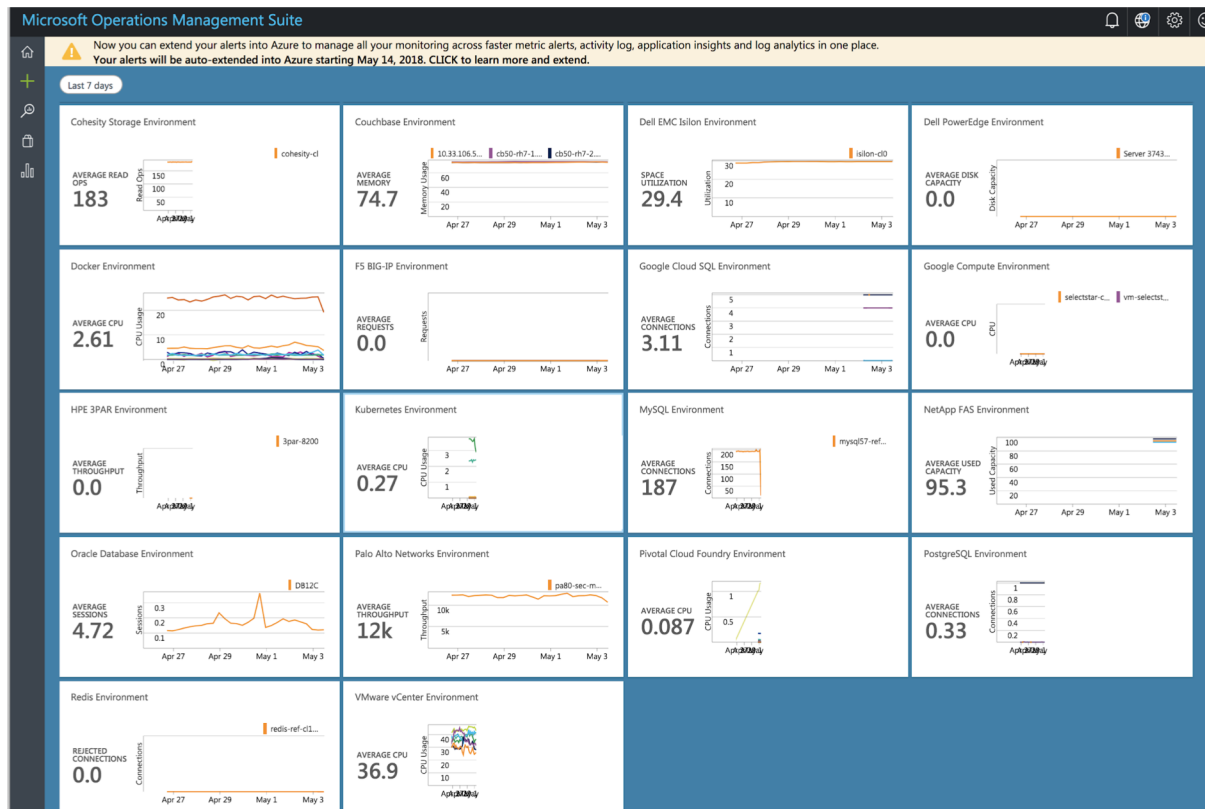
# Kubernetes



# Docker (cAdvisor)

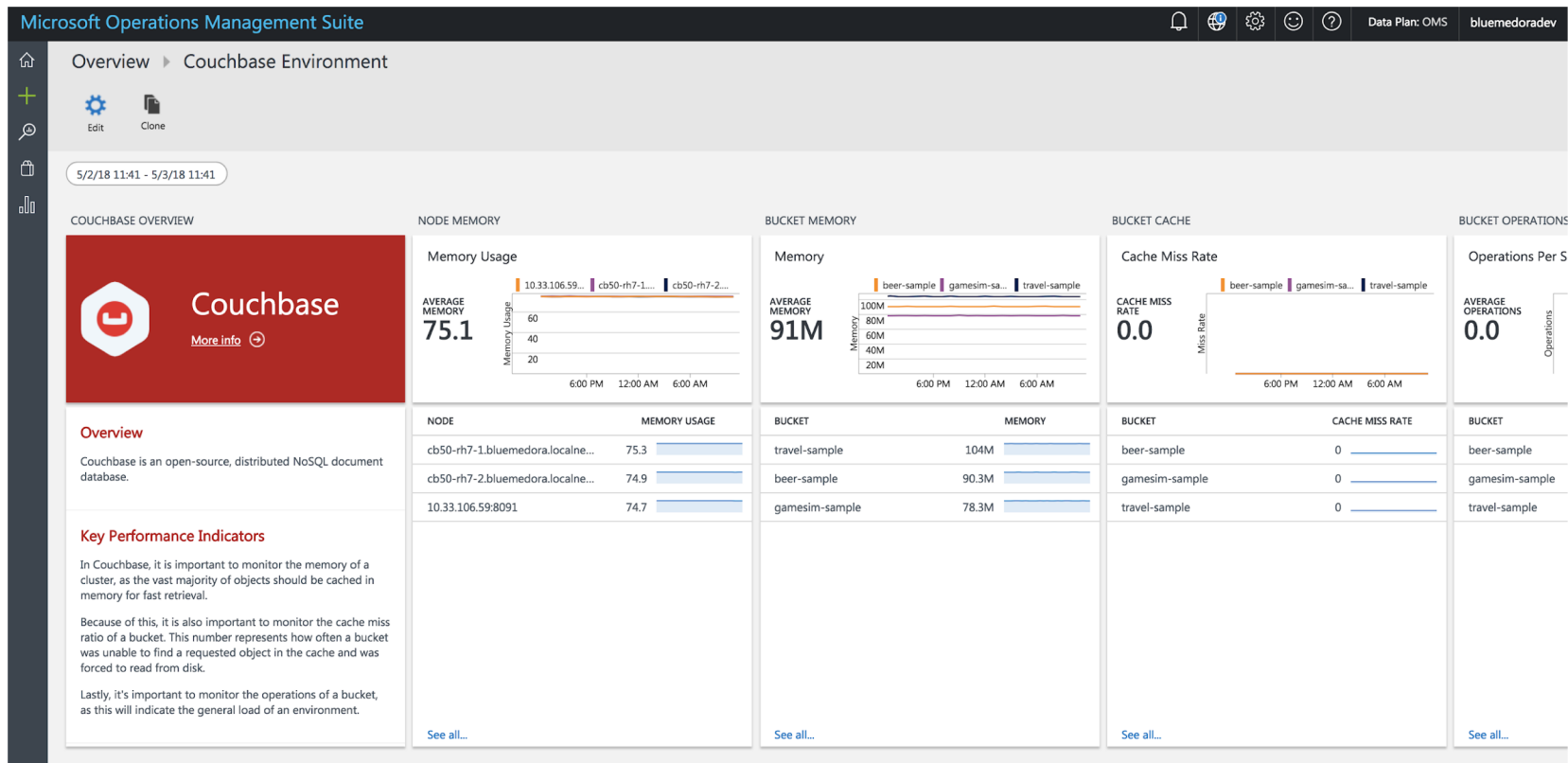


# DataOps / PaaS / DevOps / On Prem Infrastructure





# Couchbase



# Redis

## Microsoft Operations Management Suite

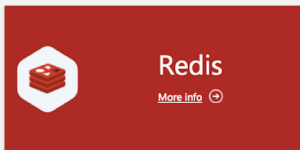
🔔 ⓘ ⚙️ 😊 ? Data Plan: OMS bluemedora.dev

### Overview ▶ Redis Environment



5/2/18 11:59 - 5/3/18 11:59

#### REDIS OVERVIEW



#### Overview

Redis is an open source, in-memory data structure store, used as a database, cache and message broker.

#### Key Performance Indicators

In Redis, it is important to monitor rejected connections. When rejected connections occur, this indicates that an application has been unable to communicate with the server, resulting in a disruption of service.

Likewise, it is also important to monitor the memory used by the Redis server. When memory exceeds the physical limit, the server will start swapping and performance will degrade.

