

# **16 Gbps Bandwidth Management Device**

Allot NetEnforcer<sup>®</sup> AC-6000 manages broadband Internet traffic on multiple Ethernet links at speeds of up to 16 Gbps, bringing 10GE connectivity to the NetEnforcer series and providing real-time analytics, policy enforcement, and traffic steering. This flexible,



cost-effective device helps enterprises, organizations, and cloud service providers control bandwidth utilization and costs while ensuring Quality of Experience (QoE) for all network users.

# **Features**

- Throughput of 2, 4, and 8 Gbps (full duplex) with real-time analytics and Quality of Service (QoS) management of up to 10 million concurrent IP flows
- High port density per unit:
  - 8 x 1GE
  - 8 x 10GE/1GE (dual mode)
  - All ports can be used for network connectivity, connectivity to external services (steering), cascading, and high availability
- IPv4/IPv6 dual stack subscriber support for flexible network configuration
- Powered by Allot's Dynamic Actionable Recognition Technology (DART) engine, which provides granular visibility of subscriber, application, device (including tethering), and network topology traffic
- DART's extensive signature library accurately identifies hundreds of Internet applications and protocols, including P2P, VoIP, streaming, gaming, instant messaging, business applications, and cloud services
- Automated, web-based update keeps the signature library up to date with the latest developments
- Supports user-defined signatures based on HTTP attributes, as well as monitoring reports based on custom HTTP signatures

- Real-time analytics and automatic alarms enable fast and accurate troubleshooting with the ability to trigger corrective actions
- Works together with Allot Subscriber Management Platform (SMP) to provide real-time usage data for online and offline charging and subscriber policy management
- Policy-based traffic steering to external network and subscriber services
- Integrated URL filtering services block access to blacklisted and illegal websites, and allow subscribers to set up and manage their own safe browsing and anti-malware rules (See Allot WebSafe services)
- Integrated threat protection system prevents DNS blacklisting, isolates infected botnet hosts for cleanup, and surgically mitigates DDoS attacks (see Allot ServiceProtector)
- Managed by Allot NetXplorer centralized management system
- Fail-safe performance supported by external hardware bypass



## **Specifications**

**NetEnforcer® AC-6000** 

Allot NetEnforcer AC-6000 is available in a single versatile model, serving a range of network configurations and needs.

