IPv6 Knowledge Base

This IPv6 Product Information was derived from many sources, including the Web sites in section 4 below.

Disclaimer: The presence of information about a product in this list does not constitute an endorsement of that product or the manufacturer or any supplier of that product.

This IPv6 product information is divided into the following categories:

1. Network and Network-related Hardware and Software

1.1 IP Transport Layer Products (including Switches, Routers, Gateways, and the like)

1.2 Infrastructure Services Products (DNS, SMTP, NTP, DHCP, ADC, tunneling mechanisms, and the like)

1.3 Network Monitoring and Scanning Products (such as Port Sniffers, Scanners, and the like)

1.4 Security Products (Firewall, Intrusion Detection/Prevention, VPN, encryption, and the like)

1.5 Network and Traffic Management and Testing Products (such as SNMP, Monitors, Fault Management, and the like)

1.6 Authentication Services Products (PKI, TACACS, Radius, LDAP, Microsoft domain controllers, and the like)

2. Computers of all kinds, and the Software that runs on them

2.1 Computers and Network Adapaters (including Personal Digital Assistant [PDA], handheld, laptop, desktop, storage, servers, high performance computing [HPC], and visualization computers)

2.2 Operating Systems, Queuing Systems, and Utility Software

2.3 Wide-area Service Software (software that supports Web, FTP, TFTP, file, NFS, data bases, print services, and the like)

2.4 Wide-area Client Software (software that uses services provided by wide-area and infrastructure services software)

2.5 IPv6 conversion tools, utility Software, and guidelines [Information for this category is contained in a separate article.]

2.6 System and Application Development Products (Libraries, Compilers, Debuggers, et cetera) [Information for this category is contained in a separate article.]

2.7 Third Party (COTS, GOTS, Open Source) Software [Information for this category is contained in a separate article.]

3. Other Devices (Like printers, scanners, FAX machines, Terminal Servers, et cetera)

4. IPv6-related Product Information Web sites (references do not imply accuracy of information)

General Information about IP Transport Layer Products: The majority of commercial devices manufactured in 2001 and later will support IPv6, at least to some extent. In 2003 (depending on the vendor) hardware support for IPv6 started to become available. Prior to that time, support tended to be in software, which was functional but prone to slower performance. Even hardware support for IPv6 does not ensure performance equal to IPv4. High-end devices are more likely to support more IPv6 functionality in hardware and at equivalent performance levels than mid-end or low-end devices. Most devices at layers 1 and 2 of the ISO protocol suite (such as switches) were able to support IPv6 even earlier than 2001. Older layer 1/2 devices may have problems with short IPv6 packets (ICMPv6 or MLD snooping, for example). The software drivers for layer 2/3 devices (and above) may still be adding support for IPv6 features, see comments for specific devices below. A device routing both IPv6 and IPv4 protocols typically requires more RAM and special-purpose memory than when routing only one protocol.

NOTE: See the Note in the header of section 1.2 below regarding proxy servers and Application Delivery Controllers (ADC).

1.1 Information about specific IP Transport Layer Products			Date First Supported	Comments or Additional Information	Related Web Site
Manufacturer, Vendor or Developer	**Make, Model, or Series**	**First Version with IPv6 support**			
Alcatel-Lucent Technologies www.alcatel-lucent.com	Service Router (SR) 77xx series	Operating System (OS) R4.0	Aug-06		
	7950 Extensible Routing System (XRS)	SR OS 8.0r5	May-12		
Arista Networks, Inc. www.aristanetworks.com	Data Center Switch 7xxx series		none	planned, no date set.	
Aruba Networks, Inc. www.arubanetworks.com	Access Points		none		

	MSR1200 Wireless Mesh Controller	initial release	Jan-11		
	Wireless Mobility Controllers		none		
ASUSTek Computer, Inc. www.asus.com	RT-N56U wireless gigabit router	with firmware update			
	RT-N66U wireless gigabit router	initial release			
A10 Networks, Inc. www.a10networks.com	AX Series Application Delivery Switch		Jun-07	A type of proxy server	
	AX Series Server Load Balancer		Jan-08	A type of proxy server	
BLADE Network Technologies, Inc. (formerly Nortel) www.bladenetwork.net	Blade, BladeCenter, BladeSystem series	since at least Blade OS 6.1	at least since 2007		
	RackSwitch series	since at least Blade OS 6.1	at least since 2007		
Brocade Communication Systems Inc (formerly Foundry Networks) www.brocade.com	BigIron series	IronCore 1.0.00 with VM-1	mid-2002 via software,slow	IPv6 support upgraded in 2004 with hardware support in MG-8 and RX series	In some cases additional license may be requuired
	EdgeIron series of Ethernet switches	all	2002	Layer 2 device	(see above)
	FastIron series	JetCore with VM-4	mid-2002	routing in software only until 2004	(see above)
	NetIron series	IronCore 1.0.00 with VM-1	mid-2002 via software	IPv6 support upgraded in 2004 with hardware support in XMR/MLX/MLXe/IMR/40G series	(see above0
	IronPoint series	200 wireless, others			(see above)
	ServerIron ADX Data Center Switches	12.2	Sep-10	Layer 2 load balancer and proxy server	(see above0
	TurboIron series		none		(see above)
Buffalo Technologies, Inc. www.buffalo.com	Wireless-N Nfiniti™ Dual Band Gigabit Router & Access Point		2006		
	WZR-HP-G300NH, WHR-HP-G300N and WHR-HP-GN	open source OpenWRT firmware from gogoWARE	Jun-05	IPv6 not supported by Buffalo. It uses any gogoWARE tunnel broker, including the free public anon.freenet6.net and broker.freenet6.net brokers	go6.net/4105/description.asp?product_id=172&category_id=276
Cable Television Laboratories, Inc. (CableLabs) www.cablelabs.com	Data Over Cable Service Interface Specification (DOCSIS)	2.0-IPv6	draft -- Aug 2007 issued -- Nov 2011	used by cable modems involved in data distribution over cable television system networks	
		3.0 supports 120Mbps upstream and 160Mbps downstream	announced -- Aug 2006 device support -- May 2008		
	PacketCable	2.0	Oct-10		
Cisco Systems www.cisco.com	Aggregation Services Routers (ASR) 1000 series	all	May-11		
	Application Control Engine (ACE) series	A5(1.0)	Oct-11	load balancer on a blade card for Catalyst routers and switches. A proxy server	
	Application eXtension Platform (AXP)			blade card for ISR series routers	
	cable routers (all)	all	always	Layer 2 device.	

	Carrier Routing System (CRS) family	IOS XR 2.0	Jun-05		
	Catalyst switches (all)	all	First support 2001	Layer 2 device, some do it in software, so performance is slow. Some do not support IPv6 multicast MLD snooping because of short packet length	
	Catalyst 35xx/36xx/37xx	12.2(50)SE	First support late 2004	Older versions support packet forwarding in software rather than hardware, so performance is slow	
	Catalyst 45xx/49xx	12.2(50)SE	First support late 2004	Older version (Sup 5) support packet forwarding in software rather than hardware, so performance is slow. Sup 6-E or 6L-E uses hardware	
	Catalyst 50xx/65xx/ 76xx	12.2(33)SXI	First support late 2002	Only with Sup 32, Sup 720, or 720-3BXL. Firewall Services Module (FWSM) not IPv6 capable until 2006. Older Supervisor Engines such as Sup 2 support IPv6 in software so packet forwarding slow	
	ESR 10xxx	same as above	First support 2004	See above comment. Only with PRE-2.	
	GSR 12xxx	12.0(19)ST1	First support Oct 2001	Features added in 12.0(23)ST. Some not supported until 12.3 T in 2005. See comment for 14xx/16xx/17xx series roadmap	
	Integrated Services Router (ISR) original and G2 series	18xx/28xx/38xx ISR		IOS licence (SP services) must be purchased separately to support IPv6. Rare exception to no-cost upgrade practice	
		19xx/29xx/39xx ISR		No hardware support. Software support (only) for IPv6 in recent IOS releases	
	MDS 9000 family	all	2008	Multilayer Storage Servers with SAN-OS 3.x or later	
	Nexus 7000 series	all	2008	DataCenter Switches with NX-OS	
	terminal server or access router	500-CS, ASM-CS, 2610XM, et cetera		IPv6 support depends on the router the terminal server is connected to	
	14xx/16xx/17xx	12.2(2)T and later	May-01	Initial support. Other features added in 12.2(3)T. After 12.2(8), may need to use "atm scrambling cell-payload" to restore ATM support with IPv6. Some features not supported until 12.3 T in 2005.. Mobility in 12.4(20), but varies by model	
	25xx/26xx/27xx 36xx/37xx/38xx 40xx	same as above	May-01	See above comment. Also, these models tend to have no/limited IPv6 support, and 16 MB of PROM is required.	
	3200 series			mobile and wireless access routers. No mobile IPv6 support (seems strange).	
	45xx/47xx	none	May-01	End of life -- no IPv6 support.	
	AS53xx/AS54xx/ AS58xx	12.2(2)T and later	AS53xx/AS45 xx May01, AS58xx 2004	See comment for 14xx/16xx/17xx series	
	72xx/73xx/75xx	12.2(14(T) and later	May-01	See comment for 14xx/16xx/17xx series	
	8xx series	12.3.4(XG) and on	In 2004		
Cisco Systems www.linksysbycisco.com	AE1000 wireless adapter	none	Jun-11		

	Product	Software/Firmware	Date	Notes	URL
	Wireless-G WRT54G broadband router (microcode before R5 only)	open source firmware from Earthlink	May-05	IPv6 not supported by LinkSys. It uses an Earthlink network. Not a general solution, though source code is available.	www.research.earthlink.net/ipv6/ www.research.earthlink.net/ipv6/download/index.html
	Wireless-G WRT54G broadband router (multiple levels of microcode)	open source OpenWRT firmware from gogoWARE	Jun-05	IPv6 not supported by LinkSys. It uses any gogoWARE tunnel broker, including the free public anon.freenet6.net and broker.freenet6.net brokers	go6.net/4105/description.asp?product_id=172&category_id=276
	Wireless-N E- and EA-series broadband wireless routers	firmware 1.0.02 adds IPv6 support	Jun-11		
Comtrend Corporation us.comtrend.com	CT-xxxx series wireless gateway	initial release	Mar-12		
	WR-xxxx series wireless routers	initial release	Jul-12		
Coyote Point Systems Inc. www.coyotepoint.com	Equalizer GX ADC	EQ/OS 10	Jan-12	A type of proxy server. EQ/OS 10 supports 6-in-4 tunneling to Internet	
	Equalizer E-series Load Balancers	EQ/OS 10	Jan-12	A type of proxy server	
	Equalizer Omnipoint	EQ/OS 10	Mar-12	A type of virtual proxy server	
Dell Force10 Networks, Inc. www.force10networks.com (formerly Force10, Inc.)	Force10 E-series (E1200, E600, E300) switches	Force10 Operating System (FTOS)	first support 2004, 7.x expanded, 7.3.1 Jan-07 multicast		
	Terascale line cards		See above.		
D-Link Corporation/D-Link Systems Inc. www.dlink.com	DIR-615	rev C1 yes rev D no rev E and later yes			www.dlink.com/ipv6
	DIR-632, DIR-645, DIR-657, DIR-825	initial release			
	Unified Service Router (USR) DSR-500N	initial release	Nov-10		
	USR DSR-1000N	initial release	Nov-10		
	xSTtack DES-3582/52		Nov-09		
	xStack DGS-3400		Nov-09		
Enterasys Networks, Inc. www.enterasys.com A Siemens Enterprise Communications Company	Matrix series switches	?	Oct-03	Older products supported IPv6 in software, so performance was slow	
	Matrix series router	?	Oct-03	Older products supported IPv6 in software, so performance was slow	
Extreme Networks www.extremenetworks.com	Alpine 3800 Ethernet switch	ExtremeXOS 7.0	Mar-03	Older layer 3 devices support IPv6 in software, so performance is slow	
	BlackDiamond Ethernet switch	ExtremeXOS 7.0	mid 2002	See above	
	Summit "I" Ethernet	ExtremeXOS 7.0	mid 2002	Layer 3 device supports IPv6	
	Summit 200 Ethernet switch	ExtremeXOS 7.0		Layer 3 device supports IPv6	

	various older router models	none		Most models that precede the use of the 4th Generation Networking Silicon System (4GNSS), such as the Summit 48, don't support IPv6	
Hewlett-Packard Development Company, L.P. Procurve www.procurve.com	Procurve 2520 Layer 2 Gigabit Ethernet series		Nov-09		
	Procurve 2910 Layer 2 Ethernet switch series		Apr-09		
Hughes Network Systems, LLC www.hughes.com	select HN satellite terminal models		Sep-12		
	select HX satellite terminal models		Sep-12		
Internode www.internode.on.net	NetComm NB6Plus4	all	Sep-10	dual-stack home router	
	NetComm NB6Plus4	all	Sep-10	dual-stack home router includes 802.11 b/g	
Juniper Networks www.juniper.net	M series (M-5 through M-320) and MX series	JunOS 5.1 except no multicast initially	5.1 late 2002, 7.4 IPsec support 4Q 2005	Models below M-320 cannot support IPv6 port mirroring - hardware limitation - doesn't affect most user sites. "tcp-established" in IPv6 ACLs in 7.4 4Q2006. MIPv6 in 2011	
	ERX series (ERX-310 through ERX-1440)	JunOS 5.x	Sep-03	Mostly used by Asia/Pacific Rim nations. Cannot support "tcp-established"	
	J2300, J4300, J6300	JunOS 6.4	4Q2004	Cannot support "tcp-established"	
	SRXxxx series	JunOS 10.4	May-10	combined router/security services	
	SRXxxxx series	JunOS 10.4	May-10	combined router/security services	
	T320, T640	Same as for M series	Same as for M series	At some future date, will be able to support IPv6 port mirroring. "tcp-established" in IPv6 ACLs in 7.4 4Q2006. MIPv6 in 2011	
Marconi Systems Inc. www.marconi.com	BXR-5000 service edge router		2003		
	FORE ASX-200BX	all hardware, needs ForeThought 8.0	always	Layer 2 device	
	FORE ASX-1000/1200	all hardware, needs ForeThought 8.0	always	Layer 2 device	
	FORE ASX-4000 multiservice switch-router		2003	Layer 2 device	
	Series II ESR-5000/6000	all hardware, needs ForeThought 8.0	always	Layer 2 device	
	Softswitch XCD5000		Sep-04	digital voice/PBX and Session Initiation Protocol (SIP) server	
Motorola, Inc. www.motorola.com	SURFboard eXtreme cable modem	SB6120	Jun-09	DOCSIS 3.0 compliant	
NEC Corporation www.nec.com	5010, 730, 2010		1997		
	IXxxxx series	5.2.16			
	ProgrammableFlow Controller	V4	Jan-13	OpenFlow IPv6 support	
Netgear, Inc. www.netgear.com	XSM7224S 10Gbps switch	initial release	Sep-10		
	N900 Wireless router	initial release	Jun-12		
Nippon Telephone & Telegraph (NTT) www.ntt.co.jp/index_e.html	X-40 router	G7.5			
Nortel Networks Limited www.nortelnetworks.com (now part of Avaya, Inc. www.avaya.com)	AN/ANH/ARN/ASN routers	BayRS 12.0	1997 via software		

	BN/BCN/BLN routers	BayRS 12.0	1997 via software		
	Ethernet Routing Switch 54xx/86xx	BayRS 12.0	1997 via software	Also known as a Passport	
	8660 Service Delivery Module (SDM)		Sep-02	For Passport 8600. Runs Check Point Firewall-1	
Sandvine Incorporated ULC www.sandvine.com	Policy Traffic Switch (PTS) family		Feb-10		
Spirent Communications www.spirentcom.com	Extreme 24xx				spirentcom.com/landing_solutions.cfm?ID=17
Vitesse Semiconductor Corporation www.vitesse.com	Switch-on-a-Chip (SoC) Gigabit Ethernet switches	SparX-II-16	Dec-08		
		SparX-II-24	Dec-08		
Zone Labs, Inc. www.zonelabs.com (A Check Point Software Technologies Ltd. company)	Secure Wireless Router	Z100g		No IPv6 support	
3Com Corporation www.3com.com (an Hewlett Packard Development Company [HP] company)	3xxx, 8xxx, 9xxx	11.0	since 1997	Most available before 2003 do it in software, so performance is slow, later series use hardware	
6WIND www.6wind.com	6WINDGate on all software		since 1996		

General Information about Infrastructure Services Products: This section contains information about software that implements support for or utilities to support protocols for local and remote client software of interest to system and network administrators, such as DDI (DNS, DHCP, and IPAM), Dynamic Host Configuration Protocoll (DHCP), Domain Name Server/Service/ System (DNS), Network Time Protocol (NTP), Internet Protocol Address Management (IPAM), Application Delivery Controllers (ADC), and Simple Mail Transfer Protocol (SMTP). Hardware that supports remote client software (such as tunneling mechanisms) is also included in this section.

