

The Brothers WISP



Greg Sowell Consulting

Route it like it's **HOT**

Accessing Geolocked  
Content The Easy Way

# Who Am I

- ▶ Greg Sowell – A+, Network+, CCNA, CCNP, CCIE Written, MTCNA, MTCRE, MTCINE, Mikrotik Certified Trainer
- ▶ VP of Technology FIBERTOWN Datacenters
- ▶ Consultant – [GregSowell.com](http://GregSowell.com)
- ▶ Author at [Lynda.com/gregsowell](http://Lynda.com/gregsowell) and LinkedIn learning

# The Brothers WISP

TheBrothersWISP.com

Patreon.com/thebrotherswisp

- ▶ Podcast
- ▶ Community Slack “the little brothers WISP”.

Slack - LittleBrothersWISP

**LittleBrothersW...** Greg Sowell

- # juniper
- # marketingsalesbizdev
- # **mikrotik**
- # mt\_known\_issues\_log
- # networking
- # netxms
- # openbsd
- # podcast
- # random
- # security
- # solar
- # sonar
- # sponsorship
- # swag
- # twvs
- # ubiquiti
- # unimus
- # videos

**#mikrotik**  
☆ | 👤 77 | 🗨️ 2 | ➕ Add a topic

Tuesday, March 5th

**Greg Sowell** 1:57 PM  
**bacon**  
Posted using /giphy (733 kB)

**Nick Buraglio** 1:57 PM  
Strips or Velcro? I don't care - I do my best to not do physical stuff. As long as it looks good, I'm cool with it

**Ole Morten Sundheim** 1:57 PM  
damn you greg

+ | Message #mikrotik

# Assumptions

- ▶ You are familiar with the Mikrotik interface
- ▶ You are familiar with basic configurations
- ▶ You have some understanding of what VPNs/tunnels are
- ▶ You enjoy watching streaming media

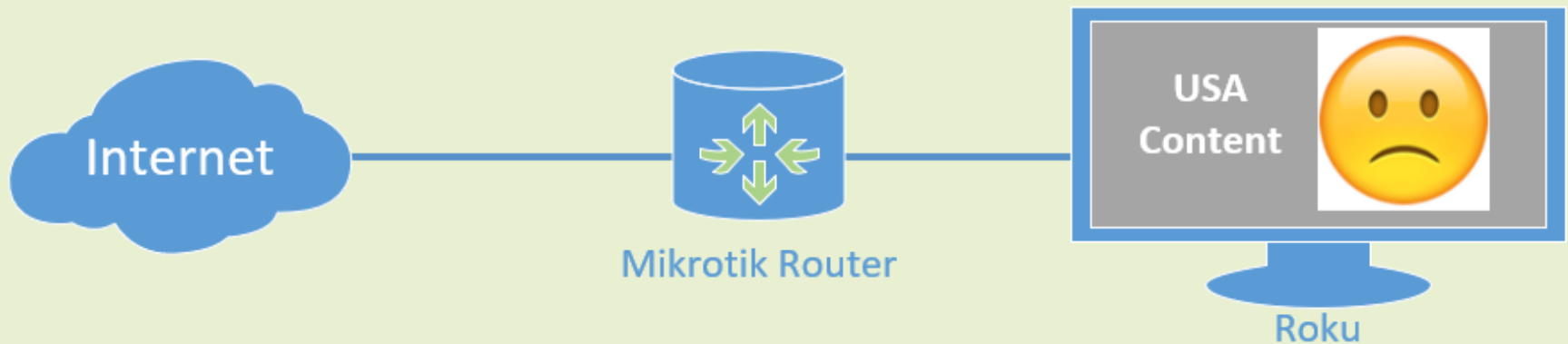
# My Predicament

- ▶ I'm traveling outside of my native country
- ▶ The content I want to watch is geo locked(only accessible via known good US subnets)
- ▶ I want to be able to be able to access my remote geo locked content as well as the local(in country) streaming services
- ▶ I also want to do all of my streaming from a Roku
- ▶ I want this to be as easy as possible

