

# Multiple Provisioning Domain (MPVD) Architecture status & next steps

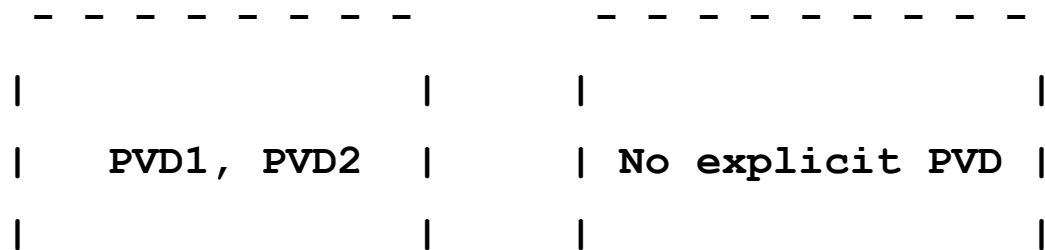
Dmitry Anipko (architecture document editor)

IETF 89 MIF WG

London, March 6<sup>th</sup> 2014

# MPVD architecture updates and re-cap

- After the MIF re-charter, Multiple Provisioning Domain architecture draft adopted and published as **draft-ietf-mif-mpvd-arch-00** on Feb 02, 2014

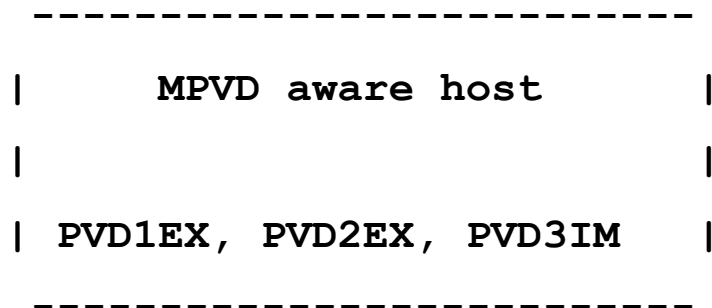


PVD := (PREF, DNSSUF, DNSIP, PROXY, ...)

PVDs can be explicit or implicit



PVD used by hosts to separate configurations and select appropriate PVD(s) by: policy / user choice / probing



