

UCS 4.4 Release Notes



**Release notes for the installation and update
of Univention Corporate Server (UCS) 4.4-0**

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Chapter 1. Release Highlights

With Univention Corporate Server 4.4-0, the fourth minor release of Univention Corporate Server (UCS) 4 is now available. It provides several feature improvements and extensions, new properties as well as various improvements and bugfixes. Here is an overview of the most important changes:

- With this release the new app Admin Diary is available, with which administrative events of all UCS instances of a domain can be viewed and evaluated centrally. Changes to users, groups or other objects in the directory service can be tracked just as easily as updates to servers or (de-)installations of apps.

The Admin Diary is delivered as two components: a backend for data storage in an SQL database and a frontend for integration into the UMC. Recording of events is part of UCS 4.4 and is automatically activated when the backend is installed.

- The self-service app has been enhanced in two areas:
 - End users can now use the self-service web interface not only for changing passwords, but also for editing their own contact information.
 - Administrators can now use the self-service to invite new users by mail. In this process, new users are send a self-service token that they can use to add their password and contact information to the prepared account in the UCS domain.
- The portal has been extended to forward users directly to the login page and to display information texts if the portal is empty. The rendering has been optimized and is now customizable via CSS. Furthermore, the portal now has an improved permission management, which allows more access protection on the server side, which forms the basis for future enhancements.
- The RADIUS app has been unified by merging the implementations from UCS@school and the UCS app. As part of the implementation, the exchange of Shared Secrets, e.g. with WiFi access points, has been simplified: The access point configuration can now be done using the UMC computer module.
- Samba has been updated to version 4.10 RC2, which includes numerous improvements.

With this version, trust settings between UCS and Microsoft Active Directory domains can be configured. This makes it possible, for example, for users administered in UCS to gain access to services operated in Microsoft domains.


Furthermore Samba now supports Fine Grained Password Policies, with which it is possible to define different and detailed password policies within the Microsoft Active Directory or Kerberos domain.

- The user experience in the Univention Management Console has been improved in many ways. These include a clearer display of input elements, better handling of long result lists and a more efficient display on small displays.
- The settings for a user's access to installed apps can now be managed on a central tab on the user object. This simplifies both the administration of UCS and the integration by App Providers.
- For App Providers Install Permissions are a new feature in the App Center: They allow to specify for each version whether the App requires a contractual relationship between user and provider for installation. The App Center thus better supports corresponding business models of the app providers and users can better recognize which versions of an app are available.
- UCS 4.4-0 is based on the Debian release 9.8 released in February. A complete list of security and package updates is available in Chapter 6.

Chapter 2. Notes about the update

During the update some services in the domain may not be available temporarily, that is why the update should occur in a maintenance window. It is recommended to test the update in a separate test environment prior to the actual update. The test environment should be identical to the production environment. Depending on the system performance, network connection and the installed software the update will take between 20 minutes and several hours.


2.1. Recommended update order for environments with more than one UCS server

Feedback 

In environments with more than one UCS system, the update order of the UCS systems must be borne in mind:

The authoritative version of the LDAP directory service is maintained on the master domain controller and replicated to all the remaining LDAP servers of the UCS domain. As changes to the LDAP schema can occur during release updates, the master domain controller must always be the first system to be updated during a release update.

2.2. UCS installation DVD only available for 64 bit

Feedback 

Starting with UCS 4.0, installation DVD are only provided for the x86 64 bit architecture (amd64). Existing 32 bit UCS 3 systems can still be updated to UCS 4.0 through the online repository or by using update DVD. The 32 bit architecture will be supported over the entire UCS 4 maintenance period.

Chapter 3. Preparation of update

It must be checked whether sufficient disk space is available. A standard installation requires a minimum of 10 GB of disk space. The update requires approximately 4 GB additional disk space to download and install the packages, depending on the size of the existing installation.

For the update, a login should be performed on the system's local console as user `root`, and the update should be initiated there. Alternatively, the update can be conducted using Univention Management Console.

Remote updating via SSH is not recommended as this may result in the update procedure being canceled, e.g., if the network connection is interrupted. In consequence, this can affect the system severely. If updating should occur over a network connection nevertheless, it must be verified that the update continues in case of disconnection from the network. This can be achieved, e.g., using the tools `screen` and `at`. These tools are installed on all UCS system roles by default.

