



MTNL



Aksh Optifibre Limited

CRESTEL IPTV Solution Strengthens Business Partnership of AKSH with MTNL and enables them to Rollout new services on Broadband Network

Background

A detailed look at real-world deployments focusing on technology reveals the recent explosion of web-based contents. In the near future, IPTV will be a synonym for means of entertainment. The success of IPTV deployments by small and large operators bears testimony to the tremendous opportunities for service providers, content providers, broadcasters and OSS/BSS Vendors in this ecosystem. However, it also poses various technology and business challenges to these providers.

About MTNL

Mahanagar Telephone Nigam Limited, a Tier-1 provider offers services in Delhi and Mumbai – the major financial hubs of India. MTNL currently provides voice and data services on wire line and wireless networks and has a growing subscriber base which today stands well over a whopping 6 million. It has captured 30% of the broadband service market share and accounts for 25% of leased lines connections in these cities. It also has a major chunk of PSTN and cellular subscribers that stand at 4 million and 2.5 million respectively.

About Aksh Optifiber

Aksh Optifibre Ltd. is a pioneer in Optifibre and cable technologies and their main product is a Fiber-To-The-Home solution. It has tied up with Mahanagar Telephone Nigam Ltd (MTNL) for Internet Protocol Television (IPTV) and provides services to its subscribers in Delhi and Mumbai.

Requirement

Aksh Optifiber and MTNL entered into a partnership envisaging a vast market for IPTV services in MTNL's existing subscriber base in Delhi and Mumbai. In this alliance, Aksh owned the responsibility of bringing content through tie-ups with broadcasters and content providers. Services would be made available to subscribers using MTNL's existing broadband network as the content delivery backbone enabling users to get services such as video on demand, broadband, TV channels, time-shifted TV, and videoconferencing. Aksh was also required to manage IPTV infrastructure viz. OSS/BSS, IPTV Equipments, STBs and Middleware. In-order to provide services on existing cable and DTH, Aksh & MTNL laid down following requirements.

“We preferred Elitecore over other solution providers based on their capabilities in next generation billing platform to bill IPTV services like broadcast, VOD etc. A number of MNCs offering billing solutions had approached us but we opted for Elitecore's CRESTEL as we found it to be most technically competent at the same time flexible in its offerings to match our business needs”

