

IxLoad Performance: XT80 / IxVM / Others

Protocols	Objectives	ALM		XcellonXT80		VM		FlexAP10G16S (NA)		Configuration
		IPv4	IPv6	IPv4	IPv6	IPv4	IPv6	IPv4	IPv6	
AppReplay	CC			6000000						
AppReplay	PC			6000000						
AppReplay	TPUT (Mbps)			18700						
AppReplay	CPS			750000						
AppReplay	TPS			2400000						
HTTP - Ix Stack	CC			6000000						
HTTP - Ix Stack	SU			6000000						
HTTP - Ix Stack	TPUT (Mbps)			18800						
HTTP - Ix Stack	CPS			750000						
HTTP - Ix Stack	TPS			1800000						
HTTP - Linux Stack	CC	194950		1900000	1800000	100000	100000	150000	150000	
HTTP - Linux Stack	SU			1900000	1800000	100000	100000	110000	110000	
HTTP - Linux Stack	TPUT (Mbps)	560		18400	15500	1000	1000	720	600	
HTTP - Linux Stack	CPS	4500		95000	88000	4000	4000	5000	5000	
HTTP - Linux Stack	TPS	19500		500000	500000	12000	12000	23000	22000	
HTTPS - Ix Stack	CC			300000						
HTTPS - Ix Stack	SU			300000						
HTTPS - Ix Stack	TPUT(Mbps)			5000						
HTTPS - Ix Stack	CPS			100000						
HTTPS - Ix Stack	CPS (SR=0)			100000						
HTTPS - Ix Stack	TPS			400000						
HTTPS - Linux Stack	CC			180000		8800	8800	7000	7000	
HTTPS - Linux Stack	SU			180000		8800	8800	7000	7000	
HTTPS - Linux Stack	TPUT(Mbps)			2500		100	100	35	35	
HTTPS - Linux Stack	CPS			4500		750	750	500	500	
HTTPS - Linux Stack	CPS (SR=0)			4500				30	30	
HTTPS - Linux Stack	TPS			180000		3000	3000	2000	2000	
FTP	CC			800000	800000	75000	75000	45000	45000	
FTP	SU					75000	75000	45000	45000	
FTP	TPUT (Mbps)			18000	16000	1000	1000	850	800	
FTP	CPS			60000	60000	2000	2000	3000	3000	
FTP	TPS			215000	180000	6000	6000	10000	8000	
IMAP	CC			1180000	1188000	50000	50000	54000	54000	
IMAP	SU					50000	50000	54000	53000	
IMAP	TPUT (Mbps)			5000	5000	200	200	500	450	
IMAP	CPS			49000	43000	1500	1500	2400	2400	
IMAP	TPS			200000	179000	6000	6000	10000	9000	
POP3	CC			570000	570000	50000	50000	55000	55000	
POP3	SU					50000	50000	55000	55000	
POP3	TPUT (Mbps)			5500	5000	200	200	140	140	
POP3	CPS			46000	40000	1500	1500	2700	2400	
POP3	TPS			250000	200000	6000	6000	8000	8000	
SMTP	CC			900000	900000	50000	50000	130000	130000	

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SMTP	SU					50000	50000	120000	120000	
SMTP	TPUS (Mbps)			5500	4000	200	200	169	169	
SMTP	CPS			49000	38000	1200	1200	2300	2000	
SMTP	TPS			245000	220000	6000	6000	15000	15000	
TFTP	SU			900000	900000	75000	75000	72000	72000	
TFTP	TPUT (Mbps)							150	120	
TFTP	TPS			253000	213000	6000	6000	10000	9000	
CIFS	CC			818000						
CIFS	SU			818000						
CIFS	TPUT (Mbps)			10000						
CIFS	CPS			60000						
CIFS	TPS			460000						
DNS - UDP	SU			1600000	1600000					
DNS - UDP	TPUT (Mbps)			280	280					
DNS - UDP	TPS			300000	260000					
