

UCS 3.1 Release Notes



Version 3.1

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1 Release-Highlights

Mit Univention Corporate Server 3.1 steht das erste Minor Update für Univention Corporate Server (UCS) 3.0 zur Verfügung. Es umfasst eine Reihe umfangreicher Funktionserweiterungen und -verbesserungen, neue Eigenschaften sowie diverse Detailverbesserungen und Fehlerkorrekturen.

Die wichtigen Neuerungen im folgenden:

- Univention App Center erlaubt die einfache Einbindung von Softwarekomponenten in eine UCS-Installation. Die Applikationen werden sowohl von Drittanbietern wie auch von Univention selbst (z.B. UCS@school) bereit gestellt. Der Kauf von Lizenzen, Maintenance oder Support für die Applikation verläuft über den jeweiligen Hersteller und nicht über das App Center.
- Das neue Werkzeug Univention AD Takeover erlaubt die einfache Migration eines Microsoft Active Directory-Verzeichnisses auf eine UCS-Installation mit Samba 4. Dabei werden alle Benutzer, Gruppen und Rechnerkonten nebst ihrer Passwörter und Gruppenrichtlinien übernommen. Ein erneuter Domänenbeitritt der Windows-Clients ist nicht notwendig.
- Microsoft Windows 8 und Microsoft Windows Server 2012 werden jetzt unterstützt. Die dafür eingesetzten Samba-Versionen wurden aktualisiert (Samba 4 auf 4.0rc6 und Samba 3 auf 3.6.8)
- Der Linux-Kernel wurde auf Version 3.2.30 aktualisiert und unterstützt dadurch deutlich mehr und aktuellere Hardware.
- Der Univention Installer unterstützt nun auch Systeme mit dem UEFI-Bootstandard. Außerdem wird die Installation nun standardmässig im GUID Partition Table Standard vorgenommen, was eine effizientere Partitionierung erlaubt.
- Die Netzwerkkonfiguration für Bridges, VLANs und Bonding ist nun mittels Univention Configuration Registry einfacher abbildbar.
- Zahlreiche Performanceverbesserungen für Umgebungen mit mehreren Zehntausend Benutzern wurden vorgenommen, z.B. für die Gruppenauflösung.
- Zahlreiche Detailverbesserungen bei der Usability im Managementsystem wurden vorgenommen, z.B. können häufig verwendete UMC-Module nun in einem Favoritenbereich hervorgehoben angezeigt werden. Außerdem wurde das Dojo-Framework auf Version 1.8 aktualisiert.
- Die Dokumentation steht nun unter <http://docs.univention.de> auch als Online-Variante im HTML-Format bereit.
- Der UCS-Virtualisierungs-Stack wurde aktualisiert; Xen liegt nun in Version 4.1.3 vor, QEMU/KVM in Version 1.1.2 und libvirt in Version 0.9.12.

2 Empfohlene Update-Reihenfolge für Umgebungen mit mehr als einem UCS-Server / Update von Systemen mit UCS-Komponenten

In Umgebungen mit mehr als einem UCS-System muss die Update-Reihenfolge der UCS-Systeme beachtet werden:

Auf dem Domänencontroller Master wird die maßgebliche (authoritative) Version des LDAP-Verzeichnisdienstes vorgehalten, die an alle übrigen LDAP-Server der UCS-Domäne repliziert wird. Da bei Release-Updates Veränderungen an den LDAP-Schemata auftreten können (siehe Kapitel 3.4.1 des Handbuchs [1]) muss der Domänencontroller Master bei einem Release-Update immer als erstes System aktualisiert werden.

Generell ist es empfehlenswert alle UCS-Systeme möglichst in einem Wartungsfenster zu aktualisieren.

2.1 Hinweise zu Umgebungen mit anderer Dritt-Software

Bei der Verwendung von 3rd-Party-Software ist generell **vor** dem Update mit dem Hersteller/Vertriebspartner der Software zu klären, ob diese mit der neuen Version von Univention Corporate Server weiterhin uneingeschränkt einsetzbar ist.

Die Hersteller/Vertriebspartner von auf Univention Corporate Server basierenden Produkten sorgen eigenständig für die Veröffentlichung. Updates müssen daher von dort bezogen werden.

Falls Ihnen von Univention angepasste Paketversionen bereitgestellt wurden, so sollte geprüft werden, ob durch die Aktualisierung angepasste Pakete überschrieben werden — vorzugsweise in einer Testumgebung. Sollten Sie hier Probleme feststellen, so wenden Sie sich bitte an Univention.

3 Vorbereitung des Updates

Es sollte geprüft werden, ob ausreichend Festplattenplatz verfügbar ist. Eine Standard-Installation benötigt min. 6 GB Speicherplatz. Das Update benötigt je nach Umfang der vorhanden Installation mindestens 1 GB weiteren Speicherplatz zum Herunterladen und Installieren der Pakete.

Für das Update sollte eine Anmeldung auf der Console mit dem Benutzer **root** durchgeführt und das Update dort gestartet werden. Alternativ kann das Update über die Univention Management Console durchgeführt werden.

Eine Remote-Aktualisierung über SSH wird nicht empfohlen, da dies beispielsweise bei Unterbrechung der Netzverbindung zum Abbruch des Update-Vorgangs und zu einer Beeinträchtigung des Systems führen kann. Sollte dennoch eine Aktualisierung über eine Netzverbindung durchgeführt werden, ist sicherzustellen, dass das Update bei Unterbrechung der Netzverbindung trotzdem weiterläuft. Hierfür können beispielsweise die Tools `screen` oder `at` eingesetzt werden, die auf allen Systemrollen installiert sind.

4 Nachbereitung des Updates

Nach dem Update sollte auf allen Systemen der Befehl `univention-run-join-scripts` als Benutzer **root** aufgerufen und das UCS-System neu gestartet werden.

4.1 Migration auf Grub 2

Bei einer Neuinstallation ab UCS 3.0 wird vom Univention Installer direkt GRUB 2 in den Bootsektor geschrieben.

Bei einem Update bleibt GRUB 1 im Master Boot Record (MBR) installiert. GRUB 2 richtet einen Eintrag "Chainload into Grub" ein, der dann das eigentliche GRUB 2 lädt.

Eine Dokumentation, um auch auf aktualisierten Systemen Grub 2 direkt in den MBR zu schreiben wird später bereitgestellt ([Bug #23544](#)).

4.2 Migration von PostgreSQL 8.3 auf PostgreSQL 8.4

Ab UCS 3.0 wird neben PostgreSQL 8.3 auch PostgreSQL 8.4 angeboten. Bei Aktualisierungen von Systemen mit PostgreSQL 8.3 auf UCS 3.0 wird aber die installierte PostgreSQL Version beibehalten.

Das Update auf PostgreSQL 8.4 ist im SDB-Artikel <http://sdb.univention.de/1220> beschrieben.

4.3 Anpassung der Passwort-Richtlinien beim Einsatz von Samba 4

Ab UCS 3.1 werden die Einstellungen des Samba-Domänenobjekts (zu finden im Modul **LDAP-Verzeichnis** der Univention Management Console im Container **samba**) mit den Samba-Passwordeinstellungen synchronisiert. Nach dem Update auf UCS 3.1 greifen dann die strikteren Einstellungen aus Samba 4.

Die Einstellungen sollten nach dem Update geprüft und ggf. angepasst werden. Hinweise zur Konfiguration finden sich im Kapitel 5.3 des UCS 3.1-Handbuchs (Passwort-Einstellungen für Windows-Clients bei Verwendung von Samba 4).

Insbesondere wenn bisher kein maximales Passwortalter am Samba-Domänenobjekt gesetzt war, sollte nach dem Update das maximale Passwortalter in Samba 4 durch Ausführung des folgenden Kommandos ebenfalls auf den speziellen Wert 0 gesetzt werden:

```
samba-tool domain passwordsettings set --max-pwd-age 0
```

4.4 Anpassung der Dateisystem-Zugriffsrechte für Gruppenrichtlinienobjekte in der Sysvol-Freigabe

Die in UCS 3.1 eingesetzte Version von Samba 4 verwendet ein überarbeitetes VFS-Modul zur Speicherung von Dateizugriffsrechten (NTACLs und fACLs). Nach dem Update sollte der folgende Befehl einmalig auf allen UCS 3.1 Domänencontrollern mit Samba 4 aufgerufen werden:

```
samba-tool ntacl sysvolreset
```

Wegen der Sysvol-Replikation sollte das Kommando als erstes auf dem System aufgerufen werden, das den Univention S4 Connector bereitstellt, d.h. in den meisten Fällen zuerst auf dem Domänencontroller Master.

