



Remote Desktop & Fedora

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What this talk is NOT about

- VDI
 - Remote Desktop Server Integrated into hypervisor (SPICE/VNC in KVM, VMware View)
 - Remote Desktop Server running in guest, but still tied to hypervisor (QVD, Citrix)

What this talk IS about



- Remote Desktop = multiple solutions/protocols, not Microsoft RDP specifically
 - Can run on physical desktop, server, cloud instance, even containers
- TigerVNC, X2Go and SPICE
- X11 itself provides “remote display”, but I do not consider it to be “remote desktop” because it lacks:
 - session resume
 - other needed desktop features like audio

X2Go Server Quick-Start



- Install packages
 - X2goserver
 - X2goserver-xsession
- Install compatible DE such as: MATE, XFCE, LXDE, KDE4
- Enable service: x2gocleansessions
- Enable service: sshd

TigerVNC Quick Start



- Install package
 - Tigervnc-server
- Install one of the DE's listed in /etc/X11/xinit/Xclients
 - GNOME
 - MATE
 - KDE
 - LXDE
- `vncserver -autokill -SecurityTypes=VeNCrypt,TLSPPlain -PlainUsers=$USER -pam_service login -desktop $HOSTNAME`
 - You will see a display number like :2

Today's Topics

1. Different Features
2. Demo
3. Integration
4. Penetrating the corporate desktop market
5. Future

Different Features (1)



Feature	TigerVNC	X2Go	SPICE
WAN Performance	Compression	Compression & Caching	Compression & Caching
Clipboard Sharing	Yes	Yes	Yes
Audio	No	Yes	Yes
File Transfers	No	Yes (Folder Sharing)	Yes (Drag & Drop)
Printer Sharing	No	Yes	Yes (WIP)
Client OSs	Linux, Windows, OS X, mobile (non-tiger)	Linux, Windows, Mac OS X	Linux, Windows

Different Features (2)

Feature	TigerVNC	X2Go	SPICE
Integrated Session Handling	No	Yes (via SSH)	No
Selectable Session Types	No	Yes (via Client)	No
Session Broker	No	Yes	No
Share Physical Desktop	Yes	Yes	No
Supports Latest DEs	Yes	No	Yes
Rendering Approach	Server-Side	Client-Side	Server-Side & Client-Side

Demo Time

- TigerVNC + GNOME
- X2Go + MATE
- X2Go + Single App
- TigerVNC + GNOME Flashback
 - From copr: [yselkowitz/gnome-flashback](https://copr.fedoraproject.org/coprs/yse/kowitz/gnome-flashback/)

Integrating with desktop

- xsession launching
- PolicyKit
- XDG AutoStarts for Single Apps

Penetrating the Enterprise

Desktop Market

- A web developer at a company that develops (on RHEL Server) for financial companies:
 - “IT Security is stupid and doesn't understand Linux, so they won't let me run Linux on my laptop.”
- Numerous complications for running Linux on laptops/desktop:
 - Corporate IT won't support you
 - Even many brand new internally developed web apps require IE

Future – Short Term



- GNOME Flashback
- Numerous integration bugs that can be fixed
- I (mikedep333) have a proof-of-concept xsession launcher on GitHub (xsession-launcher-pygtk)
- Educate users about the limitations of screen sharing versus regular dedicated X servers (like TigerVNC vncserver/Xvnc)

Future - Arctica



- SSH opens up many possibilities
 - Forwarded UNIX Sockets are awesome
- 4K video “Telekenesis” running smoothly by forwarding to client (doing 0 re-encoding)
 - <https://youtu.be/cBBfKTiB8OI> (4K Video Playback with X2Go Linux Terminal Server (using Telekenesis/mTelePlayer))

Future - Wayland

- Weston has an interface for remote desktop server plugins. Other compositors are expected to implement it.
- Wayland architecture opens up possibilities
 - Lock local screen when a remote client connects to a local session

Questions?



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