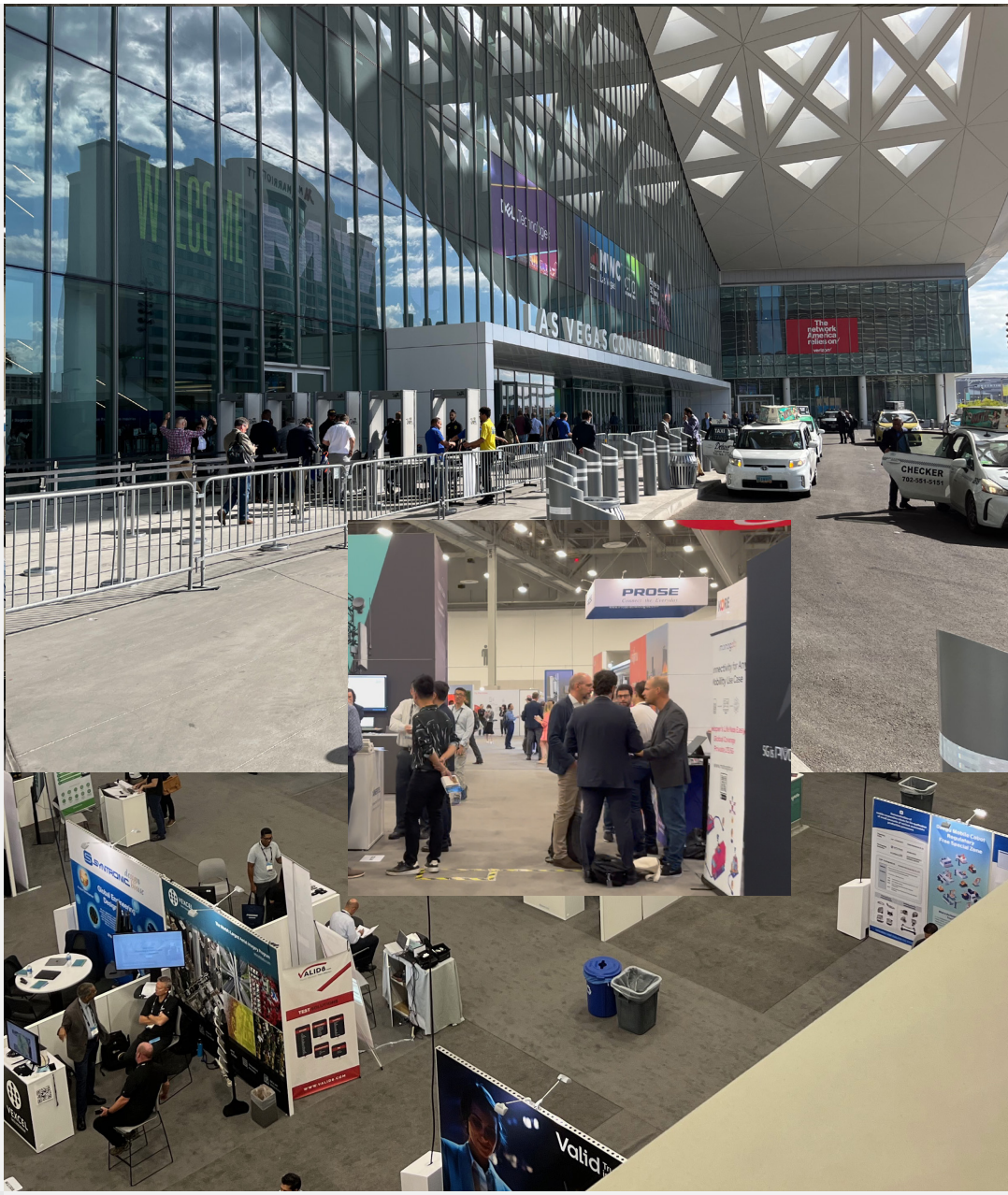
2022 Mobile World Congress Americas

Highlights from the Conference in Las Vegas

GSMA, in partnership with CTIA, hosted Mobile World Congress Americas in the new West Hall of the Las Vegas Convention Center from September 28th to 30th, 2022.

The theme was Connectivity Unleashed and the exhibition attracted some 300 companies. GSMA reported 8,200 attendees, doubling the number of participants from last year's event in Los Angeles.

In this Research Note, we look at some of the key themes that emerged from the conference.



Converge! NETWORK DIGEST

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Mobile World Congress Americas moves from Los Angeles to Las Vegas for 2022

AvidThink was on site, along with our media partner Converge! Digest, talking to communications service providers (CSPs), network equipment providers (NEPs), independent software vendors (ISVs), global system integrators (GSIs), open-source and standards organizations (SDOs), and other participants in the ecosystem. Even though the number of attendees present was lower than before the pandemic, exhibitors we spoke with were pleased with both the quality and quantity of interactions.

Key Themes at 2022 MWC Americas in Las Vegas (MWCA LV)

Key themes that popped up across our conversations included ongoing traction for Open RAN despite teething challenges. Disaggregation and open networking trends extended beyond RAN, with cloud-native platforms and practices bringing transformation across orchestration, billing, automation, and core-to-edge solutions.

The telco cloud was a popular discussion topic, along with hybrid cloud, multi-cloud, as well as hyperscaler and telco collaboration. Related to the telco cloud and edge platform discussion, acceleration technologies, and specialized silicon were viewed as critical to supporting energy-efficient, and high-performance RAN, core, and edge workloads.