#### SERVER REJECTIONS

##### Rejected Connections



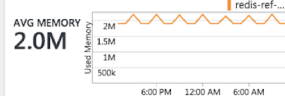
SERVER	REJECTED CONNECTIONS
--------	----------------------

redis-ref-cl1-1.6379	0
----------------------	---

[See all...](#)

#### SERVER MEMORY

##### Used Memory



SERVER	MEMORY
--------	--------

redis-ref-cl1-1.6379	1.9M
----------------------	------

[See all...](#)

#### SERVER EVICTED KEYS

##### Evicted Keys



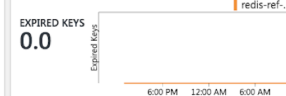
SERVER	EVICTED KEYS
--------	--------------

redis-ref-cl1-1.6379	0
----------------------	---

[See all...](#)

#### SERVER EXPIRED KEYS

##### Expired Keys



SERVER	EXPIRED KEYS
--------	--------------

redis-ref-cl1-1.6379	0
----------------------	---

[See all...](#)

#### ADDITIONAL INFO

Recent Events  
[redis\\_server\\_CL | take 100](#)

Cluster Status  
[redis\\_cluster\\_CL | join kind= inner \( redis\\_cluster\\_CL | s](#)

Cluster Size  
[redis\\_cluster\\_CL | join kind= inner \( redis\\_cluster\\_CL | s](#)

Database Status  
[redis\\_database\\_CL | join kind= inner \( redis\\_database\\_CL | s](#)

Cluster Sent Messages  
[redis\\_cluster\\_CL | summarize avg\(cluster\\_stats\\_messag](#)

Cluster Received Messages  
[redis\\_cluster\\_CL | summarize avg\(cluster\\_stats\\_messag](#)

Cluster Instantaneous Ops  
[redis\\_cluster\\_CL | summarize avg\(avg\\_instantaneous\\_o](#)

# PostgreSQL

## Microsoft Operations Management Suite

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### Overview PostgreSQL Environment



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5/2/18 11:43 - 5/3/18 11:43

#### POSTGRESQL OVERVIEW



## PostgreSQL

[More info](#)

#### Overview

PostgreSQL is an open source relational database management system.

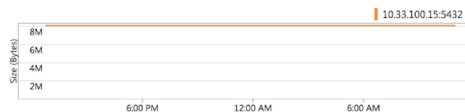
#### Key Performance Indicators

In PostgreSQL, it's important to monitor table operations, as errant row inserts can quickly inflate the size of the database.

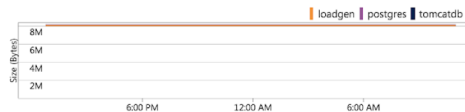
Furthermore, it's also important to monitor the executions of a query. If a resource intensive query executes at a rapid pace, this may hinder the responsiveness of the database.

#### POSTGRESQL SIZE

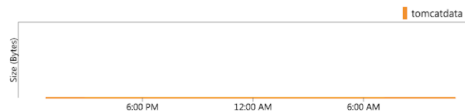
##### Instance



##### Database Size



##### Table Size



#### DATABASE OPERATIONS

0  
Row Inserts

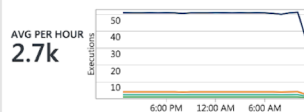
0  
Row Deletes

DATABASE	TOTAL OPERATIONS
loadgen	7.2K
postgres	4.4K
tomcatdb	2.3K

[See all...](#)

#### QUERY EXECUTIONS

##### Total Executions



QUERY	AVG TIME (MS)
SELECT typinput=\$2:regpr...	0.1
select exists( SELECT \$1 FR...	0
SELECT n.nspname = ANY(...	0
SET extra_float_digits = 3	0
SET application_name = 'BL...	0
SHOW server_version_num	0

[See all...](#)

#### ADDITIONAL INFO

Session Wait Time  
[postgres\\_session\\_CL | summarize max\(waiting\\_d\) by postgres...](#)

Session by Application  
[postgres\\_session\\_CL | summarize count\(\) by application\\_name...](#)

Index Rates  
[postgres\\_index\\_CL | project postgres\\_index\\_name\\_s, postgre...](#)

Instance Configuration  
[postgres\\_configuration\\_CL | distinct postgres\\_instance\\_nam...](#)

Replication Delay  
[postgres\\_replication\\_CL | summarize avg\(replication\\_delay\\_d\) ...](#)

Tablespace Size  
[postgres\\_tablespace\\_CL | summarize avg\(spc\\_size\\_d\) by postg...](#)

Function Calls  
[postgres\\_function\\_CL | summarize avg\(avg\\_time\\_d\), sum\(calls...](#)

# Dell Compute

Microsoft Operations Management Suite

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Overview ▸ Dell PowerEdge Environment



5/2/18 11:45 - 5/3/18 11:45

DELL POWEREDGE OVERVIEW



## Dell PowerEdge

[More info](#) ➔

### Overview

Dell PowerEdge is a server line offered by Dell.

