**cradlepoint**

PART OF **ERICSSON**

Cellular Solutions for Managing Digital Signs

Using cloud-managed cellular broadband to adjust widely distributed public-facing content from anywhere

From huge billboards near freeways to smaller screens that deliver "smart" advertising inside commercial locations, digital signs are changing the way companies deliver ads and other types of information to the masses. The ability to remotely manipulate content on the fly — instead of handling this on-site — saves companies a lot of time and money while supporting advertising efforts that drive revenue, but it requires a highly flexible and reliable WAN.

Cradlepoint NetCloud
Service for IoT

LTE or 5G
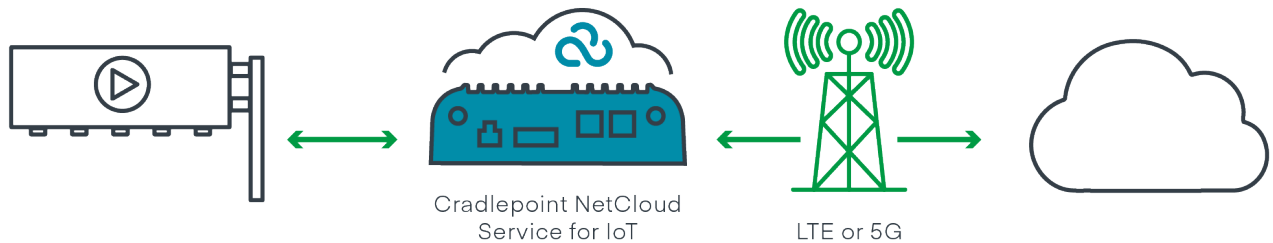
Networking challenges

Rigid or costly wired connectivity

Digital signage is deployed in a wide variety of environments, which makes WAN access tricky. When wireline access is already in place, costs and/or reliability may be prohibitive. Even if its affordable, many organizations aren't willing to risk putting an IoT device on the core network.

In places without wired lines, companies must decide whether paying thousands of dollars to provision cable or DSL is worthwhile — especially with LTE or 5G available as a flexible, plug-and-play option.

Managing widespread IoT with lean IT

Some organizations must set up hundreds or even thousands of digital signs that are spread over a vast distance — with lots of applications to connect and likely a different WAN architecture from one site to the next. However, it's unrealistic for these companies to commission an IT specialist to handle every deployment.

Security risks of traditional networking for IoT

IoT devices present numerous network security challenges, especially concerning attacks from external sources. Traditional "connect first, authenticate second" transport protocol exposes IoT traffic to many threats, which is why extending network access to third-party firms to control digital messaging is so risky.

> **"**
>
> We make some of the largest digital signs in the world, so downtime is not an option."
>
> **Justin Montalto,** network and wireless communications administrator, YESCO

Benefits of cloud-managed cellular for remote management of ads and content

Flexible, cost-effective connectivity for dependable content management

Cradlepoint's NetCloud Service for IoT is delivered through enterprise-grade routers with an embedded cellular modem. This solution provides constant connectivity via global cellular carriers, ensuring that digital signs always deliver the right content at the right time. Cloud-based visibility into signal strength, latency, cellular usage, and other factors keeps IT teams informed so they can quickly switch from one carrier to another as needed. As a result, marketing teams can change content on any sign whenever the need arises, regardless of location.

In some outdoor settings, businesses also rely on internet access for IT or OT teams to remotely monitor surveillance footage and even collect environmental data to determine how well each sign is functioning.

Remote, centralized management and troubleshooting of cellular connectivity

With Cradlepoint's feature-rich cloud management platform, companies set up alerts notifying them of WAN outages and signal fluctuations. When a problem arises, the corporate IT team can remotely determine the root cause — and often fix the problem — before ordering an expensive truck roll.

Cradlepoint's cellular broadband routers include enterprise-grade, comprehensive, policy-based network security such as a built-in firewall to prevent hacking attempts, as well as the ability to quickly set up VPNs. When digital signs are connected to LTE or 5G via a Private Cellular Network, IT teams have even more control over security, data management, and network flexibility.

Cradlepoint's NetCloud Service for IoT with wireless edge routers
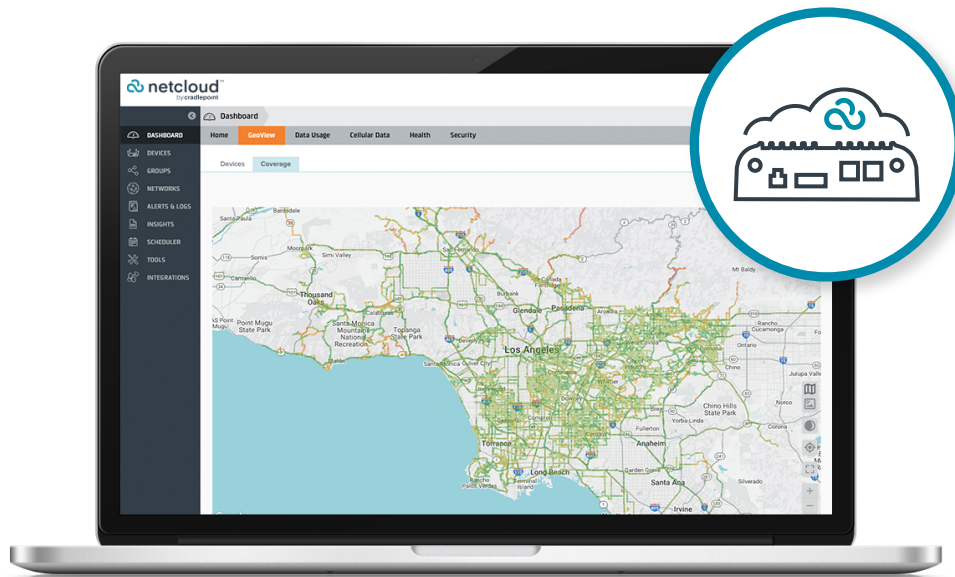
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