4.5 Umstellung des Univention Net Installers für Installationen auf Basis von UCS 3.1

Der Univention Net Installer bezieht seine Pakete aus einem lokalen Repository. Wurde ein lokales Repository mit UCS 3.0 aufgesetzt und der Univention Net Installer eingerichtet, muss nach dem Update die UCS-DVD heruntergeladen und der folgende Befehl aufgerufen werden, um Systeme mit UCS 3.1 installieren zu können:

```
univention-repository-create -i UCSISOIMAGEDATEI
```

5 Hinweise zum Einsatz einzelner Pakete

5.1 Bootprobleme bei Verwendung der UEFI-Installations-DVD

Ab UCS 3.1 steht für amd64 neben der Standard-Installations-DVD auch ein Medium mit Unterstützung für den Unified Extensible Firmware Interface-Standard (UEFI) bereit.

Auf Systemen, die nur einen UEFI-Start unterstützen, kann sie anstelle der Standard-DVD verwendet werden.

5.2 Umfang des Sicherheits-Supports von Webkit, Konqueror und QtWebKit

WebKit, Konqueror und QtWebKit werden in UCS im maintained-Zweig des Repositorys mitgeliefert, aber nicht durch Sicherheits-Updates unterstützt. Webkit wird vor allem für die Darstellung von HTML-Hilfeseiten u.ä. verwendet. Als Web-Browser sollte Firefox eingesetzt werden.

5.3 Empfohlene Browser für den Zugriff auf die Univention Management Console

Univention Management Console verwendet für die Darstellung der Web-Oberfläche zahlreiche Javascript- und CSS-Funktionen. Cookies müssen im Browser zugelassen sein. Die folgenden Browser werden empfohlen:

- Chrome ab Version 14
- Firefox ab Version 10
- Internet Explorer ab Version 9
- Safari (auf dem iPad 2)

Auf älteren Browsern können Darstellungs- oder Performanceprobleme auftreten. Die Einrichtung einer aktuellen Firefox-Version unter UCD 3.1 ist im Univention Wiki [\[2\]](#) dokumentiert.

5.4 Aktivierung der Passwortrotation für Samba 4-Domänencontroller

Die Rotation der Passworte von Samba 4 Domänencontrollern wird beim Update wieder aktiviert. Dies ist wichtig, weil sich die domänenweite Einstellung für das maximale Passwortalter unter Samba 4 auch auf Domänencontroller bezieht. Falls die Passwortrotation der Domänencontroller nicht gewünscht ist, kann sie auf jedem Domänencontroller einzeln durch Setzen der Univention Configuration Registry-Variable `server/password/change` auf **no** deaktiviert werden.

5.5 Einschränkungen im Samba 4-Betrieb

Die aktuell vom Samba-Projekt veröffentlichten Versionen von Samba 4 unterliegen in der Weiterentwicklung noch stärkeren Änderungen als Samba 3. Einige Funktionalitäten stehen daher noch nicht vollständig zur Verfügung:

- Microsoft Windows Domänencontroller dürfen aktuell nicht in eine Samba 4-Domäne gejoint werden.
- Eine selektive Replikation ist mit Samba 4 nicht möglich, da diese durch Active Directory prinzipiell nicht unterstützt wird (in UCS@school basiert die selektive Replikation auf der Listener/Notifier-Replikation).
- Samba 4 unterstützt aktuell keine Forest-Domänen.
- Samba 4 unterstützt aktuell keine Vertrauensstellungen.

Weitere Hinweise finden sich in Kapitel 8 des UCS-Handbuchs [1].

5.6 Deaktivierung der Generierung von LM-Hashes

In Samba 3 wurden die Passwörter von Benutzern im LM-Hashverfahren gespeichert. In Umgebungen mit UCS 3.x sind diese Hash-Einträge nicht mehr nötig.

Ab UCS 3.1 werden keine LM-Hashes mehr generiert. Das alte Verhalten kann durch Setzen der Univention Configuration Registry-Variable `password/samba/lmhash` auf **true** wieder aktiviert werden.

5.7 Grafikkarten-Treiberunterstützung

UCS bringt eine minimale Desktopumgebung mit, die einen Zugriff auf die UCS-Webschnittstellen oder eine initialen Konfiguration des Systems ermöglicht. Ab UCS 3.1 wird der Nouveau-Treiber nicht mehr unterstützt, auf Systemen mit Nvidia-Grafikkarten sollte der VESA-Treiber verwendet werden.

5.8 Installation in VirtualBox

Bei der Installation von UCS in der Virtualisierungslösung VirtualBox vor Version 4.2 kann folgender Bug auftreten: Wenn von der Installations-DVD gebotet wird bietet GRUB die Option **Boot from first harddisk partition** an. Wählt man diese Option aus, friert VirtualBox ein.

Als Workaround muß vor dem Neustart der UCS-VM entweder die Installations-DVD aus den Laufwerkeinstellungen der VirtualBox-VM entfernt werden oder beim Start der virtuellen Instanz F12 gedrückt werden und die Festplatte als Bootpartition ausgewählt werden.

5.9 Migration einer Samba 3-Umgebung auf Samba 4

Es existieren zwei grundlegende Verfahren zur Migration von Samba 3 auf Samba 4:

- Aufbau einer parallelen Samba 4-Domäne. Beide Domänen verwenden unterschiedliche NetBIOS-Namen und SIDs. Die Clients treten dann schrittweise der Samba 4-Domäne bei.

- Migration aller Systeme innerhalb eines Wartungsfensters.

Beide Verfahren sind im Univention Wiki ausführlich dokumentiert:
http://wiki.univention.de/index.php?title=Migration_from_Samba_3_to_Samba_4.

5.10 Xen

Wenn der Xen Hypervisor benutzt wird und das Speicherlimit über die Univention Configuration Registry-Variable `grub/xenopt` begrenzt wurde, sollte der Wert aktualisiert und um die `,max:-`Angabe erweitert werden. Weitere Details in der [UVMM Quickstart Anleitung](#).

6 Changelog

Die Changelogs mit den detaillierten Änderungsinformationen werden ab UCS 3.0 nur noch in Englisch gepflegt. Aufgeführt sind die Änderung seit UCS 3.0-2.

6.1 General

- The Debian Squeeze 6.0.6 point update has been integrated. It provides many bugfixes ([Bug #28490](#)). The update also fixes some security issues:
 - libotr (CVE-2012-3461) ([Bug #28177](#))
 - devscripts (CVE-2012-2240, CVE-2012-2241, CVE-2012-2242, CVE-2012-3500) ([Bug #28392](#))
 - nss (CVE-2012-0441) ([Bug #27488](#))
 - mono (CVE-2012-3382) ([Bug #27867](#))
 - libxslt (CVE-2011-1202 CVE-2011-3970 CVE-2012-2825) ([Bug #25686](#))
 - vte (CVE-2012-2738) ([Bug #27696](#))
 - apache2 (CVE-2012-2687) ([Bug #27730](#))
 - network-manager (CVE-2012-2736) ([Bug #25609](#))
 - postgresql-8.4 (CVE-2012-3488, CVE-2012-3489) ([Bug #28253](#))
 - openoffice.org (CVE-2012-1149, CVE-2012-2334, CVE-2012-2665) ([Bug #27192](#))
- Several packages have been converted to use the common shell library to create their initial log files ([Bug #24730](#)).
- The copyright files of the Univention packages have been reviewed. Some copyright files were clarified ([Bug #26440](#)).
- The UCS 3.0 errata updates 94 to 133 have been integrated ([Bug #28147](#))

6.2 Univention Installer

- The partition module of the installer was completely overhauled. It now uses GUID partition tables (GPT) instead of a master boot record (MBR). This results in the following changes: ([Bug #23990](#), [Bug #25065](#), [Bug #26045](#), [Bug #28263](#), [Bug #28552](#))
 - The GPT uses 64 bit values and is LBA-only, so the previous limitation of 2 terabytes no longer exists (up to 9 zetta bytes may be addressed now using up to 127 partitions).