NOTE: There is no consistent product nomenclature for proxy servers. The earliest such products were called (reverse) proxy servers. Such products may variously be called an ADC, Application Accelerator (AA), Application Level/Layer Gateway (ALG), or dual-stack ALG (DS-ALG). Application Delivery Switches (ADS), Load Levelers (LL), or Server Load Balancers (SLB)/Load Balancers (LB). A few routers listed in section 1.1 above embed some form of proxy server technology. Some wide-area web servers listed in section 2.3 below may also support some form of proxy serving.

1.2 Information about specific Infrastructure Services Products			Date First Supported	Comments or Additional Information	Related Web Site
Manufacturer, Vendor or Developer	**Make, Model, or Series**	**First Version with IPv6 support**			
Afilias Limited www.afilias.info	flexDNS		Feb-10	DNS management	
Alcatel-Lucent Technologies www.alcatel-lucent.com	VitalQIP 1200 DNS/DHCP server	7.0 (7.0 Build X improves support)	DNS Jul 2006 DHCPv6 Feb 2011		
	DNS Management	initial release		Anti-spam	
Array Networks, Inc. www.arraynetworks.com	APVxxxx series of AppVelocity ADCs	8.2	Jul-11	A type of proxy server	
Blue Coat Systems, Inc. www.bluecoat.com	Blue Coat Proxy SG series	5.5	Mar-10	Secure web gateway. A type of proxy server	
	MACH5 300/600/900/9000	initial release	Feb-11		
BlueCat Networks, Inc. www.bluecatnetworks.com	Adonis 500 DHCP/ DHCPv6 server	2.0	Mar-07		
	Adonis 1000 DHCP/ DHCPv6 server	2.0	Mar-07		
	Proteus 2150 IP Address Management (IPAM) Platform		May-07		
	Proteus 5000 IPAM		May-07		

Brekeke Software, Inc. www.brekeke.com	Session Initiation Protocol (SIP) Server	v3	Jul-12		
BMC Software Inc. www.bmc.com	Remedy	none	est. 2Q 2012	formerly owned by Peregrine Systems	www.remedy.com
BT INS, Inc. www.btdiamondip.com	IPControl, IPControl Sapphire		since 2005	IPAM supporting dual-stack and related services	
Cisco Systems www.cisco.com	DNS/DHCP Manager And Server Suite	3.51g			
	Prime Network Registrar	8.0	Jul-11	integrated DNS, DHCP and IPAM software	
Citrix Systems, Inc. www.citrix.com	Access Gateway		since 2007	A type of proxy server. See the Citrix Blog "Are Citrix Products IPv6 Ready?" http://blogs.citrix.com/2010/07/13/are-citrix-products-ipv6-ready/	
	NetScaler	8.0 enahnced in 9.0	since 2007	A type of proxy server	
Cloudmark, Inc. www.couldmark.com	Cloudmark Authority		Oct-11	message filtering	
	Cloudmark Gateway		Oct-11	MTA	
	Cloudmark Sender Intelligence		Oct-11	Anti-spam	
Dataek Applications, Inc. www.datatekcorp.com	IPv4-IPv6 Transformer		2005	One of the first dedicated-function proxy servers	
Dibbler klub.com.pl/dhcpv6	dibbler DHCPv6	initial release	2007	DHCPv6 client/server for Linux, Windows, and Mac OS X	Also available on sourceforge.net. A tutorial showing use in Windows XP and Linux is available on www.6deploy.eu/hands-on/M_2-stateful-auto-configuration-DHCPv6.pdf
DNS Park LLC www.dnspark.com	DNS park		Jun-11	DNS management	
DNS.COM LLC dns.com a Comodo Company	DNS.com	unknown		DNS management	
Dynamic Network Services, Inc. www.dyn.com (formerly www.dyndns.com)	DYN Spring Server		2009	DNS management	
F5 Networks, Inc. www.f5.com	BIG-IP Global Traffic Manager	10.1	Dec-09	A type of proxy server	
	IPv6 Gateway	10.0	Dec-09	A type of proxy server	
FEI-Zyfer Inc. www.zyfer.com	NTPSync XLS Network Time	383	2006		
ffproxy faith.eu.org/programs.html	ffproxy	1.4	Aug-03	Filtering HTTP/HTTPS proxy server	
GestióIP by Marc Uebel www.gestioip.net	GestióIP Address Management	3.0	Nov-11	open source IPAM software	
gogoWARE gogoware.gogo6.com (previously Hexago, Inc.)	gogoSERVER	HexOS 4.2 and later	Sep-06	A third generation migration broker, supports wired and wireless connectivity	
	gogoCPE	initial release	2003	A dongle to enable easy access to a tunnel broker (hardware version of gogoCLIENT)	
HaCi sourceforge.net/projects/haci/	HaCi	initial release	Aug-06	open source IPAM software	
Hurricane Electric www.tunnelbroker.net	Tunnel Broker		2005	U.S.-based ISP providing IPv4 networks with access to a remote tunnel broker service	ipv6.he.net
Incognito Software Inc. www.incognito.com	Address Commander			IPAM software supports IPv4 and IPv6	
Infoblox, Inc. www.infoblox.com	DNS Firewall	initial release	Jun-13		
	NetMRI, a Netcordia suite of appliances	3.0	Jan-09	Network configuration and change management. IPv6 support via separate license	

	Trinzic DDI	6.3	May-11	DNS, DHCP, DHCPv6, IP address management, NTP, RADIUS server, embedded VitalQIP server	
InfoWeapons, Inc. www.infoweapons.com	SolidDNS		Jan-09	Supports IPv6 and DNSSec	
	SolidGate		Apr-10	A type of ALG	
	SolidProxy		Feb-10	A type of proxy server	
Internet Associates, LLC www.internetassociatesllc.com	Internet Protocol address lifecycle (IPal), IPal.net			IPAM software supports IPv4 and IPv6	
Internet Systems Consortium Inc www.isc.org	Address Family Transition Router (AFTR)	initial release	Mar-10	open source DS-lite software	
	Berkeley Internet Name Domain (BIND) server	4.9.4 AAAA support (undocumented) 8.4.4 documented		Starting with 9.4.3-P1, queries via IPv6 are supported (they were supported in some earlier versions, but not reliably). BIND 9.x.x is more CPU intensive than 8.x.x	
	DHCP	3.1.0 last pure-IPv4 release 4.1.1	Jan-10	To use both v4 and v6, two instances of the daemon are required, one with the '-6' command line option	
	Domain Information Groper (DIG)	same as BIND		DNS lookup and zone transfer tool included in BIND distribution	
IPplan iptrack.sourceforge.net	IPAM and tracking	6.00-BETA1	Dec-10		
Jagornet Technologies LLC. www.jagornet.com	Jagornet	initial release	Jan-11	DHCPv4/v6 server	
KEMP Technologies, Inc. www.kemptechnologies.com	LM-series Load Balancers	6.0	Jan-12	A type of proxy server	
	Virtual Load Balancer	6.0	Jan-12	A virtual proxy server	
Men & Mice www.menandmice.com	Men & Mice Suite	6	2009	integrated DNS, DHCP and IPAM software overlay	
Meinberg Funkuhren www.meinberg.de/english/index.htm	LANTIME/PZF		2005	Network Time Server with integrated DCF77 PZF Correlation Receiver for NTP	
Microsoft Corporation www.microsoft.com	Active Directory	when used with Windows Server 2008 or later	2008	Both A and SRV resource records required. Prefers a DNS that allows dynamic updates	
	Server Message Block (SMB)	5.2 in Windows.NET Server 2003 family		limited support	
	SMB2	released in conjunction with Microsoft Vista	Mar-07		
Milcord LLC wiki.milcord.com	Botnet Threat Intelligence		Mar-07	using Dynamic DNS reconfiguration to combat botnet threats	
Netapplications.com www.loaddns.com formerly LoadDNS Ltd	LoadDNS		2010	DNS management	
Network DOcumentation Tool (NetDOT) https://osl.uoregon.edu/redmine/projects/netdot	NetDOT	initial release	Sep-11		
Network Information Service (NIS) www.linux-nis.org	NIS	most do		A descendent of the Sun Yellow Pages (YP) service	
Neustar, Inc. www.neustar.biz	UltraDNS		2008	DNS management	
Nixu Software Ltd. www.nixusoftware.com	NIXU DHCP Server	2.1	w/DHCPv6 since 2010	DHCP and DHCPv6 software	
	NIXU NameSurfer Suite	6.6.2	2010	IPAM software supporting LDAP, RADIUS and TACACS authentication	

	NIXU NEE		2010	VLAN and Port ID extraction software	
	NIXU Registry Server		2010	TLD and gTLD Registry software	
	NIXU Secure Name Server (SNS)		2009	DNS software	
NLNet Labs www.nlnetlabs.nl/nsd	Name Server Daemon (NSD)	2.0.0	Feb-04	DNS software	
Nominum, Inc. www.nominum.com	Authoritative Name Server (ANS)		Jul-06	DNS software	
	Centris threat aggregation database				
	Dynamic Configuration Server (DCS)		Jun-09	DHCP and DHCPv6 software	
	Vantio Base Server, MDR, NXR				
Nortel Networks Limited www.nortelnetworks.com	Optivity NetID DNS/DHCP server	none			
NTT/Verio www.v6.ntt.net	Machine-to-machine ConnXtion server (m2m-x)	all	Nov-05	SIP over IPv6/IPSec-lite with AES tunnel broker	http://www.v6.ntt.net/02e_01m2mx.html
openH323 www.openh323.org			Oct-02	open source H.323 teleconferencing protocol	
phipam sourceforge.net/projects/phpipam	phipam	initial release	Oct-11	open source IPAM software	
Polipo www.pps.jussieu.fr/~jch/software/polipo/	Polipo	0.8	Nov-03	caching proxy server	
Postfix www.postfix.org	postfix	2.0.20 and later with the TLS 1.24 patch. 2.2 native support	early 2004 ……………… early 2005		
Radvd www.litech.org/radvd/	Router Advertisement Daemon (Radvd)	initial release	Apr-01	Linus IPv6 daemon	included in GNU, Red Hat, and SuSE Linux distributions
RadWare Ltd. www.radware.com	Alteon Application Switch Operating System	27.0	Nov-10	A type of proxy server	
	AppDirector	2.20	Jul-10	A type of proxy server	
rdnssd-win32 sourceforge.net/projects/rdnssd-win32/	RDNSSD-wind32	initial release	Nov-08	RDNSSD client for Windows	
Roaring Penguin Software, Inc. www.roaringpenguin.com	CanIt series	6.1.x	Aug-09	email filtering, anti-spam, spam blocker software	
	CanIt Reputation List		Jun-10		
Samba www.samba.org	SAMBA	2.2.x partial support, 3.2.0 full support, 4 with available patch	mid-2002 July 2008	The open source Server Message Block (SMB) variant for UNIX/Linux	See www.ipv6consultancy.com/ipv6blog for v.4 patch
Sendmail Consortium www.sendmail.org	Send Mail	8.10.0	Feb-00		
SixXS IPv6 Deployment and Tunnel Broker www.sixxs.com/main	Tunnel Broker	all	1999	European service providing both end-users and ISPs access to a remote tunnel broker	www.sixxs.net/tools/aiccu/brokers/
Spectracom Corporation www.spectracomcorp.com	NetClock/GPS 92xx	3.1.0	Aug-05	Global Positioning System (GPS) network time server	
Symmetricom www.symmetricom.com	SyncServer S200, S250		Oct-05	GPS network time server	
	SyncServer S250		Oct-05	GPS network time server	
The Network Time Protocol www.ntp.org	NTP source code	4.1.80	Oct-03		
Weird Solutions Corporation broadbandprovisioner.com	Broadband Provisioner	4.1	Feb-09	IPAM supporting dual-threaded DHCP and DHCPv6, DOCSIS 3.0, VoIP and IPTV	

William Data Systems www.willdata.com	ZEN Application Gateway (ZAG)	initial release	Sep-12	A type of ALG for z/OS	
Xerocole, Inc. www.xerocole.com	DNS WorX	initial release	Feb-11	DNS management system incorporating AnswerX, AuthX, SearchGuide, InformX	
4PSA www.4psa.com A Rack-Soft, Inc. trademark	DNS Manager	4.0	Apr-11		
6Connect, Inc. www.6connect.com	IPAM	initial release	Oct-11		

General Information about Network Monitoring and Scanning Products: Both hardware and software that are used for network monitoring and scanning, and other monitoring, scanning devices and software are included in this category.