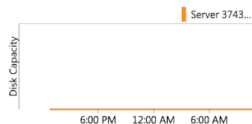
### Key Performance Indicators

In Dell PowerEdge, it is important to monitor runtime resources, such as CPU, memory, and disk.

SERVER DISK CAPACITY

#### Disk Capacity

AVERAGE DISK CAPACITY  
**0.0**



SERVER	DISK CAPACITY
Server 37434008593 t620-dev	0 <div></div>

[See all...](#)

SERVER PROCESSOR SPEED

#### CPU Speed

AVERAGE CPU SPEED  
**2.0k**



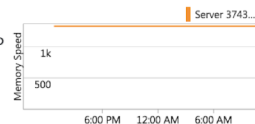
SERVER	CPU SPEED
Server 37434008593 t620-dev	2K <div></div>

[See all...](#)

SERVER MEMORY SPEED

#### Memory Speed

AVERAGE MEMORY SPEED  
**1.3k**



SERVER	MEMORY SPEED
Server 37434008593 t620-dev	1.3K <div></div>

[See all...](#)

ADDITIONAL INFO

Recent Events

dell\_compute\_rack\_server\_CL | take 100

Server Model

dell\_compute\_rack\_server\_CL | join kind= inner (dell\_comp

Server IP

dell\_compute\_rack\_server\_CL | join kind= inner (dell\_comp

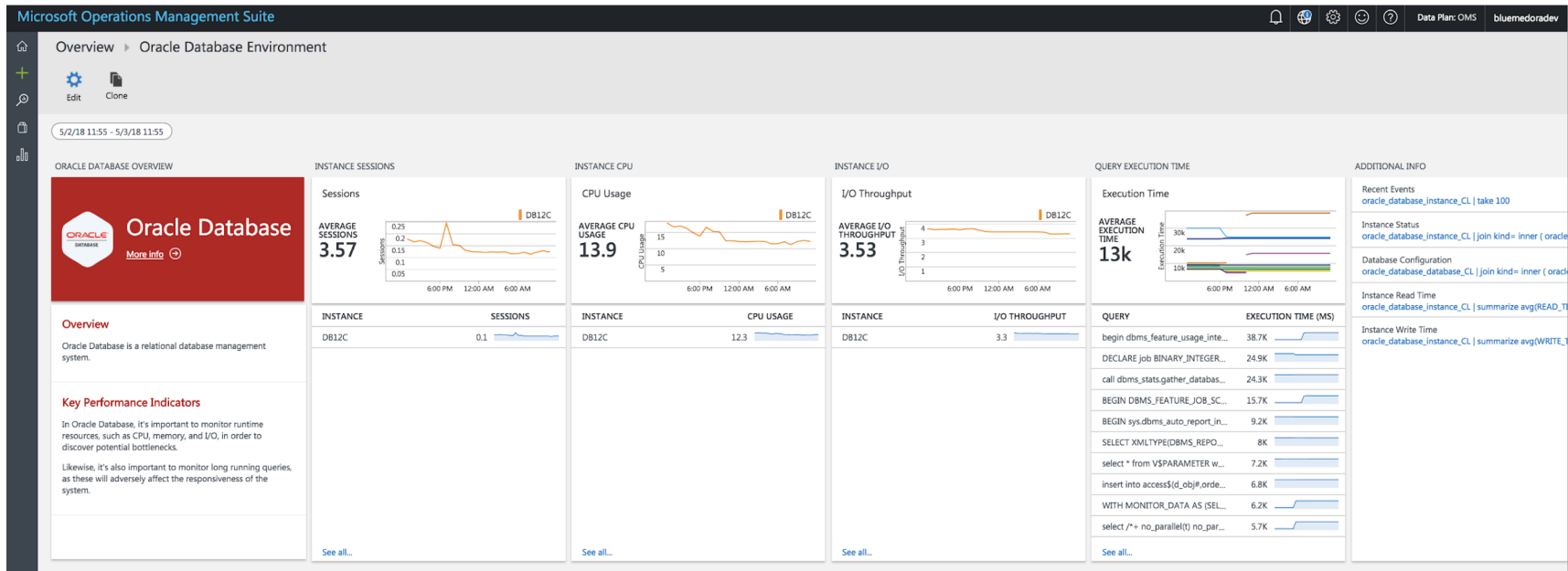
Server OS

dell\_compute\_rack\_server\_CL | join kind= inner (dell\_comp

Server BIOS

dell\_compute\_rack\_server\_CL | join kind= inner (dell\_comp

# Oracle Database



# Cisco Nexus

Microsoft Operations Management Suite

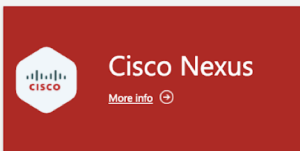
🔔 🌐 ⚙️ 😊 ? Data Plan: OMS bluemedora.dev

Overview ▶ Cisco Nexus Environment

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5/2/18 11:57 - 5/3/18 11:57

CISCO NEXUS OVERVIEW



## Overview

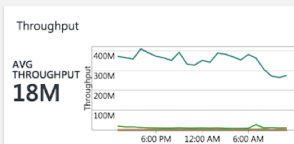
Cisco Nexus is a series of network switches designed for the traditional data center.

## Key Performance Indicators

In Cisco Nexus, it is important to monitor the traffic of the switch.

