# Versa LTE Module for CSG700 and CSG300 Platforms

Versa CSG700 and CSG300 Series appliances can be optionally equipped with factory-installed integrated (internal) enterprise grade LTE/4G/3G modules. Versa's LTE module supports CAT6 LTE Advanced (LTE-A) capabilities to provide a high-performance WAN link experience. LTE based WAN links can be used as either a primary link or backup link. As with the all components of Versa's portfolio and solutions, the LTE Module functionality is centrally managed and controlled by Versa Director with network and device analytics provided by Versa Analytics.

## THE VERSA WIRELESS ADVANTAGE

The integrated LTE Module is based on industry-leading and industry-proven CAT6 LTE Advanced chipsets used in commercially available enterprise-grade products today. The LTE module, when integrated with CSG700 and CSG300 series appliances, provides unique advantages to performance, deployment flexibility and agility. Here are some of the key highlights:

### LTE-Advanced Performance

The integrated LTE Module is capable of CAT 6 LTE Advanced connectivity. It provides downlink performance of up to 300 Mbps and uplink performance of up to 50 Mbps. With Carrier Aggregation, LTE Advanced delivers 2x the bandwidth of LTE. This delivers higher performance, facilitating the utilization of LTE as either a primary WAN link or backup. The module supports over the air (OTA) upgrades to always ensure the latest firmware and software can be published to the device. It also supports Secure Boot for tamper protection. In deployments where LTE-A is not available, the Versa LTE Modem will auto-

scale back to LTE, 4G or 3G depending on mobile network availability, wireless plan purchased and other factors.

### LTE Based Connectivity

CSG700 or CSG300 series appliances can be deployed with up to 2 integrated 3G/4G-LTE modules. There are specific SKU's for the CSG300 and CSG700 units that can be ordered with one or more factory installed LTE modems. In addition to the internal modems, the CSG300 and CSG700 can support USB-connected LTE modems support use-case deployments that require more than 2 simultaneous LTE modems.

Versa FlexVNF, the software appliance operating system auto-recognizes the LTE interface and will leverage the high performance of the modem for data plane, management plane and control plane functions, while uniquely identifying that the underlying medium is LTE.

Versa FlexVNF can manage individual LTE interfaces based on specific deployment configurations as a primary WAN interface as well as a backup WAN link that will only be activated upon interface failure or SLA-violation of SD-WAN traffic steering policies. All features (routing, SD-WAN, Security) of Versa FlexVNF can be leveraged and applied to the LTE interface.

In addition to supporting fully featured services over LTE and managing traffic traversing the LTE interface, Versa FlexVNF also has the contextual intelligence of identifying volume and rate of data and control traffic to ensure effective utilization of LTE network resources. Examples of this intelligence and advanced control are LTE Focused Dynamic SD-WAN Probes, Adaptive Probing capabilities and suppression.

**SIM Cards Support**

CSG700 and CSG300 appliances come equipped with 2 nano-SIM card slots, each SIM slot maps to a specific radio module. If the unit is ordered with one LTE modem, the modem is installed and identified on internal slot #1. If the unit is ordered with two LTE modems, then both wireless slots within the appliance are populated, and each SIM card slots map to each LTE slot accordingly. SIM card are externally accessible, located behind easily identifiable SIM slot doors. The SIM slot doors are designed to ensure you can easily insert or remove SIM cards while keeping SIM cards secured.

Versa CSG300 and CSG700 units do not ship with SIM cards pre-installed. Customers will need to purchase SIM card(s) from an available mobile provider. Versa recommends using pre-activated SIM cards to ensure the most positive experience in deployment.

Once inserted, the SIM cards are auto detected by the platform and connects to the recognized LTE/4G/3G network. SIM cards can be hot-swapped, enabling a fast and easy transition from one mobile network provider to another. The CSG300 and CSG700 appliance will auto-detect the new SIM card and autoconnect to the appropriate cellular network.

**Agility**

The CSG700 or CSG300 series appliances with the installed LTE/4G/3G module are certified to be operated across multiple regions globally. Please refer to CSG700 and CSG300 hardware documentation for more details.

The Versa LTE Module is firmware based and comes pre-installed with 3 carrier specific plus one generic image. Customers can upgrade or replace these images as necessary to address their specific network requirements.

The LTE module, when it detects a SIM card has been inserted will identify the appropriate firmware image and mobile operator settings based on the details detected from the inserted SIM. In most deployment scenarios, a generic firmware image will be used.

