SMCD3USG

Value-Added Multimedia Gateway
Enables Cable Operators to Deliver New Revenue Services

The Opportunity: Offer New Services

Cable Operators are looking for new applications to differentiate their services and build new revenue streams. Residential customers are demanding value-added services like Voice, Home Security, IPTV and whole home distribution of digital content. Deployment of DOCSIS 3.0 Universal Services Gateways enable Cable Operators to offer these new services to their current and prospective residential customers.

Most cable operators have established a profitable position in the segment by offering residential consumers ISP services over DOCSIS. Value-added services offered over DOCSIS 3.0 gateways provides a unique opportunity for operators to expand their service offerings to include Voice, Home Security, IPTV and whole home distribution of digital content and address this growing and highly profitable market segment.

The Solution: SMCD3USG

The SMCD3USG is the most technologically advanced DOCSIS 3.0 gateway in the cable industry. The SMCD3USG is a Multimedia gateway that delivers Video, Voice, and Data and enables new revenue applications such as Home Security and Automation, DECT Voice, and IPTV distribution.

SMC is a specialist in high-quality, reliable CPE products to MSOs. The SMCD3USG is designed to provide:

- Central Hub for IP Based Services
- Future-proofed CPE that can deliver many New Services and Revenue Streams

We have over 3 Million SMC CPE gateways, routers, and modems currently in service in North America. The launch of the SMCD3USG continues our nearly 40 year history of delivering excellence for our customers.

SMCD3USG Specification Overview

The SMCD3USG is a Multimedia gateway based upon DOCSIS 3.0 technology delivering Video, Voice, Data, and enabling new Home Security and Automation, DECT Voice, and IPTV distribution services.

Some key features of the SMCD3USG include Multimedia Over Coax Alliance (MoCA), DECT and 802.11n interfaces that allow for easy whole home distribution of digital content to IPTVs, VOIP and DECT phones, computers, external hard drives, and gaming consoles. The SMCD3USG also features sophisticated Quality of Service (QoS) software that eliminates network congestion that is common from bandwidth-intensive applications like VOIP, IPTV, and online gaming.

This versatile and robust platform provides the ideal solution for Cable Operators to grow and differentiate their service offering, reduce churn, and build new revenue streams.

SMCD3USG Key Features:

DOCSIS 3.0 Cable Modem

- The SMCD3USG includes a 4x4 DOCSIS 3.0 Cable Modem capable of speeds up to 160Mbps downstream and 120 Mbps upstream.

Packet Cable 1.5 eMTA

- Includes a Packet Cable 1.5 eMTA and two voice ports, and software is upgradeable to Packet Cable 2.0

Router/SPI Firewall

- Includes a four port 10/100/1000 router including SPI firewall and provides for Port Triggering, Port Forwarding, parental controls, and other features.

Advanced System Co-processor

- The USG offloads the Puma V from processing WiFi, MoCA, and router traffic by implementing an advanced systems co-processor. The co-processor allows the Puma V main processor to maintain 50% of its processing capability during normal operations.

MoCA

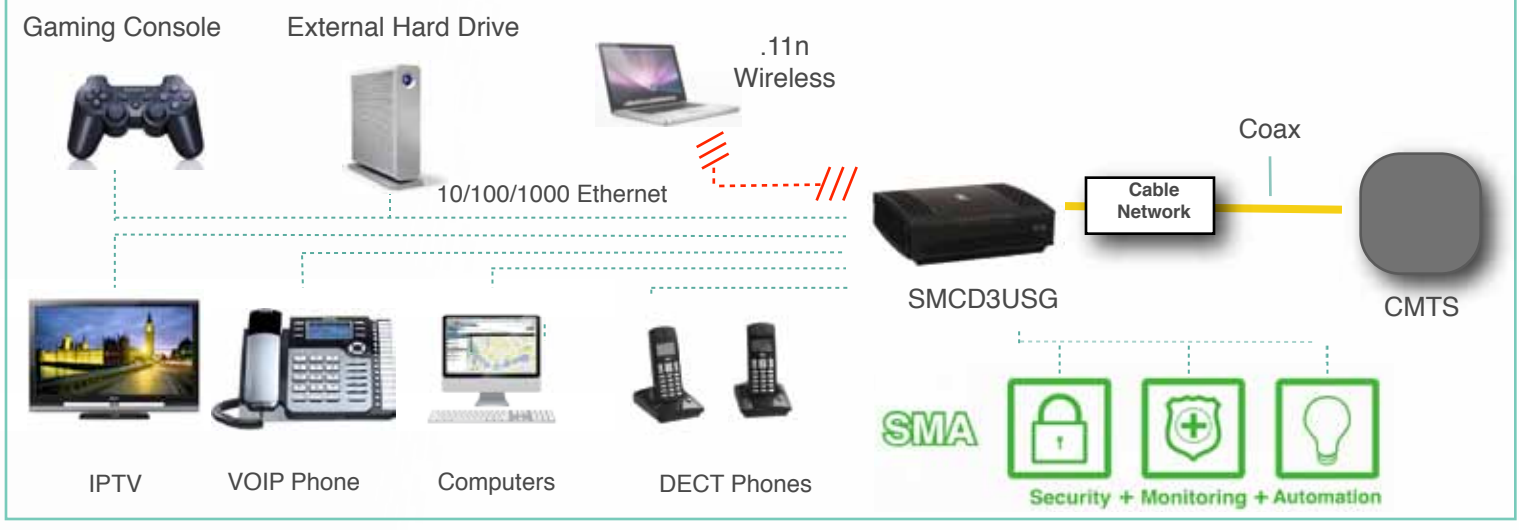
- MoCA provides for whole home distribution of digital content though the existing cable system and via interface to the available 802.11n WiFi. The SMCD3USG is MoCA 1.1 compliant.