# My Current Configuration

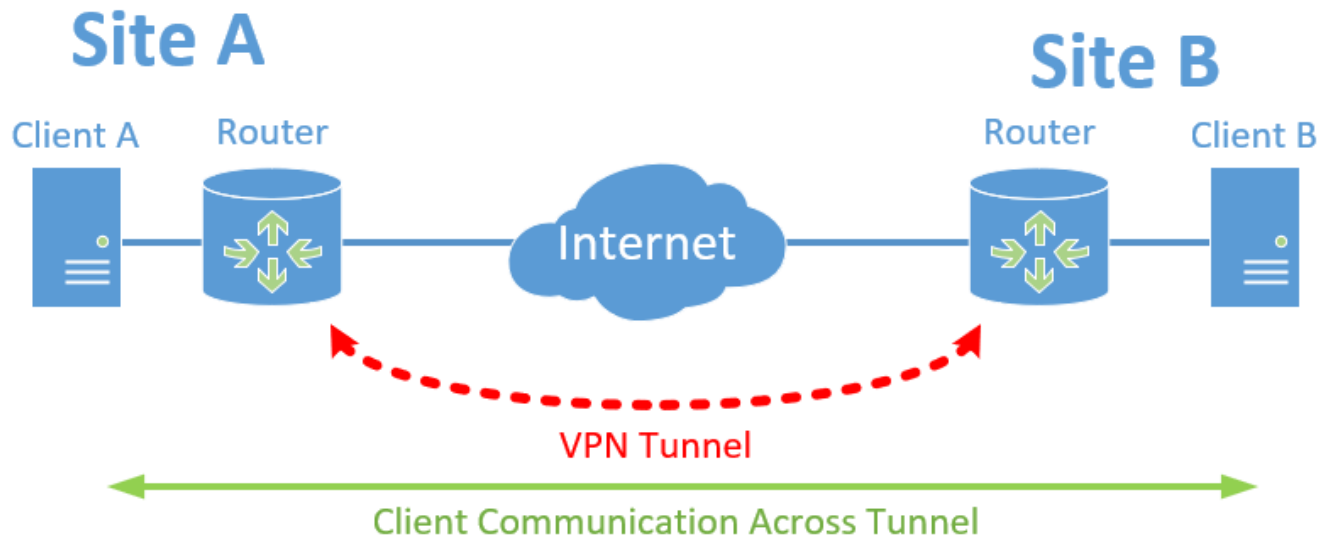
- ▶ In Australia, no USA content is available

Australia



# Do You Even VPN Bro?

- ▶ Virtual Private Network(VPN): extends a private network across a public network, and enables users to send and receive data across shared or public networks as if their computing devices were directly connected to the private network.
- ▶ In essence you can create a logical tunnel across the internet that your traffic can traverse



# VPN Types

- ▶ GRE, IPIP, EoIP, PPTP, L2TP, SSTP, IPSec, OpenVPN, partridge in a pear tree(PIAPT)
- ▶ Secure/non-secure, do I need to encrypt streaming video?
- ▶ Some consume more resources on the router(all CPU based or hardware offloaded)
- ▶ Some tunnel types require known IPs on either end, others do not
  - ▶ Options for dynamic peers: PPTP, L2TP, OpenVPN
- ▶ No encryption requirement w/ low throughput requirement = use virtually anything

