Preposition Configuration Mode Commands

To create and modify preposition directives on a WAAS device for prepositioning files for CIFS (WAFS), use the **accelerator cifs preposition** global configuration command.

> **accelerator cifs preposition** *directive_id*

Syntax Description

directive_id	Preposition directive ID of an existing preposition directive that you want to change or a new directive that you want to create.

Defaults   No default behavior or values.

Command Modes   global configuration

Device Modes   application-accelerator

Usage Guidelines Use the **accelerator cifs preposition** command to create and edit preposition directives to be used with the transparent CIFS accelerator. A preposition directive defines a set of files that are to be prepositioned on the WAE device.

Within preposition configuration mode, you can use the various commands (**server**, **root**, **scan-type**, **schedule**, and so on) to configure a preposition directive. After you are done defining and scheduling the preposition directive, you must use the command to enable it. To return to global configuration mode, enter the **exit** command at the preposition configuration mode prompt.

> **Note**   We recommend that you use the WAAS Central Manager GUI to configure preposition directives. For more information, see the "Creating a Preposition Directive" section in the *Cisco Wide Area Application Services Configuration Guide*.

> **Note**   If you create a preposition directive from the CLI before the secure store on the WAE is initialized, you must wait at least two datafeed poll cycles (10 minutes by default) before initializing the secure store; otherwise, the preposition directive will not propagate to the Central Manager because the credentials will not be able to be decrypted on the WAE.

Examples   The following example shows how to enter preposition configuration mode and configure a preposition directive using the **accelerator cifs preposition** command:

```
WAE(config)# accelerator cifs preposition 1
WAE(config-preposition)# credentials username administrator domain PRINT password 0 foo
```

```
WAE(config-preposition)# dscp 45
WAE(config-preposition)# duration 30
WAE(config-preposition)# min-file-size 0
WAE(config-preposition)# name "Program Files"
WAE(config-preposition)# root Program_Files
WAE(config-preposition)# scan-type full
WAE(config-preposition)# server 10.1.221.3
WAE(config-preposition)# schedule daily 23:00
WAE(config-preposition)# enable
WAE(config-preposition)# exit
```

Related Commands   **(config) accelerator cifs**

(config-preposition) accelerator http preposition dre enable

To enable DRE (DDUP feature) for preposition connections, use the **accelerator http preposition dre enable** preposition configuration command. To disable DRE for preposition connections, use the **no** form of this command.

accelerator http preposition dre enable

no accelerator http preposition dre enable

Syntax Description   This command has no arguments or keywords.

Command Default   The default is disabled.

Command Modes   preposition configuration

Device Modes   application-accelerator

Usage Guidelines   <need info here>

Examples   The following example shows how to enable DRE for preposition connection.

```
WAAS(config-preposition)# accelerator http preposition dre enable
```

Related   **(config-preposition) accelerator http preposition task task-name**

(config-preposition) accelerator http preposition task *task-name*

To configure a preposition task for one or more sites, use the **accelerator http preposition task task-name** preposition configuration command. To disable the specified preposition task, use the **no** form of this command.

accelerator http preposition task *task-name* **duration | enable | pattern | rate | recursion | schedule | url**

no accelerator http preposition task *task-name* **duration | enable | pattern | rate | recursion | schedule | url**

task-name	The name of the preposition task. Preposition task name is an alphanumeric identifier up to 47 characters. Special characters like '/\{}()?"<>[]&*" are not allowed.
	Note the following when specifying a task
	• You can configure up to 10 URLs per task.
	• You can configure up to 10 schedules per task.
	• You can configure up to 50 tasks per device/device group.
pattern exclude *pattern*	The object type(s) to exclude from caching, such as .jsp or .asp, each separated by a comma or a space. The list of object name patterns to be excluded has a total pattern field limit of 47 characters.
pattern include *pattern*	The object type(s) to include in caching, such as .jsp or .asp, each separated by a comma or a space. The list of object name patterns to be included has a total pattern field limit of 47 characters.
schedule	The time for the preposition task to run, include start date and time and recurring dates and times.
	(no) schedule daily *hour:minute*
	(no) schedule yearly *day-of-month:month hour:minute*
	(no) schedule monthly date *list-of-day-of-month* time *hour:minute*
	(no) schedule weekly *list-of-day-of-week* time *hour:minute*
duration *minutes*	The maximum amount of time, in minutes, a preposition task can run before it is halted. You can set the duration to ensure that preposition tasks do not overlap with each other, or with times of high traffic.
	The range is 1 to 2,147,483,647 minutes.

