

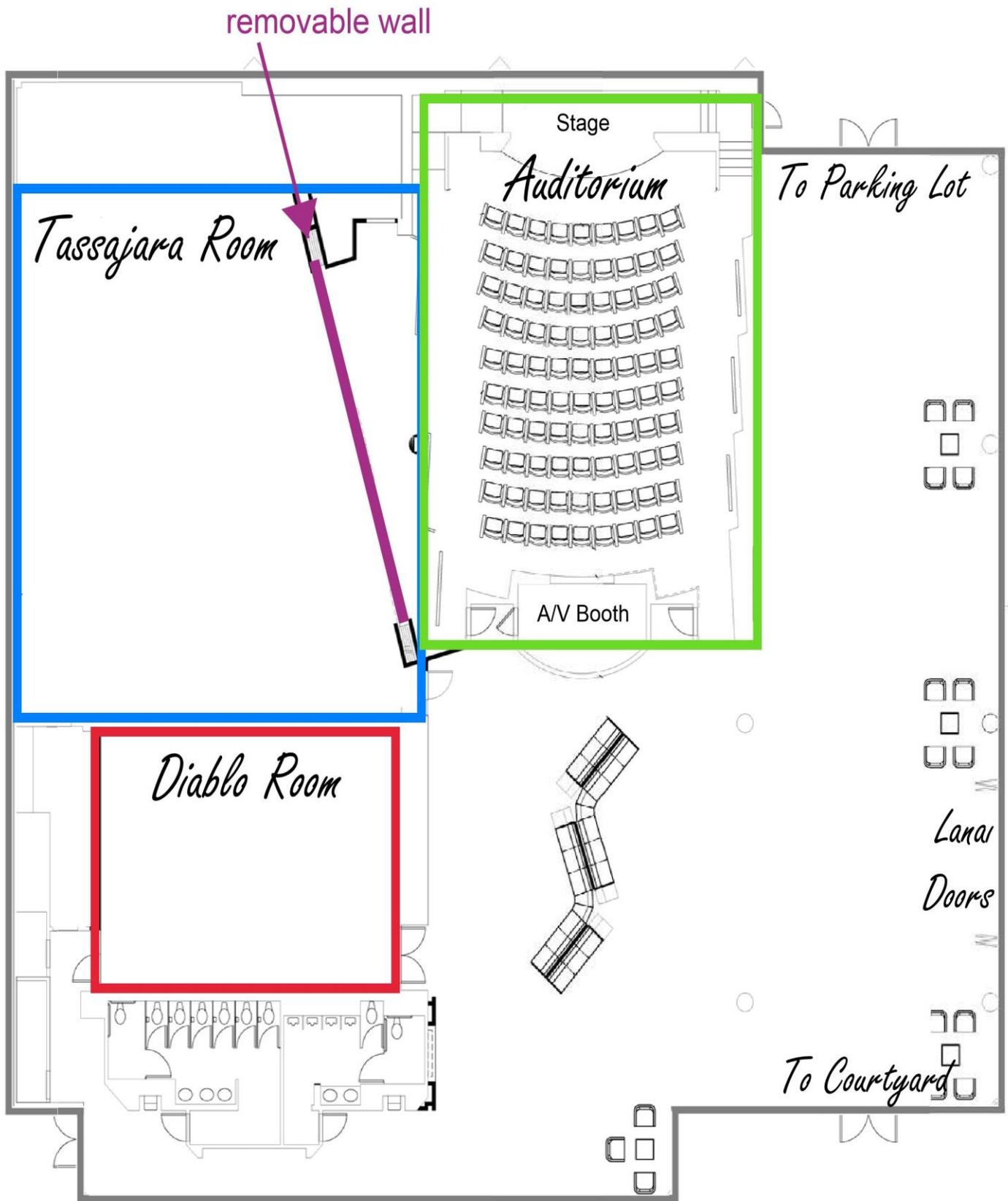


# NoCOUG WINTER CONFERENCE 2018

Thursday, February 22, 2018  
 Rosewood Commons Conference Center  
 4400 Rosewood Drive, Pleasanton, CA 94588