Capacity     Throughput     16 Gbps (8 Gbps, full duplex)       Number of Connections/Flows     5,000,000/10,000,000       Number of Subscribers     400,000       Policy Levels (Lines/Pipes/Virtual Channels)     512 / 200, 000 / 600,000       Interfaces and Connections     Management Interface     10/100/1000BASE-T       Ethernet Interfaces (Internal / External)     10GE-BASE-SR/LR/ER, 1000BASE-SX/LX/ZX, and 8 x 1GE + 8 x 10GE/1GE       Examples of Application/Protocol Signatures Supported     P2P     Including BitTorrent, eDonkey, Ares, Gnutella, Thu Including Windows Live Messenger, SIP, Skype, Yi GoogleTalk, Fring, WhatsApp, STUN, ICQ, Viber, at Gaming       Web     Including World of Warcraft, Final Fantasy, Guitar Games, Lineage, CounterStrike, Call of Duty, App Web       Networking Streaming     Traffic Encapsulation     Including TPP, HTTP file downloads, Apple App St Including LTP, MDLS, PPPOE, and Teredo       Product Options     QoS Enforcement Levels     2, 4 and 8 Gbps (full duplex)       Analytics (Monitoring and Reporting)     Real-time and long-term       High Availability     Active redundancy (1:1, 1+1), bypass       Asymmetric Traffic Handling     Yes	
Number of Connections/Flows     5,000,000/10,000,000       Number of Subscribers     400,000       Policy Levels (Lines/Pipes/Virtual Channels)     512 / 200, 000 / 600,000       Interfaces and Connections     Management Interface     10/100/1000BASE-T       Ethernet Interfaces (Internal / External)     10GE-BASE-SR/LR/ER, 1000BASE-SX/LX/ZX, and Maximum ports for network connectivity, cascading, or steering     8 x 1GE + 8 x 10GE/1GE       Console Port     Serial, RJ-45 Connector     10cluding BitTorrent, eDonkey, Ares, Gnutella, Thu Including Windows Live Messenger, SIP, Skype, YA GoogleTalk, Fring, WhatsApp, STUN, IOQ, Viber, at Including Windows Live Messenger, SIP, Skype, YA GoogleTalk, Fring, WhatsApp, STUN, IOQ, Viber, at Including World of Warcraft, Final Fantasy, Guitart Gaming       Veb     Including HTTP, mobile, and social networking app Including YouTube, RTMP, QQ live, PPStream, Dai HTTP audio, NetFlix, and Facebook streaming Including FTP, HTTP file downloads, Apple App St Including FTP, HTTP file downloads, Apple App St Including FTP, MPLS, PPPoE, and Teredo       Product Options     QoS Enforcement Levels     2, 4 and 8 Gbps (full duplex)       Analytics (Monitoring and Reporting)     Real-time and long-term       High Availability     Active redundancy (1:1, 1+1), bypass       Asymmetric Traffic Handling     Yes	
Policy Levels (Lines/Pipes/Virtual Channels)   512 / 200, 000 / 600,000     Interfaces and Connections   Management Interface   10/100/1000BASE-T     Ethernet Interfaces (Internal / External)   10GE-BASE-SR/LR/ER, 1000BASE-SX/LX/ZX, and Maximum ports for network connectivity, cascading, or steering   8 x 1GE + 8 x 10GE/1GE     Examples of Application/Protocol Signatures Supported   VolP and IM   Serial, RJ-45 Connector     Barning   Including Windows Live Messenger, SIP, Skype, YL GoogleTalk, Fring, WhatsApp, STUN, ICQ, Viber, at Games, Lineage, CounterStrike, Call of Duty, Application     Web   Including HTTP, mobile, and social networking application     File Transfer   Including FTP, HTTP file downloads, Apple App St     Networking Standards   Traffic Encapsulation   Including TTP, MPLS, PPPoE, and Teredo     IPv6   IPv6 subscriber management available with Allot S     Product Options   QoS Enforcement Levels   2, 4 and 8 Gbps (full duplex)     Analytics (Monitoring and Reporting)   Real-time and long-term     High Availability   Active redundancy (1:1, 1+1), bypass     Asymmetric Traffic Handling   Yes	
Interfaces and Connections     Management Interface     10/100/1000BASE-T       Ethernet Interfaces (Internal / External)     10GE-BASE-SR/LR/ER, 1000BASE-SX/LX/ZX, and Maximum ports for network connectivity, cascading, or steering Console Port     8 x 1GE + 8 x 10GE/1GE       Examples of Application/Protocol Signatures Supported     P2P     Including BitTorrent, eDonkey, Ares, Gnutella, Thu Including Windows Live Messenger, SIP, Skype, YL GoogleTalk, Fring, WhatsApp, STUN, ICQ, Viber, at Gaming       Web     Including World of Warcraft, Final Fantasy, Guitart Games, Lineage, CounterStrike, Call of Duty, App Streaming       File Transfer     Including YouTube, RTMP, QQ live, PPStream, Dai HTTP audio, NetFlix, and Facebook streaming       Networking Standards     Traffic Encapsulation     Including L2TP, MPLS, PPPoE, and Teredo       IPv6     IPv6 subscriber management available with Allot S 2, 4 and 8 Gbps (full duplex)     Analytics (Monitoring and Reporting)       High Availability     Active redundancy (1:1, 1+1), bypass Asymmetric Traffic Handling     Yes	