depth	The depth of the link level at which the content is retrieved. Recursion depth is active only if you check the **Recursive Task** check box. Select 1, 2, 3, 5, 8, 13, or 21 from the drop-down list, or enter any custom value between 1-1000. The default is 1. Note A greater number of specified levels of links means a greater amount of data stored in the cache, sometimes exponentially more. If the amount of requested pre-fetched data becomes larger than the cache, the newly requested data will flush all previously stored data, and may slow down other operations that attempt to use the cache.
url	The base URL(s) for prepositioning. The maximum length for the URL is 900 characters. Characters not allowed in the URL are space, double quotes ("). ASCII characters are allowed in the range of ASCII 33 through ASCII 125. • Use a space to separate multiple URLs. • You can configure up to 10 URLs per task.
rate	The maximum download rate, in KBps. The range is 0 to 10,000,000. The default is 20. Zero indicates no enforced rate limiting.
recursive	The prepositioning should travel from the base URLs according to the specified **depth**.
recursion delay *seconds*	The amount of time, in seconds, between requests during recursive download.This simulates user wait time. Recursive delay time is necessary because some servers use the lack of time between requests to detect and restrict web spiders. Use a value between 0 and 600 seconds. A value of zero provides the best performance when there are no web spider restrictions.
recursion include domain *domain-suffix*	The list of server domain suffixes for which recursive spidering is permitted. If the list is empty, then spidering is only permitted within the same domain as the specified URL. You can configure up to ten servers: • The server name is up to 255 characters. • Server names are separated by comma or space.
enable	Enable the task to run. For the task to run, it must be enabled with at least URL and one schedule.

Command Default   The default is disabled.

Command Modes   preposition configuration

Device Modes   application-accelerator

■ **(config-preposition) accelerator http preposition task task-name**

Usage Guidelines   Use the sub-mode facility (prompt ">") to configure a preposition task:

- **no** - Turns off the command or resets it to its defaults.

- **exit** - Exits the sub-mode options menu.

Examples   The following example shows the preposition task "test1," which runs daily at 14:30. The task length is ten minutes; there is a recursion delay of two seconds between requests. The task URL is www.cisco.com. This task excludes .jsp files, and includes any objects to "www.sampletestdomain.com" if www.cisco.com references it. The task has a maximum download rate of 1000, and the recursion depth is four.

```
accelerator http preposition task test1
recursion depth 4
rate 1000
recursive
recursion delay 2
recursion include domain www.sampletestdomain.com
duration 10
pattern exclude .jsp
url www.cisco.com
schedule daily 14:30
enable
```

Related   **(config-preposition) accelerator http preposition dre enable**

(config-preposition) credentials

To set the username and password credentials for a file server in a preposition directive, use the **credentials** preposition configuration command.

credentials username *username* **password** {**0** | **1**} *password*}

Syntax Description

username *username*	Specifies the username.
password {**0**	**1**} *password*	Specifies the password. To indicate that the password string is unencrypted, specify **0**. To indicate that the password string is encrypted, specify **1**.

Defaults   No default behavior or values.

Command Modes   preposition configuration mode

Device Modes   application-accelerator

Examples   The following example shows how to set the username and password credentials:

```
WAE(config)# accelerator cifs preposition 3
WAE(config-preposition)# credentials username ramyav password 0 ux5TjW8r
```

Related Commands   **(config-preposition) server**

(config-preposition) dscp

To set the DSCP marking value for a preposition task, use the **dscp** preposition configuration command. To remove a DSCP marking value, use the **no** form of this command.

dscp *value*

no dscp *value*

Syntax Description

value	DSCP marking value to assign to prepositioning traffic.