When throughput exceeds the bandwidth of the switch, network packets will be dropped, resulting in lost data.

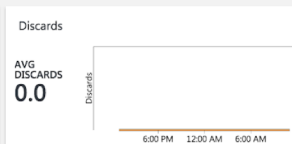
PORT THROUGHPUT



PORT	THROUGHPUT
sw-nx5010-1: FIC-A Port 6	275.6M
sw-nx5010-1: Ethernet1/20	10.5M
sw-nx5010-1: Uplink to 5524	10.4M
sw-nx5010-1: Cohesity Data Ne...	696.6K
sw-nx5010-1: Dell T620 VM Tra...	208.9K
sw-nx5010-1: FIC-B Port 6	11.5K
sw-nx5010-1: mgmt0	8.9K
sw-nx5010-1: FAS 3240 ISCSI Tr...	74.8
sw-nx5010-1: Ethernet1/5	0
sw-nx5010-1: Ethernet1/9	0

[See all...](#)

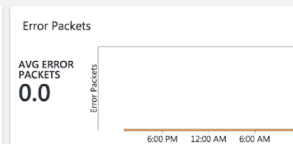
PORT DISCARDS



PORT	DISCARDS
sw-nx5010-1: FAS 3240 ISCSI Tr...	0
sw-nx5010-1: Cohesity Data Ne...	0
sw-nx5010-1: Ethernet1/10	0
sw-nx5010-1: Ethernet1/15	0
sw-nx5010-1: Ethernet1/19	0
sw-nx5010-1: Ethernet1/20	0
sw-nx5010-1: Ethernet1/2	0
sw-nx5010-1: Ethernet1/5	0
sw-nx5010-1: Ethernet1/8	0
sw-nx5010-1: Ethernet1/9	0

[See all...](#)

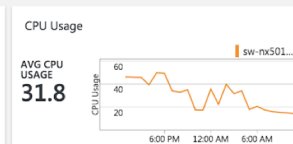
PORT ERROR PACKETS



PORT	ERROR PACKETS
sw-nx5010-1: FAS 3240 ISCSI Tr...	0
sw-nx5010-1: Cohesity Data Ne...	0
sw-nx5010-1: Ethernet1/10	0
sw-nx5010-1: Ethernet1/15	0
sw-nx5010-1: Ethernet1/19	0
sw-nx5010-1: Ethernet1/20	0
sw-nx5010-1: Ethernet1/2	0
sw-nx5010-1: Ethernet1/5	0
sw-nx5010-1: Ethernet1/8	0
sw-nx5010-1: Ethernet1/9	0

[See all...](#)

SWITCH CPU USAGE



SWITCH	CPU USAGE
sw-nx5010-1	14.3

[See all...](#)

ADDITIONAL INFO

Recent Events  
[cisco\\_networking\\_port\\_CL | take 100](#)

Switch Attached MAC  
[cisco\\_networking\\_switch\\_CL | join kind= inner \( cisco\\_r](#)

