Oracle Linux 10

Accessibility User's Guide

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Contents

Preface

The Oracle Linux 10: Accessibility User's Guide describes the accessibility features that are available in the Oracle Linux operating system.

Documentation License

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at https://www.oracle.com/corporate/accessibility/.

Access to Oracle Support for Accessibility

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit https://www.oracle.com/corporate/accessibility/learning-support.html#support-tab.

Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and

the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

1

Working With Accessibility Features in Oracle Linux

Accessibility features offer users with vision, hearing, and motor impairments ways to more easily use the Oracle Linux desktop. This guide provides information about enabling and configuring the accessibility features that are included in Oracle Linux 10.

Selecting a Desktop Version

By default, when you install Oracle Linux 10 by using the Server With GUI profile or environment, the GNOME desktop is installed. However, you can install additional desktop environments. For example, to install GNOME classic, you can run the following command:

```
sudo dnf install gnome-classic-session
```

If more than one desktop is present on a system, you can select the one to use when signing in, as shown in the following procedure.

Changes to the desktop selection are a persistent setting and apply to all authorized users of the system.

To view the desktop environments or switch between environments, do the following:

1. Log out of any existing Oracle Linux desktop environments.

   The **Log on** page appears.
2. Select the login username.
3. Select the **Choose Desktop** "cogwheel" icon at the bottom right of the screen.

   > **Note:**
   >
   > The **Choose Desktop** icon is only present if more than one desktop environment is installed.

   A list of available desktop options appears.
4. (Optional) Select a desktop environment.
5. Continue logging in to the server.

About Assistive Technologies

Assistive technologies promote accessibility for users with specific impairments.

Alternative presentations that are provided for these users include the following:

- Synthesized speech

- Magnified content
- Alternative input methods
- Additional navigation methods
- Content transformations

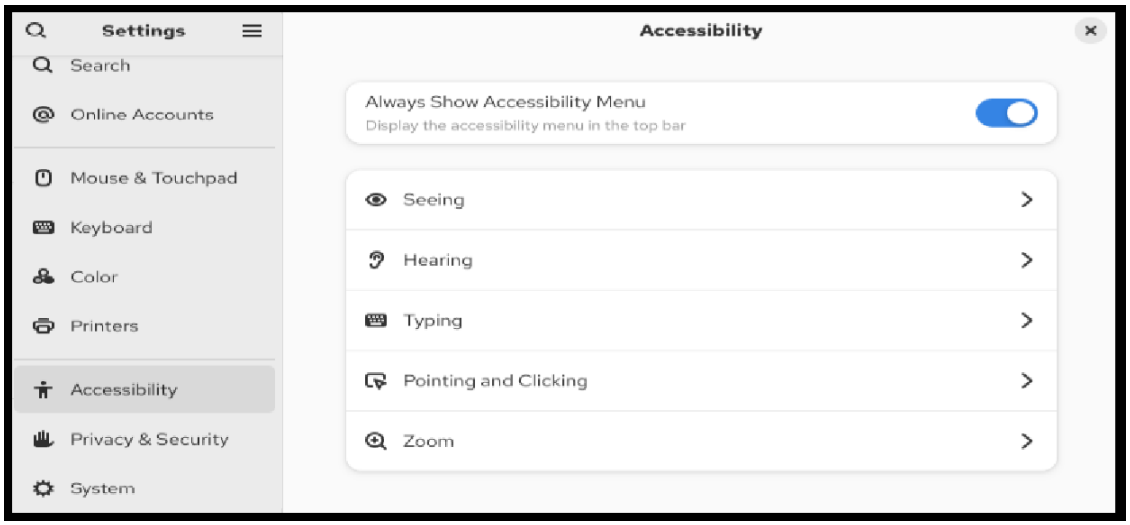
Software features of Oracle Linux enable users with physical impairments to use all the functionality of the desktop. Various desktop tools also enable you to customize the desktop's appearance and behavior.

> **Note:**
>
> Anaconda installation software for Oracle Linux doesn't provide any accessibility features.

Accessing Assistive Technologies

In Oracle Linux, GNOME settings are displayed and configured using a graphical application called the **GNOME Control Center**. The **GNOME Control Center** displays the accessibility settings on the **Accessibility** panel of the **Settings** window. The following image shows an example of the **Accessibility** panel:

Figure 1-1 Accessibility panel in the GNOME Control Center Settings Window



Accessing the panel differs slightly between GNOME and GNOME Classic desktops. However, the feature descriptions and the available configurations are the same for both. Unless otherwise stated, this document assumes that you're using the default (GNOME) desktop on the system.