DNS - UDP	QPS			300000	260000					
DNS - TCP	SU			200000	200000					
DNS - TCP	TPUT (Mbps)			220	220					
DNS - TCP	TPS			55000	50000					
DNS - TCP	QPS			55000	50000					
Silverlight-SBR/MBR (10S buffer)	SU			100,000						
Silverlight-SBR/MBR (10S buffer)	TPUT (Mbps)			18800						
Silverlight-SBR/MBR (Infinite buffer)	SU			100,000						
Silverlight-SBR/MBR (Infinite buffer)	TPUT (Mbps)			18800						
VOD - Dummy - RTPoUDP	Rampup Rate			30000						
VOD - Dummy - RTPoUDP	SU (Active Stream)									
VOD - Dummy - RTPoUDP	CS (Active Stream)			300000						Concurrent sessions with 1 packet/sec
VOD - Dummy - RTPoUDP	CPS (without Media)			20000						
VOD - Dummy - RTPoUDP	CPS (with Media)			12000						
VOD - Dummy - RTPoUDP	TPUT (Mbps)			18200						
VOD - Synthetic - UDP	Rampup Rate			3500						
VOD - Synthetic - UDP	SU (Active Stream)			18600						Simulated Users - 1Mbps stream
VOD - Synthetic - UDP	CS (Active Stream)			100000						Concurrent sessions with 1 hour RTP Media
VOD - Synthetic - UDP	CPS (with Media)			10000						
VOD - Synthetic - UDP	TPUT (Mbps)			14800						
VOD - RealFile - UDP (with VQM)	TPUT (Mbps)			14800						

NOTE: [1] All numbers quoted in the table below are measured using a pair of Ixia test ports acting as client and server. In some cases, per port server performance is the limiting factor. Higher performance may be achieved using a pair of Ixia test ports acting as client and server.

IP Version		Test Objectives		LM1000TXS4-256	ALM1000T8	ELM1000ST2	CPM1000T8	LSM100GE-01	LSM1000XMV16-01	ASM1000XMV12X-NA	ASM1000XMV12X-1GAM	ASM1000XMV12X-10GAM	NGY-NP4	NGY-NP8	Acclercon-XP-NA	Acclercon-XP-1G	Acclercon-XP-10G	Acclercon-NP-NA	Acclercon-NP-1G	Acclercon-NP-10G	Comment
HTTP1.1	IPv6	Transaction Rate		11800	18000	24450	20250	26354	22001	22272	27358	271221	27860	N/A	N/A	N/A	N/A	2784	35015	335150	HTTP 1.1 or HTTP 1.0 with keepalive, maximum possible transaction over a connection, 20 concurrent connections per user, 1 Server IP, 1 byte GET
HTTP1.1	IPv6	Simulated Users		35500	194950	194950	398808	92576	195358	194950	2348585	2348585	92576	N/A	N/A	N/A	N/A	389900	4691716	4691716	HTTP 1.1 or HTTP 1.0 with keepalive, maximum possible transaction over a connection, 1 concurrent connections per user, 1 Server IP, 1 byte GET, TCP: SendRecv buffer 1024
HTTP1.1	IPv6	Concurrent Connections		35000	189950	189950	398808	86780	194950	68490	2339400	2339400	91788	N/A	N/A	N/A	N/A	389900	5661348	5661348	HTTP 1.1 or HTTP 1.0 with keepalive, maximum possible transaction over a connection, 21 concurrent connections per user, 1 Server IP, 1 byte GET, TCP: SendRecv buffer 1024
