Ubuntu 24.04 LTS desktop provisioning guide

Introduction

- This guide is for anyone looking to use the new provisioning stack.
- This is a living document which will be updated as our work progresses and we incorporate feedback.
- The aim of this work is to consolidate all variants onto a common provisioning stack. We want to remove the need for forks and support customisation through configuration.
- Migrating to the bootstrap wizard means you will be using the same ubuntu-desktop-bootstrap app as Ubuntu but white labelled to fit into your environment. The advantage of this approach is that everyone benefits from fixes and new features automatically.
- This work will continue over subsequent cycles, so do provide feedback if you want to shape the direction and be aware that we expect whitelabel.yaml to evolve.

Dates to keep in mind

1. `Feb 12, 2024` We will promote `ubuntu-desktop-bootstrap` to `latest/stable`, we'll update Ubuntu Desktop's seed and update our systemd installer service.
2. `Feb 13, 2024` The Noble daily will include these changes.
3. `Feb 29, 2024` Feature freeze. If a variant is unable to make this deadline, and wants to adopt the new provisioner, then they should seek a Feature Freeze Exception.
4. `Mar 21, 2024` User interface freeze comes into effect so that translations work can begin.

Testing bootstrap without modifying the live cd

After `Feb 13, 2024`, you can test the new experience by installing the snap and placing overrides in the correct location. We recommend you start here so you get a feel for the new experience and that you do this in a VM using your variant's live session. Commands may differ but the general approach is:

```
None
# Remove the old installer if it is present
$ sudo snap remove ubuntu-desktop-installer
```

```
# Copy your overrides into the correct location. For example:
$ sudo mkdir -p /usr/share/desktop-provision
$ sudo mv ./desktop-provision /usr/share/

# Install the bootstrap wizard
$ sudo snap install ubuntu-desktop-bootstrap --classic

# Launch the bootstrap wizard
$ /snap/bin/ubuntu-desktop-bootstrap --try-or-install
```

Updating your live cd to use the bootstrap wizard

1. In your live seed, replace the installer with the bootstrap wizard (or add if it doesn't exist). For example, the change required in the Ubuntu Desktop's seed is:

```
None
@@ -12,1 +12,1 @@
-* snap:ubuntu-desktop-installer/classic
+* snap:ubuntu-desktop-bootstrap/classic
```

2. Include overrides in your settings package. ubuntu-settings won't help because its values are the default and so no overrides are needed.
3. Update your installer service's `ExecStart`. For example, the change required in ubuntu-desktop-installer.service is:

```
None
@@ -12,1 +12,1 @@
-ExecStart=/snap/bin/ubuntu-desktop-installer --try-or-install
+ExecStart=/snap/bin/ubuntu-desktop-bootstrap --try-or-install
```

4. Test and iterate

Configuration and overrides

To customise the bootstrap wizard provide a `whitelabel.yaml` and assets following the structure below:

```
None
/usr/share/desktop-provision
├── eula/ # for OEMs
├── images/
├── slides/
└── whitelabel.yaml
```

