A commentary on the ITU-T proposal for national address registries for IPv6

Geoff Huston
APNIC

@RIPE50

ITU-T IPv6 Proposal November 2004

- Allocate each nation a contiguous V6 address block
- Establish national registries in each nation
- Promote competition between the national registries and the RIRs
- Allow LIRs / ISPs a choice of service entity between RIR and national registry

Some Attributes and Assumptions

- Addresses are a global resource
 - should be distributed between countries in a fair manner
- Addresses are a public resource
 - allows national public policy processes to set national address distribution policies
- Addresses are a critical resource
 - Establishes locally controlled address pools for each nation
- Addresses are a network resource
 - Without addresses network services are difficult to support
- Addresses are an infinite resource
 - There is enough address space to create 200 new national registries with enough allocated space for each such that all countries can agree on the allocation scheme

Some Issues

Allows for 200 different policy regimes and policy confusion

"Recommendations" to sovereign national entities is ineffectual as a network control mechanism

Does not align to regional and global business models

• Does a global enterprise need to deal with up to 200 different address sources?

Has no visible relationship to known routing capabilities

Route fragmentation at an entirely new level

Creates competition regimes based on policy dilution

Creates impetus for rapid consumption, hoarding and address trading markets

Eliminates common interest in one network

Places short term sector interest well above common network interest

Compromises any hope to enhance routing integrity and security

 Eliminates hope for a robust and resilient trust hierarchy to support a viable secure network routing environment

Creates further churn in perceptions of stability and viability of V6

Increases barriers to business investment in V6 infrastructure and services

Some Options

Agree

It's a really good idea – go for it!

Disagree

It's yet another really bad idea - go away!

Discuss

There are some valid assumptions here – but is there a way to do this that does not utterly destroy IPV6 at the same time?