ASAP

Automatic SIP trunking And Peering

IETF 110

Monday, March 8, 2021

08:00 - 10:00 US Pacific Time

Session III, Room 1

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Note Well

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Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

- BCP 9 (Internet Standards Process)
- BCP 25 (Working Group processes)
- BCP 25 (Anti-Harassment Procedures)
- BCP 54 (Code of Conduct)
- BCP 78 (Copyright)
- BCP 79 (Patents, Participation)
- https://www.ietf.org/privacy-policy/ (Privacy Policy)

Also see: http://www.ietf.org/about/note-well.html

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Meeting Notes

- All decision will be confirmed on the mailing list.
- IETF 110 registration and a datatracker login required to attend
- Meeting is being recorded.
- Please use headphones when speaking.
- Remember to state full name when speaking.
- Bluesheets are tracked automatically by Meetecho.
- Microphone queue
  - Enter session queue (audio/video) with , leave with
  - Wait to be called. Enable audio by unmuting with Go back on mute with
- Chairs will present slides.

Resources:

https://www.ietf.org/how/meetings/110/session-participant-guide/

https://www.ietf.org/media/documents/Documentation-Meetecho-IETF.pdf

Administrivia

Jabber Room: asap@jabber.ietf.org

Meetecho: https://meetings.conf.meetecho.com/ietf110/?group=asap

Minutes: https://codimd.ietf.org/notes-ietf-110-asap

Minutes taker: Need 1 or 2

Jabber Scribe: Need 1

Presentations: https://datatracker.ietf.org/meeting/ietf110/session/asap

Mailing list: https://www.ietf.org/mailman/listinfo/asap

ASAP WG Agenda

1. Note Well, Note Takers, Agenda Bashing, Draft status - (Chairs, 10 min)

2. Automatic Peering for SIP Trunks (K. Inamdar, S. Narayanan, 40 min)
   https://tools.ietf.org/html/draft-kinamdar-dispatch-sip-auto-peer

3. Wrap-up and Next Steps (Chairs, 10 min)

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Automatic Peering for SIP Trunks

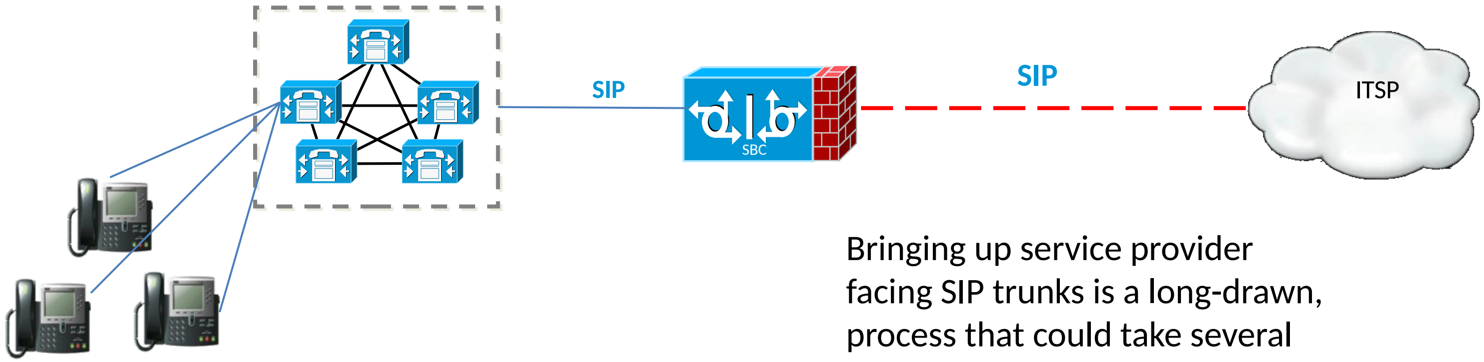
https://tools.ietf.org/html/draft-kinamdar-dispatch-sip-auto-peer

Kaustubh Inamdar, Sreekanth Narayanan, Cullen Jennings

Agenda

- Purpose of draft
- Story so far
- Open points of discussion

Purpose of Draft



Bringing up service provider facing SIP trunks is a long-drawn, process that could take several hours…sometimes days…

