

Univention Corporate Server




Extended print services documentation

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Chapter 1. Print quota configuration

1.1. Introduction

Feedback 

The UCS print service allows the use of print quotas. Print quotas can be defined for printers and printer groups using policies.

Print quotas are implemented using the component Pykota. It creates an interface between the print server CUPS and the connected printer. Before the print job is sent to the printer, the system checks whether the user is authorised to print. In addition, every print job is logged, which allows cost evaluations.


There are two thresholds for the print quotas:

- The *hard limit* is the maximum number of printable pages. Further print jobs will be rejected. The user is notified by e-mail.
- Once the *soft limit* is reached, an e-mail can be sent warning the user that the hard limit will soon be reached. This is done by setting the Univention Configuration Registry variable `cups/quota/inform` to `yes`. This notification is disabled in the standard setting.

Pykota interprets print jobs in the following print formats: PostScript, PDF, PCL1, PCL2, PCL3, PCL4, PCL5, PCLXL, PCL6 and ESC/P2.

The print quota status is not saved in the LDAP directory service, but rather in a separate Postgres SQL database set up automatically via the *univention-printquotadb* package on the print server.


1.2. Installation

Feedback 


Print quota support is disabled as standard. It must be subsequently set up by installing the *univention-print-quota* package.

Enabling the print quotas results in an internal change to the printer management. For this reason, *univention-printquota* must be installed on all print servers.

1.3. Configuration of print quotas

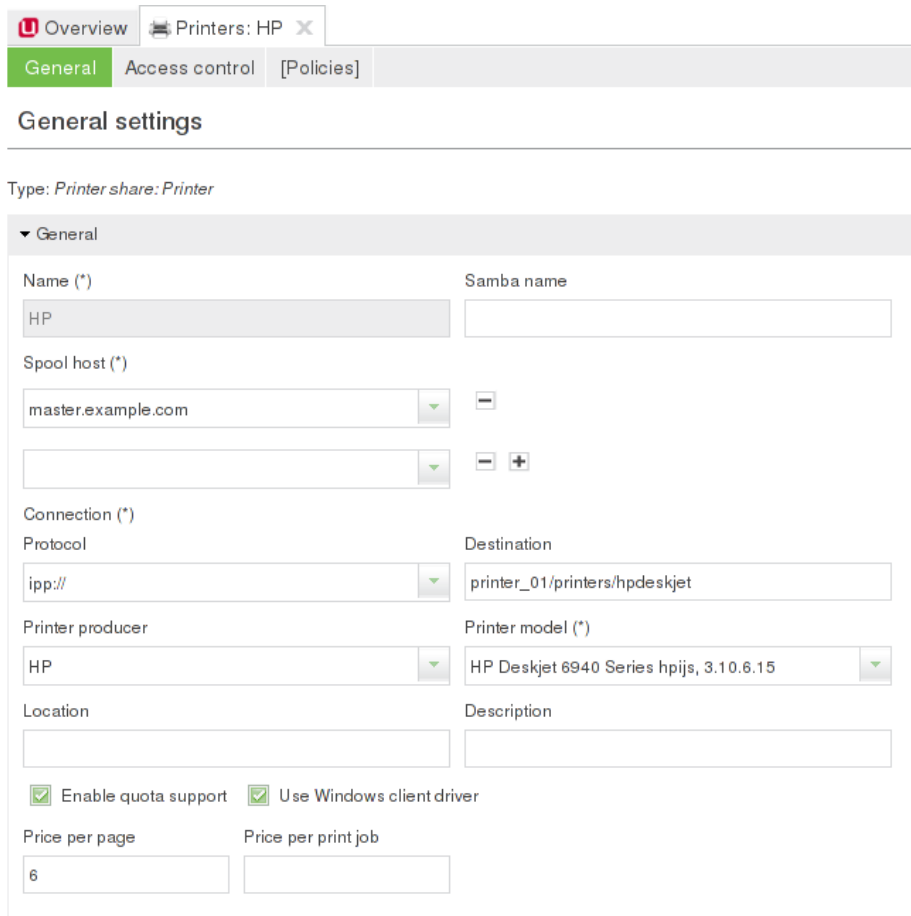
Feedback 

1.3.1. Enabling of print quotas

Feedback 

Before a print quota can be assigned to a printer or printer group, the option **Enable quota support** must be activated in the Univention Management Console.

