How OpenSync eases the silicon shortage pain—and goes far beyond

The global shortage of semiconductors has left manufacturers from many sectors scrambling in the past few months. And the problem is getting worse now that new companies further down the chip supply chain are encountering delays.

The component shortage is rough—and has broad-reaching implications—but here at Plume, we're less worried about it. Why? Because a large part of the problem can be easily solved with OpenSync, an open-source, silicon-to-service framework.

The deepening silicon chip supply problem

Last year, consumer electronics companies including Apple, Sony, and Microsoft felt the pinch from the silicon scarcity. Many were forced to delay product releases or ran short of stock right in the middle of the holiday shopping season. More recently, the impact crossed into the telecom sector, with one company anticipating a $10 million loss over three months.

$10 million loss

expected over the next three months by optical networking company Infinera

Although silicon chip production itself has returned to normal, some industry insiders expect the effects of the supply problem to reverberate into 2022. Everyone from automakers to home-appliance manufacturers are bracing for more impact.

For the communications sector, the timing couldn't be worse—WiFi 6 is finally arriving in customers' homes and industry experts expect a renewed consumer interest in device upgrades.

This is where OpenSync comes in. With OpenSync-enabled Customer Premises Equipment (CPE), consumers don't have to upgrade their current hardware to add more WiFi access points (APs) and smart-home devices. And Communications Service Providers (CSPs) can still add new WiFi infrastructure while upgrading existing APs and gateways in homes running on the OpenSync framework.

OpenSync and the silicon chip shortage

Silicon-, cloud- and CPE-agnostic, OpenSync connects in-home hardware to the cloud, enabling CSPs and consumers to manage the home network. The framework allows CSPs to seamlessly support third-party services, while Original Design Manufacturers (ODMs) can continue to rely on existing chipsets, and software developers can easily push updates to any device.

OpenSync solves the longstanding issues of interoperability by allowing consumers to mix and match CPEs—including those supporting different WiFi generations—while maintaining optimal connectivity. The software layer enables the intelligent management of the mixed network through the cloud, without negatively impacting the customer experience.

Typically, new generations of technology render hardware obsolete at some point. In contrast, OpenSync extends the hardware lifecycle because CSPs can simply deploy new capabilities and services at the software layer, through the cloud.

OpenSync is a win-win for ODMs, CSPs, and consumers alike, alleviating the impacts of silicon scarcity.

Chip and device makers can enable massive scale on current and legacy chipsets. CSPs benefit because they can forge ahead with WiFi infrastructure and service enhancements. And for customers, it means taking advantage of the latest capabilities and services without spending money on new devices.

OpenSync's advantages beyond the silicon famine

OpenSync doesn't just take some of the pressure off the current chip situation. Its value goes far beyond. Plume, along with chipset makers, ODMs, and CSPs have been taking advantage of the capabilities that OpenSync offers since 2018.

A joint initiative of Samsung, Comcast, Bell Canada, Liberty Global, and Plume, OpenSync has made it possible for Plume and more than 200 CSPs to deliver valuable services to customers. Whole-home WiFi, cyber-security, parental controls, and IoT device control are some of the capabilities that OpenSync currently supports, and the list is constantly growing.

OpenSync already powers more than half the homes in the US and Canada, and approximately 30 million homes globally. Most recently, Plume has worked with numerous CPE partners, such as ADTRAN, Hitron, and Technicolor, to make available more than 20 WiFi 6, OpenSync-enabled CPEs.

200+
CSPs deliver valuable services to customers via OpenSync

1/2+
the homes in the USA and Canada are powered by OpenSync

30M
homes globally are powered by OpenSync

In fully optimizing the latest specification updates and enhancements, OpenSync has become the most broadly supported open-source silicon-to-cloud framework for WiFi 6 globally.

This is an exciting development as WiFi 6 adoption gains momentum. All OpenSync-powered CPEs from different suppliers—including gateways, extenders, and Plume SuperPods—can coexist on the same home network, irrespective of WiFi generation. With plug-and-play simplicity, the CPEs can access Plume services, enabling CSPs to serve personalized smart-home experiences to their subscribers.

Yes, the chip shortage pain is real. But CSPs can weather the effects, as well as forge ahead with new developments, by thinking creatively.

The brand-agnostic OpenSync delivery platform provides the perfect conduit for innovation. It doesn't just solve the silicon problem today—it future-proofs customer deployments and positions CSPs for delivering, at scale, many other hyper-personalized services that consumers will come to expect.

To learn more about OpenSync, download the whitepaper.

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