

CommScope Professional Services: software development and customization

Enables a Service Provider to leverage investments in CPE by expanding set-top box capabilities

In today's world of media and entertainment, a cable TV service paid monthly on an annual contract, is rapidly becoming a thing of the past. Over-the-top (OTT) video streaming and online video companies like YouTube, Apple and Netflix are putting pressure on traditional service providers by offering more flexible pricing models in addition to fresh content, modern user interfaces and the ability for viewers to consume their desired content on the devices of their choice. In order to thrive, companies delivering television series, movies and live sports programs through cable and satellite networks need to accelerate the delivery of new services that meet and exceed subscriber expectations. Failing to evolve to support the dynamic needs of subscribers will likely lead to customer churn and decreases in market share.

A key factor for service providers in addressing these challenges head-on is the set-top box. These in-home devices deliver the first and primary interface that subscribers see when engaging with their



Solution benefits

- Helps satisfy evolving user experience demands
- Increases customer retention and market share
- Preserves capital investments by not having to replace legacy set-top boxes
- Advances video-delivery capabilities
- Reduces customer service incidents

TVs. But, subscribers today, increasingly want to consume content on tablets and smartphones—not just TVs.

With advances in set-top box technology, service providers can also implement remote management and monitoring so service issues can be prevented and resolved quickly. To meet subscriber demands and expectations, set-top boxes must be continuously enhanced—incorporating new capabilities and delivering high-quality, secure, premium video services that optimize viewing experiences.

The Problem: set-top boxes control the Service Provider image

Set-top boxes are service providers' lifeline to their subscribers as they strive to deliver world-class entertainment to the home with a positive experience. Today's subscribers live in an on-demand world, and they expect to watch what they want, when, where and how they want.

But cable subscribers also want premium streaming video quality and are typically not willing to compromise. And as far as they



are concerned, the reliability and features of the set-top box reflect the performance of their provider. The goal is clear. Service providers need to live up to ever-increasing expectations for the ultimate viewing and entertainment experience.

The Impact: Service Providers need to deliver or be left behind

If service providers cannot flawlessly deliver on-demand video and make it easy to find and watch favorite programs, subscribers will look elsewhere to get the entertainment and information they need. With all of the attractive alternatives available on the market, subscribers won't miss a beat if they decide to leave their current service provider.

Service providers know that they need to keep their subscribers engaged and satisfied—all the time. But it's not always clear how to achieve that goal. The solution lies in wisely investing in technology to stay ahead of the competition and determining if legacy equipment needs to be replaced, or if software enhancements can elevate the equipment's performance to a level that meets with subscriber approval.

A Real-life Example: Set-top box software platforms must keep pace with industry trends

A progressive and dynamic Asia-Pacific media company streams live sports, movies and television shows to nearly three million subscribers over broadband and broadcast via cable and satellite. The company needed to further develop the software platform supporting its legacy subscriber set-top boxes in order to keep pace with industry trends and to match the video viewing services offered by competitors.

Behind the Solution: CommScope software development and customization

With the intent to retain and grow the customer base, the service provider approached CommScope to develop new features that would expand the capabilities of its existing flagship product. CommScope augmented its customer's internal development team by providing 80 resources including embedded software developers, user-interface developers, quality assurance engineers, project managers and solution design experts.

Part of the CommScope team worked on-site to coordinate projects directly with the internal team while additional CommScope software experts were based in Asia, Europe and North America. Since software resources were deployed across the globe, CommScope was able to help address issues and advance development efforts around the clock.

The combination of local and global resources enabled CommScope to provide software development and customization services that aligned with the service provider's internal workflows for a seamless operation. The joint initiative flourished as the provider created a roadmap that identified the features it knew subscribers wanted, and CommScope helped execute on that vision. CommScope managed the day-to-day software development efforts and reported regular status updates, so the service provider could continue to focus on devising future services that would not only retain customers, but also attract new customers.

CommScope software development and customization services	
Consulting	Gap analysis, architecture definition, emerging technologies, operational and deployment processes, CPE testing methodologies.
Customer Equipment Integration	CPE operations, maintenance and provisioning
Custom Software	New applications, middleware porting capabilities, new feature introduction, user-interface development and migration.
Solution Integration	Recommendations, analytics, VOD, third-party content integrations and assurance.
Test and Validation	Validation of new features and network interfaces, automation of performance and stability KPI measurements, regression testing.
Managed Services	Integration between CommScope and the customer's workflows to deliver projects faster.
Staff Augmentation	CommScope experts available to provide the flexibility to handle CPE device development, testing, integration and deployment.

In addition to supplementing resources for the project, CommScope leveraged its proprietary software to accelerate the development of features, allowing software development projects such as Whole Home DVR to be completed much faster.

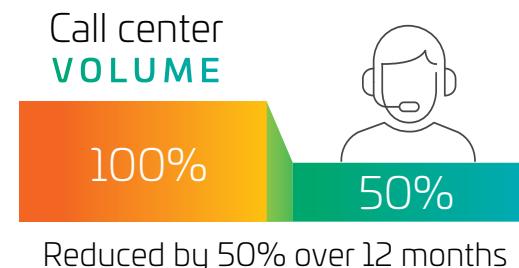
Results: a smart investment in set-top boxes lends a competitive edge

Over the course of the relationship, the service provider and CommScope have continuously collaborated to work on OTT video delivery enhancements. These include the ability to provide streaming movie videos on-demand and television series with binge watching capabilities—allowing viewers to watch episode after episode without having to touch their remotes.

Subscribers have also gained the ability to tap into a service that allows them to follow their favorite sports teams and be notified of live games and feature shows pertaining to those teams. Subscribers can also automatically record any games their teams play.

The service provider and CommScope combined their expertise to deliver additional innovations geared towards keeping subscribers engaged, including:

- Personal video recorder with access to shows, movies, live sports and entertainment
- Live and time-shifted TV
- A constantly growing library of streaming TV programs and movies, available on-demand
- Program recommendations based on what customers have watched in the past
- Integrations with third-party services in the Service Provider's ecosystem



The collaboration between the two companies extended the quality of experience beyond viewing and entertainment to include customer service. The updates, maintenance and support of the set-top boxes contributed to the customer's call center volumes being reduced by 50% over a 12-month period.

Two companies innovate for the future of video

CommScope and its service provider customer are now working on a proof-of-concept with technical trial users in the field involving the CommScope HomeAssure solution, which offers real-time monitoring and management of the provider's ecosystem of services. This will allow the company to diagnose and mitigate service delivery problems faster.

The way in which the CommScope team synchronized with the customer's internal team enabled streamlined processes and smooth hand-offs between the two companies, fostering an environment of cooperation and transparency. Working together as one team played a big role in the success of the customer engagement.

The service provider is excited to extend its collaboration with CommScope in terms of designing and delivering new features that subscribers will crave in the future. The combined expertise of the two partners enables the provider to deliver the future of video and will help the company retain its current subscriber base as well as attract new customers and increase market share.

CommScope: Behind the solution

Leveraging its innovations in technology, the CommScope Professional Services team integrates customized software into legacy equipment that elevates its overall performance. By maximizing a service provider's existing infrastructure, CommScope enables its customers to meet current and future subscriber demand in the most efficient and cost-effective manner.

To learn more, go to www.commscope.com/professional-services/broadband-and-video-device-deployment/

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