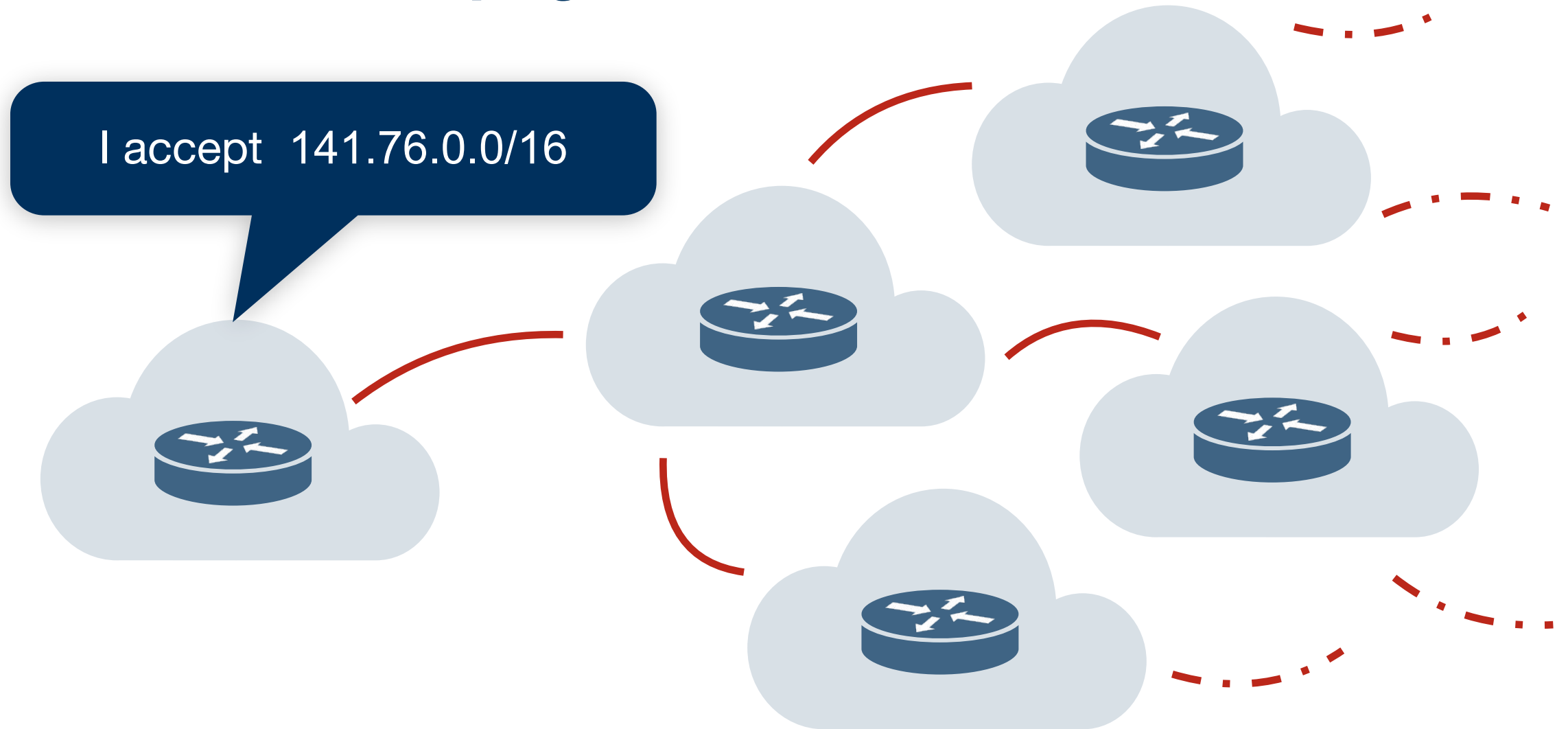


# Update ASPA Support in RTRlib

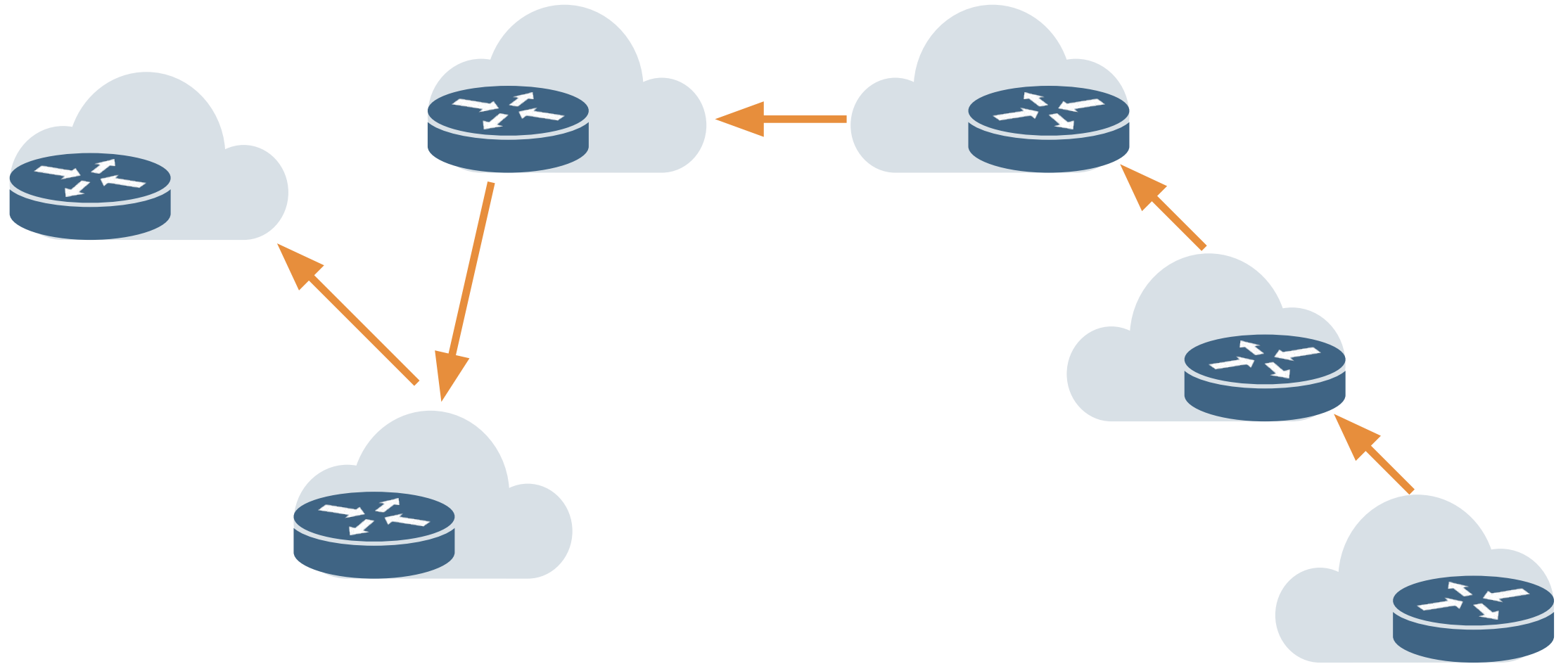
Hackathon IETF 123 , Madrid, June 20, 2025

Tassilo Tanneberger, Matthias Bräuer  
tassilo.tanneberger@tu-dresden.de, matthias.braeuer@haw-hamburg.de

