KERLABS





Kerrighed port on SMP machines









What's going on?



Bug squash party: krgltp

target: 1000 success tests

expect to complete in the next few weeks



Use krgltp in a non-regression process



Our hardware platform is not available

should be ok soon



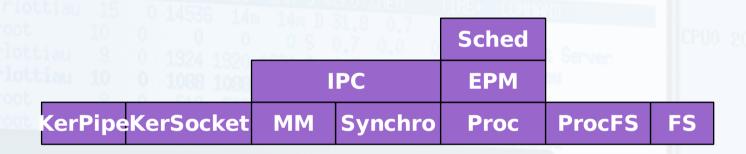
Schedule to the last week of february

(26 Fev, 8am)



Kerrighed and SMP

Future development have to be SMP-safe

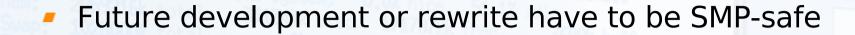


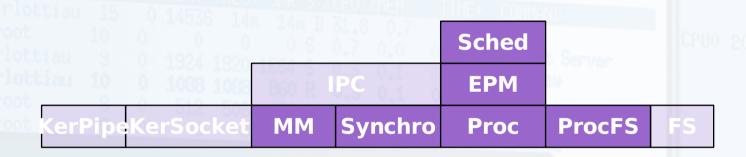
Dynamic Stream	Ghost	
Container		

Service Manager	HotPlug	
Communication Library		
KerNetDev		
Tools		



Kerrighed and SMP





Dynamic Stream	Ghost		
Container			

Service Manager	HotPlug	
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KerNetDev		
Tools		



Network layer and SMP

- Worked in SMP few years ago
- Need to check if it still ok

			0 S (31.8 0.7 0.7 0.0 0	Sched	t Server	
ti	au 10	0 1088 1088	860 R	PC	EPM	810	
K	(erPipe	KerSocket	MM	Synchro	Proc	ProcFS	FS

Dynamic Stream	- 94	Ghost	CPU;
	Cont	ainer	

Service Manager	HotPlug	
Communication Library		
KerNetDev		
Tools		



Data layer and SMP

- no SMP-lock management at all
- need to check all the code

KerPipeKerSocket	MM	IPC Synchro	EPM Proc	ProcFS	FS
	0 S	0.7 0.0 0	Sched	t Server	

Dynamic Stream	44		Ghost	CPU
	Cont	ainer		

Service I	Manager		HotPlug	
	Communic	ation Lib	rary	CPU
KerNetDev				
	_ Су т	ools		



Process layer and SMP

- nearly no SMP-lock management
- might require to rewrite some parts

10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 S 0.7 0.0 0		Sched	t Server	
tiau 10 0 1088 1088	860 R	PC	ЕРМ	BU	
KerPipeKerSocket	MM	Synchro	Proc	ProcFS	FS

Dynamic Stream	Ghost		
Container			

Service Manager HotPlug			
Communication Library			
KerNetDev			
Tools			



Scheduler management

- designed with the idea of SMP
- Need to be tested

		0 0 0	M 14m D 31.8 0.7 O S 0.7 0.0 0		Sched	t Server	
t	iau 10	0 1088 1088	860 R	PC	EPM	810	
	(erPipe	KerSocket	MM	Synchro	Proc	ProcFS	FS

Dynamic Stream	- 64		Ghost	СРИ
Container				

Service Manager	HotPlug		
Communication Library			
KerNetDev			
Тс	ools		



Pre-operation steps

- Cleanup the build process
 - Lower parts have to be independent from upper parts
- New linux kernel version
 - **2.6.16.39**?
 - **2.6.20**?



Steps to the SMP

First step:

- test the network layer / hotplug layer (start,stop mechanism)
- check the data layer
- check the regular process mechanisms

Second step:

- test the data layer with regular process operation
- check enhanced process mechanisms (distant fork / migration)

Third step:

- test the enhanced process mechanisms
- new bug squash party using krgltp



Discussion

