



TV viewing will never be the same again; Tata Elxsi is transforming the set top box to mirror the vast changes occurring in the home entertainment business

Screen viewing today has moved from a single television set in a home, viewed by the family, to a number of devices and a dazzling complexity of consumption patterns. The amount of time spent in front of a TV is reducing, as people get their dose of entertainment through mobile devices. Personalised content consumption, and even binge viewing on devices, has become the new norm. And, staying in step with the times, the humble set top box (STB), now powered by artificial intelligence, is all geared up to become the new and friendly interface for content.

Unlike the plain decoders and one-way receivers of the past, the new-age STB is smart and connected. In outward appearance, it looks almost the same. Yet the core, the brain, if you will, of the STB has changed dramatically. It is now powered by Prime — a new software solution launched by Tata Elxsi.

Saravanan TS, who is Tata Elxsi's global head of marketing for the broadcast and communications business, describes how the STB has evolved. "The TV or home entertainment operator has traditionally been limited by the capabilities of the STB deployed at the customer's home. Any new feature deployed would require the STB to be replaced, involving significant costs and inconvenience for both the operator and the consumer. By deploying the Prime platform, we can enable new applications to be launched from the cloud. We can enrich the services provided by the STB, making it a rich gateway into the home of the consumer — all this without having to physically change the STB."

Earlier, with unconnected boxes, the operator had very little insight into the content consumption habits of individual users. With new age STBs that are connected, user preferences can now be captured and stored in the cloud, allowing for advanced analytics and deeper personalisation of content delivery.

In a scenario in which the customer experience is king, Tata Elxsi's Prime is fully capable of meeting the needs of diverse sets of consumers. Nitin Pai, senior vice president — marketing and strategy, Tata Elxsi, says, "Prime is an integrated gateway solution that works as an application layer on top of leading open middleware such as the Reference Design Kit (RDK is from a consortium led by Comcast) and Android TV from Google — both need to be tailored and customised for every service provider, and integrated into the network and backend." There's more. Mr Pai explains that by moving key services to the cloud, Prime allows services to be constantly upgraded and added. He says, "Prime enables new revenue streams for the operators, reducing costs of obsolescence and expensive replacements of the boxes, while ensuring consistently enhanced experiences and features for the consumer. For example, the STB no longer needs to carry a hard disk for local recordings — they can now be stored on the cloud and delivered ondemand to the consumer. This means lower upfront costs for the STB, and no limitations on the size of content stored."

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Saravanan TS, global head of marketing for the broadcast and communications business, Tata Elxsi

THE THINK BOX

Service providers will find that there is huge scope for differentiation in the user interface they offer. Here, Tata Elxsi's award-winning capabilities in UX, design and artificial intelligence come into play, combined with insights from consumer studies and analytic data from existing users. Mr Pai says, "The software tracks the type of programmes watched by the user, and then makes recommendations, using artificial intelligence."

Prime will also help make the STB a more social device, by enabling social media integration and content sharing. For example, Prime has an application that allows individual users to share their own videos or photographs instantaneously anywhere in the world.

Besides supporting multi-screen viewing across different devices, Prime also offers advanced cloudbased features such as PVR (personal video recorder), Timeshift, where one can record multiple programmes simultaneously and view them later, video-on-demand from a catalogue that can be curated with content from across the world, and a cloud-based Electronic Program Guide.

But that's not all that Prime enables for the home. The possibilities conjured up by the software are akin to a sci-fi movie coming to life. Consider a scenario in which your refrigerator sends images and data to the STB, informing you via the smartphone app about the contents within, so you can plan what to shop for on your way back home. Your STB could also instruct your garage door opener to open the door as your car enters the driveway, and the door to open after the camera confirms it is you at the door. These are examples of Prime-enabled IoT (Internet of Things) service deployments that offer users the next level of comfort, convenience and safety.

PERSONALISED CONTENT

In the midst of new experiences, content remains core. The manner in which content is being consumed is changing, with multi-screen viewing a trend that has already reached India. New formats of content are in: for instance, shorter attention spans have led to shorter formats of films becoming popular. Irrespective of these changes, the quality of content will continue to drive the experience.

Mr Saravanan says, "New technologies cannot supersede the relevance of the content to the individual user. New types of content, however, like augmented reality or virtual reality (VR) content, are definitely becoming available. Tata Elxsi has been working with customers to create such content as well, and enable them on STBs, handheld devices and VR devices like the Microsoft Hololens and HTC Vive."

These are exciting times for the home entertainment business, and Tata Elxsi has positioned itself at the vanguard of a revolution. Mr Pai sums it up, "The world of TV is changing. Who is watching TV, how and where they are watching it, all these factors are changing." As they say in showbiz, watch this space. ▣



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Nitin Pai, senior vice president, marketing and strategy, Tata Elxsi

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