1.3 Information about specific Network Monitoring and Scannning Products			Date First Supported	Comments or Additional Information	Related Web Site
Manufacturer, Vendor or Developer	Make, Model, or Series	First Version with IPv6 support			
Arbor Networks Inc. www.arbornetworks.com	Peakflow SP enterprise flow analysis	5.1	Dec-09	5.5 improved support. Supports IPv6 only when used with the CP-5500 appliance	
	Peakflow X site flow analysis	4.1	Dec-08		
Consiglio Nazionale delle Ricerche Instituto di Informatica e Telematica servizirete.pi.cnr.it	6Mon	2	Jun-12	various network monitoring features, including rogue RA and rogue DHCP detection	
En Garde Systems, Inc. www.engarde.com	IP-Watcher	none			
	T-Sight	none			
eEye Digital Security www.eeye.com (a BeyondTrust Software, Inc. company)	Retina Enterprise Management (REM) Console	none		first promised in late 2007, not yet delivered	
	Retina Network Security Scanner	none		first promised in late 2007, not yet delivered	
	Retina Vulnerability Scanner	none		first promised in late 2007, not yet delivered	
Fidelis Security Systems, Inc. www.fidelissecurity.com	Fidelis Extrusion Prevention System (XPS)	4.2	Dec-07	Deep Packet Inspection engine	
fping www.fping.com	fping	2.4b2_to-ipv6	Jan-02		
GFI Software Ltd. www.gfi.com	GFiLANguard Network Security Scanner	none			
GL Communications, Inc. www.gl.com	PacketScan	2.73.6	May-12	Ethernet/IP/VoIP traffic analyzer	
halfscan6 www.habets.pp.se/synscan/programs.php?prog=	halfscan6	0.2	Jan-02		
Harris Corporation - STAT www.stat.harris.com	Security Threat Avoidance Technology	none			
Hping www.hping.org	Hping	none		IPv6 on the "to do" list	built into Security Onion
InfoVista S. A. www.infovista.com	VistaDiscovery series	4.2	Jul-10		
	VistaInsight series	5.1	Jun-12		
InMon Corp. www.inmon.com	sFlow Probe	Versions that work with Traffic Sentinal		An inexpensive Gigabit probe that exports Cisco NetFlow and sFlow data as a layer 2	

	Traffic Sentinal	4.0 (dual-stack IPv4/IPv6 may not be	Apr-08	It makes use of embedded instrumentation within switches and routers: sFlow (RFC 3176),	
Intellipool AB www.intellipool.se	Intillepool Network M Monitor (INM Pro)	none			
International Computer Science Institute www.icsi.berkeley.edu/	Netalyzr		since Jun-09	Not to be confused with Safer Computing's Netalyzer product. Used with permission	
IPerf dast.nlanr.net/Projects/Iperf/	IPerf	1.7.0	Mar-03		
Ipswitch, Inc. www.ipswitch.com	WhatsUp Gold Premium/Standard	11.0	Sep-07		
IPv6calc www.deepspace6.net/projects/ipv6calc.html	IPv6calc		Jun-03	DNS and reverse DNS address translator for IPv4 and IPv6	
Joint Intrusion Detection System (JIDS) developed by Department of Energy, also called	iWatch, JIDS	none in mainline distribution	retired June 11, 2004 by DoE,	IPv6 support added by DREN IPv6 pilot 2005	contact ipv6-team@hpc.mil for source modifications
KismetWireless www.kismetwireless.net	Kismet	none		wireless packet sniffer	
Libpcap www.tcpdump.org	libpcap	most do if enabled when built		network packet analysis library	
Marconi Systems Inc. www.marconi.com	Foreview Foundation	none			
NetPeek netpeek.netfirms.com	NetPeek	none			
NetStumbler www.netstumbler.com	NetStumbler	none			
netcat6 www.deepspace6.net/projects/netcat6.html	netcat6	all	2002	open source software	
nmap www.insecure.org/nmap or nmap.org	nmap	6	May, 2012	Version 6 is a major upgrade, with greatly expanded IPv6 support	built into Security Onion
Northwest Performance Software, Inc. www.netscantools.com	NetScanTools	11	Initial support Apr-11	Limited to Ping, WhoIs, and some DNS tools	
Nprobe freshmeat.net/projects/nprobe/	Nprobe	unknown	2004?		
Packet Sniffer www.packet-sniffer.net	Sniffer	none			
	Sniffer Pro	none			
Paessler AG www.paessler.com	PRTG Network Monitor	v9	Oct-11		
Plixer International www.plixer.com	Scrutinizer NetFlow and sFlow analyzer	7.0	Aug-09		
PMAcct Project www.pmacct.net	pmacct	unknown	since 2005	sFlow and NetFlow monitoring	
Procera Networks, Inc. www.proceranetworks.com	PacketLogic Real-Time Enforcement (PRE)		Q1 2011	Deep Packet Inspection engine	
	PacketLogic Intelligence Center		Q1 2011		
Rapid7 LLC www.rapid7.com	Metasploit Framework series	4.2.0	Feb-12	penetration testing tool. Commercial and open source versions available	
	Nexpose series	4.4	Aug-12	vulnerability discovery, detection, verification, risk classification, impact analysis, reporting and mitigation tool	
Renesys Corp. www.renesys.com	Routing Alarms			IPv6 support will be slow in coming from this Corp. according to the comments made at www.renesys.com/blog/2006/03/bashing_ipv6_at_telecomnext.shtml	

	Routing Intelligence				
Softflowd freshmeat.net/projects/softflowd/	softflowd	0.9.6	Sep-04		
ssldump www.rtfm.com/ssldump	ssldump			An SSLv3/TLS network protocol analyzer	
Sun Microsystems www.oracle.com/us/sun/index.html (an Oracle Corporation company)	snoop	part of Solaris 7 and later	support as per Solaris	capture and inspect network packets	
Sunbelt Software www.sunbelt-software.com	Sunbelt Network Security Inspector	none		SNSI is based on the Harris STAT technology	
Super optimized TCP port surveyor www.tuxfinder.com/packages?defaultname=stro	STROBE	1.06 via patch	2003	STROBE locates and describes all listening tcp ports on one or several hosts	Patch is available at ftp://ftp.bieringer.de/pub/linux/IPv6/strobe/
Tenable Network Security www.nessus.com	3D Tool	none, and none needed		protocol independent	
	Lightening Console	none, and none needed		scheduling and controller for other Tenable products, and NESSUS	
	NESSUS vulnerability scanner	3.1.2 beta released 5.2	late 2007 Apr 2013	IPv6 supported when run from Linux controller added support for all Windows versions	
	NESSUS for Windows	4.x supports Windows	all versions	Microsoft Windows-based derivitive of open source NESSUS analyzer	
	Passive Vulnerability Scanner (PVS)	3.8	Dec-12	passive network vulnerability sniffer	
	Security Center	4.6	Dec-12		
Wildpackets Inc. www.wildpackets.com	AiroPeek for Windows	2.0.5	2003		
	EtherPeek for Mac	4.2.1	2002		
	EtherPeek for Windows	6.0	2003		
	EtherPeek NX	1.0	2002		
	OmniPeek	6.8	May-12		
WinFingerPrint winfingerprint.sourceforge.net	winfingerprint	at least 0.5.1		one of few port scanners that does IPv6 UDP	

General Information about Security Products: Firewalls (hardware devices, software, and virtual), Web Application Firewalls (WAF), National Security Agency (NSA)-approved Type 1 encryptors, Virtual Private Network (VPN) tunneling concentrators and client software, intrusion detection/prevention systems (IDS/IPS), anti-virus/anit-malware/spyware/spam, and other security devices and software are included in this category.

1.4 Information about specific Security Products			Date First Supported	Comments or Additional Information	Related Web Site
Manufacturer, Vendor or Developer	Make, Model, or Series	First Version with IPv6 support			
AEP Networks, Inc. www.aepnetworks.com	AEP secure encrypted networking products	none			
AnviCom, Inc. www.salientfed.com (formerly Command Information, Inc.)	Assure6	initial release	Jul-09		
AQTRONiX www.aqtronix.com	WebKnight WAF for IIS	none			
Astaro Corp. www.astaro.com	Linux Firewall	none			
	IPSec VPN client	none			
	Security Gateway	8	mid-2010		

ALWIL Software a.s. www.avast.com	avast! 4 Home Edition	4.7.892	Feb-07		
	avast! 4 Professional Edition	4.7.892	Feb-07	see above	
AVG Technologies, Inc. www.avg.com (formerly Grisoft Inc.)	AVG Anti-Malware	2011.1112			
	AVG Anti-Spyware	2011.1112			
	AVG Anti-Virus	2011.1112			
	AVG Internet Security	none			
Barracuda Networks, Inc. www.barracuda.com	Barracude Web Application Firewall	7.6 firmware	Nov-11	Turned off by default	
	Barracude Web Application Firewall Vx	7.6 firmware	Nov-11	Turned off by default	
BitDefender www.bitdefender.com	BitDefender Total Security	2009	May-09		
Bit9, Inc. www.bit9.com	Bit9 Parity Suite	none			
Bivio Networks, Inc. www.bivio.net	Bivio 7000		Apr-06	deep packet inspection (DPI) device	
	Bivio Application Services Gateway (ASG)				
Blue Coat Systems, Inc. www.bluecoat.com	MACH5 WAN Optimization	initial release	Feb-11		
	Secure Web Gateway	initial release	Jun-11		
The Bro Project www.bro-ids.org	Bro Network Security Monitor	2.1	Jul-12	IDS product	
Broadweb Corporation dns.broadweb.com	NetKeeper AIDP 6000	all	Apr-05	IDS/IPS product	
Check Point Software Technologies Ltd. www.checkpoint.com	Check Point	VPN-1, Firewall-1	Aug-02	Source code for Firewall-1 is controlled by a foreign company (Israel)	
	GAiA	initial release	Apr-12	GAiA is a single, unified network security OS that combines the SecurePlatform and Nokia's IPSO.	In Greek mythology, Gaia is the mother of all, representing closely integrated parts to form a single, efficient system.
	SecurePLATform (SPLAT)	R60	Jun-05		
	Security Appliances	GAiA R75.40	Apr-12	Many different sizes and configurations	
	Security Gateway Software Blades	GAiA R75.40	Apr-12	Many different sizes and configurations	
CipherTrust, Inc. www.ciphertrust.com	IronMail	none			
Cisco Systems www.cisco.com	Adaptive Security Appliance (ASA) 55xx series	7.0 8.0 for SSL VPN, 8.2.2 stateful failover	early 2005, varies by module	modules for PIX-based firewall, VPN, anit-virus, anti-spyware, and Intrusion Protection Service (IPS), limited IPv6 multicast support	
	AnyConnect SSL VPN	3.5	May-10		
	Application Control Engine (ACE) 30 service module	5(1.0)	Oct-11		
	ACE WAF	none	end-of-life announced Aug 2010		

Company	Product	Version	Date	Notes	
	Email Security Appliance (ESA)	initial release	beta 2010		
	Intrusion Prevention System (IPS) 42xx	6.2	mid 2008	Limited initial IPv6 capability	
	PIX-5xx	7.0	early 2006	first release of Cisco firewall with some IPv6 support	
	Virtual Private Network (VPN) client	4.0.3(F) or 3000	No direct support	IPv6 tunnels (ISATAP, gogoWARE, et cetera) may work through the VPN once it is established. Does not lock IPv6 stack when in use	
	VPN 30xx Concentrator	3000	No direct support	IPv6 tunnels (ISATAP, gogoWARE, et cetera) will often work through the VPN once it is established.	
	Web Security Applicance (WSA)	initial release	beta 2010		
Citrix Systems, Inc. www.citrix.com	NetScaler Application Firewall	8.0	since 2007	A type of WAF	
Cloudshield Technologies www.cloudshield.com	BladeCenter DPI for the IBM PN41 blade	hardware IP neutral	No intrinsic support	No plan for IPv6 support	
	CS-2000	hardware IP neutral	No intrinsic support	No plan for IPv6 support	
Computer Associates International, Inc. www.ca.com	Anti-Spam Plus (formerly Qurb)	2007	Feb-07	IPv6 support evolving. See http://arcserve.com/us/about/content.aspx?cid=1	
	Anti-Spyware	2007	Feb-07	see above	
	Anti-Virus	2007	Feb-07	see above	
	eTrust EZ Firewall	none			
	Internet Security Suite	2007	Feb-07	see above	
	Personal Firewall	2007	Feb-07	see above	
CyberOperations, Inc. www.cyberoperations.com	Filter List Manager/Anti Network Terrorism (FLM/ANT)				
	Network Access Compliance (NAC) Control Director		Jul-08		
Dell, Inc. www.dell.com (formerly SonicWALL, Inc.)	E-class Network Security Appliance (NSA) firewalls	5.5.1	May-10		
	Global VPN client	4.0.0	none	does not lock IPv6 stack when in use	
	Mobile Connect for Android	not initially supported			
	Mobile Connect for iOS	not initially supported			
	SSL VPN	3.5	Feb-09	IPv6 features supported through the tunnel	
	SuperMassive E10xxx series firewalls	SonicOS 5.8.1.0	Jun-11		
Econet.com, Inc. www.econet.com	Sentinel IPS series	unknown			
Enterasys Networks, Inc. www.enterasys.com A Siemens Enterprise Communications Company	Enterasys IPS (also known as Dragon IPS)	?	Dec-10		
ESET North America www.eset.com (a.k.a. ESET spol. s r.o.)	NOD32 Antivirus 4/5		2007		
	Smart Security 4/5		2007		
	Cybersecurity for Mac		2010		
F-secure Inc. www.f-secure.com	Anti-Virus	7.1.2	Mar-09		

	Internet Security 2007			see above	
ForeScout Technologies, Inc. www.forescout.com	CounterACT for Endpoint Compliance	7.0 EA	Oct-12		
	CounterACT for Network Access Control (NAC)	7.0 EA	Oct-12		
Fortinet, Inc. www.fortinet.com	FortiGate series	FortiOS 2.8	late 2003	antivirus firewall platforms	
	FortiGuard services		none	antivirus services	
	FortiWeb Web Application Security 1000C		none	A type of WAF	
FreeBSD.org www.freebsd.org	IPFW also known as IPFIREWALL			firewall for FreeBSD	
	IP6FW			IPv6 firewall for FreeBSD	
Future Systems, Inc. www.future.co.kr	SecuwayGate 6000	FOS v3.0	Sep-05		
F5 Networks, Inc. www.f5.com	big-IP Applications Security Manager (ASM)	TMOS 11.1	Dec-11	A type of WAF	
GFI Software www.gfi.com	MailEssentials		Jun-08	anti-span, anti-virus email management	
iMPERVA Inc. www.imperva.com	SecureSphere	Suite 9.0	Dec-11	A type of WAF. It runs only on A10 ACOS systems	
Intellitatics, Inc. www.intellitatics.com	Intellitatics Advanced Analytics	unknown	since 2007		
	Intellitatics Security Manager (ISM)	unknown	since 2007		
International Business Machines www.ibm.com/us	Security Network Intrusion Prevention System (IPS)	4.1	Jul-10		
Internet Security Systems, Inc. www.iss.net	BlackICE PC Protection (formerly known as Defender), BlackICE Server, and the older Agent		none		
	ISS	7.x	?	Conflicting opinions about ISS IPv6 support have been received.	
	Proventia	20.15	June 2003, limited largely to tunnels	A signature-based Intrusion Detection System, but as of Nov 04, no signatures or ability to report IPv6 provided	
	RealSecure Guard, Network, Server	7.0	Jun-03	Intrusion Detection System	
IronBee www.ironbee.com (A Qualsys, Inc. company)	IronBee Web Application Firewall		none	A type of WAF	
Juniper Networks (formerly Netscreen Technologies) www.juniper.net	IDP-50, -200, -600, -1100	GigaScreen	mid 2006	Intrusion Detection and Provention (IDP) systems	
	IDP Security Module	GigaScreen	mid 2006	use in ISG-2000	
	ISG-1000/2000	ScreenOS 5.4	Oct-06	IPv6, jumbo, & multicast on 5.4r2 fall 2006 no IPv6 on ISG-1000 until 6.0	
	NS-204/208	ScreenOS 5.0.0	Jun-05	IPv6 not officially supported after ScreenOS 5.4	
	NS-25/50	none	See NS-204	See NS-204/208 comment	
	NS-500/500GPRS	ScreenOS 5.0.0	See NS-204	See NS-204/208 comment	