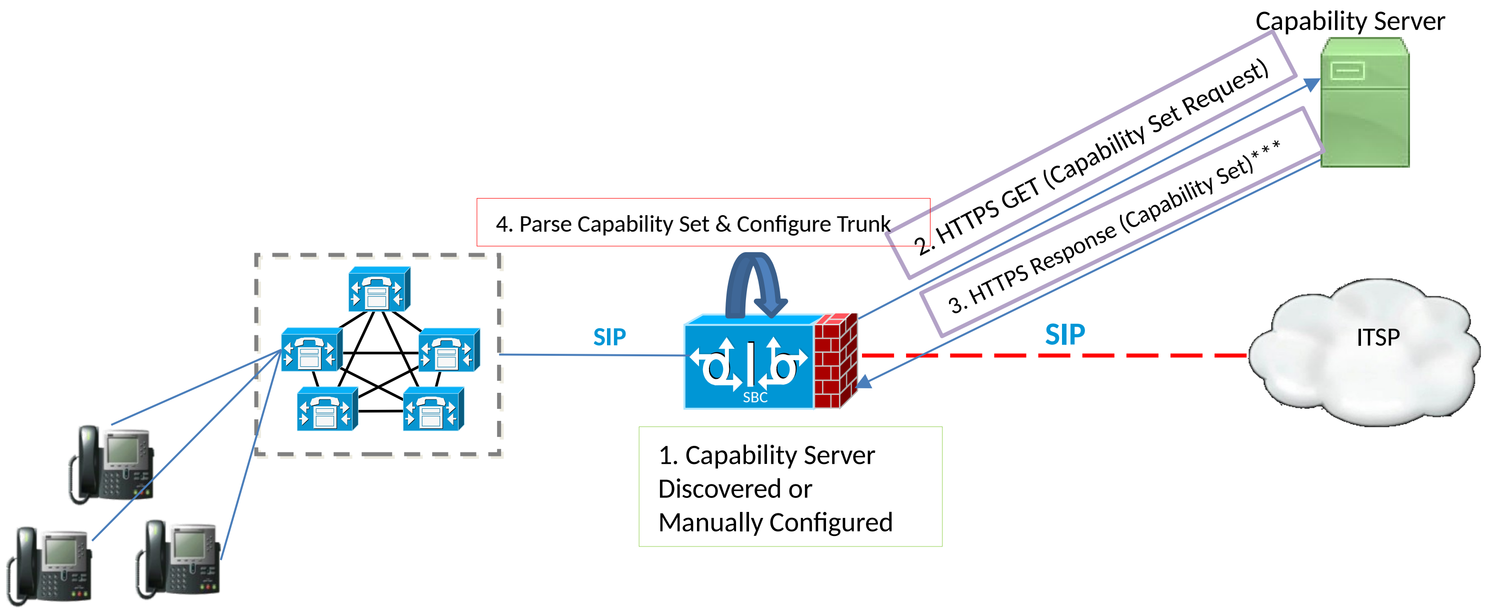
- Administrators usually uncover a number of problems when the trunk is setup.
- Requires a significant amount of interaction between the administrator and service provider to ensure everything works.
- Deployment times significantly increase because of interoperability problems.

Purpose of Draft (cont'd)

How big is the problem?

- A total of 6000 support cases opened with Cisco in 2019 for its Enterprise SBC, CUBE.
- 22% of these cases were directly related to ITSP interoperability.
- Multiply this by the number of enterprise SBC vendors to get a rough estimate of the magnitude of the problem.
- Still a significant number of enterprise networks are yet to migrate from TDM/Analog to SIP trunking…the problem isn't going away anytime soon…