Defaults   No default behavior or values.

Command Modes   preposition configuration mode

Device Modes   application-accelerator

Usage Guidelines   This command specifies the DSCP marking value to be used for prepositioning traffic.

DSCP is a field in an IP packet that enables different levels of service to be assigned to the network traffic. The levels of service are assigned by marking each packet on the network with a DSCP code and associating a corresponding level of service. DSCP is the combination of IP Precedence and Type of Service (ToS) fields. For more information, see RFC 2474.

For details on the valid DSCP marking values, see Table 3-2 on page -724.

Examples   The following example shows how to set the DSCP marking value to cs7:

```
WAE(config)# accelerator cifs preposition 3
WAE(config-preposition)# dscp cs7
```

Related Commands   **(config) service-policy**

(config-preposition) duration

To set the maximum duration for a preposition task, use the **duration** preposition configuration command. To remove a duration limit, use the **no** form of this command.

   duration *minutes*

   no duration *minutes*

Syntax Description	*minutes*	Maximum number of minutes that the preposition task is allowed to run.

Defaults   No default behavior or values.

Command Modes   preposition configuration mode

Device Modes   application-accelerator

Usage Guidelines This command specifies the maximum amount of time that the WAAS software should take to complete the preposition task. If the software takes longer than this amount of time, the software stops the prepositioning process before all files are copied to the Edge WAE cache. If the preposition task does not start at the scheduled start time (for example, because the Edge and the Core have no connection), the start retries are counted in the duration. If you do not specify a value for this command, WAAS takes as much time as needed to export this file server.

Examples   The following example shows how to set the maximum task duration to 60 minutes:

```
WAE(config)# accelerator cifs preposition 3
WAE(config-preposition)# duration 60
```

Related Commands **(config-preposition) schedule**

(config-preposition) enable

To enable a preposition directive, use the **enable** preposition configuration command. To disable a preposition directive, use the **no** form of this command.

enable

no enable

Syntax Description   This command has no arguments or keywords.

Defaults   Not enabled.

Command Modes   preposition configuration mode

Device Modes   application-accelerator

Usage Guidelines   You must use this command to enable a preposition directive after you define it and schedule it.

Examples   The following example shows how to enable a preposition directive:

```
WAE(config)# accelerator cifs preposition 5
WAE(config-preposition)# enable
```

Related Commands   **(config) accelerator cifs preposition**

(config-preposition) ignore-hidden-dir

To ignore hidden directories in the set of files to be prepositioned, use the **ignore-hidden-dir** preposition configuration command.

ignore-hidden-dir

Syntax Description   This command has no arguments or keywords.

Defaults   Hidden directories are not ignored.

Command Modes   preposition configuration mode

Device Modes   application-accelerator

Examples   The following example shows how to prevent hidden directories from being prepositioned:

```
WAE(config)# accelerator cifs preposition 3
WAE(config-preposition)# ignore-hidden-dir
```

Related Commands   **(config-preposition) root**

(config-preposition) max-cache

To set the maximum percentage of the cache that the files from a preposition directive can use, use the **max-cache** preposition configuration command.

max-cache *percentage*

Syntax Description	*percentage*	Integer from 1–100 that specifies a percentage of the overall Edge WAE cache that prepositioned files can consume.

Defaults   5

Command Modes   Preposition configuration mode

Device Modes   application-accelerator

Examples   The following example shows how to set the maximum cache percentage to 10 percent:

```
WAE(config)# accelerator cifs preposition 3
WAE(config-preposition)# max-cache 10
```

Related Commands   [(config-preposition) max-file-size](#)

(config-preposition) max-file-size

To set the maximum size file that can be prepositioned, use the **max-file-size** preposition configuration command. To remove this limit, use the **no** form of this command.

max-file-size *size_in_kb*

no max-file-size *size_in_kb*

Syntax Description	*size_in_kb*	Number of kilobytes of the maximum file size.

