openSUSE 13.1 Release Notes

Version: 13.2.0 (2013-12-10)

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If you upgrade from an older version to this openSUSE release, see previous release notes listed here: http://en.opensuse.org/openSUSE:Release_Notes

These release notes cover the following areas:

- Section 1, “Miscellaneous”: These entries are automatically included from openFATE, the Feature- and Requirements Management System (http://features.opensuse.org).

  N/A

- Section 2, “Installation”: Read this if you want to install the system from scratch.

- Section 3, “General”: Information that everybody should read.

- Section 4, “System Upgrade”: Issues related to the process if you run a system upgrade from the previous release to this openSUSE version.

- Section 5, “Technical”: This section contains a number of technical changes and enhancements for the experienced user.

1. Miscellaneous

N/A

2. Installation

2.1. For Detailed Installation Information

For detailed installation information, see Section 3.1, “openSUSE Documentation”.

3. General

3.1. openSUSE Documentation

In *Start-Up*, find step-by-step installation instructions, as well as introductions to the KDE and Gnome desktops and to the LibreOffice suite. Also covered are basic administration topics such as deployment and software management and an introduction to the bash shell.

Find the documentation in `/usr/share/doc/manual/opensuse-manuals_$LANG` after installing the package `opensuse-startup_$LANG`, or online on http://doc.opensuse.org.

3.2. UEFI—Unified Extensible Firmware Interface

CHECKIT:13.1

Prior to installing openSUSE on a system that boots using UEFI (Unified Extensible Firmware Interface) you are urgently advised to check for any firmware updates the hardware vendor recommends and, if available, to install such an update. A pre-installed Windows 8 is a strong indication that your system boots using UEFI.

Background: Some UEFI firmware has bugs that cause it to break if too much data gets written to the UEFI storage area. Nobody really knows how much "too much" is, though. openSUSE minimizes the risk by not writing more than the bare minimum required to boot the OS. The minimum means telling the UEFI firmware about the location of the openSUSE boot loader. Upstream Linux Kernel features that use the UEFI storage area for storing boot and crash information (`pstore`) have been disabled by default. Nevertheless it is recommended to install any firmware updates the hardware vendor recommends.

3.3. UEFI, GPT, and MS-DOS Partitions

CHECKIT:13.1

Together with the EFI/UEFI specification a new style of partitioning arrived: GPT (GUID Partition Table). This new schema uses globally unique identifiers (128-bit values displayed in 32 hexadecimal digits) to identify devices and partition types.

Additionally, the UEFI specification also allows legacy MBR (MS-DOS) partitions. The Linux boot loaders (ELILO or GRUB2) try to generate automatically a GUID for those legacy partitions, and write them to the firmware. Such a GUID can change frequently, causing a rewrite in the firmware. A rewrite consist of two different operation: removing the old entry and creating a new entry that replaces the first one.

Modern firmware has a garbage collector that collects deleted entries and frees the memory reserved for old entries. A problem arises when faulty firmware does not collect and free those entries; this may end up with a non-bootable system.

The workaround is simple: convert the legacy MBR partition to the new GPT to avoid this problem completely.

3.4. Booting When in Secure Boot Mode

CHECKIT:13.1

This only affects machines in UEFI mode with secure boot enabled.

The new version of the shim loader allows more machines to boot with Secure Boot enabled than with openSUSE 12.3. Nevertheless, in case of trouble, first update the BIOS of your machine to the latest version. If the BIOS update does not help, report the model of your machine it the wiki (http://en.opensuse.org/openSUSE:UEFI). Then we can track it for the next release.

4. System Upgrade

5. Technical

5.1. Initializing Graphics with KMS (Kernel Mode Setting)

CHECKIT:13.1

With openSUSE 11.3 we switched to KMS (Kernel Mode Setting) for Intel, ATI and NVIDIA graphics, which now is our default. If you encounter problems with the KMS driver support (intel, radeon, nouveau), disable KMS by adding `nomodeset` to the kernel boot command line. To set this permanently using Grub 2, the default boot loader, add it to the `GRUB_CMDLINE_LINUX_DEFAULT` kernel default load options line in your `/etc/default/grub` text file as root and running the terminal command

```
sudo /usr/sbin/grub2-mkconfig --output=/boot/grub2/grub.cfg
```

for the changes to take effect. Else, for Grub Legacy, add it to the kernel command line in `/boot/grub/menu.lst`, also done as root. This option makes sure the appropriate kernel module (intel, radeon, nouveau) is loaded with `modeset=0` in `initrd`, i.e. KMS is disabled.