	NS-3x000, NS-5x00 2G/8G	ScreenOS 5.4 limited, support in 6.0	1Q2005 (8G 4Q2005)	No "transparent mode," only "routing mode," yet RIP is only routing protocol (no OSPFv3). Simultaneous support for multicast and jumbo frames 5.4 in 4Q2006. Some IPv6 functions still	
	NS-5GT, NS-5GT ADSL	none			
	NS-5XT	ScreenOS 5.4	See NS-204	See NS-204/208 comment	
	Network and Security Manger (NSM)	2009 1R1			
	Secure Access (SA) SA700, SA2000, SA4000, SA6000 SSL VPN	Junos Pulse (also known as Network Connect)	est. late 2012		
	Secure Services Gateway (SSG)-5/20	ScreenOS 5.4 limited, support in 6.0	Oct-06		
	Security Threat Response Manager (STRM) series		Oct-09		
	SSG-140/5xx	ScreenOS 5.5 limited, support in 6.1	early 2007 for 140, late 2007 for 5xx		
	virtual Gate Way (vGW)	5.5	Aug-12	integrated firewall protection, intrusion detection, compliance monitoring, security management, and antivirus protection for Virtual Machines (VMs). Originally developed by Altor Networks	
Kaspersky Lab ZAO usa.kaspersky.com	Anti-Virus		2010		
	Anti-Virus for Mac		2010		
	Internet Security		2010		
LogMeIn, Inc. LogMeIn.com	Hamachi	2.1.0.122 Windows 2.1.0.65 Mac	Aug-11	VPN client for Windows, Mac, and most recently Linux	
	vpn.net	initial release	Aug-11	secure hosted VPN site	
McAfee, Inc www.McAfee.com (formerly known as Network Associates, Inc., now a subsidiary of Intel Corp.)	CyberGuard KS1000/1500	6.1	est. June 2004	Previously a CyberGuard WorldWide product, now part of Firewall Enterprise	
	CyberGuard SL3200		?	Previously a CyberGuard WorldWide product, now part of Firewall Enterprise	
	Desktop Firewall	2007			
	Email Gateway (formerly IronMail)			Previously a Secure Computing product, an email filter/firewall/encryptor	
	EnterCept family of products	none			
	ePolicy Orchestrator (ePO)	Jul-09	4.5	management component of current DoD Host Based Security System (HBSS)	
	Firewall Enterprise (formerly Sidewinder G2)	7.0.1.00	Dec-09	Previously a Secure Computing product. Cannot support IPv6 in High Availability configurations	
	Foundstone	none	planned for 2007	previously a Foundstone, Inc. product	
	Foundstone Enterprise	May-07		previously a Foundstone, Inc. product	

	Gauntlet	none			
	Hercules Enterprise Vulnerability Management Suite	none		previously a Citadel Security Software, Inc. product	
	Hercules Remediation Manager	none		previously a Citadel Security Software, Inc. product	
	Host Intrusion Prevention System (HIPS)	V7 path level 9	Jun-11		
	Internet Security Suite	2007			
	Network Security Platform (NSP) family	Oct-08	5.1	Formerly IntruShield family of products. Limited IPv6 capability with 4.1 in May 2007	
	Network Threat Response (NTR)	limited by provided signatures		Formerly Endeavor Security product	
	NTR Control Center	limited		Formerly Endeavor Security product	
	Network User Behavior Analysis (UBA) Control Center			Also called Enterprise Manager	
	Network UBA Monitor series	2008		Previously a Securify Federal Operations product, later a Secure Computing product	
	PC Protection Plus	2007			
	Total Protection	2007			
	UTM Firewall (formerly SnapGear)				
	VirusScan Plus	2007			
	VirusScan Enterprise	2007			
	Wireless Protection	2007		see above	
Metaneworks Technologies, Inc. www.metanetworks.org	MTP-1G 1 Gigabit IDS/IPS		Nov, 2005	non-blocking real time parallel hardware Intrusion Detection/Prevention System	
	MTP-10G 10 Gigabit IDS/IPS		Nov, 2005	non-blocking real time parallel hardware Intrusion Detection/Prevention System	
Microsoft Corporation www.microsoft.com	Intelligent Application Gateway (IAG)	none		originally developed by Whale Communciations. Superceded by Forefront UAG	
	Forefront Security for Exchange Server	SP1	Jul-09	requires Exchange Server 2007 SP1 or later	
	Forefront Threat Management Gateway (TMG)	none		Product at end of development life cycle. No IPv6 functionality planned.	
	Forefront Unified Access Gateway (UAG)	limited support in SP1, support only when used with DirectAccess	Oct-11 SP1	requires 64-bit Server 2008 or later. Product at end of development life cycle. No IPv6 functionality planned.	
	Internet Connection Firewall (ICF)	Windows XP SP1/SP1a	Jul-03	refer to section 2.2 Windows XP entry	

Company	Product	Version	Date	Notes	
	Internet Security and Acceleration (ISA) Server Standard and Enterprise	none		for windows 2000 Server through Windows 2003 Server, but not Server 2008	
	Proxy Server	none		Windows NT 4.0 application	
	Virtual PC/ Server	PC 2007 Server 2005 R2	Feb-07	Earlier versions support IPv6, but not in Windows Vista or Windows Server 2008. Superceded by XP mode built-in to Windows 7 Professional/Ultimate	
	Windows Firewall	Windows XP SP2		refer to section 2.2 Windows XP entry	
	Windows Live OneCare	1.5	Nov-06		
ModSecurity www.modsecurity.org (a TrustWave SpiderLabs company) (formerly Breach Security)	ModSecurity Web Application Firewall	2.60	Jun-11	A type of WAF	
Mu Dynamics www.mudynamics.com (formerly known as Mu Security)	Mu-4000 Security Analysis Platform	all	Apr-06	Updates support USGv6 test profiles	
Mykonos Software www.mykonossoftware.com (A Juniper Networks company)	Mykonos Web Security		none	A type of WAF	
m0n0.ch/wall	m0n0wall firewall	1.3	Dec-09	FreeBSD based firewall appliance	
NCP Network Communications Product engineering, Inc. www.ncp-e.com	Secure Entry Client	9.3	Nov-11	VPN locks IPv6 stack when in use	
NetCitadel LLC www.fwbuilder.org	Firewall Builder	3.0.4.794	Apr-09	GUI configuration manager for multiple firewalls	
NetFilter www.netfilter.org	IPtables	1.3.8	Jun-07	Linux firewall	
	IP6tables	initial release		configure IPv6 rules in Iptables	
NetGear www.netgear.com	VPN Client software	none		does not lock IPv6 stack when in use	
NetScout Systems, Inc. www.netscout.com	Adaptive Session Intelligence (ASI)	initial release	Nov-10	real-time Deep Packet Analysis (DPA) engine	
	nGenius Service Assurance Solution		Oct-10		
Next Generation Security Software Ltd. Www.ngssoftware.com	NGSSniff	none		Packet analysis	
	NGSSquirreL series	none		Multi-vendor database security auditing	
	OraScan	none		Oracle database security auditing	
	Typhon III	none		Security audit and protection	
NFR Security www.nfr.com (A Check Point Software Technologies Ltd. company)	Sentivist Intrusion Prevention System (IPS)	4.0 (and before) 5.0 (real-time capabilities)	mid-2002 mid-2006	IPv6 scanning capability expanded w/5.0.	
Nokia www.nokia.com (A Check Point Software Technologies Ltd. company)	IP3xx, IP5xx, IP7xx, IP12xx	IPSO 3.6	since 2001	Based on IP Switching Operating (IPSO) system	
Norse Corporation www.norse-corp.com	IPViking eCommerce	initial release	2010	real-time IP address risk assessment	
	IPViking Enterprise (IPVE)	initial release	2010	real-time IP address threat assessment	
Nortel Networks Limited www.nortelnetworks.com	Secure IP Services Gateways products	none			
Open Door Networks, Inc. www.opendoor.com	Doorstop X Firewall		2.0	Apple Macintosh OS X firewall	
	Contivity Multi-OS VPN client	none		does not lock IPv6 stack when in use	
Open Information Security Foundation www.openinfosecfoundation.org/	Suricata	initial release	Jul-10	open source multi-threaded IDS/IPS	built into Security Onion

Open Vulnerability Assessment Scanner (VAS) www.openvas.org	OpenVAS	3.0.0	Dec-09		
Palo Alto Networks, Inc. www.paloaltonetworks.com	PA-500, PA-2000, PA-4000 Firewalls	v 3.0	Jun-09	enterprise firewalls	
Panda Security www.pandsecurity.com	AntiVirus		2010		
	AntiVirus+Firewall		2010		
	ClientShield		2010		
	Internet Security		2010		
Purdue University ftp://lsof.itap.purdue.edu/pub/tools/unix/lsof/	LiSt of Open Files (LSOF)		when O/S supports IPv6	lists information about any open files. Supports most Linux distributions, several UNIX versions	
RealVNC Ltd. www.realvnc.com	realVNC Enterprise Edition	4.1.7	Aug-05	VPN locks IPv6 stack when in use	
	realVNC Personal Edition	4.1.2	Jun-05	VPN locks IPv6 stack when in use	
Sguil sguil.sourceforge.net	Sguil	all		console to monitor network security and events	built into Security Onion
Solera Networks, Inc. www.soleranetworks.com	DeepSee DS-x150 forensics software		since 2008	network traffic capture software	
Sophos Ltd. www.sophos.com	Client Firewall	1.5	Aug-11		
	Firewall	none			
Sourcefire, Inc. www.sourcefire.com (a Cisco Systems, Inc. company)	ClamAV	0.94	Sep-08	www.clamav.net. Open source antivirus/antimalware software	
	Next Generation Firewall (NGFW)	initial release	Dec-11		
	Next Generation Intrusion Prevention System (NGIPS)	initial release	Feb-12		
	SNORT	2.8.0 basic support 2.8.4 improved	9/1/2007 4/8/2009		built into Security Onion
	Sourcefire Secure Socket Layer (SSL) appliance	none	not documented as of Jun-10		
	Sourcefire 3D System	all models	Jun-11	commercial IPS/IDS descendant of SNORT	
Squert www.squertproject.org	Squert		all	query-driven viewer for Sguil database	built into Security Onion
SRI International, Inc. www.bothunter.net	BotHunter	all		network-based malware infection diagnosis system	
SRI International www.sri.com	Emerald net♦IDS Intrusion Detection System		Nov, 2005	The Emerald tool suite IPv4 version is free to government organizations, and the IPv6 version may become so, awaiting market demand	Contact Jonathon Cory <jonathon.cory@sri.com> (650)859-4121 for more information.
StoneSoft Corp. www.stonesoft.com/us	StoneGate Firewall	5.2	Jun-10	VPN built-in. Improved support in 5.3	
	StoneGate IPS	4.3	Jun-08		
	StoneGate Management Center	4.3.0	Jun-08		
	StoneGate SSL VPN	1.1.0	Mar-08		
Symantic Corporation www.symantec.com	NetProwler	none			
	Norton 360	1	Feb-07		
	Norton AntiVirus	2007	Feb-07		
	Norton AntiVirus Corporate Edition			No IPv6 support	
	Norton Internet Security	2007	Feb-07		

	Norton Personal Firewall			No IPv6 support	
	Norton Utilities			No IPv6 support	
	Raptor, VelociRaptor	none			
	Endpoint Protection (SEP) series			Incompatible with IPv6. By default blocks all IPv6; canNOT configure to allow IPv6	
	SystemWorks			No IPv6 support	
TCPwrapper ftp://ftp.porcupine.org/pub/security/index.html	TCPwrapper	7.6-ipv61	Jun-01		hints on its use at ftp://ftp.porcupine.org/pub/security/hints-and-tips.html
TechGuard Security, LLC www.techguard.com	PoliWall	Mxx and Gxx series	Nov-10	network security appliance	
The Firewall Tooklik www.fwtk.org	FTWK	none in mainline, Linux patches		previously known as the TIS Firewall toolkit	
TippingPoint Technologies, Inc. www.tippingpoint.com (an HP company)	Digital Vaccine	initial release	Oct-10		
	Intrusion Prevention Systems (IPS)	210E/2500N/5100N series	Jan-09		
	Security Management Systems (SMS)		Jan-09		
Trend Micro Incorporated us.trendmicro.com	AntiVirus	none			
	AntiVirus with AntiSpyware	2007	Feb-07		
	(PC-cillin) Internet Security	2009	Feb-09		
	ScanMail for Exchange	10.0	Aug-10		
Third Brigade, Inc. www.thirdbrigade.com	Deep Security 4	none		host-based IPS	
Tripwire Inc. www.tripwire.com	Tripwire Enterprise	none	in 2012?	configuration assessment and auditing	
	Tripwire for Servers	none	see above	configuration assessment and auditing	
	vWire	none	see above	virtualization assessment and auditing	
Tufin Software Technologies Ltd. www.tufin.com	Tufin Security Suite	R12-3	Jun-12	security policy manager	
VeEX Inc. www.veex.com	MX, EX test equipment		Jan-11		
	Ethernet test equipment		Jan-11		
Vidder, Inc. www.vidder.com	Vidder versatile application VPN	initial release	2005		
WebScurity, Inc. www.webscurity.com	webApp.secure		none	A type of WAF	
Zone Labs, Inc. www.zonelabs.com (A Check Point Software Technologies Ltd. company)	ZoneAlarm, ZoneAlarm Pro	8.0	2008		

General Information about Network and Traffic Management and Testing Products: Both hardware and software that are used to manage, test, or control the configuration or performance characteristics (including load balancing and rate limiting) of a network infrastructure or computers attached to that network infrastructure are included in this category.

