ASPA Progress

Alexander Azimov, Yango
<a.e.azimov@gmail.com>
ASPA Documents

• ASPA profile: draft-ietf-sidrops-aspa-profile-18
• ASPA verification: draft-ietf-sidrops-aspa-verification-18
• RTR support for ASPA: draft-ietf-sidrops-8210bis-13
ASPA Profile: Precaution

Relying Party implementations are RECOMMENDED to impose an upper bound on the number of Provider ASes for a given Customer ASID. An upper bound value between 4,000 and 10,000 Provider ASes is suggested. If this threshold is exceeded, Relying Party implementations SHOULD treat all ASPA objects related to the Customer ASID invalid; e.g. not emit a partial list of Provider ASes. Additionally, an error SHOULD be logged in the local system, indicating the Customer ASID for which the threshold was exceeded.
ASPA Verification: Invalid

If the sum of lengths of up-ramp and down-ramp is less than $N$, it is **Invalid**
ASPA Verification: Measuring Ramps

ASPA: (1,2), (2,3), (3,0), (4,0), (5,4), (6,5)

Measured up-ramp: 1-2-3
Measured down-ramp: 6-5-4
ASPA Verification: Measuring Ramps

ASPA: (1,2), (2,3), (3,0), (4,0), (5,4), (6,5)

Measured min up-ramp: 1-2-3
Measured max up-ramp: 1-2-3-4
Measured min down-ramp: 6-5
Measured max down-ramp: 6-5-4
ASPA Verification

If the sum of lengths of max_up_ramp and max_down_ramp is less than \( N \), it is **Invalid**

If the sum of lengths of min_up_ramp and min_down_ramp is less than \( N \), it is **Unknown**
RTR Protocol: Diff

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Length

Flags | AFI Flags | Provider AS Count

Customer Autonomous System Number

~ | Provider Autonomous System Numbers

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All ASPA documents are now AFI agnostic
9.1. Difference in IPv4 and IPv6 Connectivity

The U-SPAS is supposed to contain the union of Providers for a CAS for both IPv4 and IPv6 connectivity. This design solution may have side effects if a customer-to-provider relationship exists only in one address family, resulting in a relaxed AS_PATH verification in the other one.

The authors of this document believe that this is a reasonable compromise, as it will simplify both the ASPA registration process and the verification process. There is also an expectation that the difference between IPv4 and IPv6 topologies will reduce as the volume of IPv6 traffic grows.
Open Questions: RTR ASPA PDU

Are there any disadvantages?
Are we ready to move on?