



Private LTE with Managed Endpoints for Critical Applications

CommScope and Cradlepoint have partnered to deliver a comprehensive solution for private LTE deployments—ideal for mission-critical fixed and mobile use cases that require highly reliable wireless connectivity and coverage. From the edge to the Private LTE core, the joint solution provides end-to-end QoS, enterprise-grade security and a cost-effective solution ideal for a wide range of challenging indoor and outdoor applications.

CommScope's Ruckus CBRS (Citizens Broadband Radio Service) LTE is a fully standard LTE package for easy deployment and management in enterprise and campus use cases, that takes advantage of new CBRS spectrum rules—enabling Private LTE solutions for business-critical use cases.

Cradlepoint's cloud managed endpoints serve as user equipment (UE) for Branch, Mobile, and IoT deployments—aggregating a wide array of wired and wireless devices over a robust LTE network backhaul to Private LTE infrastructure. Leveraging Cradlepoint NetCloud Service, customers benefit from a rich suite of enterprise-grade features at the edge such as application visibility and control, QoS, edge security, and real-time diagnostics.



Key Benefits

- Allows enterprises to use predictable LTE technology for critical wireless connectivity needs
- Superior reliability and QoS
- Proven LTE security and mobility
- Eliminates dependency on mobile network operators
- Ensures great LTE wireless coverage wherever it is needed indoors and/or outdoors



The Solution

New FCC spectrum rules in the U.S. have opened the door to wide scale Private LTE deployments. Instead of having to rely on mobile operators for spectrum, enterprises or venues of all sorts have the freedom to reserve spectrum, at no charge, under the CBRS Priority Access License or General Authorized Access rules, and deploy local private LTE networks. This provides all the advantages of LTE including QoS, reliability, coverage, mobility, and security, without having to rely on mobile operators.

The Challenge

As enterprises, municipalities, schools, and other large venues increasingly rely on broadband connectivity and leverage more IoT sensors for aggregating data and automation, there are increasing requirements for secure and reliable wireless connectivity. While most enterprises have largely relied upon Wi-Fi or mobile operator LTE services for wireless connections, there is a growing recognition that Private LTE networks are desirable for critical applications. Private LTE using CBRS operates in the interference free 3.5GHz spectrum and is ideal for critical use cases that are not effectively served by Wi-Fi:

Police dash-cam and body-cam videos generate an enormous amount of video which today is mostly uploaded via Wi-Fi at the police station, resulting in significant downtime and inefficiencies:

- Ports, railroad yards, and similar large facilities struggle to automate their operations due to lack of mobile broadband coverage and the limited range of Wi-Fi. They need to deploy a wireless network with secure, mobile coverage in areas that are not well served by commercial networks.
- Vendors, staff, press and VIPs at stadiums and arenas must share wireless networks with tens of thousands of fans, with uncertain results. Large venues need a broadband wireless network that is not impacted by large crowds.
- New IoT solutions depend on reliable, secure connections for IoT gateways, including in many areas where there is no readily available broadband connection.
- Hospitals and clinics have myriad mobile use cases that are constrained by little or no indoor mobile coverage and challenging Wi-Fi environments.

All these use cases, and many others, can be better supported with new CBRS LTE services connected to local CBRS-based routers to deliver high quality wireless wherever it is needed.