1.5 Information about specific Network and Traffic Management and Testing Products					
Manufacturer, Vendor or Developer	**Make, Model, or Series**	**First Version with IPv6 support**	**Date First Supported**	**Comments or Additional Information**	**Related Web Site**
Agilent Technologies we.home.agilent.com	IPv6 Routing Emulation Software	E7885A		Both IPv4 and IPv6 emulation of many protocols supported. Requires use of E37882a IPv4 software as well.	
	N2X Multi-Service tester	1.0			

Alcatel-Lucent Com. www.alcatel-lucent.com	Alcatel Webview	varies		network element manager for use with OmniSwitch 7000 series hardware	
	Omnivista 2000 Network Management	varies		network management software for use with Alcatel OmniSwitch hardware	
Alert Logic, Inc. www.alertlogic.com	Log Manager		Feb-11		
	Threat Manager		Feb-11		
ArcSight Inc. www.arcsight.com	Enterprise Security Manager (ESM)	5.0		The version of IP used for communications should not have a significant effect on ESM	
	Network Configuration Manager (NCM)	4.1	May-07		
ASPath Tree http://carmen.ipv6.tilab.com/ipv6/tools/ASpath-tree	ASPath-Tree	4.2		BGP4+ path display tool	
BreakingPointSystems, Inc. www.breakingpointsystems.com (formerly www.breakingpointlabs.com)	BreakingPoint Elite	all	Jul-09	Simultaneous dual-stack IPv6/IPv4 device testing	
Brocade Communication Systems Inc (formerly Foundry Networks) www.brocade.com	IronView	3.0	since 2007	Support date depends on the module	
ByteSphere Technologies, LLC www.bytesphere.com	OidView SNMP MIB Browser	3.1	May-08		
	Jaguar SX	Community Edition	Jan-09	network fault monitoring system	
Cacti www.cacti.net	network performance graphing software		none		
Cheops-NG cheops-ng.sourceforge.net	Cheops next generation (Cheops-NG)	none		network mapping and monitoring tool	
Cisco Systems www.cisco.com	CiscoWorks	multiple modules	late 2004 (3.0) into 2005 (4.0)	Support date depends on the module. See the Related Web Site comment for 14xx/16xx/17xx routers in Section 1.1	
	Netflow	12.2 S	est. in 2005		
	Analyzer	5.0	Dec-05		
Codenomicon www.codenomicon.com	DEFENSICS		since 2006	network test tool	
	Test Suites		many since 2006	suite of protocol-by-protocol test tools	
Communication Devices International (CDI) Limited www.commdevices.co.uk	Distributed Database Manager (DDM)			IPv6 support planned but no definite date	
	Packet Generator		Jun-05		
Computer Associates International, Inc. www.ca.com	eHealth suite	6.2	Jul-11	Formerly a Concord Communicatoins, Inc. product. With limitations as documented by vendor	
	NetMaster Network Management for TCP/IP	11.6	Jan-09		
	SPECTRUM Infrastructure Manager	9.0.0.0.1	Dec-09		
	SPECTRUM Network Fault Manager	8.1	2008		
	Unicenter Network Management Suite	7.x	Mar-03		
Cricket cricket.sourceforge.net	Cricket	1.0.4			
Dartware, LLC www.intermapper.com	InterMapper	5	May-08		

Dell, Inc. www.dell.com	Integrated Dell Remote Access Controller (iDRAC 6) - Express & Enterprise	1.0.0	Jan-09	Out-of-band network management device for Dell PowerEdge servers	
Defense Research and Engineering Network (DREN), ipv6-team@hpc.mil	Simple Packet Translator (SPT)		Nov, 2005	A simple translator that converts a file containing IPv4 packets into a file containing IPv6 packets. Useful in testing other IPv6 software.	
Easy-IP AS www.easy-ip.net	Easy-IP	6.0.1	Aug-11	IPAM software	
	Easy-IPv6	1.0	Jun-11	IPAM software	
EMC Corporation www.emc.com	LEGATO NetWorker	7.5	Dec-08		www.legato.com
	Ionix Management Suite		Jan-08	previously System Management ARTS Incorporated [SMARTS] In-charge	
	Navisphere Management Suite		Jan-08		
Eracent Enterprise Asset Management www.eracent.com	Enterprise AM	none		clientless Enterprise asset inventory and configuration assessment for IPv6 transition planning	
EtherApe etherape.sourceforge.net	EtherApe	0.9.1	2007?	graphical network monitor	
Ethereal www.ethereal.com	Ethereal	0.9.16	since 1999	multi-protocol analyzer, replaced by Wireshark in 2006	
EXFO Electro-Optical Engineering Inc. www.exfo.com	FTB-8510B (up to 1 Gbit/s)	initial version	19-Nov-08	field-portable test equipment	
	FTB-8510G (up to 10 Gbit/s)	initial version	19-Nov-08	field-portable test equipment	
	IQS-8510B (up to 1 Gbit/s)		19-Nov-08	laboratory test modules	
	IQS-8510G (up to 10 Gbit/s)		19-Nov-08	laboratory test modules	
Flow-Tools www.splintered.net/sw/flow-tools/	flow-tools	none			
Fluke Corporation www.flukenetworks.com	Networks OptiView III Integrated Network Analyzer	5.3	Oct-08		
Genie Network Resource Management(GenieNRM) Inc. www.genienrm.com	Genie Advanced Traffic Mining (GenieATM)	4.7	Feb-07		
Gigamon, Inc. www.gigamon.com	GigaVUE-series		Oct-08	Switch which aggregates, replicates, filters and divides traffic flows	
	GigaSMART		Nov-10	Packet slicer	
Hewlett Packard Development Company www.hp.com	FlexManagement Intelligent Management Center (IMC) series	5.1	Oct-11		
	FlexManagement ProCurve Manager Plus (PCM+) series		Jan-09		
	Network Management Center (previously OpenView)	6.4	Nov-03		
IDEAL Industries Networks, Inc. www.idealindustries.com (a division of IDEAL Industries, Inc.)	NAVITEK	II	May-12	Active hand-held LAN tester	
International Business Machines www.ibm.com/us	Tivoli NetView	53B	Oct-07	TCP/UPD bandwidth performance measurement tool	similar to ttcp but much later development

InterWorking Labs, Inc. www.iwl.com	Maxwell TCP/IP Test Environment	initial release	Dec-04		
	SilverCreek SNMPv3 test suite	7.3	Oct-03		
IPv6Suite ctieware.eng.monash.edu.au/twiki/bin/view/Simulation/IPv6Suite	IPv6Suite	1.1	Aug-01	IPv6 protocol and network simulator	caia.swin.edu.au/talks/040901A/040901A.pdf
ip6sic ip6sic.sourceforge.net	IPv6Suite			A tool for integrity checking an IPv6 stack implementation (open source)	
Infrastructure Solutions, Inc. www.isiisi.com	ISI-Snapshot	7.4	Aug-11	discover and inventory network-attached equipment	
IXIA www.ixiacom.com	IxCHARIOT	5.1		Now supports IPv6 multicast and QoS (formerly known as NetIQ Chariot)	
	IxANVL IPv6 test suite			Other products support traffic generation and topology emulation	
Kratos Defense & Security Solutions, Inc. www.kratosnetworks.com	dopplerVUE	2.2	Nov-10	small-to-medium business network management software	
	NeuralStar	9.7	Nov-10	enterprise network management software	
Lantronix, Inc. www.lantronix.com	ManageLinx	initial release	Sep-10	Remote Access of Firewall Protected	
	SecureLinx SpiderDuo	initial release	Sep-10	Remote-KVM with Local Access	
Laurent Constantin www.laurentconstantin.com/en/netw/netwox	NetWOX Network Toolbox		Jan-04	utility scripts to test for may IPv6 vulnerabilities, including firewall rule enforcement	www.net-security.org/dl/articles/sendip6.pdf Also www.linuxsecurity.com/content/view/117356/49/
Lumeta Corporation www.lumeta.com	IPSonar		Jul-04	wide-area and local-area network topology mapping and discovery toolsest	
	MapViewer		Jul-04	viewer for IPSonar maps	
MCI, Inc. (now Verizon Business) www.mci.com	Customer Network Information Console (CNIC)	yes. First version unknown		only available to users of the MCI very high performance Backbone Network Service (vBNS+) network	
Metasploit Project www.metasploit.com	Metasploit Foundation	2.0	2004 (?)	packaged exploit test suite	
Monolith Technology Holdings, LLC www.monolith-software.com	Event Manager Suite		Jan-10	unified infrastructure management software	
	Metric Manager		Jan-10		
Multi Router Looking Glass	MRLG/Perl scripts	multiple versions	before 2002	IPv6 support on systems supporting IPv6	wiki.version6.net/LG
	MRLG/PHP	multiple versions	late 2003	IPv6 support on systems supporting IPv6	freshmeat.net/projects/mrlg4php/
Multi Router Traffic Grapher (MRTG) mrtg.hdl.com	MRTG tool	2.10.13			
Nagios Network Monitor www.nagios.org	Nagios (previously known as NetSaint)	1.2 with 1.4 plugin module	Mar-03	Use the --with-ipv6 command line option to configure IPv6 support	
National Laboratory for Applied Network Research (**NLANR**) www.nlanr.net	Active Measurement Program (AMP)				watt.nlanr.net sd.wareonearth.com/woe/amp.htm
Naval Research Laboratory - District of Columbia mgen.pf.itd.nrl.navy.mil	MGEN			Traffic generator and analysis tool for both IPv4 and IPv6 (open source)	
Naval Research Laboratory - District of Columbia nettion.pf.itd.nrl.navy.mil	NETwork TestIng and Operational eNvironment	0.5	2004 (?)	Network environment simulator	
netForensics, Inc. www.netforensics.com	Cinxi One	none		combined SIM and log management	
	Security Information Management (SIM) One	none			
Netgear, Inc. www.netgear.com	NMS200 ProSafe Network Management System	initial release	Sep-10		

NET-SNMP www.net-snmp.org	net-snmp (previously known as ucd-snmp)	5.0.6	2002 in Japan -- --------------- later in U.S.		
NDPMon ndpmon.sf.net	Neighbor Discover Protocol Monitor	base version	mid-2006	NDP monitor is similar to ArpWatch for IPv4. open source software	
NetIQ Corporation www.netiq.com	NetIQ network management solutions	none			
	NetIQ Vulnerability Manager	none		formerly known as VigilEnt Security Manager	
NfDump sourceforge.net/projects/nfdump/	NfDump	unknown	since 2006		
	NfSen	unknown	since 2006		
NIKSUN Incorporated www.niksun.com	NetVCR 2005		2005	Traffic recorder and analysis tool	
nttcp sd.wareonearth.com/~phil/net/ttcp/	New ttcp (nttcp)	1.47	Sep-02		ttcp and nuttcp also referenced
NTOP www.ntop.org	NTOP	3.0	May-04		
Objective Systems Integrators, Inc. www.osi.com (formerly an Agilent product)	NETeXPERT Virtual Service Manager (VSM)	planned for 6.3	est. 1Q2010		
OpenBSD Packet Filter	IPFILTER (IPF)	4.8		firewall for FreeBSD, NetBSD, OpenBSD, SunOS, HP/UX, and Solaris. In OpenBSD 5.1, the pf will support NAT64	
	Packet Filter (PF)	since OpenBSD 2.7		A network tool with analysis, firewall and NAT capabilities. Also in FreeBSD	
OpenNMS www.opennms.org	Open Network Management Software		June 2011 (mostly)		www.opennms.org/wiki/IPv6_Support gives details of IPv6 support
OPNET Technologies, Inc. www.opnet.com	IT Guru Network Planner	11.0	May-05	IT and Service Provider (SP) versions similar except SP version can model MPLS networks	
	IPv6 Planning and Operations module for Guru Network Planner	initial release	Sep-07	add-on to Guru Network Planner products	
	Modeler	10.5	May-04	The DISA Network Warfare Simulator (NETWARS) uses OPNET Modeler	www.disa.mil/main/prodsol/netwars/index.html and www.opnet.com/products/library/netwars_models.html
	Netmapper	initial release	May-09		
	SP Guru Network Planner	11.0	May-05	IT and Service Provider (SP) versions similar except SP version can model MPLS networks	
Packet Capture Library (Pcap)	PCAP dll	4	Feb-07	generic name for library used for packet capture and analysis, Linux/UNIX PCAP, WinPcap, et cetera	www.winpcap.org
PWI, Inc. www.privacyware.com	PrivateFirewall	7.0	Jun-11		
	ThreatSentry	4.0	unknown	IIS Web Application Firewall	
QoSient, LLC www.qosient.com	Argus	3.0	Dec-07	A real time distributed non-blocking flow monitor	
	Gargoyle	under active development	Dec 2007 (est)	Contact carter@quosient.com for information on IPv6 capabilities	
RANCID www.shrubbery.net/rancid	RANCID	2.3.1		remote router configuration management	
Round Robin Database tool people.ee.ethz.ch/~oetiker/webtools/rrdtool	RRDTool			IPv6 supported if the version of MRTG used supports it	
Saint Corp. www.saintcorporation.com	Security Auditor's Integrated Network Tool (SAINT)	5.7.2 limited support	Mar-05	a commercial descendant of SATAN	

	webSAINT			for individual rather than corporate use	
Scapy www.secdev.org/projects/scapy	Scapy	1.0	Aug-05	multi-purpose packet manipulation and analysis tool written in Python	built into Security Onion
Secure64 Software Corporation www.secure64.com	Secure64 DNS Authority, Cache, Server		May-09		
SecureLogix Corp. www.securelogix.com	ETM System product suite	none			
	ETM Voice Firewall, ETMAudit, ETMView	none		Perviously known as TeleWall, TeleAudit, TeleView	
SendIP www.earth.li/projectpurple/ progs/sendip.html	SendIP	1.2	Nov-00	open source software to generate arbitrary IP packets	
Shenick Network Systems, Ltd. www.shenick.com	diversifEye		Dec-07	Integrated network, application and security attack emulation and performance assurance test system	
	servicEye		Dec-07	Network, application and security attack test monitoring system	
Somix Technologies Inc www.somix.com	Denika Performance Trender	4.0	Nov-03	IPv6 supported if the version of MRTG used supports it	
Solarwinds, Inc. www.solarwinds.com	Internet Protocol (IP) Address Manager	3.0	June 2011 (mostly)		
	Netflow Traffic Analyzer	support promised "real soon now"			
	Network Configuration Manager (NCM)	6.1	Jan-11		
	Orion Network Performance Monitor (NPM)	10.2	Nov-11		
Spirent Communications www.spirentcom.com	Avalanche suite of test result reporting software	7.0	May-05		
	AX4000, Smartbits, Test Center suites of test software		Oct-03	Tests wide variety of conformance/ capability features of IPv6 communications devices	
	Mobility 2500 Performance Tester		Oct-03		
	ThreatEx suite of network attack test software		Nov-05		
StillSecure www.stillsecure.com	COBIA Unified Network Platform (UNP)		planned. No date	opensource security management framework	
	Safe Access		Nov-10		
	Strata Guard		planned. No date		
	Vulnerability Management System (VAM)		planned. No date		
Symantec Corporate www.symantec.com	Intruder Alert (ITA)	none			
	NetRecon	none			
	Network Security 7100		limited		
SYS Technologies www.systechnologies.com	NeuralStar			network management software. Previously an AI Metrix, Inc. product	

www.dopplerVUE.com	dopplerVUE	all	2008		
TCPdump www.tcpdump.org	TCPDump	most do if enabled when built		network packet analysis tool for Unix/Linux, using libpcap	
	WINDump			corresponding tool for Microsoft Windows	win6.jp/WinDump/index.html
Testing Technologies IST GmbH www.testingtech.com	Ttworkbench	TTsuite-IPv6	Sep-08		
The Icinga Project www.icinga.org	Icinga	1.3.0	Feb-11	a later fork of the Nagios Network Monitor	
WireShark www.wireshark.org	wireshark	0.99.1 and later	Jul-06 (estimated)	multi-protocol analyzer, successor to Ethereal in 2006	
Zenoss, Inc. www.zenoss.com	Zenoss Enterprise		Aug-11		
ZyXEL Communications Corp. www.us.zyxel.com	P660HN Series ADSL2+ gateways	initial release	Jan-11		
	VSG Series VDSL2 combo-WAN gateways	initial release	Jan-11		
	ZyWall-200	initial release	Sep-04	Discontinued. ZyXEL later products support IPv6	

General Information about Authentication Services Products: The protocols used to provide authentication services (for example, Remote Access Dial-In User Service [RADIUS], terminal access controller access control system [TACACS] and the newer [incompatible] TACACS+, and Kerberos) are often updated to include IPv6 support months or years before products implementing the updated standards become available. Public Key Infrastructure [PKI] products are no exception to this trend, but there are multiple academic and limited commercial IPv6-capable implementations of various tools that use PKI (typically in o of European origin), though they are not yet mature enough to reliably interoperate.