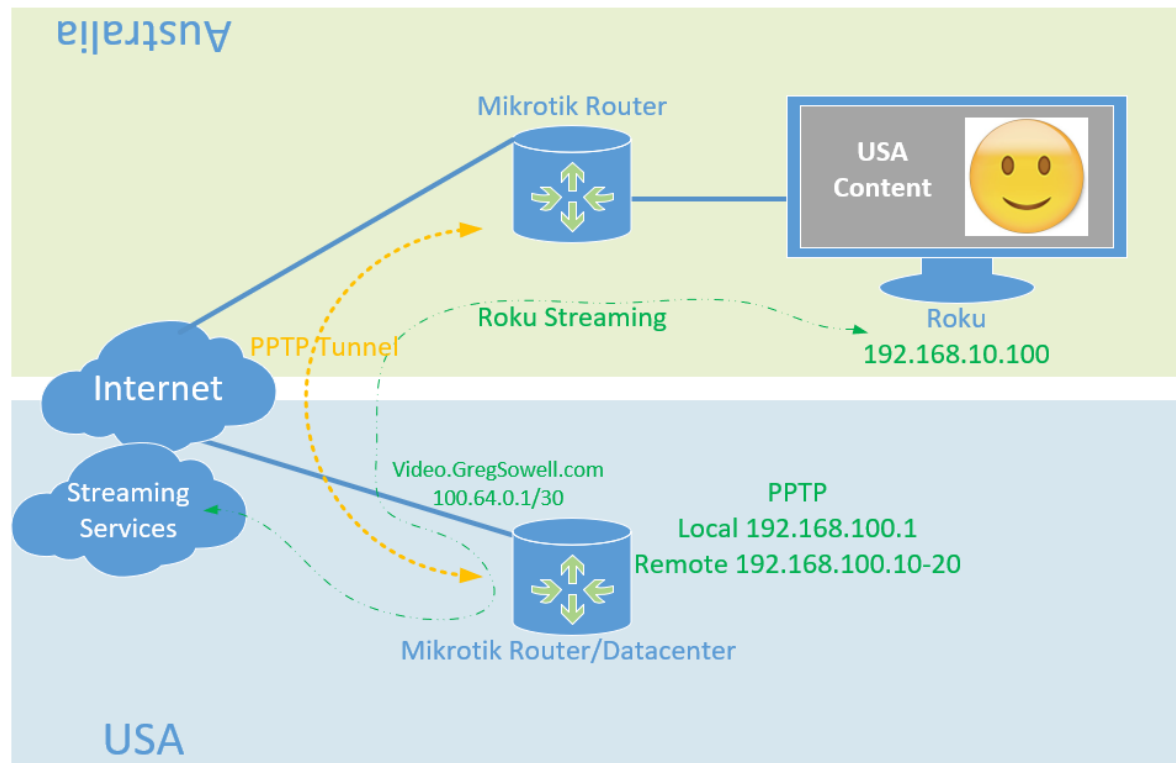


# VPN Endpoint Types

- ▶ Tunnel to your home Mikrotik
  - ▶ Mind your upload
- ▶ Tunnel to a VPN service (PureVPN, ExpressVPN, etc.)
  - ▶ These services often have subnets black listed
- ▶ Tunnel to a datacenter (physical, virtual) (make friends)
  - ▶ Consistent service, no black listing

# Create The Tunnel

- ▶ PPTP for tunnel type
- ▶ Tunnel all of my Roku's(192.168.10.100) traffic
- ▶ NAT all of the Roku's traffic at the USA side to reach USA streaming



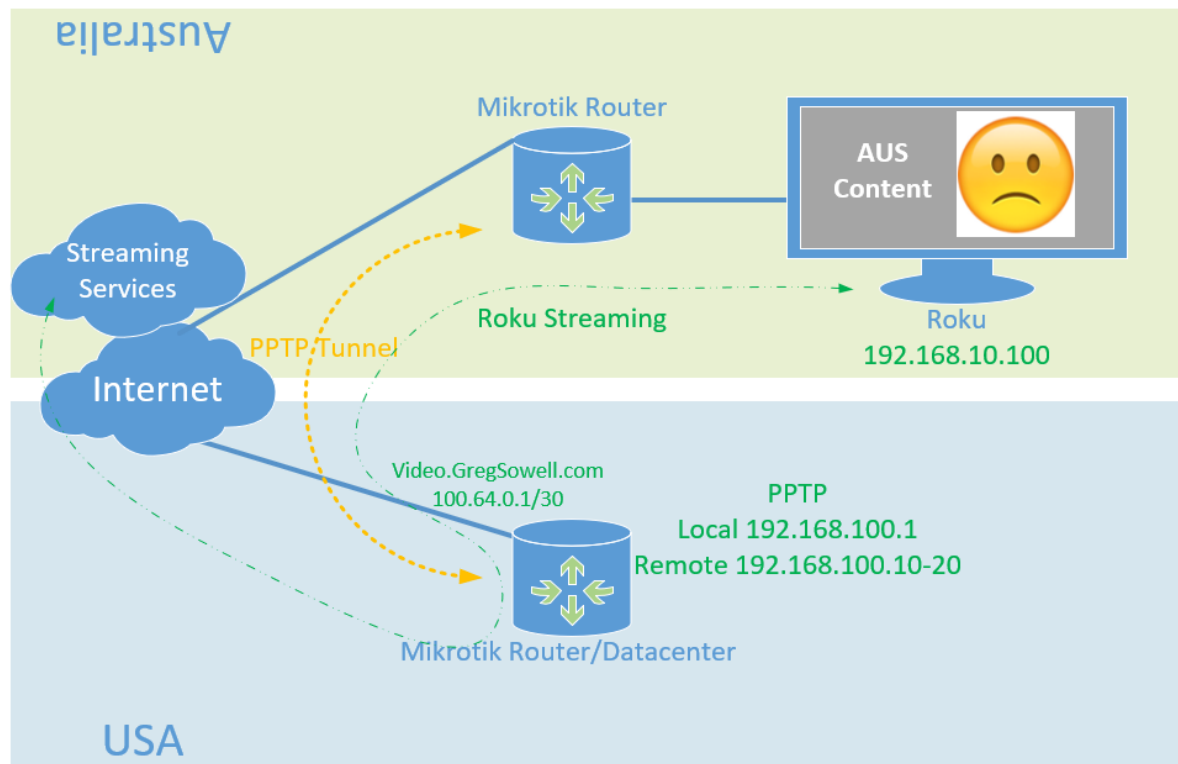


- Quick Set
- CAPsMAN
- Interfaces
- Wireless
- Bridge
- PPP
- Switch
- Mesh
- IP ▾
- IPv6 ▾
- MPLS ▾
- Routing ▾
- System ▾
- Queues
- Files
- Log
- RADIUS
- Tools ▾
- New Terminal
- MetaROUTER
- Partition
- Make Supout.rf
- Manual
- New WinBox
- Exit

