



Case Study

**A leading North American
Tier 1 CSP delivered
26 new CRAN sites at the
Las Vegas Grand Prix**

The challenges

In preparation for this major event, this CSP identified the need to expedite deployment and activation of 26 new CRAN sites supporting 5G and 4G carriers (small cells) with fiber connectivity. For this to occur, they needed to ensure seamless coordination between four key vendors. Tasks included constructing transport, hubs and sites/nodes, with Amdocs handling system integration, troubleshooting and issue resolution.

Yet complications arose. Role and responsibility issues among the entities led to delays. For example, the transport/backhaul was not ready for the 26 new CRAN nodes/sites due to the failure to meet timelines for constructing the Grand Prix track and visitor galleries. This left scripting, integration, troubleshooting, fiber connectivity checks and the on-air activation of carriers for sites around the track – both on the Vegas strip, as well as in visitors' galleries – to be completed within a tight two-week timeline in order to be ready for the event.

Most sites featured a 5G band with a 39GHz mmW carrier, 80 MHz CBAND and 10MHz 850 band carrier, along with 6 LTE carriers (700 band 14,17,29, PCS band 2, AWS band 4, 66).

Amdocs' role

Amdocs provided RAN integration services and alarm-clearing support for the CRAN site deployments. For this, they assigned engineers, a project management team, RAN integration experts and subject matter experts, who collaborated with the civil vendor, construction teams, and the CSP's design & deployment team.

As part of Amdocs' innovative integration approach, the company collected design requirements for the CRAN sites with 5G and 4G carriers, followed by preparing the scripts and integrating all carriers at the hubs once construction was complete and the transport was ready. Post-integration, Amdocs conducted Gold Standard parameter alignment, and worked with the turf vendor responsible for site construction. This included ensuring radio connectivity, clearing alarms and performing functional tests to ensure issue-free traffic handling.

The solution

Amdocs' **end-to-end project management services** spanned design, scripting, integration, RAN commissioning and launch, including aligning the four involved parties to deliver four hub locations, integrate 73 5G and LTE radios and launch 115 LTE and 5G.

Furthermore, Amdocs demonstrated exceptional commitment by retrieving 4G/5G hardware from different warehouses and executed additional fiber work at the hub. This included installation, fiber testing and connecting the common fiber panel and the BBU. To mitigate delays, they also established a **24x7 War Room** for service providers and turf vendors, diligently monitoring and addressing issues as they arose.



Results achieved

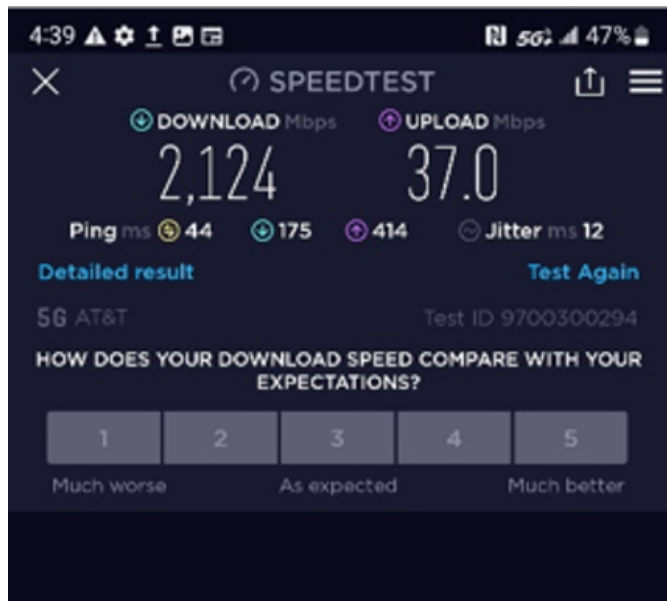
The deployment enabled the CSP to deliver an amazing network experience to approximately 170,000 Grand Prix fans, driven by Amdocs' flawless delivery and execution of RAN integration services and alarm clearing support.

Furthermore, 5G connectivity surpassed expectations, delivering users an average speed of 2Gbps and above. This was due to The CSP's higher throughput, reflecting an overall increase in total 5G traffic compared to the previous year and a rise in the 5G device penetration rate. There was also growth in 5G device subscription plans compared to the previous year.

Below are snapshots of speed tests conducted at various sites prior to project handover.



Sample speed tests





Amdocs helps those who build the future to make it amazing. With our market-leading portfolio of software products and services, we unlock our customers' innovative potential, empowering them to provide next-generation communication and media experiences for both the individual end user and large enterprise customers. Our approximately 30,000 employees around the globe are here to accelerate service providers' migration to the cloud, enable them to differentiate in the 5G era, and digitalize and automate their operations.

Listed on the NASDAQ Global Select Market, Amdocs had revenue of \$4.89 billion in fiscal 2023.

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