ROOM 106/107 KEYNOTE

Database Technology Trends
—Sehmuz Bayhan, eBay...**9:30–10:30**

This keynote covers how databases have evolved over the past 30 years and how Big Data and the cloud are revolutionizing the database industry.

Sehmuz Bayhan is the senior director of database infrastructure at eBay.

ROOM 106

Introduction to Query Performance Tuning: A 12-Step Program, Part I—*Janis Griffin, SolarWinds*..........**11:00–12:00**

Performance tuning can be complex. It's often hard to know which knob to turn or button to press that will give you the biggest performance boost. The presentation will detail 12 steps to quickly identify performance issues and fix them. It will show how to quickly identify performance inhibitors in order to avoid poor performance in the future. Finally, the participant will be able to identify and understand how new Oracle features can change and/or support different execution plans.

Introduction to Query Performance Tuning: A 12-Step Program, Part II—*Janis Griffin, SolarWinds*............**1:00–2:00**

Scaling indexes for very large and very busy databases—*Sai Devabhaktuni, eBay*..**2:30–3:30**

This session covers all types of B-tree index contention on busy databases: the causes of contention, how to minimize the contention, and what is new in 12c for indexes. The session also covers how to design indexes for "web scale" using mod function based indexes, reverse key indexes, virtual partitioning, global hash-partitioned indexes, etc; scaling indexes on RAC; how new partitioning features in 12*c* help scale indexes,;designing indexes for optimal DML access; and things to watch out for in online index builds.

Sai Devabhaktuni is the senior manager of database engineering at eBay.

ROOM 107

RAC Cache Fusion Internals—*Riyaj Shamsudeen, Oracle ACE Director*..**11:00–12:00**

Have you ever wondered how Oracle RAC maintains consistency, considering that a block can be modified in any instance buffer cache? How does the transaction locking mechanism work concurrently with the RAC consistency mechanism? Come to this session to learn intricate details about various cache fusion internals. I will do a live demo of a three-node RAC cluster and show various internals about cache fusion. Understanding the internals is essential to appreciating the underlying RAC wait events. I will map the internals to the related RAC wait events to improve practical use of the internals in your day-to-day life. Further, I will use Swingbench to show the importance of log I/O throughput in a RAC database.

In-memory Internals—*Riyaj Shamsudeen, Oracle ACE Director* **1:00–2:00**

In this session I will present internal details about in-memory options, processes, and memory structures; v$ views; and some of the practical issues that we encountered while testing a multi-terabyte database with this product. I will also discuss a few internal troubleshooting events to understand how IM is populated and scanned, and so on. In addition, we will take heap dumps to review memory structures.

Health Checks and Diagnosability for the Oracle Cloud—*Sandesh Rao, Oracle Corporation*.................**2:30–3:30**

Cloud environments require heavy emphasis on standardization and automation while implementing many components of the Oracle stack. Invariably, when problems arise Oracle Support will need the correct first failure diagnostics in order to provide timely and correct solutions. Oracle has provided tools like ORAchk, Collection Manager, and Oracle Trace File Analyzer (TFA) Collector to address these requirements. ORAchk is an automation framework of proactive health checks for a growing number of components of the Oracle technology stack. Collection Manager provides a central repository and dashboard that tie together collections from across the enterprise. TFA Collector automates the process of efficiently gathering first failure diagnostics.

Sandesh Rao is the Senior Director, RAC Assurance at Oracle Corporation.

ROOM 116

MongoDB 101—*Ahbaid Gaffoor, eBay* **11:00–12:00**

In this session we will introduce MongoDB to the Oracle DBA. We will cover installation, running a mongo database, and basic data modeling and CRUD operations. We will then conclude with a discussion of replication and sharing options. Beginners are welcome; having some knowledge of JSON is helpful but not required.

Wresting Control of Your Oracle Data with Heat Map and ILM in Oracle DB 12*c*—*John Kanagaraj, eBay*........**1:00–2:00**

Oracle Database 12*c* introduced the Heat Map as well as various partitioning and compression enhancements that can help you wrest back control of your data. In this session, you will learn how this works and how to implement Information Lifecycle Management (ILM) for Oracle-based databases to take charge of data growth.

Tips for DBAs and Developers—*Govindan Katteri, Pearson School Systems*..**2:30–3:30**

Of utmost importance when writing code is knowledge of the caveats and finer aspects of the database or language one is dealing with. While the manual might describe a feature, it does not explain how best to use it, when to use it, critical aspects of the feature, and how to mix and match features. This session describes a number of hidden gems for DBAs and developers.