## PRE-CONDITIONS

Users had Linux workstations that were switched to Windows laptops. They looked for an alternative to provide Linux Desktops to these users. The main applications used are development tools, terminals, and browsers.

## PURPOSE

To provide server-based XFCE and MATE Linux Desktops to the users.

## RESULTS

Thinlinc was implemented to provide the server-based XFCE and MATE Linux Desktops to the users. Users access mainly development tools, terminals, and browsers through the Thinlinc solution. It is accessed through Windows Laptops and other devices.

---

### ADDITIONAL INFORMATION & OTHER POTENTIAL USES:

Organizations aiming to offer Linux desktops and Linux applications to final users with a variety of devices may use Thinlinc to achieve it.
CASE DESCRIPTION / STORY

Being able to access Linux desktops from any device was a crucial factor for Vodafone-Ziggo when choosing ThinLinc

The ability to provide server-based computing access to diverse devices with various operating systems is a constant challenge for some IT teams. Using Remote Desktop technologies brings greater flexibility to the user as it allows the use of a different operating system than the one installed locally, for example. In order to provide Linux Remote Desktop for the users, the Dutch-based VodafoneZiggo makes use of ThinLinc Desktops from the Swedish company Cendio.

The installation started as a POC installation and grew organically due to increased user adoption. The VodafoneZiggo team accesses the Ubuntu server through ThinLinc to work on Mate or XFCE desktops. The masters are load-balanced behind a load balancer. The cluster consists of 2 master servers together with 10 agents, divided into 2 subclusters with 5 agents each. ThinLinc version 4.10.0 introduced the ability to partition a ThinLinc cluster into sub-clusters for different use. The different sub-clusters can even use entirely different distributions.

Most of the devices used are laptops running the Windows operating system, although there are also a number of other devices used to access from home. All accesses are from the native ThinLinc client. ThinLinc together with VPN is used to gain secure access to their environment. To gain access to ThinLinc the authentication is through 2-factor (token). ThinLinc’s deployment and upgrades were automated by the team. ThinLinc features such as sound redirection, local drivers and local printers are constantly used.

The main use of ThinLinc is for accessing internal servers and network devices within the secure network. The most used applications are development tools, terminals, and browsers. Session shadowing, which is the ThinLinc functionality that allows more than one user to share the same session, is positively highlighted by the VodafoneZiggo team. Shadowing allows the team to follow the 4 eyes principle, especially during the execution of critical changes, even from different locations.

ZiggoVodafone is the largest operator of internet and cable TV services in the Netherlands and is a Cendio customer using ThinLinc since 2013.

Cendio aims to make ThinLinc the best Linux Remote Desktop Server. It is thus written in the document that guides the ThinLinc development roadmap "The ThinLinc server should be able to integrate into any existing environment without modification, and any client device should be able to access the server." Cendio was founded in 1992 by students from Linköping University in Sweden and is one of the oldest Linux-centric companies in the world. Contact us or the ThinLinc user community to learn more about the product as well as to access other use cases. Follow www.cendio.com.