Verizon STIR/SHAKEN Deployment Case Study

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Expectations for STIR/SHAKEN peer exchange.

- Edge protections
- SIP format
- What will be signed
- Attestation levels
- Included as part of interconnect workbooks
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
A call arrived at my network with a diversion, I will still attempt to verify that call.

If the verification claim and the Identity claim header don’t match, my STI-VS should give an ERROR E16.

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%  100ms  <1%

Query success rate  PDD Budget  Verification errors
250,000,000
Next up: Enterprise
Thank You