

# Taskwarrior – Troubleshooting Taskserver

## Your guide to success

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# Troubleshooting Sync

Here is a list of problems you may encounter, with the most common ones listed first.

The single most common problem has been that the Taskserver Setup Instructions were not properly followed. Please review the steps you took.

It is always a good idea to make sure that you are using the latest release of Taskwarrior and Taskserver, not just because bugs are fixed that may help you, but also because the solutions below are geared toward the current releases.

If you upgrade from an older release of Taskserver, you will need to follow the [upgrade instructions](#).



## 'task sync' showed task list

### **You tried `task sync` but Taskwarrior showed you a task list instead**

You have a version of Taskwarrior older than 2.3.0, which means there was no sync command, and you are seeing a list filtered by the search term 'sync'. Upgrading is the only solution.



# Taskwarrior without GnuTLS

**You tried `task sync` and saw 'Taskwarrior was built without GnuTLS support. Sync is not available.'**

You are using version 2.3.0 or later, but the Taskwarrior binary was compiled without [GnuTLS](#) support.

If you installed Taskwarrior using your OS's package manager, you may be suffering from an out of date package. Prod your OS's package maintainer for an update.

Recent releases make GnuTLS support opt-out instead of opt-in, so upgrading to the latest version may help. Otherwise, you will need to build Taskwarrior from the [latest source tarball](#), following the instructions in the INSTALL file. If you are a developer, do that. If you are not, then installing a development environment is probably not something you want to do, in which case contact your OS's package maintainer.

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# Taskwarrior without GnuTLS – continued

Verify that your Taskwarrior was built with GnuTLS support by running task diagnostics:

```
$ task diagnostics | grep libgnutls  
libgnutls: 3.3.18
```



# nodename nor servname provided

## nodename nor servname provided, or not known

Despite the terrible wording, this means the Taskwarrior setting `taskd.server=<host>:<port>` refers to a host name that cannot be seen by Taskwarrior.

- ▶ Is it spelled correctly?
- ▶ Is the domain correct?
- ▶ Is there a valid DNS resolution for the name?
- ▶ Is there a firewall between Taskwarrior and Taskserver that is not letting through `<port>` traffic?



## Could not connect

### Could not connect to <host> <port>

Taskserver may not be running on <host>.

Check with `ps -leaf | grep taskd`.





# Unable to use port

## Unable to use port 53589?

By default, port 53589 is used, but whichever you chose must be open on the server.

If you are unable to open firewall ports, you can use an SSH Tunnel to route port 53589 traffic over port 22:

```
$ ssh -L localhost:dsthost:dstport user@example.com
```



# Handshake failed

## Certificate fails validation, Handshake failed

There are many reasons that the TLS handshake can fail.

When you generated certificates, you modified a `vars` file, in particular the `CN=<name>` setting. That name must match the output of `$ hostname -f` on the server for the certificate to validate.

Additionally, that name must also be used in the `taskd.server=<host>:<port>` setting for Taskwarrior. Otherwise you'll need `taskd.trust=ignore hostname`.

If you are using a self-signed certificate, did you specify it using the `taskd.ca` setting?

Setting `taskd.ciphers` can force the use of different ciphers. Use `gnutls-cli --list` to see a list of installed ciphers, and confirm that there is overlap between client and server. There needs to be a cipher that is available to both, otherwise they cannot communicate.



# Certificate still valid?

## Is your certificate still valid?

Certificates have expiration dates, and if you followed our instructions, you created a certificate that is valid for one year. Check your certificate with this command:

```
$ certtool -i --infile ~/.task/<YOUR NAME>.cert.pem
```

If your certificate has expired, you need a new one. You may also need to regenerate expired server certificates.

Note that creating certificates that never expire is a bad idea. Certificates may be compromised. A certificate that is considered secure today, may not be considered secure in a year. Is the key length you chose something that will remain suitable in the future? Will the algorithms you chose remain secure? For these reasons, choose an expiration date that lets you reevaluate your choices in the relatively near future.



# GnuTLS outdated?

## Is your GnuTLS library up to date?

As a [security product](#), it is imperative that you keep your GnuTLS up to date.

As with many security products, GnuTLS is maintained by a responsible and quick-responding team that takes security very seriously. Benefit from their diligence by keeping your GnuTLS up to date.

We have received reports of issues with older GnuTLS releases. Specifically, version 2.12.20 has problems validating certificates under certain conditions. Newer releases have addressed memory leaks that were able to take down Taskserver.