3 API support levels for apps: basic, intermediate, advanced

# Path to WGLC

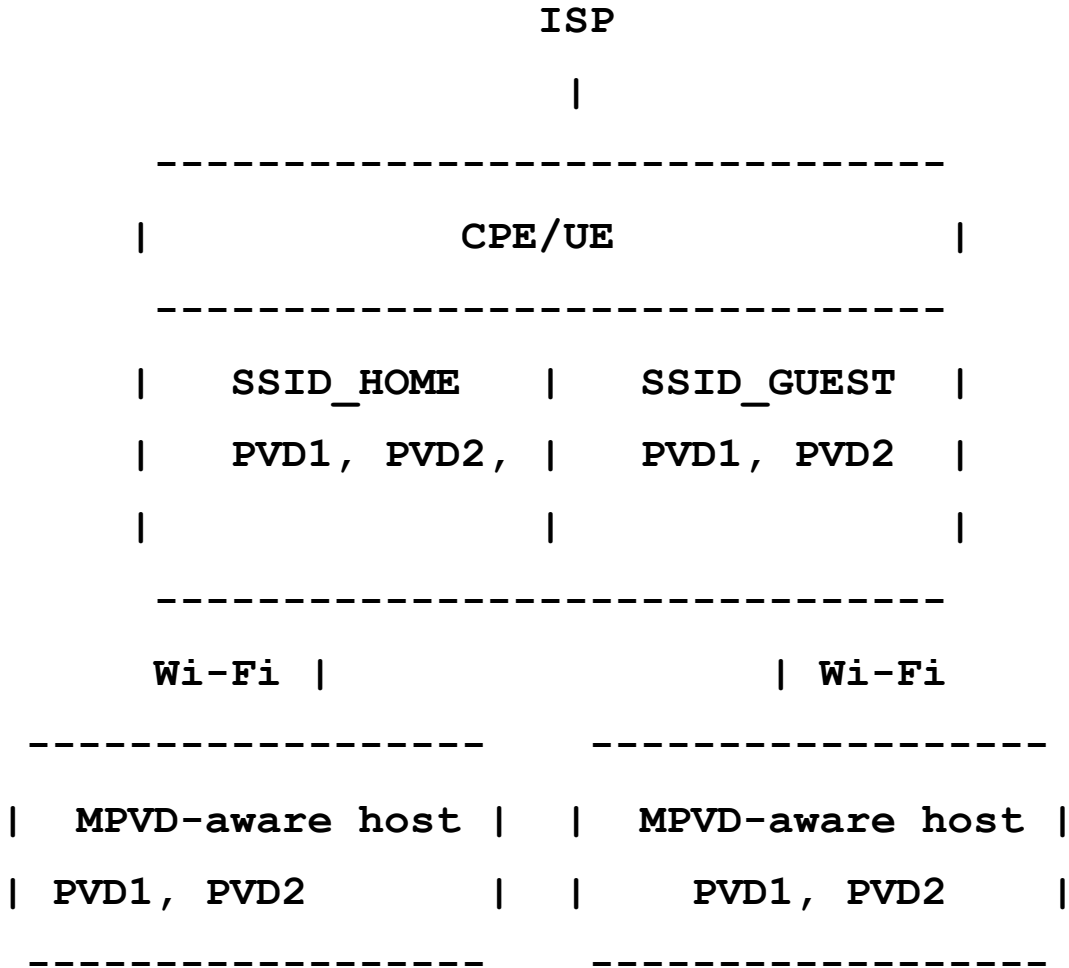
- Goal – identify areas (if any), where more work needed
- Tool – validation of the architecture in well-understood reference scenarios:
  - What are the representative network topologies / scenarios
  - What are the PVD element values and number of PVDs
  - What specific host behavior changed
  - Are all architecture pieces in place to propagate PVD info
  - Does the PVD elements and identifier definition meet scenarios functional needs
  - How are the security requirements met

Collected based on MIF/DT discussions. Maps to -00 empty section 4.

Other topics? Particular proposals in this deck – to help start a discussion.

- Each topic – 1) Does it need more work? 2) If yes, does that work belong to the arch doc or other docs?

# Homenet / one ISP - # of PVDs, their elements



- 1 PVD – Internet

PVD1 := PREF=GUA1/64, DNS=ISP,  
DNSSUF=homenet1.isp.com,

(or separated private and guest with different /64)

- 2 PVDs –Internet + Local network (ULA, UE assigned)

PVD2 := ULA/64, DNS=UE, DNSSUF=?

- 3 PVDs: ISP Internet, Private, Guest

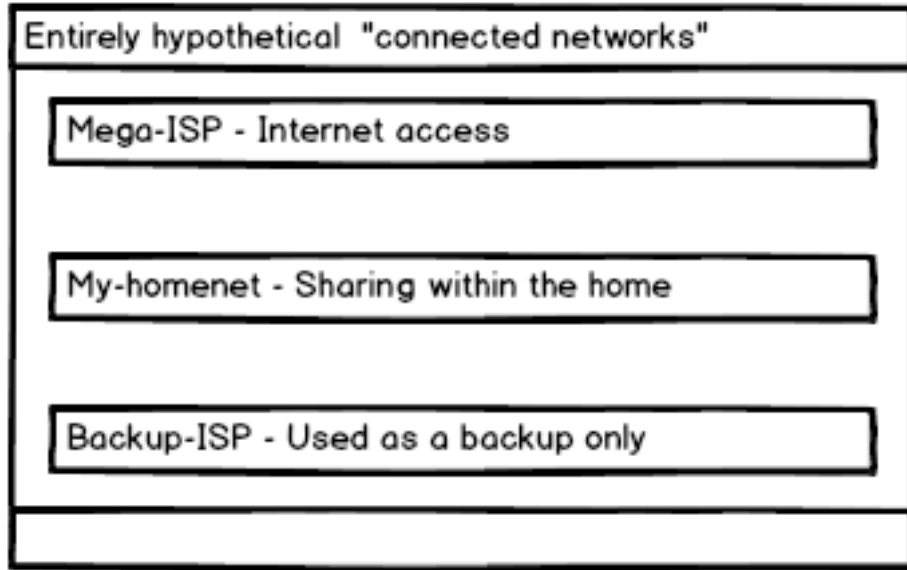
PVD2 := PREF=GUA2/64, DNS=CPE,  
DNSSUF=private.homenet1.isp.com

