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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'cupsd.conf.5' command

\$ man cupsd.conf.5

cupsd.conf(5) Apple Inc. cupsd.conf(5)

NAME

cupsd.conf - server configuration file for cups

DESCRIPTION

The cupsd.conf file configures the CUPS scheduler, cupsd(8). It is normally located in the /etc/cups directory. Each line in the file can be a configuration directive, a blank line, or a comment. Configuration directives typically consist of a name and zero or more values separated by whitespace. The configuration directive name and values are case-insensitive. Comment lines start with the # character.

TOP-LEVEL DIRECTIVES

The following top-level directives are understood by cupsd(8):

AccessLogLevel config

AccessLogLevel actions

AccessLogLevel all

Specifies the logging level for the AccessLog file. The "config" level logs when printers and classes are added, deleted, or modified and when configuration files are accessed or updated. The "actions" level logs when print jobs are submitted, held, released, modified, or canceled, and any of the conditions for "config". The "all" level logs all requests. The default access log level is "actions".

AutoPurgeJobs Yes

AutoPurgeJobs No

Specifies whether to purge job history data automatically when it is no longer required for quotas. The default is "No".

BrowseDNSSDSubTypes_subtype[,...]

Specifies a list of Bonjour sub-types to advertise for each shared printer. For example, "BrowseDNSSDSubTypes _cups,_print" will tell network clients that both CUPS sharing and IPP Everywhere are supported. The default is "_cups" which is necessary for printer sharing to work between systems using CUPS.

BrowseLocalProtocols all

BrowseLocalProtocols dnssd

BrowseLocalProtocols none

Specifies which protocols to use for local printer sharing. The default is "dnssd" on systems that support Bonjour and "none" otherwise.

BrowseWebIF Yes

BrowseWebIF No

Specifies whether the CUPS web interface is advertised. The default is "No".

Browsing Yes

Browsing No

Specifies whether shared printers are advertised. The default is "No".

DefaultAuthType Basic

DefaultAuthType Negotiate

Specifies the default type of authentication to use. The default is "Basic".

DefaultEncryption Never

DefaultEncryption IfRequested

DefaultEncryption Required

Specifies whether encryption will be used for authenticated requests. The default is "Required".

DefaultLanguage locale

Specifies the default language to use for text and web content.

The default is "en".

DefaultPaperSize Auto

DefaultPaperSize None

DefaultPaperSize sizename

Specifies the default paper size for new print queues. "Auto" uses a locale-specific default, while "None" specifies there is no default paper size. Specific size names are typically "Letter" or "A4". The default is "Auto".

DefaultPolicy policy-name

Specifies the default access policy to use. The default access policy is "default".

DefaultShared Yes

DefaultShared No

Specifies whether local printers are shared by default. The default is "Yes".

DirtyCleanInterval seconds

Specifies the delay for updating of configuration and state files. A value of 0 causes the update to happen as soon as possible, typically within a few milliseconds. The default value is "30".

DNSSDHostNamehostname.example.com

Specifies the fully-qualified domain name for the server that is used for Bonjour sharing. The default is typically the server's ".local" hostname.

ErrorPolicy abort-job

Specifies that a failed print job should be aborted (discarded) unless otherwise specified for the printer.

ErrorPolicy retry-current-job

Specifies that a failed print job should be retried immediately unless otherwise specified for the printer.

ErrorPolicy retry-job

Specifies that a failed print job should be retried at a later time unless otherwise specified for the printer.

ErrorPolicy stop-printer

Specifies that a failed print job should stop the printer unless otherwise specified for the printer. The 'stop-printer' error policy is the default.

FilterLimit limit

Specifies the maximum cost of filters that are run concurrently, which can be used to minimize disk, memory, and CPU resource problems. A limit of 0 disables filter limiting. An average print to a non-PostScript printer needs a filter limit of about 200. A PostScript printer needs about half that (100). Setting the limit below these thresholds will effectively limit the scheduler to printing a single job at any time. The default limit is "0".