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- Although GPT is part of the extensible firmware interface (EFI), UCS can also boot from GPT disks if the system does not support (U)EFI.
 - Some spare space is reserved for later use at the beginning (16 MiB) and at the end (128 MiB) of the disk.
 - The partition module offers up to 5 different partition types: data, swap, LVM, BIOS boot and EFI system. The LVM type is only shown if enabled by the user.
 - All new partitions will be aligned at 1 MiB boundaries. This avoids performance issues on hard-disks or solid state disks using 4k sectors.
 - An existing MBR may be converted to GPT. Please make sure in advance, that other operating systems on that harddisks are able to handle a GPT correctly. The order of partitions may vary during conversion, so the conversion process may influence other operating systems.
 - If for some reason the old partitioning module is needed, it may be activated in the GRUB menu of the DVD under **Additional options** → **Univention Installer MBR Mode (deprecated)**.
 - The default partition sizes for automatic partitioning have been altered:
 - * **BIOS boot**: 8 MiB or **EFI system**: 256 MiB
 - * **/boot**: 512 MiB
 - * **swap**: minimum 512 MiB; up to 10 GiB
 - * **/:** at least 4 GiB
 - The amd64 installation DVD now supports the installation on systems with the **extensible firmware interface** (EFI). EFI is detected automatically by Univention Installer ([Bug #28672](#)) and the following changes are made:
 - Creation of EFI system partition instead of a BIOS boot partition during automatic partitioning
 - Installation of an EFI-capable Grub configuration
 - Configuration of a new EFI boot entry for GRUB
- In case of a erroneous detection of EFI, the use of EFI may be forced by a new GRUB kernel parameter `use_efi=yes/no`.
- The join credentials are now tested before the installation proceeds ([Bug #7444](#), [Bug #29286](#)).
 - The test for a valid windows domain name in the **Basic settings** dialogue now performs additional checks ([Bug #26027](#)).
 - The description of base systems has been improved ([Bug #25606](#)).
 - The installer now ignores deprecated files when copying the script directory during installation ([Bug #25595](#)).
 - The `/etc/fstab` file is now created using UUIDs instead of device names ([Bug #17018](#)).
 - A bug in the CDROM drive detection has been fixed that could lead to a traceback if no drive had been found ([Bug #28512](#)).
 - A filesystem check for ext* filesystems is now performed after the installation ([Bug #25284](#)).
 - The kernel modules for kernel-based modesetting (KMS) have been removed from the installer ram-disk ([Bug #28267](#)).

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- The password of the root user is now hashed with sha-512 ([Bug #28271](#)).
- The dialogue to configure the bootloader now ignores device mapper devices ([Bug #9936](#)).
- Network configuration via DHCP is now possible for all system roles ([Bug #26417](#)).
- The package **python-univention-lib** is now installed earlier to prevent package dependency problems ([Bug #27962](#)).
- Before the domain join, the network is started using the networking init script instead of using `ifup` ([Bug #27931](#)).
- Network interfaces are not reconfigured during installation anymore. This fixes problems with incompletely configured IPv6 interfaces in IPv6-only setups ([Bug #28473](#)).
- Various code cleanups have been made in the installer scripts ([Bug #28374](#)).
- Existing LVM PV signatures of already existing partitions will be now removed, before any new LVM physical volume gets created ([Bug #18771](#)).
- A traceback in the partitioning module has been fixed that could be triggered by LVM physical volumes that are not assigned to any volume group ([Bug #25185](#)).
- The handling of custom installer scripts in the installer has been fixed ([Bug #28394](#)).
- During startup, the installer now waits for the udev driver initialization ([Bug #20797](#)).

6.2.1 Profile-based installation

- The profile-based installation was adapted to the GPT changes: Old profiles remain valid, but will continue to use only the deprecated MBR mode of the Univention installer. To use the GPT mode, small changes have to be done to the profile's partitioning variables. Please check the extended installation documentation manual for a detailed variable description.
- The auto partitioning now automatically creates an additional BIOS boot partition and a EFI system partition.
- A bug in the partitioning module concerning LVM partitions has been fixed ([Bug #13936](#)).
- A bootloader record entry in the installation profile is now only required for systems with more than one hard disk ([Bug #9936](#)).
- The installation profiles shipped on the installation DVD now use GPT as partition table type ([Bug #29255](#)).
- Fixed a missing confirmation dialog when pressing F12 ([Bug #29277](#)).

6.3 Upgrade provisions (preup and postup scripts)

- The update scripts **preup.sh** and **postup.sh** have been adjusted to UCS 3.1 ([Bug #28393](#), [Bug #29208](#), [Bug #29212](#)).
- Apache and the Univention Management Console are no longer restarted in **postup.sh** ([Bug #27925](#)).

- **univention-legacy-kolab-schema** will be marked as manually installed in **preup.sh** to avoid the autoremove of this package ([Bug #28900](#)).
- An update to UCS 3.1 is prevented if packages are marked as **hold** ([Bug #19915](#)).
- An update to UCS 3.1 is prevented when the 2.6.32 meta package for non-PAE (physical address extension) systems is installed on a system capable of PAE ([Bug #29384](#)).

6.4 Basic system services

6.4.1 Linux kernel and firmware packages

- The Linux kernel and associated tools and firmware packages have been updated to version 3.2.30. The meta packages have been updated and simplified ([Bug #26297](#), [Bug #27456](#), [Bug #28157](#)). The update also fixes a number of security issues (CVE-2010-4805,CVE-2011-1083,CVE-2011-1747,CVE-2011-2695,CVE-2011-3347,CVE-2011-4131, CVE-2012-2119,CVE-2012-2121,CVE-2012-2136,CVE-2012-2313,CVE-2012-2319,CVE-2012-2375,CVE-2012-2390,CVE-2012-3375, CVE-2012-2745,CVE-2012-3400,CVE-2012-3430,CVE-2011-3347,CVE-2012-3412,CVE-2012-3511) and a filesystem corruption bug when using sparse files with XFS ([Bug #26255](#)). It should be noted that the 486 kernel variant no longer supports SMP, you should use the 686 flavour instead.
- The blktpatch (needed for Xen) was integrated into the 3.2.30 kernel package ([Bug #28176](#)).
- DKMS has been integrated to ease the build of external kernel modules ([Bug #16542](#)).

6.4.2 Univention Configuration Registry

6.4.2.1 Changes to templates and modules

- Variable descriptions were added for several variables ([Bug #28134](#)).
- The template for `/etc/network/interfaces` was converted to a multifile template and now supports more complex network configurations like bridging, bonding and virtual local area networks ([Bug #26058](#)).

6.4.2.2 Internal changes

- Univention Configuration Registry variable descriptions for unset variables are now also shown when searching for variables ([Bug #18254](#)).
- Error messages are now redirected to the standard error output ([Bug #23968](#)).
- When multiple patterns match the name of a Univention Configuration Registry variable the longest match is applied first ([Bug #28131](#)).
- The `univention-install-config-registry-info` and `univention-install-service-info` commands now provide more detailed error messages ([Bug #18507](#), [Bug #3952](#)).
- The `ldapsearch-wrapper` command now also handles tabulator characters correctly ([Bug #27842](#)).

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- Multifile templates now also support calling Python modules before and after changes ([Bug #28229](#)).
- In the header of files generated by a multifile template, the list of source template file names is now sorted ([Bug #26886](#)).
- The tab completion of **ucr set** has been changed: The value is now put in single quotes to protect it from being evaluated ([Bug #27573](#)).
- The `ucr randpw` functionality has been removed ([Bug #28431](#)).
- Univention Configuration Registry now always uses local diversions of configuration files ([Bug #28750](#)).
- Removing a package contributing a subfile to a multifile template leads to the diversion being removed. The function `ConfigHandlers.unregister()` function has been changed to only return a set of obsolete handlers instead of a set of all affected handlers ([Bug #26476](#)).

6.4.3 Network interface configuration

- Network Manager is no longer supported on servers. The package **univention-network-manager** can be safely removed after the upgrade ([Bug #26609](#)).
- Host routes are now correctly handled for virtual network interfaces ([Bug #27198](#)).
- The host addresses in `/etc/hosts` are now ordered by the network interface name ([Bug #19440](#)).
- `univention-ipcalc` and `univention-ipcalc6` now provide a **--help** option. The calculation of reverse DNS zones has been fixed ([Bug #25626](#), [Bug #28143](#)).
- If the UCS system is configured as a DHCP client, the nameservers configured via Univention Configuration Registry are used as first nameservers ([Bug #27939](#)).
- The fallback link local address is now configured as a class B network ([Bug #28468](#)).
- The IP range 169.254.0.x has been removed from the link local address range ([Bug #28468](#)). **univention-register-network-address** will correctly refresh the related PTR DNS record ([Bug #27937](#)).
- The packages required to configure bridging, bonding and VLANs are now installed by default ([Bug #29115](#)).

6.5 Domain services

6.5.1 OpenLDAP

- OpenLDAP has been updated to version 2.4.31 ([Bug #27992](#)). This update also fixes a minor security issue in two modules, which are not enabled by default ([Bug #26473](#)).
- During the update the group **DC Slave Hosts** will be added to the group **Computers** ([Bug #20334](#)).
- A segmentation fault in the OpenLDAP overlay module **k5pwd** was fixed ([Bug #28166](#)).
- A description for the Univention Configuration Registry variable `ldap/replication/preferredpassword` has been added ([Bug #18389](#)).

- The libnss-ldap/NSCD caching handling for the group resolution has been replaced with a dump of the LDAP groups and memberships to a single file (`/var/lib/extrausers/group`) which is used by nss-extrausers. The dump can be triggered via cron and with a listener module (***nss.py***). The update to UCS 3.1 does these changes automatically. The old mechanism can be re-configured via UCR, for example:

```
ucr set nss/group/cachefile=no
ucr set nscd/group/enabled=true
ucr nscd/group/invalidate_cache_on_changes=true
invoke-rc.d nscd restart
invoke-rc.d univention-directory-listener restart
```

([Bug #28361](#)).

