Scali Software Platform - SSP

Scali delivers an extensive number of tools and applications for clusters ranging from a handful to hundreds of nodes. They target all aspects of building, maintaining and using a cluster and ranges from low level drivers to high level administration tools. The SSP be divided into three domains of usage:

Installation

- √ Operating System installation (ScaOSInstall)
- √ SSP installation (SSPinstall)

• Administration/Maintenance

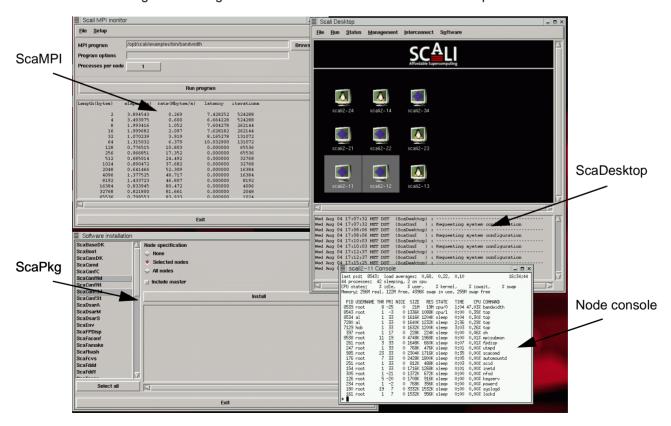
- √ Parallel software installation tool (ScaPkg)
- √ Configuration/management of high speed interconnect (ScaConf)
- √ Power switching individually on each node* (ScaConf)
- √ Console management* (ScaConf)
- √ Running OS commands in parallel on cluster (ScaSH)

Operational use

- √ Running MPI applications (ScaMPI)
- √ Running OS commands in parallel on cluster (ScaSH)

(* = requires HW support)

Most of the tools are available as plug-ins in a graphical desktop (ScaDesktop) which make the cluster accessible and manageable through a consistent interface across all tools and platforms.



Product descriptions

ScaDesktop The graphical desktop interface which unifies access to several Scali

tools and applications. It is modular by design and make use of plug-

ins to extend it's functionality.

ScaOSInstall Scali Operating System (OS) installation tool. Simplifies OS installa-

tion on a cluster by creating and configuring an installserver on one node and subsequently use this node to install the OS in parallel on all the remaining nodes in the cluster. A ScaDesktop plug-in and

standalone application is supplied.

SSP install Performs the installation of the SSP onto all nodes in a cluster. It

assists you through the installation step by step until you have a fully

operational cluster.

ScaMPI The MPI 1.1 library with tools for application loading. It is highly opti-

mized, fault tolerant and supports multithreading. A number of benchmark and test applications are bundled together with an adoption of the mpich "upshot" MPI call event tracer. A ScaDesktop plug-

in and standalone application loader is supplied.

ScaConf Interactive tool for cluster management:

- Power switching (turning power to nodes on/off)

- Console access (view console of every node)

- Interconnect routing algorithms including the "Scali routing" allowing us to maintain full connectivity with unavailable nodes.

A ScaDesktop plug-in is supplied.

ScaSH Tools for executing commands in parallel on selected/all nodes in a

cluster (e.g. '# scash -p Is /tmp' will list the contents of /tmp on all nodes prefixed with the respective node name). A ScaDesktop plug-

in is supplied.

ScaPkg A tool for installing software on selected/all nodes in a cluster. Pack-

age files are kept in a repository on the installation server, distributed

and installed with automatic configuration onto the nodes. A

ScaDesktop plug-in is supplied.

ScaBoot An x86 boot loader enabling OS boot selection using the serial port

(console) and/or keyboard. Includes tools for selecting which OS to

boot next.

Platforms supported

Availability

os	Version	Architecture
Linux	RH 6.0	i86pc
Solaris	2.6 or 7	i86pc / UltraSPARC

Now.