Please keep in mind that you have to recompile Taskserver completely to benefit from the new version.

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## GnuTLS outdated? – continued

Upgrading GnuTLS does nothing to upgrade taskd – it has to be rebuilt from scratch, which means:

```
$ cd taskd.git
$ rm CMakeCache.txt
$ cmake -DCMAKE_BUILD_TYPE=release .
$ make
$ sudo make install
```

This can then be verified using `taskd diagnostics`.



# Ancestor not found

## ERROR: Could not find common ancestor for ... Client sync key not found.

You skipped the important step of running:

```
$ task sync init
```

This performs an initial upload of your tasks, and sets up a local sync key, which identifies the last sync transaction.

### Taskwarrior before Version 2.5.1

Please note that older Taskwarrior versions only sync the **pending** tasks and not all tasks.



# Hostname and IP address

## No fooling!

There is a difference between *hostname* and *IP address*, honestly. We are referencing the hostname throughout the documentation because you need a valid hostname for the certificate and working name resolution for the client to connect to the server.

**So please use the hostname where you are advised to do it!**



## Debugging – Diagnostics

You may wish to try and debug the problem yourself. You will probably not. But if you do, here is how.

Both Taskwarrior and Taskserver have a `diagnostics` command, the purpose of which is to show you relevant troubleshooting details. Additionally it will indicate problems directly, for example, it will tell you if your cert/key files are not readable. The output from `diagnostics` is intended to be included in bug reports, and doing so saves you a lot of time, because it's the first thing we'll ask for.

```
$ task diagnostics
...
$ taskd diagnostics
...
```

Read the output of the `diagnostics` commands carefully, there may be several types of problems mentioned, which need to be addressed before going further.





## Debug Mode

The next step would be to run the server in debug mode. First shutdown your Taskserver, then launch it interactively:

```
$ taskdctl stop
...
$ taskd server
...
```

You can hit `Ctrl-C` to stop this server. For highly verbose output, try this:

```
$ taskd server --debug --debug.tls=2
...
```

Similarly, Taskwarrior has a verbose debug mode, and debug TLS mode:

```
$ task rc.debug=1 rc.debug.tls=2 sync
...
```



# IP Address

```
ifconfig -a  
ip addr list
```

Show the ip addresses (and network interfaces) on the system.



# Ports

```
lsof -i TCP:53589 -s TCP:LISTEN # as taskserver user or with sudo  
netstat -tln | grep 53589
```

Shows which process listen on the port, shows the user and - more important - the ip address / interface the server runs on.



# Certificate

```
openssl x509 -noout -in server.cert.pem -subject  
certtool -i --infile=server.cert.pem | grep Subject:
```

Shows the hostname from (C1) after CN=



# taskd diagnostics

```
taskd diagnostics --data /path/to/taskddata
```

Shows server daignostic data.



# General Reachability

```
ping hostname  
nmap -sP hostname
```

Show if the hostname is reachable (if ping is not blocked).



# Port Reachability

```
telnet hostname 53589  
nmap -p 53589 hostname  
openssl s_client -host hostname -port 53589
```

Shows if the port is reachable by client (or locally).



# Hostname resolution

```
host hostname  
nslookup hostname # checks only nameservers
```

Shows the ip address of hostname. Should match one of the IP addresses found in (S1), and the server should be bound to that address (S2).





# task diagnostics

task diagnostics

Shows client diagnostic data.



## Getting Help

As a last resort, ask for help. But please make sure you have carefully reviewed your setup, and gone through the checks above before asking. No one wants to lead you through the steps above to discover that you didn't.

We'll ask you to provide the `diagnostics` output for both Taskwarrior and Taskserver, then we're going to go through the steps above, because this is our checklist also.



## Getting Help

There are several ways of getting help and there is **no realtime support**, even though answers might come pretty fast:

- ▶ Email us at [support@taskwarrior.org](mailto:support@taskwarrior.org), then wait patiently for a volunteer to respond.
- ▶ Join us on IRC in the #taskwarrior channel on Freenode.net, and get a quicker response from the community, where, as you have anticipated, we will walk you through the checklist above.
- ▶ Even though Twitter is no means of support, you can get in touch with [@taskwarrior](https://twitter.com/taskwarrior).
- ▶ We have a [User Mailinglist](#) which you can join anytime to discuss about Taskwarrior and techniques. The [Developer Mailinglist](#) is focussing on a more technical oriented audience.
- ▶ Submit your details to our [Q & A site](#), then wait patiently for the community to respond.