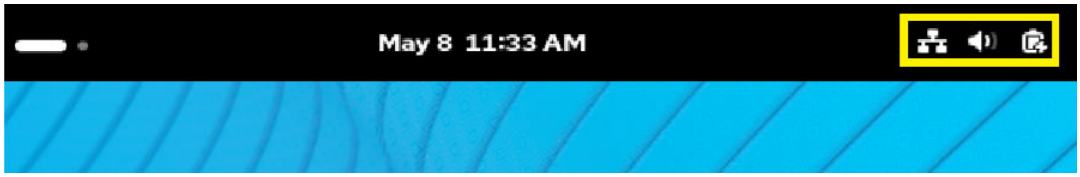
The following sections show different ways of accessing the **Accessibility** panel of the Settings window.

Using the GNOME Desktop

Choose one of the following methods:

- Accessing through the **System Tools** group icon

  The **System Tools** group icon consists of 3 icons at the right side of the top bar of the screen. The following image shows an example of a System tools group icon highlighted in a yellow box:

  1. On the right side of the top bar, select the **System Tools** group icon.

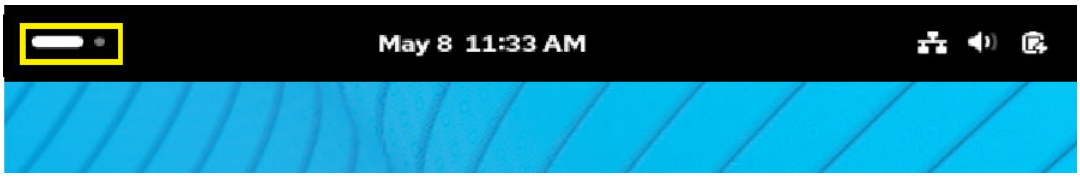
     A panel of options appears.
  2. Select the **Settings** option.

     The GNOME control center appears.
  3. From the list of options on the left panel, select **Accessibility**.

     The accessibility options appear in the right panel.

- Accessing through the **Activities** workspace indicator

  The **Activities** workspace indicator is at the left side of the top bar of the screen. The following image shows an **Activities** workspace indicator highlighted in a yellow box:

  1. On the top bar, select the **Activities** workspace indicator.

     A search field appears.
  2. In the search field, type `accessibility`.

     An option to display the **Accessibility** settings appears.
  3. Select the option to display the **Accessibility** settings.

     The GNOME control centre opens displaying the **Accessibility** options.

- Accessing through the command line

  1. On the top bar, select the **Activities** workspace indicator.

     A bar of application icons (called the ***dash***) appears.
  2. From the **dash**, select the terminal icon.
  3. In the terminal window, type:

     ```
     gnome-control-center universal-access
     ```

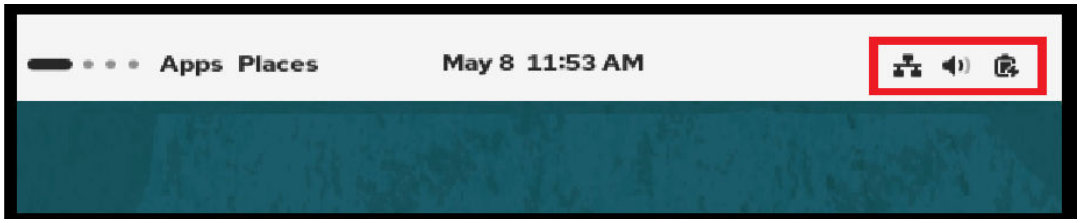
     The GNOME control centre opens displaying the **Accessibility** options.

Using the GNOME Classic Desktop

Choose one of the following methods:

- Accessing through the **System Tools** group icon

  The **System Tools** group icon consists of the 3 icons at the right side of the top bar of the screen. The following image shows an example of a System tools group icon highlighted in a red box:

  1. On the right side of the top bar, select the **System Tools** group icon.

     A panel of options appears.

  2. Select **Settings** option.

     The GNOME control center appears.

  3. From the list of options on the left panel, select **Accessibility**.

     The accessibility options appear in the right panel.