Kaliash Chaudhri

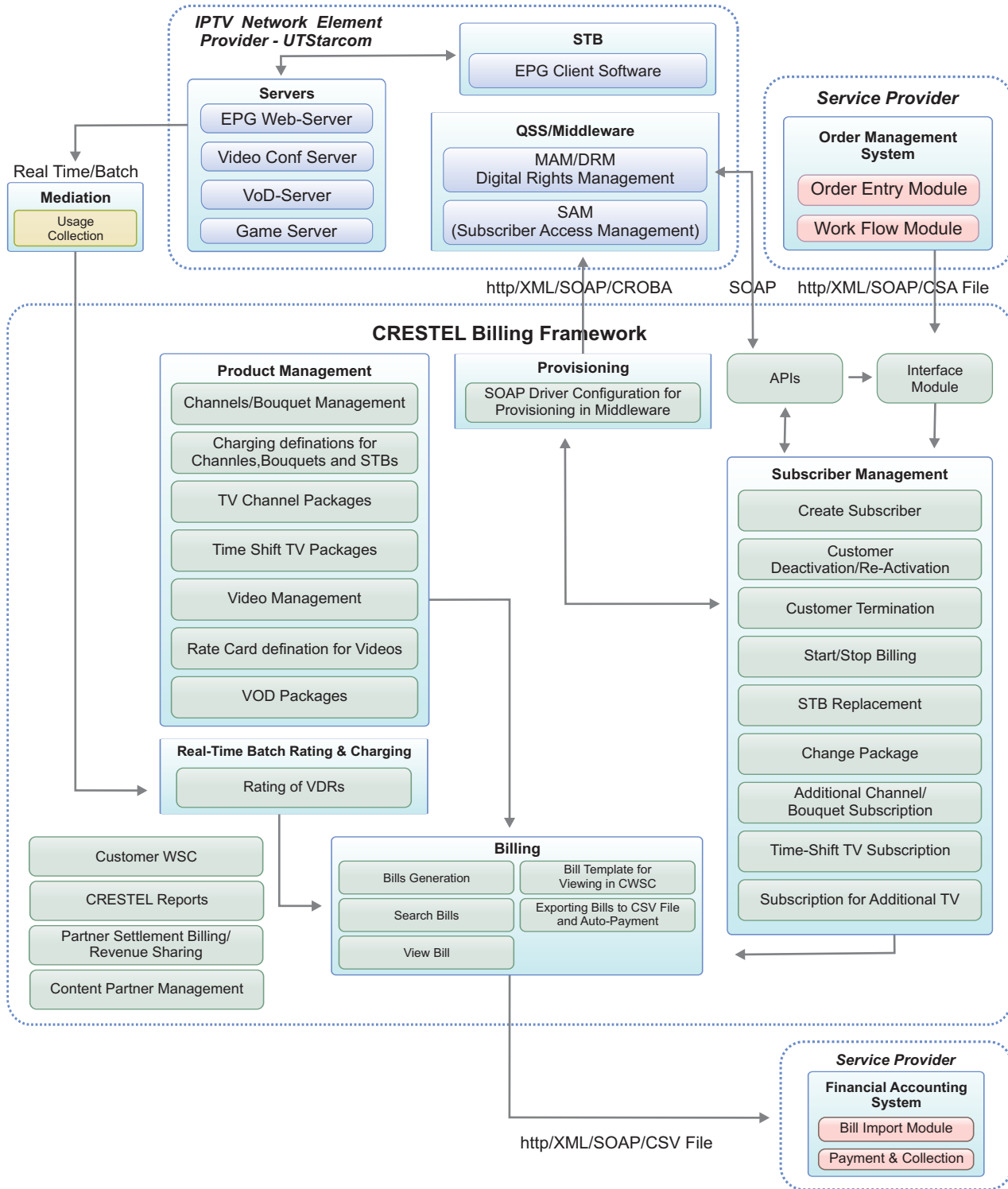
Director
Aksh Optifibre Ltd.

CRESTEL Solution Components

- Real time Provisioning
- Scalable Mediation
- Rating & Charging
- Product catalog
- Partner management & Revenue Sharing
- Billing
- Web self care
- Reports



Framework for IPTV



- **Revenue Sharing and Partner Settlement** - The IPTV Ecosystem, based on partnership agreements between Aksh, MTNL, Content Providers and Broadcasters, necessitated the need for revenue sharing and settlements between partners. Aksh required supplying STBs on rentals and by collecting security deposits as outright purchase of STBs was an expensive proposition to most customers, whereas MTNL required charging customers for IPTV usage. Aksh also required revenue realization with respect to broadcasters, channel bouquets and content providers to manage partnerships efficiently.

- **Flow through provisioning in IPTV Middleware** - Aksh had purchased the IPTV infrastructure system from UTStarcom. IPTV service delivery to customer required provisioning of bandwidth in ADSL infrastructure as well as bouquet/channels/VOD in IPTV Middleware. This obligated the requirement of flow-through provisioning from the billing system in the customer acquisition process.

- **Integration with MTNL existing OSS/BSS infrastructure**
MTNL required inclusion of IPTV usage charges in their voice services bill which also comprised charges of broadband and voice telephony usage. MTNL strongly believed that a single consolidated bill and payment interface would facilitate customers and also deliver ease of operations. However it did pose an additional challenge of managing billing and payments of STB charges & security deposits as this function was to be managed by Aksh under same IPTV billing platform. MTNL already had an order management system in place for provisioning broadband services. Delivery of IPTV service on this Platform also entailed an upgrade in existing broadband service delivery platform. MTNL required this integration of order management system with the IPTV billing system to ensure that IPTV provisioning can materialize once broadband services are upgraded in the IPTV service activation workflow.