PVD3 :=....., DNSSUF=guest.homenet1.isp.com

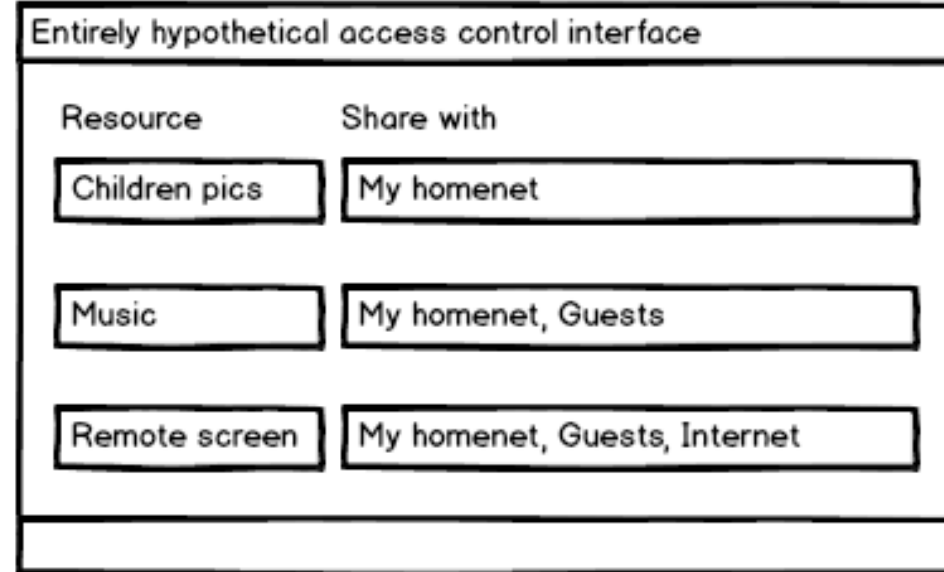
Second ISP: add PVDX – ISP2 Internet

# Homenet / one ISP – ID, integrity check

List of networks



Use for access control?



Does PVD ID need human-friendly representation / label for hosts UI?  
Machine-friendly form for special app connectivity / match by policy?

How is PVD propagated from ISP to the UE? What protocol?

