Versa CAT6 LTE Module

Select Versa CSG appliances can be optionally equipped with factory-installed integrated (internal), enterprise grade CAT6 LTE modules. Versa's CAT6 LTE module offers Advanced LTE level capabilities providing high-performance WAN link experience via LTE connections. Thanks to such capabilities, 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 LTE WAN Advantage

The integrated CAT6 LTE Module is based on industry-proven LTE module and chipsets used in commercially available enterprise-grade products today. The Versa CAT6 LTE module provides advantages of performance, deployment flexibility and agility. Here are some of the key highlights:

CAT6 LTE-Advanced Performance

The embedded Versa CAT6 LTE module is capable of CAT6 LTE Advanced class 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 standard LTE, delivering higher performance and facilitating the use of LTE as either a primary WAN link or backup.

The Versa CAT6 LTE 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. Versa CAT6 LTE Advanced Modem comes with built-in intelligence to offer best performance in a given location, while using a specific data plan. Versa CAT6 LTE model will use highest performing bands and LTE modems by default and when not available, it will auto-scale back to LTE, 4G or 3G depending on mobile network availability, wireless plan purchased and other factors.

LTE Based Connectivity

Versa CSG appliances supporting Versa's CAT6 LTE modems can be deployed with up to 2 modules.

Ease of ordering CSG units with 1 or 2 modems and for specific regions is achieved with clearly described SKUs to ensure that our customer will order and receive the right LTE configuration in each theater of deployment. LTE modems are installed in the factory ad shipped to our customers in a state that is ready to use.

VOSTM running on the CSG appliance discovers and recognizes the CAT6 LTE modem(s) and associated interface(s). Once discovered VOS will automatically create WAN interfaces associated with LTE modem(s) to starts leveraging modem(s) for data plane, management plane and control plane functions. Use of LTE modems are under the strict guidance and control of configuration. VOS 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 VOS 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, VOS 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

Versa CSG appliances that support CAT6 LTE modems come equipped with 2 nano-SIM card slots in total. Each SIM slot maps to the specific radio module and up to 2 LTE modules are supported within each CSG unit. 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 cards 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 CSG units that have preinstalled LTE modems 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 used to connect to the appropriate LTE network based on data plan and availability of that carrier. SIM cards can be hot-swapped, enabling a fast and easy transition from one mobile network provider to another. SIM cards will be auto detected and connection to the appropriate LTE network will be administered accordingly.

Agility

The Versa CSG series appliances with CAT6 LTE module are certified to be operated across multiple regions globally. Please refer to hardware documentation for more details.

The Versa CAT6 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 Versa CAT6 LTE module detects inserted SIM card and it 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 network with flexibility and adopt updates if/when needed by the carrier.

Region Selection

The factory installed Versa CAT6 LTE Module is provided with two orderable SKUs to provide global coverage; one SKU provides coverage for the Americas and EMEA regions, and the other 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.

Specifications

Band	Description	Frequencies / MHz	APAC Modem	Americas & EMEA Modem
1	IMT Core Band	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		■
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 for NA/EMEA (-LA)	LTE for APAC (-LB)
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	FDD/TDD LTE (Cat-6) 1,3,5,7,8,18,19,21,28,38,39,40,41 Carrier Aggregation 1+(8,18,19,21); 3+(5,7,19,28); 7+(5,7,28); 19+21, 38+38, 39+39, 40+40, 41+41 DC-HSPA+ (42/5.76 Mbps) 1,5,6,8,9,19 TD-SCDMA 39

Applicable Platforms

CSG300 and CSG700 (revision-1)

Ordering Information

The Versa CAT6 LTE module for Americas and EMEA regions is ordered as LTE-A or with -LA suffix for select CSG platform SKUs. The Versa CAT6 LTE module for APAC and Japan regions is ordered as LTE-B or with -LB suffix for select CSG platform SKUs. For more information on how to order right CAT6 LTE modem, please refer to Versa CSG Platforms Ordering Guide or reach to Versa sales representative.

About Versa Networks

Versa Networks the leader in SASE offers fully featured SD-WAN with integrated NGFW/UTP, ZTNA, advanced scalable routing, SD-LAN, genuine multi-tenancy, big-data based analytics and latest AI-ML technologies as part of its single stack software solution. Versa Networks is privately held and funded by Sequoia Capital, Mayfield, Artis Ventures, Verizon Ventures, Comcast Ventures, Liberty Global Ventures, and Blackrock Ventures.

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