Gitso

Gitso – is to support others

By Stan Reichardt
Presentation shared with the

St. Louis Unix Users Group

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Welcome

Introduction

Stan Reichardt

- Current SLUUG Vice-President.
- Current SLACC co-host (with Phil Bunch).
- Current NEWLINUX chair.
- Additional information at following link:
  - https://www.sluug.org/bio/Stan_Reichardt.shtml

Description

- This talk is about **gitso**, a GPL 3.0+ open source tool.
- We want to show how **gitso** can help others remotely.
- Afterwards, users should know they can be helped with **gitso**.
- Awareness of **gitso** may prompt our skilled and experienced viewers to configure their routers so that they can help others using **gitso**.
- Goal: More users will use **gitso** for giving or receiving help.

Audience Level

- Polls to determine experience levels of participants:
  - Is anybody here familiar with **gitso**?
  - Has anybody here configured router port forwarding?
- Take their experience into account when presenting.

Agenda

- This talk will be very basic and introductory.
- It is **significant** that anyone *giving help* must do port forwarding.
- A demonstration (hopefully).
- A recording of this presentation should be available later.

Overview

- No prior experience with or exposure to **gitso** is assumed.
- Learning about **gitso**.
  - Introduction for those *needing help* with **gitso**.
  - Limited guidance for *giving help* with **gitso**.
  - Then, where to go next.

Disclaimer

- My main Operating System is LinuxMint MATE 20.0 distribution
  - Software management is based on using DEB files.
  - Differences with your manager will likely not be much of a problem.
  - Showing my setup might lead to improvements (or not).
  - Duplicating my setup may not be worthwhile (or may).
- My knowledge doesn't keep up.
- My skill doesn't keep up.

Terminology

- ## Remote Desktop Software https://en.wikipedia.org/wiki/Remote_desktop_software

In computing, the term **remote desktop** refers to a software or operating system feature that allows a personal computer's desktop environment to be run remotely on one system (usually a PC, but the concept applies equally to a server), while being displayed on a separate client device. Remote desktop applications have varying features. Some allow attaching to an existing user's session (i.e., a running desktop) and "remote controlling", either displaying the remote control session or blanking the screen. Taking over a desktop remotely is a form of remote administration.

- ## Port Forwarding https://en.wikipedia.org/wiki/Port_forwarding

In computer networking, port forwarding or port mapping is an application of network address translation (NAT) that redirects a communication request from one address and port number combination to another while the packets are traversing a network gateway, such as a router or firewall. This technique is most commonly used to make services on a host residing on a protected or masqueraded (internal) network available to hosts on the opposite side of the gateway (external network), by remapping the destination IP address and port number of the communication to an internal host.

Environment

- user@example:~/$ inxi -Fixc
- Chassis: desktop
- Kernel: Linux 5.4.0-88-generic
- Operating System: Linux Mint 20.0 MATE
- Architecture: x86-64
- Software Management: DEB
- Physical equipment used: No brand BYOD desktop
- Desktop Mobo: Gigabyte model: GA-880GM-UD2H
- Processor: Quad Core AMD Phenom II X4 965
- Display: [AMD/ATI] RS880 [Radeon HD 4250]
- Storage: /dev/sda Toshiba HDWD110 931.51 GiB
- Storage: /dev/sdb HitachiHDS721050CLA362 465.76 GiB
- Memory: 16GB of RAM
- Wired: Realtek RTL8111/8168/8411 PCI Express Gigabit Ethernet
- Wireless: N/A

Installation

- user@example:~/$ which gitso # check if already installed
- user@example:~/$ aptitude show gitso # check if available
- My setup is with LinuxMint 2.0, using DEB files.
- Install **gitso** from repository.
- user@example:~/$ sudo apt install gitso
- Can also be installed with GUI tools:
  Software Manager (Store), Package Mgr(Synaptic), etc.

