

ORACLE COMMUNICATIONS BILLING AND REVENUE MANAGEMENT 7.5

ORACLE COMMUNICATIONS BRM 7.5 IS THE INDUSTRY'S LEADING SOLUTION DESIGNED TO HELP SERVICE PROVIDERS CREATE AND DELIVER AN EXCEPTIONAL BRAND EXPERIENCE.

NEW FEATURES

- Support for Pricing Design Center
- Re-billing and Corrective Invoicing
- Native integration with Oracle Online Mediation Controller
- Native integration with Oracle Policy Controller
- Enhanced use of Oracle In-Memory Database Cache
- Compact Event Storage

KEY BENEFITS

- Simple, intuitive web-based interface to create convergent pricing models and rapidly introduce new offers to the market
- Enhance billing functionality to satisfy regulatory requirements
- Extensible, highly-available, multi-protocol online mediation functionality through a single management screen
- Innovative, policy-driven charging capabilities that creates compelling competitive differentiation
- Extreme performance and throughput enhancements for convergent Oracle Communications BRM workloads (both online and offline)
- Reduced storage requirements by up to 30%

Oracle Communications is the premier provider of billing and revenue management solutions for the global communications, media, entertainment, information services and cloud markets. Oracle Communications Billing and Revenue Management (BRM) empowers service providers to embrace innovation, significantly improve time to market of new products and services, build stronger brands and lower operational costs. Oracle Communications BRM is service agnostic, allowing service providers to monetize and maximize each revenue stream for any customer type, service offering, partner relationship, payment method, business model or geography.

Oracle Communications BRM 7.5 Value

Oracle continues to deliver on the ever changing revenue management requirements of the global communications, media, entertainment, information services and cloud markets, by demonstrating the ability to:

- Deliver an industry leading, quality-driven billing and revenue management platform that can provide business support requirements for any service on any device
- Evolve its platforms to meet customers' existing and future requirements for features and functionality
- Create tighter integration with both Oracle and non-Oracle enterprise applications to improve operational efficiency, reduce implementation times, and ensure consistency of data flows between related platforms
- Continually refine core functionality for billing, pricing, charging, payment and customer management to support a service provider's needs for ever evolving service offerings
- Lower total cost of ownership of the service provider's BSS infrastructure through tighter standards compliances, improved platform support and higher performance

BRM 7.5 delivers greater value to the service provider by offering significant value through an impressive set of product enhancements, which are in response to customer and market requirements. The release includes:

- New and enhanced product functionality
- New enterprise application integrations
- Enhancements to increase performance and reduce total cost of ownership (TCO)

This following provides a description of the key enhancements of the BRM 7.5 release.

Enhanced Functionality

Pricing Design Center. Oracle Communications Pricing Design Center (PDC) is an open, web-based application that enables rapid design and deployment of product offerings with the full spectrum of pricing capabilities supported by underlying BSS systems. The first release of PDC is fully integrated with Oracle Communications Billing and Revenue Management (and backward compatible to BRM 7.4), providing the most comprehensive, functionally rich pricing, promotion and discounting capabilities in the industry.



Figure 1. Sample screen shots of Pricing Design Center showing intuitive layout and quickstart icons.

Pricing Design Center is designed for the business user, without the need for coding or scripting. Through intuitive, top-down navigation workflows, simple or complex service offers can be created in minutes with a minimum amount of clicks and page views. Single page, simplified views of pricing components; rich search capabilities and flexible profiles that can be adapted to particular business needs further enhance the usability of PDC and create time-to-market benefits to service providers.

Pipeline Configuration Center. The Pipeline Configuration Center (PCC) is a user-friendly, web-based application which enables a system administrator to configure the batch rating system to meet specific processing needs, including:

- Batch rating parameters
- Roaming and Interconnect processing
- Aggregation scenarios for managing settlement, revenue assurance and other relevant business data

Re-billing and Corrective Invoicing. The rich billing and invoicing functionality of Oracle Communications Billing and Revenue Management has been enhanced with new functionality to satisfy regulatory requirements and the business needs of BRM customers.

