

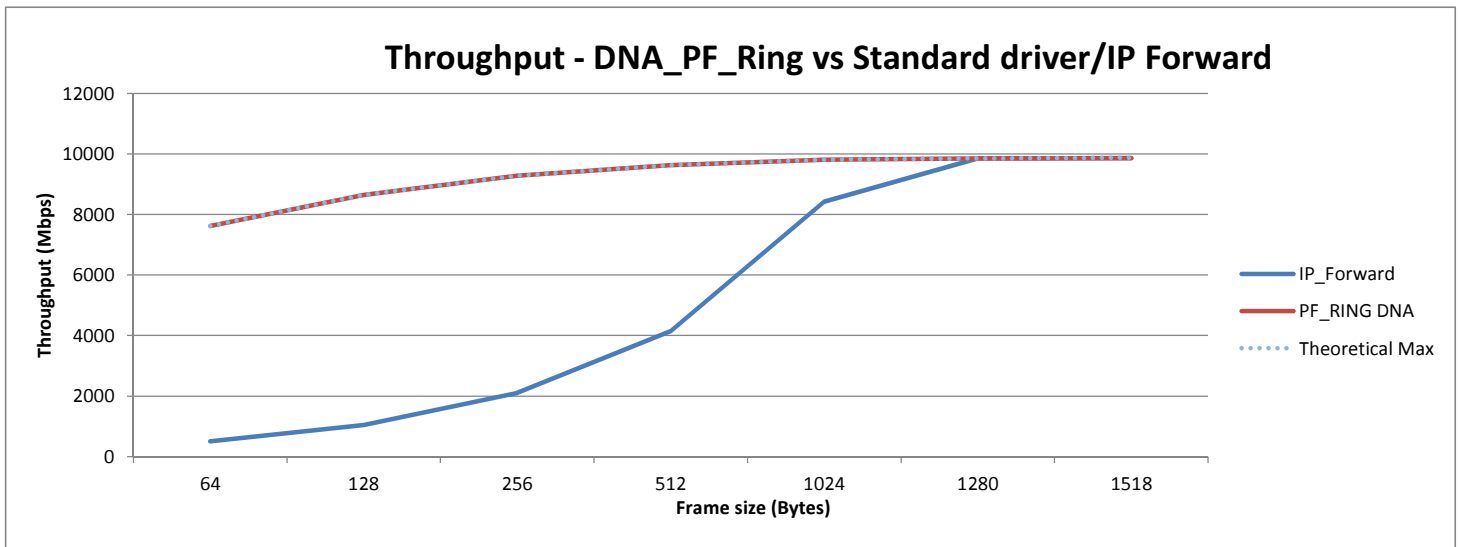
RFC-2544 performance test - PF_Ring-DNA VS Standard network Driver

Test Info:

Computer: Test-196: Supermicro X9SCM Sandy bridge, CPU - i7 E3123 3200 MHz, memory - 8 Gb
OS: Fedora 15 x86_64 kernel 2.6.38.6-26.rc1.fc15.x86_64
Network card: Silicom PE210G2SPI9 10G adapter
Software: DNA - PF_RING v.5.3.0a-120408, ip_forward - ixgbe-3.7.17
TrafficGenerator: STC-2002HS, module - CV-10G-S8

RFC-2544 - Throughput test

Frame Size (bytes)	IP_Forward					PF_RING DNA					Theoretical Max	
	Intended Load (%)	Offered Load (%)	Through put (%)	Throughput (fps)	Throughput (Mbps)	Intended Load (%)	Offered Load (%)	Through put (%)	Throughput (fps)	Throughput (Mbps)	(fps)	(Mbps)
64	6.625	6.625	6.625	985863.0952	504.761905	99.297	97.246	100	14880952.4	7619.04762	14880952.38	7619.047619
128	12.10938	12.092	12.092	1021283.784	1045.79459	100	100	100	8445945.95	8648.64865	8445945.946	8648.648649
256	22.65625	22.623	22.623	1024592.391	2098.36522	100	100	100	4528985.52	9275.36234	4528985.507	9275.362318
512	43.04688	43.042	43.042	1011325.188	4142.38797	100	100	100	2349624.07	9624.06018	2349624.06	9624.06015
1024	85.9375	85.855	85.855	1027957.376	8421.02682	100	100	100	1197318.02	9808.4292	1197318.008	9808.429122
1280	100	100	100	961538.462	9846.15385	100	100	100	961538.467	9846.1539	961538.462	9846.153851
1518	100	99.87	99.87	811687.256	9857.13004	100	99.87	99.87	811688.317	9857.14292	812743.823	9869.960987

