ASPA: IETF110

Alexander Azimov, Yandex

a.e.azimov@gmail.com
ASPA Document Status

• Text clean up
• Sync with RTR
• Change in IX processing
• Issue with Valid/Unknown states at Downstream paths
ASPA RTR Requirements

For selected AS:
• Cache MUST build SPAS union;
• Cache MUST send this union in a single PDU;
• Router MUST replace old set with new one;

Btw, where is draft-ymbk-8210bis-01?
Routes from IXes

• Some of IXes are transparent;
• Some are not;
• Some support prepending with its AS number;
• Some prepend ‘customer’ AS.
Terms

• Line goes up – route is announced from customer to provider;
• Line goes down – route is announced from provider to customer;
• Line goes straight – route is announced from peer to peer;
• The arrow shows the order of the ASPA check, not the route advertisement!
Applying Downstream Procedure

(1,2) is Valid
The path is Valid

(1, 2) is Valid, (2, IX) is Invalid
The path is Valid
Applying Downstream Procedure

(1,2) is **Invalid**
The path is **Valid**

(1, 2) is **Invalid**, (IX, 2) is **Invalid**
The path is **Invalid**
Verification Procedure Paths from IX

• If a route is received from a RS and the last segment in the AS_PATH isn't equal to receiver's neighbor AS, the result equals to the outcome of upflow verification procedure applied to AS_PATH with neighbor_as replaced with the value of the last AS_PATH segment.

• If a route is received from a RS and the last segment in the AS_PATH is equal to receiver's neighbor AS, the result equals to the outcome of downflow verification procedure applied to AS_PATH.
(1, 2) Doesn’t Change Outcome

(1,2) is **Valid**
The path is **Valid**

(1,2) is **Invalid**
The path is **Valid**

(1,2) is **Invalid**
The path is **Valid**
Plan for Q2

- Fix Valid/Unknown issue with downstream paths;
- Finish text cleanup;
- Wait for draft-ymbk-8210bis-01;
- Joined WGLC!