Firmware based operation allows Versa modems to connect to LTE/4G/3G network with flexibility and adopt updates if/when needed by the carrier.

**Region Selection**

The factory installed Versa LTE Module for the CSG700 and CSG300 is provided with two orderable SKUs to provide global coverage; One SKU provides coverage for the Americas and EMEA regions, and one SKU provides coverage for the APAC and Japan regions. You can see the supported mobile network and frequency band coverage by each orderable modem in the specifications table below. Please ensure that you choose the right modem type for your deployment when you are ordering.

## SPECIFICATION

| Band | Description | Frequencies / MHz | APAC Modem | Americas & EMEA Modem |
|------|-------------|-------------------|------------|------------------------|
| 1 | IMT | 1920-1980, 2110-2170 | ● ● | ● ● |
| 2 | PCS 1900 | 1850-1910, 1930-1990 | | ● ● |
| 3 | GSM 1800 | 1710-1785, 1805-1880 | ● | ● ● |
| 4 | AWS | 1710-1755, 2110-2155 | | ● ● |
| 5 | 850 (US, Korea, etc.) | 824-849, 869-894 | ● ● | ● ● |
| 6 | 850 (Japan #1) | 830-840, 875-885 | ● | |
| 7 | IMT Extension | 2500-2570, 2620-2690 | ● | ● |
| 8 | GSM 900 | 880-915, 925-960 | ● ● | ● ● |
| 9 | 1700 (Japan #2) | 1749.9-1784.9, 1844.9-1879.9 | ● | |
| 11 | Lower PDC | 1427.9-1447.9, 1475.9-1495.9 | ● | |
| 12 | US 700 | 699-716, 729-746 | | ● |
| 13 | US 700 | 777-787, 746-756 | | ● |
| 17 | US 700 | 704-716, 734-746 | | |
| 18 | 850 (Japan #4) | 815-830, 860-875 | ● | |
| 19 | 850 (Japan #5) | 830-845, 875-890 | ● ● | |
| 20 | 800 Digital Dividend | 832-862, 791-821 | | ● |
| 21 | 1500 (Japan #6) | 1447.9-1462.9, 1495.9-1510.9 | ● | |
| 25 | Extended PCS | 1850–1915, 1930–1995 | | ● |

| | | | WCEMA | FDD LTE | TDD LTE |
|---|---|---|---|---|---|
| 26 | Extended CLR | 814–849, 859–894 | | | • |
| 28 | APAC | 703–748, 758–803 | | • | |
| 29 | Lower SMH blocks | n/a, 716 – 728 | | | • |
| 30 | WCS blocks A/B | 2305–2315, 2350–2360 | | | • |
| 38 | IMT-E | 2570–2620 | | • | |
| 39 | China TDD | 1880–1920 | | • | |
| 40 | China TDD | 2300–2400 | | • | |
| 41 | BRS / EBS | 2496–2690 | | • | • |
| 125 | WCS blocks C/D | 2315-2318, 2347-2350 | | | |

\* Versa recommends to check and confirm carrier frequencies before ordering specific models   • **WCEMA**   • **FDD LTE**   • **TDD LTE**

| LTE-A Pro | |
|---|---|
| Cellular Bands | FDD/TDD LTE (Cat-6) |
| | 1-5,7,8,12,13,20,25,26,29,30,41 |
| | Carrier Aggregation |
| | 1+8; 2+(2,5,12,13,29); 3+(7,20); 4+(4,5,12,13,29); 7+(7,20); 12+30;5+30;41+41 |
| | DC-HSPA+ (42/5.76 Mbps) |
| | 1,2,3,4,5,8 |

**Ordering Information**

Versa LTE-A Pro module adds Wireless WAN capability to CSG1300 and CSG1500 Series appliances. Versa LTE-A Promodule is available as an option when ordering CSG1300 and CSG1500 series appliances. For further details, please refer to the Versa ordering guide.

## ABOUT VERSA NETWORKS

Versa Networks is the innovator of Secure Cloud IP architecture, a next-generation software platform that delivers integrated cloud, networking and security services. Versa's visionary solution, with an unrivalled depth of features and capabilities, enables enterprises to transition off legacy WANs to achieve business agility, branch modernization, and TCO advantages toward their digital transformation journey. The company has transacted over 150,000 software licenses through service providers, partners and enterprises globally. Versa Networks is privately held and funded by Sequoia Capital, Mayfield, Artis Ventures, Verizon Ventures, Comcast Ventures, and Liberty Global Ventures. For more information, visit *https://www.versa-networks.com*