Defaults   No default behavior or values.

Command Modes   preposition configuration mode

Device Modes   application-accelerator

Usage Guidelines   Files that are larger than the specified size are not prepositioned.

Examples   The following example shows how to set the maximum file size to 1000 KB:

```
WAE(config)# accelerator cifs preposition 3
WAE(config-preposition)# max-file-size 1000
```

Related Commands   **(config-preposition) max-cache**

(config-preposition) min-file-size

To set the minimum size file that can be prepositioned, use the **min-file-size** preposition configuration command. To remove this limit, use the **no** form of this command.

min-file-size *size_in_kb*

no min-file-size *size_in_kb*

Syntax Description	*size_in_kb*	Number of kilobytes of the minimum file size.

Defaults   20 KB

Command Modes   preposition configuration mode

Device Modes   application-accelerator

Usage Guidelines   Files that are smaller than the specified size are not prepositioned.

Examples   The following example shows how to set the minimum file size to 50 KB:

```
WAE(config)# accelerator cifs preposition 3
WAE(config-preposition)# min-file-size 50
```

Related Commands   [(config-preposition) max-file-size](#)

(config-preposition) name

To set the display name of a preposition directive, use the **name** preposition configuration command.

name *name*

Syntax Description	*name* Name of a preposition directive.

Defaults   The default name is New preposition directive *n*.

Command Modes   preposition configuration mode

Device Modes   application-accelerator

Examples   The following example shows how to set the preposition directive name:

```
WAE(config)# accelerator cifs preposition 3
WAE(config-preposition)# name working_files
```

Related Commands   **(config-preposition) enable**

(config-preposition) pattern

To filter the files included for a preposition directive, use the **pattern** preposition configuration command. To remove this filter, use the **no** form of this command.

pattern {**equals** | **starts-with** | **ends-with** | **contains**} *text*

no pattern {**equals** | **starts-with** | **ends-with** | **contains**} *text*

Syntax Description

equals	Specifies to limit the selected files to those filenames that are equal to the specified text.
starts-with	Specifies to limit the selected files to those filenames that start with the specified text.
ends-with	Specifies to limit the selected files to those filenames that end with the specified text.
contains	Specifies to limit the selected files to those filenames that contain the specified text.
text	Text string that filters the selected files based on the pattern option.

Defaults

No default behavior or values.

Command Modes

preposition configuration mode

Device Modes

application-accelerator

Examples

The following example shows how to set a pattern filter to select only files that end with .doc:

```
WAE(config)# accelerator cifs preposition 3
WAE(config-preposition)# pattern ends-with .doc
```

Related Commands   **(config-preposition) root**

(config-preposition) recursive

To include files in subdirectories for a preposition directive, use the **recursive** preposition configuration command. To not include subdirectories, use the **no** form of this command.

recursive

no recursive

Syntax Description   This command has no arguments or keywords.

Defaults   Subdirectories are included.

Command Modes   preposition configuration mode

Device Modes   application-accelerator

Examples   The following example shows how to exclude subdirectories from prepositioning:

```
WAE(config)# accelerator cifs preposition 3
WAE(config-preposition)# no recursive
```

Related Commands   **(config-preposition) root**

(config-preposition) root

To set a root directory for a preposition directive, use the **root** preposition configuration command.

root *path*

Syntax Description	*path*	Full pathname to the directory, not including the server name.

Defaults   No default behavior or values.

Command Modes   preposition configuration mode

Device Modes   application-accelerator

Usage Guidelines   You can configure multiple root directories by executing this command multiple times for a preposition directive.

