Letter from the Editor - February 2024

By: Scott St. John, Pipeline

It wasn't that long ago, believe it or not, that connectivity was hard to come by. Back then, someone had to come out, physically run cable, install equipment, and then test it to make sure it all worked properly. The process could take weeks, months, or longer. For some cases and in some regions, this is still how it's being done today. But not in the modern world.

In the modern world, connectivity buzzes all around us. We can seamlessly transfer from our homes, across modes of transportation, within our destinations - whether that be an office building, event venue, or hotel - and back home again. It's really quite remarkable if you think about it. From the densest of cities to the most remote, rural locations, there virtually is nowhere that connectivity can't touch. Mobile and wireless connectivity has become truly ubiquitous.

What's more, wireless connectivity has become so good that it now rivals wireline connectivity. Fewer and fewer use cases, outside of mobile backhaul, require a physical, wired connection. Wireless connectivity has become so fast, stable, reliable, and omnipresent it can compete and even overtake wireline connectivity. Who among us hasn't had to hot spot their mobile phone when their cable service has gone down, or when you didn't feel like paying for Wi-Fi access at a venue? Operators like T-Mobile have already shifted to 5G to deliver in-home Wi-Fi, and many businesses are starting to make the shift to enterprise wireless too. Which begs the question, is wireline connectivity even relevant anymore? Perhaps, but it's becoming less relevant by the day.

The advancements in wireless access and connectivity haven't been brought upon by accident. It has required countless cell towers, engineering, hours of labor, routers, satellites, and billions of connected devices. It's taken dozens of technologies, decades and years of deployment – and it's still evolving. Wireless connectivity today requires automation, new technologies to overcome its inherent challenges, an evolution of its existing technologies to meet next-gen use cases, and some thought about the impact all this has on our planet. Which makes this edition of *Pipeline* so important.

In this issue of *Pipeline*, we explore the ways the industry is making pervasive mobility possible. NGMN Alliance shares their perspective on the path to 6G. Anritsu shows us how AI and ETSI MANO can be used for zero-touch 5G automation and assurance. Boldyn Networks discusses the demand and drivers for 5G densification. SOLiD considers how CBRS and DAS can be used to deliver in-building wireless connectivity. P15-22's and AT&T alumni Andy Daudelin poses the question, is it time for 100% enterprise wireless connectivity? The Wireless Broadband Alliance looks at Wi-Fi trends for 2024 and beyond. iBwave explores sustainability and sustainable wireless network design. Nile demonstrates how cloud-native principles can be applied for next-gen WLAN automation. ST Engineering illustrates how satellite

connectivity can be used to ensure mission-critical IoT infrastructure, and the NFC Forum provides an overview of how its latest Qi standard can shape the future of wireless charging for connected IoT devices. All this, plus the latest enterprise and telecom technology news, and more.

We hope you enjoy this and every issue of *Pipeline*.

Scott St. John
Managing Editor
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