Samba (smb)

For installation instructions see Samba How To

UCI configuration options

The UCI configuration file is located at /etc/config/samba. Be extremely careful editing this file by hand - the samba shell interface (/etc/init.d/samba restart) will ignore invalid options, but LuCI Services/Network Shares will bring up an error like this:

```
/usr/lib/lua/luci/dispatcher.lua:449: Failed to execute cbi dispatcher target for entry '/admin/services/samba'
```

⚠️ It is hence **strongly recommended** that you use LuCI to establish the initial configuration and then edit the template file (/etc/samba/smb.conf.template) via LuCI Edit Template tab or from the shell as needed.

If luci-app-samba not working or can't find in web gui - > type "rm /tmp/luci-indexcache" or restart router.

Common Options

The config section type `samba` determines values and options relevant to the overall operation of samba. The following table lists all available options, their default value and respectively a short characterization. See smb.conf man page [http://www.samba.org/samba/docs/man/manpages-3/smb.conf.5.html#idp58030944] for further details.

These are the default settings for the common options:

```
config 'samba'
        option 'name' 'OpenWrt'
        option 'workgroup' 'OpenWrt'
        option 'description' 'Samba on OpenWrt'
        option 'charset' 'UTF-8'
        option 'homes' '0'
```

Name	Type	Required	Default	Option	Description
name	string	no	hostname or OpenWrt		Name of the Server
workgroup	string	no	hostname or OpenWrt		Name of the Workgroup
description	string	no	Samba on hostname or OpenWrt		Description of the Server
charset	string	no	UTF-8		Display charset & unix charset
homes	boolean	no	0	0, 1	Share the user directory
interface	string	no	loopback lan		Interfaces samba should listen on. Syntax: "<uci-interface-name> <uci-interface-name> ...". Note, that it is *not* of type list.

Sambashare

The daemons are up and running and recheable via NetBIOS. Now you only need to configure the directories you intend to make accesible to users in your LAN. This example assumes you attached a USB harddisk to the USB-Port and *correctly* mounted a partition. You can now choose to share the partition as a whole, or just individual directories on it. Fo each entry you need to create an individual config 'sambashare' section.

```
config 'sambashare'
        option 'name' 'Shares'
        option 'path' '/mnt/sda3'
#       option 'users' 'sandra'
        option 'guest_ok' 'yes'
        option 'create_mask' '0700'
        option 'dir_mask' '0700'
```

```
            option 'read_only' 'yes'
```

Name	Type	Required	Default	Option	Description
name	string	yes	(none)		Name of the entry. Will be shown in the filebrowser.
path	file path	yes	(none)		The complete path of the directory. path [http://www.samba.org/samba/docs/man/manpages-3/smb.conf.5.html#PATH]
users	string	no	guest account or from global template		the samba-users allowed access to this entry; use smbpasswd to create a user-pwd combination! Several users can be specified, separated by a coma (ex : option 'users' 'root,nobody'). Translated to valid users [http://www.samba.org/samba/docs/man/manpages-3/smb.conf.5.html#VALIDUSERS].
read_only	string	no	yes or from global template	no, yes	no allows for read/write, else only read access is granted; (for rw, you also need to mount fs rw!). read only [http://www.samba.org/samba/docs/man/manpages-3/smb.conf.5.html#READONLY].
guest_ok	string	no	no or from global template	no, yes	Specifies if you need to login via samba-username and password to access this share. guest ok [http://www.samba.org/samba/docs/man/manpages-3/smb.conf.5.html#GUESTOK].
create_mask	integer	no	0744 or from global template		chmod mask for files created (need write access). create mask [http://www.samba.org/samba/docs/man/manpages-3/smb.conf.5.html#CREATEMASK]
dir_mask	integer	no	0755 or from global template		chmod mask for directories created (need write access). directory mask [http://www.samba.org/samba/docs/man/manpages-3/smb.conf.5.html#DIRECTORYMASK].

Additional Configuration Options

Common Options

In addition to the UCI file (/etc/config/samba), modifications can be made to the /etc/samba/smb.conf.template file.

Sambashare

Modifications can be made to the /etc/samba/smb.conf.template file, based on /var/etc/smb.conf file, created by /etc/init.d/samba.

The full section from /var/etc/smb.conf should be added to /etc/samba/smb.conf.template and removed from UCI.

For example:

```
uci show samba | grep name
samba.@sambashare[0].name=over9000
sed -e '/\[over9000\]/,/^$/ !d' /var/etc/smb.conf >> /etc/samba/smb.conf.template
uci delete samba.@sambashare[0]
uci commit samba
/etc/init.d/samba restart
```

In a second approach /etc/init.d/samba could also be edited for spit whatever to /var/etc/smb.conf associated with UCI.