When an end-user customer's account is modified in a manner that affects an invoice already

sent to the customer, BRM now allows you to generate a new type of bill and invoice:

- **Corrective bill.** A bill containing changes to item charges that affect the amount due in a finalized bill. Corrective bills are associated with the bill they correct, but they do not have the same bill number. However, they share the same object identifier in the BRM database with the bill they correct, enabling you to retrieve all the information on a set of bills.
- **Corrective invoice.** A replacement invoice containing changes to an invoice already generated and sent to a customer. Corrective invoices are issued for simple corrections, such as address or language changes, and for charge corrections that affect the amount due in a finalized bill.

In general, the re-billing and corrective invoicing functionality allows a service provider to:

- Correct a specific bill
- Correct batches of bills based on criteria
- Generate a replacement invoice or correction letter
- Generate multiple corrective invoices for a bill period or corrections that span multiple bill periods
- View correction history

New Enterprise Integrations

Oracle Communications Online Mediation Controller. In addition to the offline mediation capabilities offered by Oracle Communications Network Mediation, the new release of BRM now supports a single application for online mediation through the Oracle Communications Online Mediation Controller. Essentially replacing the functionality of two previous components of BRM (the AAA Gateway and Radius Manager), the Online Mediation Controller provides both Diameter and RADIUS support through a single Java-based application.

The native integration to the Oracle Communications Online Mediation Controller provides:

- Enhanced operations management through a single online mediation management environment for a variety of protocols
- Easy extensibility and configuration ability to create new and extend existing attribute value pairs (AVPs) and vendor-specific attributes (VSAs)
- Degraded mode operation to allow service availability in case of online charging system (OCS) failure
- High Availability (HA) architecture for extreme uptime and fail-over support for a variety of HA schemes and system failures
- Extreme performance, exhibiting a 56% increase in throughput from previous Oracle Communications Billing and Revenue Management releases

Protocol Support	
Diameter	
RFC 3588	Diameter Base Protocol
RFC 4006	Diameter Credit Control Application (CCA)
SCTP	Stream Control Transmission Protocol
RADIUS	
RFC 2865	RADIUS Base Protocol

RFC 2866	RADIUS Accounting
RFC 2869	RADIUS Extensions
RFC 3579	RADIUS Extensible Application Protocol (EAP) – Transport Layer Security (TLS), Tunnelled Transport Layer Security (TTLS), MD5, Password Authentication Protocol (PAP) and Challenge Handshake Authentication Protocol (CHAP)

Oracle Communications Policy Controller. A number of trends affecting the modern service provider, such as the increased popularity of mobile broadband and the resulting explosion of data usage, have presented challenges, especially in relation to network usage. Service providers must introduce strategies that deal with subscribers who consume enormous portions of the network and impair the performance for other subscribers. In many areas of the world, regulatory requirements have been introduced to prevent customers from unknowingly running up large bills. To address these and many other issues, service providers are looking for new solutions in the areas of policy management and online convergent charging.

To address these challenges, Oracle Communications BRM 7.5 is natively integrated to Oracle Communications Policy Controller. This powerful combination of products introduces new capabilities for service providers to apply policy and charging rules in a single solution. These capabilities open up a whole new world of innovation for service providers to leverage to:

- Apply fair usage policies
- Eliminate bill shock
- Deliver a new class of innovative, policy-driven promotions and discounts that are service, application and device aware

Enhancements to Increase Performance and Reduce TCO

Oracle In-Memory Database Cache (TimesTen). Oracle Communications BRM 7.5 enhances its support of Oracle In-Memory Database Cache (IMDB) to leverage Oracle TimesTen technology for all BRM processes through the Oracle Communications Billing and Revenue Management In-Memory Database Cache Manager. Whereas previous BRM support of IMDB was restricted to real-time event processing (mainly for online charging performance), the new release extends the traditional use of TimesTen technology to include batch processes as well.

The Oracle In-Memory Database Cache provides a flexible caching option that allows key data to reside in memory for faster data access and updating. The Oracle Communications BRM system has been configured to place performance critical subsets of data in Oracle IMDB cache objects. The Oracle IMDB cache objects behave like regular Oracle Communications BRM objects and are persistent, recoverable and extendable. Changes to either the Oracle Database tables or the cache group is tracked and managed automatically by the system. The result is significantly faster data access (average 5X faster) and updating (average 6X faster) that is automatic, persistent, durable and extendable to meet real-time operational demands.

