Unlocking the potential of RDK Analytics

Introduction: Unlocking the hidden value of analytics from RDK

In today's data intensive world, operators are having a big challenge of dealing with the surge in data volumes. As operators look for better monetization opportunities, big data and analytics deliver real-time capabilities for operators and help them move closer to their customers. Powered by analytics driven tools, operators today are already able to derive business value with churn prediction, click stream analytics, subscriber based product bundling, customer segmentation and all routine analytics that keeps their business running. Following data projections show that analytics is considered important by operators now and in future.

Though the technology for handling big-data is ready, there is a definite lack of a unified platform in the cable/broadcast industry starting right from gathering basic, good quality data to having tools for deeper insights. RDK provides the unified platform that allows service providers to harness big-data-collection and provides flexibility for analytics to generate deep customer insights.

Going beyond generating insights, analytics on the RDK platform generated data can be used to put together value added services with
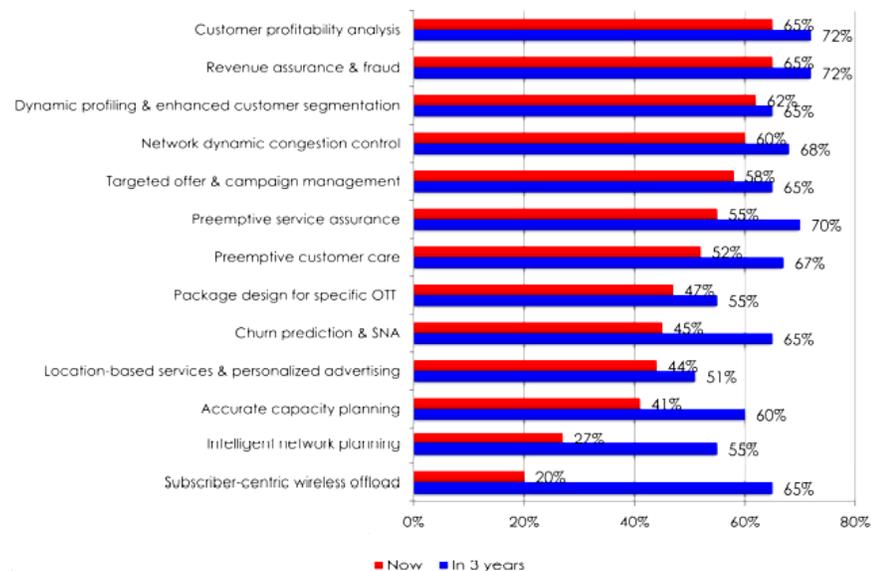

Figure 1 Service provider's plans to invest in big data Source: Heavy Reading

data products, creating monetization opportunities as was never before possible. RDK provides operators the flexibility and control to build their own platform that can be customised as per need, and leverage it internally tailored for their businesses. Thus, analytics over RDK based data opens up new revenue opportunities and business models apart from the benefits of reducing operations expenses and improved customer experience.

Tata Elxsi's RDK analytics framework:

Tata Elxsi has taken the framework approach to build an analytics solution with the data generated by RDK devices and head-ends, with a goal to enable quick deployment of analytics for operators adopting and using RDK. The focus of the framework was not just to provide more graphs and charts, but truly enabling automated actions transforming workflows and enabling new data-products. The framework uses Tata Elxsi's patent pending technologies to enable functionality such as:

- Applications for self-healing
- Predictive diagnostics
- Network planning and optimisation
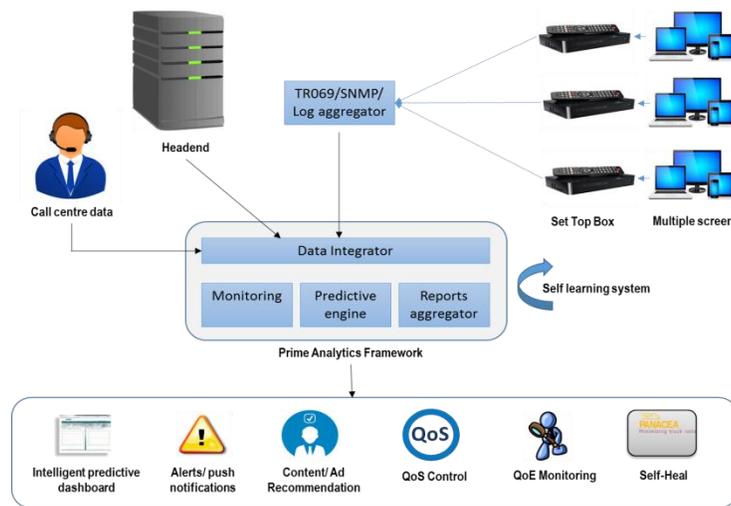- Quality of Service(QoS) monitoring and prediction
- Click stream analysis

Figure 2 Tata Elxsi RDK Analytics Framework

The specific benefits of adopting the framework for a service provider include, but not limited to the below categories.