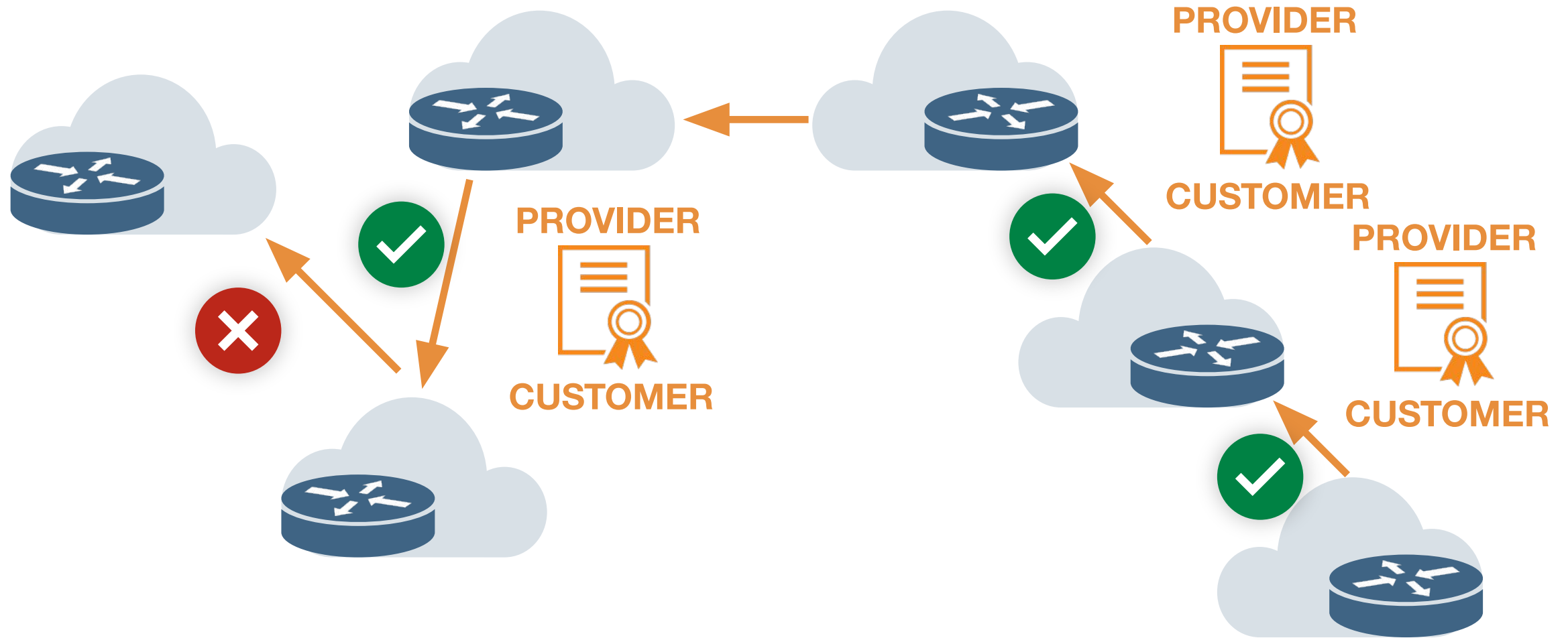
# BGP Route Propagation

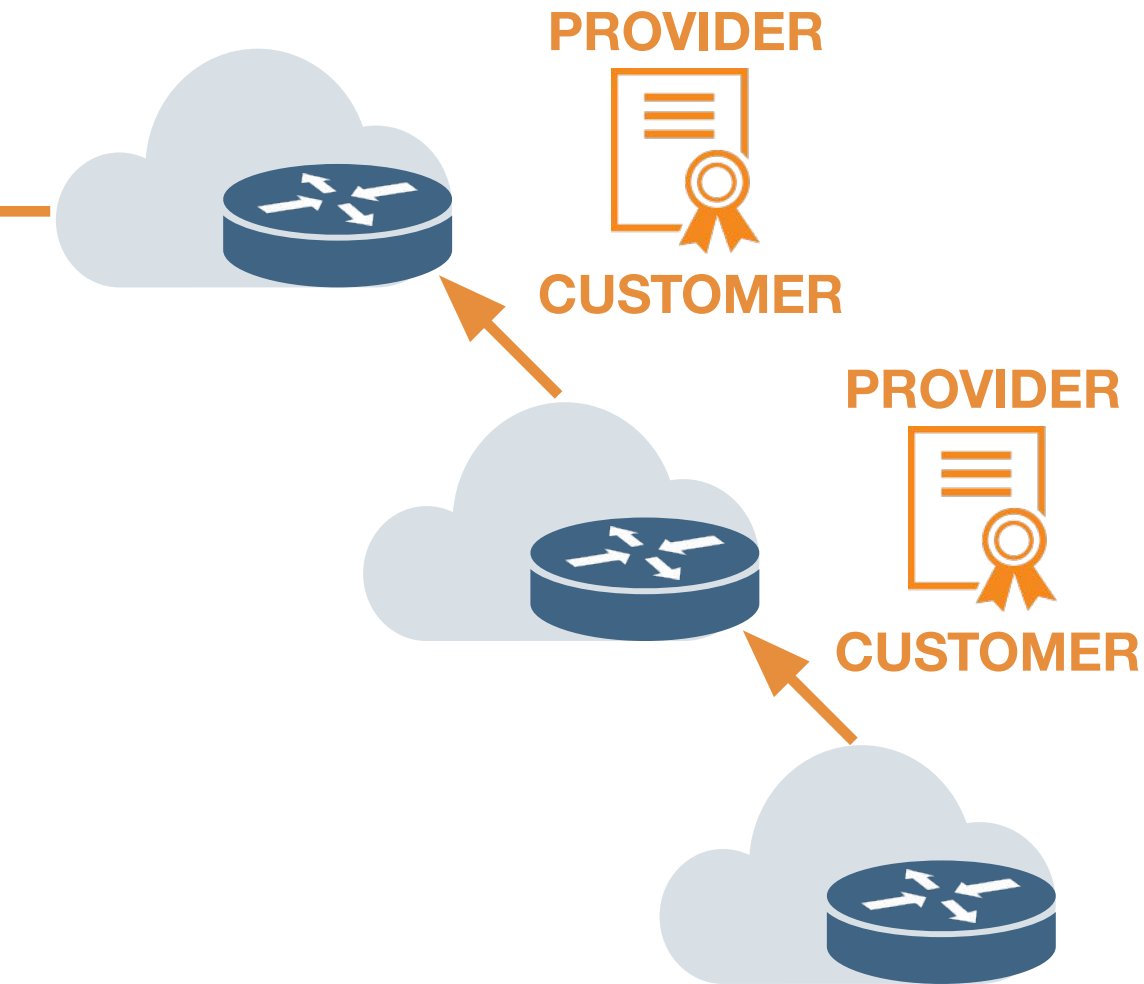


# Route Leak Detection & Mitigation



# Route Leak Detection & Mitigation





# Autonomous System Provider Authorization – ASPA [@IETF in sidrops]

- ASPA records express business relationships between networks ("BGP Roles")
- Records are signed by customer AS and submitted to RPKI infrastructure
- ASPA support on BGP routers
  - Fetch ASPA data from cache servers
  - Validate BGP Announcements based on ASPA data