8:30–9:00	<b>REGISTRATION AND CONTINENTAL BREAKFAST</b>		
	<b>TASSAJARA</b> (floor plan on reverse)	<b>AUDITORIUM</b> (floor plan on reverse)	<b>DIABLO</b> (floor plan on reverse)
9:00–9:30	No session	<i>General Session</i> Iggy Fernandez—NoCOUG President	No session
9:30–10:15	No session	<i>Licensing, Pitfalls, Options, and Best Practices in the Cloud</i> Michael Stone—CIO, House of Brick; Bob Lindquist—Client Services Director, House of Brick	No session
10:15–10:30	<b>BREAK</b>		
10:30–11:15	No session	<i>Keynote: The Future of Transactional Systems</i> Dominic Preuss—Director of Product Management, Google	No session
11:15–11:30	<b>BREAK</b>		
11:30–12:15	No session	<i>Lessons from Data Management</i> Wei Hu—Vice President of Development, Oracle Corporation	No session
12:15–13:00	<b>LUNCH</b>		
13:00–13:45	<i>Oracle Security for DBAs and Developers</i> Daniel Morgan (Oracle ACE Director Alumnus), Forsythe Meta7	<i>Life of a Read and Write in Google Cloud Spanner Database</i> Deepti Srivastava, Google	<i>Oracle Database 18c Traffic Director</i> Srinath Krishnaswamy, Oracle Corporation <b>Oracle Database 18c New Features</b>
13:45–14:00	<b>BREAK</b>		
14:00–14:45	<i>Holistic Database Tuning for DBAs and Developers</i> Daniel Morgan (Oracle ACE Director Alumnus), Forsythe Meta7	<i>Architectural Differences Between Oracle RAC, Oracle Sharding, and Google Cloud Spanner Database</i> Deepti Srivastava, Google	<i>Oracle Database 18c Transparent Application Continuity Made Simple—With Examples for DBAs</i> Carol Colrain, Oracle Corporation <b>Oracle Database 18c New Features</b>
14:45–15:00	<b>LAST CHANCE TO MEET THE EXHIBITORS</b>		
15:00–15:45	<i>Everything a DBA Needs to Know About Database and Cluster Maintenance With Gold Images</i> Burt Clouse, Oracle Corporation	<i>Everything Developers Need to Know About Integrating JSON into Oracle Database</i> Mark Drake, Oracle Corporation	<i>Solving the Synchronized Data Integration Problem in the Hybrid Cloud</i> Robin Purohit, CEO, griddable.io
15:45–16:00	<b>FREE RAFFLE</b>		
16:00–	<b>HOSTED NETWORKING AND HAPPY HOUR</b> <b>RED ROBIN GOURMET BURGERS, 4503 ROSEWOOD DRIVE</b> (across the street from the conference center)		

Mark your calendars for the Spring Conference on **Thursday, May 17**, at PayPal Town Hall, San Jose



## AUDITORIUM

### Licensing, Pitfalls, Options, and Best Practices in the Cloud

Michael Stone, CIO, House of Brick; Bob Lindquist, Client Services Director, House of Brick..... 9:30–10:15

Running Oracle in the cloud presents a unique set of opportunities and challenges. In this session Oracle specialists from House of Brick discuss pitfalls, real options, and best practices. Learn what the barriers (perceived or real) are for the public cloud to be a best practice for enterprise workloads.

### Keynote: The Future of Transactional Systems

Dominic Preuss, Director of Product Management, Google ..... 10:30–11:15

As businesses scale up, so do the volume of their transactions. Until recently, the only way to keep up was to buy ever-bigger database servers. Even many cloud-based databases have constraints. Moreover, many cloud databases often incur the same configuration, administration, and management costs of on-premises databases. This session discusses how the cloud—specifically, Google Cloud Platform—provides a path to solving these challenges.