Connections     Ethernet Interfaces (Internal / External)     10GE-BASE-SR/LR/ER, 1000BASE-SX/LX/ZX, and Maximum ports for network connectivity, cascading, or steering Console Port     10GE-BASE-SR/LR/ER, 1000BASE-SX/LX/ZX, and 8 x 1GE + 8 x 10GE/1GE       Examples of Application/Protocol Signatures Supported     P2P     Including BitTorrent, eDonkey, Ares, Gnutella, Thu Including Windows Live Messenger, SIP, Skype, YL GoogleTalk, Fring, WhatsApp, STUN, ICQ, Viber, a Gaming       Web     Including World of Warcraft, Final Fantasy, Guitart Games, Lineage, CounterStrike, Call of Duty, App Streaming       Networking Standards     Traffic Encapsulation     Including FTP, HTTP file downloads, Apple App St Including L2TP, MPLS, PPPoE, and Teredo       Product Options     QoS Enforcement Levels     2, 4 and 8 Gbps (full duplex)       Analytics (Monitoring and Reporting)     Real-time and long-term       High Availability Asymmetric Traffic Handling     Yes	
Connections     Ethernet Interfaces (Internal / External)     10GE-BASE-SR/LR/ER, 1000BASE-SX/LX/ZX, and Maximum ports for network connectivity, cascading, or steering Console Port     8 x 1GE + 8 x 10GE/1GE       Examples of Application/Protocol Signatures Supported     P2P     Including BitTorrent, eDonkey, Ares, Gnutella, Thu Including Windows Live Messenger, SIP, Skype, YL GoogleTalk, Fring, WhatsApp, STUN, ICQ, Viber, a Including World of Warcraft, Final Fantasy, Guitart Gaming       Web     Including HTTP, mobile, and social networking app Streaming       File Transfer     Including YouTube, RTMP, QQ live, PPStream, Dai HTTP audio, NetFlix, and Facebook streaming       Networking Standards     Traffic Encapsulation       IPv6     IPv6 subscriber management available with Allot S 2, 4 and 8 Gbps (full duplex)       Analytics (Monitoring and Reporting)     Real-time and long-term       High Availability     Active redundancy (1:1, 1+1), bypass       Asymmetric Traffic Handling     Yes	
cascading, or steeringConsole PortSerial, RJ-45 ConnectorExamples of Application/Protocol Signatures SupportedP2PIncluding BitTorrent, eDonkey, Ares, Gnutella, Thu Including Windows Live Messenger, SIP, Skype, Y GoogleTalk, Fring, WhatsApp, STUN, ICQ, Viber, at Including World of Warcraft, Final Fantasy, Guitar I Games, Lineage, CounterStrike, Call of Duty, App WebWebIncluding YouTube, RTMP, QQ live, PPStream, Dai HTTP audio, NetFlix, and Facebook streamingNetworking StandardsFile TransferIncluding L2TP, MPLS, PPPoE, and Teredo IPv6IPv6 subscriber management available with Allot S 2, 4 and 8 Gbps (full duplex)Product OptionsQoS Enforcement Levels Analytics (Monitoring and Reporting)2, 4 and 8 Gbps (full duplex)High Availability Asymmetric Traffic HandlingYes	d 100/1000BASE-T
Examples of Application/Protocol Signatures SupportedP2PIncluding BitTorrent, eDonkey, Ares, Gnutella, Thu Including Windows Live Messenger, SIP, Skype, Y GoogleTalk, Fring, WhatsApp, STUN, ICQ, Viber, at GamingGamingIncluding World of Warcraft, Final Fantasy, Guitar Games, Lineage, CounterStrike, Call of Duty, App WebWebIncluding HTTP, mobile, and social networking app Traffic EncapsulationFile TransferIncluding FTP, HTTP file downloads, Apple App St Including L2TP, MPLS, PPDE, and TeredoProduct OptionsQoS Enforcement LevelsQoS Enforcement Levels2, 4 and 8 Gbps (full duplex)Analytics (Monitoring and Reporting)Real-time and long-termHigh AvailabilityActive redundancy (1:1, 1+1), bypassAsymmetric Traffic HandlingYes	
Application/Protocol Signatures Supported   VolP and IM   Including Windows Live Messenger, SIP, Skype, Y GoogleTalk, Fring, WhatsApp, STUN, ICQ, Viber, at Gaming     Gaming   Including World of Warcraft, Final Fantasy, Guitar Games, Lineage, CounterStrike, Call of Duty, App Web     Web   Including HTTP, mobile, and social networking app Streaming     File Transfer   Including FTP, HTTP file downloads, Apple App St HTTP audio, NetFlix, and Facebook streaming     Networking   Traffic Encapsulation     Standards   IPv6     Product Options   QoS Enforcement Levels     Analytics (Monitoring and Reporting)   Real-time and long-term     High Availability   Active redundancy (1:1, 1+1), bypass     Asymmetric Traffic Handling   Yes	
Signatures Supported   GoogleTalk, Fring, WhatsApp, STUN, ICQ, Viber, at Including World of Warcraft, Final Fantasy, Guitar I Games, Lineage, CounterStrike, Call of Duty, App Web     Web   Including HTTP, mobile, and social networking app Including YouTube, RTMP, QQ live, PPStream, Dai HTTP audio, NetFlix, and Facebook streaming     File Transfer   Including FTP, HTTP file downloads, Apple App St Including L2TP, MPLS, PPPoE, and Teredo     Networking   Traffic Encapsulation     Standards   IPv6     Product Options   QoS Enforcement Levels     Analytics (Monitoring and Reporting)   Real-time and long-term     High Availability   Active redundancy (1:1, 1+1), bypass     Asymmetric Traffic Handling   Yes	nder, Winny, eMule, Vuze
