Letter from the Editor - October 2024

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The world is changing at an unprecedented pace, and networks are playing an integral role. Connectivity, once the innovation, is now just a presumed part of virtually every new innovation. From the car you drive, to the watch you wear, to your vacuum — connectivity is simply baked in. This is creating some interesting opportunities, and challenges.

Evolution is a fickle thing. Heartless, one might say. It pays no mind to those who can't evolve. It just marches on; they go extinct. And as it continues, the landscape changes with it. Those capable of evolving find themselves in an entirely new environment they must navigate. They must not only reinvent themselves, but also invent new tools to carry them forward. It's no different today. But the rate of change hasn't been this fast, probably since the advent of fire.

Artificial Intelligence (AI) set the world ablaze as CXOs around the world clambered aboard the AI bandwagon. "What's your AI strategy?" became a part of every boardroom conversation and investor call. But AI is only one piece of the puzzle. Lest we forget about the network.

While the world was asking ChatGPT for dating advice, network innovations have been abundant. Innovators have been busy building out fiber broadband networks, sustainable data centers, and combining terrestrial network technologies with extraterrestrial satellites for voice, data, and broadband. Meanwhile, other innovators have been working on building a lunar network and teleporting protons using quantum mechanics. Yet, few people are talking about that.

What's more is that no one is talking about the totality of innovation and the new technology stack that is being used to transform the world. Very few are realizing the massive potential of combining these technical innovations across silos. Such as what happens when you combine AI with robotics, virtual reality, and new network technologies. The possibilities and opportunities begin to emerge — and so do the risks and challenges.

Bringing these innovations together will require an unprecedented level of interoperability. Silos will have to be connected and converged. Automation will need to apply between layers, with intelligence used both as an interface to, and agent of, the technology. At every level, security will have to be factored in — and a spider's web of regulation, ethical considerations, and social impacts will have to be

considered and woven throughout. Such as, how do we power all this? What happens if I give AI control of my network? How can I automate my enterprise? This edition of *Pipeline* addresses many of these key considerations.

In this issue of *Pipeline*, we explore the evolution of networks. In a special feature, *Pipeline*'s Dan Mowinski and I identify the top five technology megatrends that will shape the future, and we introduce the Innovation Stack of the future. Oracle explores the new network ecosystem with IoT and edge computing. Fujitsu spotlights the need for network modernization as a cornerstone of transformation. Sabey Data Centers covers the evolution of energy solutions for data centers. Highlight looks at how CSPs can reinvigorate sales with SD-WAN observability. Epsilon demonstrates how consultancy is playing a vital role in Network-as-a-Service (NaaS) offerings. DartPoints gives guidance on how CSPs can achieve operational agility through strategic colocation. FNT Software showcases the rise of fiber optics and its role in expanding global connectivity. Colohouse and Hivelocity discuss how service providers are evolving beyond commodity-based services to become trusted solution partners. And *Pipeline's* Dr. Mark Cummings covers the intersection of network reliability and generative AI in light of the CrowdStrike incident. All this, plus all the relevant enterprise and telecom technology industry news and more.

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

Scott St. John
Managing Editor
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