FilterNice nice-value

Specifies the scheduling priority (nice(8) value) of filters that are run to print a job. The nice value ranges from 0, the highest priority, to 19, the lowest priority. The default is 0.

GSSServiceName name

Specifies the service name when using Kerberos authentication. The default service name is "http."

HostNameLookups On

HostNameLookups Off

HostNameLookups Double

Specifies whether to do reverse lookups on connecting clients. The "Double" setting causes cupsd(8) to verify that the hostname resolved from the address matches one of the addresses returned for that hostname. Double lookups also prevent clients with unregistered addresses from connecting to your server. The default is "Off" to avoid the potential server performance problems with hostname lookups. Only set this option to "On" or "Double" if absolutely required.

IdleExitTimeout seconds

Specifies the length of time to wait before shutting down due to inactivity. The default is "60" seconds. Note: Only applicable

when cupsd(8) is run on-demand (e.g., with -l).

JobKillDelay seconds

Specifies the number of seconds to wait before killing the filters and backend associated with a canceled or held job. The default is "30".

JobRetryInterval seconds

Specifies the interval between retries of jobs in seconds. This is typically used for fax queues but can also be used with normal print queues whose error policy is "retry-job" or "retry-current-job". The default is "30".

JobRetryLimit count

Specifies the number of retries that are done for jobs. This is typically used for fax queues but can also be used with normal print queues whose error policy is "retry-job" or "retry-current-job". The default is "5".

KeepAlive Yes

KeepAlive No

Specifies whether to support HTTP keep-alive connections. The default is "Yes".

KeepAliveTimeout seconds

Specifies how long an idle client connection remains open. The default is "30".

<Limit operation ...> ... </Limit>

Specifies the IPP operations that are being limited inside a Policy section. IPP operation names are listed below in the section "IPP OPERATION NAMES".

<Limit method ...> ... </Limit>

<LimitExcept method ...> ... </LimitExcept>

Specifies the HTTP methods that are being limited inside a Location section. HTTP method names are listed below in the section "HTTP METHOD NAMES".

LimitRequestBody size

Specifies the maximum size of print files, IPP requests, and HTML

form data. The default is "0" which disables the limit check.

Listen ipv4-address:port

Listen [ipv6-address]:port

Listen *:port

Listen /path/to/domain/socket

Listens to the specified address and port or domain socket path for connections. Multiple Listen directives can be provided to listen on multiple addresses. The Listen directive is similar to the Port directive but allows you to restrict access to specific interfaces or networks. Note: "Listen *:port" and "Port port" effectively listen on all IP addresses, so you cannot combine them with Listen directives for explicit IPv4 or IPv6 addresses on the same port.

ListenBackLog number

Specifies the number of pending connections that will be allowed. This normally only affects very busy servers that have reached the MaxClients limit, but can also be triggered by large numbers of simultaneous connections. When the limit is reached, the operating system will refuse additional connections until the scheduler can accept the pending ones. The default is the OS-defined default limit, typically either "5" for older operating systems or "128" for newer operating systems.

<Location /path> ... </Location>

Specifies access control for the named location. Paths are documented below in the section "LOCATION PATHS".

LogDebugHistory number

Specifies the number of debugging messages that are retained for logging if an error occurs in a print job. Debug messages are logged regardless of the LogLevel setting.

LogLevel none

LogLevel emerg

LogLevel alert

LogLevel crit

LogLevel error

LogLevel warn

LogLevel notice

LogLevel info

LogLevel debug

LogLevel debug2

Specifies the level of logging for the ErrorLog file. The value "none" stops all logging while "debug2" logs everything. The default is "warn".

LogTimeFormat standard

LogTimeFormat usecs

Specifies the format of the date and time in the log files. The value "standard" is the default and logs whole seconds while "usecs" logs microseconds.

MaxClients number

Specifies the maximum number of simultaneous clients that are allowed by the scheduler. The default is "100".

MaxClientsPerHost number

Specifies the maximum number of simultaneous clients that are allowed from a single address. The default is the MaxClients value.

MaxCopies number

Specifies the maximum number of copies that a user can print of each job. The default is "9999".