Univention provides a script that checks for problems which would prevent the successful update of the system. Prior to the update, this script can be downloaded and executed on the UCS system.

```
# download
curl -Oos http://updates.software-univention.de/download/univention-
update-checks/pre-update-checks-4.4{,.gpg}

# run script
gpgv --keyring /usr/share/keyrings/univention-archive-key-ucs-4x.gpg \
    pre-update-checks-4.4.gpg pre-update-checks-4.4 && bash pre-
update-checks-4.4

...

Starting pre-update checks ...

Checking app_appliance ... OK
Checking block_update_of_NT_DC ... OK
Checking cyrus_integration ... OK
Checking disk_space ... OK
Checking hold_packages ... OK
Checking ldap_connection ... OK
Checking ldap_schema ... OK
...
```


Chapter 4. Postprocessing of the update

Following the update, new or updated join scripts need to be executed. This can be done in two ways: Either using the UMC module **Domain join** or by running the command `univention-run-join-scripts` as user `root`.

Subsequently the UCS system needs to be restarted.


Chapter 5. Notes on selected packages

5.1. Univention Directory Notifier

Feedback 

Due to a design flaw in the Univention Directory Notifier network protocol version 2 any user can retrieve information about changes to the LDAP directory. A new protocol version 3 was implemented with UCS-4.3-3 erratum 427. For backward compatibility with old UCS systems the Univention Directory Notifier still provided version 2 by default. For new installations starting with UCS-4.4 only version 3 is enabled by default. Protocol version 2 can be re-enabled by changing the Univention Configuration Registry variable `notifier/protocol/version` to 2 and restarting the Univention Directory Notifier.

5.2. Collection of usage statistics


Feedback 

Anonymous usage statistics on the use of Univention Management Console are collected when using the *UCS Core Edition*. The modules opened get logged to an instance of the web traffic analysis tool Piwik. This makes it possible for Univention to tailor the development of Univention Management Console better to customer needs and carry out usability improvements.

This logging is only performed when the *UCS Core Edition* license is used. The license status can be verified via the menu entry **License** - > **License information** of the user menu in the upper right corner of Univention Management Console. If **UCS Core Edition** is listed under **License type**, this version is in use. When a regular UCS license is used, no usage statistics are collected.


Independent of the license used, the statistics generation can be deactivated by setting the Univention Configuration Registry variable `umc/web/piwik` to *false*.

5.3. Scope of security support for WebKit, Konqueror and QtWebKit

Feedback 

WebKit, Konqueror and QtWebKit are shipped in the maintained branch of the UCS repository, but not covered by security support. WebKit is primarily used for displaying HTML help pages etc. Firefox should be used as web browser.

5.4. Recommended browsers for the access to Univention Management Console

Feedback 

Univention Management Console uses numerous JavaScript and CSS functions to display the web interface. Cookies need to be permitted in the browser. The following browsers are recommended:

- Chrome as of version 71
- Firefox as of version 60
- Safari and Safari Mobile as of version 12
- Microsoft Edge as of version 18


As of this release Internet Explorer is not supported by Univention Management Console anymore.

Users running older browsers may experience display or performance issues.

Chapter 6. Changelog

Listed are the changes since UCS 4.3-3:

