

HP CIFS Server 2.2e Release Note

Version A.01.09.04



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1 HP CIFS Server Release Note

Announcement

This document contains information about the bug fixes provided in the A.01.09.04 release of the HP CIFS Server, as well as other helpful information.

Common Internet File System (CIFS) Server A.01.09.04

- Provide the fix for the potential security vulnerability where the HP CIFS Server version A.01.09.02 and prior may allow modified SMB/CIFS messages to cause smbd to overwrite portions of its own process address space. This problem could potentially be exploited to gain root access remotely. Please refer to the CR JAGae69010 for details
- This version of the HP CIFS Server is based on Samba 2.2.5, and is a fix-only release that addresses problems resolved since version A.01.09.02. Please refer to the section “Fixes in the HP CIFS Server A.01.09.04” on page 6 for details

Updating from version A.01.07 or earlier

Please consider the following issues when updating:

Printer Driver

- If you do not intend to use the new Windows NT/XP/2000 printer driver support feature, nothing should be done. All of the existing configuration parameters for printer services will continue to work as before
- If you want to take advantage of the new NT/XP/2000 printer driver support features, but do not want to update the Windows 9x drivers to the new setup, then use the existing *printers.def* file
- If you install a Windows 9x driver for a printer on the HP CIFS Server, the new setup information will take precedence, and the three old parameters (printer driver, printer driver file and printer driver location) will be ignored
- If you have a printer installed on a HP CIFS Server version A.01.07 or below, and you update to Server version A.01.08 or higher, you must reboot the Windows client to make the printer work under version A.01.08 or higher

Configuration

- *smbpasswd* file required for use in POSIX ACL management
HP-UX users must be entered into the *smbpasswd* file in order to properly enumerate user names when manipulating POSIX ACLs. Unlike previous versions that directly queried the UNIX user database, version A.01.08 and higher will always access the *smbpasswd* file when displaying user names on the local machine. The command line tool *syncsmbpasswd* is provided to help populate the *smbpasswd* file.

HP-UX Resources

• Kernel Parameters

HP CIFS Server, version A.01.08 and higher, utilizes system resources differently from previous versions. The following HP-UX kernel parameters must be adjusted accordingly:

— NFILES - total number of open files per system

Each *smbd* process will initially open 23 files for internal use. However, clients will open more files during a session. Therefore, as a minimum, the number of *nfiles* should be:

$nfiles = (23 + max_client_files) * max_connected_clients$

NOTE: Previous CIFS Server versions used 8 files for internal use.

- NFLOCKS - total number of file locks per system

At least ten (10) file locks are allocated per *smbd* process for internal use. Clients may need additional locks depending on the applications used. Therefore, as a minimum, the number of *nflocks* should be:

$nflocks = 10 * max_connected_clients$

NOTE: Previous CIFS Server versions did not require explicit configuration of this parameter.

These guidelines for minimum parameter values account for HP CIFS Server usage of system resources only. Other applications and system processes may require further increases in the value of these parameters.

- **Memory Requirements**

Each connected client will use a minimum of 1MB of memory. This is approximately double the usage of version A.01.07. For example, a system expecting 1024 connected clients should have at least 1 GB of physical memory. This is over and above the requirements of other applications that will be running concurrently with CIFS Server.

NOTE

Using a very large *smb.conf* file can significantly increase memory utilization. Therefore, it is good practice to minimize unnecessary lines in the *smb.conf* file. One way to achieve this is to use the SWAT utility for configuration.

Fixes in the HP CIFS Server A.01.09.04

The HP CIFS Server A.01.09.04 delivers the following fixes:

**potential security
vulnerability
(CR JAGae69010)**

This fixes the problem where the CIFS Server is potentially vulnerable to altered SMB/CIFS network messages.

**potential security
vulnerability
(CR JAGae65865)**

This fix provides checks for proper SMB/CIFS messages to prevent invalid *smbd* memory accesses.

Known Problems and Workarounds in the HP CIFS Server A.01.09.04

The following is a list of known problems and, where possible, the appropriate workarounds for A.01.09.04:

- Problem** Share mode security does not work with POSIX ACLs.
- Workaround** Microsoft servers do not support share mode security and Windows NT ACLs. No workaround currently exists.
- Problem** CIFS clients cannot delete open files. *Related Bug:* CIFS clients cannot delete hard links to open files while the file remains open.
- Workaround** Delete files and hard links after files are closed.
- Problem** The smbstatus utility and SWAT status screen do not display any information before a client connects to the CIFS Server.
- Workaround** Connect to the CIFS Server before using the smbstatus utility and SWAT status screen.
- Problem** Matching single characters in file names from the DOS prompt on a shared CIFS Server drive using wild card operations and multi-byte character sets does not always work (for example, using Japanese Shift-JIS and ??? matches two multi-byte characters instead of four multi-byte characters).
- Workaround** Use ?? for each single character. For example, if you are trying to match 4 characters, you must use 8 wild cards, ????????
- Problem** A registry key is required when a Windows XP client needs to successfully join and logon to a Samba domain.
- Workaround** Run the `/opt/samba/docs/Registry/WinXp_SignOrSeal.reg` script on the Windows XP client that is joining the Samba domain.
- Problem** The nmbd log file does not go in the log file directory after setting `log file`, the `smb.conf` variable, to change debug log file destinations.

Workaround

For a workaround when starting the CIFS Server, specify where the nmbd log file goes by entering the following at the command line:

```
nmbd -l "/new/log/file/path/logfilename" -D
```

For a permanent workaround, edit /opt/samba/bin/start smb.

1. Change `${samba_path}/nmbd -D`
to
`$ {samba_path}/nmbd-l/new/log/file/path/logfile -D`

Installation Requirements for the HP CIFS Server A.01.09.04

HP CIFS Server Installation Requirements

The HP CIFS Server requires approximately 41MB of disk space for installation on the HP-UX 11.0 or 11.11 PA machine. It requires approximately 74 MB of disk space for installation on the HP-UX 11.22 IA machine. The following pieces compose the HP CIFS Server:

- CIFS Server source code files/HP-UX 11.00 or 11.11—13 MB
- CIFS Server File and Print Services/HP-UX 11.00 or 11.11—28MB
- CIFS Server source code files/HP-UX 11.22—16 MB
- CIFS Server File and Print Services/HP-UX 11.22—58 MB

HP-UX Memory and Disk Requirements

32-bit and 64-bit HP-UX 11.00 /11.11 systems can boot with as little as 64MB of RAM and 1GB of disk space. 64-bit HP-UX 11.22 system can boot with as little as 1GB of RAM and 2 GB of disk space. HP recommends the following minimum memory and disk requirements to allow for growth and maintenance:

- HP-UX 11.00/11.11 32-bit—128MB RAM—1-2 GB disk
- HP-UX 11.00/11.11 64-bit—512MB RAM—2-3 GB disk
- HP-UX 11.22 64-bit—1 GB RAM/each CPU—2-8.5 GB disk

Software Availability in Native Languages

The HP CIFS Server currently supports German (ISO 8859-1) and Japanese Shift-JIS locales for the following:

- file names and content
- directory names and content
- print jobs

Administrative utilities such as *smbstatus* and SWAT are not internationalized. Internationalization is focused on the user level, not the administrative level.

Although all the pieces are in place to support other locales, HP has only tested with German (ISO 8859-1) and Japanese Shift-JIS locales for this release of the HP CIFS Server.