Platform

- For Source: https://code.google.com/archive/p/gitso/
- As far as I know:
- **gitso** works well with Linux operating systems.
  - Also AppleMacOS (I have no experience with this).
  - Also MS Windows (I have no experience with this).

Points

- Suggested points to cover (not necessarily in this order):
- Who
- What
- Where
- When
- Why
- How

First Point - Who

- Two Linux users.
  - One *seeking help*.
  - One *giving help*.

Second Point - What

- **gitso** is a frontend to reverse VNC connections. **gitso** is meant to be a simple two-step process that connects one person to another's screen in the context of giving technical support.
- A user *seeking help* runs **gitso** to allow someone *giving help* to access their PC workstation, keyboard, mouse and screen.
- Both users need to install and run **gitso** application software.
- The one *giving help* must configure router to port forward **gitso**.

Third Point - Where

- User *seeking help* at 127.0.0.1 (home).
- Point to Point across the Internet (nobody in between)
- User *giving help* from 127.0.0.1 (a different home, thru router).

Fourth Point - When

- Any time?

Fifth Point - Why

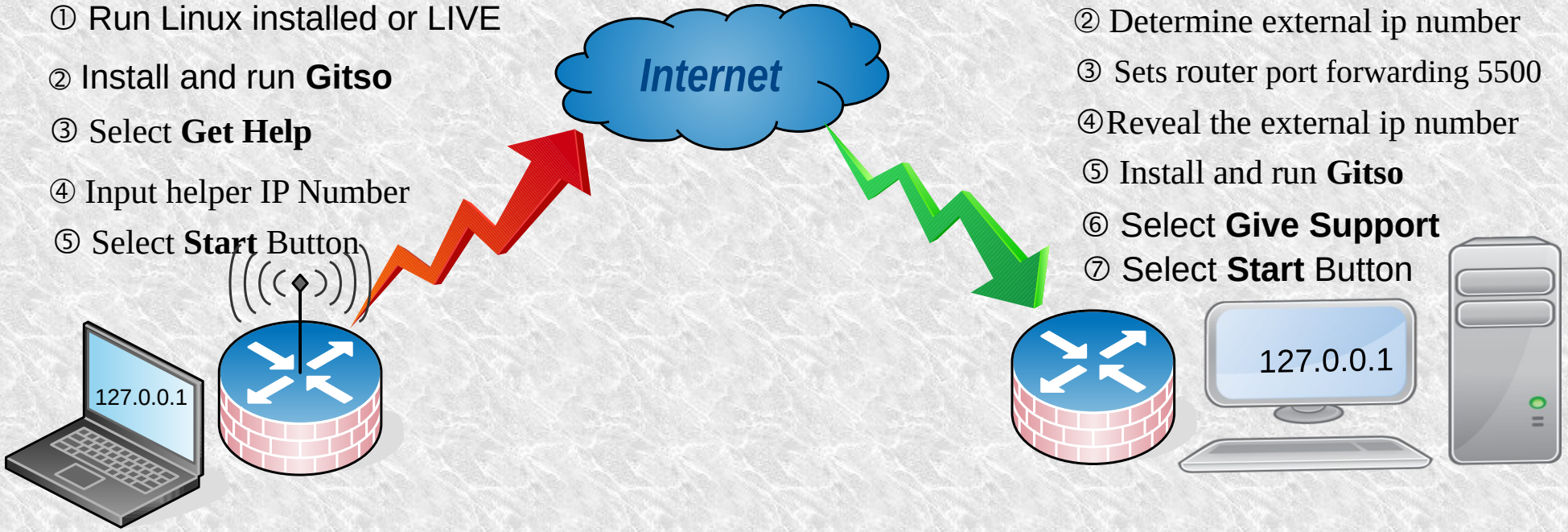
- Benefits
  - Easier to use for those *seeking help*.
  - When someone is *seeking help*, easier for someone *giving help*.
  - Anyone *seeking help* can watch and learn from those *giving help*.
- Criticism
  - Not well known.
  - No current maintainer.
  - No integrated voice communication (may need phone communication).