6.1. General


Feedback 

- All security updates issued since UCS 4.3-3 are included:
 - *apt* (CVE-2019-3462) (Bug 48513)
 - *cups* (CVE-2017-18248, CVE-2018-4700) (Bug 48772)
 - *curl* (CVE-2018-16890, CVE-2019-3822, CVE-2019-3823) (Bug 48786)
 - *dovecot* (CVE-2019-3814) (Bug 48774)
 - *firefox-esr* (CVE-2018-12405, CVE-2018-17466, CVE-2018-18356, CVE-2018-18492, CVE-2018-18493, CVE-2018-18494, CVE-2018-18498, CVE-2018-18500, CVE-2018-18501, CVE-2018-18505, CVE-2019-5785) (Bug 48319, Bug 48589, Bug 48779)
 - *freerdp* (CVE-2018-8786, CVE-2018-8787, CVE-2018-8788, CVE-2018-8789) (Bug 48775)
 - *ghostscript* (Bug 48415, Bug 48537)
 - *glibc* (CVE-2017-15670, CVE-2017-15671, CVE-2017-15804, CVE-2017-16997, CVE-2017-18269, CVE-2017-1000408, CVE-2017-1000409, CVE-2018-11236, CVE-2018-11237) (Bug 48778)
 - *intel-microcode* (CVE-2018-3639, CVE-2018-3640) (Bug 48781)
 - *libapache2-mod-perl2* (CVE-2011-2767) (Bug 48785)
 - *libarchive* (CVE-2016-10209, CVE-2016-10349, CVE-2016-10350, CVE-2017-14166, CVE-2017-14501, CVE-2017-14502, CVE-2017-14503, CVE-2018-1000877, CVE-2018-1000878, CVE-2018-1000880) (Bug 48408)
 - *libemail-address-perl* (CVE-2015-7686, CVE-2018-12558) (Bug 48777)
 - *libgd2* (CVE-2019-6977, CVE-2019-6978) (Bug 48614)
 - *libphp-phpmailer* (CVE-2018-19296) (Bug 48306)
 - *libreoffice* (CVE-2018-16858) (Bug 48592)
 - *libvirt* (Bug 47617)
 - *libvirt-python* (Bug 47617)
 - *libvncserver* (CVE-2018-6307, CVE-2018-15126, CVE-2018-15127, CVE-2018-20019, CVE-2018-20020, CVE-2018-20021, CVE-2018-20022, CVE-2018-20023, CVE-2018-20024) (Bug 48591)
 - *linux, univention-kernel-image-signed* (CVE-2017-18249, CVE-2018-1128, CVE-2018-1129, CVE-2018-5848, CVE-2018-12896, CVE-2018-13053, CVE-2018-13096, CVE-2018-13097, CVE-2018-13100, CVE-2018-14610, CVE-2018-14611, CVE-2018-14612, CVE-2018-14613, CVE-2018-14614, CVE-2018-14616, CVE-2018-16862, CVE-2018-17972, CVE-2018-18281, CVE-2018-18690, CVE-2018-18710, CVE-2018-19407) (Bug 48782)


