

The Brothers WISP



Route it like it's HOT

Greg Sowell Consulting

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
- ▶ Author at Lynda.com/gregsowell and LinkedIn learning

The Brothers WISP

TheBrothersWISP.com

Patreon.com/thebrotherswisp

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

Slack - LittleBrothersWISP

1 LittleBrothersW... ● Greg Sowell

- # juniper
- # marketingsalesbizdev
- # mikrotik**
- # mt_known_issues_log
- # networking
- # netxms
- # openbsd
- # podcast
- # random
- # security
- # solar
- # sonar
- # sponsorship
- # swag
- # tvws
- # ubiquiti
- # unimus
- # videos

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#mikrotik

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Search

Tuesday, March 5th

 **Greg Sowell** 1:57 PM
bacon

Posted using /giphy (733 kB) ▾



Bacon.

 **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

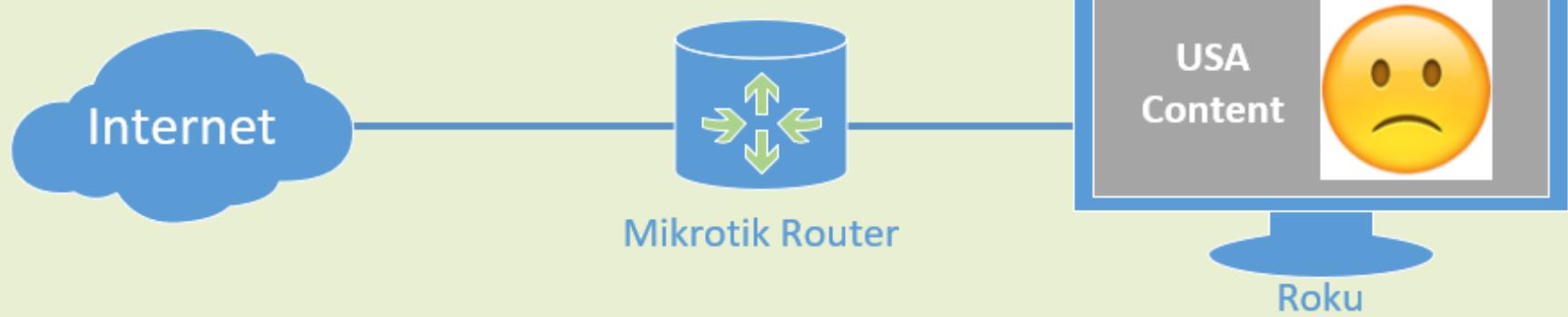
My Predicament

- ▶ 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 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

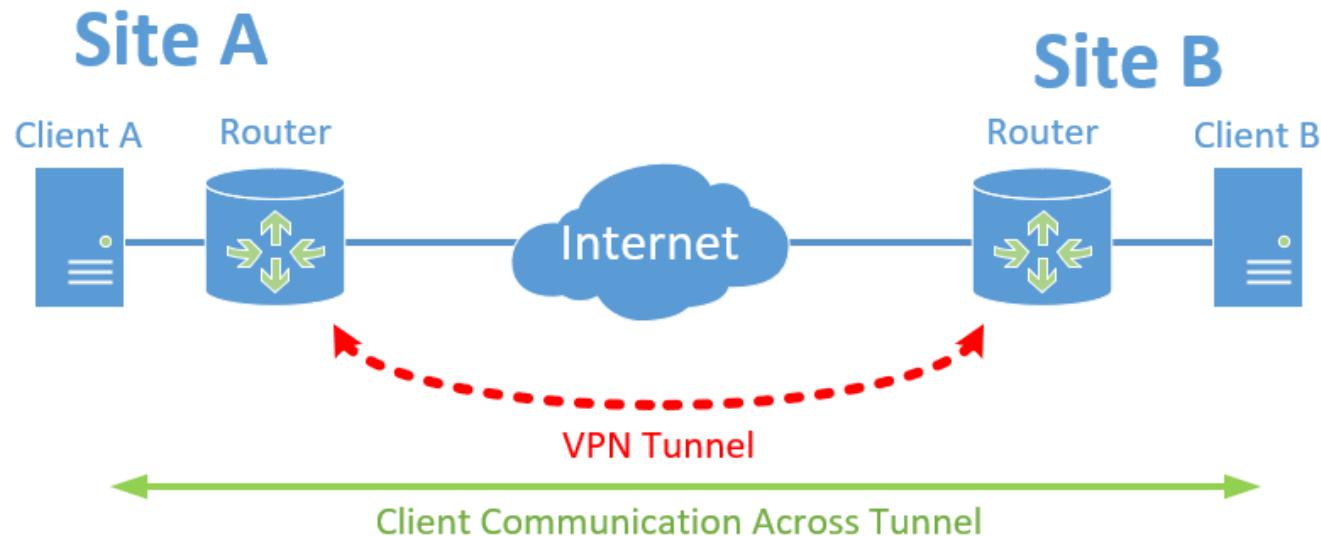
- ▶ In Australia, no USA content is available