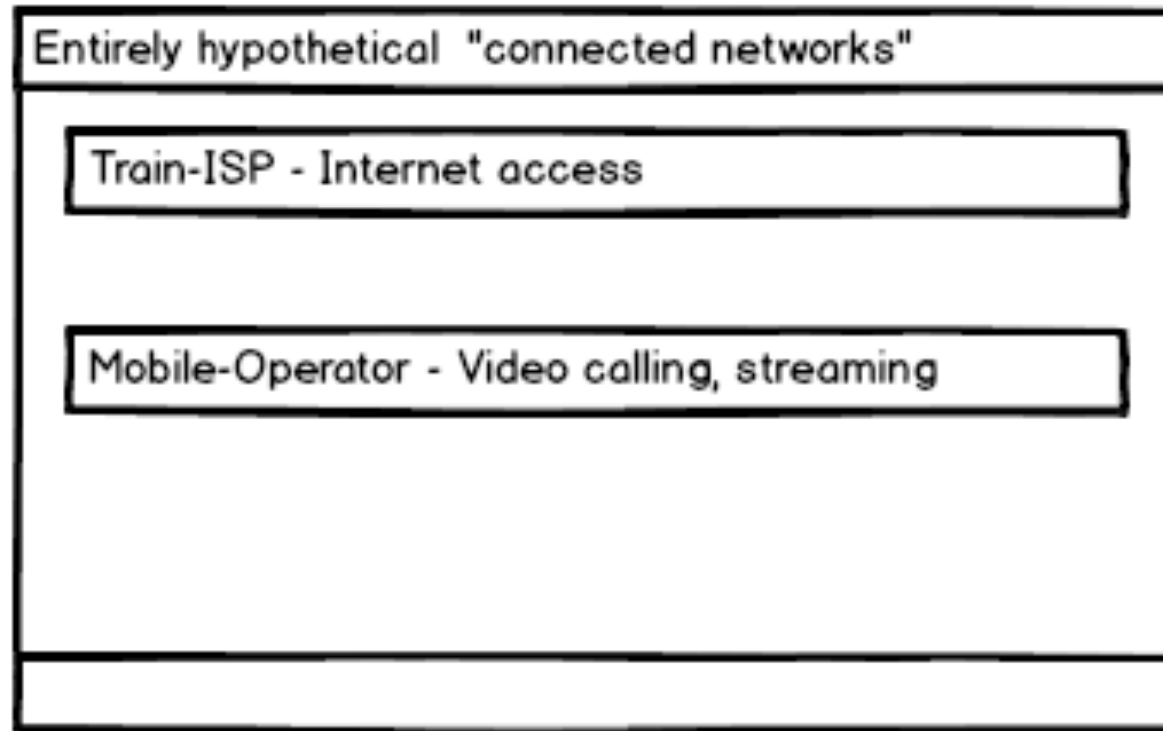
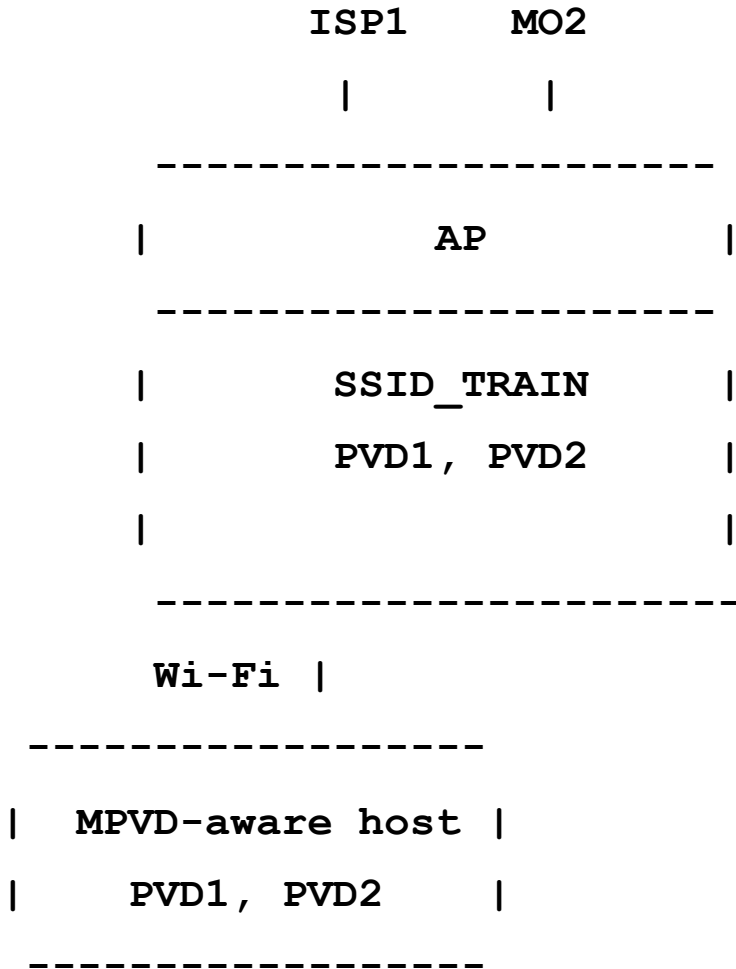
Is replay protection for PVD authentication needed? Is it implementable? (how?)

# Public network / multiple SPs

PVD1 – Internet

PVD2 – MO w/g for video calling and streaming

Do the propagation/ID/security answers still hold?



Comments / volunteers ?

Mail list is mif@ietf.org, see

<https://www.ietf.org/mailman/listinfo/mif>