Figure 1.1. Enabling quota support



Overview Printers: HP X

General Access control [Policies]

General settings

Type: Printer share: Printer

▼ General

Name (*) Samba name

HP

Spool host (*)

master.example.com

Connection (*)

Protocol Destination

ipp:// printer_01/printers/hpdeskjet

Printer producer Printer model (*)

HP HP Deskjet 6940 Series hpijs, 3.10.6.15

Location Description

Enable quota support Use Windows client driver


Price per page Price per print job

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Note


Print quotas can only be used for printers connected via the protocols *lpd*, *ipp*, *http*, *socket* and *smb*. It is not possible to set up print quotas for printers connected via *usb*, *parallel* and *file* URIs.

1.3.2. Assigning quota limits to users and groups

Feedback 

The printer quotas can then be assigned in two ways; via a policy or specifically for each user in the UMC module **Printer administration**.

1.3.2.1. Assignment via a policy

Feedback 

The quota can be configured as a soft limit (warning threshold) and a hard limit (maximum number of printable pages) respectively via a print quota policy. The set values are always interpreted minus 1. I.e., if the user has a hard limit of 100, a maximum of 99 pages can be printed. This gives the following special values:

- *0*: The print volume is unlimited
- *1*: The user or group cannot print any pages at all

The assignment is possible in the following ways:

- **Print quota for users**: The print quota applies for the specified user(s) individually.

Querying the printer quotas

- **Print quota for groups per user:** The limit is evaluated individually for every user in the group specified here.
- **Print quota for groups:** The group specified here is assigned a common contingent. All users belonging to the group can use this contingent.

