

Verizon STIR/SHAKEN Deployment Case Study

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STIR/SHAKEN Interop document.

Expectations for STIR/SHAKEN peer exchange.

- Edge protections
- SIP format
- What will be signed
- Attestation levels
- Included as part of interconnect workbooks



STIR/SHAKEN API.

Beyond basic SHAKEN.

- Bundled signing
- Multiple profiles
- Multiple classes of service (e.g. priority and non-priority traffic)
- Display name modifications
- Evolving with next passport extensions



The Case of the Evil Quotes

“



”

Critical Thinking

- 1** The ppt is a token – tokens aren't double quoted
- 2** Putting double quotes around something makes it a quoted string. (HUH???)
- 3** Multiple vendor interpretations



The Case of Diversion



My Planned Vacation.

America

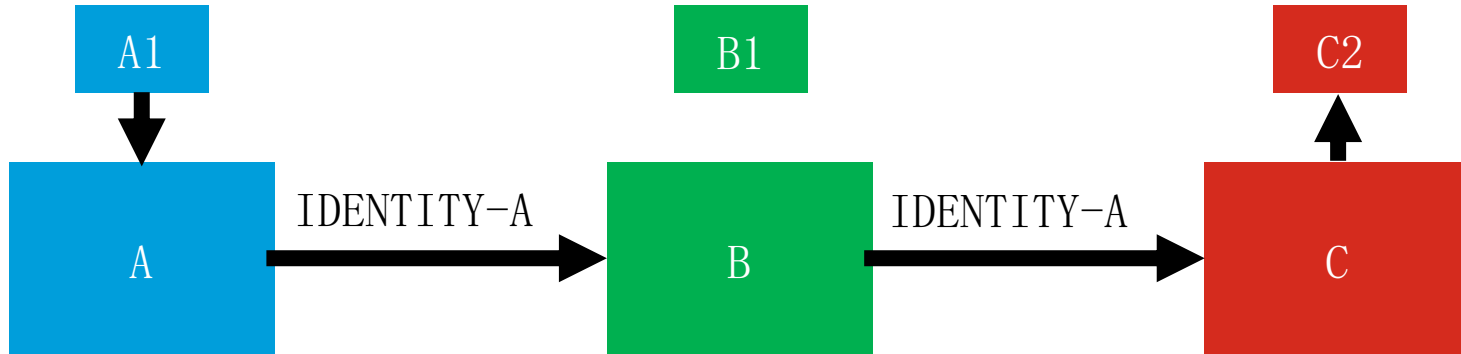
Belize

Chile





Verizon will verify shaken ppt if div present



From: A1
To: B1
ReqURI: B1

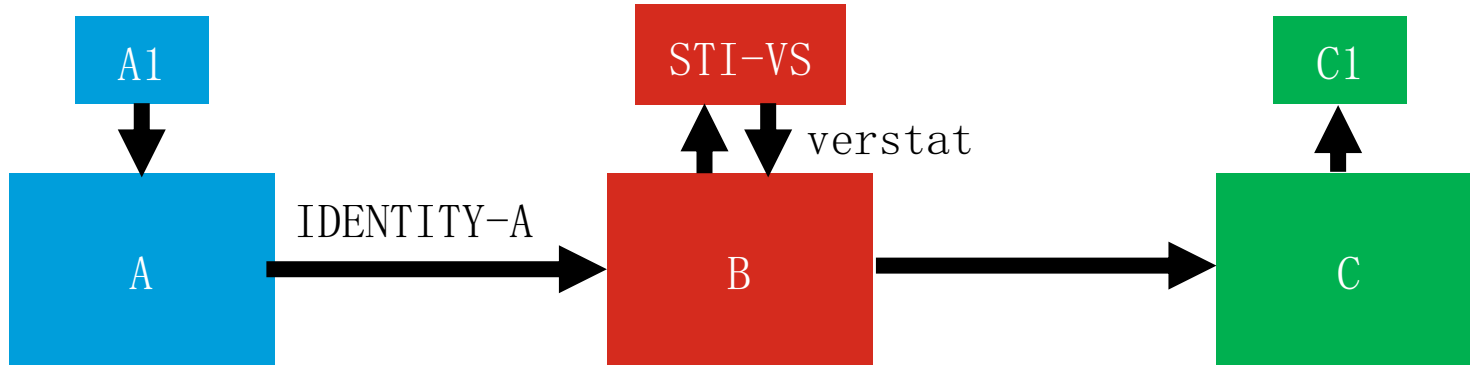
B1 FWD TO C2
From: A1
To: C2
ReqURI: C2
Diversion: B1

E16:
ppt claim does
NOT match
verif req
claim

Forward Thinking

- 1 A call arrived at my network with a diversion, I will still attempt to verify that call.
- 2 If the verification claim and the Identity claim header don't match, my STI-VS should give an ERROR E16
- 3 But what if others SKIP verification in diverted cases where To and ReqURI don't match? Ref: ATIS 1000074-E

Verizon handling if diversion is present



From: A1
To: B1
ReqURI: B1

From: A1
B1 FWD TO C1
ReqURI: C1
Diversion: B1
Verstat stripped toward C
NO SHAKEN signing invoked



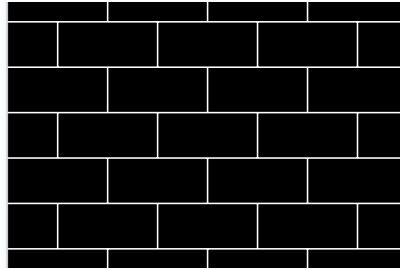
Other Deployment Challenges



VIRTUALIZATION

SBCs

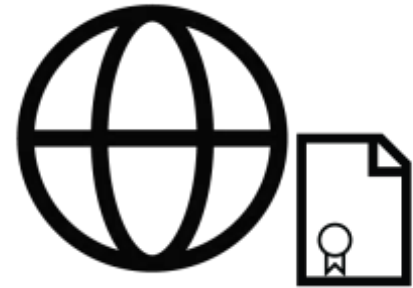
STI-AS/VS



FIREWALLS

SILENT TCP DROPS

PACKET SIZES



CERTIFICATE RETRIEVAL

WEB SERVER STABILITY

CACHING

Performance Targets achieved

>99%

Query success rate

100ms

PDD Budget

<1%

Verification
errors

250,000,000

Next up: Enterprise





Thank You