Mediation System

Introduction

The Alepo Mediation System represents the next leap forward in convergent mediation systems. The platform provides the power to filter, correlate, merge, and normalize CDRs and distribute them to traditional downstream consumers and modern analytics systems. The software can be deployed in the cloud and on-premise, supports a wide variety of mediation use cases, offers unparalleled performance and security, and provides real-time alerts and monitoring.

It is an enterprise-grade tool for designing streaming data workflows. The predefined module library gives access to a wide variety of data collectors, destinations, and processors that can be used by workflows to deliver ready-to-use data to downstream systems.

Operators can process large volumes of data into meaningful business insights to help improve customer experience and devise new monetization strategies.

Gives Complete Visibility	Streamlines Data Processing	Simplifies Streaming Operations

Business Benefits

- Provides user-friendly drag-and-drop GUI to create workflows.

- Processes high volumes of data efficiently and distributes processed data to target systems.

- Generates real-time reports of data transformation and ensures billing mediation accuracy.

- Lowers operating costs by integrating with multiple legacy systems.

- Processes high volumes of data efficiently that distributes processed data to target systems.

What It Delivers

Gives Complete Visibility

Alepo Mediation System seamlessly manages workflows and provides greater visibility in data processing with minimal errors. It gives operators complete insights to monitor and ensures billing mediation accuracy.

Reports and Analytics

Comprehensive statistical analysis helps generate real-time reports to monitor data flow in the entire mediation process, ensuring that no records are lost.

Error-Handling Mechanism

Errors are captured and reprocessed in the workflow. Configuration of error rules, with error-handling, facilitates rapid preventive action.

Workflow Management

The system performs data transformation through workflow management, portrays the flow of data from the collector to distribution systems, and defines how to transform data. It simplifies the creation of custom workflows, which consist of the collector, varied business logic applied to collected data, and target systems where transformed data is stored.

Notification Module

System users are alerted when different rules for collecting information are configured on a running workflow. The notifications can be sent in email or webhook form whenever the workflow status changes. The system sets rules and alerts to report real-time workflow data and to record all inputs, outputs or errors, which further improves workflow transparency.

Streamlines Data Processing

Data collection, processing, and distribution are all configured using an intuitive visual workflow editor. Built-in support is available for an extensive array of file formats and file acquisition protocols.

Data Collection

The system collects data from GSM, SMSC, GGSN, and similar switches in any format such as ASCII, ASN, XML, binary, and more. It validates data based on different checks and stores collected data to the configured directory path. It provides a framework to easily add many collectors with out-of-box support.

Data Enrichment

An intermediate stage in the workflow that helps apply the right business logic for downstream applications. Data is enriched and transformed through different processing capabilities: deduplication, merging, sequence verification, partial CDR handling, filtering (field, RegEx, scripts), lookups (SQL, LDAP), and many more.

Data Distribution

The system facilitates the distribution of processed CDRs to multiple target applications. Different types of CDRs can be sent to many distributors or target systems such as interconnect, data warehouse, roaming solution, revenue assurance, fraud management, and more.

Online Mediation Complexities

The system offers a convergent platform for configuration and execution of any online (real-time) and offline (batch) mediation tasks. It is a proven framework for real-time processing and integration scenarios commonly seen in content charging systems.

Simplifies Streaming Operations

Various protocols and data formats ensure the system's robustness. It integrates smoothly with legacy systems using the predefined module library and automated workflows, lowering the overall operating costs.

Module Library

The built-in module library helps create a workflow that provides access to a wide range of data collectors, processors, and target systems, delivering ready-to-use data to downstream systems. Using these predefined modules for data processing reduces overheads and improves the mediation system's capabilities. It effectively collects large volumes of data from multiple network sources and distributes it to various downstream systems.

Network Agnostic

All vendor- and industry-specific standard protocols can rapidly be added for the collection and distribution of CDRs. The system is capable of enduring multiple data streams in tandem, offering concurrent support for multiple communication protocols (FTP, SFTP, TAM, TCP/IP, web services) and data formats (data is collected from wireline, wireless, IP, and VoIP networks). This ensures robust, high-performance, and secure operations.

User-Friendly Interface

Drag-and-drop GUI and rich data visualization across workflows help increase transparency and manage system configurations with few to no errors.

3GPP Support

The Alepo Mediation System adopts 3GPP standards-compliant architecture to enable seamless communication between business systems.

Unique Selling Points

Highly adaptable

customizes workflows based on business requirements

Intuitive user interface

simplifies workflow designing with a drag and drop UI

Predefined module library

provides access to a wide range of mediation complexities

Architecture Diagram

Network Sources and Elements	Alepo Mediation System		Downstream Applications
Wireless	Collector	Workflow Manager	Roaming Billing
Wired	Distributor	Processor	Retail Billing
IP and IPTV Modules	Notification Module	Reporting and Analytics	Data Warehouse
			Interconnect Billing
			Revenue Assurance Fraud Management

FTP/SFTP/HTTP/Rf/GTP → Alepo Mediation System

FTP/SFTP/HTTP/Rf/GTP → Downstream Applications