



# UC + Networking Convergence Solutions

## GCC6020 - GCC6021

The GCC6020 Series provides an extraordinary all-in-one solution that redefines the communications experience by merging your unified communications and networking solutions into one platform. These state-of-the-art devices combine the functionality of 4 products to provide an all-in-one solution that includes a VPN router, next-generation firewall, IP PBX, and network switch. With the GCC Series, you can create and manage wired, wireless, and VPN networks, provide enterprise-grade network security, and utilize a market-leading communication and collaboration platform. These flexible devices provide unified management and centralized control of all Grandstream endpoint solutions, including Wi-Fi APs, network switches, IP Phones, and more. The GCC Series allows full UC, networking, and security solutions to be configured in minutes and managed through the cloud with the Grandstream Device Management System (GDMS), and can also be managed through our mobile app, local Web UI, CLI and SSH console management. Ideal for small and medium businesses, the GCC6020 Series provides an all-in-one platform that combines all business data, security, communication, and collaboration needs into one device – making it easier than ever to build state-of-the-art communication solutions.



Built-in IP PBX provides voice and video communications with advanced collaboration features



Built-in enterprise-grade firewall provides anti-virus, layer 3-7 IDS/IPS, DPI, SSL detection, and more



Built-in VPN router supports 6.5Gbps or 10Gbps to allow easy remote access to private networks



### Gigabit

4 or 16 Gigabit ports provide a network switch; 5 or 24 PoE out ports; both have 2.5 Gigabit and 10 Gigabit SFP+ ports



Enhanced reliability with support for hot standby High-Availability



Easily configure, deploy, and manage all Grandstream endpoint solutions from one central location



Provides advanced security protection with encrypted traffic, secure booth, unique security certificates, and more



Managed through the cloud (GDMS), mobile app, local WEB UI, SSH, SNMP and CLI



Multiple WAN ports with load balancing and failover to maximize connection reliability

**GCC6020****GCC6021**

	<b>GCC6020</b>	<b>GCC6021</b>
<b>CPU</b>	Quad-core CORTEX-A73, 1.8Ghz	
<b>Network Ports</b>	1x 10 Gigabit SFP+ ports , 1x 2.5 Gigabit and 4x Gigabit Ethernet ports *All ports are WAN/LAN configurable, max 3xWAN	4x 10 Gigabit SFP+ ports , 8x 2.5 Gigabit and 16x Gigabit Ethernet ports *WAN/LAN is configurable, max 5xWAN
<b>Auxiliary Ports</b>	1xCONSOLE,1xUSB3.0	1xCONSOLE, 1xUSB3.0, 2xHA, 1xMGMT
<b>Memory</b>	4GB RAM 4MB Nor + 32GB eMMC 8MB Nor + 128MB NAND	4GB DDR4, 256MB DDR3 4MB Nor + 32GB eMMC 8MB Nor + 128MB NAND
<b>External Storage</b>	Optional, M.2 SSD	
<b>Router</b>	6.5Gbps	10Gbps
<b>IPsec VPN Throughput</b>	1.3Gbps	
<b>NAT Sessions</b>	1M	
<b>NGFW Throughput (DPI+IPS)</b>	6Gbps	9Gbps
<b>PBX</b>	50 users and 16 concurrent calls by default Upgrades available for purchase <a href="#">See more for PBX capacity upgrade options</a>	
<b>Mounting Material</b>	Desktop, Wall, and Rack-mountable	Desktop and Rack-mountable
<b>LEDs</b>	Metal	
	1x LED for SFP+, 5x LED(G) for Ethernet Ports , 5x LED(Y) for PoE Out, 1x LED(R/G/B) for device tracking and status indication, 1x LED for main power, 1x LED for Redundant Power System	24x LED(G/Y) for Ethernet Ports/PoE Out, 4x LED for SFP+, 2x LED for HA, 1x LED(R/G/B) for device tracking and status indication, 1x LED for main power, 1x LED for Redundant Power System
<b>Connection Type</b>	DHCP, Static IP, PPPoE	
<b>Network Protocols</b>	IPv4, IPv6, IEEE802.1q ,IEEE 802.1p, IEEE802.1x, IEEE802.3, IEEE 802.3u, IEEE 802.3x,IEEE802.3ab	
<b>QoS</b>	<ul style="list-style-type: none"> <li>• VLAN, TOS</li> <li>• Support multiple traffic classes, filter by port, IP address, DSCP, and policing</li> <li>• App QoS: Application/protocol monitoring and traffic statistics</li> <li>• VoIP Prioritization</li> </ul>	
<b>Firewall</b>	<ul style="list-style-type: none"> <li>• DDNS, Port Forwarding, DMZ, UPnP, DoS &amp; Spoofing defense, traffic rules, NAT</li> <li>• DPI, Anti-Virus, IPS/IDS, SSL Proxy</li> <li>• Content Control: DNS filtering, web url/class/key words filtering, application identification and control</li> <li>• Email Security, Geo-IP filtering</li> </ul>	
<b>VPN</b>	<ul style="list-style-type: none"> <li>• IPsec VPN Client-to-Site / Site-to-Site</li> <li>• IPsec Encryption: 3DES, AES</li> <li>• IPsec Authentication: MD5, SHA-1, SHA2-256</li> <li>• IPsec Key Exchange: Main/Aggressive Mode, Pre-shared Key, DH Groups 1/2/5/14</li> <li>• IPsec Protocols: ESP</li> <li>• IPsec NAT Traversal</li> <li>• PPTP VPN Server / Client</li> <li>• PPTP Encrpytion: MPPE 40-bit, 128-bit</li> <li>• PPTP/L2TP Authentication: MS-CHAPv1/2</li> <li>• L2TP</li> <li>• OpenVPN® Server / Client</li> <li>• OpenVPN® Encryption: AES, DES</li> <li>• OpenVPN® Authentication: MD5, SHA-1, SHA2-256, SHA2-384, SHA2-512</li> <li>• OpenVPN® Certificate: RSA</li> <li>• WireGuard®</li> </ul>	
<b>Network Management</b>	Grandstream Device Management System (GDMS), GWN App, Local Web GUI, SSH, SNMP (v1/ v2c/v3) and CLI	
<b>Max AP/Clients</b>	Up to 300 GWN APs; Up to 500 Clients	Up to 300 GWN APs; Up to 1000 Clients
<b>Power and Green Energy Efficiency</b>	Universal power adaptor included: Input 100-240VAC 50-60Hz, Output: 54VDC 2.8A (150W); 5 x PoE out ports support IEEE802.3af/at, Maximum PoE Wattage: 120W RPS Input: 54VDC/2.8A	Universal power adaptor included: Input 100-240VAC 50-60Hz, Output: 54VDC 7.8A (420W); 8 x PoE out ports support IEEE 802.3 af/at/bt, 16 x PoE out ports support IEEE 802.3 af/at, Maximum PoE Wattage: 370W RPS Input: 54VDC/7.8A
<b>Environmental</b>	Operation: 0°C to 45°C Storage: -10°C to 60°C Humidity: 5% to 95% Non-condensing	
<b>Physical</b>	Unit Dimension: 280 x 185.5 x 44 mm Unit Weight: 1.5KG Entire Package Dimension: 384 x 209.5 x 60 mm Entire Package Weight: 2.1KG	Unit Dimension: 440 x 301.5 x 44mm Unit Weight: 4.2KG Entire Package Dimension: 557 x 413 x 138mm Entire Package Weight: 5.6KG
<b>Package Content</b>	GCC6020/GCC6021, Universal Power Supply, Rack mount kit, Quick Installation Guide	
<b>Compliance</b>	FCC, CE, RCM, IC	