MaxHoldTime seconds

Specifies the maximum time a job may remain in the "indefinite" hold state before it is canceled. The default is "0" which disables cancellation of held jobs.

MaxJobs number

Specifies the maximum number of simultaneous jobs that are allowed. Set to "0" to allow an unlimited number of jobs. The default is "500".

MaxJobsPerPrinter number

Specifies the maximum number of simultaneous jobs that are allowed

per printer. The default is "0" which allows up to MaxJobs jobs per printer.

MaxJobsPerUser number

Specifies the maximum number of simultaneous jobs that are allowed per user. The default is "0" which allows up to MaxJobs jobs per user.

MaxJobTime seconds

Specifies the maximum time a job may take to print before it is canceled. Set to "0" to disable cancellation of "stuck" jobs.

The default is "10800" (3 hours).

MaxLogSize size

Specifies the maximum size of the log files before they are rotated. The value "0" disables log rotation. The default is "1048576" (1MB).

MultipleOperationTimeout seconds

Specifies the maximum amount of time to allow between files in a multiple file print job. The default is "900" (15 minutes).

<Policy name> ... </Policy>

Specifies access control for the named policy.

Port number

Listens to the specified port number for connections.

PreserveJobFiles Yes

PreserveJobFiles No

PreserveJobFiles seconds

Specifies whether job files (documents) are preserved after a job is printed. If a numeric value is specified, job files are preserved for the indicated number of seconds after printing. The default is "86400" (preserve 1 day).

PreserveJobHistory Yes

PreserveJobHistory No

PreserveJobHistory seconds

Specifies whether the job history is preserved after a job is printed. If a numeric value is specified, the job history is pre?

served for the indicated number of seconds after printing. If "Yes", the job history is preserved until the MaxJobs limit is reached. The default is "Yes".

ReloadTimeout seconds

Specifies the amount of time to wait for job completion before restarting the scheduler. The default is "30".

ServerAdmin email-address

Specifies the email address of the server administrator. The default value is "root@ServerName".

ServerAlias hostname [... hostname]

ServerAlias *

The ServerAlias directive is used for HTTP Host header validation when clients connect to the scheduler from external interfaces. Using the special name "*" can expose your system to known browser-based DNS rebinding attacks, even when accessing sites through a firewall. If the auto-discovery of alternate names does not work, we recommend listing each alternate name with a ServerAlias directive instead of using "*".

ServerName hostname

Specifies the fully-qualified hostname of the server. The default is the value reported by the hostname(1) command.

ServerTokens None

ServerTokens ProductOnly

ServerTokens Major

ServerTokens Minor

ServerTokens Minimal

ServerTokens OS

ServerTokens Full

Specifies what information is included in the Server header of HTTP responses. "None" disables the Server header. "ProductOnly" reports "CUPS". "Major" reports "CUPS/major IPP/2". "Minor" reports "CUPS/major.minor IPP/2.1". "Minimal" reports "CUPS/major.minor.patch IPP/2.1". "OS" reports "CUPS/major.minor.path

(osname osversion) IPP/2.1". "Full" reports "CUPS/major.minor.path (osname osversion; architecture) IPP/2.1". The default is "Minimal".

SSLListen ipv4-address:port

SSLListen [ipv6-address]:port

SSLListen *:port

Listens on the specified address and port for encrypted connections.

SSLOptions [AllowDH] [AllowRC4] [AllowSSL3] [DenyCBC] [DenyTLS1.0] [MaxTLS1.0] [MaxTLS1.1] [MaxTLS1.2] [MaxTLS1.3] [MinTLS1.0] [MinTLS1.1] [MinTLS1.2] [MinTLS1.3]

SSLOptions None

Sets encryption options (only in /etc/cups/client.conf). By default, CUPS only supports encryption using TLS v1.0 or higher using known secure cipher suites. Security is reduced when Allow options are used. Security is enhanced when Deny options are used. The AllowDH option enables cipher suites using plain Diffie-Hellman key negotiation (not supported on systems using GNU TLS). The AllowRC4 option enables the 128-bit RC4 cipher suites, which are required for some older clients. The AllowSSL3 option enables SSL v3.0, which is required for some older clients that do not support TLS v1.0. The DenyCBC option disables all CBC cipher suites. The DenyTLS1.0 option disables TLS v1.0 support - this sets the minimum protocol version to TLS v1.1. The MinTLS options set the minimum TLS version to support. The MaxTLS options set the maximum TLS version to support. Not all operating systems support TLS 1.3 at this time.

