Overview of RTGWG virtual interim on PA multi-homing without NAT

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Agenda

Start Time	Duration	Information	
10:00	5	Title:	Note well, agenda, and buffer space for virtual meeting issues
		Presenter:	Chairs
10:05	10	Title:	Overview of virtual interim on PA multi-homing
		Presenter:	Chairs
10:15	20	Title:	A network operator perspective on PA multi-homing
		Presenter:	Eric Osborne
10:35	20	Title:	IPv6 multihoming for enterprise: what's the problem?
		Presenter:	Jen Linkova
10:55	20	Title:	Using dest/source routing in CERNET2 for traffic engineering
		Presenter:	Shu Yang
11:15	20	Title:	A network operator perspective on PA multi-homing and potential solutions
		Presenter:	John Brzozowski
11:35	20	Title:	Experience with implementing dest/source routing lookups in the opensource version of Vector Packet Processor
		Presenter:	Ole Troan and Pierre Pfister
11:55	20	Title:	Experience with implementing dest/source routing lookups in Linux
		Presenter:	Matthieu Boutier

Problem:

A network cannot connect to multiple service providers using provider-assigned addresses but not using NAT, where the service providers do BCP 38 ingress filtering.

Today: Perspective from operators and enterprises on the problem

Potential solutions:

- shim6 WG (2005-2011)
  - Generally agreed that shim6 was not successful.

Not covered today: scheduling "lessons learned from shim6" at IETF96

- Relax BCP 38 in a controlled manner
  - BCP 38 is the source of the problem, so modify BCP 38 in a controlled manner to allow multi-homing.

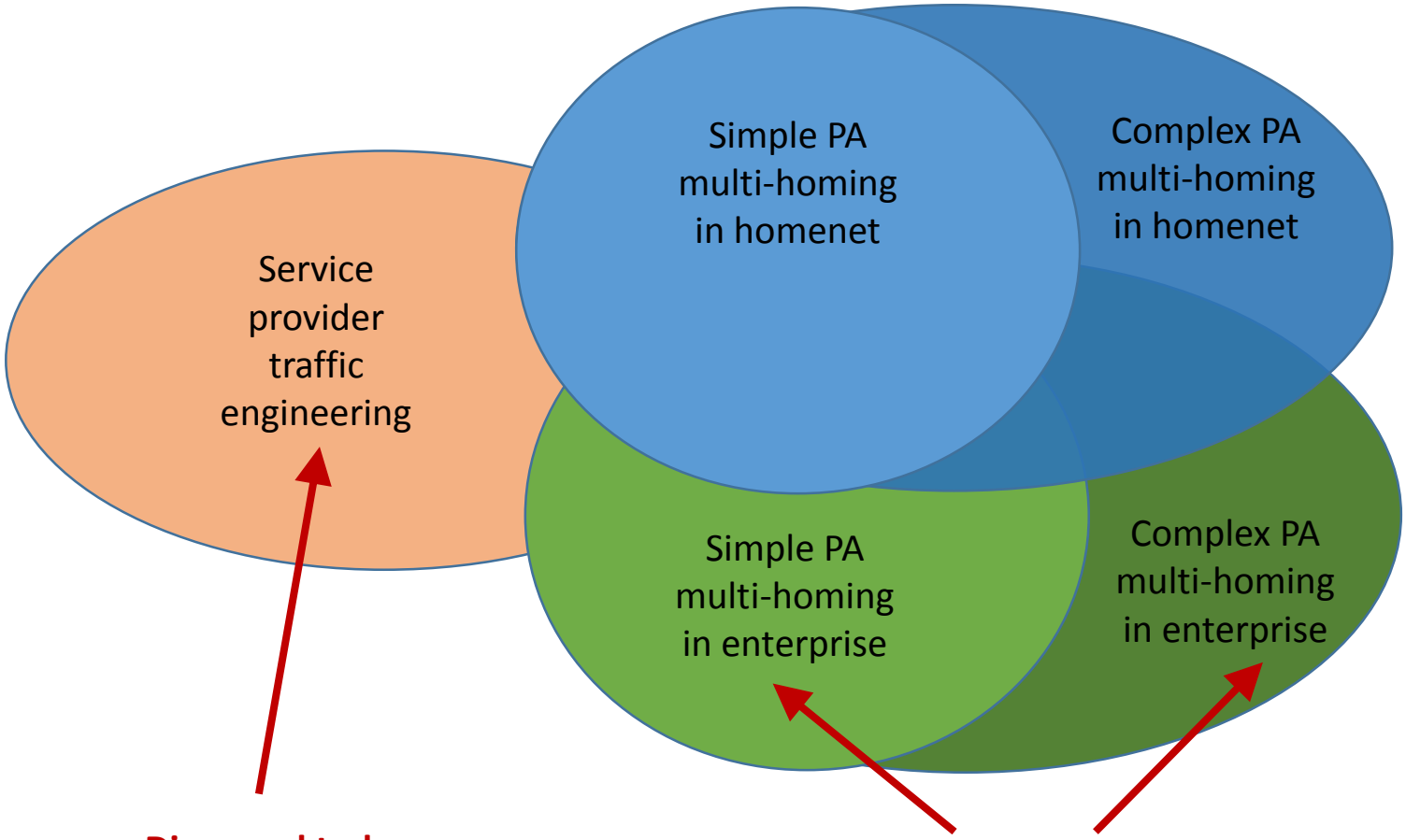
Discussed some today: More discussion would be good.

- Tunneling
  - Tunnel "wrong" packets to "right" place
  - CE-to-CE or PE-to-PE

- Destination/source routing
  - Customer network includes source address in route lookup to get packets to the correct provider.

Some aspects covered in depth today.

Requirements for different destination/source routing use cases



Discussed today

Some discussion on mailing list of tradeoffs involved in supporting simple vs complex multi-homing scenarios. Existing documents implicitly assume goal is complex multi-homing scenarios.