

## Oracle TimesTen In-Memory Database Inside Presence & Availability Management

### Challenge

The increasing use of presence and availability parameters inside networks creates a deluge of information that must be efficiently managed while maintaining minimal latency and sub-second response.

### Solving the Challenge

Oracle TimesTen In-Memory Database provides the real-time infrastructure software needed to instantaneously process presence and availability updates.

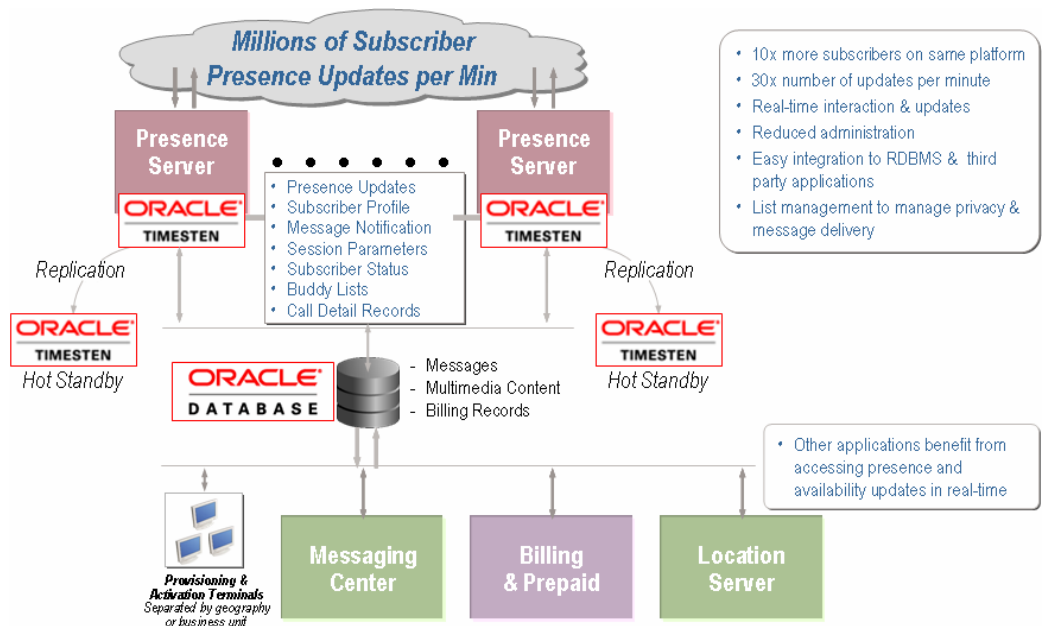
### Benefit

Oracle TimesTen inside PAM applications delivers optimized scalability and response time through infrastructure software rather than expensive hardware configurations.

### Presence and Availability Management Delivers New Revenues and Challenges

Today's margin erosion, resulting from increased competition, is driving communication service providers to focus on maximizing return on investment. More than ever, they have to rollout meaningful services that can cost-effectively scale with demand. The move to next generation networks (NGN), based on Session Initiation Protocol (SIP), provides rich presence and availability management (PAM) capabilities that rapidly extend voice, messaging, and collaboration applications into highly lucrative value added services (VAS). By adding the knowledge of presence, truly differentiated services can be created such as instant conferencing and push-to-talk (PTT).

However, to be meaningful, PAM applications have to deliver information in real time, quickly adapt to changing market requirements, and easily integrate with other third party applications and backend RDBMSs. To successfully deliver on PAM requires a new breed of infrastructure software.



### **Oracle TimesTen In-Memory Database**

Oracle TimesTen In-Memory Database is a memory-optimized relational database that is deployed in the application tier as a cache or embedded database. Oracle TimesTen In-Memory Database operates on data stores that fit entirely in physical memory using standard SQL interfaces.

### **Replication – TimesTen to TimesTen**

Replication – TimesTen to TimesTen is an option to the Oracle TimesTen In-Memory Database that enables real-time data replication between servers for high availability and load sharing.

### **Cache Connect to Oracle**

Cache Connect to Oracle is an option to the Oracle TimesTen In-Memory Database that creates a real-time, updatable cache for Oracle data, residing in the application tier. It offloads computing cycles from backend systems and enables remarkably responsive and scalable real-time applications.

### **Real-Time Infrastructure for PAM**

Oracle TimesTen is designed for applications, like those in PAM that must be:

- Instantly responsive
- Highly scalable
- Continuously available

Oracle TimesTen at the core of a PAM application enables:

- Scalable throughput for real-time presence & availability updates
- Easy management of preferences and privacy settings
- Continuous session parameters
- Fast access to subscriber location and device status
- Distributable architectures
- Real-time message charging
- Decreased administration
- Dynamic data caching with backend RDBMSs

Oracle TimesTen manages all performance- and time-sensitive information used in PAM:

- Real-time presence updates
- List management (Buddy List) and privacy settings
- Active session parameters
- Message delivery preferences and notification
- Location and other relevant dynamic data
- Billing events and call detail records (CDRs)

Within PAM applications, Oracle TimesTen is ideally suited to enable fast access to subscriber status, profiles, and online buddy lists, while ensuring real-time responsiveness and scalability. Oracle TimesTen also provides industry-standard interfaces that facilitate the sharing of data with other applications. For examples, message charging parameters can be processed in real time to feed billing and prepaid applications and subscriber profiles can be dynamically accessed from backend RDBMSs. Oracle TimesTen includes built-in features for replication and data recovery that ensure data is never lost and can be easily shared across multiple platforms to eliminate single points of failure. This is critical in SIP-based networks where data can live across a number geographically dispersed servers and hierarchical layers.

### **Oracle TimesTen In-Memory Database Inside PAM Applications**

Oracle TimesTen In-Memory Database inside PAM applications provides the scalability and response time to meet growing numbers of subscribers, higher usage patterns, and enables multiple applications to simultaneously operate on the same platform. Oracle TimesTen can support a variety of architectures and provides dynamic caching to Oracle backend RDBMSs used for provisioning and subscriber information. The superior performance of Oracle TimesTen translates to higher peak throughput capacity, which maximizes margins and minimizes the cost of delivering services that capitalize on PAM. Oracle TimesTen delivers these capabilities while efficiently utilizing computing resources and require near-zero administration by communication service providers.

### **CONTACT US**

For more information, visit <http://www.oracle.com/database/timesten.html> or call 1-800-633-0750 to speak with a sales representative.