

# ENABIL Solutions Ltd.

## Aurora Charge & Mediate Solution Brief Rating, Charging & Mediation Overview

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## Mediation Solutions

Charging and Mediation must go beyond today's standards to provide correlation for IP based products and telecommunication services. Networks will continue to evolve towards a hybrid mix of circuit and packet-switched technologies as customer demand drives new products and services. Convergence of multiple lines of business require adaptive solutions that can accept usage from almost any medium.

ENABIL Solutions provides rules-based mediation services for our North American and international clients. Our proven solution excels in Active (real-time) and Passive (batch) mediation from a wide array of wireless and wireline switches and network elements.

Scalability and flexibility is demonstrated through the capability to handle subscriber volumes from as low as 10,000 to upwards of 1 million and more. Our solution can grow with your business and support new services as they are launched to market. Maximum value is attained as new and legacy network elements, 2.5 and 3G technologies plus other lines of business (non Telco) are supported on one mediation platform.

Solution stability supports the revenue assurance process and delivers an economical return on investment to the business while improving market penetration and operational efficiencies.

## Mediation Framework

The integrated platform delivers effective mediation and correlation to handle any network, product and service without having to adapt to source networks. Unified multiple voice and data usage formats from legacy network infrastructures, IP and next-generation networks including WAP, GPRS, EDGE, UMTS and LTE is accomplished through the business rules driven architecture.

Multi-mode processing efficiently processes load volumes and scalable performance is attained through multi-threading. The distributed architecture ensures high availability and incorporates the industry X.509 security standard.

### Framework Features:

- Scalable foundation for real-time charging, convergent mediation and rating
- Fully compliant with 3GPP IMS standards
- Supports Industry standard protocols such as Radius and Diameter
- Real-time subscriber authentication, authorization and access control
- Real-time price quotes and advice of charge
- Flexible per-service charging and balance management
- Unifies critical customer usage data in a single platform from any network element in any network environment
- Enhanced content charging flexibility delivered in a standalone unified rating platform
- Rules-based in-session service management and control
- High speed batch mediation
- Receipt of records from legacy billers
- Intelligent clearing and wholesale reconciliation functions

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#### **Framework Benefits:**

- Enables increased R.O.I. by accelerating new services deployment, reduction in churn with better CRM data and insulates upstream applications from network changes
- Allows operators to exploit their investment in next generation network technologies by delivering any service to any type of subscriber, regardless of payment method
- Maximizes revenue streams through the launch of advanced packet-based services in conjunction with legacy services
- Provides strategic value at a tactical level by enabling the migration from simple, low margin price plans towards valuable, higher margin pricing models

## **IMS Mediation**

The transition to a Diameter-based IMS (IP Multimedia Subsystem) compliant IP infrastructure requires a proven charging and mediation gateway.

IMS is designed and developed around the 3GPP IMS protocol specification to support revenue-critical IMS charging and service control functions. Our IMS mediation is a fully integrated charging architecture that doesn't require locking into specific equipment vendors or the costly and high-risk replacement of existing customer charging architecture.

Charging and management of IMS services are accomplished using IMS standard compliant components in a single platform. A real-time interface allows for the flexible collection, aggregation and correlation of 3G CDRs and supports all 3GPP defined CDR events. Data is enriched for real-time 'in-session' charging, embedded rating and service control on both session and event basis. QoS policy control and IP flow-based charging functions are merged through combined policy and rules management. Rules management allows for service flow response, gating, QoS and flow-based charging independent of the access technology.

The unified platform creates a common foundation for charging and management of all services for all customer variants enabling new services more clear-cut and quick to implement.

#### **IMS Features:**

- Establishes the foundation for the next generation of IMS services
- Enables subscriber access routes to services across a variety of fixed and wireless networks
- Provides a standardized, reusable approach to service charging and management
- Reduces the cost associated with the launch of new services
- Reduces the time to associated with the rollout of new services
- Accelerates the convergence of fixed and wireless network
- Accelerates the convergence of other lines of business, such as media and energy

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#### IMS Benefits:

- Focus on IMS-compliant capabilities
- Supports Diameter-based applications
- Supports both offline and online charging functions

#### IMS Applications:

- Prepaid and Postpaid services
- Push-to-services
- Gaming
- Advice of charge
- Parental controls
- URL-based rating
- Access control
- Messaging (e.g., Instant, Unified)
- Cross-services visibility
- IVR - Interactive Voice Response
- On-demand access

## Real-time Charging

Active charging provides flexibility in real-time verification, charging and delivery of event, duration, volume or click data regardless of network source or payment method type.

Each voice and data usage record type is processed through its user-defined collector pipelines whose main role is to gather network information (in this case an event record) from network elements and enrich that record by applying valid business rules.

Information is gathered from multiple sources and combines the data with respect to a billing record by the correlation process. The business rules-driven architecture applies charge-specific logic to each event record until the charge scenario is satisfied.

Warnings and errors alerts are posted to the GUI console for investigation and resolution. Event records that fail to meet a charge scenario can be corrected and recycled through this console.

