Recommendation on Non-Stable IPv6 Interface Identifiers
(draft-gont-6man-non-stable-iids)

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Motivation

- SLAAC has traditionally resulted in stable addresses
- Stable (only) or mixed stable/temporary addresses are desirable in many scenarios
- However, temporary (only) may be desirable in other scenarios
- But current specs (RFC4941) imply temporary addresses are generated along stable addresses
Goals of this document

- Clarify that nodes are not required to generate stable addresses
  - stable only, temporary only, or mixed stable/temporary become all possible
- Formally update RFC4941 such that use of temporary-only is possible
- Specify security/privacy requirements for non-stable IIDs
- Suggest possible ways to generate non-stable IIDs
“The temporary addresses specified in [RFC4941] MAY be used in replacement of the stable addresses [I-D.ietf-6man-default-iids]. That is, a node MAY configure temporary addresses only, without configuring any stable addresses.”
Requirements for non-stable IIDrs

- Must be different for different prefixes
- Must be semantically opaque
- Must not embed layer-2 addresses
- Must be difficult to predict by an outside entity
Generation of non-stable IID

• Use any algorithm that complies with the specified requirements, e.g.:
  – RFC4941
  – Random IID that change upon network disconnection/attachment
Moving forward

• Adopt as 6man WG item?