Switch Model  
[cisco\\_networking\\_switch\\_CL | join kind= inner \( cisco\\_r](#)

Switch IP  
[cisco\\_networking\\_switch\\_CL | join kind= inner \( cisco\\_r](#)

Port Bandwidth  
[cisco\\_networking\\_port\\_CL | join kind= inner \( cisco\\_net](#)

Port Configuration  
[cisco\\_networking\\_port\\_CL | join kind= inner \( cisco\\_net](#)

Ports Down  
[cisco\\_networking\\_switch\\_CL | summarize avg\(port\\_stat](#)

Ports in Error  
[cisco\\_networking\\_switch\\_CL | summarize avg\(port\\_stat](#)

# NetApp Storage

## Overview ▶ NetApp FAS Environment



5/2/18 11:58 - 5/3/18 11:58

### NETAPP FAS OVERVIEW



## NetApp FAS

[More info](#)

### Overview

NetApp FAS is a fabric-attached storage system that can serve storage over a network using file-based protocols such as NFS, SMB, FTP, TFTP, and HTTP.

### Key Performance Indicators

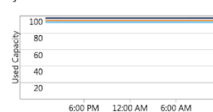
In NetApp FAS, it's important to monitor the capacity of the aggregates and volumes. When capacity is reached, the storage system will be unable to operate as expected.

Likewise, it's also important to monitor the latency of reads and writes. Highly latent operations will cause applications to appear unresponsive.

### AGGREGATE CAPACITY

Used Capacity

AVERAGE  
USED  
CAPACITY  
**95.3**



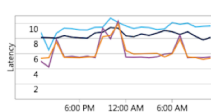
AGGREGATE	USED CAPACITY
aggr_1	98
aggr0_fas3240c_02_0	95
aggr0	95
aggr_2	93

[See all...](#)

### AGGREGATE LATENCY

Latency

AVERAGE  
LATENCY  
**7.54**



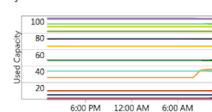
AGGREGATE	LATENCY (MS)
aggr_2	9.6
aggr_1	8.2
aggr0	5.6
aggr0_fas3240c_02_0	5.4

[See all...](#)

### VOLUME USED CAPACITY

Used Capacity

AVERAGE  
USED  
CAPACITY  
**38.0**



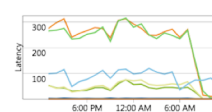
VOLUME	USED CAPACITY
fas3240c_svm_iscsi_lun_epops...	97
netapp_iscsi_perf_vol	97
ucs_iscsi_vol	91
kraken6_lun_vol	88
ucs_nfs_vol	87
vol_nfs_vmware_thin	82
vol_nfs_vmware_cap	82
vol_temp_nfs_jon	73
vcsa_test_vvol1	64
vol_nfs_qos	47

[See all...](#)

### VOLUME LATENCY

Latency

AVERAGE  
LATENCY  
**26.5**



VOLUME	LATENCY (MS)
netapp_iscsi_perf_vol	57.7
ucs_iscsi_vol	12.5
vol_nfs_vmware_thick	8.7
vol0	1.6
ucs_nfs_vol	0.3
vol_epops_nfs	0.1
DJ_Test	0.1
fas3240csvm_iscsi_root	0.1
vol_nfs_vmware_cap	0.1
fas3240cusciscsi_root	0

[See all...](#)

### ADDITIONAL INFO

- Recent Events  
[netapp\\_apiservices\\_aggregate\\_CL | take 100](#)
- Aggregate Reads  
[netapp\\_apiservices\\_aggregate\\_CL | summarize avg\(avg\(read\\_...\)\)](#)
- Aggregate Writes  
[netapp\\_apiservices\\_aggregate\\_CL | summarize avg\(write\\_...\)](#)
- Aggregate Utilization  
[netapp\\_apiservices\\_aggregate\\_CL | summarize avg\(util\\_...\)](#)
- Volume Reads  
[netapp\\_apiservices\\_volume\\_CL | summarize avg\(read\\_...\)](#)
- Volume Writes  
[netapp\\_apiservices\\_volume\\_CL | summarize avg\(write\\_...\)](#)
- Volume Available Size  
[netapp\\_apiservices\\_volume\\_CL | summarize avg\(size\\_...\)](#)