- *openssh* (CVE-2018-20685, CVE-2019-6109, CVE-2019-6111) (Bug 48780)
- *openssl1.0* (CVE-2018-0732, CVE-2018-0734, CVE-2018-0737, CVE-2018-5407) (Bug 48388)
- *php-pear* (CVE-2018-1000888) (Bug 48590)
- *php7.0* (CVE-2018-14851, CVE-2018-14883, CVE-2018-17082, CVE-2018-19518, CVE-2018-19935, CVE-2019-9020, CVE-2019-9021, CVE-2019-9022, CVE-2019-9023, CVE-2019-9024) (Bug 48309)
- *policykit-1* (CVE-2018-19788) (Bug 48307)
- *python-django* (CVE-2019-3498) (Bug 48464)
- *qemu* (Bug 47617)
- *qbase-opensource-src* (CVE-2018-15518, CVE-2018-19870, CVE-2018-19873) (Bug 48593)
- *rdesktop* (CVE-2018-8791, CVE-2018-8792, CVE-2018-8793, CVE-2018-8794, CVE-2018-8795, CVE-2018-8796, CVE-2018-8797, CVE-2018-8798, CVE-2018-8799, CVE-2018-8800, CVE-2018-20174, CVE-2018-20175, CVE-2018-20176, CVE-2018-20177, CVE-2018-20178, CVE-2018-20179, CVE-2018-20180, CVE-2018-20181, CVE-2018-20182) (Bug 48776)
- *sox* (CVE-2014-8145) (Bug 48783)
- *spice* (CVE-2019-3813) (Bug 48594)
- *systemd* (CVE-2018-16864, CVE-2018-16865, CVE-2018-16866, CVE-2019-3815, CVE-2019-6454) (Bug 48463, Bug 48499, Bug 48759)
- *uriparser* (CVE-2018-19198, CVE-2018-19199, CVE-2018-19200) (Bug 48784)
- *vlc* (Bug 48462)
- *wayland* (CVE-2017-16612) (Bug 48773)
- *wireshark* (CVE-2018-12086, CVE-2018-18225, CVE-2018-18226, CVE-2018-18227, CVE-2018-19622, CVE-2018-19623, CVE-2018-19624, CVE-2018-19625, CVE-2018-19626, CVE-2018-19627, CVE-2018-19628) (Bug 48409)
- *zeromq3* (CVE-2019-6250) (Bug 48500)
- The following updated packages from Debian 9.8 are included (Bug 48332): *ansible, arc, astroml-addons, base-files, c3p0, ca-certificates-java, chkrootkit, chromium, compactheader, coturn, courier, debian-edu-config, debian-installer-netboot-images, debian-installer, debian-security-support, dnspython, drupal7, egg, erlang, espeakup, flatpak, ganeti-os-noop, glx-alternatives, gnulib, gnupg2, golang-1.7, golang-1.8, graphite-api, grokmirror, ibus, icinga2, ikiwiki, isort, jdupes, kmodpy, libapache-mod-jk, libb2, libdatettime-timezone-perl, libemail-address-list-perl, libextractor, libgpod, libssh, libu2f-host, linux-igd, ltng-modules, mistral, monkeysign, mosquito, mpqc, netatalk, nvidia-graphics-drivers, nvidia-modprobe, nvidia-persistenced, nvidia-settings, nvidia-xconfig, openni2, openvpn, parsedatettime, pdns, pdns-recursor, photocollage, postfix, postgresql-9.6, postgrey, pylint-django, python-acme, python-arp, python-certbot-apache, python-certbot-nginx, python-certbot, python-hypothesis, python-josepy, pyzo, r-cran-readxl, rssh, rtkit, ruby-loofah, ruby-rack, ruby-sanitize, sl-modem, sogo-connector, ssh-agent-filter, supercollider, sympla, thunderbird, tmpreaper, twitter-bootstrap3, tzdata, uglifyjs, vm, vulture, wicd, wordpress, wvstreams, xapian-core, xen, xkeycaps, yosys, z3*

- The following packages have been moved to the maintained repository of UCS: *fail2ban* (Bug 47566), *libmaxminddb* (Bug 48409)
- All *debian/changelog* files have been updated to the machine-readable DEP-5 format. The copyright of all packages has been extended to 2019 (Bug 28499):

6.2. Basic system services


Feedback 

6.2.1. Linux kernel and firmware packages


Feedback 

- Always set UCR variable *update/reboot/required* when a new kernel is installed (Bug 48349).


6.3. Domain services

Feedback 

6.3.1. OpenLDAP


Feedback 

6.3.1.1. Listener/Notifier domain replication


Feedback 

- Implement new Univention Directory Notifier Protocol Version 3, which does not transmit Distinguished Names over an unencrypted and unauthenticated channel (Bug 48427).
- The new script *univention-replicate-many* can be used to re-replicate multiple objects at once (Bug 41262).

6.4. Univention Management Console


Feedback 

6.4.1. Univention Management Console web interface

Feedback 


- The recommended browser versions have been updated (Bug 47829).
- The Univention logo has been updated (Bug 48700).
- The feature of modern browsers to automatically fill out HTML form fields has been improved (Bug 46198).
- The design of the web interface has been improved (Bug 48471, Bug 48723).

6.4.2. Univention Portal

Feedback 


- The portal now has its own service. *univention-portal-server* filters entries that shall only be seen by users of certain groups in the backend, instead of serving all and the frontend hides them. Permissions on nested groups are now evaluated correctly (Bug 48358, Bug 48595).
- The portal can now be customized via a custom CSS file (Bug 48506).
- The user guidance in the portal has been improved. It is now possible to define whether users have to be logged in to visit the portal. Furthermore a custom message can be configured to show to users that are not logged in and would be presented with an empty portal otherwise (Bug 48546).
- The portal now depends on *netcat-openbsd* to ensure that its join script is IPv6 compatible (Bug 46556).

6.4.3. Univention Management Console server

Feedback 


- The errors from *pam_cracklib* are evaluated again when changing the password via Univention Management Console (Bug 48684).

