

6 Ways USB-based Dongles are Changing the Satellite TV experience



Video on demand (VoD), delivered via broadband cable or fiber connection, is not yet available in many parts of the world. In parts of APAC, Africa or even in some locations in the Western hemisphere where only satellite TV is available, subscribers can only view what is streaming at that moment from the satellite. In this blog I'll share our recent experience with operators who use local memory dongles to allow satellite subscribers around the world to experience a VoD-like solution.

Western Digital's high endurance portfolio enables those solutions for a variety of use cases and is based on our long term experience with the MSOs. Different solutions are available based on demand and are comfortably priced to address a variety of tiers.

Satellite operators and set-top box (STB) manufacturers around the world are taking advantage of local (edge) NAND flash based USB/SD dongles to easily add local storage to an existing STB so they can offer more content options "on demand".

Here are 6 ways USB/SD flash based dongles are changing the TV experience for satellite subscribers around the world:

1. Binge watching made possible

By taking advantage of free channels or off-hours in the satellite feed and using the added storage now available on the STB, TV service providers can pre-position secure copies of recent or popular shows to the attached storage dongle. Subscribers "off the grid" can catch up on shows they missed at their convenience.

2. Moonlighting

Bandwidth limitations are less critical and even high definition (HD) or ultra-high definition (UHD) content can be streamed to subscribers, using a workaround to queue up content using excess bandwidth from the satellite. The network itself may be too slow to push UHD content to the TV in real time, but it can push it to the storage dongle at off-hours or by employing unutilized channels, and once download is complete it can promote it as an extra service based on a local VoD engine.

3. Connecting Subscribers "Off the Grid"

Taking advantage of dongle-based attached storage is attractive to service providers who can provide new services to subscribers, and thus introduce new revenues for their business. Offering new options makes it possible for TV service providers to satisfy subscribers' desires for more variety at their convenience – even if most of their content is delivered via satellite.

4. Show me the money . . . but don't break the bank!

For TV service providers, USB- or SD Card-based STB storage solutions offer a highly cost-effective way to expand a service offering in an otherwise underserved area. STB providers, whether an OEM or MSO, have probably already developed the support for a dongle that can be acquired for a relatively low investment. An affordable high endurance dongle with 16 or 32GB of NAND flash memory has enough space to store several days' worth of desired content. Service providers need only to construct the software workflows to store select content on the storage subsystem and to enable playback access of the content when a user browses the VOD menu on their STB.



5. Know Thy Customer

It can be frustrating for viewers to see an advertisement for a product or service that's not even available in their region, which is exactly what happens when the same advertisements are beamed to subscribers from Malaysia to a small island in the Pacific. Service providers can cache local advertising content on the STB and interleave this content into the satellite stream during commercial breaks. Local companies and organizations can thus target and sponsor localized content.

6. Pause for Popcorn!

If we got that far, now the STB is equipped with a high endurance flash-based memory extension, and is enjoying a VoD-like experience and personalized commercials. It's only natural to get to the next step based on the same flash solution — Pause Live TV (PLTV). Western Digital's high endurance flash solutions can enable PLTV support on the same module. In fact a flash-based solution is one of the most cost-effective solution in the industry that allows PLTV support for STBs. Now, with this PLTV capability, when the consumer needs to refill their popcorn they can easily pause the movie until they're back with the yummy stuff.

It's a Small World

All of these equate to a better user experience, which equals happy subscribers and happy service providers! Western Digital makes it possible for satellite customers' data experiences to thrive!

Western Digital's high endurance flash products for the Connected Home, including USB, SD cards and embedded memory, deliver a superior user experience for these VoD-like and other STB-specific applications. Satellite customers and service providers around the world can now enjoy the superior user experience from their set top boxes by using Western Digital's Connected Home solutions.

The Western Digital Advantage

Western Digital has close to 30 years of expertise in NAND flash development and system design. With a vertically integrated business model, SanDisk products come with world-class technical and design support, as well as BOM control with PCN support.

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