

# ISP Transformed its Customer Service & Interconnect Billing



In this Case Study, we describe how Echelon Edge, a leading provider of comprehensive solutions, empowered the billing system, successfully onboarded PRI customers, and API integration with customers' CRM for all billing activities.

## About the Customer

The Company functions as a specialized Enterprise Communications Service Provider with a vision to establish higher standards in customer care while delivering excellent performance for Internet protocol (IP) and other communication networks.

## Project Background: Goals, Objectives, and Business Transformation

The ISP partnered with Echelon Edge to develop a comprehensive billing system & Partner Revenue Management for their services. The project aimed to achieve the following:

### 01 On-boarding and Efficient Customer Management

Streamlined management of customers using PRI and IUC to ensure optimal service delivery.

### 03 Enhanced User Experience with Intuitive Interfaces

User-friendly front-end interfaces for IUC and PRI, along with robust system management tools for easy configuration and updates.

### 05 Streamlined Partner Management and Decision-Making

Efficient partner management, settlement, and generation of detailed reports for effective decision-making.

### 02 Seamless Integration with CRM

API integration with the ISP's CRM system for a seamless billing process and customer experience.

### 04 Accurate Pulse and Rate Calculations

Implementation of precise pulse and rate calculations to optimize the ISP's business operations.

## Challenges Faced by the ISP

### 01 Short Delivery Timelines

Urgent requirement for swift implementation and go-live ASAP.

### 03 Limited Configuration Options

- Required versatile rates for their existing IUC line of business, with differentiated rates for each operator and separate rates for different call directions.
- Sought a user-friendly GUI for all end-to-end services for streamlined backend processes.

### 02 Cost Optimization

- Aimed to reduce license procurement expenses to maintain high-quality solutions.

### 04 Communication Constraints with Remote Collaboration

- Virtual collaboration due to the absence of on-site presence created communication challenges for ISP that hindered effective discussions and planning.

# Solutions and Strategies

Echelon Edge's approach to transform ISP's customer service and billing system involved:

## Parallel Processing

Echelon Edge ensured optimal performance and reduced processing time for CDR uploading and processing.

## Optimized Database Performance

Utilized DB-level indexes for optimized database performance, efficient sorting, and searching algorithms.

## API Exposure

Echelon Edge utilized Node Express to expose APIs to promote smooth billing activities.

## Reliable Mailing Services

Integrated SMTP services for mailing services on Edge PRS to receive alerts and notifications.

## Multi-threading and Multi-processing

Implemented advanced multi-threading and multi-processing approaches significantly that increased the system's processing output & enhanced overall efficiency.

## Streamlined Data Loading

Echelon Edge employed a data loader to facilitate fast and efficient file-level uploading with seamless data integration.

## Enhanced User Interfaces

Implemented visually appealing and interactive text charts to facilitate intuitive system navigation.

# Our Solution: Delivered Unprecedented Performance

## Lightning-Fast Processing

Our Product is processing approximately 40 Lakhs per minute in full load

## Instant Configuration Updates

Edge PRS re-loads and implements customer configurations in milliseconds

## Minimized Application Restart Time

Complete application restart time reduced to less than 90 seconds (during peak load), and hence eliminated additional downtime in any outage window.



# Outcomes

Echelon Edge collaboration with the ISP is nothing short of highly remarkable, revolutionizing their billing systems and propelling them toward unparalleled success.



## Timely Delivery

Echelon Edge successfully delivered the project within the specified timeframe while meeting the urgent requirements.



## Appreciation and Satisfaction

The ISP praised Echelon Edge for the innovative Edge PRS solution that has streamlined billing operations and enhanced overall satisfaction.



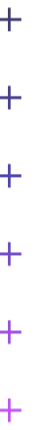
## Flexible Configuration

The implemented billing system empowered the ISP to configure call direction-wise and partner-wise rates from the front end without the need for any code changes

# Conclusion

Through this project, Echelon Edge once again demonstrated its expertise in providing transformative solutions that empower telecommunication service providers to stay ahead in a highly competitive market.

Partner with Echelon Edge, the leading provider of IT solutions, to enhance the customer experience in the ever-evolving world of telecommunication.



## About Echelon Edge

Echelon Edge, a leading provider of integrated solutions that enable businesses to thrive in the digital age. Our commitment to excellence and customer satisfaction is evident in everything we do. As a solution-oriented company, we focus on unlocking the full potential of your IT infrastructure needs, while magnifying the opportunities to take your business to the next level.

Echelon specializes in NMS, Big Data Analytics platform, IoT Device Management, and connectivity solutions, all of which are designed to support business run and reinvent themselves with software, solutions, and services. With over 10 years of experience, we have successfully delivered integrated solutions to a diverse clientele spanning telecommunications, government, and enterprise sectors.