Sixth Point - How

- Both user A and user B install **gitso**.
- User A *giving help* must set up router to port forward **gitso**.
- User A *giving help* determines and tells external ip number of router.
- User A *giving help* starts **gitso**.
- User B *seeking help* inputs user A router ip number into **gitso**.
- User A *giving help* is connected by **gitso** to user B *seeking help*.

Diagram – How it Works

① Run Linux installed or LIVE
② Install and run **Gitso**
③ Select **Get Help**
④ Input helper IP Number
⑤ Select **Start** Button



① Run Linux installed or LIVE
② Determine external ip number
③ Sets router port forwarding 5500
④Reveal the external ip number
⑤ Install and run **Gitso**
⑥ Select **Give Support**
⑦ Select **Start** Button

User B seeking help

User A giving help

Diagram – How it looks

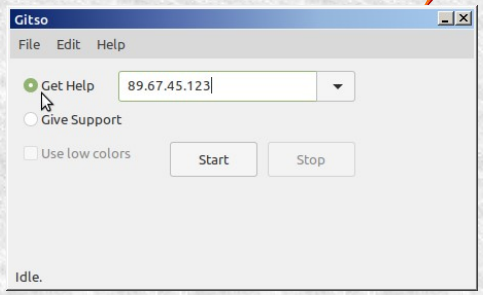
① Run Linux installed or LIVE

② Install and run **Gitso**

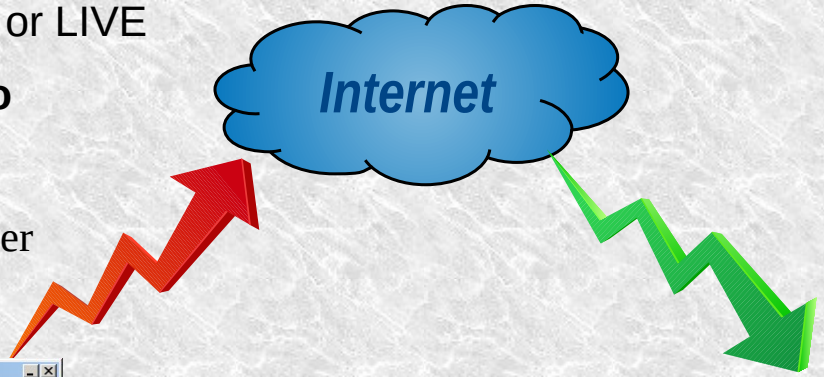
③ Select **Get Help**

④ Input helper IP Number

⑤ Select **Start** Button



User B seeking help



① Run Linux installed or LIVE

② Determine external ip number

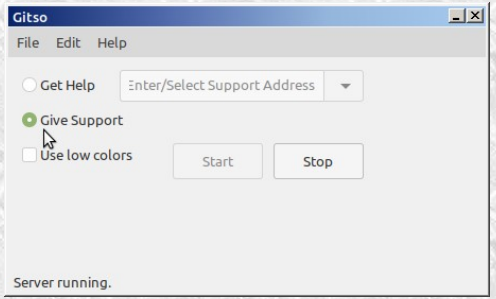
③ Sets router port forwarding 5500

④Reveal the external ip number

⑤ Install and run **Gitso**

⑥ Select **Give Support**

⑦ Select **Start** Button



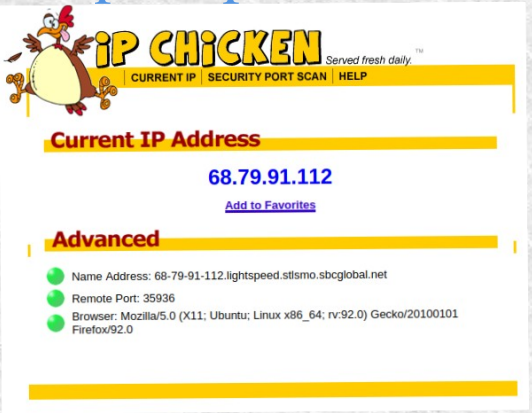
User A giving help

Determine External IP Number

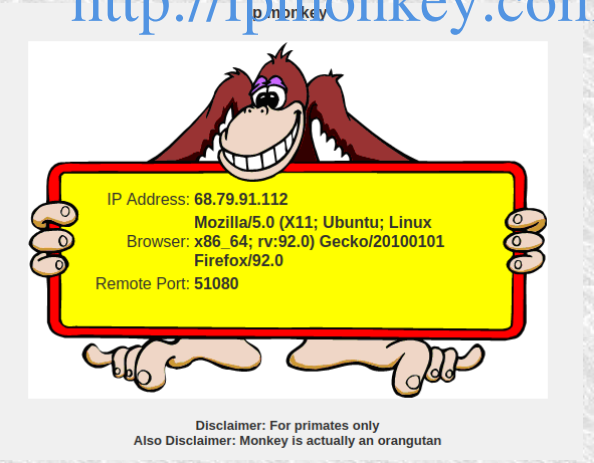
- user@example:~$ curl ipinfo.io # use Command Line Interface
- https://www.grc.com/shieldsup/

Shields UP!!

- https://ipchicken.com/



http://ipmonkey.com/



Port Forwarding

- Not covered here. Well beyond this session.
- Too many differing interfaces, hardware and techniques.
- This is the purview of the more technically experienced.
- https://portforward.com/ Generic router guidance.

Alternatives

Crowd sourced software recommendations:
https://alternativeto.net/

- You can check out the site above on your own whenever you want.
- Predominately listed alternative **Teamviewer**, which is proprietary.
- There are quite a few more listed; but, not quite same functionality.