### Lessons from Data Management

Wei Hu—Vice President of Development, Oracle Corporation ..... 11:30–12:15

Over the past 40 years, relational databases have become pervasive and form the backbone of modern life. The world's airlines, banks, governments, telcos, and financial institutions run their mission-critical transactions on relational databases. This in turn has driven a huge amount of innovation: Scale-out, Replication, Smart Storage, NoSQL, NewSQL, JSON, In-memory, Sharding, etc. This session reviews the lessons that we have learned over the past decades, discusses how relational databases are evolving, and what this means for the future of data management.

### Life of a Read and Write in Google Cloud Spanner Database

Deepti Srivastava, Google ..... 13:00–13:45

Does Cloud Spanner use magic? Does it violate the CAP Theorem? Does it break the speed of light? Take a trip inside the inner-workings of Cloud Spanner. In this session, you'll learn how Cloud Spanner works and how external (strong++) consistency is guaranteed on reads and writes.

### Architectural Differences Between Oracle RAC, Oracle Sharding, and Google Cloud Spanner Database

Deepti Srivastava, Google ..... 14:00–14:45

Oracle RAC, Oracle Sharding, and Google Cloud Spanner all aim to provide scalability and high availability, but they have fundamentally different strategies and approaches. In this whiteboard session, Deepti Srivastava, who has helped build them all, will lead a discussion on how they differ and what advantages/disadvantages the various approaches provide.

### Everything Developers Need to Know About Integrating JSON into Oracle Database

Mark Drake, Oracle Corporation ..... 15:00–15:45

Are you dealing with developers advocating for the use of JSON data and NoSQL databases? If so, this session is for you. Learn about new simple-to-use APIs that make it easy to use Oracle Database 12c as a JSON document store regardless of whether the database is running on-premises or in the cloud. See how Oracle Database provides the best of both worlds, combining agile development with enterprise-ready security and data management. Attendees also see how exciting new features in the next generation of Oracle Database make it easy to understand the structure of JSON documents, integrate JSON and relational data, generate JSON from relational data, and perform analytical and reporting operations over JSON documents.

## TASSAJARA

### Oracle Security for DBAs and Developers

Daniel Morgan (Oracle ACE Director Alumnus), Forsythe Meta7..... 13:00–13:45

Everyone should know that Oracle's flagship database contains more built-in security functionality than do all of the other major commercial database products combined. They should also know that most of it is disabled by default. Knowledge of security tools that require additional licensing, such as Database Vault, Database Firewall, Transparent Data Encryption, and Audit Vault, is important; equally important is familiarity with the many capabilities included in the default license that can harden a database against attack. Oracle ACE Director Alumnus Daniel Morgan will present live demos in SQL\*Plus on how to greatly improve the security of your database with built-in features that require no additional licensing and show how you can stop your Oracle database from being used as a source of an internal or external attack.

### Holistic Database Tuning for DBAs and Developers

Daniel Morgan (Oracle ACE Director Alumnus), Forsythe Meta7..... 14:00–14:45

Thirty years ago the single most requested topic at Oracle conferences was Performance Tuning. It still is. So why are we still fighting performance issues after decades of guidance from the best minds in our profession and a steadily improving stream of tools that have moved us from Explain Plan to ADDM, ASH, AWR, and a plethora of third-party products?

One reason is that we are focusing on tuning SQL *statements* not *systems*. When we tune a SQL statement, potentially one statement gets faster. When we tune systems, *all* SQL statements get faster. This session by Oracle ACE Director Alumnus Daniel Morgan will cover important performance-related topics not found in books, conference presentations, or white papers, and will introduce DBAs to critically important information about the impact of networks, storage, servers, and operating environments.

*Continued on reverse*

## Everything a DBA Needs to Know About Database and Cluster Maintenance with Gold Images

*Burt Clouse, Oracle Corporation* ..... 15:00–15:45

Provisioning new software deployments using gold images is straightforward: create a set of approved software homes that contain the patches and configurations you need, and copy them to target machines as required. This approach is widely used and ensures that new deployments conform to standardized software builds. But maintenance is less straightforward. Updating deployed gold images is sometimes done locally; i.e., updates are applied directly onto the deployed copy (in-place update) or onto a local clone of the deployed copy (out-of-place update). The build process must be repeated on every target in the estate, and it cannot guarantee that each update achieves the desired result.

