

# CRV-Evolution of Services

**Agenda Item 9: AFS related cyber-safety/security issues, best practices, and resilience**

**Prepared for: ACSICG-10**

**From: United States**

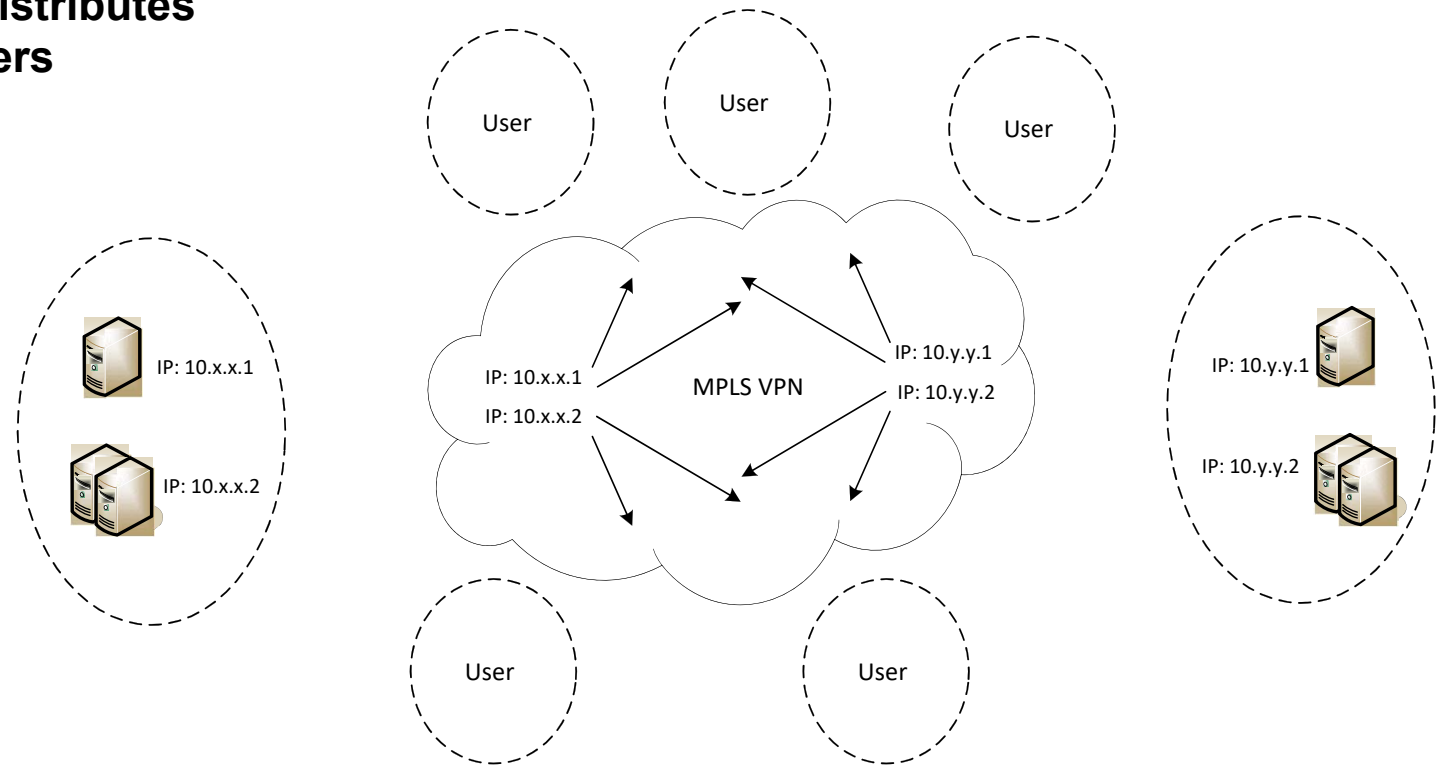
**Date: 24 May, 2023**

**Location: Bangkok, Thailand**



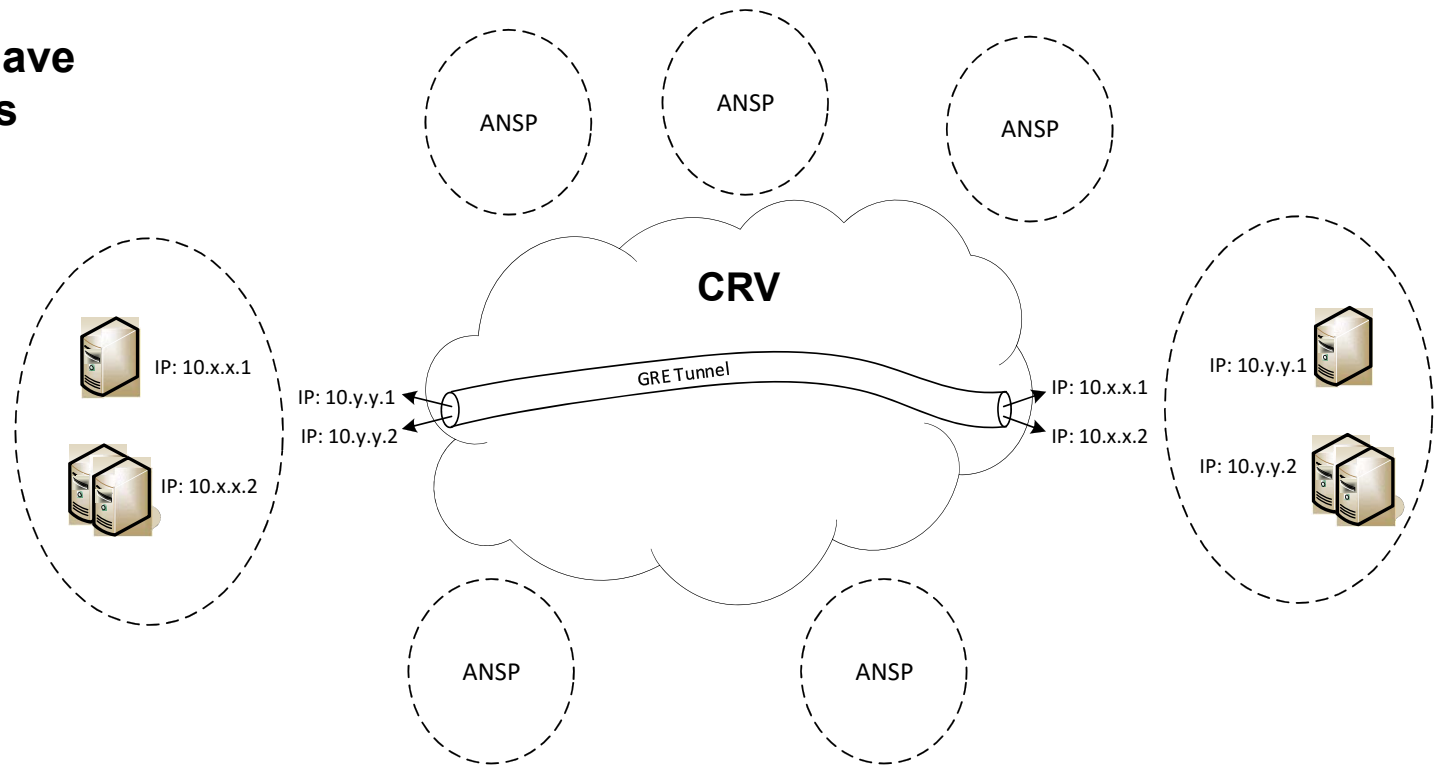
# MPLS VPNs

- A typical MPLS VPN distributes IP addresses to all users



