NAME

lpsystem – register remote systems with the print service

SYNOPSIS

lpsystem [**–t** *type*] [**–T** *timeout*] [**–R** *retry*] [**–y** **"***comment***"**] *system-name* [*system-name ...*]
lpsystem **–l** [*system-name ...*]
lpsystem **–r** *system-name* [*system-name* ...]
lpsystem **–A**

AVAILABILITY

SUNWlpu

DESCRIPTION

The **lpsystem** command is used to define parameters for the LP print service, with respect to communication with remote systems. Only a privileged user (that is, the owner of the login **root**) may execute the **lpsystem** command.

Specifically, the **lpsystem** command is used to define remote systems with which the local LP print service can exchange print requests. These remote systems are described to the local LP print service in terms of several parameters that control communication: type, retry and timeout. These parameters are defined in **/etc/lp/Systems**. You can edit this file with a text editor (such as **vi**) but editing is not recommended.

The *type* parameter defines the remote system as one of two types: **s5** (SunOS 5.x operating system), or **bsd**. The default type is **s5**.

The *timeout* parameter specifies the length of time (in minutes) that the print service should allow a network connection to be idle. If the connection to the remote system is idle (that is, there is no network traffic) for *N* minutes, then drop the connection. (When there is more work the connection will be re-established.) Legal values are **n**, **0**, and *N*, where *N* is an integer greater than 0. The value **n** means ''never time out''; **0** means ''as soon as the connection is idle, drop it.'' The default is **n**.

The *retry* parameter specifies the length of time to wait before trying to re-establish a connection to the remote system, when the connection was dropped abnormally (that is, a network error). Legal values are **n**, **0**, and *N*, where *N* is an integer greater than 0 and it means ''wait *N* minutes before trying to reconnect. (The default is 10 minutes.) The value **n** means ''do not retry dropped connections until there is more work''; **0** means ''try to reconnect immediately.''

The *comment* argument allows you to associate a free form comment with the system entry. This is visible when **lpsystem –l** is used.

system-name is the name of the remote system from which you want to be able to receive jobs, and to which you want to be able to send jobs. If the *system-name* is a plus sign ("+"), then anonymous client support is enabled. That is, your system will accept remote print jobs from any other print client (**bsd** or **s5**). This is enabled by default in **/etc/lp/Systems**; any other entries in the **/etc/lp/Systems** file will be superfluous. The other parameters listed on the line beginning with the *plus sign* are for reference only, and will not actually change the behavior of **lpsched**(1M).

The command **lpsystem –l** [*system-name*] will print out a description of the parameters associated with *system-name* (if a system has been specified), or with all the systems in its database (if *system-name* has not been specified).

The command **lpsystem** **–r** *system-name* will remove the entry associated with *system-name*. The print service will no longer accept jobs from that system or send jobs to it, even if the remote printer is still defined on the local system.

The command **lpsystem** **–A** will print out the TCP/IP address of the local machine in a format to be used when configuring the local port monitor to accept requests from a SunOS system.

OPTIONS

–t *type* Specifies the remote system type.

–T *timeout* Specifies the time allowed for a network connection to be idle. *timeout* is in minutes. Default is to never time out.

–R *retry* Specifies time to wait before trying to reestablish a connection for a remote system.

–y *comment* The comment argument allows you to associate a free form comment with the system entry.

–l *[system-name]* Prints out a description of the parameters associated with *system-name*, or with all the systems in its database.

–r *system-name* Removes the entry associated with *system-name*.

–A Prints out the TCP/IP address in a format.

FILES

/var/spool/lp/* **/etc/lp/***

SEE ALSO

lpsched(1M), **nlsadmin**(1M), **sacadm**(1M), **netdir**(3N), **hosts**(4), **netconfig**(4), **services**(4)

NIS+ and FNS Administration Guide
System Administration Guide, Volume II

NOTES

With respect to **/etc/lp/Systems**, this information is relatively minimal with respect to controlling network communications. Network addresses and services are handled by the **Netconfig** and **Netdir** facilities (see the *NIS+ and FNS Administration Guide* for a discussion of network addresses and services.) Port monitors handle listening for remote service requests and routing the connection to the print service (see the *Solaris 1.x to Solaris 2.x Transition Guide* for a discussion of port monitors.)

If the **Netconfig** and **Netdir** facilities are not set up properly, out-bound remote print service probably will not work. Similarly, if the local port monitors are not set up to route remote print requests to the print service, then service for remote systems will not be provided. See the chapters on managing printers in the *System Administration Guide, Volume II* for instructions.

With respect to the semantics of the *timeout* and *retry* values, the print service uses one process for each remote system with which it communicates, and it communicates with a remote system only when there is work to be done on that system or work being sent from that system.

The system initiating the connection is the ''master'' process and the system accepting the connection is the ''slave'' process. This designation serves only to determine which process dies (the slave) when a connection is dropped. This helps prevent there from being more than one process communicating with a remote system. Furthermore, all connections are bi-directional, regardless of the master/slave designation. You cannot control a system's master/slave designation. Now, keeping all this information in mind, if a master process times out, then both the slave and master will exit. If a slave times out, then it is possible that the master may still live and retry the connection after the retry interval. Therefore, one system's resource management strategy can effect another system's strategy.

With respect to **lpsystem** −**A**: a SunOS 4.x system (described with −**t bsd**) can be connected to your system only via TCP/IP, and print requests from a SunOS system can come in to your machine only via a special port (515). The address given to you from **lpsystem** will be the address of your system and port 515. This address is used by your TCP/IP port monitor (see **sacadm**(1M) and **nlsadmin**(1M)) to ''listen'' on that address and port, and to route connections to the print service. (This procedure is discussed in the *System Administration Guide, Volume II*.) The important point here is that this is where you get the address referred to in that procedure.

The command **lpsystem** −**A** will not work if your system name and IP address are not listed in **/etc/inet/hosts**, (see **hosts**(4)), and the printer service is not listed in **/etc/inet/services**, (see **services**(4)).

The file **/etc/lp/Systems** is set by default to support anonymous print clients. This feature can be disabled if one wishes greater security for print jobs. However, it should be noted that this will increase the amount of work required of the system administrator. A good backup of this file is strongly recommended if anonymous print client support is disabled.