HTTP1.1	IPv6	Throughput (MBps)		34	53	58	66	48	75	65	116	792	70	N/A	N/A	N/A	N/A	78	117	824	HTTP 1.1 or HTTP 1.0 with keepalive, maximum possible transaction over a connection, 1 concurrent connections per user, 1 Server IP, 1048576 byte GET, TCP: SendRecv buffer 1048576
HTTP1.0	IPv6	Connection Rate		2000	4002	6375	4062	6925	5642	6104	73459	74881	7326	N/A	N/A	N/A	N/A	7700	95496	92645	HTTP 1.0 without keepalive, 1 byte GET, 20 concurrent connections per user. CPM1000T8 only: Set TCP Tx/Rx Buffer Size to 4096, HTTP 1.0 without keepalive, 1 byte GET, 16 concurrent connections per user, Disable Server Side TCP/IP Timestamp. Client Traffic for HTTP1.0 disable the Keep Alive, Browser Emulation should be empty
			Transaction Rate		2000	4002	6428	4062	7226	5904	6118	72250	72394	7299	N/A	N/A	N/A	N/A	7600	93925	94112
HTTP1.0	IPv6	Simulated Users		35500	195350	194950	398808	92576	195358	195358	2345727	2345858	92576	N/A	N/A	N/A	N/A	390716	4691454	4691716	HTTP 1.0 without keepalive, 1 byte GET, 1 concurrent connections per user, TCP: SendRecv buffer 1024
HTTP1.0	IPv6	Concurrent Connections		35000	185330	189950	398808	86780	194950	68490	2339160	2339400	91788	N/A	N/A	N/A	N/A	389900	4678320	4678800	HTTP 1.0 without keepalive, 1 byte GET, 21 concurrent connections per user, TCP: SendRecv buffer 1024
HTTP1.0	IPv6	Throughput (MBps)		35	52	57	56	69	72	66	116	884	80	N/A	N/A	N/A	N/A	67	117	872	HTTP 1.0 without keepalive, 1048576 byte GET, 21 concurrent connections per user, TCP: SendRecv buffer 4096/32768. CPM1000T8 only: Set TCP Tx/Rx Buffer Size to 4096/32768, HTTP 1.0 without keepalive, 1048576 byte GET, 21 concurrent connections per user, Disable Server Side TCP/IP Timestamp.
HTTP1.0 SSL	IPv6	Connection Rate		399	760	1102	771	1298	1179	1193	14444	14361	N/A	N/A	N/A	N/A	N/A	1508	18202	17538	HTTP 1.0 without keepalive, 1 byte GET(SSL), 20 concurrent connections per user, SSLv3.0, Sequential Session Reuse 2147483647.
HTTP1.0 SSL	IPv6	Transaction Rate		346	723	1130	768	1274	1152	1206	14216	14083	N/A	N/A	N/A	N/A	N/A	1482	17100	16909	HTTP 1.0 without keepalive, 1 byte GET(SSL), 20 concurrent connections per user, SSLv3.0, Sequential Session Reuse 2147483647.
HTTP1.0 SSL	IPv6	Simulated Users		2386	11544	11542	6416	5392	11544	138624	138624	N/A	N/A	N/A	N/A	N/A	N/A	23088	138624	138624	HTTP 1.0 without keepalive, 1 byte GET(SSL), 1 concurrent connections per user, TCP: SendRecv buffer 1024, SSLv3.0, Sequential Session Reuse 2147483647
HTTP1.0 SSL	IPv6	Concurrent Connections		1720	8417	8434	17519	3976	8412	8409	100668	100844	N/A	N/A	N/A	N/A	N/A	16818	201336	201688	HTTP 1.0 without keepalive, 1 byte GET(SSL), 21 concurrent connections per user, TCP: SendRecv buffer 1024, SSLv3.0, Sequential Session Reuse 2147483647
