draft-cooper-6man-ipv6-address-generation-privacy-00

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Goal and scope

- Provide unified privacy and security assessment of address generation techniques

- Focus is on global addresses, not link-local ones

IPv6 address generation mechanisms

- Manual configuration
- SLAAC
  - IEEE identifier-based - RFC 1972, 2464
  - CGA - RFC 3972
  - Persistent random (Windows)
  - Temporary ("privacy address") - RFC 4941
  - Random-per-network ("stable privacy address") draft-6man-stable-privacy-addresses
- DHCPv6-based - RFC 3315
- Transition/co-existence technologies
  - IPv4 address and port - RFC 4380

Weaknesses in IEEE identifier-based IIDs

- Correlation of activities over time
- Location tracking
- Address scanning
- Device-specific vulnerability exploitation

Privacy and security properties

Mechanism	Correlation	Location tracking	Address scanning	Device exploits
IEEE identifier	For device lifetime	For device lifetime	Possible	Possible
Static manual	For address lifetime	For address lifetime	Depends on generation mechanism	Depends on generation mechanism
Persistent random	For address lifetime	For address lifetime	No	No
CGA	Within single network	No	No	No
Random-per-network	Within single network	No	No	No
Temporary	For temp address lifetime	No	No	No

Discussion

- We think this is useful – do you?

- Other topics to cover?
  - Location information, operational issues, logo certification already mentioned

- Adoption as WG item?