

## Bareos 18.2

Bareos 18.2.5 is the latest stable version and was published on January 31, 2019. Previously, we put out two release candidates in September and December 2018.

Bareos 18.2.5 uses TLS encryption right from the start. All daemons (Bareos Director, File Daemon, and Storage Daemon) now support TLS encryption via pre-shared key (PSK) when authenticating. Previous versions required certificates for TLS/SSL encrypted network traffic. The new Bareos version can use existing passwords to encrypt the connection via pre-shared key. Bareos 18.2.5 remains backward compatible and still works with certificates, so it's not necessary to change an existing configuration. Clients with an older version number are also still supported: Bareos 18.2.5 supports TLS and plain text at the same time and addresses the older clients as before.

Security of the Bareos Director (and of the WebUI) has been improved: Password authentication now happens via PAM (pluggable authentication modules), so it's no longer necessary to include plain text passwords in the configuration file. This feature is optional – it's not mandatory to adjust the configuration.

We also put a lot of hours into the modernizing of the legacy code. We replaced GNU Autoconf with CMake. As a result the source code is much easier to maintain. Instead of 70,000 lines of Autoconf scripts there are now about 5,000 lines of CMake to look after – a pretty good result.

Our [GitHub](#) repositories have been reorganized. All Bareos components are now available in one folder and organized in subdirectories. As a result synchronizing the files for new releases has become a lot easier. The Bareos documentation presents itself in a new and modern layout. We switched from LaTeX (and converted HTML code for the online version) to RST (reStructuredText). We now work with the Sphinx framework which makes it convenient to convert the manual into different file formats. As a result, the [online manual](#) looks a lot clearer. It now offers an online search and highlights the results. The included diagrams are implemented with PlantUML (Sphinx PlantUML extension). At the bottom of the left navigation bar is a little menu to select the documentation for a specific Bareos version. The [old documentation](#) remains online as long as the Bareos team performs the final conversion steps. Installation packages for all major platforms and operating systems are available for [download](#). Following packages with updates and patches for this release will be available for [subscription](#) customers, only.

- Download: <http://download.bareos.org/bareos/release/18.2/>
- [Release notes](#) and [Documentation](#)

## Bareos 17.2

Bareos has already presented the release candidate for the new version 17.2 at Open Source Backup Conference in Cologne, Germany in Sept. 2017. The final release was officially published in January 2018.

There are many new features in the web UI as well as under the hood. Most new features were sponsored by customers.

Especially professional users with large environments will benefit from the new database optimization (denormalization of the file table), which leads to significant speed-increase when backing up millions or more files. Thanks to [Cartika](#) for sponsoring.

An enterprise from the media industry has sponsored the enhancements regarding backups in storage area networks using the NDMP protocol. Bareos is now capable of using the NDMP 2-way backup, which offers the possibility to directly transfer files from the storage to a tape library over the storage area network. Furthermore single-file-restore via NDMP is now much faster thanks to the implementation of the Direct Recovery features (DAR and DDAR).

User with distributed networks, such as hosters backing up systems from customer networks, will benefit from the LanAddress feature. These customers can now perform central and / or decentral backups of clients. If both client and storage daemon have an optional LanAddress configured, the client will write the data directly to the local storage (also sponsored by Cartika).

The webui now offers a progress bar for each running job and opens the possibility to individually run customized jobs with arbitrary options set. New to the GUI are the languages Slovak, Turkish, Czech, which sums up to 11 supported languages.

A national archive has sponsored the development of an S3 compatible interface. Users can now write and read their backup data into any Amazon S3 compatible storage.

Installation packages for all major Linux distributions as well as Windows and MacOS are available for download. Following packages with updates and patches for this release will be available for [subscription](#) customers, only.

- Download: [download.bareos.org/bareos/release/17.2/](https://download.bareos.org/bareos/release/17.2/)
- Release notes and [Documentation](#)
- Open Source Backup Conference [osbconf.org](https://osbconf.org)
  - Release presentation as [PDF](#)
  - Release presentation as [Video](#)

## Bareos 16.2

The front-end is now multi-lingual: users can choose at login between English, German, French and Russian. Further translation projects have already been started by the community. The clients' list now shows, if there are updates of the Bareos software available for each client. Also new is the handling of

autochangers within the GUI: used drives and tapes are shown, tapes can be labeled and imported / exported.

With 16.2 the multi-tenancy implementation was completed by filling some long standing gaps in the ACL implementation. Users can now only see and restore data to the client(s), they are allowed to regarding the defined rules and roles. This development was particularly sponsored by customers from the ISP industry.

Also supported by an ISP is the development of the “Client Initiated Connection” feature. If enabled, all connections between a backup client and the Bareos servers are initiated from the client. This way laptops can connect from different network segments in an enterprise network. Servers on premise can connect to Bareos backup servers at external sites, without the need to grant access to the internal network from outside service providers.