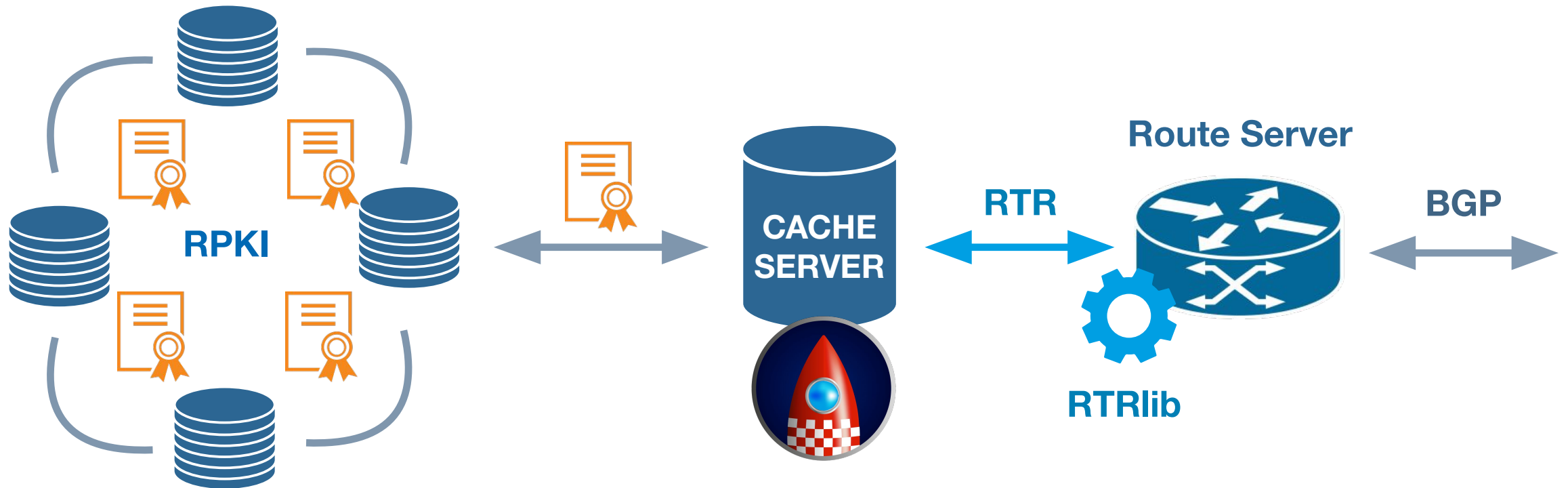
# Hackathon Plan

draft-ietf-sidrops-8210bis-17.txt	draft-ietf-sidrops-8210bis-21.txt
<p>Network Working Group            Internet-Draft            Intended status: Standards Track            Expires: 4 September 2025</p> <p>R. Bush            IIJ Research, Arrcus, &amp; DRL            R. Austein            Dragon Research Labs            3 March 2025</p>	<p>Network Working Group            Internet-Draft            Intended status: Standards Track            Expires: 13 December 2025</p> <p>R. Bush            Arrcus, DRL, &amp; IIJ Research            R. Austein            Dragon Research Labs            11 June 2025</p>
<p>The Resource Public Key Infrastructure (RPKI) to Router Protocol, Version 2            draft-ietf-sidrops-8210bis-17</p>	<p>The Resource Public Key Infrastructure (RPKI) to Router Protocol, Version 2            draft-ietf-sidrops-8210bis-21</p>
<p>Abstract</p> <p>In order to validate the origin Autonomous Systems (ASes) and Autonomous System relationships behind BGP announcements, routers need a simple but reliable mechanism to receive Resource Public Key Infrastructure (RFC6480) prefix origin data, Router Keys, and ASPA data from a trusted cache. This document describes a protocol to deliver them.</p>	<p>Abstract</p> <p>In order to validate the origin Autonomous Systems (ASes) and Autonomous System relationships behind BGP announcements, routers need a simple but reliable mechanism to receive Resource Public Key Infrastructure (RFC6480) prefix origin data, Router Keys, and ASPA data from a trusted cache. This document describes a protocol to deliver them.</p>