In the rare cases when loading the DRM module from `initrd` is a general problem and unrelated to KMS, it is even possible to disable loading of the DRM module in `initrd` completely. For this set the `NO_KMS_IN_INITRD` sysconfig variable to `yes` via YaST, which then recreates `initrd` afterwards. Reboot your machine.

On Intel without KMS the Xserver falls back to the `fbdev` driver (the `intel` driver only supports KMS); alternatively, for legacy GPUs from Intel the "intellegacy" driver (`xorg-x11-driver-video-intel-legacy` package) is available, which still supports UMS (User Mode Setting). To use it, edit `/etc/X11/xorg.conf.d/50-device.conf` and change the driver entry to `intellegacy`.

On ATI for current GPUs it falls back to `radeonhd`. On NVIDIA without KMS the `nv` driver is used (the `nouveau` driver supports only KMS). Note, newer ATI and NVIDIA GPUs are falling back to `fbdev`, if you specify the `nomodeset` kernel boot parameter.

5.2. Garbage on the Screen During Installation with the Nouveau Driver

CHECKIT:13.1

On some systems with NVIDIA cards, the installer may show garbage on the top part of the screen due to problems with the default nouveau driver. If you are affected by this problem, you can disable the nouveau kernel module to run the installer and then enable it again once the system is installed or upgraded.

To disable the kernel module, once you boot from the installation media, select the 'Installation' entry in grub and press 'e' to edit the parameters. Then go to the line starting with 'linux' (or 'linuxefi') and add `brokenmodules=nouveau` at the end. Now press F10 to continue booting with the new parameter. After the system is installed, you can re-enable the nouveau module by editing `/etc/modprobe.d/50-blacklist.conf` and removing the entry that blacklists nouveau.

5.3. Samba Version 4.1

CHECKIT:13.1

Samba version 4.1 shipped with openSUSE 13.1 does not include support to operate as an Active Directory style domain controller. This functionality is currently disabled, as it lacks integration with system-wide MIT Kerberos.

5.4. KDE and Bluetooth

CHECKIT:13.1

The Bluetooth stack is provided by Bluez 5 (a major, backwards-incompatbile version), a necessary upgrade for GNOME desktop and some other components of the base system. Unfortunately, the KDE workspace only supports Bluez version 4 in its currently-released versions.

Therefore, the openSUSE KDE community team offers an unofficial Bluedevil package providing at least basic functionality such as device pairing or support for bluetooth mice; Some other features are known not to work jet, like file transfer.

For the moment, bugs should not be filed against Bluetooth support in KDE as the Bluez 5 port of Bluedevil is still ongoing.

5.5. AppArmor and Permission Settings

CHECKIT:13.1

AppArmor is enabled by default. This means more security, but might prevent services from working, if you run them in unexpected ways. If you encounter strange permission problems, try to switch the AppArmor profile for the affected service to complain mode with:

```
aa-complain /usr/bin/$your_service
```

Complain mode means: allow everything, and log things that the profile would not allow.

Even if it helps report it as a bug! We want to fix AppArmor profiles to cover also corner cases.

5.6. Skype

CHECKIT:13.1

PulseAudio 4.0 exposes a bug in the current version of Skype for Linux (v4.2). Until Skype is fixed and updated, run **skype** from the command line:

```
PULSE_LATENCY_MSEC=60 skype
```

For more information about this bug, see http://arunraghavan.net/2013/08/pulseaudio-4-0-and-skype/.

5.7. AutoYaST

CHECKIT:13.1

If the autoyast profile contains entries in an `<add-on>` section there is a bug triggered that prevents information in the profile from being transferred from the first stage into the second stage. Therefore, in this case all second stage configuration steps are skipped, which normally leads to more or less completely unusable installations.

As a temporary workaround, avoid using `<add-on>` sections in profiles with AutoYaST in openSUSE 13.1.