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

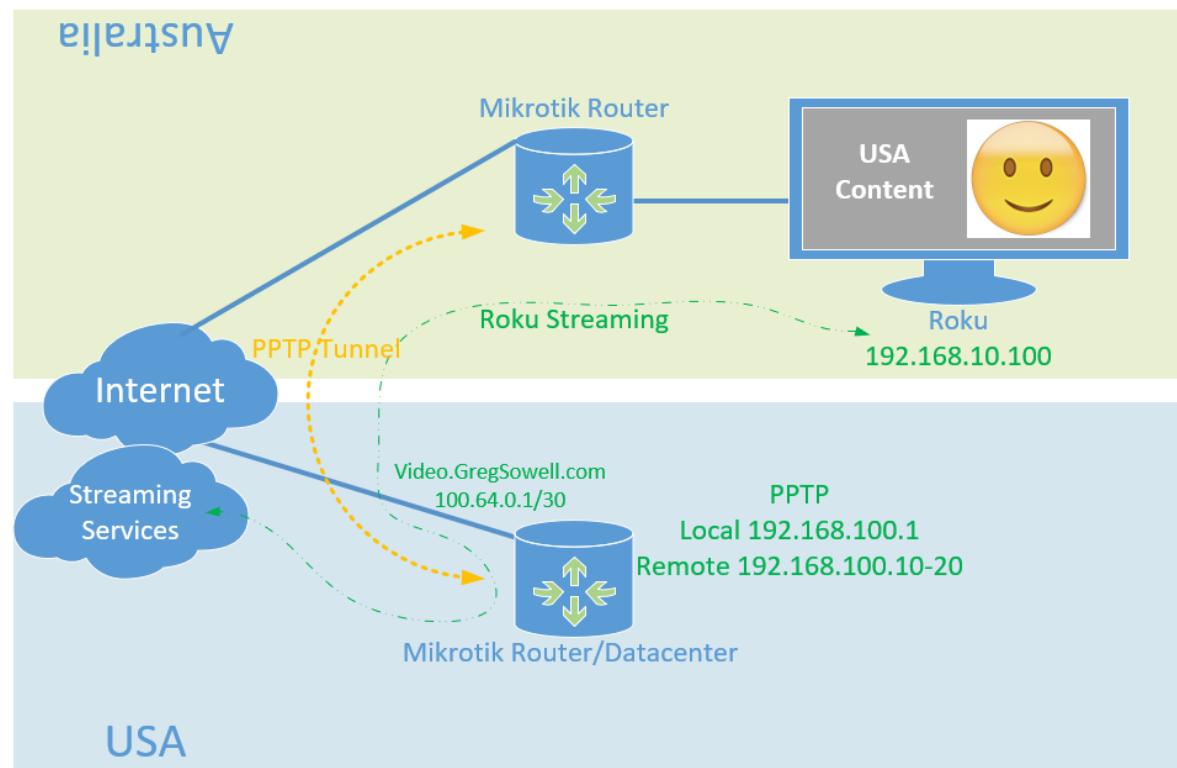
- ▶ GRE, IPIP, EoIP, PPTP, L2TP, SSTP, IPSec, OpenVPN, partridge in a pear tree(PIAPT)
- ▶ Secure/non-secure, do I need to encrypt streaming video?
- ▶ Some consume more resources on the router(all CPU based or hardware offloaded)
- ▶ Some tunnel types require known IPs on either end, others do not
 - ▶ 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