HTTP1.0 SSL	IPv6	Throughput (KBps)		5000	9785	12377	10116	13091	11625	11641	116736	141372	N/A	N/A	N/A	N/A	N/A	13850	115000	163969	HTTP 1.0 without keepalive, 1048576 byte GET(SSL), 1 concurrent connections per user, TCP: SendRecv buffer 1048576, SSLv3.0, Sequential Session Reuse 2147483647
HTTP1.1 - SSL	IPv6	Transaction Rate		2496	4985	9650	5500	7000	7637	7696	92393	92016	N/A	N/A	N/A	N/A	N/A	9600	114500	117146	HTTP 1.1 or HTTP 1.0 with keepalive, maximum possible transaction over a connection, 20 concurrent connections per user, 1 Server IP, 1 byte GET(SSL), SSLv3.0, Sequential Session Reuse 2147483647
HTTP1.1 - SSL	IPv6	Simulated Users		2386	11544	11542	23992	5392	11544	11544	138264	138264	N/A	N/A	N/A	N/A	N/A	23088	138624	138624	HTTP 1.1 or HTTP 1.0 with keepalive, maximum possible transaction over a connection, 1 concurrent connections per user, 1 Server IP, 1 byte GET(SSL), TCP: SendRecv buffer 1024, SSLv3.0, Sequential Session Reuse 2147483647
HTTP1.1 - SSL	IPv6	Concurrent Connections		1720	8343	8445	16235	3878	8420	8413	100560	100826	N/A	N/A	N/A	N/A	N/A	16826	201120	201652	HTTP 1.1 or HTTP 1.0 with keepalive, maximum possible transaction over a connection, 21 concurrent connections per user, 1 Server IP, 1 byte GET(SSL), TCP: SendRecv buffer 1024, SSLv3.0, Sequential Session Reuse 2147483647
HTTP1.1 - SSL	IPv6	Throughput (KBps)		6193	10468	18432	10375	14097	12062	12244	114728	140933	N/A	N/A	N/A	N/A	N/A	14500	115000	174000	HTTP 1.1 or HTTP 1.0 with keepalive, maximum possible transaction over a connection, 1 concurrent connections per user, 1 Server IP, 1048576 byte GET(SSL), TCP: SendRecv buffer 1048576, SSLv3.0, Sequential Session Reuse 2147483647
FTP	IPv6	Connection Rate		1180	2530	4130	2430	4563	37587	3900	3846	31335	4829	N/A	N/A	N/A	N/A	4926	N/A	N/A	login and quit
FTP	IPv6	Transaction Rate		3691	7400	12284	5895	13331	11600	11748	124269	14468	N/A	N/A	N/A	N/A	N/A	13220	N/A	N/A	login and quit
FTP	IPv6	Connection Rate		1070	1930	3346	1930	3766	3330	3330	4092	4092	N/A	N/A	N/A	N/A	N/A	4929	4929	4929	1 byte GET
FTP	IPv6	Transaction Rate		2900	5811	11204	11369	1848	10138	NA	11988	12250	14800	N/A	N/A	N/A	N/A	14800	14800	14800	1 byte GET
FTP	IPv6	Simulated Users		103072	103072	220325	49777	106187	65002	578371	578371	49777	209371	N/A	N/A	N/A	N/A	1156742	209371	1156742	Get Command, appop, Mail Count is 1, Mail size is 1, no attachments, only the "from" and "to" headers
FTP	IPv6	Concurrent Sessions		17500	640019	640019	640019	640019	640019	640019	640019	640019	640019	N/A	N/A	N/A	N/A	740000	740000	740000	Get Command, appop, Mail Count is 1, Mail size is 1, no attachments, only the "from" and "to" headers