Games, Lineage, CounterStrike, Call of Duty, App     Web   Including HTTP, mobile, and social networking app     Streaming   Including YouTube, RTMP, QQ live, PPStream, Dai     HTTP audio, NetFlix, and Facebook streaming   Including FTP, HTTP file downloads, Apple App St     Networking   Traffic Encapsulation   Including L2TP, MPLS, PPPoE, and Teredo     Standards   IPv6   IPv6 subscriber management available with Allot St     Product Options   QoS Enforcement Levels   2, 4 and 8 Gbps (full duplex)     Analytics (Monitoring and Reporting)   Real-time and long-term     High Availability   Active redundancy (1:1, 1+1), bypass     Asymmetric Traffic Handling   Yes	
Streaming   Including YouTube, RTMP, QQ live, PPStream, Dail     HTTP audio, NetFlix, and Facebook streaming   Including FTP, HTTP file downloads, Apple App St     Networking   Traffic Encapsulation   Including L2TP, MPLS, PPPoE, and Teredo     Standards   IPv6   IPv6 subscriber management available with Allot S     Product Options   QoS Enforcement Levels   2, 4 and 8 Gbps (full duplex)     Analytics (Monitoring and Reporting)   Real-time and long-term     High Availability   Active redundancy (1:1, 1+1), bypass     Asymmetric Traffic Handling   Yes	
HTTP audio, NetFlix, and Facebook streaming     File Transfer   Including FTP, HTTP file downloads, Apple App St     Networking   Traffic Encapsulation   Including L2TP, MPLS, PPPoE, and Teredo     Standards   IPv6   IPv6 subscriber management available with Allot St     Product Options   QoS Enforcement Levels   2, 4 and 8 Gbps (full duplex)     Analytics (Monitoring and Reporting)   Real-time and long-term     High Availability   Active redundancy (1:1, 1+1), bypass     Asymmetric Traffic Handling   Yes	blications
Networking Standards     Traffic Encapsulation     Including L2TP, MPLS, PPPoE, and Teredo       Product Options     QoS Enforcement Levels     2, 4 and 8 Gbps (full duplex)       Analytics (Monitoring and Reporting)     Real-time and long-term       High Availability     Active redundancy (1:1, 1+1), bypass       Asymmetric Traffic Handling     Yes	yMotion, HTTP streaming,
Standards     IPv6     IPv6 subscriber management available with Allot S       Product Options     QoS Enforcement Levels     2, 4 and 8 Gbps (full duplex)       Analytics (Monitoring and Reporting)     Real-time and long-term       High Availability     Active redundancy (1:1, 1+1), bypass       Asymmetric Traffic Handling     Yes	ore, and Android Market
Product Options     QoS Enforcement Levels     2, 4 and 8 Gbps (full duplex)       Analytics (Monitoring and Reporting)     Real-time and long-term       High Availability     Active redundancy (1:1, 1+1), bypass       Asymmetric Traffic Handling     Yes	
Analytics (Monitoring and Reporting) Real-time and long-term   High Availability Active redundancy (1:1, 1+1), bypass   Asymmetric Traffic Handling Yes	SMP
High Availability Active redundancy (1:1, 1+1), bypass   Asymmetric Traffic Handling Yes	
Asymmetric Traffic Handling Yes	
Full Integration with Allot Subscriber Management Platform (SMP) For centralized creation, provisioning, and chargin	
Allot Digital Lifestyle services	g of per-subscriber
Services Allot ClearSee Analytics For capturing rich source data from the network a valuable business intelligence	nd transforming it into
Allot ServiceProtector For DDoS/outbound spam detection and mitigatic	n solutions
Allot WebSafe For URL filtering solutions at the network level	
Allot WebSafe Personal For subscriber safe-browsing solutions (Parental C	Control; Anti-Malware)
Allot MediaSwift E For media caching and video acceleration solution	IS
Traffic Steering For deployment of value-added services	
Dimensions Size / Weight Standard 1U by 19" rack mount / 7 kg (15.4 lb)	
Dimensions / Operating Temp 350mm x 440mm x 44mm (L x W x H) / 0°C to 45°	С
Bypass Unit External, 1U, 19" rack mount, 2.4 kg (5.3 lb)	
Power Input (AC) 100 - 240 VAC, 50/60Hz, 4A max	
Input (DC) -48 VDC, 7.5A max	
Power Supply Units 2 (Load Sharing)	
Redundancy for PSUs 1 + 1	
Power Consumption / Heat Dissipation 300W / 1,025 BTU/hour	
Safety and Safety UL 60950-1:2007; EN 60950-1:2006 + A11:2009; CA	
Certifications     EMC     European Directives 2004/108/EC & LVD 73/23/ E       END     European Directives 2004/108/EC & LVD 73/23/ E     EN 55022: 2006 + A1:2007, EN 55024: 1998 +       END     ENO     S5022: 2006 + A1:2007, EN 55024: 1998 +     EN 61000-3-2: 2006 + A1: 2009, EN61000-3-3:       EN 300 386 V1.4.1: 2008-04, FCC CFR 47 Par     Industry Canada ICES-003 Issue 4; C108.8-M198:     VCCI Technical Requirements V-3/2001.04       Australia ACMA, AS/NZS CISPR22:2006     Complies with directive 2002/95/EC (RoHS) and directive 2002/95/EC (RoHS)     EN 2002/95/EC (RoHS)	A1:2001 + Ă2: 2003

