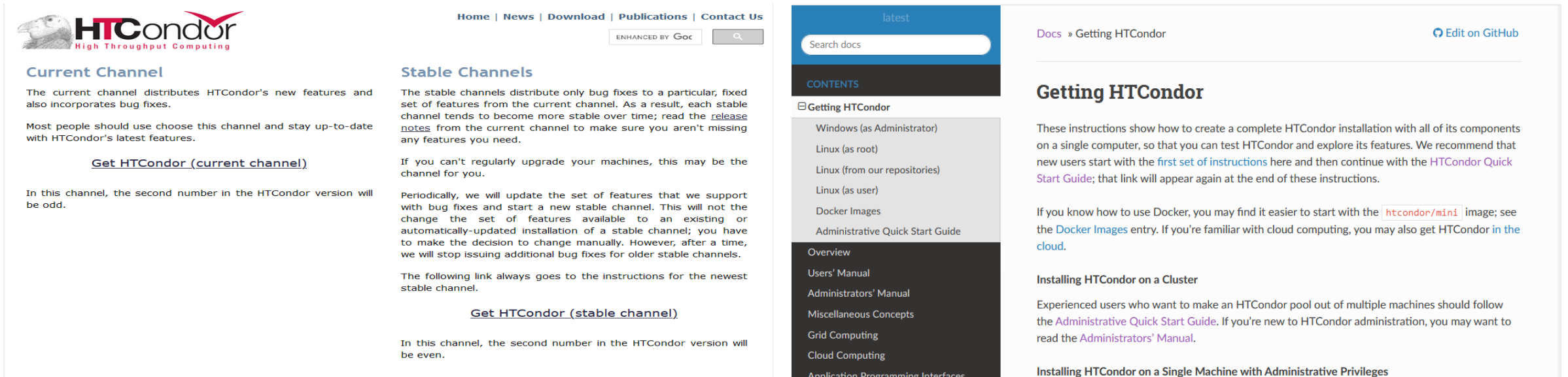




Getting HTCondor Upgrading to HTCondor 9.0

Getting HTCondor

› <https://htcondor.org/downloads>



The screenshot displays the HTCondor website. The top navigation bar includes links for Home, News, Download, Publications, and Contact Us. The main content area is divided into two columns. The left column, titled 'Current Channel', explains that this channel includes new features and bug fixes, and provides a link to 'Get HTCondor (current channel)'. The right column, titled 'Stable Channels', explains that these channels only include bug fixes and provides a link to 'Get HTCondor (stable channel)'. A sidebar on the right contains a search bar, a 'CONTENTS' section with a list of links (Windows, Linux, Docker, Quick Start Guide, Overview, Manuals, Concepts, Computing, Cloud Computing, APIS), and a 'latest' section. The main content area also features a 'Getting HTCondor' section with instructions on how to install HTCondor, including links to 'first set of instructions', 'HTCondor Quick Start Guide', and 'Docker Images'.

› <https://htcondor.readthedocs.io/en/latest/getting-htcondor/>

Motivation

- › Document the ways to get HTCondor without installing
 - Docker (and Singularity) • the cloud • Kubernetes
- › Simplify installing HTCondor, make it easier to create secure pools.
 - A new tool for Linux, *get_htcondor*.
 - Windows improvements in progress.

Ab Initio

- › Pick the method appropriate for the service you're using.
 - Usually works for both privileged and unprivileged users.
- › Otherwise, if you're not using a service and are root, or you're using a service but starting with an existing image, use *get_htcondor*.
- › Otherwise, use the tarball.

get_htcondor

› On the web, for new Linux installations only.

```
$ curl -fsSL https://get.htcondor.com | /bin/bash -s --  
# Installing mini HTCondor for Ubuntu focal  
  
# Adding our repository  
apt-get update  
apt-get install -y gnupg  
curl -fsSL https://research.cs.wisc.edu/htcondor/repo/keys/HTCondor-current-Key | apt-key add -  
echo "deb [arch=amd64] https://research.cs.wisc.edu/htcondor/repo/ubuntu/current focal main" \  
    > /etc/apt/sources.list.d/htcondor.list  
echo "deb-src https://research.cs.wisc.edu/htcondor/repo/ubuntu/current focal main" \  
    >> /etc/apt/sources.list.d/htcondor.list
```

...

get_htcondor

› stand-alone installation:

- `curl -fsSL https://get.htcondor.com | sudo /bin/bash -s -- --no-dry-run`

› multi-machine installation:

- introduction to the three roles
- `curl -fsSL https://get.htcondor.com | GET_HTCONDOR_PASSWORD="$htcondor_password" sudo /bin/bash -s -- --no-dry-run --central-manager $central_manager_name`
- `curl -fsSL https://get.htcondor.com | GET_HTCONDOR_PASSWORD="$htcondor_password" sudo /bin/bash -s -- --no-dry-run --submit $central_manager_name`
- `curl -fsSL https://get.htcondor.com | GET_HTCONDOR_PASSWORD="htcondor_password" sudo /bin/bash -s -- --no-dry-run --execute $central_manager_name`

Authentication and Privacy

- › stand-alone installation: loopback only
- › multi-machine installation
 - authentication: FS or IDTOKENS
 - authorization: by FS or single IDTOKENS 'condor' user
 - privacy: all daemon-to-daemon communication is encrypted. All tool-to-daemon communication is encrypted except for read-only connections over the network, e.g., *condor_status*

Extensions

- › Issue an IDTOKEN for each user
 - Use condor_token_create -identity
- › Issue an IDTOKEN to a remote pool (flock in)
 - Create a token, add its identity to FLOCK_FROM.
- › Use an IDTOKEN for a remote pool (flock out)
 - Copy token to /etc/condor/tokens.d.
 - Add its central manager to FLOCK_TO.

Closing

- › <https://htcondor.org/downloads>
- › <https://htcondor.readthedocs.io/en/latest/getting-htcondor/>
- › Please send feedback! <htcondor-admin@cs.wisc.edu>

Upgrading HTCondor 9.0

› Upgrading from 8.8

- Reminder: no automatic upgrades between stable series.
- See the instructions.

› Upgrading from 8.9

Overview of Issues

- › Security
- › IDTOKENS (only if you're already using them in 8.9)
- › (mostly 8.8) Other changes

Security Changes

- › The default configuration is no longer host-based. **THIS MAY BREAK YOUR CONFIGURATION.** Options:
 - Reinstall from scratch
 - Reconfigure
 - Revert to host-based security
 - Retain strong security
- › Update obsolete configuration (if preserved).
- › Read [the instructions](#) for details!

Reinstall

- › Before upgrading, maybe run and save the output from `condor_config_val -summary`
- › Back up your SPOOL
- › Uninstall HTCCondor, remove configuration
- › (see the previous talk)
- › Copy non-security configuration back.

Reconfigure

- › Remove other security settings.
- › On all machines:
 - create signing key
 - and use it to create an IDTOKEN.

Revert

- › Read `/etc/condor/config.d/00-htcondor-9.0.config`
 - Will be reinstalled if missing, so don't delete it!
- › Comment out `use security:recommended_v9_0`
- › Uncomment `use security:host_based`
- › Don't forget to update obsolete configuration:
 - Set (if necessary) `ALLOW_DAEMON` (instead of `ALLOW_WRITE`)
 - Replace (if necessary) `HOSTALLOW`, `HOSTDENY`

Retain

- › Empty `/etc/condor/config.d/00-htcondor-9.0.config`
 - Will be reinstalled if missing, so don't delete it!
- › Don't forget to update obsolete configuration:
 - Set (if necessary) `ALLOW_DAEMON` (instead of `ALLOW_WRITE`)
 - Replace (if necessary) `HOSTALLOW`, `HOSTDENY`

Upgrading from 8.9

We fixed a bug in 8.9.13 with how IDTOKENS reads its signing key(s).

- › Some signing keys will be read differently as a result.
 - An IDTOKEN signed by such a key will no longer work.
 - Use *condor_check_password* to look for this kind of key.
 - You can either truncate the key (making it more vulnerable to a brute-force attack) or make a new key and issue new tokens.

Closing

- › Please read the documentation *before* you upgrade!
- › Upgrading from 8.8
- › Upgrading from 8.9
- › Consider putting jobs on hold before the upgrade process.

Questions?

htcondor-admin@cs.wisc.edu

Office hours later today!

New Configuration for Old Clients

- › For example, old Python bindings in a virtualenv.
- › Old clients don't understand the new default configuration.
- › Two choices:
 - Comment out, paste in results of
`condor_config_val use security:recommended_v9_0`
 - Make conditional on HTCCondor version:

```
if version > 9.0.0
    use security:recommended_v9_0
endif
```