The new feature “Always Incremental” is interesting especially for users with big data: time- and network-capacity consuming full-backups only have to be taken once. Sub-sequent backup jobs can only transmit changed files incrementally to the backup servers forever. The new way of merging the existing incremental backups on the server, reduces the number of necessary synthetic full-backups on the server. This means an enormous reduction of needed CPU-time and storage space on the server but still with improved restore times.

The new release also comes with a new directory structure for configuration files, which is optimized for configuration provisioning and the base for the new configuration API. Using the API or the command console, for example clients can be created and the according configuration files are automatically generated by Bareos and saved to the right directory.

The new MySQL plugin offers the possibility to make hot-backups of MySQL / MariaDB databases with Bareos, as well as point-in-time recovery of databases.

Links:

- Download: [download.bareos.org/bareos/release/16.2/](https://download.bareos.org/bareos/release/16.2/)
- For subscription customers continuously maintained packages are available here: <https://download.bareos.com/bareos/release/16.2/>
- Release Notes and documentation: [doc.bareos.org/master/html/bareos-manual-main-reference.html](https://doc.bareos.org/master/html/bareos-manual-main-reference.html)
- Screenshots of the web UI: [www.bareos.org/en/bareos-webui.html](https://www.bareos.org/en/bareos-webui.html)
- [Sponsors](#)
- Informationen about [Subscription and Support](#)

## Bareos 15.2

Our 15.2 release candidate has passed all regression and continuous integration tests on all supported platforms. Repositories are available here: <http://download.bareos.org/bareos/release/15.2/>

We are looking forward for your feedback and bugreports, in order to help us to publish a broadly tested 15.2 major release soon.

More than 300k lines of code were modified since 14.2.2, including cleanup, redesign, bugfixes and many new features, here is an excerpt of new stuff:

- [Bareos VMware Backup Plugin](#) to backup VMware disk image snapshots online and incremental
- [WebUI](#) for administration tasks and restore file browser
  - No need of separate db connection, much cleaner architecture and easier setup.
- Windows:
  - Ported command line utilities like bscan, bwild, bregex
  - Signed Binaries
- Thanks to a sponsored development from the payment transaction provider [cardtech](#), we support [secure erase](#) of recycled storage-files and spool files for compliance reasons
- LDAP Plugin to backup LDAP directories which allows single object restore and accurate backup
- New Operating Systems supported:
  - Windows 10
  - Fedora 21/22
  - Debian 8, including Systemd support
  - Univention Corporate Server 4.x
  - SLES 11 SP4
- Gluster and Ceph plugins to backup cloud storages
- Director API to ease scripting of administration tasks
- Python plugin interface ported to windows
- New director commands
- Better debug output in all daemons for automated analyze with for instance logstash

For a complete changelog, refer to the [GitHub README.md](#)

## Bareos 14.2

Bareos 14.2 is the current stable. Here are some highlights:

- Cloud Storage Backends
  - Gluster API (on RHEL 7)
  - Rados / Ceph (technology preview)
- NDMP enhancements
- Accurate backup more efficient for large filesets
- [Plugin interface](#) in all daemons redesigned and made more future ready
  - Write own plugins in Python for Director, Storage Daemon and FileDaemon
  - Allow support for multiple instances
  - Python class based examples included
- Storage Daemon enhancements
  - More modular (enable loadable backends, only load the needed drivers)
  - Configurable block sizes for [better performance](#) for tape drives.
  - Storage daemon [compression plugin](#)
  - Storage daemon TAPEALERT plugin

- Storage daemon statistics gathering.
- Windows
  - Bareos server components run on Windows now
  - Better [VSS](#) support Volume Mount Points (VMP) supported
  - Windows Encrypted Filesystems (EFS) supported
  - Windows Dedup Support
  - System Registry key '[NotToBackup](#)' supported
  - New installers for pre- and post Vista Windows versions
  - MS SQL Plugin supports restore to file and restore to different database server (sponsored by [Odiso](#))
- Repositories for new distributions:
  - RHEL 7 / CentOS 7 / Fedora 20
  - SLES 12 / openSUSE 13.2
  - Ubuntu 14.04
  - Debian project included Bareos in Debian 8 "Jessie" testing
- Debian/Ubuntu:
  - automatic database backend management via dbconfig
- Enable / disable Jobs and Schedules via commandline
- Show command prints internal config in config file syntax
- Lots of code refactoring
  - Fixed all high impact errors from [Coverity](#) scans
- Add support for newer UNIX APIs
- Basic auditing support

For a full list of new features, see [README.md](#) in GIT, all news for versions from 13.x until 14.2.x are relevant for this new release. You'll find installation packages here:

<http://download.bareos.org/bareos/release/14.2/>

## Bareos 13.2

Bareos 13.2.2 has been the second stable release. Here are some highlights:

- Passive clients: to ease access to backup clients in separated network segments (like DMZs), a client can be defined 'passive', which means all needed backup connections (from director and storage daemon (SD)), will be initiated from the servers. Hence, no connection initiation from the DMZ into the internal network is needed to backup a DMZ client anymore. To be able to use that feature, you need to set

```
compatible = no
```

in order to make this option available.