1.6 Information about specific Authentication Services Products			Date First Supported	Comments or Additional Information	Related Web Site
Manufacturer, Vendor or Developer	Make, Model, or Series	First Version with IPv6 support			
Alcatel-Lucent Technologies www.alcatel-lucent.com	NavisRadius Authentication Server	none			
Cisco Systems www.cisco.com	Secure Access Control Server (ACS)	12.3(2)T	2001		
IEA Software www.iea-software.com	RadiusNT	none			
Interlink Networks www.interlinknetworks.com	RAD-series	none			
Juniper Networks www.juniper.net/welcome_funk.html	Odessy Access Client	none		previously a Funk Software, Inc. product	
	Steel-belted RADIUS (SBR)	5.0 Carrier 7.0	Mar-05 Sep-08	previously a Funk Software, Inc. product	
OpenLDAP www.openldap.org	slapd	2.0.0			
OpenSSh www.openssh.org	OpenSSh client and server	3.6.1p2	2000	Only when installed on a system that supports IPv6	
Masschusetts Institute of Technology (MIT) web.mit.edu/kerberos/www/	Kerberos Key Distribution Center (KDC) and application servers	1.2.7		Limited but useful support in the KDC and application servers (see **section 2.5** for client information)	
	Kerberos	1.3		After modifications by the HPCMP including hardware preauthentication, KDC and application servers support IPv6	https://www.hpcmo.hpc.mil/security/kerberos/
RSA Security www.rsasecurity.com (The Security Division of EMC, Inc.)	Authentication Manager (formerly known as the Access Control & Encryption (ACE) server)	none		under discussion internally, IPv6 support date not established	
SSh www.ssh.com	Tectica products	2.x		Pre-commercial 1.x products supported IPv6, and SSh has since then	

The FreeRADIUS Project www.freeradius.org	FreeRADIUS	0.8.1 2.0.0 and later 2.1.9	1999 2007 2010	Limited IPv6 support (packets but not transport) fully supported (but needs 2 'listen' clauses) Additional bugfixes, improved support (For Red Hat Linux use freeradius2 RPM vice freeradius)	clients-ipv4 and clients = clients-ipv6 both needed
Winsend winsend.sourceforge.net/	Winsend library	initial release	2011	library used to imlement SEND CGA support in Microsoft Windows	www.hpi.uni-potsdam.de/fileadmin/hpi/FG_ITS/papers/Trust_and_Security_Engineering/2012_Rafiee_ICOIN.pdf

General Information about all kinds of Computers and Network Adapters (including Personal Digital Assistant [PDA], handheld, laptop, desktop, storage, servers, high performance computing [HPC], and visualization computers): Commercial computers in use today support IPv6 at the hardware level. IPv6 limitations arise from one piece of hardware (the network adapter or network interface card [NIC]), and the operating system and network driver (if separately supplied by the network adapter vendor). Support for Ethernet bonding (also known as NIC teaming) is an examaple of one of the few remaining areas where IPv6 support is currently lagging. For systems with an embedded network adapter, either wired or wireless (such as a PDA, laptop, or IP-capable cell phone) it can sometimes be hard to distinguish between the adapter and the system. It is generally the case that the operating system and network driver is more important than the network adapter in determining whether IPv6 is supported. Operating systems are discussed in section 2.2.

2.1 Information about specific Computers and Network Adapters					
Manufacturer, Vendor or Developer	**Make, Model, or Series**	**First Version with IPv6 support**	**Date First Supported**	**Comments or Additional Information**	**Related Web Site**
Apple Computers (Macintosh) www.apple.com				Any Macintosh that will run OS X with an Ethernet adapter made after 1999.	
Asynchronous Transfer Mode (ATM) adapters, any speed	Most support IPv6 encapsulated over ATM			The network driver as well as the network adapter must support IPv6, particularly if the network adapter vendor provides the driver.	
Ethernet adapters that support only 10 Mbits/sec **and** were made during or before 1998	various			IPv6 support not generally predictable. Research and replace if it is not certain that IPv6 is supported.	
Ethernet adapters that support 10/100 Mbits/sec (or greater) **or** were made after 1998	various			Almost all support IPv6. Exceptions and limitations of OS specific drivers as noted in the following section.	
Fiber Distributed Data Interface (FDDI)				This is generally older technology, and the device drivers can cause problems.	
Fibrechannel (or fiberchannel)	Most support IPv6 over fibrechannel			The IETF standards for IPv6 support over fibrechannel were finalized in Apr 2004, so only drivers after that date will have IPv6 support	
IEEE 1394 (firewire) adapters	Most support IPv6			RFC3146 finalized 2001, so drivers much before that date unlikely to support IPv6	
High-Performance Parallel Interface (HiPPI)				This is generally older technology, and if supported the device drivers can cause	
InfiniBand Architecture	Internet Protocol over Infiniband (IPoIB)			IPv6 support is included in the standards, but need not be implemented by vendors	
network attached storage (NAS) or direct attached storage (DAS)				These devices are most frequently used within an installation, so wide-area IPv6 communication is not an issue	
Nokia www.nokia.com (a Check Point Software Technologies Ltd. company)	9210, 9210i PDA	none		(uses Symbian OS Series 60)	
	9300, 9500 PDA	Feb-04		tri-band cell phones with built-in camera (9500) (uses Symbian OS v7.0)	
storage attached network (SAN)				IPv6 support depends on the vendor, no general trends are apparent	

Synchronous Optical NETwork/Synchronous Digital Hierarchy (SONET/SDH)	Most support IPv6			RFC3572 finalized 2003, so drivers much before that date unlikely to support IPv6. Layer 2 generally does fine, but short packets may be a problem in some drivers	

General Information about Operating Systems, Queuing Systems, and Utility Software: As of 2005, most commercial and open-source operating systems provide basic IPv6 support -- see comments for specific products below. Support for mobility, security (IPSec, IKE or IKEv2, and other security features), and autoconfiguration (dynamic DNS and DHCPv6) may still be limited, as noted below.

2.2 Information about specific Operating Systems, Queuing Systems, and Utility Software			Date First Supported	Comments or Additional Information	Related Web Site
Manufacturer, Vendor or Developer	**Make, Model, or Series**	**First Version with IPv6 support**			
Accelerated Technology www.acceleratedtechnology.com	Nucleus IPv6	1.2	Nov-04		
	Nucleus RTOS				
Altair Engineering, Inc www.altair.com	Portable Batch System (PBS) Pro and Open PBS	none	expected in 2008, not delivered	formerly Veridian PBS	www.pbspro.com
Apple Computers (Macintosh) www.apple.com	iOS	initial release. On by default. Cannot be disabled in iOS 4	Jan-08	Used by iPod, iPhone, iPad devices. DHCPv6 in iOS 4. iOS 4.2 may not fallback from IPv6 to IPv4 correctly. WiFi-only MIPv6 until LTE added in 6.0. Supports privacy addressing by default	
	OS 9.x	none			
	OS X	10.1 or later. On by default in 10.2. 10.3 or later too strongly preferred IPv6. Fixed in 10.6.5	2002	10.3 and later has relatively mature IPSec support. No DHCPv6 until 10.7. Privacy addressing on by default in 10.7. In IPv6-only environments, DNS CNAME processing fails. Behavior of Java and 6to4 discouraged IPv6 use in versions prior to 10.6.5	
Atempo www.atempo.com	TIMEnavigator	none			
Berkeley Software Distribution UNIX (BSD UNIX) www.bsd.org	various distributions, such as FreeBSD, OpenBSD, NetBSD, et cetera	FreeBSD 2.7, NetBSD 1.5, OpenBSD 2.7, BSD/OS 4.0	varies with the distribution, as early as 1998	too numerous to mention, but KAME project www.kame.net is worth mentioning since it supports some other versions/varities of BSD UNIX	
Blackberry, Ltd www.blackberry.com (formerly known as Research In Motion (RIM) Ltd.)	Blackberry	10	Mar-13		
Cray Computers, Inc. www.cray.com	Linux on XD1	built into Linux			
	MTA-2	MTX (derived from BSD4.4)		The front end subsystem can be configured to support IPv6	
	UNICOS on X-MP, Y-MP, C-90, T-90, J-90	none		IPv6 support announced but never released	
	UNICOS on SV1, SV1ex,T3E,T3E-l200	none		IPv6 support announced but never released	
	UNICOS on X1, X1E	mp 3.0.30 with CNS 1.4	4Q 2005, by request only	limited support (no IPSec, for example) The Cray Network Subsystem (CNS) can also be configured to provide some support.	
	UNICOS/lc on XMT, XT3, XT4	1.3.0	4Q 2005, by request only	limited support	
	UNICOS/ls on XT3	1.3.0	4Q 2005, by request only	limited suport	
Google, Inc. www.google.com	Chrome OS	initial release	Jul-09		

Hewlett Packard Development Company www.hp.com	AlphaServer SC	none			h18002.www1.hp.com/alphaserver/sc/
	Compaq Tru64 (formerly DIGITAL EQUIPMENT CORP)	5.1B limited support	early 2001	5.2 has better IPv6 support	h10026.www1.hp.com/netipv6/Ipv6.htm
	HP-UX	11i (sometimes known as 11.11). On by default beginning with 11iV2	Aug-01	Generally useful. IPSec supported but does not interoperate with other vendors yet (also needs Transport Optional Upgrade Release (TOUR) 2.0)	h10026.www1.hp.com/netipv6/Ipv6.htm
	NonStop	Release Version Update (RVU) G06.20	Jun-03	Also needs TCP/IPv6 1.0 or later. IPSec support early in 2005	h10026.www1.hp.com/netipv6/Ipv6.htm
	OpenVMS	5.1. On by default beginning with 8.3	Jun-01	Also needs TCP/IP services 5.1 or later. No firm date for IPSec support	h10026.www1.hp.com/netipv6/Ipv6.htm
	OpenView Omniback II	planned, none yet			www.openview.hp.com
	Palm OS 6.1 (Cobalt)	6.1	2005	Individual manufactures may not enable support on their platform	formerly Palmsource, Inc.
	WebOS	initial release		enabled by default	formerly Palmsource, Inc.
International Business Machines www.ibm.com/us	Application System/400 (AS/400) or OS/400	later called the I Series (i5/OS)	Jun-02	On by default. Expanded support in V5R4	
	AIX	4.3. On by default beginning with 4.6	late 1996	1997 first IPSec support, progressive expansion of support	www-306.ibm.com/software/os/zseries/ipv6/
	Hardware Performance Monitor (HPM) Toolkit	none		AIX 4.3.3 with the *PMAPI* kernel extension loaded, or AIX 5.1 with the *bos.pmapi* loaded	www.alphaworks.ibm.com/tech/hpmtoolkit
	LoadLeveler	none		See comments for PSSP below	
	OS/390 (formerly MVS)	initial support V2R6, final support V2R10 (obsolete as of 2004)	May-00	required additional packages to support IPv6	
	Parallel System Support Program (PSSP)	none		IPv4 addresses (only) must be retained internally on any SP-attached or clustered system. AIX supports IPv6 for external communications	
	Tivoli Storage Manager	5.1	Apr-03	IPv6 supported when run under AIX	1.4
	z/OS (replaced OS/390)	1R4.0 (obsolete as of March, 2007). On by default	Sep-02		In OS/390 was supported in V2R6 eNCS
Jungo, Ltd. www.jungo.com (an NDS Group, Ltd. company)	OpenRG	6	May-12	Residential gateway firmware	
Linux-derived open-source systems www.linux.org/dist, including the following (to name just a few):	Linux	The Linux kernel had support starting with 2.1.8, but 2.4.8 preferred minimum. On by default beginning in 2.6	1996	any recent distribution provides relatively good support of most IPv6 features, not necessarily including security or multicast routing. Starting with kernels released after Nov 2008 (2.6.27 or later), Linux supports ICMPv6, DHCPv6, MIB support and IPSec	The Linux IPv6 Portal www.deepspace6.net (good general information, especially the **Status Pages** under the Documentation link)
	Debian GNU-based	1.2.9			people.debian.org/~csmall/ipv6/
	Fedora-based	Core 1		IPv6 resolvers weak	fedora.redhat.com
	Gentoo-based	2.4			www.gentoo.org/doc/en/ipv6.xml
	Mandriva-based _(was Mandrake)	8.0			www.mandriviliniux.com/en/community
	Red Hat Desktop, _Enterprise WS	3.0		IPv6 sockets not supported. NFS via IPv6 not supported until 6.0	www.redhat.com/rhel/desktop

	Red Hat Enterprise	5.2		On some platforms, configuring both IPv6 and jumbo packets causes system hangs	www.redhat.com/rhel/
	Slackware-based	7			www.slackware.com
	SuSE/Novell-based	7.1			www.suse.com
	Ubuntu-based	2.6.8			www.ubuntu.com
Microsoft Corporation www.microsoft.com	Windows 95, 98, ME, NT4	none		Limited support available via third party add-ons, multiple (now outdated) sources	for Windows 95/98/Me, www.trumpet.com.au/ipv6.htm For windows NT4, MSRIPv6 1.4 research.microsoft.com/msripv6/msripv6.htm
	Windows 2000	SP4 with technology preview (tpipv6-001205)	2001	Limited support, hard to install, not production quality. Useful only for tests and educational purposes. Results unstable	msdn.microsoft.com/downloads/sdks/platform/t pipv6.asp, and read the FAQ (which describes how to install under SP4). May no longer be available from Microsoft. Contact ipv6-team@hpc.mil for a copy
	Windows Home Server (WHS), WHS Power Pack 1 (PP1)	base version	WHS 2007, WHS PP1 2008	Built on Windows .NET Server 2003 SP2 codebase. IPv6 is off by default	
	Windows Mobile CE .NET also known as (aka) Compact Edition (CE) later named Embedded CE aka Embedded Compact 7	4.1	mid 2003	VPN and IPSec/L2TP added in 4.2. MIPv6 in 6. Other flavors of Embedded include Handheld 7 and Standard 7	
	Windows Phone	7 initial release 8 initial release	2010 2012		
	Windows Pocket PC 2000 aka Windows Mobile (5.2 and later) aka Windows Phone (6.5 and later)	2003	late 2003		
	Windows Server 2008 (formerly Long-horn) DataCenter, Enterprise and Standard (all w/ and w/o Hyper-V), Hyper-V Server (x64 only), and Web Server 2008	base version	Mar-08	see comments for Windows Vista	
	Windows Server 2008 R2 (x64 only by default, configurable as 32-bit)	base version	during 2010	Clustering uses IPv6 for internal communications. Lacks mobile IPv6 support	
	Windows Server 2012	base version	Sep-12	See above. Now with IPAM built-in	
	Windows Vista Embedded, Starter, Home Basic, Home Premium, Business, Ultimate, Enterprise (x64 and x86)	base version	commercial Nov 2006, consumer Jan 2007	IPv6 on by default. Teredo for Active Directory clients, ISATAP and 6to4 tunneling on by default. Can function in an IPv6-only environment (a first for Windows). Virtualization only in Enterprise and Ultimate. Generally better IPSec support. Lacks mobility support	