- **Differential Charging based on category of content**
Aksh required flexible options for subscription plans and also wanted to charge customers based on category of videos for VOD service. New Movies were grouped in the premium category whereas old movies were to be charged on economy rates.

- **Online availability of VOD service usage and subscription details to customer**
With VOD service availability, customers would be viewing only what they wanted, whenever they wanted. This called for transparency on service usage history and bill presentment, leading to the requirement for a web-based customer self-care where all such information is made available to the customer.

Implementation

CRESTEL Convergent Billing delivered an end-to-end IPTV Service Delivery platform which included integration with MTNL's Order Management & UTStarcom's IPTV Middleware. This solution also provided comprehensive product catalog which facilitated Aksh to offer VOD, Bouquet/Channel Subscription and management of STBs. CRESTEL also provided an interface to MTNL's upstream billing system for including IPTV charges in a single bill.

- **Real time Provisioning in Middleware**
CRESTEL carried out end-to-end flow-through provisioning for IPTV Service components. Its Provisioning Module facilitated subscriber self-provisioning and supported following events with UTStarcom's Middleware - MBOSS.

1. Activation/Deactivation/Re-activation/Termination
2. STB Replacement
3. Change of Subscription Plans.

Provisioning was supported using rule-based policies and communication with Middleware was achieved using HTTP/SOAP protocol.

- **Mediation of Video Data Records (VDR) for VOD Service**
CRESTEL's Mediation system collected VDRs from Middleware using FTP Pull. Two instances of collection services were configured to support VDRs generated on "Order VOD" and "Play VOD" events. Processing rules were configured so that only Order

VDRs are transferred to Rating Engine for charging Each VOD event. Play VDRs were further processed so that the customer can view the history of VOD usage in Web self-care. Mediation also supports processing of VDRs for Pay per View (PPV) and Free VOD Service Types, planned for future launches.

- **Differential Rating & Charging**
With CRESTEL Policy-based Rating & Charging on any combination of attributes in VDR was possible. Using it, different rate plans were associated for different service types such as VOD, PPV, NVOD, and Free VOD. It supported differential rating Based on event, content category & usage, and subscription-based charging on bouquet & channel definitions. It also offered other features such as charging by Video Category (i.e. Classics, Latest etc.), Discounts on specific category of movies on special days (i.e. discounted rates on patriotic movies on Independence Day and Republic Day) & free limited video download support.

- **Product Catalog for managing Subscriptions & Deposits**
CRESTEL offered them a comprehensive product catalogue which enabled subscription-based charging supporting Bouquets, Channels, Video on Demand, Time Shift TV, and Free to Air Channels. It also provided them the facility to define content type & category and mapped same with the one configured in IPTV Middleware. STB rentals were associated with refundable & fixed-term deposits.

- **Web based Customer self-care**
Subscribers of IPTV services were provided self-care access to view bills, VOD usage history & online payments. They were also allowed to subscribe to additional channels/bouquets/VODs, request for change of plan and submit their feedback online. Though customers were charged for IPTV usage in single bill comprising voice telephony and broadband usage, they were provided with itemized details about charges taken for IPTV alongwith VOD usage history.

- **Partner Revenue Sharing & Settlement**
CRESTEL Partner Management enabled efficient partner revenue management and settlement. Partners here included broadcasters, content providers, MTNL-Broadband infrastructure provider, Aksh-IPTV Infrastructure and services provider. The major thrust was on providing revenue realization with respect to broadcasters, bouquet/channel offered by broadcasters, videos & other content provided by content partners. MIS reports like -broadcaster/package wise revenue, Revenue from STB Rentals, IPTV Subscription Charges Revenue, Bouquet/Channel wise revenue were also provided. Also different views of subscribers with respect to broadcasters, Bouquets/Channels were also provided to enable transparency across partners and manage revenue sharing agreements.

