Monitoring RDS:

Monitoring is essential for an application to be:

- Reliable
- Available
- Performant

Databases are the heart of most applications.

Monitoring should focus on tracking key metrics:

- Know when they are within thresholds, and know when they are out of bounds.

Focus on this lesson is to show you options and tools to deliver on your monitoring plan.

Standard Monitoring RDS

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RDS sends metrics to CloudWatch:

15 – 18 metrics available (Depends on Instance Size)

Access them via:

- Visualize them in RDS Console or CloudWatch Console
- Access the data directly via CloudWatch APIs
- Send the data to other monitoring tools using APIs

CloudWatch Alarms allow you to trigger actions based on these metrics.

High Level – Metrics to watch

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CPU

CPUUtilization, CPUCreditBalance

Storage Space

FreeStorageSpace

Network Traffic

NetworkReceiveThroughput, NetworkTransmitThroughput

DB Connections

DatabaseConnections

IOPS

ReadIOPS, WriteIOPS

Enhanced Monitoring

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Operating System / Host level metrics

Granularity as low as 1 second (default is 60 seconds)

50 additional metrics available in CloudWatch

Difference between Standard and Enhanced Monitoring?

- Standard metrics are provided from outside the host, from the Hypervisor.
- Enhanced is provided from a lightweight agent on the host.

Performance Insights

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Provides insights into the Database Performance

Identifies database bottlenecks

Analyze SQL Queries, Hosts and Users

How they are impacting the Server

It is free

Not available on db.t2 instance classes

Other AWS Monitoring Tools for RDS

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AWS RDS Events
- Be notified when an RDS Management event occurs

AWS Config
- Records and evaluates changes to configuration

AWS CloudTrail
- Audit log of the API calls made to the RDS

AWS Trusted Advisor
- Cost optimization, security, fault tolerance, and performance improvement recommendations for your set up