	Windows XP Embedded, Home, Media Center Edition 2005, Professional, Professional x64, Tablet PC	SP1/1a with Internet Connection Firewall (ICF) and Advanced Networking Package (ANP), or SP2/3 and Windows Firewall (WF)	Jul-03	Limited support. No DHCPv6. DNS via IPv4 only. ICF does not support IPv6 unless ANP is installed (and only then does it filter IPv6 packets). WF does filter IPv6 packets. No support for jumbo packets. Limited IPSec support (no IKE nor encryption, for example). IPSec implementation does not interoperate with other vendors well. Tunneling not easily turned off. Only supports correspondent node mobility	DHCPv6 can be added using dibbler. Additional information at technet.microsoft.com/en-us/network/bb530961.aspx
	Windows 2000 Server, Advanced Server, Datacenter Server	none			
	Windows 7 Home Basic, Starter, Home Premium, Professional, Ultimate, Enterprise (x64 and x86), Slate	base version	Jul-09	IPv6 on by default. Teredo for Active Directory clients, ISATAP and 6to4 tunneling on by default. Can function in an IPv6 native environment (like Vista). XP Mode only in Enterprise and Ultimate. Lacks mobility support	
	Windows 8 RT, 8, 8 Pro, 8 Enterprise	base version	Oct-12	See above	
	Windows.NET Server 2003 Enterprise, Enterprise x64, Datacenter, Datacenter x64, Standard, Standard x64, Web edition, Compute Cluster Edition R1/R2	base version with ICF and ANP, or Basic Firewall (in Routing and Remote Access). SP1 replaces ICF with Windows Firewall (WF)	base May 2003 SP1 April 2005 (Server 2003 R2 in Oct 2005)	IPv6 is installed by default, but not enabled on any interfaces. Dynamic DNS also on by default (not always desirable). IPv6 jumbogram support very limited. In base version, ICF with ANP and Basic Firewall do not filter IPv6 packets. In SP1, Windows Firewall does filter IPv6 packets and blocks all by default. Internet Key Exchange (IKE) and Encapsulating Security Payload (ESP) headers with encryption for IPSec not supported. Only supports correspondent node mobility	DHCPv6 can be added using Dibbler. www.microsoft.com/windowsserver2003/technologies/ipv6/default.mspx also see www.microsoft.com/technet/prodtechnol/windowsserver2003/technologies/security/ws03mngd/14_s3ip6.mspx
MontaVista Software, Inc.	Carrier Grade	5.0			
	Mobilinux	5.0		supports Freescale Semiconductor, Intel, Texas Instruments, Open Handset Alliance Android, and others	
Novell Inc. www.novell.com	Netware	6.1	mid-2001	Enables IPv6 support for most software that uses Netware Loadable Modules (NLM)	
	server virtualization support for Linux		Jun-06	Supports IPv6 on multiple virtual server images running under Linux. Supports multicast and multi-MAC servers.	
Open Handset Alliance www.openhandsetalliance.com (previously Google, Inc.)	Android OS	IPv6 in initial release. Stable support in 2.2. 4.0 supports privacy addressing by default.	Nov-07	When embedded in commercial products (like tablets) IPv6 support is usually disabled. Such products will support IPv6 with a rebuilt ("rooted") kernel. When embedded in smartphones IPv6 support may be enabled Limitations: No support for IPv6 addresses as literal URLs per RFC 2732. No DHCPv6. . Supported only over WiFi interface until 4.0. 4.0 won't function in an IPv6-only environment over WiFi interface.	

OpenVZ www.openvz.org	OpenVZ	2.6.15	Jun-06	creates Virtual Private Server (VPS) environments in Linux	
Palmsource, Inc. www.palmsource.com	Palm OS 5, Garnet	none			
	Palm OS 6.1 (Cobalt)	6.1	2005	Individual manufactures may not enable support on their platform	
Platform Computing Inc. www.platform.com (an IBM company)	Load Sharing Facility (LSF), LSF HPC	7.0	Nov-06		
	File Transfer Agent (FTA)	unknown			
QNX Software Systems Ltd www.qnx.com (a subsidiary of Blackberry Ltd.)	QNX Neutrino RTOS	6.3.2	Jun-08		
Qualcomm, Inc. www.qualcomm.com/brew	Binary Runtime Environment for Wireless (BREW)	3.1.5	May-06	Later versions have better support for IPv6	
Silicon Graphics, Inc. www.sgi.com	OpenGL VizServer	none			
	IRIX	6.5.19 or later		beta version in 6.5.13f, no IPSec	
Storage Technology Corporation www.storagetek.com	Application Storage Manager (ASM),	none		No direct support for IPv6. Client systems accessing an ACSLS Manager tape library may support IPv6.	
	Automated Cartridge System Library Software (ACSLS) Manager	none		No direct support for IPv6. Client systems accessing an ACSLS Manager tape library may support IPv6.	
	SANtricity Software Suite	none			
	Virtual Transport Manager (VTM)	none			
Sun Microsystems www.oracle.com/us/sun/index.html (an Oracle Corporation company)	Java Software Standard Edition Development Kit	1.4.2 Solaris, Linux; 1.5 for Windows XP SP1 and later		version 1.5 provides improved IPv6 support for Solaris, Linux	java.sun.com
	Solaris	On by default beginning with 8.7 and later includes limited IPSec	2000	Solaris 10 supports both IPSec and IKE	
Symbian Ltd. www.symbian.com	Series 60	OS v6.x	none		
	Series 80	OS v7.x and following	Mar-03	IPSec also supported	
The Globus Alliance www.globus.org	Globus Toolkit	3.2.1		software to support grid computing across wide area networks	www.cs.ucl.ac.uk/staff/sjiang/webpage/How-to- IPv6- in-GT4.htm
	XIO library	any version (but not the older IO library)			
	GRAM library	3.2 and later			
Tizen Project, a Linux Foundation Project www.tizen.org	Tizen	2.0	Sep-12		
VERITAS Software Corporateion www.veritas.com	Cluster Server and related products	planned in version 5.0	2006Q1		
	NetBackup and related products	5.1		The client can communicate with the server via either IPv4 or IPv6	
	Volume Manager			Does not depend on IP - either will work	
VMware, Inc. www.vmware.com	vSphere Hypervisor ESX, ESXi	4.0	May-09	disabled by default	
Wind River www.windriver.com	VxWorks	6.0	Feb-04	Individual manufactures may not enable support on their platform	

General Information about Wide-Area Service Software: This section contains information about software that implements a protocol or service such as Web, FTP, TFTP, file, NFS, data bases, or print services for remote client software. Similar software that is sold bundled with hardware is listed in Section 1.2 above.

NOTE: See the Note in the header of Section 1.2 above regarding proxy servers and Application Delivery Controllers (ADC).

2.3 Information about specific Wide-Area Service Software			Date First Supported	Comments or Additional Information	Related Web Site
Manufacturer, Vendor or Developer	Make, Model, or Series	First Version with IPv6 support			
Apache Jakarta Project jakarta.apache.org	Java Serverlet HTTP Server	5.0			
Apache Software Foundation www.apache.org	HTTP Server	1.3.6 with patches, 2.0.14 built in, 2.0.51 Windows support		There are problems for web pages built with pre-5.0.0 PHP and 2.0.x, virtual hosts on IPv6 addresses are broken in versions until 2.0.28, 2.0.43 or later recommended due to vulnerabilities in earlier versions	
	mod_proxy and related modules	tracks HTTP server support since 2.0		Reverse proxy server	
	Traffic Server	2.0.0 3.2 full support	May-10 Jun-12	Originally developed by Yahoo! Inc.	
Apple, Inc. www.apple.com/mac/facetime/	FaceTime	none		Not supported	
Asterisk www.asterisk.org (a Digium, Inc. sponsored company)	Scalable Communications Framework (SCF)	1.8	Oct-10	telephony/audio/RTP/SIP server	
Blackberry, Inc. us.blackberry.com	Blackberry Enterprise Server	at least through v5.0		Won't work when installed on IPv6-enabled computer	
Cisco www.cisco.com/en/US/products/ps7060/index.html	TelePresence		Feb-12		
Ekiga www.ekiga.org	Ekiga Softphone	3.2	Feb-11		
	Ekiga Video Conferencing (formerly known as Gnomemeeting)			any version using IPv6-capable openH323	
Google www.google.com/talk	Google Talk	uncertain		some configuratoins support IPv6-only (only) connections	
Green Hills Software, Inc. www.ghs.com	INTEGRITY RTOS with IPLITE	178B	Nov-04	embedded IP protocol stack software. IPSec also available	
	INTEGRITY RTOS with IPNET	178B	Nov-04	embedded IP protocol stack software	
Icecast www.icecast.org	Icecast	1.3.12	2003		
International Business Machines www.ibm.com/us	DB2 Universal Database (UDB, nee DB2)	9	Jun-06		www-128.ibm.com/developerworks/db2/library/techarticle/dm-0606ahuja2/index.html
	DB2 Express-C	none		free version for Linux and Windows (only)	
	Information Management System (IMS)	8	Oct-02	Also needs z/OS v 1.4 released Agu 2002	www-306.ibm.com/software/data/database/
	Informix	not known			www-306.ibm.com/software/data/database/
	Lotus Domino	6.x	some support on some OS	SMTP, POP3, IMAP, LDAP, HTTP for Linux, AIX, and Solaris (but not Windows)	
IP2Location.com www.ip2location.com	IP2Location Open Source modules	various depending on source language	Nov-10		

	IP2Proxy Open Source modules	various depending on source language	Nov-10		
Microsoft Corporation www.microsoft.com	Exchange server	2007 SP1 (previously known as "12")	May-07	Only supported on Server 2008 (64-bit version) with both IPv4 and IPv6 enabled. 2007 SP3 required for use on Server 2008 R2	
	Internet Information Server (IIS)	6.0 limited support, 7.0 has full support	7.0 with Windwos Server 2008	Generally good support, but 6.0 doesn't support IPv6 addresses as literal URLs per RFC 2732, 7.0 supports ipv6-literal.net	
	Key Management Server (KMS) for Office keys	relies on host for IPv6 support		installs on Windows Server 2003 or later and Volume Licensed editions of Windows 7	
	KMS for Windows keys	relies on host for IPv6 support		installs only on Windows Server 2003 or later	
	Lync Server 2010 (formerly OCS 2010)		none		
	Lync Server 2013	initial release			
	Media Services 9 Series	part of Server 2003	none		
	Meeting Space	(part of Vista)	see Vista schedule	requires the use of IPv6	
	NetMeeting	phased out with XP. Use Live Meeting or Meeting Space		Netmeeting not supported on x64 server family products	
	Office 365		none		
	Office Communications Server (OCS) 2007		none		
	Office Live Meeting, Office Communicator 2007	initial release	Oct-07	Office Communicator 2007 requires Office Communications Server 2007	
	Office products (Word, Excel, Power-Point, Access, et cetera)	2007 Office System (previously known as Office 2007) Office 2010	Jan-07		
	Structured Query Language (SQL)	Server 2005 (formerly code-named Yukon)	Nov-05		
		SQL Server 2005 Express	Nov-05	free version for Windows (only)	
		SQL Server 2008	Mar-08		
	Windows Server Update Services	3.0 SP2	Sep-10		
	MaxDB (previously known as SAP DB)	none as of 7.5			
Network Applicances, Inc. www.netapp.com	Data ONTAP network appliance	7.3.3	May-10		
	NetCache	5.5	Jun-03	Supports IPv6 HTTP, SOCKS, FTP over HTTP, FTP over TCP, Gopher, and Tunnel (SSL) for Web requests	
Network File System wiki.linux-nfs.org	NFS	0.4 for NFSv4	Mar-05	only for specific Linux versions, kernel 2.6.9 or later	nfsv4.bullopensource.org/doc/nfs_ipv6.php
Objectivity, Inc. www.objectivity.com	Objectivity/DB database	10	Mar-10		
ooVoo LLC www.oovoo.com/home.aspx	ooVoo VOIP	none		Not supported	

Oracle Corporation www.oracle.com	Communications Message Server (formerly Java System Messaging Server)	7 Update 1	Dec-08		
	Converged Application Server (based on WebLogic server 10g release 3)	4.0 on a few platforms, not on Solaris. 11gR1 wider support	Aug-08	Oracle Japan has supported IPv6 in 9i since Sept 2003, but only in Japan	
		11g Express Edition (nee Database XE)	Jun-09	free version for Linux and Windows (only)	
	Developer Suite	none			
	E-Business Suite	11i.5.10 with patches 12.0 with Sun Java RE	May-08		
	HTTP Server	10.1.2.0.2	Aug-05		www.oracle.com/technetwork/database/enterprise-edition/oracledatabase-ipv6-sod-132278.pdf
	MySQL (formerly MySQL AB)	4.0.x data structures 6.4.1 transport	Jul-04	some data structure support in 4.x, but IPv6 transport not supported until 6.x, features may be hard to find. Many packages that use MySQL (Apache for one) do support IPv6 w/o MySQL	
PostgreSQL www.postgresql.com	PostgreSQL	7.4.x		IPv6 broken in AIX version	
The PHP Group www.php.net	PHP: Hypertext Preprocessor (PHP)	5.0.0	Jul-04	earlier versions had partial IPv6 support	
Rhino Software, Inc. www.rhinosoft.com	FTP Voyager client	Voyager 16.0	Oct-12		
	Serv-U FTP server	12.0	Jan-12		
Riverbed Technology www.riverbed.com (formerly Zeus Technology)	Stingray Traffic Manager (includes Zeus Load Balancer functionality)			A type of proxy server	
	Traffic Manager family			includes Zeus embedded IP protocol stack proxy server functionality	
Sandia National Laboratories www.sandia.gov/MPSCP/mpscp_design.htm	Massively Parallel SCP (MPSCP)		Jun-05	IPv6 support provided by the SSh used to perform actual file transfers	
Skype www.skype.com/intl/en-us/home (A Microsoft Corporation company)	Skype	none		No support announced for IPv6, but expected after Skype 6.0	
Socket Secure (SOCKS) protocol	SOCKS	version 5	Apr-01	protocol that supports transport layer IPv6/IPv4 network proxies (See RFCs 1928 and 3089)	www.socks.permeo.com/TechnicalResources/ProtocolDocuments.asp
Squid www.squid-cache.org	Squid	3.0STABLE1	Oct-08		
Stunnel www.stunnel.org	Stunnel	4.x	IPv6 support uncertain	universal SSL wrapper	
Sun Microsystems www.oracle.com/us/sun/index.html (an Oracle Corporation company)	Java System Web Server (formerly Sun ONE)	6.1, possibly earlier			
Treck Inc. www.treck.com	Elmic Voyager	1.0		embedded IP protocol stack software	
	Turbo Treck	3.0 and 4.0		embedded IP protocol stack software	
Unicoi Systems, Inc www.unicoi.com	Fusion Net IPv6		Dec-05	embedded IP protocol stack software	
VideoLAN www.videolan.org	VideoLAN server	0.8.4	1-Nov-05	Open source streaming video media server (Legacy status. VLC media player preferred)	
	VLC media player	1.0.0	1-Jul-09	Open source streaming video media server	

General Information about Wide-area Client Software: This section contains information about remote client software. Email clients can typically support the use of IPv6, it is the servers (for POP or IMAP, typically) that may not. Most email clients and web browsers that run under UNIX or Linux will support the use of IPv6, for example, when installed on a system that supports it and communicating with a server that supports it.