6.4.4. Univention App Center

Feedback 


- The UMC module obtained a graphical overhaul and new filters (Bug 48449, Bug 48483, Bug 48846).
- It is now possible to show a preview of certain Apps that are not (yet) installable. These Apps can be voted for to get more insights whether users would want this App in the App Center (Bug 48472).
- The App Center is now able to handle Apps with install permissions. This describes App versions that can only be installed when the App has been bought from the Univention App Center store (Bug 48624, Bug 48544, Bug 48127, Bug 48753).

6.4.5. Univention Admin Diary

Feedback 


- There are two new UCS apps, the *Admin Diary Frontend* and the *Admin Diary Backend* (Bug 48675, Bug 48341, Bug 48717, Bug 48342, Bug 48343, Bug 48476).

6.4.6. Univention Directory Manager UMC modules and command line interface

Feedback 


- A singular and plural object name have been added for every module (Bug 48738).

6.4.7. Modules for system settings / setup wizard

Feedback 


- Make the software components for UCS available during installation when it is run in French (Bug 44162).

6.4.8. Domain join module

Feedback 


- Having multiple (virtual) network interfaces with the same MAC address caused the domain join to fail (Bug 48475).
- Copy `cn=translog` database for transaction log to backup domain controller while joining (Bug 48427).

6.4.9. Users module

Feedback 

- A new tab **Apps** has been added to users, which allows to enable and disable apps (Bug 48621, Bug 48839).
- The wizard for creating new users now allows to use an e-mail invitation for that user instead of setting an initial password (Requires the App *Self Service*) (Bug 48660).

6.4.10. System diagnostic module

Feedback 


- Use new Univention Directory Notifier Protocol Version 3 for check (Bug 48427).
- Fixed error in Check well known SIDs system diagnostic test (Bug 48477).
- Added command line tool `univention-run-diagnostic-checks` which can be used to execute the diagnostic checks (Bug 47650).
- A typo has been fixed in the error output of the Kerberos DDNS update check (Bug 48385).
- The proxy server test has been fixed (Bug 48385).

6.4.11. Filesystem quota module

Feedback 


- Quotas on XFS file systems are shown again on the Univention Management Console (Bug 48315).

6.4.12. Other modules

Feedback 


- A crash in the UCS management system module is prevented if widget definitions are configured via Univention Configuration Registry variables (Bug 48494).

6.5. Univention base libraries

Feedback 


- Support activation of the `cn=monitor` backend for statistical information. To activate this, set Univention Configuration Registry variable `ldap/monitor` to `true` and restart the LDAP server service (`slapd`) (Bug 41213).
- Add `cn=translog` database for transaction log (Bug 48427).
- During the update, a resynchronization of the listener module `ldap_extension` is performed on backup domain controller and slave domain controller systems to correct possible inconsistencies in LDAP ACLs (Bug 48530).
- Enabled `cn=config` backend, accessible via `ldapi:///` only (Bug 43515).
- Add *univention-lib* implementation of `die()` function to `ldap.sh` (Bug 47424).
- Due to a logic error it could happen that not all LDAP ACL registered in LDAP were active on newly installed master domain controller systems. This could lead to information disclosure or replication errors. The error is now fixed and when updating the *univention-ldap-server* package, missing LDAP ACLs are automatically activated (Bug 48530).
- Do not send cron mails for a successful `ldap-backup` cron job (Bug 48014).
- The syntax class `mailinglist_name` was integrated into `syntax.py` (Bug 48383).

6.6. Software deployment


Feedback 

- The repository tools `univention-repository-addpackage`, `univention-repository-delpackage` and `univention-repository-merge` are deprecated and are removed with UCS-4.4 (Bug 29505).
- The packages index files under `dists/` are now also mirrored. This is required for the PXE network installer (Bug 46600).
- Added the Univention Configuration Registry variable `update/debug/level` for changing the debug level of the UCS updater (Bug 47913).
- The error message complaining about the missing `postmirror.sh` file is no longer displayed (Bug 27761).
- When mirroring distributions the default architecture was not detected correctly and URLs were scheduled for download multiple times (Bug 48424).
- The updater scripts `preup.sh` and `postup.sh` have been adapted to the needs of UCS 4.4 (Bug 48808).
- The updater has been fixed to work with a local repository only initialized by `univention-repository-create` from DVD (Bug 48910).
- `univention-repository-create` now checks if *univention-debmirror* is installed before installing it (Bug 48151).