FTP	IPv6	Throughput (MBps)		22	61	1148	94	168	100	116	116	116	1181	N/A	N/A	N/A	N/A	1181	1181	1181	Get Command, appop, Mail Count is 1, Mail size is 1, no attachments, only the "from" and "to" headers
SMTP	IPv6	Connection Rate		NA	1483	2581	1530	2765	2379	NA	NA	NA	3035	N/A	N/A	N/A	N/A	3035	NA	NA	Open, Send, Quit sequence, Mail Count is 1, Mail size is 1, no attachments, only the "from" and "to" headers
SMTP	IPv6	Transaction Rate		NA	10768	15846	10846	15846	15846	NA	NA	NA	15824	N/A	N/A	N/A	N/A	15824	NA	NA	Open, Send, Quit sequence, Mail Count is 1, Mail size is 1, no attachments, only the "from" and "to" headers
SMTP	IPv6	Simulated Users		NA	109794	126345	270000	55962	130393	NA	NA	NA	256724	N/A	N/A	N/A	N/A	256724	NA	NA	Open, Send, Quit sequence, Mail Count is 1, Mail size is 1, no attachments, only the "from" and "to" headers
SMTP	IPv6	Concurrent Connections		NA	109794	130375	254446	56219	130393	NA	NA	NA	NA	N/A	N/A	N/A	N/A	NA	NA	NA	Open, Send, Quit sequence, Mail Count is 1, Mail size is 1, no attachments, only the "from" and "to" headers
SMTP	IPv6	Throughput (MBps)		NA	21	21	21	21	21	NA	NA	NA	21	N/A	N/A	N/A	N/A	21	NA	NA	Open, Send, Quit sequence, Mail Count is 1, Mail size is 1, no attachments, only the "from" and "to" headers
SMTP	IPv6	Connection Rate		NA	2731	4967	2950	5076	4716	4622	NA	NA	NA	N/A	N/A	N/A	N/A	5876	NA	NA	Only Open, Quit Sequence
SMTP	IPv6	Transaction Rate		NA	5700	8997	5662	10184	8987	5662	NA	NA	NA	11627	N/A	N/A	N/A	11627	NA	NA	Only Open, Quit Sequence
POP3	IPv6	Connection Rate		1203	2550	4405	2550	4785	4405	NA	NA	NA	5900	N/A	N/A	N/A	N/A	5900	NA	NA	Open, Quit Sequence with appop
POP3	IPv6	Transaction Rate		NA	2436	5050	8246	9315	8529	NA	NA	NA	NA	N/A	N/A	N/A	N/A	10167	NA	NA	Open, Quit Sequence with appop
POP3	IPv6	Connection Rate		834	1752	2991	1730	3242	2623	4273	NA	NA	NA	N/A	N/A	N/A	N/A	3336	NA	NA	Open, Quit Sequence with appop
POP3	IPv6	Simulated Users		41763	117458	117458	117458	117458	117458	117458	117458	117458	117458	N/A	N/A	N/A	N/A	13037	NA	NA	Get Command, appop, Mail Count is 1, Mail size is 1, no attachments, only the "from" and "to" headers
POP3	IPv6	Concurrent Connections		15680	73648	73648	156816	35157	75000	NA	NA	NA	NA	N/A	N/A	N/A	N/A	150000	NA	NA	Get Command, appop, Mail Count is 1, Mail size is 100byte, no attachments, TCP: SendRecv buffer 1024.
POP3	IPv6	Throughput (MBps)		9	13	13	74890	15151	75000	NA	NA	NA	NA	N/A	N/A	N/A	N/A	75006	NA	NA	Get Command, appop, Mail Count is 1, Mail size is 100byte, no attachments, TCP: SendRecv buffer 1024.
IMAP	IPv6	Connection Rate		1250	2637	4361	2684	4831	4259	NA	NA	NA	NA	N/A	N/A	N/A	N/A	5122	NA	NA	Get Command, appop, Mail Count is 1000, Mail size is 100000 byte, TCP: SendRecv buffer 1048576.