- Accessing through the **Apps** menu option

  1. On the top bar, select **Apps**.

     A menu with a list of options appears.

  2. From the menu, select **System Tools**.

     A list of **System Tools** options appears.

  3. From the options of **System Tools** , select **Settings**.

     The GNOME control center appears.

  4. From the list of options on the left panel, select **Accessibility**.

     The accessibility options appear in the right panel.

- Accessing through the command line

  1. On the top bar, select **Apps**.

     A menu with a list of options appears.

  2. From the options, select **Favorites**, and then select **Terminal**.

  3. Type the following command:

     ```
     gnome-control-center universal-access
     ```

     The GNOME control centre opens displaying the **Accessibility** options.

Configuring Quick Access

Oracle Linux provides an **Accessibility Menu**, which enables you to access and configure accessibility features without the need to open the **Accessibility** panel. This menu is disabled by default. To make the menu available, open the **Accessibility** panel and set the **Always Show Accessibility Menu** switch to **On**. Toggling this switch to the **On** position makes the **Accessibility Menu** icon become permanently visible on the top bar of the desktop.

Selecting the icon opens a list of accessibility features, as shown in the following figure:

Figure 1-2 Desktop Accessibility Features

Note:

Enabling selected features in the **Accessibility** panel also automatically enables quick access, even if the **Always Show Accessibility Menu** switch is disabled. However, in this case, if you switch off all of the enabled features through quick access, then the quick access icon disappears from the top bar.

Toggling the **Always Show Accessibility Menu** switch to the **On** position ensures that quick access is available permanently, regardless of whether assistive features are enabled or not.

Viewing GNOME Help

You can get more information on configuring accessibility options in GNOME desktops by viewing the GNOME Help pages.

> **Note:**
>
> Viewing GNOME help pages requires a web browser to be installed on the system.

To view the GNOME Help pages, perform the following steps:

1. Access the GNOME control centre by following one of the procedures described in Using the GNOME Desktop or Using the GNOME Classic Desktop
2. From the list of options on the left panel, select **Accessibility**.
3. Do one of the following:
   - Press the **F1** key.
   - Alternatively, if you prefer using the UI, select the **Menu** icon and then select **Help**.

   The GNOME **Accessibility** help pages are displayed in a web browser.

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Overview of Accessibility Features

In the GNOME desktop, features for aiding users with impairments are configured from the **Accessibility** panel.

When the Accessibility panel initially appears, it includes the following options to display different types of accessibility settings:

- **Seeing**
- **Hearing**
- **Typing**
- **Pointing and Clicking**
- **Zoom**

An overview of the accessibility settings each of the preceding options displays is provided in the following list:

- **Seeing**

  Selecting this option displays accessibility features for users with visual impairments. The settings you can enable and customize include the following:

  Screen Reader
  Reads aloud screen content to supplement visual reading. For details, see Customizing the Screen Reader.

  High Contrast
  Adjusts the color contrast of windows and buttons on-screen so they're more or less vivid.

  On/Off Shapes
  Sets whether to use shapes to indicate state in addition to or instead of color.

  Animation Effects
  Toggles whether to use animation effects throughout the interface.

  > **Note:**
  >
  > Turning off animation effects can result in more sudden visual transitions when UI elements change. This might have a negative impact on some visual sensitivities.

  Large Text
  Enlarges the font so that it's more readable.

  Cursor Size
  Increases and decreases the mouse cursor size.

Sound Keys

Beeps when the `Num Lock` or `Caps Lock` key is turned on or off.

Always Show Scrollbars

Sets the scrollbars to always be visible.

- **Hearing**

  Selecting this option displays accessibility features to aid users with hearing impairments. This includes the **Visual Alerts** setting that can be enabled to provide an onscreen flash when an alert sound occurs. Available options for defining the **Flash Area** include **Entire Window** and **Entire Screen**.

- **Typing**

  Selecting this option displays accessibility features for users with mobility impairments. The settings you can enable and customize include the following:

  Screen Keyboard

  Enables desktop navigation and application use without a physical keyboard.

  Text Cursor settings

  The Text Cursor settings include **Cursor Blinking** and **Blink Speed**. Enabling the **Cursor Blinking** setting causes the cursor to blink in text fields and **Blink Speed** setting can be used to control the blink frequency.

