

ESKA[®] Bridge

Mediation Gateways

Billions of call and event records are being generated each day by wireless networks. To maintain revenue integrity and assurance, these records must be accurately collected from network switches and service platforms, properly managed, and smartly delivered to downstream billing systems.

With the exponential increase of sophisticated data services, there is evident need for intelligent, convergent and scalable mediation gateways to meet the billing requirements of telecom operators.

ESKA[®] Bridge is as such, a full-blown mediation system that acts as an integration layer and critical link between diverse network elements including switches, IN platforms, and GPRS nodes on one side, and user applications such as billing, customer care, fraud management, interconnect, and roaming on the other.

Our mediation gateways can be easily connected to various nodes delivered by global telecom network suppliers, including Ericsson, Siemens, Nokia, Alcatel, and Huawei.

Benefits

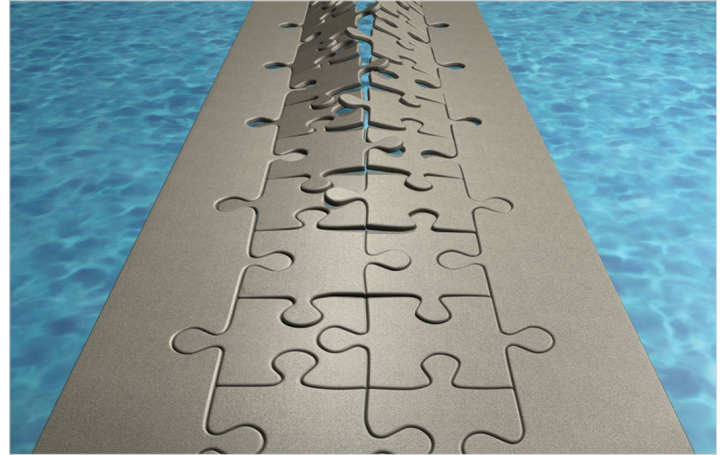
- Having a single point of access to the network reduces manual effort, time, and cost of network management.
- The powerful auditing capabilities of the system guarantee reliability of the delivered records, thus enhancing revenue assurance.
- Real-time usage data can be of great benefit in market and customer analysis.

Key Features

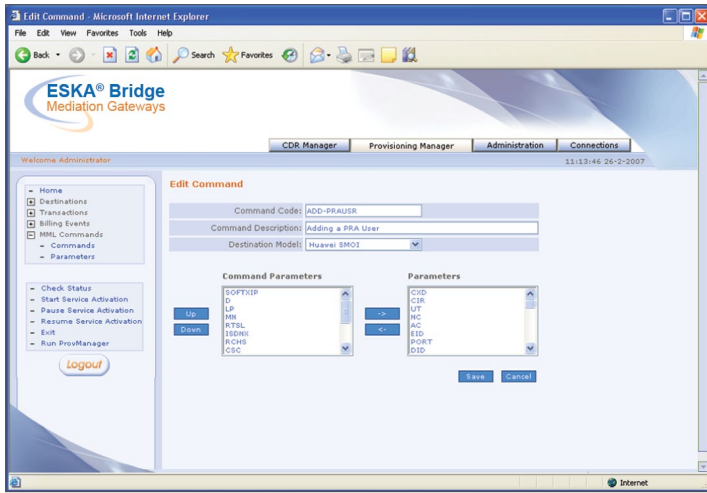
ESKA[®] Bridge is built based on latest software technologies and advanced requirements from major telecom operators.

Key features of the system include:

- High-performance real-time architecture with concurrent file and record-based data processing.
- High flexibility allowing rapid system setup to cater for the changing needs in performance, data storage, and security.
- Modular architecture enabling seamless distribution.
- Flexibility in choosing infrastructure vendors.
- Flexible setup of all conversion and filtration rules (GUI-based).
- Convergent handling of real-time voice and data batch processes.



- Dedicated business logic-driven modules for different mediation functions such as collection, correlation, aggregation, filtering and dumping.
- Multiple processing service-provisioning modes including real-time flow-through, scheduled and interactive mechanisms, batch, and online self-service.
- Prioritisation and logical analysis of event provisioning, and multithreading capability in executing commands on same destination.
- High performance and throughput.
- Powerful and feature-rich scripting language where even complex business rules can be implemented.
- Support for definable record formats and a variety of mediation functions for very complex techniques.
- Filtration of data to many streams allowing multiple downstream systems to benefit from processed data.
- Report customisation and record visibility at all data and process levels.
- Total user control over the mediation environment through an easy-to-use GUI.
- Complete Web-based functionalities allowing users to access the system at any time and from any place through a highly secure environment.
- Remedial action in response to errors, which adds up to the overall efficiency of the system.
- Advanced administration functionalities allowing for job scheduling, resource monitoring, file management, system configuration, and system logging.
- Support for taking backup of raw Charging Detailed Record (CDR) files older than the retention periods and deleting these files from the directory.



- Support for multiple filters, converters, and dumpers that can run on the same cycle if necessary, along with the best use of resources using multithreading.
- Efficient auto-cleaning feature that deletes temporary files to save space.
- Handling of duplicate and missing files.

Main Functionalities

- **Administration Functionalities:** The system allows for job scheduling, resource monitoring, file management, system configuration, and system logging.
- **Recovery Processing:** In the event of a system failure, the Recovery Process automatically proceeds with completing the previous cycles that were interrupted.
- **Log Separation:** Each cycle can be assigned to its own log file. Different cycles can also be grouped together within the same log file.
- **Tracing:** Administrators can make sure all files have been dumped into the destination database by catching any missing and uncompleted files.

Main Components

CDR Manager

The CDR Manager collects network records of any format, converts them into an easy-to-read format required by the downstream applications, and forwards them to any destination, such as a billing system, which requires reliability, speed and flexibility. These records are collected from network elements at regular intervals that can be configured by the user.

The CDR Manager also supports other operations, such as controlling subscriber usage charges, managing and charging different content-based services, and maintaining reliable revenue sharing between telecom operators and content providers.

Provisioning Manager

The Provisioning Manager activates services automatically and securely in any kind of network (for example; HLR, switches, IN platforms). It allows activating new subscriptions, adding new services, modifying or deactivating existing services, and delivering service information to the right network elements after being activated.

Online Services

The Online Services module retrieves subscriber information and responds to queries by connecting online in real-time to any switch from any network supplier.

GPRS Mediation Gateway

ESKA® Bridge is typically located between the IP infrastructure and the billing system. It gathers, correlates, and transforms data from a number of systems - GPRS active nodes, routers, Web servers, authentication servers, etc - and generates Event Records per session. While these Event Records are analogous to a CDR from a switched services network, they often include more parameters to determine not just the session's length but also data volumes, peak data rates, type of content, and other factors that affect rates. To streamline their operations, service providers can directly tie these mediation devices to other business applications aside from billing.

The raw transaction data is transformed via policy-based filtering, aggregation, and merging. The result is a set of detail records similar in concept to the telephony industry's CDRs. The records can be easily integrated with existing Billing and Customer Care systems.

