ftp-clone

ftp-clone-service deamon for Linux 64 bits

Description of software function

The "ftp-clone-service" service allows you to replicate directories located on the server where it is installed with remote directories located on one or more other servers accessible by the Ftp or Ftps protocol. Replication is bidirectional between local and remote directories. Adding a file to a directory causes it to be replicated on the other server, as do file modification or deletion actions.

Installation

To use the service, simply download the .tar file, decompress its contents in a server directory, indicate the replication configurations in the "paramatre.ini" file then use the "ftp-clone- control" command with the appropriate arguments to install, start or stop the service.

Service directory and files

On the server on which you wish to install the service, we invite you to create a specific directory in which the necessary files will be placed.

```
# cd /
# mkdir /ftp-clone
# cd /ftp-clone
```

In this directory you can download the compressed .tar file containing the appropriate files.

```
# wget https://www.tesuji-soft.com/FTP/ftp-clone/ftp-clone-
install.tar
```

(Attention: this must be typed on a single line without a carriage return)

Once the "ftp-clone-install.tar" file has been downloaded, you must decompress it to have all the service files then delete the .tar file which becomes useless.

```
# tar -xf ftp-clone-install.tar
# rm ftp-clone-install.tar
# ls
```


The directory contains the following files :

- The ftp-clone-service file corresponds to the service that should run and replicate the files.

- The ftp-clone-controle file corresponds to a command allowing the referencing (installation) of the service in Linux, stopping and starting the service, uninstalling the service and writing encrypted passwords in the file parameter.ini.

- Files with the .so extension correspond to the PC SOFT WINDEV framework containing the functions necessary for the two previously mentioned files.

The ftp-clone-service executable and the ftp-clone-controle command require execution rights for an administrator user (root) in order to be executed on the server.

```
# chown root:root ftp-clone*
# chown root:root *.so
# chmod 700 ftp-clone*
```

parametre.ini file

The parametre.ini file (note: the name is in French and not parameter.ini) is used to reference the local and remote directories which must be replicated. It contains some optional parameters for running the service but above all the list of FTP connections to replicate.

This file is an editable text file with the linux #vi function. It is broken down into sections. A section named [Service] and several sections named [FTP1], [FTP2], … etc. for each Ftp directory to replicate.

Each Ftp directory to be replicated must be referenced in the parameter.ini file with the section header framed in square brackets [ ] the term FTP and a sequential number 1, 2, 3 … x (Attention: the numbers must follow each other in discontinuous sequence).

For each [FTPx] section (where x is the section number), the available parameters are as follows :

Paramètre	Description
Server	Name or IP address of the remote server that should be replicated with the local server.
Type	Connection type "ftp" or "ftps" that must be initiated with the remote server during replication. By default, the connection will be "ftp".
Port	IP port number that will be used for the Ftp connection. By default, the IP port used for the "ftp" connection will be 21 and for the "ftps" connection will be 990.
User	User name (login) required for the Ftp connection. By default, the user has the name "anonymous".
Password	Password of the Ftp user (login) indicated above. By default this password is empty. WARNING: This password must be entered using the ftp-clone-controle command for the current section and cannot be entered directly.
ConcurrentConnections	Number of simultaneous Ftp transfers during file synchronization. By default, the number of simultaneous transfers is 8.
Remote_dir	Remote directory from Ftp login root.
Local_dir	Local directory from the root of the local server directories.
Linux_chown	(Only on Linux) User name to indicate as the owner of the files after their recovery on the local server. This name is used by the Linux "chown" command.

Linux_chmod	(Only under Linux) Right to apply to files after their recovery on the local server using the "chmod" command. If several rights must be applied successively, these can be indicated one after the other by separating them with a comma. Example: a+rw,a-x
Identifier	Manage automatically by the service

To indicate the password of the Ftp user of a section, you must use the command ftp-clone-control with the "password" argument, the name of the section and the password to save.

Syntax :   `ftp-clone-controle password <section> <mot de passe>`
Example :   `# ./ftp-clone-controle password FTP1 abcd1234`

The [Service] section indicates optional parameters specific to the operation of the service.

Paramètre	Description
ServiceWait	Waiting time in minutes between launching directory synchronizations. By default, the wait time is 8 minutes.
ConcurrentSynchronisations	Number of simultaneous synchronizations initiated by the service. By default, the number of simultaneous synchronizations is 4.
BinDirectory	Linux directory containing the chmod and chown system commands. By default, this directory is /bin.

A ; (semicolon) at the start of a line or on a line in the parameter.ini file allows you to indicate that the text following it corresponds to a comment and should therefore not be interpreted.

Example of a parametre.ini file

The parametre.ini file below presents an example for synchronizing a server.

```
[Service]
ServiceWait = 20
ConcurrentSynchronisations = 4

[FTP1]
Server = 127.0.0.1
User = user
Password = 421CAB037997C75222B221A50CFF35AE7B674D
Remote_dir = /install/racine remote 1
Local_dir = /home/user/racine remote 1
Identifier = 754B4B485CA90D9957A92B221A50070C0799E933
Linux_chown = user
Linux_chmod = a+rw,a-x

;[FTP2]
;Server = 127.0.0.2
;User = user2
; …
```

In this file, the [FTP1] section indicates that the local server replicates via Ftp a server whose IP address is "127.0.0.1" with the username "User" and its encrypted password. The local replication directory is the "/home/user/racine remote 1" directory and the replication directory accessible via FTP is "/install/racine remote 1".

As the local server is under Linux, the recovered files will be assigned to the user "User" (chown) and their attributes will be successively set to "a+rw" and "a-x" (chmod).

For files published from the local server to the remote server (replication being bidirectional), it is the Ftp user who will be automatically allocated to the files transmitted with the default rights defined in the remote Ftp service.

Installing the service

Pour installer le service et lancer celui-ci il suffit de lancer la commande ftp-clone-controle avec le paramètre install. Cette même commande permet la mise à jour du service si vous déplacez celui-ci sur votre disque dur.

To install the service and launch it, simply run the ftp-clone-controle command with the install parameter. This same command allows the service to be updated if you move it to your hard drive.

```
# ./ftp-clone-controle install
```

The result without anomalies is as follows:

```
ok: Service stopped.
ok: Service uninstalled.
ok: Installation (or update) successful.
```

The parametre.ini file is taken into consideration when starting the service. Therefore, any modification to it requires stopping and restarting the service for the modification to be taken into account. The ftp-clone-controle command with the restart argument allows you to do this:

```
# ./ftp-clone-controle restart
```

Stopping and starting the service

The ftp-clone-controle command with the stop or start parameter allows you to stop or start the service. The restart parameter initiates stopping then starting successively.

```
# ./ftp-clone-controle stop
ok: Service stopped.

# ./ftp-clone-controle start
ok: Service started.

# ./ftp-clone-controle restart
ok: Service stopped.
ok: Service started.
```

The usual Linux commands also allow you to stop or restart the service, such as the following commands :

```
# service ftp-clone-service stop
# service ftp-clone-service start
```

Uninstalling the service

To uninstall the service, simply run the ftp-clone-controle command with the uninstall parameter.

```
# ./ftp-clone-controle uninstall
```

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