NAME

sac – service access controller

SYNOPSIS

sac –**t** *sanity_interval*

/usr/lib/saf/sac

DESCRIPTION

The Service Access Controller (SAC) is the overseer of the server machine. It is started when the server machine enters multiuser mode. The SAC performs several important functions as explained below.

Customizing the SAC *environment*. When **sac** is invoked, it first looks for the per-system configuration script **/etc/saf/_sysconfig**. **sac** interprets **_sysconfig** to customize its own environment. The modifications made to the SAC environment by **_sysconfig** are inherited by all the children of the SAC. This inherited environment may be modified by the children.

Starting port monitors. After it has interpreted the **_sysconfig** file, the **sac** reads its administrative file **/etc/saf/_sactab**. **_sactab** specifies which port monitors are to be started. For each port monitor to be started, **sac** forks a child (see **fork**(2)) and creates a **utmp** entry with the *type* field set to **LOGIN_PROCESS**. Each child then interprets its per-port monitor configuration script **/etc/saf/***pmtag***/_config**, if the file exists. These modifications to the environment affect the port monitor and will be inherited by all its children. Finally, the child process **exec**s the port monitor, using the command found in the **_sactab** entry. (See **sacadm**; this is the command given with the –**c** option when the port monitor is added to the system.)

Polling port monitors to detect failure. The –**t** option sets the frequency with which **sac** polls the port monitors on the system. This time may also be thought of as half of the maximum latency required to detect that a port monitor has failed and that recovery action is necessary.

Administrative functions. The Service Access Controller represents the administrative point of control for port monitors. Its administrative tasks are explained below.

When queried (**sacadm** with either –**l** or –**L**), the Service Access Controller returns the status of the port monitors specified, which **sacadm** prints on the standard output. A port monitor may be in one of six states:

ENABLED The port monitor is currently running and is accepting connections. See **sacadm**(1M) with the –**e** option.

DISABLED The port monitor is currently running and is not accepting connections. See **sacadm** with the –**d** option, and see **NOTRUNNING**, below.

STARTING The port monitor is in the process of starting up. **STARTING** is an intermediate state on the way to **ENABLED** or **DISABLED**.

FAILED The port monitor was unable to start and remain running.

STOPPING The port monitor has been manually terminated but has not completed its shutdown procedure. **STOPPING** is an intermediate state on the way to **NOTRUNNING**.

NOTRUNNING The port monitor is not currently running. (See **sacadm** with **–k**.) This is the normal "not running" state. When a port monitor is killed, all ports it was monitoring are inaccessible. It is not possible for an external user to tell whether a port is not being monitored or the system is down. If the port monitor is not killed but is in the **DISABLED** state, it may be possible (depending on the port monitor being used) to write a message on the inaccessible port telling the user who is trying to access the port that it is disabled. This is the advantage of having a **DISABLED** state as well as the **NOTRUNNING** state.

When a port monitor terminates, the SAC removes the **utmp** entry for that port monitor.

The SAC receives all requests to enable, disable, start, or stop port monitors and takes the appropriate action.

The SAC is responsible for restarting port monitors that terminate. Whether or not the SAC will restart a given port monitor depends on two things:

- The restart count specified for the port monitor when the port monitor was added by **sacadm**; this information is included in **/etc/saf/***pmtag***/_sactab**.
- The number of times the port monitor has already been restarted.

OPTIONS

–t *sanity_interval* Sets the frequency (*sanity_interval*) with which **sac** polls the port monitors on the system.

FILES

/etc/saf/_sactab
/etc/saf/_sysconfig
/var/adm/utmp
/var/saf/_log

SEE ALSO

pmadm(1M), **sacadm**(1M), **fork**(2)