For both upstarts and incumbent CSPs, private wireless still looks like a huge opportunity even if the uptake was slower than expected in the last 12-18 months. Nevertheless, beyond 5G FWA, monetization remains a challenge for telcos, but we saw numerous innovative initiatives underway that hold promise for the future.

Open RAN

Recent challenges at some Open RAN providers like Parallel Wireless (with deep headcount cuts) and Mavenir (with smaller headcount adjustments) spooked the market on open and disaggregated RAN. At MWCA LV, open RAN continued to be a topic of discussion. NEC, Fujitsu, and Mavenir announced new products and relationship wins, while Rakuten proudly showed off a production Symware unit, its cloud-native powered distributed unit (DU) appliance that hosts containerized RAN software from its Altiostar team as well as cell site routing functions from Juniper. Rakuten plans to deploy 30K Symware units in 10 months. Meanwhile, incumbent operator NTT Docomo continues to express interest in Open RAN, announcing they were adding a fourth configuration to their testbed for test and certification.

Private Wireless Networks

It's clear that the availability of Citizens Broadband Radio Spectrum (CBRS) in the US has unlocked the market for many startups and holds much promise for carriers as a potential new market where they could use their spectrum holdings as augmentation and leverage.

Celona, Cisco, Dell, Expeto, Federated Wireless, JMA Wireless, and NTT were at the show, discussing all forms of private wireless advancements and deployments.

NTT announced it was working with the City of Las Vegas to deploy the largest Private 5G network in the US. Federated Wireless announced a streamlined few-click approach to fully-managed private wireless, available on AWS Marketplace. And T-Mobile US launched its Advanced Industry Solutions — bundled and certified solution stacks targeted at select verticals that leverage their private and public 5G networks. JMA Wireless was a big crowd draw on the second day, with Raiders alumnus Oren O'Neal and Raiderettes in person (along with an open bar) at their booth.

Telco Cloud

The telco cloud is evolving but we're still seeing problems that emerged during the early days of network functions virtualization (NFV). At MWCA LV, we joined CSPs, GSIs, and vendors in lamenting siloed telco clouds — one for the RAN, one for the core, and another for the OSS/BSS and back-office workloads. And again, no single unified orchestrator to bind them together — but new orchestration options, from open-source to proprietary and new ones from the hyperscalers (EKS-A, Azure Arc, Google Anthos, and variants).

On the platform front, Red Hat announced the general availability of the Red Hat OpenStack Platform 17 which is integrated with Red Hat OpenShift to run both VM-based virtual network functions (VNF) and container-based cloud-native function (CNF) workloads. RH OSP 17 includes better dynamic resource allocation and better security.

Meanwhile, Wind River and Dell's joint announcement of Dell integrating Wind River Studio into an orderable SKU from Dell, supported by Dell, speaks to Dell diversifying beyond their special partnership with VMware (soon to be consumed by Broadcom). It also speaks to CSPs like Vodafone's and Verizon's ability to encourage their vendors to provide certified and integrated stacks. And finally, it's a testament to Wind River's success in holding its own against the likes of VMware and Red Hat on powering performance-sensitive virtual RAN workloads.

At the same time, it's clear from multiple announcements that hyperscaler clouds are viewed as viable telco platforms. In addition to past announcements by AWS, Microsoft Azure, and Google Cloud, MWCA saw Rakuten Symphony indicating it would run its TM Forum-compliant Symworld (telco-as-a-service) suite on AWS complete with 110 pre-integrated and tested CNFs. Further, LG Uplus (South Korean MNO) selected AWS as a backup telco cloud, and Parallel Wireless announced it would integrate AWS EKS-A to accelerate deployment of its Open RAN solutions.

Specialized Silicon

Specialized silicon is playing an increasingly important role in the deployment of Open RAN and 5G networks. L1 acceleration cards in DUs with Marvell and Qualcomm silicon help with achieving Open RAN performance while maintaining energy efficiency and freeing up compute resources on DU appliances for other edge workloads. Qualcomm showed off two O-RAN-compliant offerings in the form of its X100 5G RAN Accelerator Card and QRU100 5G RAN Platform. On the 5G core front, Napatech was in AMD's booth showing their 5G UPF accelerator utilizing AMD Xilinx's Field Programmable Gate Arrays (FPGAs).

Edge Computing

The edge has been an ongoing topic for CSPs, initially as a platform to run revenue-generating enterprise workloads, but now as an in-house platform to host Open RAN components. At MWCA, we heard from CSPs and vendors that beyond hosting DU (and CU) workloads, there is interest in colocating other applications on the same platform. Collectively, we will still need to find those compelling and monetizable workloads. On that front, SK Telecom and Amazon Web Services are partnering to develop a cloud-based computer vision platform, perhaps providing an edge application opportunity.

Wrap-Up: In Search of Monetization

Ultimately, telcos are searching for new ways to monetize their networks, with many initiatives and proofs-of-concepts underway. 5G monetization beyond FWA remains elusive, and the metaverse is unlikely as a near-term savior for all of us in the industry. However, forums like MWCA are an opportunity for all of us in the telco ecosystem to congregate, ideate, and accelerate the path to profits in 5G today.

Check out our 2022 MWC Americas Video Showcase at NextGenInfra.io (a collaboration between Converge! Digest and AvidThink)

AvidThink, LLC
1900 Camden Ave
San Jose, California 95124 USA
avidthink.com