

COSprint Client

COSprint Client is the COSprint module designed for large-scale installations requiring a low cost infrastructure to support the submission and monitoring of print jobs from remote UNIX and Linux servers

By using the COSprint Client, an enterprise can easily afford to include all its UNIX and Linux servers within the COSprint domain. As a result, the benefits of using OSM's class-leading COSprint output management and print spooling product become available to all systems and users on the network.

COSprint Client is a module which operates in a domain containing one or more instances of the COSprint Server (see COSprint Server datasheet). It is a component of OSM's COSprint group of output management and print spooling products used on networks containing any number of UNIX, Linux and Windows® systems.

COSprint Client is a low cost module for use on remote nodes where the default **lpd** service might otherwise be configured to transmit print jobs to COSprint. There are several disadvantages in using **lpd** in this way, in particular the work involved in entering and maintaining the details of every printer in every instance of **lpd**, and the fact that **lpd** is unable to feed back to the user any information about the status of print jobs.

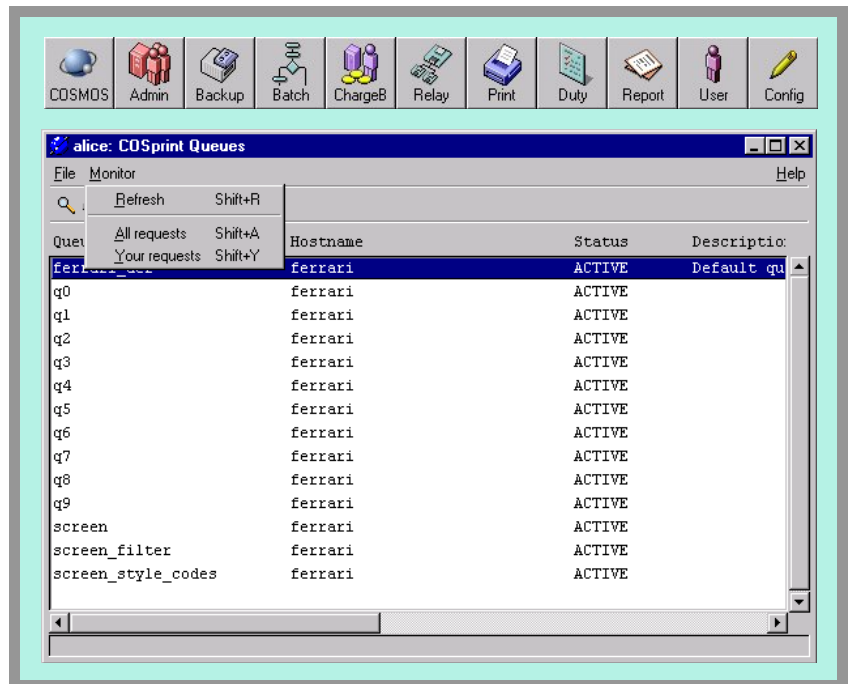
The COSprint Client runs on any remote system that communicates with a COSprint Server elsewhere on the network. It supports a subset of the COSprint Server's functionality which allows the remote server to:

- Submit print jobs that call up the standard COSprint ("cpr") printing options (for exam-

ple, retention time, number of copies, formats etc). Note that COSprint responds correctly to the standard **lp** command for seamless integration with applications.

- Query the names of available queues
- View print jobs on a particular queue
- Cancel a print job

COSprint Client removes any need to configure printers on the network within the **lpd** service. It is scalable to a large number of UNIX or Linux servers because it is a discrete component. In other words, printing activity is only initiated as and when a user submits a print job or queue-related query. No COSprint data is held locally so there is no need to propagate



The COSMOS toolbar and COSprint client opening window

such information to hundreds of systems over the network. Print jobs are transmitted to the *COSprint* Server as belonging to the requesting user.

In addition, **COSprint Client** supports the following, configurable functionality

