Oracle TimesTen In-Memory Database Inside Prepaid

Challenge

New services and pricing models are putting unprecedented workloads on prepaid systems and obstructing the ability for communication service providers to maximize revenues.

Solving the Challenge

Oracle TimesTen In-Memory Database offers the scalability to manage increasing volumes of network events with smaller hardware investments, and the responsiveness to process and rate prepaid events in real time.

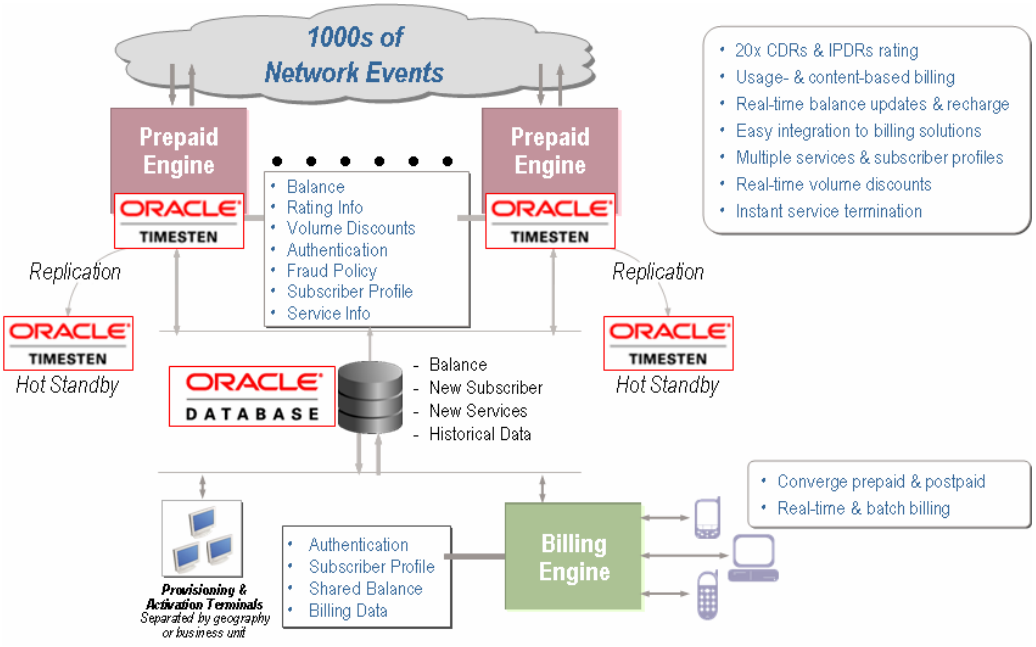
Benefit

Oracle TimesTen inside prepaid applications enables the throughput to handle prepaid rating of complex services and delivers the responsiveness to manage balances in real time.

Prepaid Takes on New Challenges

Prepaid charging was once exclusively for subscribers considered at risk of defaulting on payments. Around the world, prepaid charging is now a growth segment targeting teens, students, and seniors. For this segment, communication service providers need more flexibility in managing subscriber balances and how much money is spent, which is driving the following requirements:

- **Offload existing intelligent network (IN) solutions**—enabling adjunct prepaid applications to offer innovative discounting, service bundles, and promotions.
- **Tie prepaid accounts to high-paying postpaid accounts**—a postpaid parent creates a prepaid account for their teenager with spending restrictions and automatic recharge from their account.
- **Provide postpaid subscribers the ability to trial new services on a prepaid basis**—a postpaid subscriber tries 3G data access using prepaid to eliminate the risk of spending more than desired or having a monthly commitment.
- **Terminate service instantaneously to reduce lost revenue**—notifying subscribers when their balance is depleted and giving them options to recharge.



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 Software for Prepaid

With Oracle TimesTen, prepaid charging applications are:
- Instantly responsive
- Highly scalable
- Continuously available

Oracle TimesTen at the core of a prepaid charging applications enables communication service providers to:
- Scalable throughput to rate CDRs and IPDRs
- Deliver real-time balance updates, account replenishing, and advice of charge (AoC)
- Instantaneously terminate services when needed
- Integrate with billing solutions and other applications
- Support usage- and content-based rating requirements
- Support multiple services on a single platform

Oracle TimesTen manages all performance- and time-sensitive information used in prepaid charging:
- Balance and rating
- Authentication and fraud policies
- Subscriber and services profiles
- Discounts, promotions and usage counters

Oracle TimesTen In-Memory Database provides the reliability, scalability, and instant responsiveness to accommodate the increasing volume of network events handled by prepaid charging applications. Oracle TimesTen can eliminate any single point of failure by distributing workloads across multiple platforms for load balancing and fail-over protection. This reliability is achieved without sacrificing fast processing and rating of CDRs and IPDRs or the ability to manage complex subscriber profiles. Moreover, Oracle TimesTen is based on industry-standard interfaces, providing the flexibility to evolve and to easily share data with other applications.

Oracle TimesTen In-Memory Database Inside Prepaid Applications

Oracle TimesTen In-Memory Database enables carrier-grade prepaid charging applications for communication service providers who want to extend to their prepaid subscribers the same new and advanced services available to postpaid subscribers. Prepaid applications built on Oracle TimesTen increase throughput to meet growing numbers of subscribers, higher usage patterns, and new services. By using Oracle TimesTen to capture massive amounts of updates in real time, communication service providers can ensure accurate identification of individual transactions for usage- and content-based billing and reduce revenue leakage by making sure all usage data is rated properly.

In addition, Oracle TimesTen is capable of seamlessly integrating with leading backend RDBMSs to share information such as prepaid balances and subscriber profiles, enabling easy collaboration with existing billing systems. Oracle TimesTen delivers all of these capabilities in extremely economical systems that reduce total cost of ownership by maximizing computing resources and minimizing the need for administration.

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.