- The new Univention Configuration Registry variable `nss/group/cachefile/check_member` defines whether the group members should be re-checked in the LDAP directory ([Bug #28401](#)).

6.5.2 Listener/Notifier domain replication

- A debug message has been changed from debug level WARNING to INFO ([Bug #26916](#)).
- The tool ***univention-replicate-one*** has been added to re-replicate one given LDAP object. The tool ***univention-directory-replicate-one*** has been removed ([Bug #27625](#)).
- Several memory leaks, out-of-memory conditions and a file descriptor leak have been fixed ([Bug #27330](#), [Bug #27729](#), [Bug #28417](#)).
- The locking used by the Listener and Notifier daemons has been changed to be atomic ([Bug #27730](#), [Bug #28417](#)).
- The implementation of the extended LDAP filter has been removed ([Bug #27329](#)).
- The reporting of errors in Listener modules has been improved ([Bug #27376](#)).
- The old name `univention-ldap-listener` is deprecated since UCS 2.0. The old compatibility link has been removed ([Bug #28414](#)).
- The handling of the Listener cache path has been fixed ([Bug #27314](#)).
- Various internal implementations details in the Listener daemon have been cleaned up ([Bug #27315](#)).
- On new UCS installations the values for the `listener/uniquemember/skip` and `listener/uniquemember/skip` will be set to ***no***. This means the listener no longer checks if duplicated entries are set for uniqueMember or memberUid during the replication ([Bug #19491](#)).
- LDAP move/rename operations used to be replicated as separate delete and add operations. They are now replicated as a rename operation ([Bug #20605](#)).
- The script `univention-update-memberof` from the ***univention-ldap-overlay-memberof*** package now modifies group objects instead of removing and adding the membership attributes ([Bug #27955](#)).

6.5.3 Domain joins of UCS systems

- DHCP entries are again created for managed and mobile clients ([Bug #28209](#)).

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- Using a password file for joining UCS systems has been fixed ([Bug #19430](#), [Bug #28789](#)).
- The error reporting in join script execution has been fixed ([Bug #27753](#)).
- The join of Univention Corporate Client systems to a UCS domain controller is now supported ([Bug #28570](#)).
- **univention-management-console-server** and **univention-management-console-web-server** are now restarted during join.
- **univention-join** now compares the UCS versions of the joined system and the master domain controller. The version of the master domain controller has to be higher or equal to the version of the joined system. This test can be disabled via the command line parameter **-disableVersionCheck** ([Bug #25824](#)).
- The Univention Management Console join module now displays the correct status of join scripts ([Bug #28067](#)).

6.6 Univention Management Console

6.6.1 Univention Management Console web interface

- The overall performance of the web interface was improved both in terms of memory consumption and speed. Nonetheless, a warning is shown in the overview if using an old (slow) browser (IE 8 or FF 3.6) ([Bug #27432](#), [Bug #29249](#)).
- A global limit for LDAP search results in domain related UMC modules has been added in order to avoid long loading times. The exact value can be controlled via Univention Configuration Registry variable `directory/manager/web/sizelimit`, its default value is 2000 ([Bug #28248](#)).
- Users can add (and remove) their favourite modules to a prominent place at the module overview ([Bug #28074](#), [Bug #28800](#), [Bug #29236](#)).
- If only one module is available, it will be opened directly and the overview page will be hidden ([Bug #26901](#)).
- The Univention Configuration Registry variable `umc/web/feedback/mail` configures the email address for feedback emails ([Bug #27702](#)).
- The help dialog can now be replaced ([Bug #27627](#)).
- A notification is displayed if the UMC page requires a reload ([Bug #24947](#)).
- The ordering of modules and categories at the overview was made explicit and can now be customized ([Bug #26961](#)).
- The containers to be searched in the UMC modules are now ordered alphabetically ([Bug #28069](#)).
- UMC modules and flavours can now be deactivated the Univention Configuration Registry variable `umc/module/MODULENAME/disabled` and the Univention Configuration Registry variable `umc/module/MODULENAME/FLAVORNAME/disabled` ([Bug #26721](#)).
- Problems with non-responding sessions for UMC domain management modules have been corrected ([Bug #28108](#)).
- The online documentation link have been added to the documentation links ([Bug #29101](#)).

6.6.2 Univention Management Console server

- The ACL evaluation has been changed to improve the login performance of UMC in large environments ([Bug #26490](#)).
- Fixed error handling of the UMC server for invalid Univention Configuration Registry requests options ([Bug #27875](#)).
- A traceback related to a missing type check, which occurred in rare cases, was fixed ([Bug #28102](#)).
- Fixed module crashes if the response datatype doesn't support the *in* operation ([Bug #28182](#)).
- The processing of certain GET commands has been fixed ([Bug #27850](#)).
- Fixed various server crashes caused by malformed request data ([Bug #28140](#)).
- A join script for the UMC web server has been added. During a join on the command line with *univention-join* UMC will now be restarted ([Bug #11925](#)).

6.6.3 Univention Management Console / Univention Directory Manager modules

6.6.3.1 Basic settings / Univention System Setup

- The join process has been corrected to use locally pre-installed packages during the installation of server role components ([Bug #28089](#)).
- The Firefox 10 packages (*firefox-de*, *firefox-en*) are now installed by default ([Bug #27909](#)).
- When a software component is added, the warning that **Samba 3** and **Samba 4** should not be combined, will only be displayed when a Samba version is newly selected that is not already installed ([Bug #27949](#)).
- When using a long (> 13 characters) hostname, a warning is displayed that it should not be used in Samba environments ([Bug #27854](#)).
- The welcome page only displays help texts for modules that are actually used during the setup ([Bug #27733](#)).
- Problems with non-responding sessions for the UMC module have been corrected ([Bug #28108](#)).
- An empty root password is forbidden when installed locally and warned against otherwise ([Bug #28155](#)).
- A new Python class is now used instead a wrapper around `apt-get` in the software selection.
- The obsolete hook script *domainname.post/kerberos_rename* was removed ([Bug #28427](#)).
- During installation no error will be displayed anymore if the Univention Configuration Registry variable `system/setup/boot/help` is not set ([Bug #27900](#)).
- The usability of the widget for specifying the system languages was improved ([Bug #24388](#)).
- A bug in the package selection was fixed ([Bug #28198](#)).
- The page changes now introduce a slight delay to fix problems in incorrect virtualisazion environments ([Bug #27734](#)).
- A problem concerning the language selection has been fixed ([Bug #28556](#)).

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- The memberserver role has been removed from the role selection. It will be re-added in a errata update for UCS 3.1-0 ([Bug #29757](#)).

6.6.3.2 Users module

- LanMAN hashes are no longer created on new UCS 3.1 installations ([Bug #27860](#)).
- User names with upper cases are now allowed ([Bug #25656](#)).
- It is no longer allowed to create a user with a name which is already used by a group and vice versa. The old behavior can be configured by setting the Univention Configuration Registry variable `directory/manager/user_group/uniqueness` to **false** ([Bug #26289](#)).
- It is no longer possible to create users with the **Samba** option if their chosen primary group does not have the **Samba** option as well ([Bug #26817](#)).
- **homeSharePath** and **homeShare** can now only be set if both values are provided ([Bug #28996](#)).
- Only users with at least one of the options **samba** or **person** can have a **Display name** ([Bug #27853](#)).
- A new Univention Configuration Registry variable `directory/manager/user/primarygroup/update` has been introduced. If set to **false**, the update of the primary group when creating users is disabled ([Bug #18247](#)).

6.6.3.3 Extended attributes

- Changes to extended attributes immediately alter other modules without the need to restart the Univention Management Console server ([Bug #26677](#)).

6.6.3.4 License module

- Support for UCS license version 2 has been added ([Bug #28186](#), [Bug #29079](#)).
- The detection of invalid license files has been improved ([Bug #26047](#)).
- Fixed a bug, which could result in the deletion of arbitrary files ([Bug #28189](#)).
- The import of a free-for-personal-use license is now possible ([Bug #29051](#)).
- The license handling code for Univention Groupware Server and the Open-Xchange Appliance Edition has been removed ([Bug #26919](#)).
- The users **http-hostname**, **http-proxy-hostname** and **zarafa-hostname** are no longer be accounted to the license. Also, some accounts typically present on a Microsoft Small Business Server, are no longer accounted to the license ([Bug #28930](#)).
- A bug in UCS license version 1 regarding the counting of system accounts has been fixed ([Bug #28944](#)).

6.6.3.5 Mail module

- New syntax classes have been implemented for shared folder ACLs, which prevent performance problems in large environments ([Bug #28084](#)).
- The mail module is now also available on systems with only a UCS license (i.e. without a UGS sublicense) ([Bug #27985](#));
- An LDAP search syntax for mail home servers has been added ([Bug #27820](#)).
- The attribute **Mail home server** (present in the user and the mail folder module) is now correctly set ([Bug #26425](#)).

