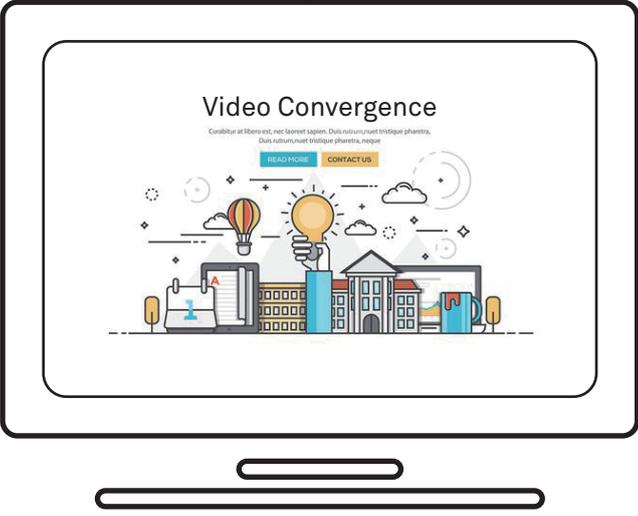


Make video a success with Fixed Mobile Convergence



HUAWEI TECHNOLOGIES CO., LTD.

The boundaries between TV and mobile media are blurring as consumers increasingly expect ubiquitous video streaming on every device.

While traditional Pay-TV operators, normally they own fixed only network, are focused on expanding their presence, operators are feeling the pressure to provide seamless video services for multi-screen and cross fixed mobile network.

So, how can operators take advantage of this growing consumer demand for video services across multiple devices? The answer lies in developing video services for the Fixed Mobile Convergent (FMC) network. Operators who can provide the FMC market with video services will be in a very strong position to succeed with their video business.

Why FMC ?

The evolution from a fixed broadband network to a fixed mobile convergent network has already started within some operators' networks.

When Operators embrace this model, magic happens in terms of customer retention. Typical operators have churn rates in the range of 2-3%. Operators who offer a fully converged bundle combining Fixed, Mobile and Video see the churn rate drop below 0.5% for these customers. Obviously, if an operator doesn't do FMC, it will lose market share to others.

So, if the direction of travel is towards FMC networks, then the big question is: how can FMC operators build something that can replace the current platform, and is completely compatible with future business development? The operator has to make a choice: either to build a mobile video platform or change to a new platform, which will support FMC network better.

Some operators have considered building a separated platform to support mobile video. This is a fairly OPEX-heavy approach when you consider that a streaming media platform is only a small part of the video business. Considerable investment is also required to manage the video content ingest, archiving, repackaging, and repurposing, daily content promotions and operations. The tasks above can occupy more than 90% of the total workloads. Operators increasingly understand that, dividing the video platform in two means repeating those workloads.

It makes no business sense and is definitely not the way operators should go. It seems a new platform is much more reasonable. Let's see what aspects are important for this new platform:

Unified experiences

Fixed broadband operators considering FMC network understand that the customers' video experiences across fixed and mobile networks should be unified. Customers don't want to change their habits, so the unified watching experience is a basic requirement.

Simplified integration with Content Providers

Supporting FMC networks also means supporting a much broader variety of video content. Developing new content providers and integrating these content into this video platform is a big challenge.

Flexibility & scalability

Mobile video users are much more responsive to video content that reflects hot topics and trends. This means that any supporting platform needs to scale up easily, within a very short space of time, to react to events as they pass. And the resources will be released after the events to save cost.

Cooperation and a win-win ecosystem

By providing a wide range of content from CP/SP partners, operators will position themselves as a video portal and greatly improve the users loyalty. Operators can use this centralized operation platform to provide valuable services to their ecosystem partners and win together.

Huawei's view

Huawei believes that understanding consumer demand and creating experiences that end users value are priorities for all players in this rapidly evolving market. Huawei has identified five key characteristics for the new platform.

- ROADS experiences (Real-time, On-demand, All-online, DIY, and Social)
- Cloud
- Analytics
- Agile
- Ecosystem.