Examples   The following example shows how to set a root preposition directory:

```
WAE(config)# accelerator cifs preposition 3
WAE(config-preposition)# root home/working
```

Related Commands   **(config-preposition) pattern**

(config-preposition) recursive

(config-preposition) scan-type

(config-preposition) server

(config-preposition) scan-type

To set the file scanning type for a preposition directive, use the **scan-type** preposition configuration command.

scan-type {**full** | **since last** | **since** *period units*}

Syntax Description		
	full	Specifies to copy all files to the Edge WAE cache.
	since last	Specifies to copy only the files that have changed since the last preposition to the Edge WAE cache. This differential filter is applied from the second iteration of a task execution onward.
		If a new directory is moved to an already prepositioned directory (without changing its last-modified time), this new directory is not prepositioned during the next prepositioning session when you choose this option.
	since *period units*	Specifies to copy only the files that have changed within the specified period. Period values are the number of minutes, hours, days, or weeks (depending on the units specified). Unit values are **min**, **hour**, **day**, or **week**.

Defaults   Full

Command Modes   preposition configuration mode

Device Modes   application-accelerator

Examples   The following example shows how to set the scan-type for a preposition directive:

```
WAE(config)# accelerator cifs preposition 3
WAE(config-preposition)# scan-type since last
```

Related Commands **(config-preposition) recursive**

(config-preposition) root

(config-preposition) schedule

To set the schedule for starting a preposition task, use the **schedule** preposition configuration command.

> **schedule** {**now** |
>   **daily** *time* |
>   **date** *date time* |
>   **weekly** {*dayname* [*dayname*]...} **time** *time* |
>   **monthly** {**week-day** *dayname weeknumber* **time** *time* | {**day** *day* [*day*]...} } **time** *time*}

Syntax Description		
	now	Specifies that prepositioning occurs within a few minutes of submitting the schedule.
	daily *time*	Specifies that prepositioning occurs daily at the defined time at which to run the prepositioning task, in the following format: *hh*:*mm*, where *hh* is the hour (00–23) and *mm* is the minutes (00–59).
		Hours are in 24-hour format, as in the following example: 23:01
	date *date time*	Specifies that prepositioning occurs at the defined time and date at which to run the prepositioning task, in the following format: *DD*:*MM*:*YYYY*, where *DD* is the day (01–31), *MM* is the month (01–12), and *YYYY* is the year (1993–2035). The time is in the following format: *hh*:*mm*, where *hh* is the hour (00–23) and *mm* is the minutes (00–59).
		Example: 28:09:2008 23:01
	weekly *dayname*	Specifies that prepositioning occurs on the selected days of the week at the defined time. To specify multiple days, separate them with spaces, as follows: Monday Tuesday
	time *time*	Specifies the time to run the preposition task on the specified days.
	monthly	Specifies that prepositioning occurs on the selected days or dates of the month at the defined time.
	week-day *dayname weeknumber*	Specifies a named day of the week and week of the month to start preposition. Only one day is allowed. Week number values are 1–4.
	day *day*	Specifies a numbered day of the month (integer). To specify multiple days, separate them with spaces, as follows: day 1 6 11 16 21 26 31.

Defaults	**now**

Command Modes	preposition configuration mode

Device Modes	application-accelerator

Examples	The following example shows how to set the preposition task to run daily at 11:30 p.m.:

```
WAE(config)# accelerator cifs preposition 3
WAE(config-preposition)# schedule daily 23 30 00
```

The following example shows how to set the preposition task to run on December 15, 2008 at midnight:

```
WAE(config-preposition)# schedule date 15:12:2008 00:00
```

The following example shows how to set the preposition task to run weekly on Wednesdays and Fridays at 8 p.m.:

```
WAE(config-preposition)# schedule weekly Wednesday Friday time 20:00
```

The following example shows how to set the preposition task to run monthly on the 1st and 15th days at 1:00 a.m.:

```
WAE(config-preposition)# schedule monthly day 1 time 15 1:00
```

Related Commands   **(config-preposition) duration**

(config-preposition) server

To set a server name for a preposition directive, use the **server** preposition configuration command.

server *name*

Syntax Description	*name*	Server name.

Defaults   No default behavior or values.

Command Modes   preposition configuration mode

Device Modes   application-accelerator

Examples   The following example shows how to set a server name for a preposition directive:

```
WAE(config)# accelerator cifs preposition 3
WAE(config-preposition)# server win12srv
```

Related Commands   **(config-preposition) credentials**

(config-preposition) root