AppDynamics Database Monitoring Concept

AppDynamics Database Monitoring

The most common cause of application poor performance is usually from a slow performing SQL queries or stored procedures in databases.

Databases usually stores large amount of data on disk. This can become a huge bottleneck as data begins to grow especially if disk is not SSD.

The need to optimize the query performance also grows with time the reason we have database administrators

With AppDynamics' database performance management product, you get 100% visibility into application performance, from the browser to the database.

Database Metrics

Three Classifications of Metrics

- Hardware Resources: Metrics collected by hardware monitoring
- KPI: Key Performance Indicators
- Server Statistics: Database system statistics as reported by the database

Supported Database Monitoring

- Amazon RDS Monitoring
- Cassandra Monitoring
- DB2 Monitoring
- MongoDB Monitoring
- MySQL Monitoring
- Oracle Monitoring
- PostgreSQL Monitoring
- Scala Monitoring
- Scalatra Monitoring
- SQL Server Monitoring
- Sybase ASE Monitoring
- Sybase IQ Monitoring

Supported Database Monitoring

Visibility provided by Database Monitoring

- SQL & Stored Procedures
- Execution plans
- Wait states
- Resource consumption
- Database objects
- Schema statistics
- User sessions
- Data files
- Change events

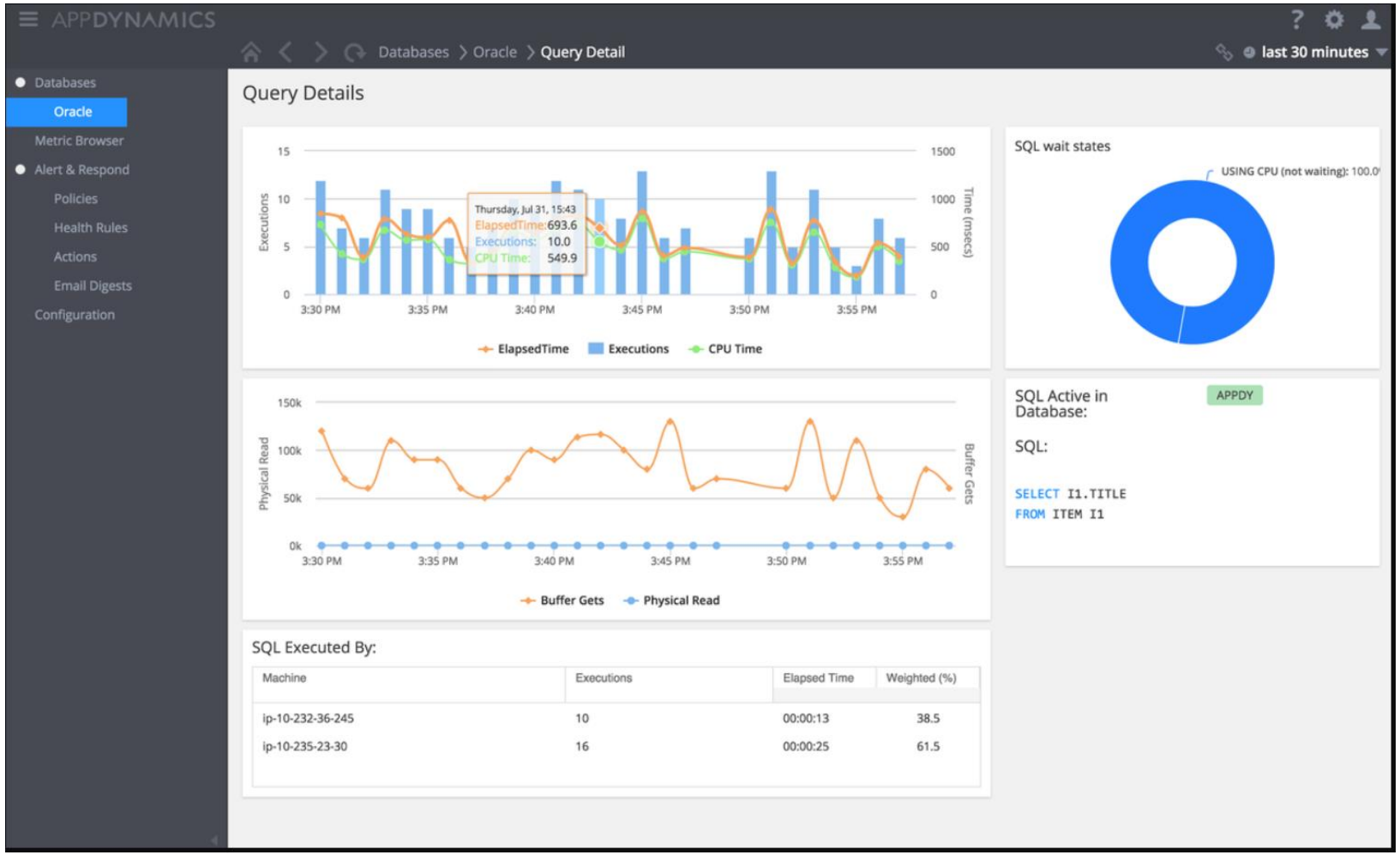
Problems Solved with Database Monitoring