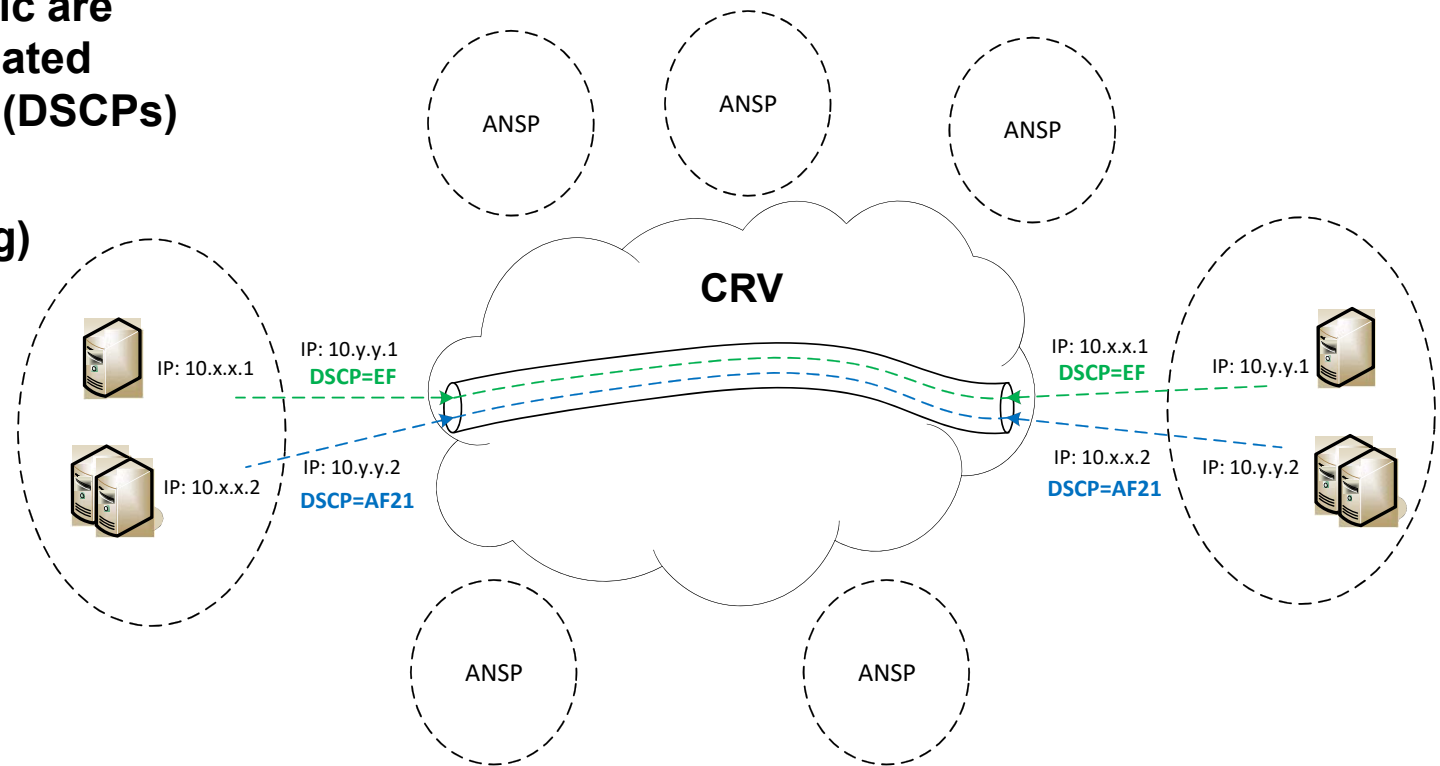
# GRE Tunnels

- CRV has GRE tunnels between ANSPs that have information exchanges
- GRE tunnels limit the IP address visibility



# Differentiated Services

- Different types of traffic are marked with Differentiated Services Code Points (DSCPs)
- Voice uses “EF” (Expedited Forwarding)
- AMHS uses “AF21”
- DSCP markings help PCCW apply different priority and transport processing in the network



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# Multiple Tunnels – Traffic Engineering

- A network Access Point may support multiple tunnels to different partners
- PCCW will engineer the network so that the minimum required bandwidth is available for each defined path
- As paths and traffic grows, ANSPs may have to increase Access bandwidth