  Typing Assist settings

  The Typing Assist settings group includes the following settings for keyboard keys:

  – **Repeat Keys**
  – **Sticky Keys**
  – **Slow Keys**
  – **Bounce Keys**

  For more information on these settings, see Customizing Typing Assist.

- **Pointing & Clicking**

  Selecting this option displays accessibility features to aid users with motor impairments that make using a mouse or any pointing device difficult. The settings you can enable and customize include the following:

  Mouse Keys

  Enabling this setting lets you control the mouse pointer by using the numeric keypad on your keyboard.

  Locate Pointer

  Enables you to find the position of the mouse pointer on the screen by pressing the left control key.

  Activate Windows on Hover

  Enables you to place the mouse pointer over a window to activate it.

  Double-Click Delay

  Enables you to control how quickly you need to press the mouse button a second time to complete a double-click.

Click Assist Settings

The Click Assist settings group includes the following settings for the mouse:

- **Simulated Secondary Click**

  Enables you to perform a secondary click (usually the right mouse button) by holding down the primary button for a length of time and then releasing it. The length of time for which you need to hold the primary button down before releasing it can be adjusted through the **Acceptance Delay** setting.

- **Hover Click**

  Enables you to perform a mouse click by hovering the mouse pointer over the item to be clicked. The mouse does not have to be kept perfectly still while hovering the pointer as some movement is allowed. You can adjust the **Motion Threshold** setting to change the amount a mouse pointer can move and still be considered to be hovering.

For more information on using these settings, see Customizing Click Assist.

- **Zoom**

  Selecting this option displays features for configuring different types of zoomed views, for example:

  - A zoomed view that uses the entire screen.
  - A zoomed square "magnifying lens" view that follows the mouse pointer.

  The zoomed views can be further enhanced by adjusting color and contrast settings and crosshair lines for the mouse pointer.

  Examples of settings include **Desktop Zoom**, **Magnification Factor**, **Magnification View**, **Brightness**, and **Contrast**.

  For a more complete list of settings and information on how to use them to configure zoomed views, see Customizing Zoom

3
Customizing Accessibility Features

Accessibility features already have preconfigured settings so that they're immediately usable after an Oracle Linux installation. However, some of these features can be customized according to preferences. This chapter provides an overview and examples of how you can do this.

Customizing the Screen Reader

Customize the screen reader settings in the **Screen Reader Preferences** window.

Oracle Linux provides Orca as its default on-screen reader. The `orca` package is installed on the Oracle Linux 10 system by default. When enabled, the Orca screen reader speaks text as you move the focus of the cursor on-screen. This topic describes how to customize the screen reader configuration.

> **Note:**
>
> You must perform the following steps as a non-root user.

1. Run the `orca` command with the setup option to open the preferences window.

   Run the following command:

   ```
   orca -s
   ```

   The `-s` option can also be typed as `--setup`. The command opens the **Screen Reader Preferences** window.

   > **Note:**
   >
   > When you open the **Screen Reader Preferences** window, the screen reader is temporarily enabled so you can hear the effect each setting has. The temporary activation of the screen reader is disabled when you close the window and end the program by pressing `Ctrl+C`.

2. Customize the reader according to specific needs.

   Select each tab to configure the different options on those tabs. To see an overview of the available tabs see Configurable Settings of the Screen Reader

   For Braille configuration, see Using Braille.

3. Select **Apply**, then Select **OK**.
4. At the command line, press `Ctrl+C` to return to the command prompt.

   The temporary activation of the screen reader is disabled.

5. (Optional) Enable the screen reader.

   Access the **Accessibility** panel by using a preferred method. See Accessing Assistive Technologies

   Select **Seeing**, and then switch the **Screen Reader** toggle to **ON** to enable the screen reader.

Configurable Settings of the Screen Reader

The following table provides an overview of the different tabs of the **Screen Reader Preferences** and the types of settings each tab provides. For more details, view the Orca help pages by selecting the **Help** option on the **Screen Reader Preferences** window (viewing the help pages requires a web browser).

