

RUCKUS Private LTE Ordering Guide

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Ruckus CBRS LTE

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Congratulations on your decision to deploy Private LTE Network for your networking needs using Ruckus' Citizen Broadband Radio Service(CBRS) hardware & software.

This guide will help you understand our current offerings to help you fulfill your connectivity needs using CBRS LTE.

Ruckus Networks, a CommScope company, offers a broad portfolio of CBRS-capable LTE Access Points (AP). Ruckus LTE APs include indoor, outdoor, and plug-ins to existing Ruckus WI-FI APs.

To deploy CBRS LTE networks, we offer two software options to our customers:

- Bring Your Own Network(BYON), where we provide CBRS LTE APs and AP Management only.
- Private LTE Core Network Services, which include AP Management as well as other required network services such as the Evolved Packet Core (EPC), Spectrum Access System (SAS) and SIM Management Service (SMS).

We provide everything you need to deploy a robust CBRS Private LTE network. All you have to do is add clients/ end-user devices.

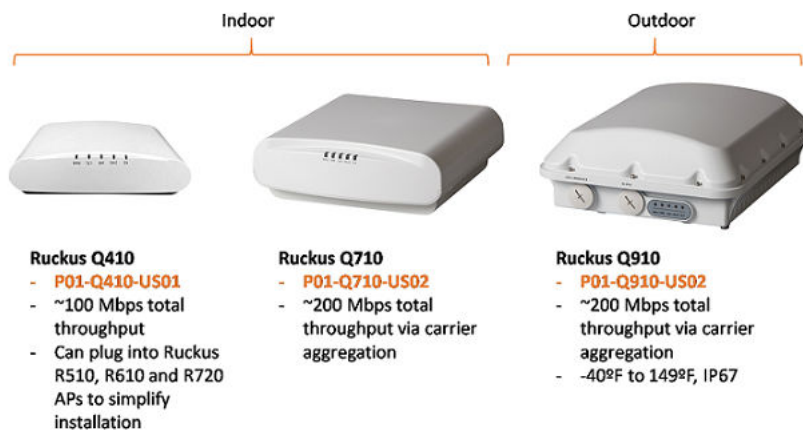
In this document, you will find information about all available options for your Private LTE network (hardware and software).

Hardware Selection

You need to select the appropriate type and number of LTE APs to provide enough coverage and capacity for the chosen location and use cases.

Ruckus provides a range of CBRS LTE access points to support most situations. Data sheets for these APs can be found [here](#).

FIGURE 1 Ruckus LTE (CBRS) APs



Step 1: Order Appropriate Management Licenses (BYON or LTE Core Network Services)

Bring Your Own Network (BYON)

If you already have your EPC, SAS subscription & SIM cards, then all you need to order are the appropriate Ruckus CBRS LTE access points and one LTE AP Management license per AP. The AP Management is sold on an annual subscription basis in terms of 1, 3, or 5 years.

Ruckus LTE Access Point Management SKU	
LTE AP Management	Require 1 license per AP CLD-RKSC-X001 (X = Select 1, 3, or 5 years) CLR-RKSC-X001 (renewal SKUs for 1, 3, or 5 years)

LTE Core Network Services

We expect the vast majority of customers to need the Ruckus LTE Core Network Services package to run their LTE networks. Ruckus has created a complete, cloud-based network services so that secure, high-quality LTE networks can be deployed for almost any sized customer. Simply order the appropriate number of Ruckus LTE APs, and buy one LTE Core Network Services license for each AP. The LTE Core Network Service includes LTE AP Management, and is sold on an annual subscription basis in terms of 1, 3, or 5 years.

When you order Network Services (NTWK) SKUs from Ruckus, either BYON or LTE Core Network Services, we will provide you with an LTE AP Management support/license activation email with instructions on how to activate your account. Please follow the instructions on that email to create/ log into your Ruckus [Support portal](#) account & activate your purchase.