USB Ports

- Support for 4 USB 2.0 host ports is provided. Internal server support for Print Server and File Server allows for connecting to USB hard drives and peripherals.

CableLabs DOCSIS 3.0 MoCA bg WiFi n CERTIFIED PACKET CABLE 2.0 UPnP

Application Overview



Tech Specs: SMCD3USG

BATTERY BACKUP

- Two battery ports are provided for battery backup of lifeline services provided by DECT and the eMTA. With both batteries installed the USG can maintain up to 8 hours of standby time and 5 hours of talk time.

SOFTWARE UPGRADE AND SUPPORT

The USG supports 5 separately upgradeable functions including:

- DOCSIS / Packet Cable
- Advanced Services
- DECT
- Handset
- Cat-iq

Each is individually software upgradeable and configurable using SNMP or DOCSIS / eMTA configuration files.

SYSTEM MANAGEMENT

- SSH
- Remote management
- TFTP
- SNMP v1,v2,v3
- CLI

CERTIFICATIONS

- MoCA Alliance, WiFi Alliance
- DLNA, UPnP, Cable Labs
- FCC / UTAM, UL

COMPATIBILITY

- Platform independent – works with PC,OSX, Linux, MAC, UNIX
- DOCSIS 1.0/1.1/2.0/3.0 compliant
- Packet Cable 1.5 compliant upgradeable to Packet Cable 2.0
- IEEE 802.3, 802.3u, 802.11ab
- SPI Firewall meet ICSA Guidelines
- Windows Vista-32 bit and 64 bit – Certification may be required
- Windows 2000
- Windows XP
- MAC OS
- Windows 7: 32 and 64 bit
- Windows 98

LEDs

- Power, Downstream, Upstream, Online, Ethernet, WiFi, Tel 1 Home Alarm, Tel 1, MoCA battery
- Rear panel LED for each of 4 Ethernet ports to indicate traffic.

REGULATORY CERTIFICATION

- FCC Part 15B Class B, Part 68, UTAM
- UL/cUL

NETWORK INTERFACES

- 10/100/1000 Base-T-Ethernet
- 4 USB2.0 host port
- 2.4GHz and 5GHz Wireless 802 .11N MIMO

PORTS

- 4 ports 10/100/1000 MDI/MDIX auto sensing switch
- IEEE 802.11n wireless interface 2.4GHz and 5GHz
- 4 ports USB 2.0 Host
- TR-68 coloring for 4 Ethernet port
- Cable Interface F type female 75ohm
- eMTA FXS port
- FXO Port for home alarm and will connect up to 10 DECT handsets

CHANNEL BONDING

- Downstream: Up to 4 channels
- Upstream: Up to 4 channels

SOFTWARE FEATURES

- GUI display common troubleshooting information, modem status, and feature setup
- Full features CLI provides enhanced troubleshooting and setup
- DHCP server,Ipv6 support coexist Ipv4
- Downloadable configuration files allow for easy setup and installation.
- Universal Plug and Play (UPnP) enabling any UPnP devices seamlessly
- Quality of Services (QoS) ensure high quality performance
- SAMBA for USB Host port connection of USB hard drives*
- GUI/SNMP/CLI addition to present PHY usage (multiple channels parameters)
- Port Forwarding, 64/256QAM auto detection, Independent resets for downstream and upstream blocks
- Fragmentation and concatenation enabling Quality of Server (QoS)
- Features
- Supports 64/128/256 bit RC4 authentication and encryption
- DLNA 1.5, UPnP

NETWORK PROTOCOLS

- DHCP Client/Server, UDP
- DNS Relay, ToD Client, ARP, ICMP
- FTP/TFTP, SSH

SIGNAL LEVEL

- -15dBmV to +15dBmV(Automatically Gain Controlled by CM)

SECURITY

- Password protected configuration access with multiple levels
- Stateful Packet Inspection (SPI) Firewall
- Network Address Translation (NAT)
- Application Level Gateways (ALG)
- Intrusion Detection
- Denial of Service (DoS) prevention
- Trojan Horse Prevention
- Smart Tracking
- Domain Validation
- Multiple User Profiles
- Dynamic Address-User Mapping
- Web based authentication
- Comprehensive Logging
- VPN Passthrough (IPSec, PPTP, L2TP)
- Content and Filtering Features
- DMZ

RECEIVER

- Demodulation: 64/256QAM, Max speed: 38Mbps (64QAM) / 43Mbps (256QAM) per channel
- DOCSIS 5120kbps/10Mbps (QPSK/16QAM) DOCSIS 41.4 Mbps (64QAM)/55.2Mbps (256QAM) bounding (DOCSIS) per channel, Frequency range 91 to 857 MHz ±30 kHz (Center), DOCSIS 108 to 862 MHz ±30 kHz (Edge) 50 MHz to 1002 MHz (DOCSIS)

CONTACT

North America
20 Mason
Irvine, CA 92618
1-800-SMC-4YOU
24/7 Technical Support

Europe/Africa
Fructuos Gelabert 6-8
08970 Sant Joan Despí
Barcelona, Spain

Check www.smc.com for your local country contact information

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