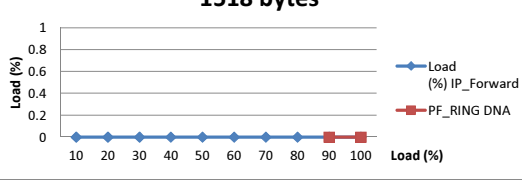
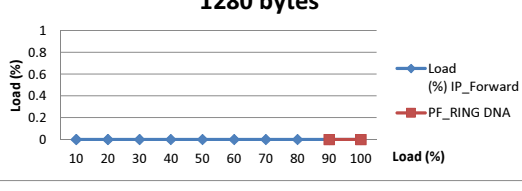
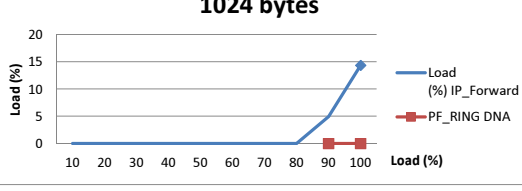
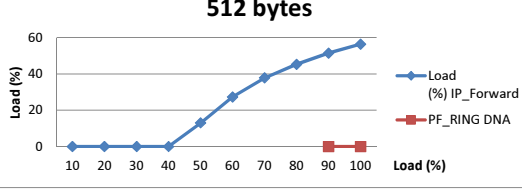
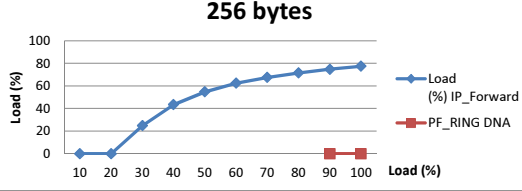
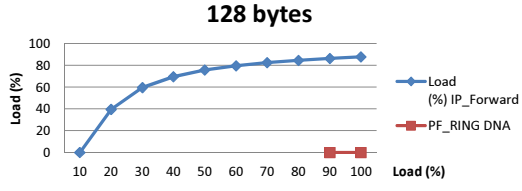
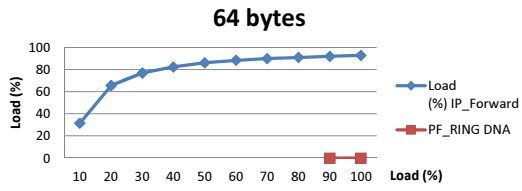


RFC-2544 - Latency Test

Frame Size (bytes)	Load (%)	IP_Forward			PF_RING DNA			Avg Latency (usec)
		Min (uSec)	Avg (uSec)	Max (uSec)	Min (uSec)	Avg (uSec)	Max (uSec)	
64	10	56.23	5182.8	5615.7	3.42	3.643	46.12	
	20	63.52	5165.5	5556.9	3.45	3.844	51.14	
	30	58.32	5170	5584.4	3.45	3.82	48.4	
	40	60.99	5164.4	5553.4	3.45	3.866	80.89	
	50	62.12	5168.4	5579.2	3.53	5.828	64.19	
128	10	5.02	47.548	192.54	3.57	3.763	46.46	
	20	57.92	3295.4	3585.6	3.59	3.817	44.28	
	30	57.62	3300.5	3586.2	3.66	4.005	51.93	
	40	64.15	3297.2	3636.3	3.69	4.034	46.86	
	50	60.45	3296.9	3599.8	3.69	4.111	49.84	
256	10	5.41	43.538	200.9	3.97	4.177	41.46	
	20	5.68	50.965	198.84	3.98	4.161	43.9	
	30	58.09	2044.8	2441.9	4.04	4.324	44.51	
	40	56.54	2045	2295.1	4.04	4.523	44.15	
	50	59.29	2047.9	2288.7	4.12	4.488	64.58	
512	10	6.05	53.139	187.15	4.58	4.764	42.21	
	20	6.19	45.046	199.87	4.57	4.81	43.37	
	30	6.11	59.303	206.53	4.57	4.784	44.64	
	40	6.38	50.721	614.97	4.53	4.806	48.19	
	50	59.62	1305.9	1505.4	4.62	4.989	51.36	
1024	10	7.18	63.009	196.28	5.46	5.65	41.79	
	20	7.01	54.897	185.76	5.45	5.646	47.2	
	30	6.91	45.952	180.42	5.44	5.644	43.23	
	40	7.05	45.159	191	5.45	5.64	45.6	
	50	7.46	47.945	206.75	5.44	5.669	44.91	
1280	10	7.75	65.135	201	5.92	6.103	41.35	
	20	7.69	57.458	189.61	5.9	6.092	41.3	
	30	7.6	50.543	185.08	5.9	6.081	53.73	
	40	7.62	45.357	192.33	5.9	6.217	42.9	
	50	7.7	46.788	203.79	5.87	6.082	44.12	
1518	10	8.34	66.934	251.91	6.34	6.519	42.34	
	20	8.39	60.083	194.3	6.32	6.504	43.73	
	30	8.06	57.997	189.1	6.32	6.505	42.99	
	40	8.75	51.474	182.54	6.32	6.587	47.78	
	50	9.07	48.407	195.44	6.28	6.494	49.14	