1.3.2.2. Assignment via the UMC module


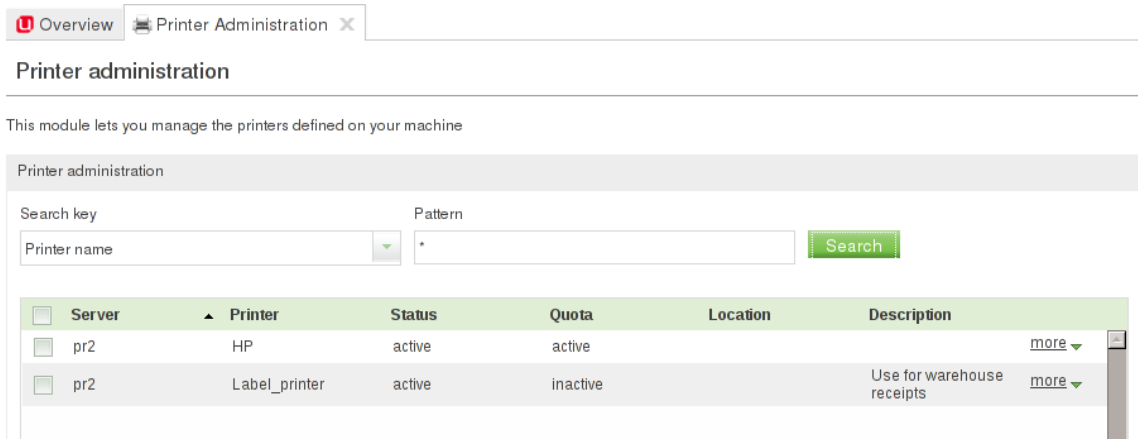
Feedback 

Figure 1.2. List of available printers

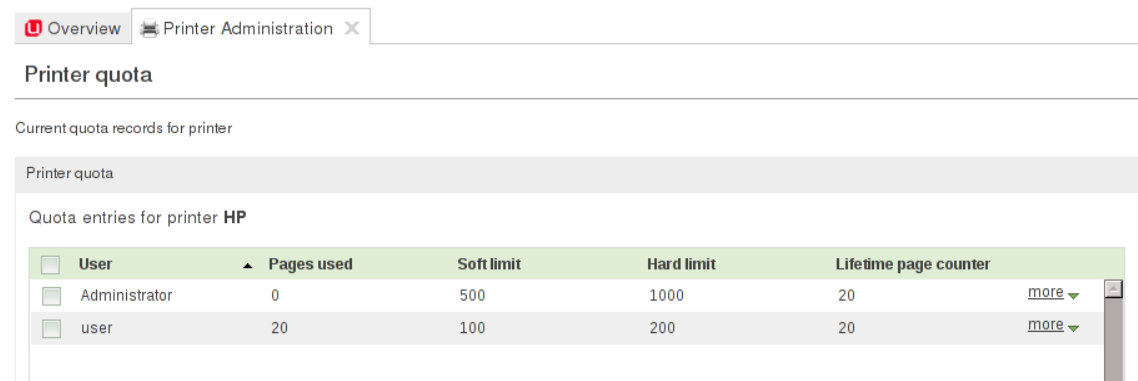


The screenshot shows the 'Printer Administration' module interface. At the top, there are tabs for 'Overview' and 'Printer Administration'. Below the title 'Printer administration', a description states: 'This module lets you manage the printers defined on your machine'. A search section includes a 'Search key' dropdown set to 'Printer name' and a 'Pattern' input field containing an asterisk (*). A green 'Search' button is to the right. Below the search is a table with the following data:

Server	Printer	Status	Quota	Location	Description
pr2	HP	active	active		more
pr2	Label_printer	active	inactive		Use for warehouse receipts more

The UMC module **Printer administration** allows the configuration of user-specific printer quotas. Quotas can be assigned to users for all printers on which a quota is enabled (see Section 1.3.1) under **more -> Edit quota**. A list of all users for which quotas are configured is displayed. **Add new record** can now be used to add an additional entry: A user is selected under **User name** and a **soft limit** and **hard limit** has to be specified. The page counter can be reset to zero under **more -> Reset user quota**.

Figure 1.3. List of configured print quotas



The screenshot shows the 'Printer quota' module interface. At the top, there are tabs for 'Overview' and 'Printer Administration'. Below the title 'Printer quota', a description states: 'Current quota records for printer'. A sub-section is titled 'Printer quota' and 'Quota entries for printer HP'. Below this is a table with the following data:

User	Pages used	Soft limit	Hard limit	Lifetime page counter
Administrator	0	500	1000	20 more
user	20	100	200	20 more

1.4. Querying the printer quotas

Feedback 


The quota data can only be queried if print quota is enabled on at least one printer share; otherwise, repykota delivers an error message: `/usr/bin/repykota : There's no printer matching *`.

The quota status can be viewed for all users using the command `repykota` or alternatively for a single user with `repykota USERNAME`:

```
~# repykota
```

```
Report for user quota on printer HP ()
Pages grace time: 7 days
Price per job: 0.000
Price per page: 0.000
User          overcharge used  soft hard  balance grace  total
-----
Administrator -Q  1.0    0   500 1000    0.00         20
user          -Q  1.0   20  100  200    0.00         20
                                     Total :         40
                                     Real  :          0
```

1.5. Resetting the printer quotas

Feedback 

The page counter for a user can be reset either with the UMC module **Printer moderation** (see Section 1.3.2.2) or in the command line using the command `edpykota reset`:

```
:~# edpykota --reset user01
Extracting datas...
Modification...
Done.
```

The following command removes the print quota for a user on all printer shares:

```
edpykota --delete user01
```

or on a specific printer:

```
edpykota --delete user01 --printer labelprinter
```