SSLPort port

Listens on the specified port for encrypted connections.

StrictConformance Yes

StrictConformance No

Specifies whether the scheduler requires clients to strictly adhere to the IPP specifications. The default is "No".

Timeout seconds

Specifies the HTTP request timeout. The default is "900" (15 minutes).

WebInterface yes

WebInterface no

Specifies whether the web interface is enabled. The default is "No".

HTTP METHOD NAMES

The following HTTP methods are supported by cupsd(8):

GET Used by a client to download icons and other printer resources and to access the CUPS web interface.

HEAD Used by a client to get the type, size, and modification date of resources.

OPTIONS

Used by a client to establish a secure (SSL/TLS) connection.

POST Used by a client to submit IPP requests and HTML forms from the CUPS web interface.

PUT Used by a client to upload configuration files.

IPP OPERATION NAMES

The following IPP operations are supported by cupsd(8):

CUPS-Accept-Jobs

Allows a printer to accept new jobs.

CUPS-Add-Modify-Class

Adds or modifies a printer class.

CUPS-Add-Modify-Printer

Adds or modifies a printer.

CUPS-Authenticate-Job

Releases a job that is held for authentication.

CUPS-Delete-Class

Deletes a printer class.

CUPS-Delete-Printer

Deletes a printer.

CUPS-Get-Classes

Gets a list of printer classes.

CUPS-Get-Default

Gets the server default printer or printer class.

CUPS-Get-Devices

Gets a list of devices that are currently available.

CUPS-Get-Document

Gets a document file for a job.

CUPS-Get-PPD

Gets a PPD file.

CUPS-Get-PPDs

Gets a list of installed PPD files.

CUPS-Get-Printers

Gets a list of printers.

CUPS-Move-Job

Moves a job.

CUPS-Reject-Jobs

Prevents a printer from accepting new jobs.

CUPS-Set-Default

Sets the server default printer or printer class.

Cancel-Job

Cancels a job.

Cancel-Jobs

Cancels one or more jobs.

Cancel-My-Jobs

Cancels one or more jobs created by a user.

Cancel-Subscription

Cancels a subscription.

Close-Job

Closes a job that is waiting for more documents.

Create-Job

Creates a new job with no documents.

Create-Job-Subscriptions

Creates a subscription for job events.

Create-Printer-Subscriptions

Creates a subscription for printer events.

Get-Job-Attributes

Gets information about a job.

Get-Jobs

Gets a list of jobs.

Get-Notifications

Gets a list of event notifications for a subscription.

Get-Printer-Attributes

Gets information about a printer or printer class.

Get-Subscription-Attributes

Gets information about a subscription.

Get-Subscriptions

Gets a list of subscriptions.

Hold-Job

Holds a job from printing.

Hold-New-Jobs

Holds all new jobs from printing.

Pause-Printer

Stops processing of jobs by a printer or printer class.

Pause-Printer-After-Current-Job

Stops processing of jobs by a printer or printer class after the current job is finished.

Print-Job

Creates a new job with a single document.

Purge-Jobs

Cancels one or more jobs and deletes the job history.

Release-Held-New-Jobs

Allows previously held jobs to print.

Release-Job

Allows a job to print.

Renew-Subscription

Renews a subscription.

Restart-Job

Reprints a job, if possible.

Send-Document

Adds a document to a job.

Set-Job-Attributes

Changes job information.

Set-Printer-Attributes

Changes printer or printer class information.

Validate-Job

Validates options for a new job.