6.6.3.6 Services module

- The search for service names has been fixed ([Bug #28132](#)).
- The descriptions of the services are now correctly localized ([Bug #27742](#)).

6.6.3.7 Software management

- The module App Center has been developed and added to UMC. It allows users to easily install new applications on an UCS system ([Bug #27458](#), [Bug #28002](#), [Bug #28599](#), [Bug #28798](#), [Bug #28940](#), [Bug #28718](#), [Bug #29035](#), [Bug #29039](#), [Bug #29036](#), [Bug #29081](#), [Bug #28706](#), [Bug #29037](#), [Bug #28740](#), [Bug #28793](#), [Bug #27998](#), [Bug #29246](#), [Bug #29243](#), [Bug #29339](#)).
- The **univention-management-console-module-packages** module has been renamed to **univention-management-console-module-appcenter**. ([Bug #28626](#)).
- The module for the installation of additional software packages was reworked (e.g. added possibility to install/remove multiple packages at once) ([Bug #27997](#), [Bug #28088](#), [Bug #17337](#), [Bug #28010](#)).
- The configuration of components and the repository now occurs through the Univention App Center ([Bug #26784](#)).

6.6.3.8 Online update module

- The errata level is now also displayed along with the version ([Bug #26906](#)).
- The page refresh after updates has been improved ([Bug #27460](#)).
- After package upgrades it is now checked again, whether new updates are available ([Bug #27794](#)).
- Display a strong warning to not power off the system during update ([Bug #27899](#)).
- A link to the errata web site containing the available updates is now displayed ([Bug #25597](#)).
- Only the last 2500 lines of a log file are now shown ([Bug #26279](#)).
- Do not rely on Univention Configuration Registry variable `update/available` alone when checking for updates in easy mode ([Bug #26278](#)).

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6.6.3.9 Computers module

- The IP address will now be shown in the search result list if the IP address was used as filter ([Bug #25242](#)).
- An Univention Directory Manager module for arbitrary Linux computers has been added ([Bug #27587](#)).
- Fixed a problem when removing the last IP address of a computer account ([Bug #28622](#)).
- When the DNS forward zone entries of a computer object are modified, the related PTR records are now updated as well ([Bug #26307](#)).
- Corrected an error which occurred when creating a computer object with a DNS forward zone differing from the kerberos domain ([Bug #25172](#)).

6.6.3.10 Policies

- Fixed a caching problem that displayed incorrectly referenced objects for some policies ([Bug #25638](#)).
- Every computer module stored under `/usr/share/pyshared/univention/admin/handlers/computers` is now automatically imported ([Bug #28461](#)).
- The descriptions of certain attributes in package management policies have been corrected ([Bug #18200](#)).
- A bug was fixed, which prevented changing the user's password if a mail quota policy was fixed ([Bug #28430](#)).
- Some special characters (e.g. umlauts) can no longer be used as policy names ([Bug #28098](#)).
- The *nouveau* driver has been added to the list of available X servers in the *Display* policy ([Bug #23124](#)).
- The Univention Configuration Registry policy now also applies to Univention Corporate Client systems ([Bug #28852](#)).

6.6.3.11 Printers module

- An incorrect error message when trying to add printers to a printer group with quota support has been fixed ([Bug #19627](#)).
- A new option *Use Windows client driver* has been added. It is enabled by default and allows Windows clients to print using locally installed drivers ([Bug #27340](#)).

6.6.3.12 DHCP module

- When all DHCP range entries are removed from a DHCP subnet, the related LDAP attribute *dhcpRange* will be deleted from the LDAP object ([Bug #28623](#)).

6.6.3.13 Other modules

- The page layout of the samba domain page has been improved ([Bug #27267](#)).
- Alternative email addresses can now be configured for mail groups ([Bug #27871](#)).
- The LDAP filter for **container/cn** and **container/ou** no longer matches the LDAP base object ([Bug #25737](#)).
- Various UDM objects now use a new default search: It searches in several important attributes (specific for every class of object) at once ([Bug #24341](#)).
- An error message in the processing of incorrect syntax definitions has been clarified ([Bug #28408](#)).
- Fixed an error when retrieving possible choices for a syntax while the underlying LDAP extension has not yet been installed ([Bug #29333](#)).
- Visual glitches in the display of UDM detail pages are now prevented ([Bug #28400](#)).
- The escaping of characters specific to LDAP search filters has been improved ([Bug #16387](#)).
- A UDM module to create Kerberos KDC entries has been added ([Bug #28379](#)).
- The **Networks** module no longer suggests IP addresses which are already in use ([Bug #28137](#)).
- Legacy policies and Univention Directory Manager modules for the management of UCD and UCS TCS have been moved into the package **python-univention-directory-manager-legacy-ucd-tcs**. This package will be automatically installed during the update to UCS 3.1 ([Bug #27617](#)).
- The module **Navigation** have been renamed to **LDAP directory** ([Bug #26511](#)).
- The caption of the **UMC Command List** has been fixed ([Bug #26705](#)).
- Various spelling mistakes in several modules have been corrected ([Bug #28397](#)).

6.6.4 Univention Directory Manager command line interface and related tools

- `proof_uniqueMembers` has been extended to also remove users which no longer exist ([Bug #27929](#)). The **uniqueMember** and **memberUid** attributes are now compared case-insensitive ([Bug #21026](#)).
- `univention-sync-memberuid` has been rewritten ([Bug #27907](#)).
- `univention-dnsedit` now provides more help information ([Bug #27864](#)).
- It is now possible to pass `univention-directory-manager` the password for the LDAP connection via a file by using the option `--bindpwdfile` ([Bug #19978](#)).
- The Univention Configuration Registry variable `directory/manager/cmd/sockettimeout` can be used to configure the time interval (in seconds) the CLI client waits for a socket file of the CLI server
- `convert-user-base64-photos` now displays an error message if the LDAP server is unreachable ([Bug #27961](#)).
- The deprecated log file `admin-cmd.log` has been replaced with the current `directory-manager-cmd.log` in several commandline tools ([Bug #13105](#)).

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- The postinst script of **univention-directory-manager-modules** no longer calls the update script **convert-user-base64-photos** for new installations ([Bug #28366](#)).
- A traceback when trying to remove non-existent objects has been fixed ([Bug #27956](#)).

6.6.5 Development of modules for Univention Management Console

- Several decorator functions have been added to help developers to write and extend UMC modules. These functions are documented in **univention-management-console-doc** ([Bug #27716](#)).
- Arguments passed to UMC modules can now be validated and sanitized uniformly. The mechanism is extendable and is documented in **univention-management-console-doc** ([Bug #27720](#)).
- Added a new widget to handle cases where a huge amount of entries would be returned possibly blocking the form for several minutes. All entries can be searched remotely from within this widget ([Bug #26556](#)).
- Fixed dependent widgets not updating initially when the other widget was initialized with an empty value ([Bug #29333](#)).
- The prefix of all the package management UMCP commands have been renamed from **packages/*** to **appcenter/***. Corresponding **UMC**-policies have to be adapted manually ([Bug #28626](#)).
- Added a function to set further details of a module's title. This also fixes some possible escaping problems ([Bug #28146](#)).
- The MultiObjectSelect widget formatter now supports strings ([Bug #26780](#)).
- The initialization of static values in the Form widget was fixed ([Bug #26780](#)).
- The Dojo Toolkit library has been updated to version 1.8.1, and the UMC framework as well as all UMC modules have been ported and adapted to Dojo API changes ([Bug #26857](#), [Bug #26826](#), [Bug #28498](#), [Bug #28551](#), [Bug #28516](#), [Bug #28811](#), [Bug #28710](#), [Bug #27397](#), [Bug #28796](#), [Bug #29087](#), [Bug #28018](#), [Bug #29224](#), [Bug #29232](#), [Bug #29382](#), [Bug #29390](#), [Bug #29250](#), [Bug #29238](#)).
- The PasswordInputBox widget has been extended with a function to reset the whole widget ([Bug #27135](#)).
- The **confirmForm** function was added to **umc.dialog** ([Bug #26791](#)).
- Visibility issues with doubled entries in grids during opening a module have been corrected ([Bug #25476](#)).
- The package **univention-manangement-console-frontend-src** has been added which contains the uncompressed javascript source files ([Bug #28018](#)).
- Problems with dependencies of form items have been resolved, an additional method for handling of asynchronous data loading has been added ([Bug #26214](#), [Bug #28847](#)).

6.7 Software deployment

- The handling for errata updates has been changed in UCS 3.1. One errata scope will be released for every UCS patchlevel release ([Bug #26387](#)).

- The upgrade maintenance check did not recognize new package policies. This issue has been fixed ([Bug #27171](#)).