#### Real-time Charging Features:

- Real-time transaction management for complete usage control and measurement
- Configuration and customization in a single, convergent system
- Insulation from network element changes for network independence
- Scalable and multi-threaded architecture to process high data volumes
- Low latency for immediate verification, charging and service delivery
- System redundancy for fallback capacity
- Multiple charging models to streamline processing of simple rate requests
- Support for multiple prepaid and postpaid payment methods
- Options for discounting
- Account management

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#### **Real-time Charging Benefits:**

- Increased Average Revenue per User (ARPU) for prepaid and postpaid types
- Increased Return on Investment (ROI)
- Improved Customer Relationship Management (CRM) data for loyalty and retention
- Improved cash flow and minimized financial risks
- Extended life of legacy Intelligent Network (IN) systems
- Added value to the supply chain with efficient 3rd-party settlement
- Reduced capital expenses by insulating network elements and applications from
  - change for network independence
  - Enhanced revenue streams through improved and new service offerings
  - Scalability to meet subscriber base and usage growth

#### **Real-time Charging Applications:**

- Wireless and Wireline networks
- Prepaid and Postpaid services
- Prepaid Credit limit enforcement
- Real-time prepaid purse management
- Rated or raw data feeds to downstream applications (e.g., billing)
- Access control
- Voice, Messaging and Downloadable Data Content
- On-demand access to new services
- Parental control

## **Mediation**

ENABIL's mediation solution provides convergent mediation, real-time charging and rating of prepaid and postpaid services from a diverse array of network data sources including Wireless, Wireline, Broadband, Cable and IP Networks plus other diverse lines of business, such as energy and utilities.

#### **Mediation Features:**

- Active and Passive mediation
- Intelligent, multi-threaded, rules-driven mediation engine
- Flexible convergent design to manage any type of network - circuit, packet or hybrid
- Open rules-driven business logic enables easy customization
- Real-time processing for faster response times
- Distributed and scalable architecture for higher throughput and better performance
- High availability and reliability to reduce the likelihood of lost data and associated
  - revenue
  - Security and audit trails through X.509 certificates and SSL technologies

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#### **Mediation Benefits:**

- Greater billing accuracy resulting in improved revenue streams
- Accelerated deployment of new services
- Enhanced marketing decisions regarding churn and acquisition through better CRM data
- Cost control through detailed network performance and capacity usage data
- Reduced revenue loss with better fraud control
- Identify and resolve revenue gaps at mediation audit points
- Insulation from technology changes on network elements and applications
- A single platform to meet mediation requirements from business acquisitions and
  - mergers
  - Extended life of legacy Billing and Customer Care systems
  - Reduction in user dependency on hardware and vendors

#### **Mediation Applications:**

- Prepaid and Postpaid voice and data services
- Credit limit enforcement
- Access control
- Messaging
- Cross-services visibility
- Historical services visibility
- On-demand access

We can provide experience and expertise in any or all roles regarding the configuration, implementation, operation and management of voice and data mediation.

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## Flexible Delivery Options

**Application Management** - ENABIL will work with you to enhance your system's capability and functionality. We excel in application development to meet your specific business requirements. Our team of business and system experts will ensure that your functional requirements are fulfilled. We have over 20 years of experience designing, building and enhancing customer care and billing applications.

**Production Operations & Support** - We have proven systems and processes to ensure your customer care, billing and mediation applications operate effectively and efficiently. Some of our value added services include system and database administration, security and network management, storage management, help desk services and disaster recovery services.

**Hosted Data Center Services** - ENABIL can provide a physical location to store your required hardware, system software and network connections. Our facilities are secure, reliable and professionally maintained to ensure high system availability. You can leave the responsibility with us and reduce your capital expenditure.

Our level of involvement can be adjusted to support your specific business and system needs. You could choose to have ENABIL just perform Application Development for your in-house solution, or we could provide Production Operations & Support and/or Hosted Data Centre Services. It is up to you, we're flexible.

## The ENABIL Difference

ENABIL has been providing solutions to the marketplace for more than 20 years. Our organization is successful at providing convergent customer care, billing and mediation services to select companies through understanding and meeting of their business needs.

We have met the revolutionary changes in the marketplace as our customers have undergone transformation with the introduction of new technologies and services. ENABIL appreciates the need to offer solutions that will provide the functionality they've come to expect, but still affords the flexibility to support them into the future. Our core suite of solutions can quickly be tailored by our product development teams to satisfy your operational and strategic business requirements.

At ENABIL we work in partnership to find the right solution to ensure our customers have piece of mind that their customer care, billing and mediation systems will foster their ability to grow and won't put their revenue stream at risk.

At ENABIL, we differentiate ourselves by our approach with our customers. We have a select list of customers, which allows us to provide them with the best service experience possible. This is accomplished by providing flexibility in everything we do, so we can meet the specific needs of each customer. First we listen, and then we deliver.

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## Conclusion

Let us help you focus on core business objectives - leave your customer care and billing worries to us. Call us for further information or to schedule a session to help us understand your specific requirements. We will work together with you to formulate a customized approach to delivering a high quality, cost-effective billing solution that addresses your individual needs.



### Contact Information

For more information or to inquire about what ENABIL Solutions services can do for your company please feel free to contact us either by phone or email:

**Phone:** 1-866-565-1438 or (403) 398-1600

**E-mail:** [sales@enabil.com](mailto:sales@enabil.com)

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