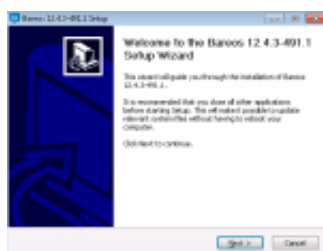
- Backup to disk to cloud: with the new SD to SD communication you can do copy or migration jobs to other SDs, which might be located at any other location
- The status scheduler command now shows a preview of upcoming scheduled jobs for a given time range. This lets an backup admin verify the scheduler configuration easily
- Fastzlib used as alternative to speed up compression

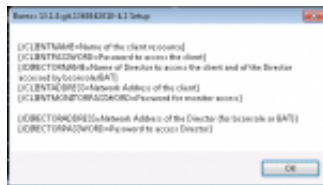
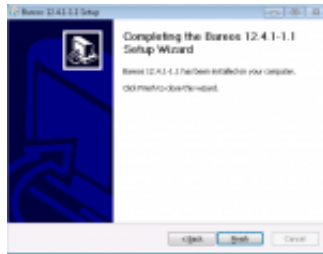
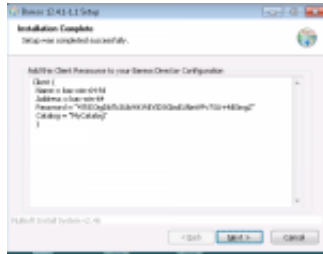
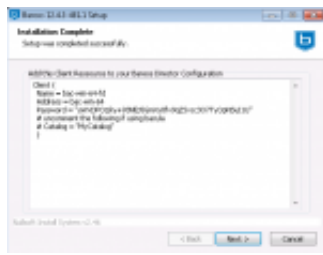
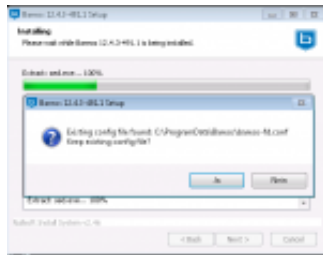
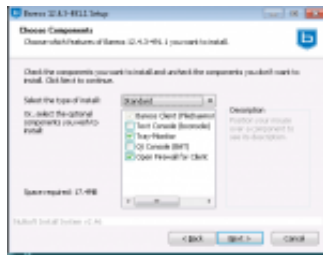
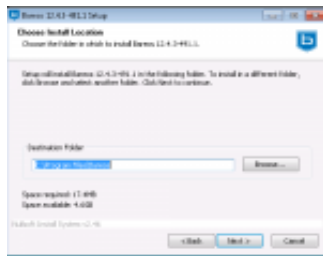
You find the details how to use the new features [here](#).

# Bareos 12.4

Bareos 12.4 was the first stable release. These are the changes compared to Bacula 5.2

- Support for hardware encryption with LTO (4 and upwards) and enterprise tape libraries
- Client-quota support
- Native NDMP Support
- Import/export for tape changer (e.g. export all tapes used by a certain job)
- Fileset shadowing deduplication
- Bandwidth limitation
- New configuration / scheduler directive:
  - Last day of week in a month (e.g. last Friday)
  - Modulo scheduler (run every n days/weeks)
  - Select files by file size (e.g. exclude very large files)
- Console
  - Rerun jobid=id reruns a previous job with exact the same parameters again
- Code cleanup and refactoring (12 year old code base needs cleanup and removing of not used and unmaintained sub systems)
- Removed deprecated code:
  - DVD support
  - Old (2006) runscript protocol
  - Python integration (future replaced with plugins)
- Windows Backup „all (local) drives“ option in fileset definition and Windows File daemon
- Dynamic loading of catalog backends
- Repacking using Open Build Server: all packages out of one source / specfile:
  - Fedora 17 / 18
  - CentOS 5/6
  - RedHat Enterprise Linux 5/6
  - OpenSuse 11.4, 12.1, 12.2
  - Suse Linux Enterprise Server 11sp2
  - Debian 6
  - Upcoming: Ubuntu, Univention
  - **Windows Installer Packages** with lean redesign of cross compile makefiles, **silent install** possible, additional OPSI installer packages.





- **Animated tray monitor** when Backup Job is running



Read the [here](#) for information about how to actually make use of the new features.

## 12-4 Full changelog

Full [changelog](#) for 12.4 on github