LOCATION PATHS

The following paths are commonly used when configuring cupsd(8):

/ The path for all get operations (get-printers, get-jobs, etc.)

/admin

The path for all administration operations (add-printer, delete-printer, start-printer, etc.)

/admin/conf

The path for access to the CUPS configuration files (cupsd.conf, client.conf, etc.)

/admin/log

The path for access to the CUPS log files (access_log, error_log, page_log)

/classes

The path for all printer classes

/classes/name

The resource for the named printer class

/jobs

The path for all jobs (hold-job, release-job, etc.)

/jobs/id

The path for the specified job

/printers

The path for all printers

/printers/name

The path for the named printer

/printers/name.png

The icon file path for the named printer

/printers/name.ppd

The PPD file path for the named printer

DIRECTIVES VALID WITHIN LOCATION AND LIMIT SECTIONS

The following directives may be placed inside Location and Limit sections in the cupsd.conf file:

Allow all

Allow none

Allow host.domain.com

Allow *.domain.com

Allow ipv4-address

Allow ipv4-address/netmask

Allow ipv4-address/mm

Allow [ipv6-address]

Allow [ipv6-address]/mm

Allow @IF(name)

Allow @LOCAL

Allows access from the named hosts, domains, addresses, or interfaces. The @IF(name) form uses the current subnets configured for the named interface. The @LOCAL form uses the current subnets configured for all interfaces that are not point-to-point, for example Ethernet and Wi-Fi interfaces are used but DSL and VPN interfaces are not. The Order directive controls whether Allow lines are evaluated before or after Deny lines.

AuthType None

AuthType Basic

AuthType Default

AuthType Negotiate

Specifies the type of authentication required. The value "Default" corresponds to the DefaultAuthType value.

Deny all

Deny none

Deny host.domain.com

Deny *.domain.com

Deny ipv4-address

Deny ipv4-address/netmask

Deny ipv4-address/mm

Deny [ipv6-address]

Deny [ipv6-address]/mm

Deny @IF(name)

Deny @LOCAL

Denies access from the named hosts, domains, addresses, or interfaces. The @IF(name) form uses the current subnets configured for the named interface. The @LOCAL form uses the current subnets configured for all interfaces that are not point-to-point, for example Ethernet and Wi-Fi interfaces are used but DSL and VPN interfaces are not. The Order directive controls whether Deny lines are evaluated before or after Allow lines.

Encryption IfRequested

Encryption Never

Encryption Required

Specifies the level of encryption that is required for a particular location. The default value is "IfRequested".

Order allow,deny

Specifies that access is denied by default. Allow lines are then processed followed by Deny lines to determine whether a client may access a particular resource.

Order deny,allow

Specifies that access is allowed by default. Deny lines are then processed followed by Allow lines to determine whether a client may access a particular resource.

Require group group-name [group-name ...]

Specifies that an authenticated user must be a member of one of the named groups.

Require user {user-name|@group-name} ...

Specifies that an authenticated user must match one of the named users or be a member of one of the named groups. The group name "@SYSTEM" corresponds to the list of groups defined by the SystemGroup directive in the cups-files.conf(5) file. The group name "@OWNER" corresponds to the owner of the resource, for example the person that submitted a print job. Note: The 'root' user is not special and must be granted privileges like any other user account.

Require valid-user

Specifies that any authenticated user is acceptable.

Satisfy all

Specifies that all Allow, AuthType, Deny, Order, and Require conditions must be satisfied to allow access.

Satisfy any

Specifies that any a client may access a resource if either the authentication (AuthType/Require) or address (Allow/Deny/Order) conditions are satisfied. For example, this can be used to require authentication only for remote accesses.

DIRECTIVES VALID WITHIN POLICY SECTIONS

The following directives may be placed inside Policy sections in the cupsd.conf file:

JobPrivateAccess all

JobPrivateAccess default

JobPrivateAccess {user|@group|@ACL|@OWNER|@SYSTEM} ...

