



The Top 5 Challenges Keeping Cable MSOs Awake at Night

INCOGNITO EBOOK

Introduction

As a result of the cable industry's ever-changing landscape, cable operators are being faced with new challenges in managing and orchestrating their networks efficiently and reliably. Being the industry's leading independent and most complete DOCSIS provisioning vendor, serving more than 200 cable service providers globally, Incognito speaks to operations and engineering teams every day to discuss their biggest networking challenges and priorities. Here are the top 5 challenges that our team hears consistently from cable MSOs around the globe. Some of these may surprise you!

What's the best approach to migrate to IPv6?

IPv6 is not a new concept or technology. The first MSOs started testing version 6 on their network around 10 years ago. But what is the optimal approach for implementation? Well, this problem has still not been fully solved. Many cable operators are still working on their strategy to migrate to IPv6. Cable operators are also still struggling with preparing the whole network for IPv6, getting everything from CPE devices to CMTS to the core network ready. Some operators have multiple vendors, models, and firmware versions that need to be tested (and sometimes upgraded) to ensure a high level of customer experience. A tool like Incognito's Broadband Command Center can help speed up the upgrade of the network to be ready for IPv6.

Cable MSOs are quickly becoming multi-access

This is not a secret in the industry. Cable MSOs have been developing new lines of business in wireless to broaden their footprint and services offerings for many years now. This means new access technologies to learn and, more importantly, to operate. Fixed wireless is a big one, including using unlicensed spectrum, as is fiber. Network operations teams are very familiar and accustomed to using operational and engineering platforms dedicated to HFC. New access technologies bring new types of devices, vendors, and EMSs to integrate. How do you adapt existing business operational systems to these new technologies? How can you deliver services consistently across different platforms and access technologies (ex. cable, fiber, fixed wireless). These are the types of questions we hear regularly. Incognito offers orchestration platforms that work across multiple access technologies to assist cable operators in rolling out new technologies like fiber and fixed wireless.

How can I prevent theft of service?

This is an interesting one. The threat of cloned devices is very real for cable operators. This is when hackers can essentially clone existing devices, making their CM look like a valid subscriber paying for services from the operator. This essentially holds the same impact as theft of service, with hackers stealing service by using bandwidth on the DOCSIS network, leaving less bandwidth available for paying subscribers. Even though they have cloned the CM of one subscriber, they can steal bandwidth from all subscribers on that part of the HFC network. It can be a huge PR nightmare, not to mention revenue leakage.

To maintain a secure network and avoid loss of revenue to cloned modems, operators require a comprehensive solution that can monitor and maintain the information (vendor, device type, firmware version) of any device across the network. Incognito's Broadband Command Center platform enables the automatic identification of cloned devices and protects services with built-in security features to prevent denial of service (DoS), CPE cloning, and other hacking attacks.

Virtualizing the CCAP core

All equipment vendors now offer various solutions for virtualized CCAP core and Distributed Access Architecture devices, such as Remote PHY devices and Remote MAC-PHY devices. These technologies are working hand in hand to provide operators with a very flexible architecture to solve their business needs. As a result, many operators are already beginning to take advantage of these technologies in their networks to reduce power consumption costs, improve the resiliency of the core network and robustness of the optical network, and reduce the operational costs of upgrading and maintaining their CMTS solutions.

DAA likely requires an investment in the outside HFC plant to support DAA. Moving the PHY or MAC+PHY layers out to the fiber node often requires some investment, not only in pulling fiber closer to the home but also in operational systems and skillsets to monitor and maintain that new equipment. Virtualizing the CCAP core is a big change in operational systems and skillsets for the head-end team maintaining traditional CMTS chassis systems for the past 20 years. As a result, operational support systems, such as the DOCSIS and PacketCable provisioning solution, and the device firmware management system and historical lease solution must be flexible and able to adapt to the changing CMTS architectures that comply with the recent CableLabs standards advancements.

Delivering a great in-home Wi-Fi experience

This continues to be a major challenge in terms of operational costs (and opportunity) for cable operators who want to create managed services for their customers to fully manage in-home Wi-Fi. One area is around proactive diagnostics – how to fix the problems before they impact experience. The other is around home user self-care – what are the options to give subscribers the tools to self-manage and resolve common network issues like changing passwords (yes, still the #1 reason prompting a technical assistance call to customer care), checking speed and Wi-Fi settings, and managing guest Wi-Fi networks.

ABOUT INCOGNITO

Incognito Software Systems Inc. provides software and services solutions to help global service providers manage and monetize broadband services. Over 200 customers worldwide, including Cox, Claro, Globe, Foxtel, and SingTel, leverage Incognito solutions to fast-track the introduction of innovative broadband services over fiber, LTE, and cable technologies, while delivering a great customer experience. The company is a division of the Lumine Group, a portfolio of Constellation Software Inc., the largest independent software company in Canada.

For more insights on Incognito's service orchestration solutions for cable, visit our website:
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