

Multiple Provisioning Domains

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1990's host scenario

- Host is connected to network
- Host gets DNS and IP address configuration from network
- Everything works

2010's scenario

- Host is connected to network A
- Host is connected to network B
- Network A is a VPN
- Host looks up service S using DNS(A)
- Host connects to service S using IP(B)
- ???

2020's scenario

- Host is connected to Network N
- Network A is multi-homed to Provider A and Provider B
- Host looks up service S with DNS(A)
- Host connects to service S with IP(B)
- ???

Provisioning Domains

- a.k.a. PvDs
- A Provisioning Domain is a collection of configuration information that is known to have come from the same source.
- Network A is an example of a PvD
- Network B is another PvD
- Provider A is another PvD
- Provider B is another PvD

How do we communicate this to the host?

- In the 2010's scenario, host can treat Network A and Network B as separate PvDs because they are on separate interfaces: the host knows that they are separate implicit provisioning domains
- In the 2020's scenario, Network N must communicate to host that DNS and IP address information from Provider A is in a different *explicit* provisioning domain than DNS and IP address information from Provider B.

IETF Work

- RFC 7556 - Multiple Provisioning Domain Architecture
- draft-ietf-intarea-provisioning-domains-02:
 - Discovering Provisioning Domain Names and Data
 - In last call
 - Please come to intarea WG meeting Tuesday at 15:20 in Duluth if interested