

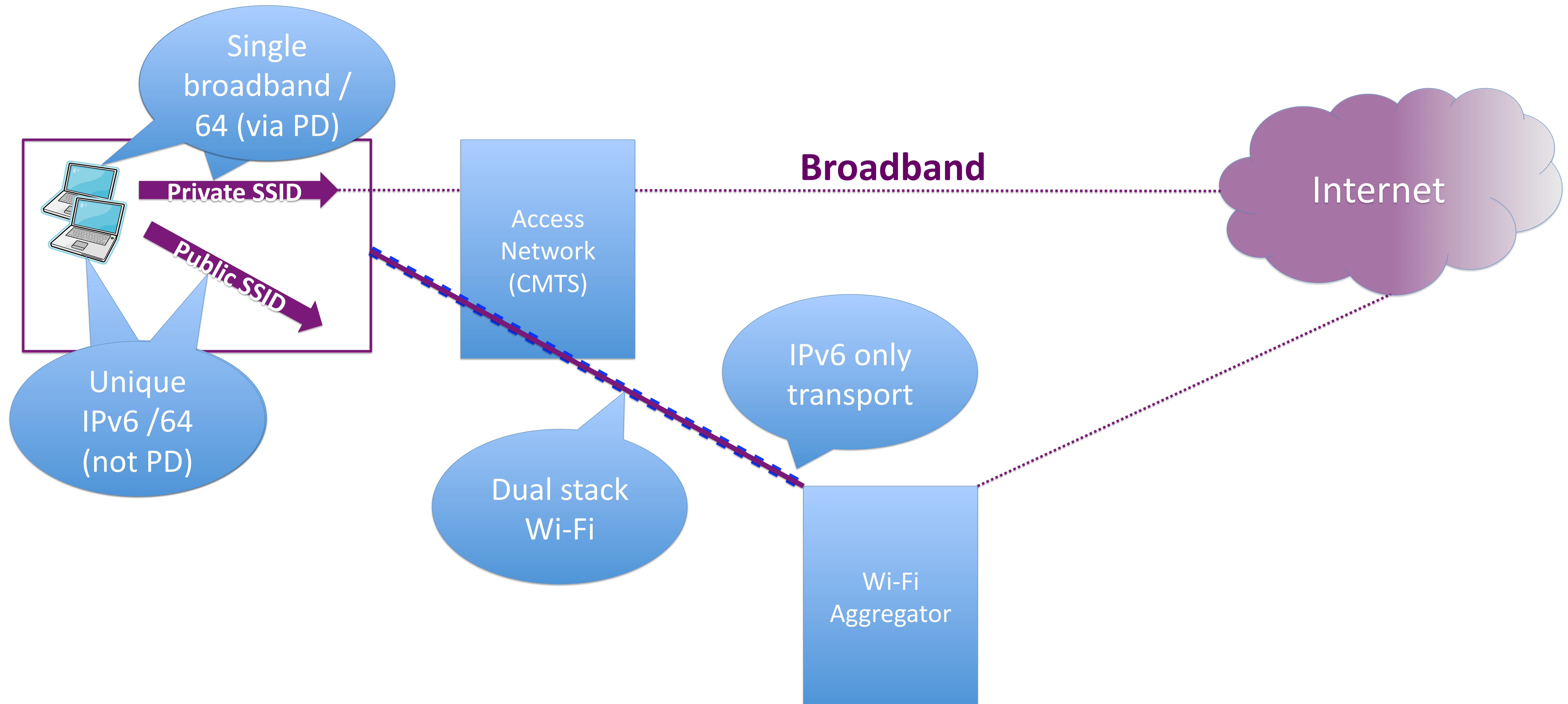
RIPE 72 IPv6 WG Community Wi-Fi and IPv6

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Background

- IETF I-D draft-ietf-v6ops-unique-ipv6-prefix-per-host
- Initially to deploy IPv6 support for community Wi-Fi
 - Applies to other environments including environments where shared media is utilized
- Focus on IPv6 only for UE
 - And IPv6 for the underlying transport
- Ensure there is no impact to network performance care of IPv6

COMMUNITY WI-FI AND IPV6



Overview

- Leveraging unique IPv6 prefixes per device
 - /64
- Maximize coverage for IPv6 only
 - IPv4 is out of scope but is present
- Addressing
 - SLAAC
 - Privacy and temporary addressing
 - No stateful DHCPv6 for address assignment
- Configuration
 - RDNSS
 - Stateless DHCPv6
- Initially focused on hosts, not routers

IPv6 Plumbing

- IPv6 Router Discovery
 - Ensure widest range of compatibility for Wi-Fi capable devices
 - Leverage RDNSS [RFC6106] to enable IPv6 only experiences
- IPv6 Neighbor Discovery
 - Minimize impact of link local communication impact to Wi-Fi (access) network
 - See I-D for specific attributes and configuration options
- Overarching objective is an IPv6 only experience

Futures

- Incorporate comments and edits based on WG feedback to date
- Update based on initial trials and deployment
- Post initial deployment assess support for IPv6 prefix delegation