2.4 Information about specific Wide-area Client Software			Date First Supported	Comments or Additional Information	Related Web Site
Manufacturer, Vendor or Developer	**Make, Model, or Series**	**First Version with IPv6 support**			
Apple Computers (Macintosh) www.apple.com	Safari	1.2.1	2003	Prefers IPv4 for dual-stack servers, however, can use IPv6	
Cygwin cygwin.com	Cygwin/X	1.7	Dec-09		
Cygwin/X x.cygwin.com	Cygwin/X	1.5.12-1 IPv6 extension 0.21	Nov-04	immature IPv6 support currently	win6.jp/Cygwin/
FileZilla filezilla.sourceforge.net	FileZilla	2.2.8	Jun-05	IPv6 support added by DREN IPv6 pilot 2005	contact ipv6-team@hpc.mil for source modifications
gogoWARE gogoware.gogo6.com (previously Hexago, Inc.)	gogoCLIENT	initial release	Jun-05	tunnel broker client software	
Google, Inc www.google.com	Chrome browser	initial release	Sep-08		
Hummingbird Ltd. www.hummingbird.com	X Exceed	9.0	Jan-04		
International Business Machines www.ibm.com/us	Lotus Notes, Domino Web Access (iNotes)	6.x	some support on some OS	IPv6 support for Linux, AIX, and Solaris (but not Windows)	
Konqueror www.konqueror.org	Konqueror	2.2			
Lynx lynx.browser.org	Lynx	2.8.4dev.7	2002		
Masschusetts Institute of Technology (MIT) web.mit.edu/kerberos/www/	Kerberos clients (telnet, ftp, kinit, klist, kdestroy, krb5.exe)	1.3			
Microsoft Corporation www.microsoft.com	Microsoft Network (MSN) Messenger	limited capability	since 2001	dead end. (Use Skype 6.0 or later)	
	Exchange 2000 Server Instant Messaging client	4.6 and before	none	dead end. (Use Skype 6.0 or later)	
	Internet Explorer	4.01 and later	since 2001	Generally good support, but IPv6 addresses as literal URLs per RFC 2732 (version 5.5 did) not supported until IE 7.x. Then both IPv6 literal addresses [enclosed in square brackets] and scoped addresses [enclosed in square brackets with the scope-id following a percent-encoded percent character "%25scope-id"]	
	Media Player	9	since 2001		
	Outlook	2003	2003	IPv6 support included but not very useful since Exchange 2007 pre-SP1 doesn't support IPv6	
	Outlook Express	none	2003	dead end. No IPv6 support planned	
	Windows Messenger	5.0 and later	none	comes as part of Windows XP (Use Skype 6.0 or later)	
	Windows Live Messenger	w/Office Communications Server 2007	2007	dead end. (Use Skype 6.0 or later)	
The Mozilla Organization www.mozilla.org	Firefox	0.8	Feb-04	It requests AAAA records even when there is no IPv6 connectivity, causing timeouts	
	Mozilla suite	1.4	2003	Not supported under windows until 1.6	
	Thunderbird	0.5	2003	In Thunderbird, LDAP and IPv6 didn't mix until 2.0	

Mutt www.mutt.org	Mutt	1.4.1	2003	See **General Information** above. Other clients include ELM, MUSH, PINE, SLRN	
Netscape Communications Corporation www.netscape.com	Navigator	6.x	2003		
Opera Software ASA www.opera.com	Opera	7.20b(final)	2003	fair support, but versions prior to 10.50 under Microsoft Windows had problems with IPv6, no OS X support until 9.0	
PuTTY: A free SSh/Telnet client www.chiark.greenend.org.uk/~sgtatham/putty/	PuTTY	0.58		Since 2008 support has been consistent	unfix.org/projects/ipv6
Qualcomm Inc www.eudora.com	Eudora	none			
StarNet Communications www.starnet.com	X-Win32	v8	Jul-06		
Tera Term Pro hp.vector.co.jp/authors/VA002416/teraterm.html	Tera Term Pro	2.1	1999		A patch for IPv6 support is needed, at win6.jp/TeraTerm/index.html
University College London (UCL) Network and Multimedia Research Group www-mice.cs.ucl.ac.uk/multimedia/overview/	Multicast Backbone (MBONE) conferencing applications	version varies with application	2001	Robust Audio Tool (RAT) and VIdeoConferencing Tool (VIC) are among the tools supporting multicast IPv6	
VideoLAN www.videolan.org	VideoLAN client	0.8.4	1-Nov-05	Open source streaming video media client and standalone media player	
XFree86 Project, Inc www.xfree86.org	X-windows system	4.4.0			
X.Org Foundation www.x.org	X-windows system	X11 R6.6			

General Information about IPv6 conversion tools, utility Software, and guidelines: Information about products in this category that support IPv6 is maintained in a separate IPv6 Knowledge Base article "**Application Conversion Tools**".

2.5 Information about IPv6 conversion tools, utility Software, and guidelines			Date First Supported	Comments or Additional Information	Related Web Site
Manufacturer, Vendor or Developer	Make, Model, or Series	First Version with IPv6 support			

General Information about System and Applications Development Products (Libraries, Compilers, Debuggers et cetera): Information about products in this category that support IPv6 is maintained in a separate IPv6 Knowledge Base article "**IPv6 Applications Software**".

2.6 Information about specific System and Application Development Products			Date First Supported	Comments or Additional Information	Point of Contact
Manufacturer, Vendor or Developer	Make, Model, or Series	First Version with IPv6 support			

General Information about Third Party (COTS, GOTS, Open Source) Software: Information about products in this category that support IPv6 is maintained in a separate knowledge base article "**IPv6 Applications Software**".

2.7 Information about specific Third Party Software			Date First Supported	Comments or Additional Information	Point of Contact
Manufacturer, Vendor or Developer	Make, Model, or Series	First Version with IPv6 support			

General Information about Other Devices (Like videoconference equipment, audio/video (A/V) controllers, printers, scanners, FAX machines): Many products manufactured outside the United States can support IPv6. A few of the products available for purchase in the United States are shown below.

3. Information about specific Other Devices			Date First Supported	Comments or Additional Information	Related Web Site
Manufacturer, Vendor or Developer	Make, Model, or Series	First Version with IPv6 support			

American Power Conversion Corp. www.apc.com (a Schneider-Electric company)	UPS Network Management Card 2	APC Operating System 5.1.1	Feb-10	IPv6-enabled Uninterruptible Power Supply (UPS) controller	
Apple Computers (Macintosh) www.apple.com	AirPort	4.x through 5.6, dropped in 6.0, reappeared in 6.1		Tends to set up 6to4 tunnels when inappropriate. Unhappy when IPv6 turned off. 4.2 improved link local configuration. 5.2 fixed 6to4 problem	
	AirPort Extreme	all. On by default	Jan-07	See AirPort comments above	
	Time Capsule	all. On by default	Jan-07	See AirPort comments above	
Axis Communications www.axis.com/us/	Network Camera	223M	Dec-06		
		P1311	Dec-08	H.264 compliant	
Buffalo Technologies, Inc. www.buffalo.com	AirStation WLI-U2-SG54HP		Feb-07	wireless access point signal/speed booster	
Crestron Electronics, Inc. www.crestron.com	CEN-SWPOE-24	Core 3 O/S	Oct-10	24-port managed power over Ethernet (PoE)	
	MC3 A/V controller	Core 3 O/S	Oct-10		
Cyclades Corp. www.cyclades.com	Cyclades-PC300, -PC400, -Y, -Z terminal servers		no specific support	Depends on the equipment it is installed in	
Digi International www.digi.com	Portserver terminal servers		none	IPv6 support planned but not scheduled	
	EtherLite terminal servers		none	IPv6 support planned but not scheduled	
Hewlett Packard Development Company www.hp.com	JetDirect 635n network card		mid-2005	Provides IPv6 for any HP peripheral with an Enhanced Input/Output (EIO) slot	
Lacunary Ltd. www.ipv6buddy.com	IPv6 Buddy	all		external numeric keypad with : and :: keys	
Marconi Systems Inc. www.marconi.com	Virtual Presence (ViPr) Desktop Terminal		Sep-04	Based on recent RADVISION SIP development toolkit updates. Native IPv6, no dual-stack	
	ViPr Conference Room System		Sep-04	Based on recent RADVISION SIP development toolkit updates. Native IPv6, no dual-stack	
Microsoft Corporation www.microsoft.com	Xbox 360	none			
	Xbox One		initial release	limited; static IPv6 addresses not supported	
Nintendo www.nintendo.com	DS, DS3	none			
	Gamecube	none			
	Wii, Wii U	none			
Panasonic Communications Co., Ltd www.panasonic.com	BB-HCM311A HX-HCM280v6 HX-HCM230v6 (and more)	1.64	Aug-04	network-attached camera with built-in webserver (outdoor, wireless, and zoom models will be available later)	
	C3 Series devices	w/DA-NS320 module	Nov-05		
	(at least 5 models)	w/DA-NS320 module	Nov-05		
Polycom Network Systems www.polycom.com	HDX xxxx series	2.0.5_J	Mar-09		
	MGC-25, -50, -100	unknown	mid-2007	support via application layer gateway (ALG)	
	RealPresence solutions	unknown	Jan-11		
	VSX-series	unknown	mid-2007	native support in hardware	
SEH Computertechnik GmbH www.seh-technology.com	Internal Print Server (Print Server for EPSON Type B Port)	PS107	Dec-08		
Silex Technology www.silexamerica.com	Pricom H-260U		2003	Provides IPv6 for any HP peripheral with an EIO slot. Available in United States	

	SX3100 Printer Server	1.2	Jul-04	Provides IPv6 for any parallel port printer	
	SX3100 Printer Server TCP/IP Model	1.2	Jul-04	First print server officially certified by IPv6 Forum under IPv6 Ready Logo Phase 1 program	
Sony Corporation of America www.sony.com	Playstation	Portable (PSP)	none		
		2	May-01	requires external broadband adapter	
		3	none		
		4	initial release	limited; static IPv6 addresses not supported	
TANDBERG www.tandberg.com	Tandberg Management Suite	Version 11.9.1	Oct-08		
Vidyo, Inc. www.vidyo.com	Vidyo Conferencing suite		May-12		
Vytek Corporation www.vytek.com	TelAlert Messaging event notification system		no specific support	Depends on the equipment it is connected to	

General Information about IPv6-related Product Information Web sites: These Web sites provide lists of IPv6-enabled products. Sme of the above product information in the above listing was obtained from them. This list does not attempt nor promise to be comprehensive.

4. Information about specific IPv6-related Product Information Web sites (in alphabetical order)	Comments or Additional Information
www.antd.nist.gov/usgv6/products.html	A list of Suppliers Declarations of Conformity (SDOCs) for products tested by laboratories accredited under the National Institute for Standards and Technology (NIST) U.S. Government standards for IPv6 (USGv6) program
https://aplits.disa.mil	list of equipment on the DoD Approved Product List maintained and tested by Joint Interoperability Test Command and other Centers of Excellence. (The web site does not require a PKI certificate for access, even though it does ask for one.)
en.wikipedia.org/wiki/Comparison_of_IPv6_application_support	comprehensive IPv6 application and patch database
gogonet.gogo6.com/	Extensive set of information and pointers to IPv6 reference information, supported by Hexago,
helpdesk.wisc.edu/ns/page.php?id=11691	UW-Madison IPv6 Application Compatibility List, including network management tools
ipv6.niif.hu/m/ipv6_apps_db	comprehensive IPv6 application and patch database maintained by the NIIF/HUNGARNET
labs.ripe.net/Members/marco/content-ipv6-cpe-survey	RIPE (European) survey of Customer Premises Equipment (CPE) routers that support IPv6. Published June 2010 with a link to more recent surveys
sectools.org	A comprehensive listing of security/attack tools maintained by the insecure.org Nmap developers
www.cert.org/archive/pdf/aia-handbook.pdf	Comprehensive list of tools from the Carnegie Mellon CERT that aid in detecting signs of network or system intrusion, in Advanced Information Assurance (AIA) Handbook
www.dns.net/dnsrd/	DNS Resources Directory, with pointers to books, software, and training for establishing and running a Domain Name Server (DNS), whether IPv4 or IPv6
www.deepspace6.net/docs/ipv6_status_page_apps.html	Comprehensive list of Linux related software, including network management software
www.euro6ix.com/main/index.php	Reports on Euro6IX groupware and distributed applications porting experience, along with a number or **documents** on network management and IPv6 features evaluation
www.foundstone.com/us/resources-free-tools.asp	A listing of free security software tools provided by McAfee/Foundstone, including forensic, scanning, IDS, and stress testing tools
www.ipv6forum.org/modules.php?op=modload&name=Web_Links&file=index	IPv6 Forum (comprehensive implementations, applications, and related information)
www.ipv6ready.org	IPv6 Forum validation program for IPv6 tested products (IPv6 ready logo). Many of the products listed are not readily available in the United States.
www.ipv6-to-standard.org/	IPv6 information web site about IPv6 related applications, products, services, and web sites. Very comprehensive though reduced update frequency after 2008
www.moonv6.org/project/	Multi-vendor, multi-national effort led by DoD Joint Interoperability Test Command to test commercial IPv6 products. Various papers on this page show tests and products (as of June, 2011, no longer active)

System Administration Networking and Security (SANS) Institute www.sans.org/reading_room	Lengthy list of papers on many security-related topics. Search for IPv6 or special interest key words
www.ultratools.com/tools/home	A listing of free DNS software tools provided by NeuStar, Inc., including IPv6 analysis tools
University of Amsterdam System and Network Engineering OS3 Archive of Master's Theses https://www.os3.nl/archive/research_projects	Lengthy list of papers on many security-related topics. Search for IPv6 or special interest key words
Wiretapped Computer Security Software etc. www.wiretapped.net	Comprehensive archive of software and information covering the areas of host, network and information security. In particular, look under the Network subheading.
IBM Software www-01.ibm.com/software/info/ipv6/compliance.jsp	A summary of IPv6 compliance status in IBM software products