Main content area (greyed out)

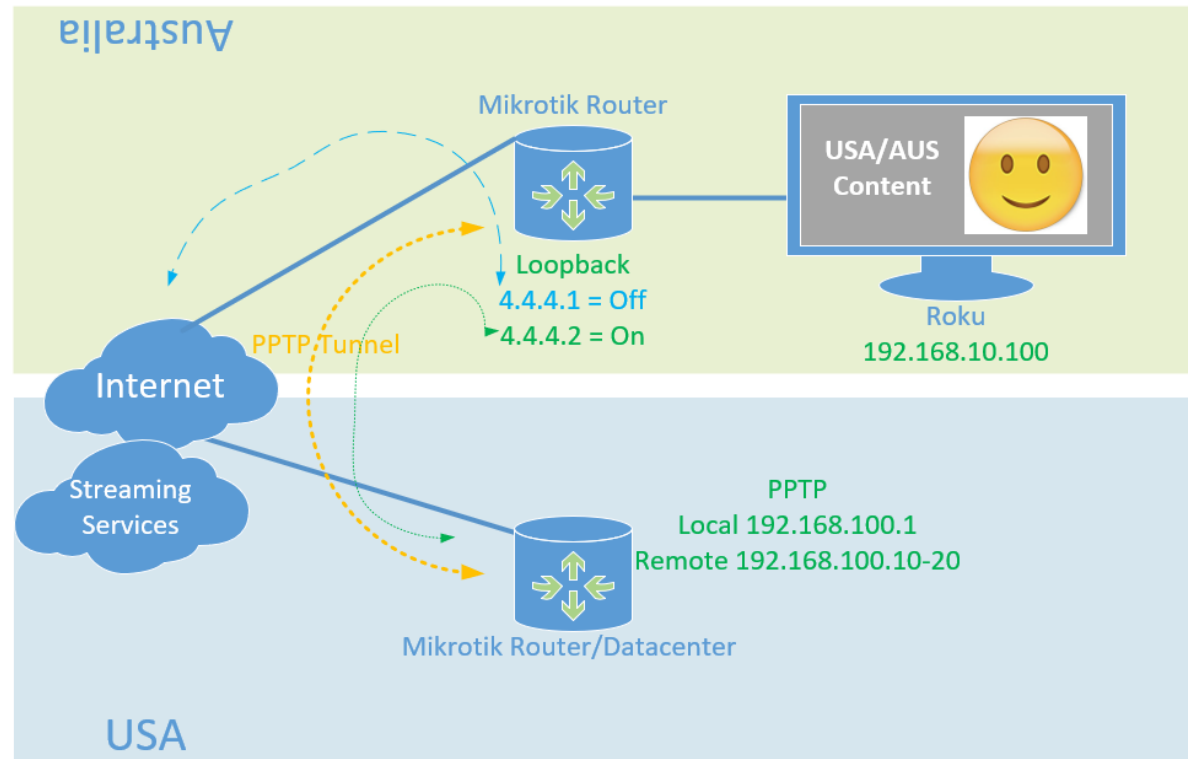
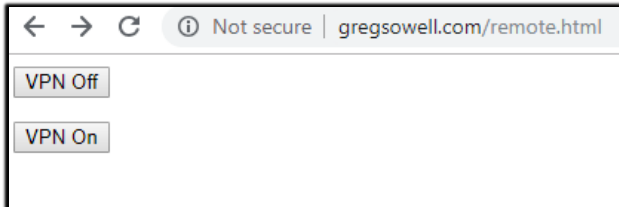
# Same Problem In Reverse

- ▶ Local AUS content now is being sourced via USA subnet
- ▶ AUS streaming is geo locked
- ▶ Need a simple way to switch back and forth



# A Simple Solution – Packet Switch

- ▶ Browse to 4.4.4.1 disables tunnel routing
- ▶ Browse to 4.4.4.2 enables tunnel routing
- ▶ Uses: Beautiful website, firewall rules, address lists, and netwatch



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# Alternatives?

- ▶ L7 inspection to log, script watching the log running every few seconds.
- ▶ External webserver that remotes into router and makes adjustments.
- ▶ Open winbox and make the change you bum.
- ▶ Get a life and not watch so much TV.



Questions?





One last thing, shake my hand,  
tell me your story, and buy the  
brothers a beer!

Thanks and happy routing!

# Resources

- ▶ Blog Post With Configs
  - ▶ <http://gregsowell.com/?p=5985>
- ▶ Greg's Blog
  - ▶ <http://GregSowell.com>
- ▶ TheBrothersWISP
  - ▶ <http://thebrotherswisp.com/>
  - ▶ <http://Patreon.com/thebrotherswisp>