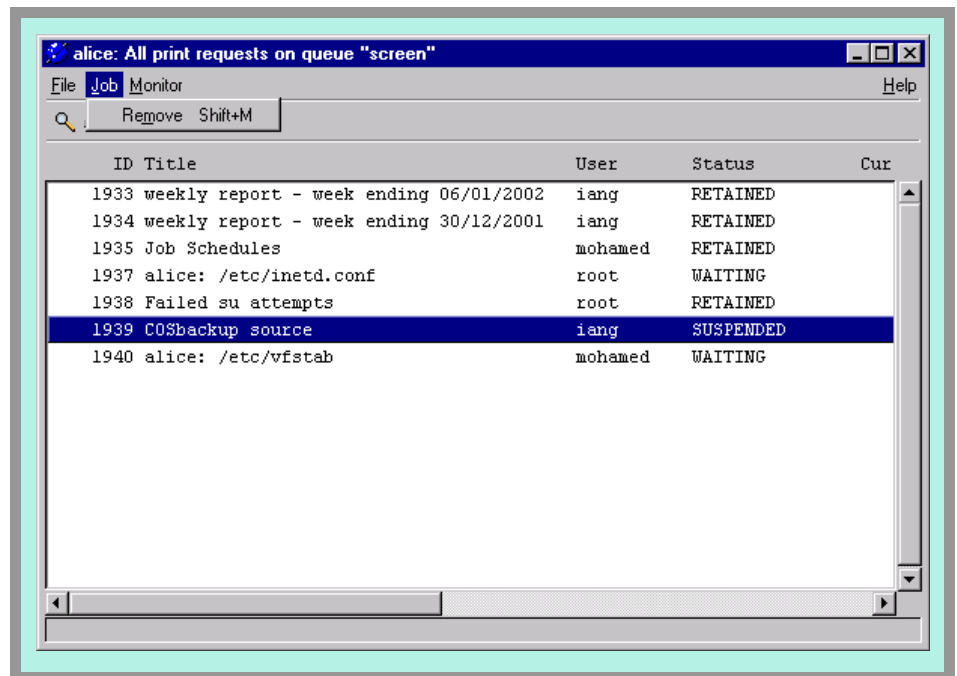
- **Load-balancing.** In large or complex sites, more than one *COSprint* Server may be used. A data table, describing all the Servers, is maintained on each **COSprint Client**, one element of which is the "rank" assigned to each Server. The print submission program selects the Server (or Servers) of the highest rank available. Administrators may mark particular *COSprint* Servers as enabled or disabled in the list of servers available for the **COSprint Client** so as to be able to temporarily take them out of service.

The purpose of the rank system is to allow users to bias their work to their preferred server. For example, if both the user and his/her desired printer are in New York, it is not efficient to select a Server in Los Angeles through which to route the job. However, the Los Angeles route may be acceptable if the New York server is out of service.

In configurations where there is more than one acceptable Server, the **COSprint Client** maintains a record of the last time each server was used in order to perform round-robin load balancing between servers of the same rank.

- **Transparent failover.** The system described above can be used to determine if a *COSprint* Server is available and, if not, to direct the print job to an alternative whilst remaining transparent to the user. Enabling this facility requires setting up a backup *COSprint* domain which is a mirror of the production domain. The production configura-

tion data is copied to the backup domain at regular intervals, using the *COSprint* FailOver Module so as to avoid the user having to duplicate changes. The **COSprint Client** routes print jobs



A **COSprint Client** user can view the print jobs held in any particular queue by highlighting the relevant queue in the window shown in the previous figure, then selecting **All requests** or **Your requests** as required.

to either domain via the ranking system. If a server is not available, the next server will be attempted according to rank. In this way, printing seamlessly fails over to a working *COSprint* Server, all the required objects having been pre-configured in the backup domain.

- **Print auditing.** Print requests are audited on the **COSprint Client** in a standard OSM Toolset audit trail. Details include user name, date and time, file name and size, chosen server and time-of-day to print.
- **Ping test prior to print attempt.** An option exists to perform a "ping" test prior to attempting to submit a job to a *COSprint* Server. This test is usually quicker than the alternative of allowing the OSM Secure Communications Protocol and/or *COSprint* Server to time-out. It allows a **COSprint Client** to quickly bypass servers which are out of service.

- **Compression on print transfer.** Across a WAN, for example, compression may be a useful process for large files. It may make print submission take longer (while the compression and decompression takes place) but will result in reduced utilization of network bandwidth and reduced file transmission time. The Compression option is set for a *COSprint* client by a *COSprint* administrator.

Technical

COSprint Client supports a subset of the standard *COSprint* Server commands, plus some additional ones, as follows:

- cpcr** the standard *COSprint* Client print job submission command
- cpr** the *COSprint* Server print job submission command, included for compatibility in the wider *COSprint* environment
- lp** the standard UNIX (SVR4 and derivatives) print job submission command, included to avoid the need to modify applications

lpr the standard BSD UNIX print job submission command, included to avoid the need to modify applications

cpcls command to list the attributes of *COSprint* objects such as printers, queues, formats, etc.

cpcrm command to remove print jobs from the system

cpcq command to list the status of queued print jobs

The **cpcr**, **cpcls**, **cpcrm** and **cpcq** commands all take the same arguments as their standard *COSprint* counterparts plus the following two additional ones:

- S server** specifies the server to use
- A alert_program** specifies a program to run if the print job fails – for example, to write an error log entry, or to send an email alert



www.cosprint.com

OPEN SYSTEMS MANAGEMENT, INC.
1511 Third Avenue, Suite 905
Seattle WA 98101
USA

Tel: (866) 601 8011 (toll-free, USA)
Fax: (206) 583 8374
info@osminc.com

www.osmcorp.com



OPEN SYSTEMS MANAGEMENT LTD
Kings Ride Court
Kings Ride
Ascot, Berkshire SL5 7JR
UK
Tel: +44 (0)1344 638000
Fax: +44 (0)1344 638011
info@osm.co.uk