Session Settings Dashboard



Safe Mode

Session: 00:0C:42:56:40:9E



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.rrf

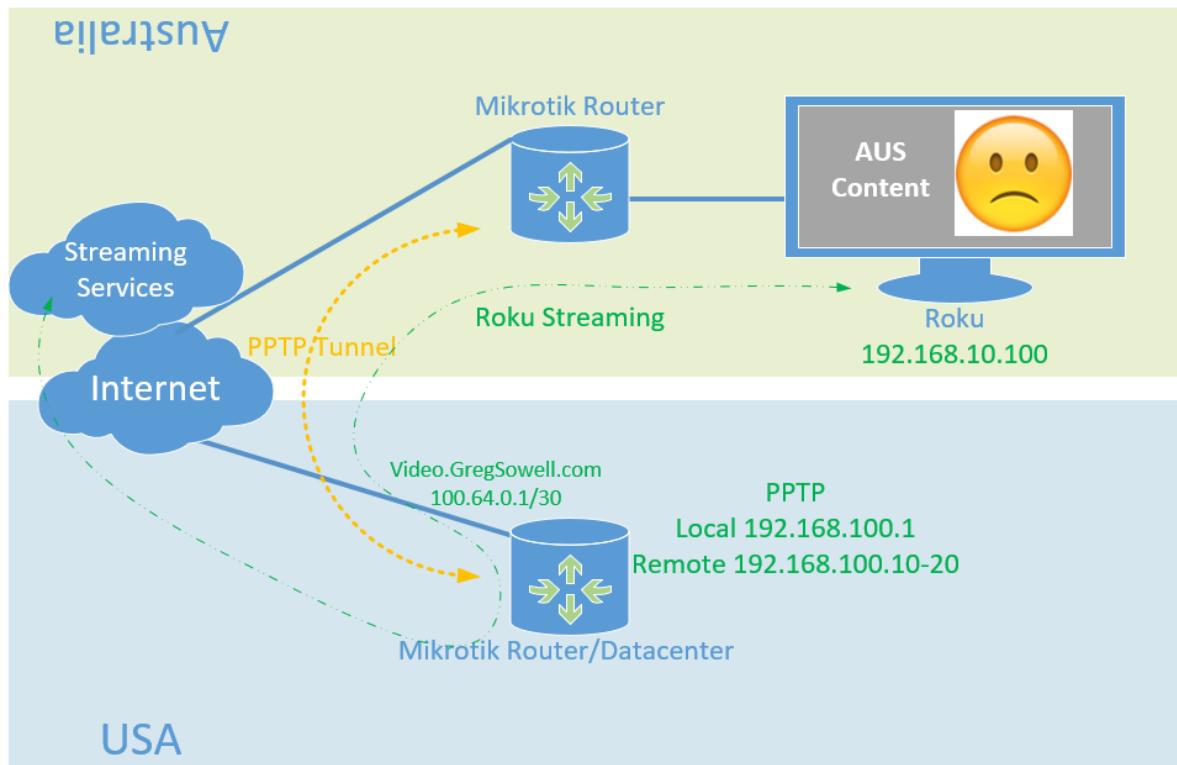
Manual

New WinBox

Exit

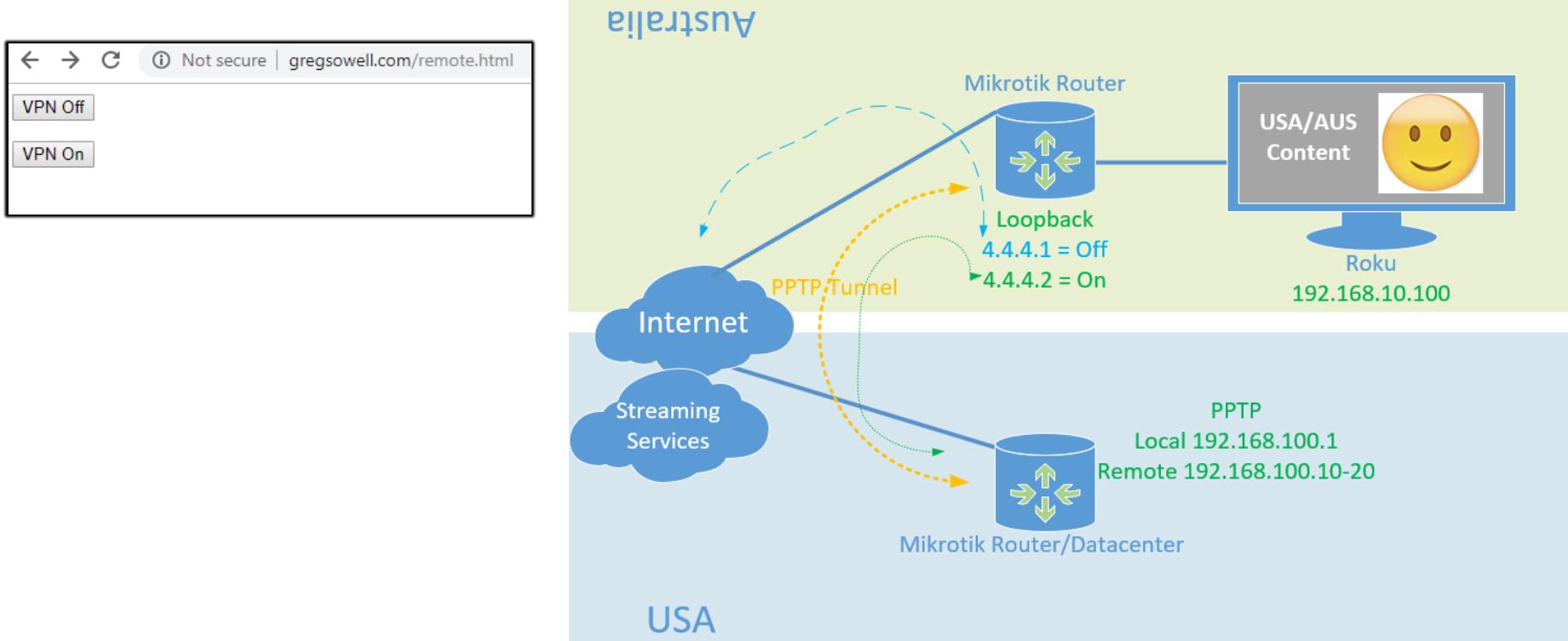
Same Problem In Reverse

- ▶ 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



Session Settings Dashboard



Safe Mode

Session: D4:CA:6D:E5:7A:E0



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Switch

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IPv6

MPLS

Routing

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Manual

New WinBox

Exit

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>