6.7.1 Repository handling

- `apt-mirror` has been patched to honor the limit of forked `apt-ftpparchive` and `gzip` processes as configured by the Univention Configuration Registry variable `repository/mirror/threads` ([Bug #25518](#)).
- `univention-repository-update` now supports the `-iso` option to update a local repository from a downloaded `.iso` file ([Bug #26239](#)).
- The errata updates for components will now be mirrored into the local repository ([Bug #28187](#)).
- The symlinks in the `isolinux` directory of the repository will no longer be created ([Bug #17835](#)).
- The PXE symlinks for the Univention Net Installer kernel and the `initrd` are now created by `univention-repository-create` ([Bug #24777](#)).
- If the Univention Configuration Registry variable `repository/mirror/recreate_packages` is set to `no`, the packages files from the repository mirror will be used ([Bug #23346](#)).
- The obsolete function `errata_component_update_temporary_sources_list()` has been removed ([Bug #27152](#)). Some old code still using deprecated functions has been cleaned up ([Bug #27745](#)).

6.7.2 Software deployment command line tools

- The new tool `univention-remove` can be used to uninstall packages ([Bug #19468](#)).

6.7.3 Software monitor (univention-pkgdb)

- The `univention-pkgdb` has been cleaned up for speed, code, and usability improvements ([Bug #13538](#), [Bug #21873](#), [Bug #19467](#), [Bug #29196](#)).
- The Univention Configuration Registry variable `pgsql/pkgdb/networks` now contains a list (separated by spaces) of PostgreSQL CIDR-ADDRESS definitions of the networks that are allowed to access the `univention-pkgdb` database. By default the access is not restricted. The Univention Configuration Registry variables `pgsql/pkgdb/network` and `pgsql/pkgdb/netmask` are not supported anymore and should be migrated to the new Univention Configuration Registry variable `pgsql/pkgdb/networks` if required ([Bug #27873](#)).
- The description of the Univention Configuration Registry variable `pkgdb/scan` has been improved ([Bug #22578](#)).
- `univention-pkgdb` now stores the system architecture in the database ([Bug #11364](#)).
- It is now possible to remove a system from the database using `univention-pkgdb-scan --remove-system` ([Bug #14929](#)).
- The Univention Configuration Registry variable `pkgdb/requiressl` is set to `true` during the update of `univention-pkgdb-tools`. If this Univention Configuration Registry variable is `true`, clients use

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only SSL secured connections to the server. If this variable is set to **true**, software monitor servers only allow SSL secured connections to the server. It can be set to **false** to restore the old behaviour, if required for compatibility with older Univention Corporate Server versions ([Bug #27873](#)).

- The join script now waits for up to a minute for the service record to appear before starting the initial scan of the system ([Bug #13890](#)).
- The **-clean** action is not necessary anymore. Thus the corresponding weekly cronjob `univention-pkgdb-clean` has been removed ([Bug #29266](#)).

6.8 Univention Library

- `get_default_netmask()` from `base.sh` will now return a netmask if the default address is IPv4 and a prefix length if it is IPv6 ([Bug #26216](#)).

6.9 System services

6.9.1 DHCP

- The remaining DHCP configuration files were moved from `/etc/dhcp3/` to `/etc/dhcp/`, which is the new directory since UCS 3.0 ([Bug #27829](#)).
- `/etc/init.d/isc-dhcp-server` now prints a message that the script is over-ruled by `/etc/init.d/univention-dhcp` ([Bug #17802](#)).
- The permission bit of `/etc/init.d/isc-dhcp-server` has been fixed to be executable ([Bug #25377](#)).
- Several statements, which are illegal inside a pool section, are no longer added to the `dhcpd` configuration ([Bug #7585](#)).

6.9.2 DNS

- `/etc/init.d/bind9` now checks the autostart setting of **univention-bind** instead of **univention-bind-proxy** ([Bug #23811](#)).
- The Univention Configuration Registry variable `dns/allow/transfer` has been added to make the **allow-transfer** option of **bind9** configurable. It and the Univention Configuration Registry variable `dns/allow/query` are initialized to `any` (only supported by the LDAP backend) ([Bug #10365](#)).
- The new file `local-predlz.conf.samba4` gets included in `named.conf.samba4` before the declaration of the Samba 4 DLZ zone ([Bug #26302](#)).
- A newly joined UCS 3.1 DNS server will be automatically appended to the list of the name servers in the DNS forward and reverse zone ([Bug #8036](#)).
- A potential crash through incorrect memory handling (double free) has been fixed in the LDAP backend of `bind9` ([Bug #11295](#)).
- In case **samba4** is configured in Univention Configuration Registry variable `dns/backend` the name server is reloaded after a DNS zone was added or removed ([Bug #29289](#)).

- The network scripts *ifup* and *ifdown* now restart bind instead of using *rndc reconfig* (Bug #29659).

6.9.3 Cyrus

- The setting of the default Cyrus ACLs has been fixed (Bug #17994).
- A default (7389) for the Univention Configuration Registry variable `ldap/server/port` has been added in the Univention Configuration Registry templates of *univention-mail-cyrus* and *univention-mail-cyrus-murder* (Bug #27305).
- Creation of the default Sieve script in *univention-cyrus-mkdir* has been fixed (Bug #17928).

6.9.4 Postfix

- A default (7389) for the Univention Configuration Registry variable `ldap/server/port` has been added in the Univention Configuration Registry templates of *univention-mail-postfix* (Bug #27305).

6.9.5 Printing services

- The run time directory for new installations of the PDF printer package was changed from `/var/cache/cups-pdf/` to `/var/spool/cups-pdf/` (Bug #17548). An old override for file permissions of `cups-pdf` has been removed (Bug #17547).
- The package *univention-foomatic-ppds* has been split from *univention-printserver-pdf* into its own source package (Bug #28494).
- The test for disabled printers in *univention-check-printers* has been fixed (Bug #26767).
- A python error in *cups-printers.py* has been fixed (Bug #29674).

6.9.6 Kerberos

- The Heimdal KDC daemon is now restarted in the Heimdal join script (Bug #25103).

6.9.7 Proxy services

- The `squid.conf` template has been cleaned up (Bug #27815).
- The Dansguardian virus check can now be disabled via the Univention Configuration Registry variable `squid/virusscan`, the content scan via the Univention Configuration Registry variable `squid/contentscan`. If both variables are set to *false*, Dansguardian is disabled and no longer used by the Squid proxy as webfilter backend (Bug #13674)

6.9.8 Nagios

- Some warnings in the `UNIVENTION_JOINSTATUS` plugin have been fixed (Bug #18828).

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6.9.9 SSL

- **univention-ssl** now also stores the validity for the root certificate. The expiration date of the host certificate is automatically stored in the new Univention Configuration Registry variable `ssl/validity/host`, the expiration date of the root certificate in the new Univention Configuration Registry variable `ssl/validity/root`. The old Univention Configuration Registry variable `ssl/validity/days` will be deleted during the update. The UMC and the nagios test `UNIVENTION_SSL` now examine both the host and the root certificate ([Bug #27002](#), [Bug #25788](#)).
- SSL certificates are now also created for Univention Corporate Client systems ([Bug #28571](#)).
- **univention-ssl** now sets a default (true) for the Univention Configuration Registry variable `ssl/validity/check` on all system roles ([Bug #19736](#)).
- A path handling problem was fixed in **univention-ssl** ([Bug #26572](#)).

6.9.10 NFS

- The join script for **univention-nfs-server** is now executed after installation ([Bug #24086](#)).
- NFS version 4 for the NFS server has been disabled by default. It can be configured by setting the Univention Configuration Registry variable `nfs/nfsd/nfs4` ([Bug #28500](#)).
- The Univention Configuration Registry template for `/etc/modprobe.d/nfs-kernel-lockd` has been updated to the new modprobe naming scheme ([Bug #27959](#)).
- The handling of LDAP exceptions in the policy script **nfsmounts** has been improved ([Bug #28194](#)).
- The new listener module **nfs-homes** from the package **univention-nfs-server** is responsible for the creation of the user's **homeSharePath** on NFS home shares. This feature can be disabled by setting the Univention Configuration Registry variable `nfs/create/homesharepath` to **false** and restarting the Univention Directory Listener ([Bug #25375](#)).

6.9.11 Other services

- With the update to UCS 3.1 the Univention Configuration Registry variable `ntp/signed` will be set to **yes** if the variable was not set before. This will enable signed NTP packages ([Bug #26223](#)).
- The init script of **univention-runit** is now stopped later. This prevents early terminations of services like **libvirt-bin**, which otherwise fails to save virtual machines ([Bug #28817](#)).
- The PAM configuration in **univention-postgresql** is now updated in a join script to ensure it contains the current `machine.secret` ([Bug #28795](#)).

6.10 Virtualisation

6.10.1 libvirt

- Libvirt has been updated to version 0.9.12 ([Bug #27612](#)).

