LPIC-1 102-500 – Lesson 4

106.2 Graphical Desktops



Graphical Desktop Environments

- A Graphical Desktop Environment is a collections of applications, themes, icons, windows, wallpapers with a distinct user interface.
- Another terminology used is *Graphical Shell*
- There are numerous Graphical Environments for Linux some full-featured and customizable, some light and basic.
- All these Desktop Environments need a graphical server to work, such as X11, or Wayland.

List of Graphical Desktops

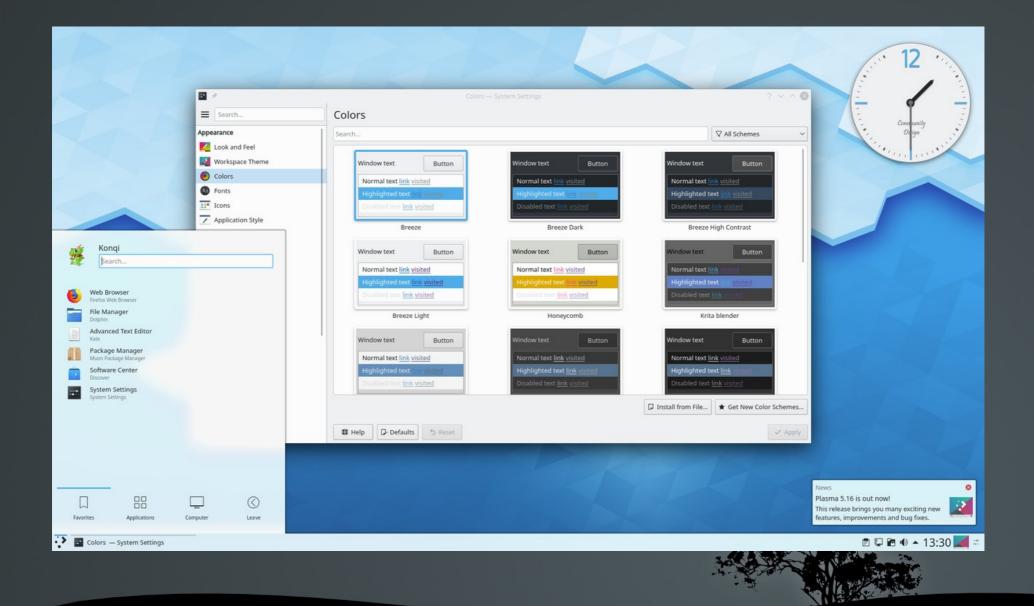
- **GNOME**: A very popular Desktop. The latest version is 3
- KDE: Another popular Desktop that resembles newer versions of Microsoft Windows
- **Mate:** Gnome 2 fork
- Cinnamon: Used and developed by Mint. MS Windows lookalike
- Unity: Used in earlier Ubuntu versions
- **XFCE**: A lightweight environment
- Pantheon: Developed by ElementaryOS. A MacOS lookalike
- Budgie: a ChromeOS lookalike

Gnome Shell



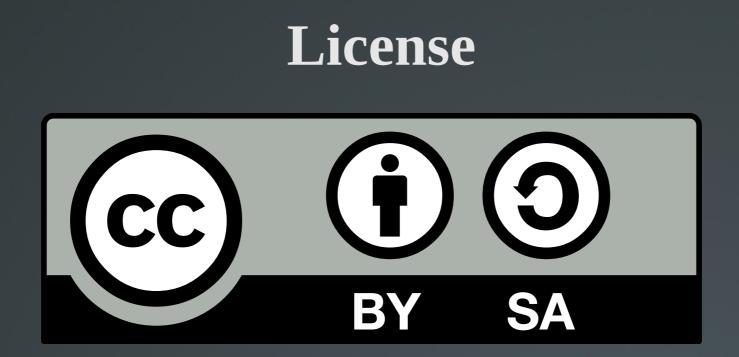
Author Athenkosi Hlubi

KDE Plasma 5



Remote Display Protocols for Linux Desktop Environments

- XDMCP: This is the main protocol of communication between the Window Manager and the X Server. It uses port 177/UDP over network connections.
- **VNC**: Very popular on Linux, port 5900/TCP
- SPICE: used mainly in virtual environments, port 5900/TCP. Supports TLS.
- **RDP**: Supported via the xrdp package. Not all Desktop Environments are supported.
- All these protocols (expect SPICE with TLS) are inherently insecure and need additional effort, like an SSH tunnel, for encrypted connections.



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