- Some software is cross-platform. Some may work on Android, Apple macOS, BSD, iPhone, Linux or MS-Windows, Unix, etc.

Security

- **gitso** is GPL 3.0+ open source code.
  - **gitso** being OPEN does **not** guarantee secure.
  - **gitso** is **not** being maintained.
- **gitso** is still currently available in Debian 11 (bullseye).
- User *seeking help* will have to **trust** user *giving help*.
- No known bugs, conflicts or vulnerabilities.
- What could possibly go wrong?

Privacy

- There isn't any. Or, if there is to be any, you have to work at it.
- When you are on the Internet, things happen.
- What goes on in Las Vegas, stays on the Internet.
- Everything you see might be recorded or tracked.
  So, be careful where you are looking.
- What else could possibly go wrong?

References

- https://code.google.com/archive/p/gitso/ Homepage
- user@hostname:~$ curl ipinfo.io # use Command Line Interface
- https://www.grc.com/shieldsup firewall testing
- http://ipmonkey.com/
- https://ipchicken.com/
- https://portforward.com/ generic router guidance
- https://nvd.nist.gov/vuln National Vulnerability Database

Where to Go Next

- See https://en.wikipedia.org/wiki/Comparison_of_remote_desktop_software
- There are other remote connect tools that do different things than **gitso**.
- OpenSSH - https://en.wikipedia.org/wiki/OpenSSH
- SSHFS - https://en.wikipedia.org/wiki/SSHFS
- Remmina - https://en.wikipedia.org/wiki/Remmina
- ☠ Samba - https://en.wikipedia.org/wiki/Samba_(software) I prefer SSHFS.
- X2go - https://en.wikipedia.org/wiki/X2Go

Demonstration

- If appropriate, possible and time allowing might demo **gitso**.
- Might not be possible to display **gitso** session within current remote video sharing session. So, might provide short video of **gitso** session.

Summary

- This is where we review what we covered.
- Did we cover all these points well?

  Who, what, where, when, why and how.
- Did we forget anything necessary?

Later

- **Your feedback is always welcome!**
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Questions at the End

What are **your** Questions?

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Questions?