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- The init script `/etc/init.d/univention-virtual-machine-manager-node-common` has been deprecated in favour of `/etc/init.d/libvirt-bin`. The order in which the virtualisation init scripts are called, has been fixed ([Bug #19145](#)).
- Broken `qcow2` files missing their backing store no longer prohibit the storage pool from starting ([Bug #22098](#)).

6.10.2 Univention Virtual Machine Manager

- Some spelling mistakes have been corrected ([Bug #24831](#)).
- The UCS Virtual Machine Manager daemon was changed to not log libvirt-related messages to `/var/log/univention/virtual-machine-manager-daemon-errors.log`, since they are also logged to `/var/log/univention/virtual-machine-manager-daemon.log` ([Bug #24135](#)).
- The logging level of the UCS Virtual Machine Manager daemon can now be controlled by the Univention Configuration Registry variable `uvmm/debug`, `uvmm/debug/command`, `uvmm/debug/ldap`, and `uvmm/debug/unix`. Accepted values are **DEBUG**, **INFO**, **WARNING**, **ERROR**, **CRITICAL** ([Bug #28136](#)).
- The Univention Configuration Registry variable `uvmm/umc/vnc/host` controls the format of the VNC link: By default the IPv4 address is used, which can also be explicitly set to **IPv4**. **IPv6** explicitly requests an IPv6 address. To both values a Python regular expression can be appended by a single blank, which only accepts matching addresses as returned by `getaddrinfo()`. **NAME** passes on the DNS name of the virtualization server unmodified, but substitutions can be performed by appending multiple **old=new** pairs separated by spaces, which are applied to the name in order. Any other values overwrites the individual server name by a fixed static string ([Bug #28104](#)).
- The escaping of XML special characters has been fixed; `&` and `<` are prohibited in snapshot names ([Bug #27189](#)).
- Profiles for Microsoft Windows 2012 and Microsoft Windows 8 have been added ([Bug #28420](#)). Profiles for UCS-3.1 have been added while profiles for UCS-2.4 are no longer created on new installations ([Bug #29338](#)).
- The configuration file for the loopback devices has been renamed ([Bug #14824](#)).
- The file format used by image files can now be changed when attaching existing images to virtual machines. This also fixes a bug when **qcow2** images were wrongly attached as **raw**-images. ([Bug #25169](#)).
- The cache strategy for block devices can be configured now. The default for harddisks was changed to **none** ([Bug #23445](#)).
- Snapshots are now deleted when a virtual machine is removed ([Bug #25181](#)).
- Migration now waits until the target domain is running again ([Bug #25857](#)).
- Invalid XML data in storage volume and domain information is now silently ignored ([Bug #26681](#)).
- The **Change medium**-dialog will now show the available mediums ([Bug #27817](#)).
- Editing of VMs which are not cleanly shutdown is disabled ([Bug #25467](#)).
- Now the initial values will be loaded properly when editing an existing interface ([Bug #29274](#)).

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- An internal bug was fixed, which caused UVMM to hang when no profiles were found ([Bug #29375](#)).

6.10.3 Xen

- The **Xen** hypervisor and tool stack have been updated to version 4.1.3 ([Bug #27021](#)).
- The signed build of the GPLPV windows drivers have been updated to version 0.11.0.369 ([Bug #26613](#)).
- The order in which the Xen init scripts are called, has been fixed, thus correctly suspending and resuming guest machines on host reboot ([Bug #28813](#)).

6.10.4 QEMU/kvm

- The **QEMU-kvm** hypervisor and tool stack have been updated to version 1.1.2 ([Bug #28282](#), [Bug #28283](#)).
- **QEMU-kvm** switched from the deprecated **etherboot-qemu** to **ipxe** to provide the network card ROM images. Old snapshots and suspended virtual machines still need the old ROM images. **QEMU-kvm** has been patched to use the old **etherboot-qemu** ROMs for **pc-0.14** and older VMs ([Bug #24702](#)).

6.11 Desktop packages

- Via the new Univention Configuration Registry variable `gdm/systemmenu` it is possible to allow or disallow the shutdown or reboot of the system via the login manager **gdm** or the desktop environment **KDE** (default is true). The Univention Configuration Registry variable `gdm/menu/system` controls whether the login manager provides buttons for the shutdown and restart of the computer (default is **false**). By default, the system can now be turned off or rebooted via the desktop environment but not via the login manager ([Bug #25677](#)).
- The previously used form of internationalization in firefox with language packs is no longer supported. Instead, there are now two separate packages, **firefox-en** for the English and **firefox-de** for the German version of Firefox ([Bug #28006](#), [Bug #27986](#)).
- An entry **Server Administration** (link to the UCS overview page) has been added to the KDE menu ([Bug #28586](#)).
- The NSS LDAP configuration has been fixed: It is now possible for the DBus daemon to resolve usernames ([Bug #28807](#)).
- The download url in **univention-flashplugin** has been updated ([Bug #28855](#)).

6.12 Services for Windows

- Support for Microsoft Windows 8 has been added ([Bug #28015](#)).

- The Univention Directory Listener module for generating Samba shares now removes the local share configuration if the share host has been changed to a different host. The module now also uses the current fully qualified domain name and IP ([Bug #27253](#)).
- The script `remove_sambapwdlastset` has been renamed to `remove_sambapwdmustchange` ([Bug #27838](#)).

6.12.1 Samba 3

- Samba has been updated to version 3.6.8 ([Bug #24231](#)):
 - The Univention Configuration Registry variable `samba/winbind/max/clients` has been introduced with a default value of 500.
 - Default value for `use_spnego` is not set explicitly any longer to avoid a deprecation warning.
 - New Univention Configuration Registry variable `samba/vfs/acl_xattr/ignore_system_acls`.
 - New Univention Configuration Registry variable `samba/max_protocol`.
 - Removed support for legacy Univention Configuration Registry variable `samba/idmap/domains`.
- Winbind is now installed on all Samba 3 systems ([Bug #26200](#)).
- For new UCS installations the default for the minimal password length in the Samba domain policy has been increased from 5 to 8 characters to match the standard UCS password policy default ([Bug #21262](#)).
- A traceback has been fixed in the `kerberize_user` and `remove-samba-account` scripts ([Bug #27841](#)).
- The Logrotate configuration for the main Winbind log files has been extended ([Bug #4738](#)).
- A minor traceback during the installation of **`univention-samba-local-config`** has been fixed ([Bug #27887](#)).
- Inheritance of group ownership from parent directories by means of the set group id (SGID) bit is now honoured during file and directory creation via SMB ([Bug #27950](#)).
- During the first join of an UCS member server into a Samba 4 domain, the Univention Configuration Registry variable `samba/share/home` will be set to **yes**, to provide access to the home directories via samba share ([Bug #25339](#)).

6.12.2 Samba 4

- Samba 4 has been updated to version 4.0 RC6 ([Bug #27457](#), [Bug #24247](#), [Bug #29529](#)).
- Periodic machine password changes are now possible on Samba 4 domain controllers. It is enabled automatically during update by setting the Univention Configuration Registry variable `server/password/change` to **yes** ([Bug #24703](#)).
- Two trivial tracebacks in `univention-samba4-site-tool.py` have been fixed ([Bug #27153](#)).
- The **`samba4`** init script now ensures that all Samba processes terminate when **`stop`** is called ([Bug #27132](#)).

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- The password complexity check has been fixed for UTF-8 characters ([Bug #25554](#)).
- `univention-s4search` has been fixed to use the machine account for authorization by default ([Bug #28279](#)).
- A bug affecting rejoins of Samba 4 domain controllers has been fixed, where the RID pool `rIDNextRID` counter was lost, possibly blocking the local creation of new Samba 4 accounts. Now this counter will be preserved during rejoins ([Bug #28373](#)).
- Error handling and performance of the Samba 4 join and provision scripts have been improved ([Bug #26731](#)).
- When joining a domain the GC record registration is now controlled by the Univention Configuration Registry variable `dns/register/srv_records/gc` and the PDC record registration by the Univention Configuration Registry variable `dns/register/srv_records/pdc` ([Bug #28065](#)).
- If Samba 4 cannot itself find a DC during a join, the **`univention-samba4`** joinscript will try joining against all DCs it can find in LDAP offering Samba 4 services in turn. The Univention Configuration Registry variable `samba4/dc` can be used to specify a server to join against instead. Kerberos will not be used during Samba domain join ([Bug #27469](#)).
- SYSVOL NTACLs and fACLs were set to the UCS 3.0 defaults on every run of the Samba 4 join script. This has been fixed ([Bug #28894](#)).
- The handling of LDAP rename operations has been improved in the **`samba4-idmap`** listener module ([Bug #28643](#)).
- The source of two tracebacks has been fixed in the **`samba4-idmap`** listener module ([Bug #26013](#)).
- Inheritance of group ownership from parent directories by means of the set group id (SGID) bit is now honoured during file and directory creation via SMB ([Bug #28711](#)).
- Samba 4 now uses its own version of Heimdal Kerberos (instead of using the system-wide Heimdal libraries) ([Bug #29005](#)).
- The post-installation script of the **`univention-samba4`** package was improved to avoid a deadlock due to a leftover Samba process ([Bug #28583](#)).
- The join script of **`univention-samba4`** has been improved to backup and merge the Samba 4 machine keytab in case of a re-join ([Bug #25393](#)).
- Group SIDs appearing in the owner field of a NT security descriptor are now supported in NTACLs, e.g. of GPO files in the sysvol share. To avoid privilege escalation in cases of overlapping uid and gid numbers, the Unix file ownership is mapped to 0 for this kind of NTACLs ([Bug #28737](#)).
- A new script `univention-ad-takeover` has been added to support the takeover of users and computers from an Active Directory server ([Bug #28390](#)).
- The reliability of DNS service principal creation was improved ([Bug #29217](#)).
- The first system that provides Samba 4 will remove systems without Samba 4 from the Kerberos DNS service records. This avoids Kerberos errors in environments where Samba 4 is run on a DC Backup but not on a DC Master ([Bug #29225](#)).