Purpose of the Draft: High-Level Overview



* * * Body encoded in XML or JSON

Example Capability Set


```xml
<peering-info xmlns="urn:ietf:params:xml:ns:yang:ietf-peering"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:yang:ietf-peering ietf-peering.xsd">
  <variant>1.0</variant>
  <transport-info>
    <transport>TCP;TLS;UDP</transport>
    <registrar>registrar1.voip.example.com:5060</registrar>
    <registrar>registrar2.voip.example.com:5060</registrar>
    <registrarRealm>voip.example.com</registrarRealm>
    <callControl>callServer1.voip.example.com:5060</callControl>
    <callControl>192.168.12.25:5065</callControl>
    <dns>8.8.8.8</dns>
    <dns>208.67.222.222</dns>
    <outboundProxy>0.0.0.0</outboundProxy>
  </transport-info>
  <call-specs>
    <earlyMedia>true</earlyMedia>
    <signalingForking>false</signalingForking>
    <supportedMethods>INVITE;OPTIONS;BYE;CANCEL;ACK;PRACK;SUBSCRIBE;NOTIFY;REGISTER</supportedMethods>
    <numRange>
      <type>range</type>
      <count>20</count>
      <value>19725455000</value>
    </numRange>
    <numRange>
      <type>block</type>
      <count>2</count>
      <value>1972546000</value>
      <value>1972546001</value>
    </numRange>
  </call-specs>
  <media>
    <mediaTypeAudio>
      <mediaFormat>PCMU;rate=8000;ptime=20</mediaFormat>
      <mediaFormat> G729;rate=8000;annexb=yes</mediaFormat>
      <mediaFormat>G722;rate=8000;bitrate=56k,64k</mediaFormat>
    </mediaTypeAudio>
    <fax>
      <protocol>pass-through</protocol>
      <protocol>t38</protocol>
    </fax>
      <rtp>
        <RTPTrigger>true</RTPTrigger>
        <symmetricRTP>true</symmetricRTP>
      </rtp>
      <rtcp>
        <symmetricRTCP>true</symmetricRTCP>
        <RTCPFeedback>true</RTCPFeedback>
      </rtcp>
    </media>
    <dtmf>
      <payloadNumber>101</payloadNumber>
      <iteration>0</iteration>
    </dtmf>
    <security>
      <signaling>
        <type>TLS</type>
        <version>1.0;1.2</version>
      </signaling>
      <mediaSecurity>
        <keyManagement>SDES;DTLS-SRTP,version=1.2</keyManagement>
        </mediaSecurity>
      <certLocation>https://sipserviceprovider.com/certificateList.pem</certLocation>
      </security>
    <extensions>timer;rel100;gin;path</extensions>
  </peering-response>
```

Story So Far

- Versions 1&2 were published before presenting at IETF 106.
- Consensus at IETF 106 to form a mini-working group.
- Charter for proposed workgroup reviewed in April 2020 and approved in the following months.
- ASAP workgroup formed in August 2020 and now has two co-chairs assigned (Gonzalo Salgueiro and Jean Mahoney)

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Version History

- Versions -1 & -2:
  - Initial draft followed by name change and formatting changes
- Version -3:
  - Added certLocation field to the capability set.
  - Field is populated with a URL that provides a single PEM encoded file that contains all certificates in the chain of trust.

Version History (cont'd)

- Version -4:
  - Added the numRange field to the capability set.
  - numRange specifies the Direct Inward Dial (DID) number range allocated to the enterprise network by the SIP service provider.
  - Can be communicated as a list of values or a reference.

Version History (cont'd)

- Version -5:
  - Clarifying HTTP versions supported by this draft (v1.1 and above).
  - Clarifying the scope of work not to include low level details (e.g., IP addressing scheme, access network infrastructure)
  - Added a paragraph to clarify how this workflow operates when intermediary service providers are present between the enterprise and peering service provider.

Open Issues

- Inclusion of provision for discovery of capability set servers in service provider networks (e.g., via WebFinger).
- Are there any other parameters that need to be added to the capability set?
- Are there any modifications/clarifications that need to be carried out/provided?
- Are we good to have this draft adopted by the ASAP working group?

Call for Adoption

Adopt as WG item?

Automatic Peering for SIP Trunks

(https://tools.ietf.org/html/draft-kinamdar-dispatch-sip-auto-peer)

[[Decision to be confirmed on-list]]

Thank You!