SecOS Benchmark results File System

File system

Chunk size: 16kB						
Operation	Base	RWFM		SELinux		
		Time taken	Overhead	Time taken	Overhead	
Create	0(93.33microsec	0(88microsec)	0.9428571429	0.33(674.67micro	7.228571429	
Write	267	339	1.269662921	294	1.101123596	
Read write	283	392	1.385159011	286.3333333	1.011778563	
Read	1.666666667	98	58.8	3	1.8	
Total	551.6666667	829	1.502719033	583.6666667	1.058006042	

Chunk size: 32kB						
Operation	Base	RWFM		SELinux		
		Time taken	Overhead	Time taken	Overhead	
Create	0(106.33microse	0(122microsec)	1.147335423	1(1644.33micros	15.46394984	
Write	399.3333333	426	1.066777963	391	0.9791318865	
Read write	407.3333333	461.6666667	1.133387889	401.6666667	0.9860883797	
Read	3	66	22	3	1	
Total	809.6666667	953.6666667	1.177850967	796.6666667	0.9839440099	

Chunk size: 64kB						
Operation	Base	RWFM		SELinux		
		Time taken	Overhead	Time taken	Overhead	
Create	0(115.33microse	0(131.33microse	1.138728324	0.67(1314.67mic	11.39884393	
Write	829	842	1.015681544	825.3333333	0.9955770004	
Read write	832	857.6666667	1.030849359	815.6666667	0.9803685897	
Read	1.666666667	23.33333333	14	3	1.8	
Total	1662.666667	1723	1.036287089	1644.666667	0.9891740176	

SecOS Benchmark results Fork

Process Creation i.e. fork()

Number of	Base	RWFM		SELinux	
processes		Time taken	Overhead	Time taken	Overhead
10	2	5.666666667	2.833333333	0	0
100	14.66666667	62.66666667	4.272727273	26	1.772727273
1000	115.3333333	546.3333333	4.73699422	291	2.523121387

SecOS Benchmark results Pipe

Pipe

Pipe Creation						
Chunk size	Base	RWFM SELinux				
		Time taken	Overhead	Time taken	Overhead	
16kB	0(12.33microsec	0.33(620.67micro	50.32432432	0(39microsec)	0.7749731472	
32kB	0(12.67microsec	0(462.67microse	36.52631579	0(46microsec)	1.259365994	
64kB	0(12.67microsec	0.67(1030.33mic	81.34210526	0(51microsec)	0.6269815594	

Pipe READ WRITE						
Chunk size	Base	RW	/FM	SEL	inux	
		Time taken	Overhead	Time taken	Overhead	
16kB	276.7833333	428.4953333	1.548125489	271.21	0.9798639128	
32kB	402.7753333	477.8673333	1.186436442	398.699	0.9898793869	
64kB	828.459	879.3676667	1.061449832	826.9793333	0.9982139531	

SecOS Benchmark results FIFO

Named pipe(FIFO)

FIFO Creation						
Chunk size	Base	RWFM SELinux				
		Time taken	Overhead	Time taken	Overhead	
16kB	3.67(3949.67mic	1.67(1981micros	0.4545454545	2(2485.67micros	0.5454545455	
32kB	5.33(5510.67mic	3.67(4351.67mic	0.6875	2(2352.67micros	0.375	
64kB	4.67(5220micros	5.67(6052.33mic	1.214285714	4(4652microsec)	0.8571428571	

FIFO READ WRITE						
Chunk size	Base	RW	/FM	SEL	inux	
		Time taken	Overhead	Time taken	Overhead	
16kB	290.6893333	442.447	1.522061353	319.3766667	1.098687258	
32kB	398.8276667	487.2776667	1.221774986	407.3536667	1.021377654	
64kB	845.8676667	853.819	1.00940021	839.9606667	0.9930166381	

SecOS Benchmark results Sockets

Sockets

Socket READ WRITE						
Chunk size	Base	RW	/FM	SEL	inux	
		Time taken	Overhead	Time taken	Overhead	
16kB	286.886	393.4453333	1.371434414	271.2946667	0.9456532095	
32kB	400.7286667	445.964	1.112882699	412.7863333	1.030089354	
64kB	811.0306667	877.8903333	1.082437902	822.3583333	1.013967002	

SecOS Benchmark results

Msg Queues

Message Queue

Message Queue READ WRITE						
Chunk size	Base	RW	/FM	SEL	inux	
		Time taken	Overhead	Time taken	Overhead	
16kB	231.674	347.212	1.498709393	251.1093333	1.08389087	
32kB	318.646	379.1263333	1.18980415	318.008	0.9979977781	
64kB	648.6963333	697.8126667	1.075715448	645.6033333	0.9952319755	