Table 3-1 Screen Reader Settings Tabs

Tab Name	Description
General	Contains settings for general preferences, for example: • The keyboard layout to use: **Desktop** (default) or **Laptop**. • Mouse settings to use, for example whether Orca should present tooltips that appear when the mouse hovers. • Settings to configure how progress bar updates are reported.
Voice	Contains voice settings. For example: • The **Voice type** list of options, such as **Default**, **Uppercase** and **Hyperlink**, to configure different voices for different types of text. • **Global Voice Settings** such as and **Speak multicase strings as words** and **Speak numbers as digits**.
Speech	Contains settings to define what the reader reads aloud and the degree of verbosity. The tab also contains settings for punctuation levels.
Braille	Configures Orca Braille display support. See Configurable Braille Settings on the Screen Reader for an overview of available settings.
Echo	Defines what the reader reads aloud while you type.
Key Bindings	Defines keyboard shortcuts for Orca.
Pronunciation	Configures word pronunciation.
Text Attributes	Configures text formatting.

Customizing Zoom

Enable **Desktop Zoom** and configure different types of zoomed views.

Customize **Zoom** settings to create a zoom view to suit the needs of a specific user. The different types of magnified views you can configure include the following:

- A full screen magnification view where the entire screen is magnified.
- A zoomed square "magnifying lens" view that follows the mouse pointer.
- A split screen view where half the screen, for example the bottom half, renders the magnified view of the mouse pointer location, whilst the other half displays the desktop without zoom settings.

The zoomed views can be further enhanced by adjusting color and contrast settings and crosshair lines for the mouse pointer.

The following example procedure assumes you're configuring Zoom to render the magnified view in the bottom half of the screen with thick blue crosshair lines to help make the mouse pointer location more visible:

1. Access the **Accessibility** panel by using a preferred method.

   See Accessing Assistive Technologies.
2. Select **Zoom**.

   A panel of Zoom options appears.
3. On the panel of Zoom options, in the **Magnifier** section, set the **Magnification Factor** to the required value, for example 1.50.
4. From the **Magnifier View** list, select **Screen Area**.

   Options for configuring the **Screen Area** become available.
5. From the **Screen Area** list, select **Bottom Half**.
6. In the **Crosshairs** section, switch the **Crosshair Lines** toggle to **ON**.

   Further Crosshair settings appear.
7. Use the **Thickness** slider to increase the thickness of the crosshair lines.
8. Select the **Color** setting.

   A list of colors appears on a panel.
9. From the panel of colors, select a color, for example, blue.
10. (Optional) Toggle the Desktop Zoom switch to **ON** to use the feature immediately.

    You can also enable the magnifier later through the **Accessibility Menu** icon on the desktop's top bar.

For more information about customizing the magnifier, see the following:

- GNOME help pages (see Viewing GNOME Help for information on how to view the help pages).
- Configurable Settings for Zoom
- https://help.gnome.org/users/gnome-help/stable/a11y-mag.html.en

Configurable Settings for Zoom

The following tables provide an overview of different types of settings that can be configured for the zoom functionality.

Table 3-2 Desktop Zoom

Setting	Description
Desktop Zoom	**Desktop Zoom** sets whether Zoom functionality in the GNOME desktop is enabled. All other settings on the Zoom panel only come into effect if **Desktop Zoom** is enabled.

Table 3-3 Magnifier Settings

Setting	Description
Magnification Factor	This can be set to any value between 1.00 and 20.00.
Magnification View	The possible values for **Magnification View** are as follows: • **Follow Mouse Cursor**: Creates a zoomed square "magnifying lens" view that follows the mouse pointer. • **Screen Area**: Stipulates that a dedicated screen area, for example, the right half of the screen, is used to render the magnified content. The location of the dedicated screen area is defined in a separate **Screen Area** setting.
Screen Area	This setting is used when **Magnification View** has been set to use a fixed screen region for the zoomed view. The **Screen Area** setting can be set to one of the following: • **Full Screen**: Magnifies the entire screen. • **Top Half**: Renders magnified content in top half of the screen. • **Bottom Half**: Renders magnified content in bottom half of the screen. • **Left Half**: Renders magnified content in left half of the screen. • **Right Half**: Renders magnified content in right half of the screen.

Table 3-4 Crosshairs Settings

Setting	Description
Crosshair lines	Sets whether to use crosshairs in the magnified view to mark the cursor location.
Overlap Mouse Cursor	When selected, the crosshairs fully intersect and extend into the mouse cursor location. When unselected, the crosshairs end before they intersect the mouse cursor.
Thickness	Sets the thickness of the crosshair lines.
Length	Sets the length of the crosshair lines.
Color	Sets the color of the crosshair lines.