6.12.3 Univention S4 Connector

- The domain password setting attributes are now synced between UCS and Samba 4. During the update to UCS 3.1 the password settings in UCS will be overwritten with the Samba 4 settings ([Bug #24237](#)).
- If the connection to the UCS LDAP server was closed, the connection will be reopened and the last search will be started again ([Bug #27176](#)).
- The S4 Connector will be restarted at the end of the join process so the UCR values are re-read ([Bug #26859](#)).
- The debug message if SSL is disabled has been improved ([Bug #25835](#)).
- The init script has been made more resilient ([Bug #27175](#)).
- The attribute **mailPrimaryAddress** is now synced to the Samba 4 attribute **mail** instead of the UCS attribute **mail**.
- A traceback has been fixed which occurred if the LDAP and Samba 4 base DN's are not equal ([Bug #28573](#)).
- The group membership cache has been improved ([Bug #28689](#)).
- A bug in the creation of new DNS zones in UCS has been fixed ([Bug #28889](#)).
- A traceback caused by an special/invalid Kerberos keytypes was fixed. This keytype is typically issued by Windows 2008 AD servers ([Bug #28907](#), [Bug #28932](#)).
- The mapping has been enhanced to allow group name mappings, e.g. to abstract from locale specific names in Samba 4 ([Bug #28910](#)).
- The extended attributes will now be loaded before the first object will be created ([Bug #28981](#)).
- A write-lock problem in the **univention-ad-takeover** script has been fixed ([Bug #29751](#)).

6.12.4 Univention Active Directory Connector

- The Univention Active Directory Connector supports now Microsoft Server 2012 ([Bug #28013](#)).
- The debug message if SSL is disabled has been improved ([Bug #25835](#)).
- Univention Configuration Registry variables have been added to handle which objects will be ignored by the Active Directory connector (`connector/ad/mapping/*/ignorelist`) ([Bug #20517](#)).
- The init script has been made more resilient ([Bug #27175](#)).
- The attribute **mailPrimaryAddress** is now synced to the AD attribute **mail** instead of the UCS attribute **mail**.
- The group membership cache has been improved ([Bug #28689](#), [Bug #28845](#)).
- A LANMAN warning has been removed because the LM hash is no longer required ([Bug #28709](#)).

6.13 Other changes

- The “known bugs” message has been removed from **univention-repository-addpackage**, **univention-repository-delpackage**, **univention-repository-merge**, **univention-directory-**

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manager, **univention-join**, **univention-server-join**, **univention-run-join-scripts**, **univention-system-info**, and **univention-pkgdb-scan** ([Bug #25379](#)).

- An incompatibility between **plymouth** and **sysvinit** which led to a crash of the boot splash has been resolved ([Bug #28287](#)).
- A quoting bug was fixed in the `jitter` command ([Bug #16428](#)).
- The **ucs-test** suite is now released in the unmaintained archive section of UCS 3.1 ([Bug #28215](#)). Several tests have been adjusted to the current package versions ([Bug #28356](#), [Bug #28357](#), [Bug #22937](#), [Bug #21765](#), [Bug #28360](#), [Bug #28341](#), [Bug #28342](#), [Bug #28343](#), [Bug #28348](#), [Bug #28262](#), [Bug #25818](#), [Bug #27650](#), [Bug #11431](#)).
- A bug in **univention-demo-configuration** was fixed, which resulted in duplicated display of the **Basic settings** dialogue ([Bug #27978](#)).
- The following packages have been rebuild with python 2.6 support only ([Bug #26852](#)):
 - univention-nagios
 - univention-pkgdb
 - univention-package-template-python
 - univention-licence
 - univention-base-files
 - univention-config-registry
 - univention-python
 - univention-management-console-module-mrtg
 - univention-management-console-module-ipchange
 - univention-management-console-module-packages
 - univention-management-console-module-services
 - univention-management-console-module-vnc
 - univention-management-console-module-ucr
 - univention-management-console-module-reboot
 - univention-management-console-module-top
- Configuration for password-protected access to the Bacula database with the **bacula** user has been added in the package **univention-bacula** ([Bug #16257](#)).
- The boot loader GRUB has been updated to version 1.99 ([Bug #29445](#)).
- The bootsplash has been disabled for the grub recovery mode boot entry ([Bug #28287](#)).
- A superfluous dependency on **diff** has been removed in the **univention-grub** package ([Bug #27010](#)).
- The default ramdisk size for the net installer has been increased ([Bug #28477](#)).
- The permissions of certain logfiles and logfile directories have been restricted ([Bug #11431](#)):
 - `/var/log/lastlog`
 - `/var/log/faillog`

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- /var/log/dpkg.log
 - /var/log/bootstrap.log
 - /var/log/mail*
 - /var/log/samba
 - /var/log/univention
- The automatic start of the NFS server is configurable through the Univention Configuration Registry variable `nfs/autostart` (Bug #11559).
 - The new Univention Configuration Registry variable `homedir/mount/required` defines whether a successful mount of the users home directory is required for the logon (Bug #23637).
 - The quota rpc service is now started, if a entry in `/etc/exports` exists (Bug #25430).
 - The packages ***apt-transport-https***, ***dpt-i2o-raidutils***, ***raidutils***, ***varmon***, ***cpqarrayd***, ***mpt-status***, ***php-gettext***, ***multipath-tools*** and ***util-linux-locales*** have been added to the maintained repository (Bug #28153, Bug #17073, Bug #27363, Bug #28484, Bug #8708).
 - The Horde webmailer has been updated to version 4.0.8 (Bug #25792, Bug #29200).
 - ***univention-debug*** no longer logs error messages to Syslog (Bug #25469).
 - ***univention-system-info*** has been modified to backup existing archives before creating the sysinfo archive (Bug #21497).
 - ***univention-skel*** has been modified to provide a `.profile`, which executes the personal `.bashrc` (Bug #15754).
 - Descriptions for the Univention Configuration Registry variables have been added to ***univention-log-collector*** (Bug #22537).
 - Support for `ldap/server/addition` has been added to ***univention_policy_result*** and ***univention-directory-policy*** (Bug #19428).

6.13.1 ucslint

- A test for unquoted calls of `eval $(ucr shell)` has been added (Bug #18443).
- The use of deprecated commands like `univention-baseconfig` and `univention-admin` now emits a warning (Bug #23566).
- The use of globbing patterns instead of regular expressions in Univention Configuration Registry files produces a warning (Bug #13015).
- Fragile comparisons with `None` in Python code produce a warning (Bug #22487).
- A warning is printed when Debian source files are not prefixed with the package name (Bug #23482).
- In Univention Configuration Registry template info files the fields ***Mode***, ***User***, ***Group***, ***Preinst***, and ***Postinst*** are now also checked (Bug #14070, Bug #14201).
- Using `UCRWARNING` before a file type specific magic strings produces a warning (Bug #21431).
- Univention Configuration Registry templates not using any Univention Configuration Registry variables produce a warning (Bug #22434).

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- Tests for files in sub-directories used by version control systems like GIT and Subversion and automatically generated files are skipped ([Bug #22470](#), [Bug #22482](#), [Bug #22498](#)).
- Translations of multi line strings are now also checked for incorrectly substituted variables ([Bug #22479](#)).
- Several coding and packaging problems in `ucslint` have been fixed ([Bug #22482](#), [Bug #22484](#), [Bug #27429](#), [Bug #27444](#)).
- The test for Univention Configuration Registry `is_true()` and `is_false()` has been improved ([Bug #22485](#)).
- Comments are better detected and are no longer checked for issues ([Bug #23465](#)).
- `dh-umc-module-install` is now recognized as a program indirectly installing join and template files ([Bug #24816](#)).
- The test for checking Python issues in hash-bang lines has been improved to better handle white spaces ([Bug #25766](#)).
- Most error messages now consistently include the name of the file, where the error was found ([Bug #27889](#)).

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