

Data Warehouse Model for Telecommunications



Poslovna Inteligencija Telecommunications Data Warehouse Data Model (PI Telco DWH Model) is a standard industry data warehouse model applicable for fixed and mobile telecommunications operators, covering traditional Business Intelligence requirements including GDPR and IFRS 15, Big Data Analytics and IoT requirements. More than ten mobile, fixed and broadband operators at three continents with more than 45 million subscribers are using PI Telco DWH Model for their analytical systems. The logic of the model follows **TM Forum's Information Framework Shared Information Data Model (SID)**, as a common reference model that service providers, software providers, and integrators use to describe enterprise management information. Based on data represented, it allows delivery of all standard Telecommunication reporting and analysis Data Marts. The ones already in regular usage are pre-defined as **model Subject areas**.

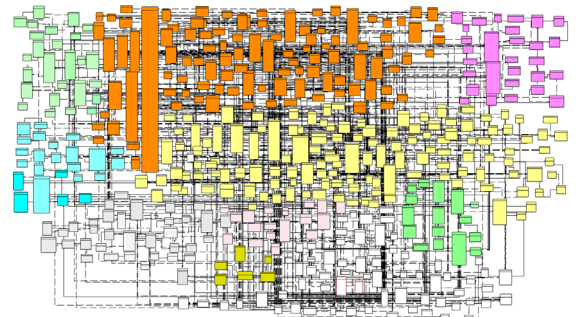
PI Telco DWH Model Benefits for Operators

- Delivers **competitive advantage** by enabling clean data consolidation across multiple systems
- Supports **rapid implementation of warehousing solutions** with meaningful data
- Facilitates a **structured approach** to subsequent customization and extension of the data warehouse
- Enables business users to more **effectively control and reduce time** taken to scope their requirements
- Provides a solid basis for **statutory reporting and relationship management** supporting decision making and executive information applications
- **Minimizes development costs**
- **Reduces the risk of failure** by facilitating an incremental approach to delivering integrated data warehouse solution
- Currently **used by several operators**, large and small, around the world
- Fosters **collaboration between business and IT** to turn business requirements into actionable solutions
- **Comprehensive** – collecting content from multiple client engagements and turning it into a suite of related Subject Areas - with a proven methodology and models that require minimal customization.

PI Telco DWH Model is also addressing new Big Data Analytics requirements, related to data from sensors, Machine to Machine data and Internet of Things. Model supports location based analytics, deep packet inspection functionalities and provides foundation for integration of structured and non-structured data for unified analytical layer.

PI Telco DWH Model Highlights

- Based on **industry best practices** developed during data warehouse system implementations in Southeast Europe - **it is open for all necessary modifications** to adjust to individual telecom customer needs
- Based on a **strong Primary Key – Foreign Key relationships that assure consistency** in the model itself, and in the content of the implemented Data Warehouse System
- **Developed with CA ERWin** - requiring ERWin license to view or change, but **exportable** to any other standard database modeling tool formats
- The current version of the model consists of **more than 500 Entities (Tables) grouped in 39 Subject areas**, which are grouped in 5 functional groups:



COMMON BUSINESS

- Business Items and KPI's Subject area
- Engaged Party Subject area
- Product Subject area
- Location Subject area
- Event Subject area
- Order Subject area
- Policy Subject area
- ETL Process Execution Audit Subject area

CUSTOMER, ACCOUNT & SUBSCRIBER

- Customer Subject area
- Rate Plan Subject area
- Sales Subject area
- Number of Subscribers Subject area
- Loyalty Program Subject area
- Contact Center Subject area
- Churn Prediction Subject area
- Market Segments Subject area
- Marketing Campaign Subject area
- GRPR Compliance Subject area

REVENUE & USAGE

- Revenue and Collection Subject area
- Dunning Subject area
- Traffic Subject area
- Traffic Aggregations Subject area
- IFRS 15 Reporting Subject area
- Interconnection Subject area
- Mobile Payments Subject area
- Subscriber Location Subject area
- Market Share Subject area
- Content Subject Area
- Internet of Things Subject area

FINANCE & HR

- Finance Subject area
- CAPEX Subject area
- Procurement Subject area
- Human Resources Subject area

INFRASTRUCTURE, WORKFLOW & INVENTORY

- Inventory Management Subject Area
- Project Subject Area
- Quality of Service Subject Area
- Resource Capacity Management Subject Area
- Service Provisioning Management Subject Area