1) Enhanced Customer Experience by
   - Faster & improved diagnostics for engineering team / field technicians
   - Improved call centre efficiency and subscriber satisfaction
   - Reduced mean time to resolve issues

2) New Revenue Streams with data products and newer value added services for
   - Consumers: Predictive insights enabling personalized product upselling, recommendations for content and ad, thereby improving Quality of Experience (QoE) for subscribers
   - SMEs and Large enterprises: Insights to provide value added services and product bundles to SMEs and large enterprises in areas like insurance retail etc.

3) Savings & Results via
   - OpEx reduction in customer call-cycles and truck rolls/field tech visits
   - Improved insights on engineering and design elements using deeper analytics

Data-Products Build Approach:

Tata Elxsi has taken a phased approach for building and deploying data products. This approach aims at creating value using all possible data sources available with the operator - historical, present and future-proofing where possible - with phased cycles of continuous minimum viable products
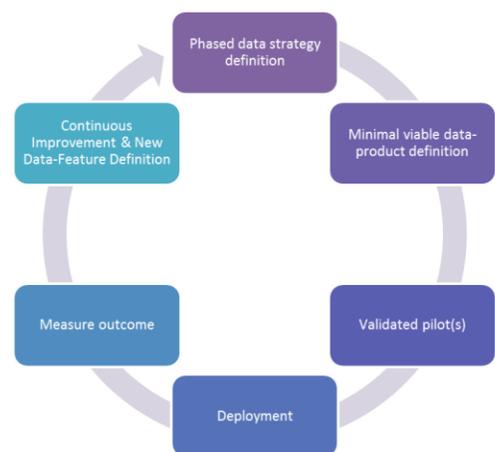

Figure 3 Tata Elxsi phased data-products dev-launch approach

definition. This helps integrate data-products into the internal value-chain seamlessly and iteratively (refer Figure 3).

Tata Elxsi is currently executing a validated pilot for its MSO customer's data-collection and backend analytics solution. The solution empowers end-customers to solve issues using cloud, big-data analytics and mobility - achieving multiple goals at once - optimizing opex (call volume and truck roll reduction) for operators, improving customer experience and increasing customer satisfaction. The pilot currently spanning a few hundred users will be extended soon to the millions. The solution is expected to bring in reductions in operations cost ranging from 5 to 15% annually, depending on size and scale of deployments.

Future of Analytics Framework Deployments:

As operators adopt RDK based analytics into their regular workflow and systems, Tata Elxsi will continue to work with operators and enable faster deployments of the RDK analytics framework by bundling all the

baseline analytics tools into the framework - in the process, optimizing the continuous data-product development launch cycles.

References:

- Big data and advanced analytics: A multi-billion dollar opportunity: http://www.heavyreading.com/

About the Author

Saravanan Theckyam Heads Marketing for the Broadcast business at Tata Elxsi.

Contact us

For more information contact:
info@tataelxsi.co.in

About Tata Elxsi's services offerings

Tata Elxsi helps leading MSOs, content providers and studios develop/ deploy innovative services and applications to help create subscriber stickiness and drive revenues, deliver greater operational efficiency, and improve service quality and user experience through quality assurance and test automation.

Our ongoing and significant investments in current and upcoming technologies and standards, and a rich ecosystem of customers and partners across leading broadcast equipment manufacturers, software, and silicon vendors, ensures we can help you at every stage - from assessing technology strategies and developing proof-of-concepts, through actual development, testing, deployment and maintenance engineering.

About Tata Elxsi

Tata Elxsi is a design company that blends technology, creativity and engineering to help customers transform ideas into world-class products and solutions.

A part of the $100 billion Tata group, Tata Elxsi addresses the communications, consumer products, defence, health care, media & entertainment, semiconductor and transportation sectors. This is supported by a network of design studios, development centers and offices worldwide. Key services include embedded product design, industrial design, animation & visual effects and systems integration. Tata Elxsi is a listed company and headquartered in Bangalore, India.

TATA ELXSI

engineering creativity