- **Billing**
CRESTEL Billing was integrated with the MTNL's upstream billing system for passing on IPTV usage charges. CRESTEL billing system generated itemized bill with details of video on demand events, one time subscription, rentals bouquet/channel charges. It also supported different formats as required by MTNL (charges for IPTV usage) and Aksh (charges for STB rental and related charges).

It also provided a consolidated bill in Web self care in the bill format preferred by the customer.

- **Open Standard API**

CRESTEL's open standard API enabled easy integration with 3rd Party Order Management system and Upstream billing systems.

Result

Benefits to Customers

- **Single Bill for multiple services – Broadband & IPTV and Voice telephony:** CRESTEL Billing system ensured that all MTNL users got the IPTV usage bill in their Telephone bill so as to reduce the task of tracking multiple bills.
- **Online availability of IPTV service usage in Customer Web-selfcare:** Customers could track their VOD service usage and view bills online. CRESTEL customer web-selfcare also helped MTNL customer change plans or renew their subscription.
- **Wider Choice of Services:** CRESTEL's robust rating & charging platform helped Aksh/MTNL in offering bundled services like View Video on Demand, time shifted TV whereby the customer had wider choice of service.

Benefits to Aksh & MTNL

CRESTEL Convergent Billing system helped Aksh/MTNL achieve their objectives of:

- **Faster Rollout of services**
CRESTEL's product management helped Aksh/ MTNL to roll out services in a speedy and efficient manner. Value-added services such as video on demand, TV channels, time-shifted TV, and videoconferencing were offered. These could be provided free of cost, based on rentals or based on usage. This helped generate newer revenue streams and enhance customer loyalty through its unique offerings.
- **Reduced OpEx/CapEx:**
CRESTEL integrated with the existing system of MTNL thereby leveraging existing investments in technology to lower the total cost of ownership. It helped reduce operational expenses by offering a convergent business model for prepaid and postpaid users and offered a common platform for Triple- Play services- Video, Data & Content. CRESTEL Web selfcare for customers helped automate operation reducing the operational cost of support.

- **Multi-Vendor Support**

STB level as well as MBOSS Middleware: CRESTEL platform could easily be integrated with 3rd party Middleware giving Aksh/ MTNL flexibility in selecting STB and Middleware vendors.

- **High Revenues - High Margins**

CRESTEL allows the service providers to create market segment based packages. It also enabled them to provide promotional packages and discounts based on actual customer usage patterns.

- **Ease of operations:**

CRESTEL enabled ease of operation with efficient Revenue sharing & Partner settlement/conditional settlement with content providers, infrastructure provider and broadcaster thereby giving Aksh/MTNL flexibility in partnering with multiple channel partners at the same time keep track on the channel partner through Real time Revenue Review and Monitoring and thereby prevent revenue leakage.

About Elitecore Technologies Ltd.

Elitecore Technologies Limited is the global provider of CRESTEL Convergent Billing Solution, a convergent billing solution that meets the voice, data, video billing, and customer care requirements of Tier-1 to Tier 3 service providers. Elitecore serves customers in Asia, South East Asia, Middle East and Africa. For more information, visit Elitecore Technologies Ltd. at www.elitecore.com



Corporate Office

Elitecore Technologies Ltd.
904, Silicon Tower, Off. C.G. Road, Ahmedabad - 380 006.
INDIA, Tel: +91-79-66065606, Fax: +91-79-26407640

Sales & Marketing

Mumbai Tel: +91-22-66951280 / 1380 Fax: +91-22-66923363
Delhi Tel: +91-11-41589761/62 Fax: +91-11-41589760
USA New Jersey Tel: 201-422-9200 Fax: 201-735-5888

© Copyright 2007 Elitecore Technologies Limited. All Rights Reserved.