For example, hack once:

```
sed -i -e '/dir_mask/p;s/dir_mask\|directory mask/browsable/g' /etc/init.d/samba
```

Then, anytime:

```
uci show samba | grep name
samba.@sambashare[0].name=over9000
uci set samba.@sambashare[0].browsable=no
```

```
uci commit samba
/etc/init.d/samba restart
cat /var/etc/smb.conf
```

Configuration examples

Samba can be configured at either share level access or user level access. At share level access all users on the network can access the share, and all files are shared with all users. At user level access a username and password are needed to access the share. By default Samba is configured for user level access.

These configurations have proven to work for some:

Share level access

At share level access all users on the network can access the share, and all files are shared with all users. To set share level access change `security = user` to `security = share` in `/etc/samba/smb.conf.template`:

```
[global]
        netbios name = |NAME|
        workgroup = |WORKGROUP|
        server string = |DESCRIPTION|
        syslog = 10
        encrypt passwords = true
        passdb backend = smbpasswd
        obey pam restrictions = yes
        socket options = TCP_NODELAY
        unix charset = ISO-8859-1
        local master = yes
        preferred master = yes
        os level = 20
        security = share
        guest account = nobody
        invalid users = root
        smb passwd file = /etc/samba/smbpasswd
```

Then add a share to `/etc/config/samba`. Make sure that `guest ok` is set to `yes`

```
config 'samba'
        option 'name' 'openwrt'
        option 'workgroup' 'WORKGROUP'
        option 'description' 'openwrt'
        option 'homes' '1'

config 'sambashare'
        option 'read_only' 'no'
        option 'create_mask' '0700'
        option 'dir_mask' '0700'
        option 'name' 'name-of-share'
        option 'path' '/path/of/share'
        option 'guest_ok' 'yes'
```

This share should now be accessible by `\\ip-adress-openwrt\name-of-share` (windows, username and password can be anything).

User level access

At user level access a username and password are needed to access the share.

Steps:

1. Add user to system

To access a samba share with user level access there must be a user added to the system. Edit `/etc/passwd` and add a line for the new user. Choose a user id (the first number in the line) of 1000 or higher that does not exist yet. Set the

group identification number (the second number) to the same number as the user nobody. Copy the rest.

```
root:!:0:0:root:/root:/bin/ash
nobody:*:65534:65534:nobody:/var:/bin/false
daemon:*:65534:65534:daemon:/var:/bin/false
newuser:*:1000:65534:newuser:/var:/bin/false
```

Note: keep in mind that the user(s) and group(s) utilized by Samba need to have the proper permissions for their shares, i.e. they need write access in order to write via smb.

2. Add samba password to user

`smbpasswd -a newuser`

3. Change samba config to accept users with null passwords

Edit `/etc/samba/smb.conf.template` and add `null passwords = yes`:

```
[global]
        netbios name = |NAME|
        workgroup = |WORKGROUP|
        server string = |DESCRIPTION|
        syslog = 10
        encrypt passwords = true
        passdb backend = smbpasswd
        obey pam restrictions = yes
        socket options = TCP_NODELAY
        unix charset = ISO-8859-1
        local master = yes
        preferred master = yes
        os level = 20
        security = user
        null passwords = yes
        guest account = nobody
        invalid users = root
        smb passwd file = /etc/samba/smbpasswd
```

4. Add a share

Then add a share to `/etc/config/samba`. Make shure that `guest ok` is set to `no`

```
config 'samba'
        option 'name' 'openwrt'
        option 'workgroup' 'WORKGROUP'
        option 'description' 'openwrt'
        option 'homes' '1'

config 'sambashare'
        option 'read_only' 'no'
        option 'create_mask' '0700'
        option 'dir_mask' '0700'
        option 'name' 'name-of-share'
        option 'path' '/path/of/share'
        option 'guest_ok' 'no'
```

This share should now be accessible by `\\ip-adress-openwrt\name-of-share` (windows, correct username and password are needed).

Notes

If you use a trunk version and experience connection aborts take a look at this file `/etc/samba/samba.conf.template` and search for `reset on zero vc = yes` Remove this line or set it to `no`.

More information about this issue here: https://dev.openwrt.org/ticket/9992 [https://dev.openwrt.org/ticket/9992]

If your CPU is your samba bottleneck, disabling sendfile might help. See http://www.linksysinfo.org/index.php?threads /speeding-up-the-samba-by-30.52240/ [http://www.linksysinfo.org/index.php?threads/speeding-up-the-samba-by-30.52240/]

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