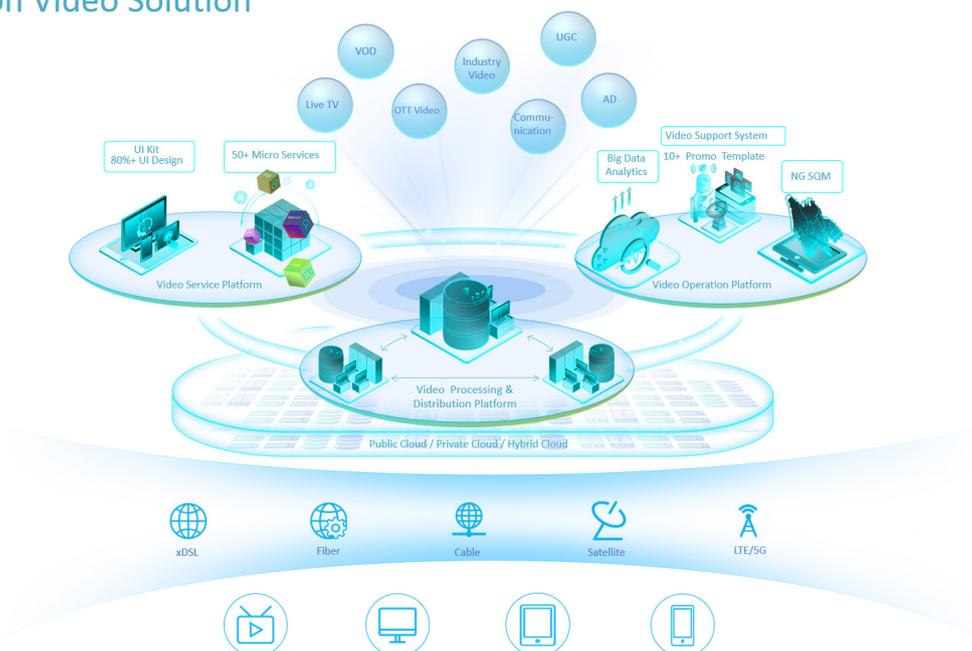
These characteristics are critical to designing unified user experiences, and operating a video business efficiently. A video platform with all these characteristics will help prepare FMC operators for new types of video services, and position their video business for success.

Envision video platform

Huawei's Envision video platform provides game-changing capabilities that enable media companies to effectively address the challenges of running a video business, today, tomorrow, and into the future.

Envision is a convergent video platform that allows IPTV, mobile, OTT and DVB video content to be accessed, managed, and operated in a unified way. The Envision solution helps operators efficiently provide rich and high-quality video content (such as HD, 4K VR) for customers across multiple screens, including IPTV STB, DVB STB, mobile phones, tablets, and PC.

Envision Video Solution



Unified user experiences optimization

To assure unified user experiences, Envision supports experience quality evaluation (including U-vMOS, channel change time, EPG response time, and VOD loading time) of a single subscriber or a group of subscribers, enabling operators to monitor QoS from end to end, and demarcating faults in a cost-effective way.

Envision supports the FEC and RET functions. If packets are lost during media stream decoding, a user device can send a request to retransmit lost packets or decode FEC encoded redundant packets and restore lost data, reducing the possibility of frame freezing or artifacts, and enabling users to enjoy same watching experience across FMC.

Cloud architecture software

Envision provides distributed architecture, highly efficient resource scheduling control, and intelligent running management capabilities to ensure efficient, reliable, and secure running of applications and services on the cloud. For a large-capacity FMC network, using the traditional mode will result in low deployment efficiency and difficult maintenance. Envision makes one-click deployment possible, based on the resource specifications and deployment processes designed by users in application design packages. Envision automatically applies for various resources (VM, disk, and network) and deploys software specified by the users on each resource node. The advantages of flexibility and scalability from the cloud help Envision to support 1 billion users and improve its surge flow control capability.

Universe Video Analytics

The Universe Video Analytics continuously accumulates valuable service data to assist operators with their commercial decision making. Big Data also drives recommendation engine and can automatically populate the VOD portal with recommendations targeted to the user's profile. This can have a significant impact on VOD revenues. The platform can also be used to optimize the user interface or to ensure marketing campaigns deliver the best results. The Envision Video Platform makes use of comprehensive analytics tools to simplify all areas of the video business. It supports automatic fault detection, isolation, and recovery. Operators can also benefit from proactive

problem detection, fault self-healing, and automatic experience defect detection.

Fast integration shorten time-to-market

Huawei has skilled integration experience with CA, Billing, STB and 3rd party applications. Multivendor Cooperation methodology, with over 70+ proven global project experiences Envision provides a flexible UI develop model, with open API/SDK, allowing easy 3rd party UI/OTT/client development. Envision offers the award winning, off-the-shelf UI for operators and their partners.

Ecosystem establishment

Envision's open APIs and SDK. Customers diverse requirements can be satisfied by various applications which can be downloaded from the platform by themselves. To establish an ecosystem like apple store and android market, operators' platform will be more attractive to the new content providers and application developers. These partners enrich the content resources of operators and the benign competition among them will help them to provide better services to the customer. With Envision, operators can deploy a centralized operation platform to effectively improve their bargaining power with content providers.

Huawei Envision video platform allows you to:

- Provide personalized, consistent customer experience delivering continuous value across FMC
- Increase flexibility and scalability
- Smart operation
- Fast time to market
- Build a rich video ecosystem with partners

Consumer demand for video is growing. Operators that are in a position

to service that demand – delivering unique value to their subscribers - will win their loyalty, protect revenue growth and sustain a competitive advantage over their industry peers.

Huawei provides customers with end-to-end solutions, including business consulting, network consulting, video platforms, networks, terminal solutions, network integration, business integration, industrial cooperation, IT integration, network operation and other video services to help operators achieve commercial success.

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HUAWEI TECHNOLOGIES CO., LTD.

Huawei Industrial Base
Bantian Longgang
Shenzhen 518129, P.R. China
Tel: +86-755-28780808

www.huawei.com