Rapid Home Provisioning and Maintenance uses a better approach: gold images are utilized for all deployment and maintenance operations. When an update is ready for distribution, it is packaged as a new gold image and provisioned to target machines. Provisioning is out of place and can be completed outside of the maintenance window, with no impact to running services.

Switching services to the newer home is accomplished with a single command that handles all of the steps involved. The commands are extensions to the Oracle Database and Grid Infrastructure, and provide a broad set of options for managing session availability and service placement, including graceful rolling updates with managed session draining, and a new Zero-Downtime Database Upgrade capability.

In addition to minimizing the impact of maintenance, Rapid Home Provisioning and Maintenance lowers the risk of applying updates by evaluating the configuration before initiating the switchover and flagging potential issues. If any errors are encountered in-flight, you can address the problem and resume the command from where it left off—or you can revert the configuration to its starting point with a simple command. If problems are seen post-update, you can easily switch back to the original home with a single command.

## DIABLO

### Oracle Database 18c Traffic Director *Srinath*

*Krishnaswamy, Oracle Corporation* ..... 13:00–13:45

In Oracle Database 18c, Connection Manager (CMAN) has been enhanced with a new mode of operation called Traffic Director. In this session you will learn about Traffic Director and how it can provide:

- Continuous application availability during PDB relocation, planned outages, and unplanned outages (non-transactional in 18.1) with no disruption to clients;
- Extreme scaling of application servers by maximizing sharing/re-use of database connections across mid-tier hosts using connection pooling in the database proxy;
- Dynamic load balancing, result-set caching, row

prefetching, statement caching, etc., even when clients are not explicitly coded or configured for leveraging those features;

- Protection from network fuzzing attacks before hitting the database; and
- All of the above without changing client code/configuration across a variety of client drivers such as OCI, JDBC, ODP.Net, cx\_Oracle, node-oracledb, and PHP-OCI8.

### Oracle Database 18c Transparent Application Continuity Made Simple—With Examples for DBAs

*Carol Colrain, Oracle Corporation* 14:00–14:45

In this session learn about making your applications highly available, with no application knowledge and no application changes. We will teach you about configuring your applications for high availability using Services, FAN, drain points, and Transparent Application Continuity. We cover tuning for zero brownout and how to know your coverage protection for failover using AWR and OraChk well before outage or maintenance occurs. We will also show you how Transparent Application Continuity works under the hood so that as your application changes your failover protection is maintained. This session is applicable to all applications, whether from Oracle or from third parties. This is important for cloud operations and DBA organizations where you have no knowledge of or access to the applications.

### Solving the Synchronized Data Integration Problem in the Hybrid Cloud **Editor's Choice**

*Robin Purohit, CEO, griddable.io* ..... 15:00–15:45

In today's digital business, it's imperative that data be geographically distributed across diverse platforms and connected at ever-increasing speed. This puts added pressure on traditional enterprise data to migrate and operate across hybrid clouds, continuously feed data updates into real-time applications, and connect to globally-distributed edge computing. Oracle Corporation has itself recognized that synchronized data integration is the biggest challenge in the hybrid cloud but today's solutions such as Oracle GoldenGate were not designed for the cloud era. A comprehensive solution should include:

- A resilient scale-out grid architecture that guarantees transactional consistency;
- Flexible 1:1, 1:N, and N:M topologies;
- A powerful policy engine with a declarative policy language for easily configuring topology and intelligent grid services without service interruptions; and
- Pluggable end-points built on existing change data capture logs with minimal database overhead including pre-built connectors and SDKs for relational, big data, and cloud-native services.

After examining the problem and the various point solutions to date, we will discuss how griddable.io's comprehensive new SaaS platform provides all these features and more.