IMAP	IPv6	Transaction Rate		3000	5840	9424	6098	10510	8652	NA	NA	NA	NA	N/A	N/A	N/A	N/A	10680	NA	NA	OPEN, LOGIN, LOGOUT
IMAP	IPv6	Simulated Users		19733	89540	94693	196612	44341	94706	NA	NA	1136472	NA	N/A	N/A	N/A	N/A	18842	NA	NA	FETCH 1 byte 1 mail
IMAP	IPv6	Concurrent Sessions		19733	94706	94693	183069	44341	94706	NA	NA	94706	NA	N/A	N/A	N/A	N/A	18842	NA	NA	(Get Mails) 100 byte mail size and mail count 1 (Mail: The mail's comment is "100 byte mail size and mail count 1" but the mail size is 1 byte)
IMAP	IPv6	Throughput (MBps)		11	11	11	11	11	11	NA	NA	NA	NA	N/A	N/A	N/A	N/A	14	NA	NA	(Get Mails) 1 byte mail size and mail count 1
IMAP	IPv6	Simulated Users		4670	15000	15000	NA	NA	13500	NA	13500	16000	NA	N/A	N/A	N/A	N/A	NA	NA	NA	(Get Mails) 1024000 byte mail size and mail count 10000
SIP	IPv6	Simulated Users with voice session		450	800	NA	NA	NA	810	NA	810	10000	NA	N/A	N/A	N/A	N/A	NA	NA	NA	
SIP	IPv6	Calls Initiated Per Second		770	1440	NA	NA	NA	3000	NA	3000	3000	NA	N/A	N/A	N/A	N/A	NA	NA	NA	
SIP	IPv6	BHCA		2 500 000	3 860 000	NA	NA	NA	5 184 000	NA	5 184 000	10 800 000	NA	N/A	N/A	N/A	N/A	NA	NA	NA	
SIP	IPv6	Simulated Users		4070	15000	NA	NA	15000	8884	NA	13500	16000	NA	N/A	N/A	N/A	N/A	NA	NA	NA	
SIP	IPv6	Simulated Users with voice session		450	800	NA	NA	NA	810	NA	810	10000	NA	N/A	N/A	N/A	N/A	NA	NA	NA	
SIP	IPv6	Calls Initiated Per Second		770	1440	NA	NA	NA	3000	NA	3000	3000	NA	N/A	N/A	N/A	N/A	NA	NA	NA	
SIP	IPv6	BHCA		2 700 000	3 860 000	NA	NA	4597200	5184000	5 184 000	5 184 000	10 800 000	NA	N/A	N/A	N/A	N/A	NA	NA	NA	
MGCP	IPv6	Endpoints (operating only)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	N/A	N/A	N/A	N/A	NA	NA	NA	
MGCP	IPv6	Endpoints (w/ RTP)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	N/A	N/A	N/A	N/A	NA	NA	NA	
MGCP	IPv6	BHCA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	N/A	N/A	N/A	N/A	NA	NA	NA	
WSP	IPv6	Simulated Users		7732	12168	12168	12168	12168	12168	12168	12168	12168	NA	N/A	N/A	N/A	N/A	29912	24844	24844	B2B Configuration (the 3 ports involved in test connected via a L2 HP switch)
WSP	IPv6	Connection Rate		2313	5219	7073	8680	7073	7094	85670	NA	NA	NA	N/A	N/A	N/A	N/A	8500	102804	102811	B2B Configuration (the 3 ports involved in test connected via a L2 HP switch)
WSP	IPv6	Concurrent Sessions		7734	21114	24750	18000	21000	205653	205735	NA	NA	NA	N/A	N/A	N/A	N/A	42000	411306	411470	
WSP	IPv6	Transaction Rate		49039	10039	171519	171519	171519	171519	171519	NA	NA	NA	N/A	N/A	N/A	N/A	17675	205405	205405	
Peer-2-Peer	IPv6	Initiator Peer Count		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	N/A	N/A	N/A	N/A	NA	NA	NA	
Peer-2-Peer	IPv6	Connections Rate		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	N/A	N/A	N/A	N/A	NA	NA	NA	
Peer-2-Peer	IPv6	Concurrent Connections		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	N/A	N/A	N/A	N/A	NA	NA	NA	
Peer-2-Peer	IPv6	Throughput(MBps)		NA	NA	NA	NA	NA	NA	NA											