SOFTWARE PRODUCT DESCRIPTION

CHARON-SSP for Linux 64 bits
Version 1.0.34

DESCRIPTION

CHARON-SSP is a member of CHARON cross-platform hardware virtualization product family that creates a virtual replica of sun4m and sun4u SPARC family members on a standard x86 64bits computer running Linux 64bits operating system.
CHARON-SSP lets users of end of life SPARC servers/stations to continue using their applications without any changes while lowering operational costs and energy consumption.
Multiple instances can run on a single X86 standard host or existing virtualization infrastructure providing the benefits of consolidation, easy management and maintenance of these legacy systems.
CHARON-SSP provides three virtualized SPARC models:

- CHARON-SSP/4M based on SPARC-V8 32-Bit processor specification, MBUS for Processors/Memory interconnection and SBUS for IO peripherals.
- CHARON-SSP/4U based on SPARC-V9 64-bit processor specification, UPA bus for Processor/Memory interconnection and PCI bus for IO peripherals.
- CHARON-SSP/4U+ same as /4U using Intel VT-x / EPT to offload SPARC MMU operations onto hardware. This requires running on dedicated Intel host.

NETWORK

CHARON-SSP maps 1 host physical Ethernet adapter for each emulated NIC or can bridge a physical Ethernet adapter with a number of tap devices to allow communication between CHARON-SSP instances and the Linux host while multiplexing the physical Ethernet adapter for external communication.
All Solaris network protocols are supported transparently as well as Solaris IP multipathing and Solaris VNICs.

GRAPHIC ENVIRONMENTS

Solaris CDE, Openwin desktop and Java Desktop graphics environment are supported on CHARON-SSP by Xephyr nested X11 server running on the Linux Host.

STORAGE

CHARON-SSP provides virtualization for SCSI controllers and peripherals as follows:

- Virtual disks as container files residing on Linux file systems
- Linux raw partitions
- Physical disks / tapes.
- iSCSI targets

POWER SAVING

CHARON-SSP provides a feature to reduce CPU power consumption on the Intel host when Solaris O.S. is idle. This feature can be enabled using the following options:

- Balanced
  Uses Intel power saving instructions to disable pipeline and reduce energy consumption
- Power save
  This option uses CPU thread suspension on Solaris IDLE condition to reduce host CPU usage.

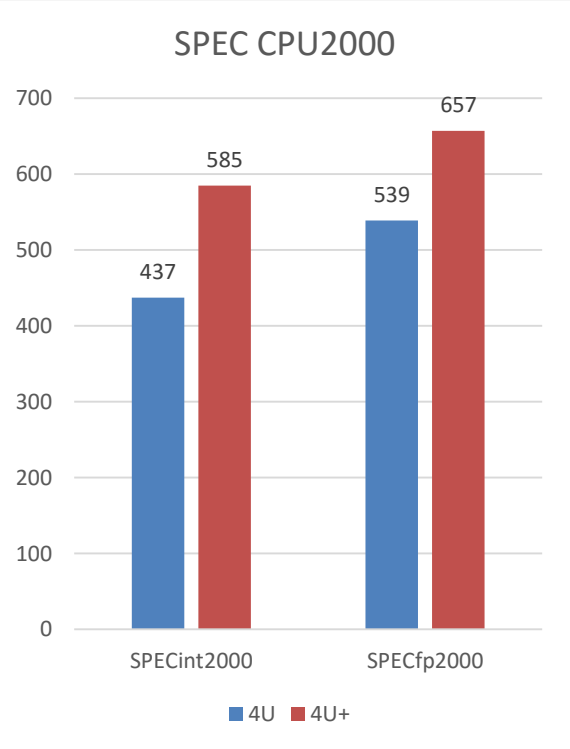
MANAGEMENT

CHARON Manager for CHARON-SSP is a graphical user interface for creating, configuring and starting instances of virtual SPARC systems.
It also provides access to the virtual consoles and log files as well as the following tools:

- Create Virtual Disk/Tape/Floppy
- License viewer/update
- Host information
- Virtual network create/delete
- X11 server start/stop
- Console configuration

PERFORMANCE

Single CPU test run on CHARON-SSP/4U with Solaris 10 on Intel host with CORE I7 @ 3.6GHz Processor.



DISTRIBUTION

CHARON-SSP is distributed in RPM and Debian packages for Oracle Linux, Red Hat, SuSE and Ubuntu.
Also a “barebone” version is distributed as an ISO image containing a customized Linux environment and GUI interface for easy deployment on VMs or Hardware Hosts.
Distribution kits are available from Partners or direct download from Stromasys ftp site.

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VIRTUALIZED HARDWARE

	CHARON-SSP/4M	CHARON-SSP/4U(+)
Number of SPARC CPUs (type Min/Max)	SPARC V8 1/1	SPARC V9 1/24
Emulated RAM	64MB to 512MB	1GB to 128GB
Bus type : Slots	SBUS : 12 slots	PCI : 16 slots
SCSI controllers	1	2
Maximum SCSI devices	7	30
Disks supported	physical/partition/vdisk	physical/partition/vdisk
CD/DVD support	physical/ISO image	physical/ISO image
Tape support	physical/vtape	physical/vtape
Ethernet Controllers	1	16
Serial Ports	2	2
Graphics Support	X11 nested server	X11 nested server
O.S. support	SunOS 4.1.3/4.1.4 Solaris 2.5 to Solaris 8	Solaris 2.5.1 to Solaris 10

HOST REQUIREMENTS

Host	Description
Operating system (LINUX)	Oracle Linux, RHEL 6.x / 7, OpenSUSE, SuSE Enterprise Server, Ubuntu
Number of Cores	2 + Number of emulated processors per instance
Memory size	2GB + emulated memory per instance
Recommended Hardware	Intel Server based on Haswell v3 processors or Desktop Core I7 (CPU frequency at least 3.0GHz)

ORDERING INFORMATION

License Type	Part Number
Unlimited License	CHSSP-*-LI-LIC-UN
1-year License	CHSSP-*-LI-LIC-01
3-year License	CHSSP-*-LI-LIC-03
USB Backup key	CHSSP-*-LI-IK
Annual Platinum Support	CHSPP-*-LI-IT-(UN/01/03)

** License level (L10, L20, L30, L40, L50) based on the number of emulated CPUs and RAM*

STROMASYS INC
Americas Region
2840 Plaza Place,
Ste 450
Raleigh, NC 27612
United States of America
Phone: +1 919 239 8450
Fax: +1 919 239 8451
us.sales@stromasys.com

STROMASYS SA
Europe, Middle East & Africa
Avenue Louis-Casai 84
5th Floor
1216 Cointrin
Switzerland
Phone: +41 22 794 1070
Fax: +41 22 794 1073
emea.sales@stromasys.com

STROMASYS ASIA PACIFIC LTD
Asia Pacific Region
28/F, Room D, Tower B, Billion Centre
1 Wang Kwong Road
Kowloon Bay
Hong Kong
Phone: +852 2853 1600
Fax: +852 2853 1699
apac.sales@stromasys.com

www.stromasys.com

stromasys
engineered solutions