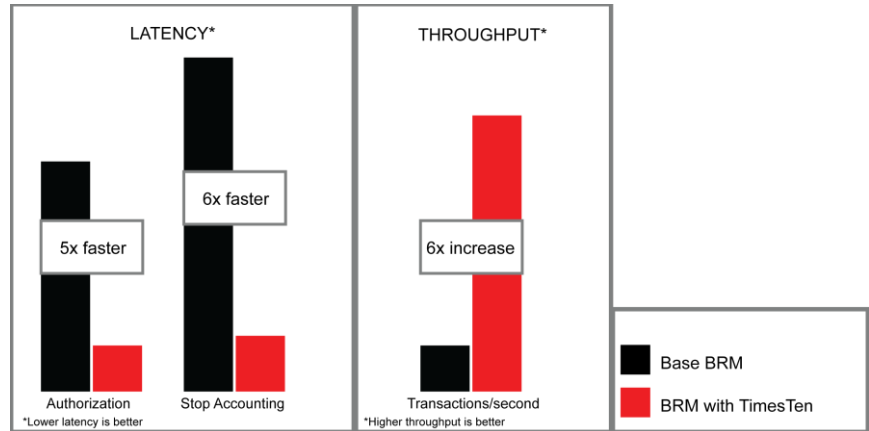


Figure 2. Oracle BRM with Oracle TimesTen technology reduces latency for real-time transactions and increases throughput for faster performance.

With the integration of Oracle Communications BRM and Oracle In-Memory Database Cache, service providers also have the ability to integrate with Oracle Grid Infrastructure (including Oracle Clusterware) and Oracle Enterprise Manager (EM) Grid Control. The Oracle Grid Infrastructure provides an advanced high availability framework that extends across the entire system architecture and Oracle EM has plug-ins available for managing the entire operations lifecycle providing improved operational efficiency and complete system control. This integration provides operators with the ability to monitor and manage the entire system, including; configuration, system information and real-time and historical performance statistics.

The integration of Oracle Communications BRM and Oracle In-Memory Database Cache brings several unique benefits. The Oracle IMDB architecture provides full support for all workloads:

- Online and offline charging processes are supported
- Billing processes are supported
- Customer service representative (CSR) real-time activities are supported

Performance is increased for convergent charging activities:

- All subscriber data is cached in the Oracle IMDB Cache for low latency
- All database replication is asynchronous for higher end-to-end throughput

TCO is lowered through the following properties introduced with Oracle IMDB Cache:

- Compact event storage reduces data storage requirements by up to 30 percent
- Scalability is enhanced through logical partitioning and the support of grid servers
- Operations management is simplified as Oracle Communications BRM, Oracle IMDB Cache and the Oracle Database are all managed through a single Oracle Enterprise Manager management console

Platform Support

Oracle Communications BRM 7.5 is supported on the following operating systems and database platforms:

Operating Systems

Note that Oracle Communications BRM does not support 32-bit operating systems.

- Solaris 10 (64 bit)
- IBM AIX (64 bit)
- Oracle Enterprise Linux 4.5, AS release 4 (October Update 5) and higher 4.x updates
- Oracle Enterprise Linux 5 and higher 5.x updates
- Red Hat Enterprise Linux, (RHEL4.5), AS release 4 (Nahant Update 5) and higher 4.x updates
- RHEL5 and higher 5.x updates

BRM clients run on the following Windows operating systems:

- Windows XP SP3
- Win Vista Business Type (32)
- Windows 7

Databases:

- Oracle Database 10g and Oracle Database 11g
- Oracle 10g Real Application Clusters and Oracle 11g Real Application Clusters
- Oracle In-Memory Database (IMDB) Cache 11.2.1.8.1
- Oracle Clusterware 11g R1

Refer to the Oracle Communications BRM 7.5 product documentation for more information on the combination of supported platforms and compatibility.

Contact Us

For more information about Oracle Communications Billing and Revenue Management, visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.



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Hardware and Software, Engineered to Work Together