
# LFS-305
# Linux On Azure

# X2GO

# Outline

# Linux Graphical Desktop Environments on Azure

# History...

- Historically the GUI for UNIX is network based.
- X Window system
  - Reverse Client/Server model
  - X Window clients are programs that want to display graphics
  - Can be GUIs, images etc.
- On Azure Linux VMs are 'headless'

  `Using tunneling over SSH you can start X Window clients`
- Issue: X is an resource consuming protocol

# X2GO - Optimize the X protocol...

- In the past many projects have tried to optimize the X protocol over the network. (E.g. dxpc)
- The company NoMachine delivered a commcerial solution with a separate NoMachine client and NoMachine server.
- NX Technology
- Versions prior to 4.0 were opensource. Versions 4.0 and higher are closed source.
- X2GO took up the gauntlet providing new server and clients for the 3.x protocol.
- Compression rates of 1:100 and 1:1000 can be achieved.

# What is needed for X2GO on client side?...

- On the Linux, Windows or OS/X system with a screen you will need the X2GO client package.
- This will provide the so called Xserver.
- Download the client for your platform from: `https://wiki.x2go.org/doku.php/download:start`
- Install the client on your system.

# What is needed on Azure side?...

- For CentOS/RHEL etc.
  - Install the EPEL repo.
    ```
    sudo yum install epel-release -y
    ```
  - Install the X2GO server software.
    ```
    sudo yum install x2goserver -y
    ```
  - Install the Mate Desktop environment
    ```
    sudo yum install @mate-desktop -y
    ```

# Configure the X2GO client...

- Start the X2GO client
- Choose Session → New Session
- Fill in:
  - Session name: e.g. CentOS on Azure
  - Host name: e.g. ip address or FQDN server
  - Select RSA/DSA key for connection
  - Select Session Type → MATE
  - If needed; check setting of connection and input/output.
- Close the settings.
- Select AZ system for right part of screen.
- System will automatically log you on in the Graphical Desktop Environment.