

# ITU Guidelines for ITU-T action on reported misuse of E.164 number resources and International Calling Party Number Delivery

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Editor, E.156 and E.157

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# Outline of presentation

- What are E.156 (misuse) and E.157 (CPND)
- Revised E.156
- Revised E.157
- STIR/SHAKEN

# E.156

## Guidelines for ITU-T action on reported misuse of E.164 number resources

Provides guidelines for actions by Administrations, ITU members and Associates and by the Director of the Telecommunication Standardization Bureau (TSB) upon receipt of reports of alleged misuse of ITU-T E.164 numbering resources. It covers allegations of misuse that are both directly assigned by the ITU, and those that are indirectly assigned under the responsibility of Member States

## Misuse of E.156 numbers

occurs where the use of that numbering resource does not conform to the relevant ITU-T Recommendation(s) assignment criteria for which it was assigned or when an unassigned numbering resource is used in the provision of a telecommunication service

# Different types of E.164 codes

- Country Code for Geographic Areas
- Codes for Inmarsat and Groups Of Countries (e.g., +388)
- Country Code for Networks (e.g., +882), Country Codes for Global Services (e.g., +800, +878, etc.), Country Codes for GMSS Operators (e.g., +881)
- Country Codes for trials (e.g., +991)
- Unassigned Country Codes

# Revised E.164

- Distinguish direct from indirect
- Direct: report to TSB
- Indirect:
  - OA reports to TSB for information, circulated on mailing list
  - OA reports to other OA for action
  - OA asks its regulator to contact other regulator

## E.157

### International calling party number delivery

Provides guidance for international calling party number delivery which is technology neutral

# Revised E.157

- Originating operators shall be able to identify the calling party number that originated an international call
- Originating and transit operators shall ensure the provision of the CPN over international networks, unless calling party requests restriction
- If CPN is missing or incorrect, may replace with special number (national matter)



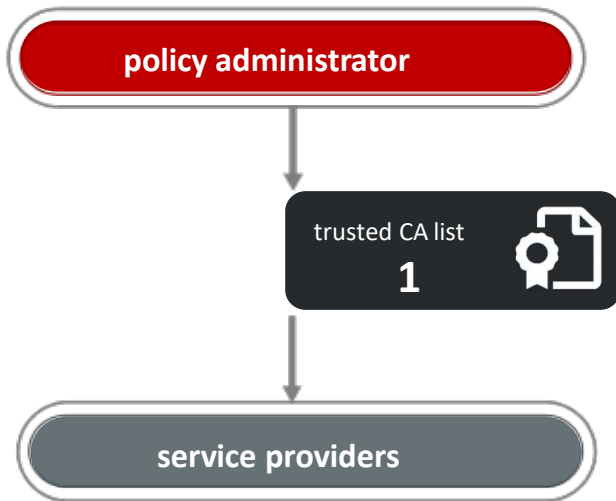
# Ad hoc meetings on global implementation of STIR/SHAKEN

- Reported to 6-10 September 2021 Q1/2 meeting
  - [TD3](#) and [TD3-A1](#) contain the report of 28 July and 11 August 2021 meetings
  - [TD4](#) puts forward possible follow-up actions regarding global implementation of STIR/SHAKEN
- LS to SG11 and 16
- No further action unless contributions and A1 justifications are submitted