Private LTE, using dedicated, reserved spectrum just for your specific location



Enterprise class Ruckus LTE infrastructure—easy to buy, deploy, and manage



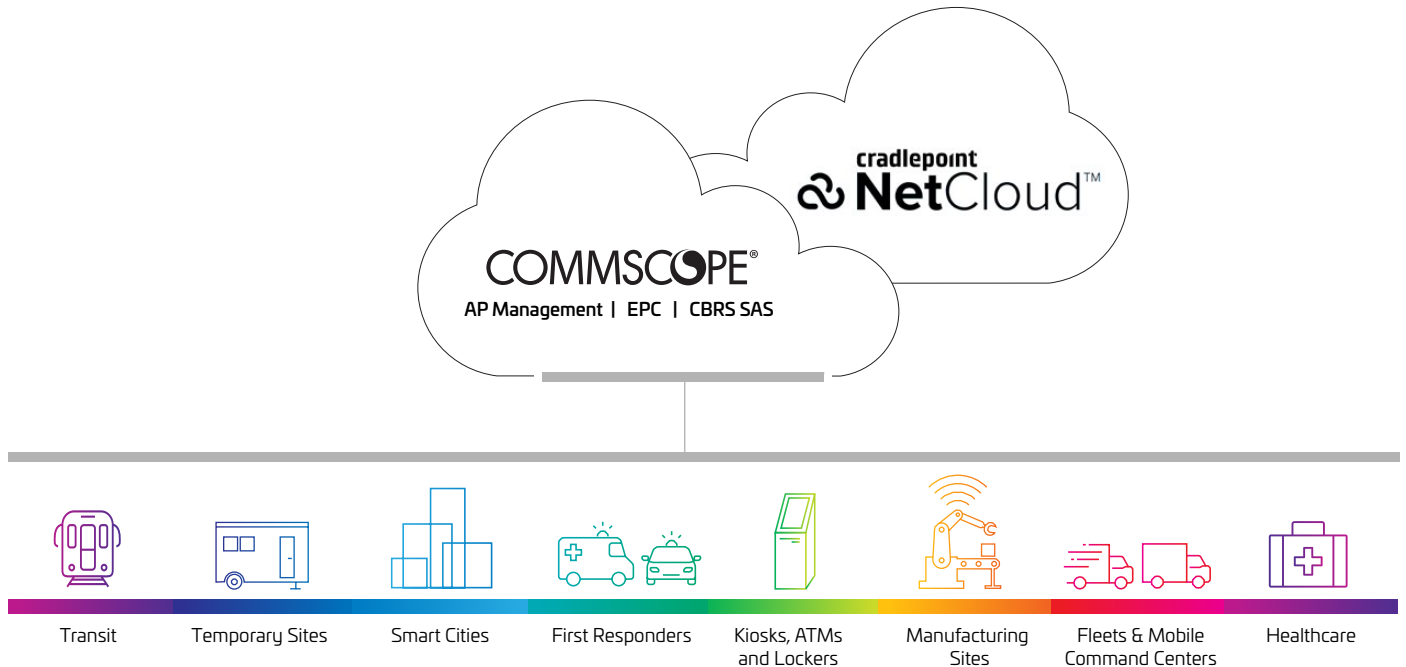
Innovative, robust Cradlepoint LTE UE's to deliver best-in-class connectivity for mission-critical apps

The Ruckus CBRS LTE portfolio includes everything you need to deploy a private LTE network infrastructure with the simplicity and low cost of Wi-Fi.

- Full range of indoor and outdoor 3.5 GHz LTE Access Points (APs)
- A unified cloud-based service with everything you need to manage and operate your LTE Network
- Cloud-based element management system (cEMS) brings Wi-Fi like simplicity and zero-touch provisioning for LTE AP management.
- Cloud-based evolved packet core (cEPC) provides required LTE network core functionality and subscriber management.
- Cloud-based spectrum allocation server (cSAS) is included and managed via the same platform.

The Ruckus Q710 (indoor) and Q910 (outdoor) access points have the technology that can unlock the potential of CBRS. Both devices can aggregate up to four separate CBRS channels, delivering over 300 Mbps combined throughput to Cradlepoint devices in high density areas such as enterprise office buildings, college campuses, or stadiums. These access points are as powerful as they are easy to deploy, packed with advanced technology such as LTE-Advanced Carrier Aggregation, Self-Organizing Networks (SON), Self-Organizing Timing, and Zero Touch Provisioning™. They are also lightweight, energy efficient, and look and can be deployed with Wi-Fi-like simplicity.

PLTE Solution Overview



Conclusion

CBRS is a game changer. The unique shared spectrum model provides a framework to deliver large amount of high-quality spectrum for business-critical applications. Customers are looking to take advantage of this opportunity to enable Wireless WAN experiences such as in-building cellular, security, safety, automation, and analytics. Private LTE networks streamline and reduce deployment costs, opening the door to new use cases that previously could not deliver adequate ROI. The CommScope and Cradlepoint solution ensures that there is always secure, high quality wireless connectivity regardless of the dynamics of the deployment.

CommScope's Ruckus CBRS LTE portfolio makes all this a reality and enables enterprises and service providers to deploy private LTE networks to ensure a high quality-of-service for business-critical applications and use cases.

Learn more about CommScope and Cradlepoint PLTE solutions:

<https://cradlepoint.com/private-lte>

<https://www.commscope.com/product-type/in-building-cellular-systems/cbrs-lte/>

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