whitelabel.yaml's specification

```
None
# (Optional) Drives overall behaviour for specific provisioners.
#
# Options:
# - standard (default): the common provision flow for Ubuntu Desktop and
Flavors
# - oem: enables the eula page and disables the user creation page
during bootstrap
mode: standard | oem

# (Optional) When set, the light and dark theme is inherited from
ubuntu-flutter-plugins and the distro name is set.
#
# Options:
# - budgie
# - cinnamon
# - edubuntu
# - kubuntu
# - kylin
# - lubuntu
# - mate
# - studio
# - unity
```

```
# - xubuntu
flavor: <name>

# (Optional) Sets the window's title (e.g. the text in alt|super + tab)
app-name: <string>

# (Optional) Overrides the theme's accent colors (remember the quotes)
theme:
  light:
    accent-color: <color-hex-code> # i.e. "#ff0011"
    elevated-button-color: <color-hex-code>
    elevated-button-text-color: <color-hex-code>
  dark:
    accent-color: <color-hex-code> # i.e. "#ff0011"
    elevated-button-color: <color-hex-code>
    elevated-button-text-color: <color-hex-code>

# (Optional) Override a page's image asset.
# Images expected in /usr/share/desktop-provision/images/<image-name>
#
# Bootstrap pages:
# - locale: Select the interface language
# - accessibility: Allow user to configure GNOME accessibility options
# - rst: Identifies if the computer has Intel Rapid Storage Technology
(rst) active
# - keyboard: Set keyboard layout
# - network: Connect to a network
# - refresh: Expose installer's auto-update mechanism
# - source: Install 3'rd party drivers and codecs
# - not-enough-disk-space: Notifies if there is insufficient disk space
# - secure-boot: Handles secure boot
# - storage: Select target disk and partition
# - identity: Create the first-user account (only displaed if mode =
default)
# - confirm: A summary of the installation and confirmation button to
start the install
# - done: Choose whether to restart or continue testing in the live
session
#
# Init pages (for oem only)
```

```
# - identity: Create the first-user account
# - ubuntu-pro: Enable Ubuntu Pro
# - privacy: Enable location services
# - timezone: Set the timezone
# - telemetry: Enable sending telemetry
#
# Do note that currently only accessibility, try-or-install, refresh
# and source-selection can be hidden with visible: false.

pages:
  <page-name>:
      image: <image-name>
      visible: <bool>
```

Note that if you just enter the page name without any image field it will not show an image, but if you don’t have an entry for the page name at all it will use the default image.

Custom slides

To customize the slides that are shown while the installation is underway you just need to add a slides directory in `/usr/share/desktop-provision/slides` and add numbered subdirectories with localized html-files and image files in there. The numbers determine in which order the slides should be.
An example structure could look like this:

```
None
/usr/share/desktop-provision
└── slides
   ├── 1
   │  ├── animal.svg
   │  ├── slide_de_DE.svg
   │  ├── slide_en_US.svg
   │  ├── slide_sv_FI.svg
   │  └── slide_sv_SE.html
   ├── 2
   │  ├── slide_en_US.html
   │  └── store.png
   └── 3
      ├── slide_en_US.html
```

```
└── vscode.png
```

If the locale that the user currently has doesn't have a corresponding html file it will fall back to `slide_en_US.html`

The language code format is the same as is used for EULA files, for example: `slide_en_US.html`, see the Language code format section for further details,

Do note that the HTML supported in these "html" files is far from the full standard, so we recommend that you use one of the templates provided as the default slides: https://github.com/canonical/ubuntu-desktop-provision/tree/main/packages/ubuntu_bootstrap/assets/slides

OEMs

When mode: oem, the stage 4 eula page is activated. EULA assets are expected in `/usr/share/desktop-provision/eula/` with the file name including the locale: `EULA_<langcode>.pdf`.

If the `<langcode>` is not available, the default file `EULA.pdf` will be used.

The language code format is the same as is used for slides, for example: `EULA_en_US.pdf`, see the Language code format section for further details,

Language code format

The language code format that is used is the two-letter language code followed by a two-letter country code (see the ISO 639-1 and ISO 3166-1 standards). The language code represents the primary language, while the country code specifies the regional or national variant of that language. For example `en_US` represents American English and `pt_BR`represents Brazilian Portuguese.

Troubleshooting

Start by checking the logs for bootstrap and init in `/var/log/installer/`. If you cannot resolve the issue, then reach out the to desktop team on https://matrix.to/#/#desktop-dev:ubuntu.com. If you've encountered a bug, report it on Launchpad or GitHub.

FAQs

1. Are there alternative options?

You could continue using ubiquity or move to calamaries but these come with their own risks and so we don't recommend that approach. For example, ubiquity will be moved to universe and will stop getting fixes from Canonical. Similarly, we don't recommend ubuntu-flavor-installer either because we do not have capacity to support it.

If wanting an alternative is a matter of missing features, then reach out and we will do our best to implement them or give you an indication of when we can implement them.

2. What if there's a feature I want that isn't available?

Create a feature request on https://github.com/canonical/ubuntu-desktop-provision/issues 🙏