Ruckus Private LTE Network Services SKU	
Private LTE Network Services (Includes LTE AP Management)	Require 1 license per AP CLD-NTWK-X001 (X = Select 1, 3, or 5 years) CLR-NTWK-X001 (renewal SKUs for 1, 3, or 5 years)

Step 2: Reserve Spectrum (Only Until the SAS Services Are Certified)

Using the innovative CBRS spectrum rules, it is easy to register your network on the SAS to obtain up to four General Authorized Access (GAA) channels for your dedicated use. This will all be done via the Ruckus LTE AP cloud management system. However, SAS services will not be available until early July 2019 for inland areas, and September 2019 for areas within 150 miles of any coast.

If you are setting up a network before SAS is available in your area, you must sign in to the Ruckus Support portal and download the instructions to apply for a Special Temporary Authority (STA) license, which are located [here](#).

This process can take up to 3 weeks, and will result in the FCC issuing a special license so that you are entitled to select spectrum bands at that location.

Step 3: Submitting LTE AP preregistration information

Once you have the STA approved & have purchased CLD-NTWK-* SKU, you will get Ruckus Support & License activation email from us. Follow the instructions on this email to login/ create a new Ruckus Support account that will provide you access to documents listed here as well as a link to activate licenses to manage LTE APs on our cloud based portal.

SAS Preregistration template is available [here](#) (login into support account is required)

You will need to type in **AP Type, AP serial numbers, STA number & Address of the venue** where APs will be installed to create a completed preregistration sheet. (Template has other required information prepopulated/ autopopulated upon entering **AP type**)

Submit a filled out Preregistration sheet via a Support Case [here](#) with us, so that we can inform SAS that your network has been assigned spectrum.

This process typically takes up to 2 business days, after which APs should Register with SAS & obtain appropriate transmission permissions/ grant per your STA.

FIGURE 2 Ruckus-AP-SAS-Preregistration-Template.xlsx

MANDATORY - MUST COMPLETE PER AP / CBSD					(this will auto-populate or is fixed value)			
Customer	Ruckus CBRS AP Type (Q410, Q710, Q910)	Location / Venue	Serial Number	STA File Name (a copy of the STA .pdf from the FCC must be included with this Excel file submission)	Model #	FCC-ID	Cat-A / Cat-B CBSD	SAS UR-ID
Ruckus VAR							A	u6qVTY
Ruckus VAR							A	u6qVTY
Ruckus VAR							A	u6qVTY
Ruckus VAR							A	u6qVTY
Ruckus VAR							A	u6qVTY
Ruckus VAR							A	u6qVTY

Step 4: SIMs and SIM Management

Finally to complete connectivity & connect your desired end user devices, you will need to purchase Ruckus Private LTE SIM cards. We have a CLD-USIM-1001 SKU for a brand new SIM. Each SKU is for a single SIM & is valid for 1 year. (Renewal SKU CLR-USIM-1001 is also available.)

All Ruckus Private LTE SIM cards are always shipped with all three compatible sizes (full SIM, micro-SIM, & Nano-SIM cutout options)

When you order SIMs from Ruckus, we will ship the SIMs and provide you with a SIM Management account activation email. Please follow the instructions on that email to log into your Ruckus [SIM Management portal](#) and activate/manage your SIMs.

Note: The login credential for SIM management account may be different from Ruckus Support portal credential.

To add additional administrators to your SIM management account, please open a Support Case [here](#) with us.

Ruckus SIMs are always shipped in “inactive” state by default. All purchased SIM details are pre-populated for you in your account – you do not need to add SIM information manually.

You will need to activate each SIM before using, this can be done by a click of a button on the [SIM Management portal](#).

Insert an active SIM into your Band 48 supported end user device to enjoy your own Private LTE network powered by Ruckus!

Ruckus Private LTE SIM SKU	
Ruckus LTE SIM Cards	Require 1 SIM per connected device
	CLD-USIM-1001 (1 year)
	CLR-USIM-1001 (renewal SKU for SIM)

Acronyms

Acronyms	
BYON	Bring Your Own Network (Not using Ruckus Private LTE Core Network Services)
STA	Special Temporary Authority
SAS	Spectrum Access System:Cloud-based service that allocates spectrum for CBRS users.

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Ruckus Networks enables organizations of all sizes to deliver great connectivity experiences. Ruckus delivers secure access networks to delight users while easing the IT burden, affordably. Organizations turn to Ruckus to make their networks simpler to manage and to better meet their users' expectations. For more information, visit www.ruckuswireless.com.

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