

# VTL-Agent Installation

## Overview

The VTL-Agent monitors the activity of the DSI9000 (V2) series of Virtual Tape Libraries. This program requires a client designed to communicate with it through a proprietary interface via TCP/IP. There is very little direct interaction between a user and the software. This document is intended to provide installation instructions and to present some basic knowledge of where files will reside. It is not an operation or use guide. That information is reserved for the use of client software that uses the VTL-Agent.

## Installation

### Software Requirement:

**The VTL-Agent release 2.01.xxx requires the VTL software to be at a minimum of release 2.1 (software version v5.10 (Build 2030) and have all patches up to and including the is203056-mp4 (16Aug10\_171303 update-is2030560mp4) installed. This will allow the correct function of the command to stack virtual tapes to a physical library. It is also recommended that patch is203072 (11Oct10\_152106 update-is203072) be installed as this rectifies a problem with an RPC timeout not being correctly reported for a VTL command the VTL-Agent uses.**

**The VTL-Agent release 1.01.xxx requires the VTL software to be at the 2.1 release (software version v5.10 (Build 2030)) and at a minimum have patches “24Apr09\_080238 update-is203011”, “1Jun09\_132144 Install update-is203014” and “1Jun09\_132412 Install update-is203015” installed.**

The VTL-Agent software is distributed in a self-extracting compressed file. This file is “Install-VTL-Agent.bsx”. To install this software, you **MUST** have root privileges. So, either log on to the DSI9000 system as “root” or issue an “su” command if you are logged on as a different user. Copy the “Install-VTL-Agent.bsx” file to a directory of your choice. Possibly /usr/local or /tmp. NOTE: on most systems the /tmp directory will be emptied when the system is rebooted. Choose a different directory if you want the install file to be available after a system reboot.

Issue an “ls -l Install-VTL-Agent.bsx” command to verify that the install file is local to your current directory. You will see something similar to:

```
-rw-r--r-- 1 root root 70007 Apr 23 15:47 Install-VTL-Agent.bsx
```

Observe the file permissions. If the permissions do NOT start with “-rwx” issue the command: “chmod 744 Install-VTL-Agent.bsx ” to give execute permission to the owner, which should be root. If you again issue the “ls -l Install-VTL-Agent.bsx” command you will now see:

```
-rwxr--r-- 1 root root 70007 Apr 23 15:47 Install-VTL-Agent.bsx
```

The install file will now be executable by the root user. To run the install program, type in the name of the file preceded by a period and a slash:

“./Install-VTL-Agent.bsx” and hit return.

This will run the script to uncompress the files. It will create the directory “/usr/local/agent” and its subdirectories if they don’t already exist. These will be bin and scripts. When the program is run a *logs* subdirectory will be created and the first time the program is stopped a subdirectory of *conf* will be created.

The installation script copies the required files to the appropriate directories and links the script that starts and stops the program to the appropriate /etc/rc.d locations so that the program is stopped and started during a system shutdown and system start.

The command “/usr/local/agent/scripts/Agent start” will start the program if you need to start it manually. “/usr/local/agent/scripts/Agent stop” will stop the program.

To check if the program is running you can issue the command

“/usr/local/agent/scripts/Agent status”.

This will report the status in a line similar to:

“VTL-Agent is running version: 2.02.003 with PID: 6290.”

Or if the Agent is not running:

“The VTL-Agent does not appear to be running.”

To turn on a more comprehensive amount of tracing issue the command: “/usr/local/agent/scripts/Agent debug”.

To turn this tracing off issue:

command: “/usr/local/agent/scripts/Agent nodebug”.

The VTL –Agent manages its log files so it is suggested that you leave debug on all the time to capture the output in case there is a problem and DSI support requests these files.

The script has been linked to /usr/sbin/Agent. Since by default the /usr/sbin directory is in the root user’s path the above commands may be used by issuing the command “Agent “ with one of: start | stop | status .

## Files

As noted above the software is installed in the “/usr/local/agent” directory. The binary file that is the program is in “/usr/local/agent/bin” and is named “VTL-Agent”.

The program also has scripts that are located in the “/usr/local/agent/scripts” directory.

When the VTL-Agent is running it writes a log file that is kept in the “/usr/local/agent/logs” directory. The program manages the log file and closes it and renames it from log to log1 when it reaches a configurable size or a configurable age. It will keep a configurable number of log files from 10 to 50 named log through log9 to log49. These configuration parameters are controlled by the client and are not available directly on the system that is running the VTL-Agent.

When the VTL-Agent is stopped via the “/usr/local/agent/scripts/Agent stop” command or when the system is stopped via a shutdown or reboot command, a “/usr/local/agent/conf/Agent.conf” directory and file are created. The Agent.conf file contains various information that is read when the VTL-Agent starts again.

**Starting with release 2.01.022**, if the VTL-Agent is to be used with a VTL configured in a fail over pair the following lines must be added to the /usr/local/agent/conf/Agent.conf file for it to operate properly in a failed over state.

Fail Over ID = userid

Fail Over Key = password

The userid must have administrative authority on the failed over system. And of course the password must be valid for the userid indicated.

An example:

A fail over pair exist. System A is the primary server. System B is configured to takeover for A in the event system A fails to respond. The Agent.conf file on system B will need to have the “Fail Over ID = <a userid with admin privileges on system A>” and “Fail Over Key = <the password for the above userid>”

If these fields are NOT present in the Agent.conf file, the VTL-Agent will operate as though fail over is NOT configured. Any information returned to a client that is connecting to the failed over system will NOT be valid.

**With release 2.01.029** and above the above procedure is NOT required. If the user id and password are NOT entered in the Agent.conf file when a failover occurs a message will be returned to the client indicating that a login command will have to be entered. The Agent will NOT be able to provide any information about the failed over system until the login command is issued. To issue the login command an operator will have to login to the system that is now acting for the failed over system (B in the discussion above) via PuTTY. Then issue the login command to the system A IP address.

/usr/local/vlt/bin/iscon login -s <ip address of A> -u <user id on A > -p <password>

If the userid and password ARE in the config file the Agent sends the login command if necessary.