Table 3-5 Color Filters Settings

Setting	Description
Inverted	Inverts the screen colors in the magnified view.
Brightness	Sets screen brightness in the magnified view.
Contrast	Sets screen contrast in the magnified view.
Color	Sets color saturation the magnified view.

Customizing Click Assist

Customize the **Click Assist** group configurations of the **Point & Clicking** settings that provide accessibility features for using mouse pointer devices.

The **Click Assist** feature includes the **Simulated Secondary Click** and **Hover Click** settings. The following example procedure provides the steps you need to perform to enable and customize the **Simulated Secondary Click** settings.

1. Access the **Accessibility** panel by using a preferred method.

   See Accessing Assistive Technologies.

2. Select **Pointing & Clicking**.

   The **Pointing & Clicking** panel of options appears.

3. On the **Pointing & Clicking** panel, in the **Click Assist** section, switch the **Simulated Secondary Click** toggle to **ON**.

   The **Acceptance Delay** setting appears.

4. (Optional) Use the **Acceptance Delay** slider to adjust the length of time the primary button needs to be held down for (before its release) to perform the simulated secondary click.

For more information about configuring **Click Assist**, view GNOME help pages (see Viewing GNOME Help for information on how to view the help pages).

Configurable Settings of Click Assist

The following table provides an overview of the settings that can be configured for the **Click Assist** group of settings.

Table 3-6 Click Assist Settings

Setting	Description
Simulated Secondary Click	Enables you to perform a secondary click (usually the right mouse button) by holding down the primary button for a length of time and then releasing it. The related setting **Acceptance Delay** is used to adjust the length of time you need to hold the primary button down before releasing it.

Table 3-6 (Cont.) Click Assist Settings

Setting	Description
Hover Click	Enables you to perform a mouse click by hovering the mouse pointer over the item to be clicked. The mouse does not have to be kept perfectly still while hovering the pointer as some movement is allowed. You can adjust the **Motion Threshold** setting to change the amount a mouse pointer can move and still be considered to be hovering.

Customizing Typing Assist

Customize the **Typing Assist** group configurations of the **Typing** settings that provide accessibility features, such as **sticky keys** and **bounce keys**, to help with key presses.

The following example procedure provides the steps you need to perform to customize the configurations of the **Repeat Keys** setting (**Repeat Keys** is enabled by default).

1. Access the **Accessibility** panel by using a preferred method.

   See Accessing Assistive Technologies.
2. Select **Typing**.

   The **Typing** panel of options appears.
3. On the **Typing** panel, in the **Typing Assist** section, select **Repeat Keys**.

   The **Speed** and **Delay** settings appear.
4. Use the **Speed** slider to speed at which key presses are repeated when a key is held down.
5. Use the **Delay** slider to adjust the length of time it takes before repeated key presses are actioned (increasing the **Delay** gives you more time to release a key before repeated key presses start),
6. (Optional): Open a text editor and hold down a key to see if further adjustments are needed.

For more information about configuring **Typing Assist**, view GNOME help pages (see Viewing GNOME Help for information on how to view the help pages).

Configurable Settings of Typing Assist

The following table provides an overview of the settings that can be configured for the **Typing Assist** group of settings.

Table 3-7 Typing Assist Settings

Setting	Description
Repeat Keys	With **Repeat Keys** enabled (the default) a held down key raises repeated key press events until the key is released. The **Delay** setting can be adjusted to give users more time to release keys before repeated key presses start, and the **Speed** setting can be adjusted to change how quickly the key presses are repeated. You can also disable the **Repeat Keys**.
Sticky Keys	Enables shortcut keys to be typed in sequence instead of one key being held before the other key is pressed.
Slow Keys	Enabling **Slow Keys** sets a delay between a key being typed and the corresponding character being displayed on-screen. The **Acceptance Delay** setting can be used to control the extent of the delay.
Bounce Keys	Enable this setting if you need the system to ignore inadvertent repetitive key presses that follow the initial intended key press. The **Acceptance Delay** setting can be used to adjust the time interval during which a repeated key press is ignored.

4
Using Braille

Braille support is included in the GNOME desktop's accessibility features. Likewise, the `brltty` daemon that's running as a background process enables users to access information on Braille display devices.