# Features & Benefits

## VPN Router

### Secure Multi-WAN and Networking

- Dynamic routing and Multi-WAN capabilities
- NAT, VLAN, performance-based WAN link selection and monitoring
- Load balancing, WAN link failover
- Hardware and firewall acceleration
- DHCP server, DNS server, IGMP proxy, TURN server
- IPv4/IPv6 support

### High-speed Virtual Private Network

- WireGuard: secure remote access, site to site
- OpenVPN®: clients and servers
- PPTP: clients and servers
- L2TP
- IPSec: site-to-site, client-to-site
- Remote users management

### Advanced QoS

- VLAN, ToS
- Multiple traffic classes, filter by port, IP address, DSCP, and policing
- App QoS
- VoIP Prioritization

## Firewall

- Filter by source destination, protocol, and port
- Stateful packet inspection
- DoS attack protection (UDP/ICMP/SYN flood)
- Enhanced spoofing defense
- For subscription firewall plans, visit:  
<https://cloud.grandstream.com/firewall/plans>

### Intrusion Detection & Prevention

- Signature-based scanning
- Auto rule update using configurable cron
- Real-time SSL deep inspection
- SSL blacklist & whitelist

### Advanced Threat Protection

- Instant identification and immediate response to the most sophisticated attacks.
- Supports application/ protocol monitoring and traffic statistics with Deep Packet Inspection (DPI).
- Geo-IP enforcement

## Network Switch

- GCC6021: 4x 10 Gigabit SFP+ ports , 8x 2.5 Gigabit and 16x Gigabit Ethernet ports
- GCC6020: 1x 10 Gigabit SFP + port, 1x 2.5 Gigabit port and 4x Gigabit Ethernet ports
- Smart power control to support dynamic PoE/PoE+, PoE++ (only GCC6021) power allocation per PoE port
- Supports deployment in IPv6 and IPv4 networks
- Built-in QoS allows for prioritization of network traffic

## IP PBX

- Supports 50 users and 16 concurrent calls by default
- Upgrades available for purchase - [See more for PBX capacity upgrade options](#)
- Rich PBX services, including Call Forwarding, Transfer, Parking, Intercom/Paging, IVR, Emergency Calls, etc
- Built-in audio and video conferencing platform, supports Wave Desktop/Web/Android/iOS
- Fast provisioning of Grandstream SIP endpoints
- Supports multiple audio and video encodings, such as Opus, G.711 A-law/U-law, G.722, G722.1 G722.1C, G.723.1 5.3K/6.3K, G.726-32, G.729A/B, iLBC, GSM; T.38 , H.264, H.263, H263+, VP8
- QoS : FEC/JPB/NetEQ/ToS/DSCP
- Protocols: SIP, TCP/UDP/IP, RTP/RTCP, ICMP, ARP, DNS, SFTP, SSH, HTTPS, RTSP, STUN, SRTP, TLS, LDAP
- Full API available for third-party platform and application integration
- Supports Property Management Systems (PMS), call centers, CRM integration, and more

## Management

### Centralized Management

- Intuitive user interface with device management center
- Grandstream wireless access point, switch and UC endpoints integration
- All nodes in the network can be displayed in a topology graph and controlled with a few clicks
- Quickly provision of thousands of devices

### Easy Maintenance

- Management via Grandstream Device Management System (GDMS), Local Web GUI, SSH, & SNMP (v1/v2c/v3)
- CPU and memory usage monitoring
- Diagnostic methods through Ping, packet capture, external syslog, ARP table, link tracing table, interface, and more
- Cyber security protection annual update service

### Dynamic Reporting & Monitoring

- Multiple types of visual charts and graphics for dynamic reporting and monitoring