



# Izac - Master Data Hub





## Business Case

Call Detail Records are a valuable source of information. Their effective analysis can be used to continuously improve on call quality and help design tailor made and effective marketing campaigns. However CDRs have a huge volume, variety of data and high ingestion data rate. Current telecom systems are designed without these issues in mind. CDRs can be seen as a Big Data source, and hence they demand to be used in Big Data technologies (storage, processing and analysis) of CDR analytics.

# Accelerate Your CDR Insights

Get the right insight into your CDR's (call data records) with Izac, a telecom specific big data management and warehousing platform for service providers in the telecom, internet, cable and related industries. It combines industry expertise and regulatory best practices to provide pre defined data models that support both business and IT needs. Izac's ILM solution helps ingest transform and analyze CDR's in real time to maximize speed, accuracy, and portability to various processes within a telecom.



# Understanding your Challenges

Enabling – CSP (Communication service provider)

Telecom service providers' strong imperatives include managing exponential business change that is driven by rapid technology advancement and convergence, deregulation and increased value chain complexity. Increasing competition, cross linked next gen networks, distributed content, service optimization, billing and process add to this. The corresponding information technology that supports these changes is complex and expensive, and expands as the telecom business model expands. Key is to respond to external market drivers, while simultaneously transforming the legacy business models to become agile, dynamic and transparent. Data management in such a continuously evolving environment is extremely challenging and must account for an augmentation or change in the current legacy architectures with an open data framework with Operation support systems and Business support systems.



# CSP Big Data Adoption Challenges

While CSP's (Communication Service Providers) understand the importance and the power of Big Data Technologies like Hadoop , Spark etc it becomes extremely difficult to adopt the same because of the following issues



# Solution Architecture

Adapting to business transformation through continuous improved data management requires a comprehensive specification of a company's data and analytical requirements. These specifications must utilize data and solution models that are independent of volatile operational support systems and business systems' data architecture and fixed analytical reporting requirements. Architecting & implementing such data models is a complex process for which many companies do not have the accurate skills available. The best approach to solve this is to use open data and solution architectures with pre-built templates to reduce project risk, total cost of ownership and time-to-implement.

Izac empowers CSP's to build the master data hub to suit their existing specific needs using the inbuilt key components required for a data warehousing solution. Izac's flexible and scalable data hub framework enables a CSP to architect a comprehensive Information Lifecycle Management (ILM), augment existing data warehouse architecture and departmental CDR data marts through pre built data models. The approach ensures upstream applications to be aligned to a single and proven data lake architecture.

The Izac logo consists of the word "Izac" in a bold, white, sans-serif font. The background of the slide features a blue-tinted image of a globe with a grid of latitude and longitude lines, and a stylized cityscape or data network pattern at the bottom.

**Master Data Hub**

Izac Opendata framework - Telecom



# Out of the box features

## Ingestion

Easily ingest the high volume of raw CDR files from Mediation Server or other upstream applications using distributed NFS protocols, with speeds upto 5 GB/s from different sources with no/minimal changes in the upstream applications.



## Querying

Perform ad hoc queries with a concurrency of hundreds of users and thousands of queries, without any performance degradation.



## Data Modelling

Industry certified Data models which is based on unique key, primary and secondary indexing. common reference model that service providers use to describe enterprise management information. Based on data represented in the model, all standard Telecom reporting and analysis Data Marts can be delivered.



## Batch / Real time Processing

Perform real time monitoring and processing of files such as CDRs, XDRs, UDRs etc . A scriptable rule framework that gives technical and non-technical users the ability to design complex business logic to perform filtering, parsing, lookup, join, roll up etc .



## Monitoring & Alerting

UI based Monitoring to track the complete Flow of CDR files , with Queue based monitoring along with configurable email alert mechanisms .



## Rule Engine

Perform ETL operations on the CDR based on user defined rules



## Reliable Storage

Izac Uses MapR filesystem down below which is Industry's finest Hadoop FS helping you run and develop innovative data applications





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