- Slow database response time
- Database load issues
- Unpredictable performance spikes
- Locking problems
- Internal database contention

AppDynamics Database Monitoring

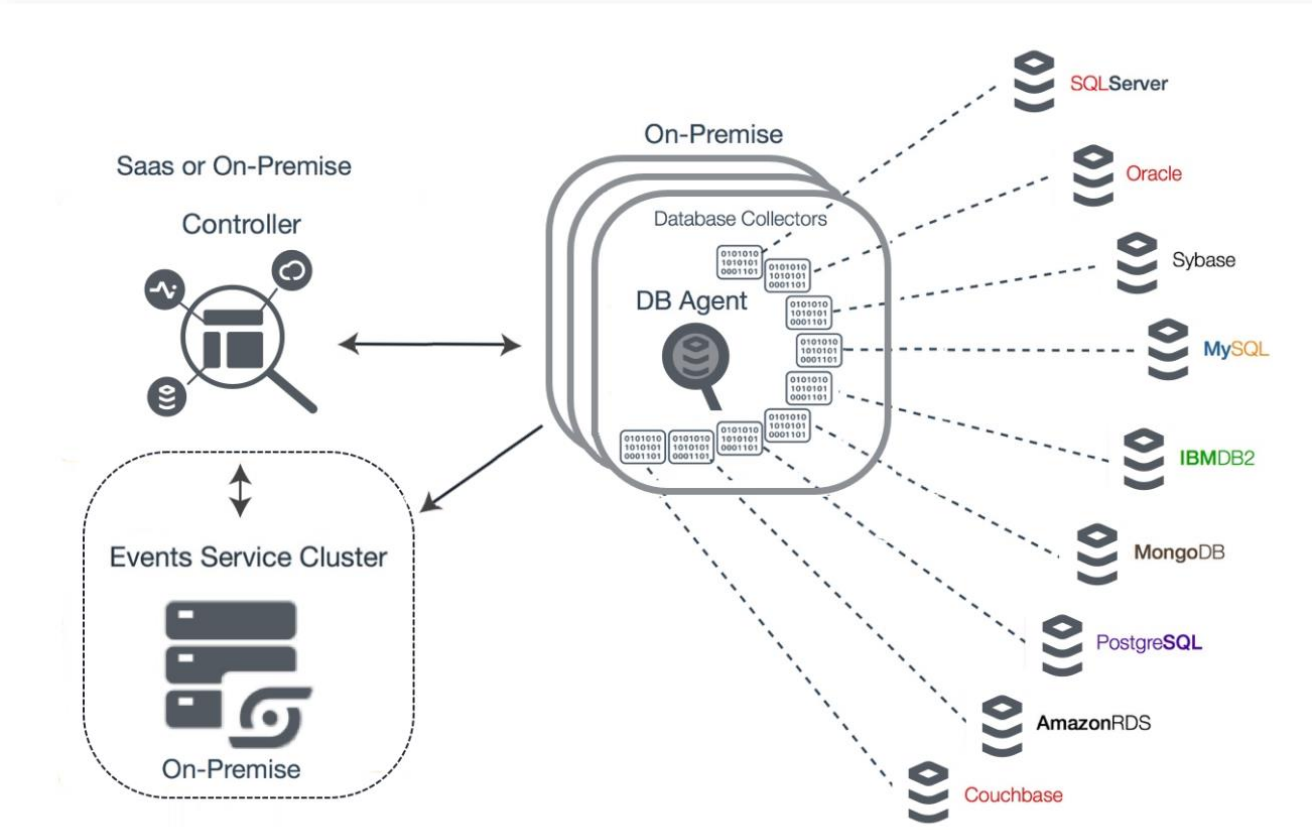
Key Benefits of Database Monitoring

- Visualize end-to-end application performance issue from the browser to the database.



How it Works?

- AppDynamics Database visibility provides performance metric of your database. It also helps in troubleshooting performance related issues.



How it Works?

Components of AppDynamics Database Visibility

- **Database Agent**:- This is a standalone java program that collects performance metrics about database servers. Java 1.8 or higher is required to be installed running Database agent.

- **Collector**:- AppDynamics database agent collector is more like a process that runs within the database agent to collect performance metrics about specific database instances. So one database collector collects metrics for database. Note that one collector can also collect metrics for clustered database like Oracle RAC. Multiple collectors can run in one Database agent.

- **AppDynamics Controller**:- AppDynamics Controller is the central intelligence that collects all the performance metrics been sent by the database agent.

- **Events Service** (for On premise Only):- Events service is required for AppDynamics database agent to work. It stores high volume data. Database agent sends the following information to it

  - Time that each query spends at each wait state
  - Individual query statistics for databases that support it
  - Information about individual execution plans in databases that support it

End