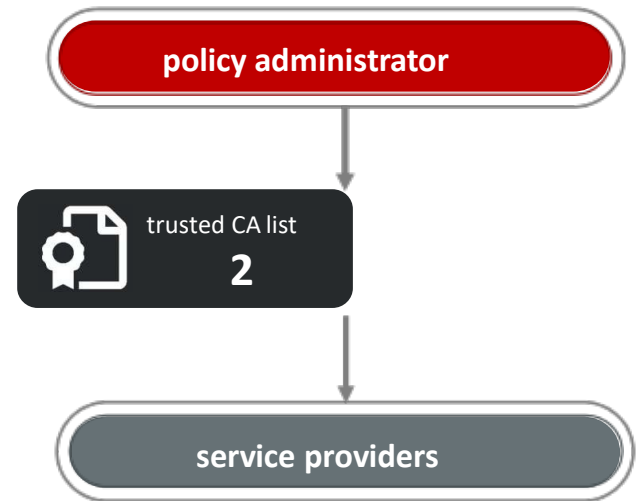


# call authentication within each market

Market 1



Market 2

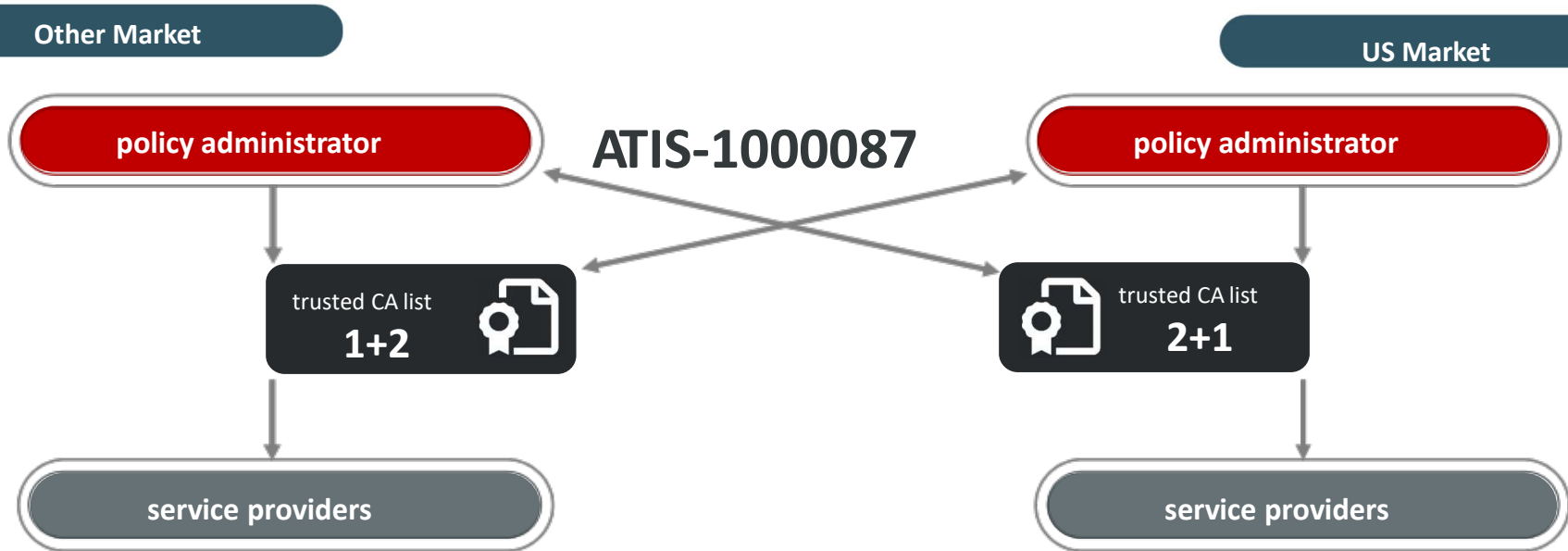


adoption of SHAKEN/STIR will lead to distinct network deployments with distinct lists of trusted CAs in each market

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# cross-border call authentication – approach 1



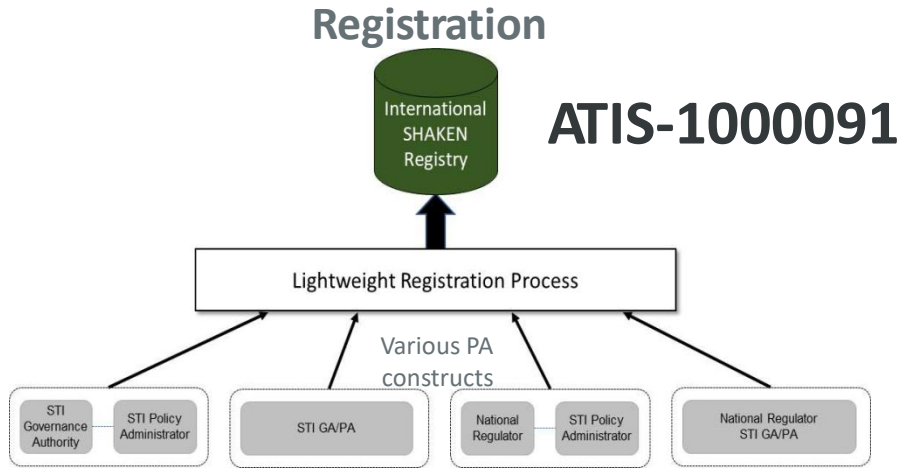
both PAs have confirmed  
explicit trust in each other

each PA would access the other PA  
interfacing like a service provider

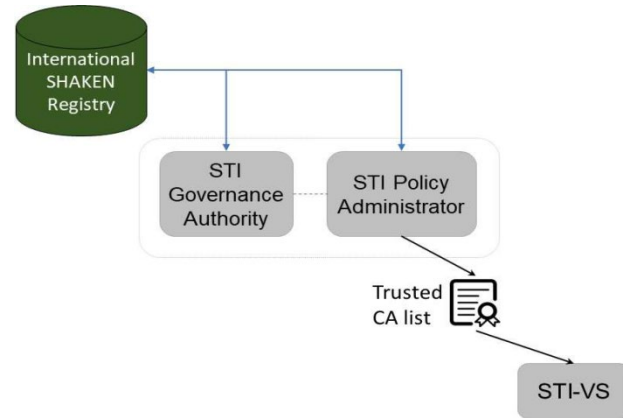
each PA will have read-only access to  
the other PA's trusted CA list



# cross-border call authentication – approach 2



### Distribution



- The draft specification of the International SHAKEN registry is found under IETF as draft-burger-stir-iana-cert-01

- Once information has been populated in the International SHAKEN registry, individual STI-GA/PAs can decide when to use this information as a matter of local policy

# Related work

- ITU-T SG11 work on CLI and CLIP/CLIR
- 3GPP specifications
- National studies and actions regarding spoofing and CLI