

Linux für Dummies

Debugging, Tracing und Optmieren von Linux

stressinduktion

5. Juli 2008

Generelles

Tools

procfs

sysfs

low level networking

tcp

Debugging und Cores

Ausblick

Generelles

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netorking

tcp

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Debugging

Ausblick

- ▶ syscalls
- ▶ filesystems
 - ▶ procfs, sysfs, cgroup, debugfs, securityfs, ...

- ▶ traced kernel-funktionen
- ▶ kann kernel speicher aendern - fault injection

- ▶ benutzt pmc register der cpus
- ▶ sampled daten
- ▶ auch nuetzlich um callgraphen zu erstellen

- ▶ \$pid
- ▶ sys
- ▶ net

- ▶ stat
- ▶ maps
- ▶ etc

- ▶ fs
- ▶ kernel
- ▶ net
- ▶ vm

- ▶ core
- ▶ ipv4, ipv6, unix
- ▶ netfilter

- ▶ Walk thorough sysfs
 - ▶ block
 - ▶ bus
 - ▶ class

- ▶ I/O Scheduler
- ▶ readahead
- ▶ FUA und DPO

- ▶ beware module parameter
- ▶ modinfo und modprobe
- ▶ /proc/iomem und /proc/ioports
- ▶ /proc/irq und /proc/interrupts
- ▶ MSI und MSI-X

- ▶ RFC 1122 - strict end system vs. loose end system
- ▶ Source Routing
- ▶ MTU

- ▶ portranges
- ▶ syncookies
- ▶ congestion control
- ▶ low-latency

- ▶ KEXEC und (l)crash
- ▶ KGDB
- ▶ netconsole
- ▶ systemtap

- ▶ Namespaces
- ▶ Fault injection
- ▶ Fault recovery
- ▶ LVM3 und btrfs und ext4
- ▶ Paul Fox und Dtrace auf Linux