6.7. System services


Feedback 

6.7.1. SAML

Feedback 


- The *univention-saml* Apache *VirtualHost* configuration can now be extended by placing `.conf` files in the directory `/etc/apache2/sso-vhost.conf.d/` (Bug 48348).

6.7.2. Univention self service

Feedback 


- If the self service is installed, a daemon on the master domain controller now sends an invitation email to users that were created with respective settings in the UMC (Bug 48446).
- It is now possible to define attributes a self service user can modify with the Univention Configuration Registry variables `self-service/ldap_attributes` and `self-service/udm_attributes` (Bug 48447, Bug 48710)

6.7.3. Printing services

Feedback 

- Allow switching to None, smb (raw) printer model (Bug 47843).
- Ensure `/usr/share/cups/model` is a link to `/usr/share/ppd/` (Bug 47435).

6.7.4. Nagios

Feedback 


- Fixed a local root exploit in the SUID wrapper for the Nagios check `univention_ldap` (Bug 48616).
- Fixed an uncaught type error in the *nagios-server* listener (Bug 43426).

6.7.5. RADIUS

Feedback 

- Network access servers for example wireless access points can now be configured with Univention Directory Manager. Any existing `clients.conf` is not converted and can still be used to configure clients manually (Bug 25935). Switch to Python `passlib` for DES encryption (Bug 48460). Move `clients.conf.example` into the right folder (Bug 46561). Improved logging for *univention-radius-ntlm-auth* which is used by FreeRADIUS to authenticate users. Log entries are written to `radius_ntlm_auth.log`. The log level can be adjusted with the Univention Configuration Registry variable `freeradius/auth/helper/ntlm/debug`. Internal changes to enable the UCS@school RADIUS implementation to build upon the *univention-radius* package (Bug 46018).

6.8. Virtualization

Feedback 


6.8.1. UCS Virtual Machine Manager (UVMM)

Feedback 


- Normalize CPU utilization of host and update error and migration status atomically (Bug 48340).
- Show CPU usage in tree of virtualization hosts (Bug 35196).
- Fix tooltips preventing button clicks (Bug 45498).
- Add Hyper-V Enlightment for Windows VMs (Bug 48024).
- The target hosts for live migration can now be configured even when the virtual machine is running (Bug 48199).

- Fix parsing memory and disk capacity (Bug 36661).
- Fix file permissions of backup directory (Bug 47741).
- Add support for post-copy migration (Bug 47617).
- Small layout adjustments for the updated UMC design (Bug 48859, Bug 46198, Bug 48471)
- Add RAM overcommitment protection through Univention Configuration Registry variable `uvmm/over-commit/reserved` (Bug 48901).

6.9. Services for Windows


Feedback 

6.9.1. Samba

Feedback 


- The `samba-tool ntacl sysvolcheck` didn't map owner LA to DA properly while checking, leading to irritating, unnecessary error messages (Bug 44282).
- The package *samba* has been updated to version `4.10.0~rc2` (Bug 48084).
- Accounts for service principals are now created with UDM (Bug 47955).
- Activation of UCS@school specific LDB modules has been moved from `97libunivention-ldb-modules.inst` to `96univention-samba4.inst` to simplify package structure (Bug 47955).

6.9.2. Univention S4 Connector

Feedback 

- Moving objects in UCS with a LDAP base different in UCS and Samba has been fixed (Bug 48362).
- Password synchronization has been adjusted to Samba 4.10 (Bug 48142).

6.10. Other changes

Feedback 

- The package *univention-errata-level* has been updated to reset the Univention Configuration Registry variable `version/erratalevel` to 0 (Bug 48654).
- For security reasons all join scripts now use a password file (Bug 46969).
- Hooks have been added to the join process (Bug 47940, Bug 48801).
- The join status file is now reset a second time right after the join hooks of type `join/pre-joinscripts` have been called. This prevents join problems on backup domain controller system in case the join hook installed additional software (Bug 48751).