### (i) About Allot Communications

Allot Communications Ltd. (NASDAQ, TASE: ALLT) is a leading global provider of intelligent broadband solutions that put mobile, fixed and enterprise networks at the center of the digital lifestyle and workstyle. Allot's DPI-based solutions identify and leverage the business intelligence in data networks, empowering operators to analyze, protect, improve and enrich the digital lifestyle services they deliver. Allot's unique blend of innovative technology, proven know-how and collaborative approach to industry standards and partnerships enables network operators worldwide to elevate their role in the digital lifestyle ecosystem and to open the door to a wealth of new business opportunities. For more information, please visit www.allot.com

#### sales@allot.com

Americas: 300 TradeCenter, Suite 4680, Woburn, MA 01801 USA Tel: +1 (781) 939-9300 Fax: +1 (781) 939-9393 Toll free: 877-255-6826 • Europe: NCI – Les Centres d'A\_aires Village d'Entreprises 'Green Side', 400 Avenue Roumanille, BP309, 6906 Sophia Antipolis Cedex, France Tel: +33 (0) 4-93-001160, Fax: +33 (0) 4-93-001166 • Asia Pacific: 25 Tai Seng Avenue, #03-03, Scorpio East Building, Singapore 534104 Tel: +65 67490213 Fax: +65 68481015 • Japan: 4-2-3-301 Kanda Surugadai, Chiyoda-ku, Tokyo 101-0062 Tel: +a1 (3) 5297-7668 • Middle East and Africa: 22 Hanagar St, Industrial Zone B, Hod-Hasharon, 4501317, Israel, Tel: +972 (9) 761-9200, Fax: +972 (9) 744-3626

### www.allot.com info@allot.com

© 2014 Allot Communications Ltd. All rights reserved. Specifications are subject to change without notice. Allot Communications, Sigma and NetEnforcer and the Allot logo are trademarks of Allot Communications. All other brand or product names are the trademarks of their respective holders.