<p>skipping to change at page 1, line 41</p> <p>Internet-Drafts are working documents of the Internet Engineering Task Force (IETF). Note that other groups may also distribute working documents as Internet-Drafts. The list of current Internet-Drafts is at <a href="https://datatracker.ietf.org/drafts/current/">https://datatracker.ietf.org/drafts/current/</a>.</p> <p>Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress."</p> <p>This Internet-Draft will expire on 4 September 2025.</p>	<p>skipping to change at page 1, line 41</p> <p>Internet-Drafts are working documents of the Internet Engineering Task Force (IETF). Note that other groups may also distribute working documents as Internet-Drafts. The list of current Internet-Drafts is at <a href="https://datatracker.ietf.org/drafts/current/">https://datatracker.ietf.org/drafts/current/</a>.</p> <p>Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress."</p> <p>This Internet-Draft will expire on 13 December 2025.</p>
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## In Detail:

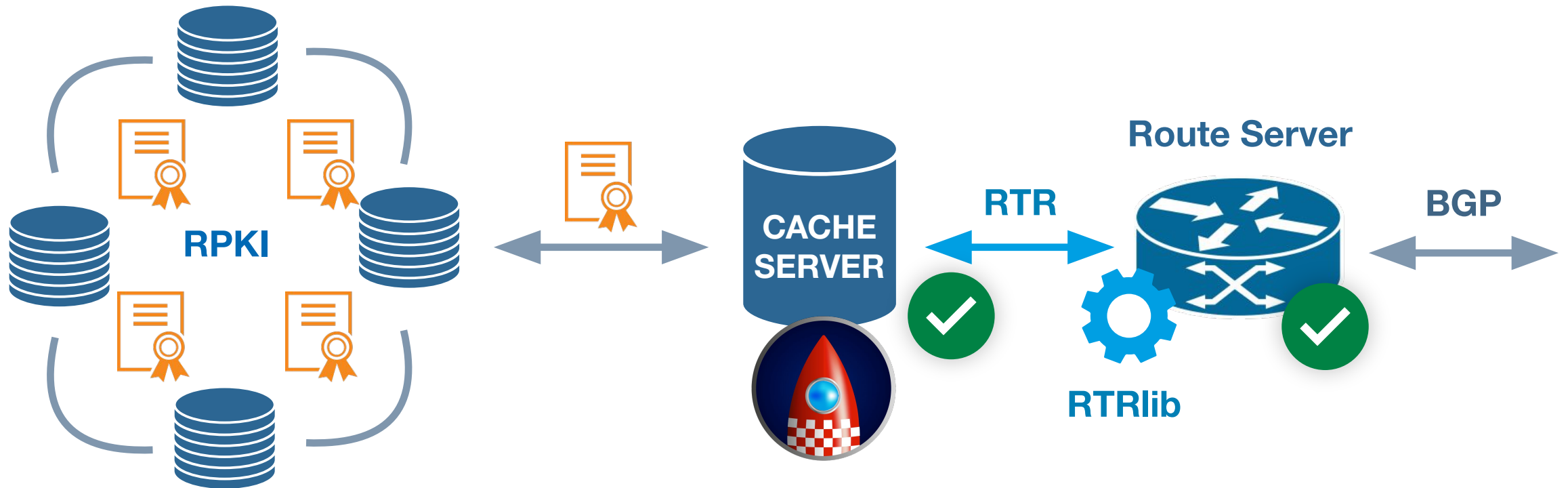
- ASPA PDUs changed
- more strict error handling
- many extra checks on inputs
- test corner-cases

# Hackathon plan



- Update ASPA implementation in RTRlib
- Interop test with cache server
- Write migration/implementation guide

# Hackathon plan and **what we got done**



- Update ASPA implementation in RTRlib
- Interop test with cache server
- Write migration/implementation guide

# Team Members

- Tassilo Tanneberger (TU Dresden)
- Matthias Bräuer (HAW Hamburg)



**RTRlib: [github.com/rtrlib/rtrlib](https://github.com/rtrlib/rtrlib)**