Specifies an access list for a job's private values. The "default" access list is "@OWNER @SYSTEM". "@ACL" maps to the printer's requesting-user-name-allowed or requesting-user-name-denied values. "@OWNER" maps to the job's owner. "@SYSTEM" maps to the groups listed for the SystemGroup directive in the cups-files.conf(5) file.

JobPrivateValues all

JobPrivateValues default

JobPrivateValues none

JobPrivateValues attribute-name [... attribute-name]

Specifies the list of job values to make private. The "default" values are "job-name", "job-originating-host-name", "job-originating-user-name", and "phone".

SubscriptionPrivateAccess all

SubscriptionPrivateAccess default

SubscriptionPrivateAccess {user|@group|@ACL|@OWNER|@SYSTEM} ...

Specifies an access list for a subscription's private values. The "default" access list is "@OWNER @SYSTEM". "@ACL" maps to the printer's requesting-user-name-allowed or requesting-user-name-denied values. "@OWNER" maps to the job's owner. "@SYSTEM" maps to the groups listed for the SystemGroup directive in the cups-files.conf(5) file.

SubscriptionPrivateValues all

SubscriptionPrivateValues default

SubscriptionPrivateValues none

SubscriptionPrivateValues attribute-name [... attribute-name]

Specifies the list of subscription values to make private. The "default" values are "notify-events", "notify-pull-method", "notify-recipient-uri", "notify-subscriber-user-name", and "notify-user-data".

DEPRECATED DIRECTIVES

The following directives are deprecated and will be removed in a future release of CUPS:

Classification banner

Specifies the security classification of the server. Any valid banner name can be used, including "classified", "confidential", "secret", "topsecret", and "unclassified", or the banner can be omitted to disable secure printing functions. The default is no classification banner.

ClassifyOverride Yes

ClassifyOverride No

Specifies whether users may override the classification (cover page) of individual print jobs using the "job-sheets" option. The default is "No".

PageLogFormat format-string

Specifies the format of PageLog lines. Sequences beginning with percent (%) characters are replaced with the corresponding information, while all other characters are copied literally. The following percent sequences are recognized:

"%%" inserts a single percent character.

"%{name}" inserts the value of the specified IPP attribute.

"%C" inserts the number of copies for the current page.

"%P" inserts the current page number.

"%T" inserts the current date and time in common log format.

"%j" inserts the job ID.

"%p" inserts the printer name.

"%u" inserts the username.

The default is the empty string, which disables page logging. The string "%p %u %j %T %P %C %{job-billing} %{job-originating-host-name} %{job-name} %{media} %{sides}" creates a page log with the standard items. Use "%{job-impressions-completed}" to insert the number of pages (sides) that were printed, or "%{job-media-sheets-completed}" to insert the number of sheets that were printed.

RIPCache size

Specifies the maximum amount of memory to use when converting documents into bitmaps for a printer. The default is "128m".

NOTES

File, directory, and user configuration directives that used to be allowed in the cupsd.conf file are now stored in the cups-files.conf(5) file instead in order to prevent certain types of privilege escalation attacks.

The scheduler MUST be restarted manually after making changes to the cupsd.conf file. On Linux this is typically done using the systemctl(8) command, while on macOS the launchctl(8) command is used in?

stead.

The @LOCAL macro name can be confusing since the system running cupsd often belongs to a different set of subnets from its clients.

CONFORMING TO

The cupsd.conf file format is based on the Apache HTTP Server configuration file format.

EXAMPLES

Log everything with a maximum log file size of 32 megabytes:

```
AccessLogLevel all
```

```
LogLevel debug2
```

```
MaxLogSize 32m
```

Require authentication for accesses from outside the 10. network:

```
<Location />
```

```
Order allow,deny
```

```
Allow from 10./8
```

```
AuthType Basic
```

```
Require valid-user
```

```
Satisfy any
```

```
</Location>
```

SEE ALSO

classes.conf(5), cups-files.conf(5), cupsd(8), mime.convs(5), mime.types(5), printers.conf(5), subscriptions.conf(5), CUPS Online Help (<http://localhost:631/help>)

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CUPS

cupsd.conf(5)