RFC-2544 - Frame lost test

Frame Size (bytes)	Load (%)	IP_Forward				PF_RING DNA			
		Total Tx Frames	Total Rx Frames	Total Frames Lost	Frame Loss (%)	Total Tx Frames	Total Rx Frames	Total Frames Lost	Frame Loss (%)
64	10	297619048	203432938	94186110	31.647				
	20	595238096	203506925	391731171	65.811				
	30	892857144	203434600	689422544	77.215				
	40	1179245284	203453928	975791356	82.747				
	50	1488095239	203597760	1284497479	86.318				
	60	1785714286	203484040	1582230246	88.605				
	70	2083333334	203679432	1879653902	90.223				
	80	2314814816	203642268	2111172548	91.203				
	90	2604166668	203534632	2400632036	92.184				
	100	2976190478	203393356	2772797122	93.166				
128	10	168918920	168918920	0	0				
	20	337837838	203807856	134029982	39.673				
	30	504032260	203962669	300069591	59.534				
	40	672043012	204223779	467819233	69.612				
	50	844594596	204019616	640574980	75.844				
	60	1008064518	203931296	804133222	79.77				
	70	1179245284	204168768	975076516	82.686				
	80	1329787236	204019360	1125767876	84.658				
	90	1508042898	203903136	1304139762	86.479				
	100	1689189190	203745595	1485443595	87.938				
256	10	90579712	90579712	0	0				
	20	181159422	181159422	0	0				
	30	271739132	204170970	67568162	24.865				
	40	361271678	204157430	157114248	43.489				
	50	452898552	204211130	248687422	54.91				
	60	543478262	204225389	339252873	62.423				
	70	631313132	204161816	427151316	67.661				
	80	718390806	204192968	514197838	71.576				
	90	811688312	204181976	607506336	74.845				
	100	905797102	204217796	701579306	77.454				
512	10								
	20								
	30	140765766	140765766	0	0				
	40	187687688	187687688	0	0				
	50	234962408	204538836	30423572	12.948				
	60	281531532	204476570	77054962	27.37				
	70	328947370	204504713	124442657	37.831				
	80	374251498	204455373	169796125	45.37				
	90	422297298	204567936	217729362	51.558				
	100	469924814	204522109	265402705	56.478				
1024	10								
	20								
	30								
	40								
	50								
	60	71839081	71839081	0	0				
70	167560322	167560322	0	0					
80	191131500	191131454	46	0					
90	215517242	204922682	10594560	4.916					
100	239463602	205057934	34405668	14.368	215517242	215517242	0	0	
1280	10								
	20								
	30								
	40								
	50								
60									
70									
80	76781327	76781327	0	0					
90	172917308	172917308	0	0					
100	192307694	192307593	101	0	172917308	172917308	0	0	
1518	10								
	20								
	30								
	40								
	50								
	60								
70	56818182	56818182	0	0					
80	64968815	64968815	0	0					
90	146065958	146065886	72	0					
100	162337664	162337664	0	0	146065958	146065958	0	0	



RFC-2544 - Back-to-Back Burst test

Frame Size (bytes)	IP_Forward								PF_RING DNA							
	Back-to-Back Burst(frames)	Back-to-Back Time(sec)	Intended Load(%)	Average Frame Rate (fps)	Average Tx Frames	Average Rx Frames	Average Lost Frames		Back-to-Back Burst(frame s)	Back-to-Back Time(sec)	Intended Load(%)	Average Frame Rate (fps)	Average Tx Frames	Average Rx Frames	Average Lost Frames	
	64	6667	0.000448	100	14881696	6667	6667	0	148809524	10	100	14880952	148809524	148809524	0	
128	5406	0.00064	100	8446875	5406	5406	0	84459460	10	100	8445946	84459460	84459460	0		
256	4058	0.000896	100	4529018	4058	4058	0	45289856	10	100	4528986	45289856	45289856	0		
512	3910	0.001664	100	2349760	3910	3908	2	23496241	10	100	2349624	23496241	23496241	0		
1024	7970	0.006656	100	1197416	7970	7898.714	71.28571	11973181	10	100	1197318	11973181	11973181	0		
1280	37600	0.039104	100	961538.5	37600	37011	589	9615385	10	100	961538.5	9615385	9615385	0		
1518	4058442	5	100	811688.4	4058442	4058350	91.7	8116884	10	100	811688.4	8116884	8116884	0		

