Gateway Based Trust Relationship Between the Endpoint and the Intermediate Node

draft-du-panrg-gateway-based-trust-relationship-00
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Two Problems

- If getting some information from the network,
  - Can the Endpoint trust the information?
- If receiving a suggestion from the Endpoint,
  - Can the Intermediate Node trust the suggestion, or trust that it is from a valid user?
The Reason

• EndPoint: supporting L4 connections
• Intermediate Node: can only support L3 packet forwarding
• Hard to establish a trust relationship between them
Observations

• We find that the gateway of the Endpoint is able to maintain a per-connection state and a trust-relationship for each user.
  – And the Ingress PE/Headend is the main node to select a path for a flow
A Potential Solution

• From the Ingress PE to the Client
  – Ingress PE makes a signature for the message

• From the client to the Ingress PE
  – BNG makes a signature instead of the Client
  – or put it into an IPSec between the BNG and the Ingress PE
Thanks for listening and Welcome for comments