Installing and Customizing the brltty Service

Support for a Braille device is provided by the BRLTTY daemon (`brltty`). You configure this service through the `/etc/brltty.conf` configuration file.

> **Note:**
>
> The `brltty` service isn't available by default. To use this service you must install the `brltty` package.

1. Install the `brltty` package.

   ```
   sudo dnf install -y brltty
   ```

2. Configure settings in `/etc/brltty.conf` as needed.

   See Configurable Settings of the brltty Service.

3. Enable the `brltty` service.

   ```
   sudo systemctl enable --now brltty
   ```

4. Reboot the system.
5. Verify that the brltty service is running.

   After the system reboots, verify that the service is running, as follows:

   ```
   sudo systemctl status brltty
   ```

   ```
   * brltty service - Braille display driver for Linux/Unix
      Loaded: loaded (/usr/lib/systemd/system/brltty.service; enabled; vendor
   preset: disabled
      Active: active (running) since Wed 2020-04-15 12:07:48 PDT; 25min ago
   ...
   ```

> **Note:**
>
> If you change settings in `/etc/brltty.conf`, then you must also restart Orca. To configure Braille options in the Screen Reader, see Configuring Braille Options on the Screen Reader.

For more information, see the `brltty(1)` manual page.

Configurable Settings of the brltty Service

The following are a selection of configurations that you can set in `/etc/brltty.conf`:

Table 4-1 Configuration settings of the brltty service

Functional Requirement	Configuration Setting
Authorize users who can use the Braille device.	Specify the users on the line `#api-parameters Auth=user:`, for example: `api-parameters Auth=user:jsmith, jdoe, bbrown`
Authorize groups who can use the Braille device.	Specify the groups on the line `#api-parameters Aut=group:`. For example, for a group called `braille`, you would enter: `api-parameters Auth=group:braille`
Specify the Braille display device driver.	Uncomment the appropriate `#braille-driver` line that contains the selected driver. Drivers are identified by two-letter codes, which are provided in the configuration file, for example: `braille-driver vo` On a single `braille-driver` line, you can specify multiple, comma-separated drivers. In this case, the service automatically scans the list and detects the appropriate driver.
Specify the type of Braille display device.	Uncomment the appropriate `#braille-device` line that contains the selected device. Several lines that correspond to specific device types are provided, for example: `braille-device bluetooth:`*`address`* On a single `braille-device` line, you can specify multiple, comma-separated devices. In this case, the service automatically scans the list and detects the appropriate device.

Configuring Braille Options on the Screen Reader

Use the Braille tab on the GNOME desktop's **Screen Readers Preferences** window to configure Braille options.

> **Note:**
>
> You must perform the following steps as a non-root user.

1. Open the **Screen Reader Preferences** window.

   ```
   orca -s
   ```

   The `-s` option can also be typed as `--setup`. The command opens the **Screen Reader Preferences** window.

   > **Note:**
   >
   > When you open the **Screen Reader Preferences** window, the screen reader is temporarily enabled so you can hear the effect each setting has. The temporary activation of the screen reader is disabled when you close the window and end the program by pressing `Ctrl+C`.

2. Select the **Braille** tab.
3. Customize the Braille options according to user needs.
4. Select **Apply**, and then Select **OK**.
5. At the command line, press `Ctrl+C` to return to the command prompt.

   The temporary activation of the screen reader is disabled.
6. Enable the screen reader.

   Access the **Accessibility** panel by using a preferred method. See Accessing Assistive Technologies

   Select **Seeing**, and then switch the **Screen Reader** toggle to **ON** to enable the screen reader.

> **Note:**
>
> If you change settings in `/etc/brltty.conf`, then you must also restart Orca. To configure `/etc/brltty.conf`, see Installing and Customizing the brltty Service.

Configurable Braille Settings on the Screen Reader

On the Braille page, you can configure the following settings:

Display Settings
Defines how Braille is displayed.

Verbosity
Defines the amount of information rendered in Braille.

Selection and Hyperlink Indicators
Defines how selected text and hyperlinks are displayed.

Flash Message Settings
Enables notifications and configures how these notifications are handled.

For more information about configuring Orca's Braille options, do the following:

- View the Orca help pages by selecting the **Help** option on the **Screen Reader Preferences** window (viewing the help pages requires a web browser).
- See https://help.gnome.org/users/orca/stable/preferences_braille.html.en