

## i3Forum@PTC'25

international traceback –what will it take?

workshop and open discussion

PTC'25, Honolulu, HI  
January 22<sup>nd</sup>, 2025

# Where can we improve things together?

some suggestions for voice (not comprehensive)

**A number:**  
Alice's phone number  
(origin, aka **CLI** : Calling Line Identification)  
Improving **accurate knowledge of the global numbering plan**

- Improved (mandated?) domestic **KYC/KYT**  
- enhanced legal/regulatory framework for **Spoofing**

**Trusted Trunks**: on the same interconnection, **separating** known/trusted/verified traffic from the rest of the traffic

**Know your customer / Know your Traffic (KYC/KYT)**  
Real-time knowledge of **global numbering plan**  
Enhanced **CLI verification** (legitimate CLI ?)  
- **Traffic pattern analysis**  
**Blocking** suspicious / illegitimate A number ranges  
**Blocking** suspicious calls (**safe harbour**)  
**CLI spoofing** prevention/detection

Managing **National CLIs (A number)** on **International trunks**: international inbound call with a calling party number from the destination country.  
- Identify and **allow legitimate use cases** (Roaming, Calls Centers...)  
- Identify and **block illegitimate use** of National CLI on International trunks

**Harmonized national legal & regulatory frameworks**







**reporting**, including harmonized Police Report




**International traceback** from destination country's egress int'l carrier's to origin country int'l carrier's gateway - interworking with domestic mechanisms where possible

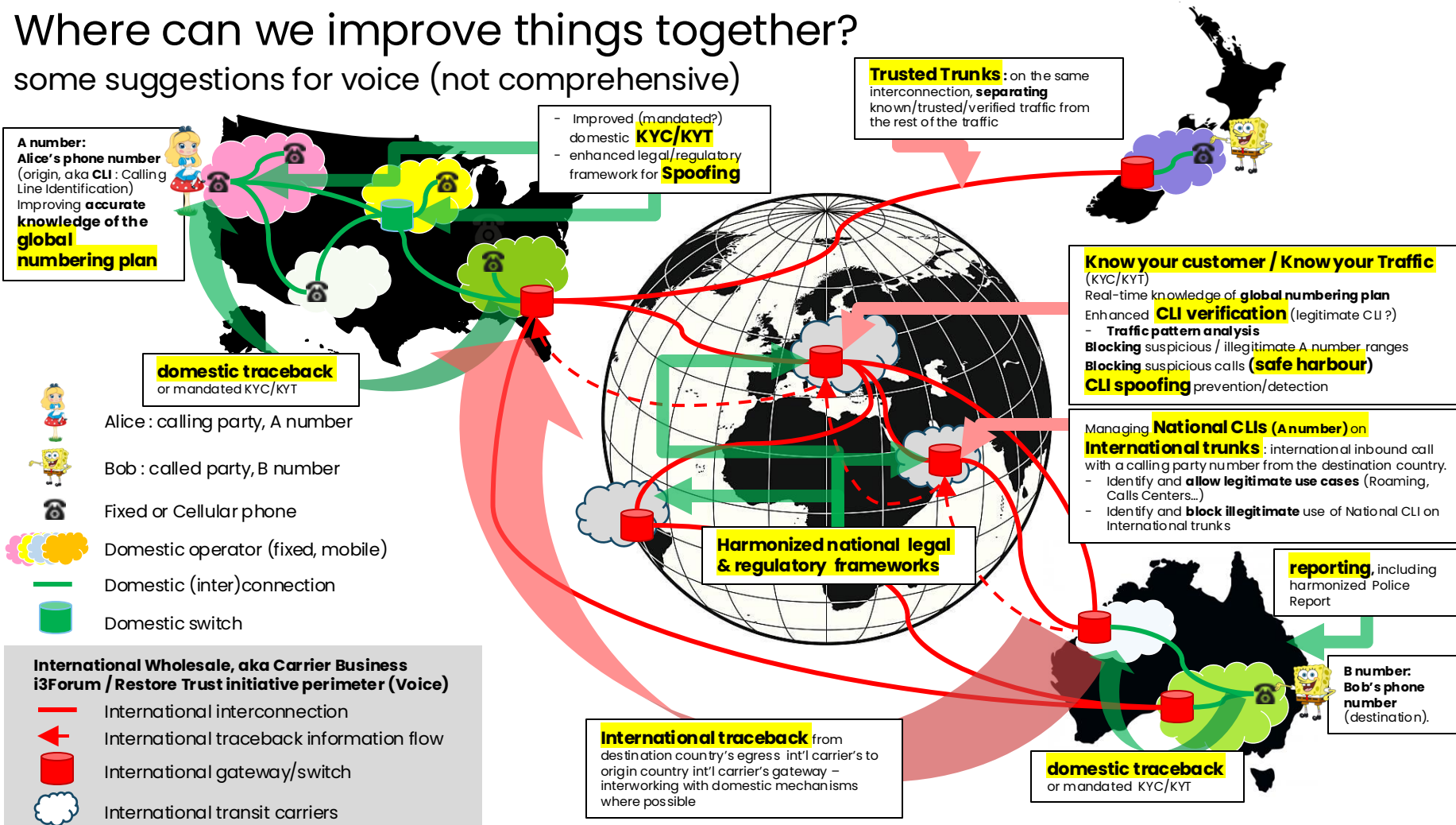
**domestic traceback** or mandated KYC/KYT

**B number:**  
Bob's phone number (destination).

**domestic traceback** or mandated KYC/KYT

-  Alice: calling party, A number
-  Bob: called party, B number
-  Fixed or Cellular phone
-  Domestic operator (fixed, mobile)
-  Domestic (inter)connection
-  Domestic switch

- International Wholesale, aka Carrier Business i3Forum / Restore Trust initiative perimeter (Voice)**
-  International interconnection
  -  International traceback information flow
  -  International gateway/switch
  -  International transit carriers



# International Traceback – why do we need it to fight spams / scams?

why do we  
even need  
traceback ?

- catching the fraudsters :
  - regulators, law enforcement and domestic service providers become more efficient fighting spams and scams in a given country,
  - fraudsters move abroad and use the international networks to contact their targets
- why is it complicated to identify the true origin of a call ?
  - the A-number cannot be trusted as it can be spoofed
  - spoofing (A-number manipulation) is not illegal, there are multiple legitimate business and technical use cases
  - In addition, numbers are leased/sub-leased multiple times – who really owns a number at any given time ?
  - the relevant legal/regulatory framework do not always define very clearly what is legitimate or not, and what obligations the operators have to verify the A-number
  - spoofing is easy to use to support fraud
- retracing call path, hop-by-hop from destination to origin, is the only way
  - cooperation between operators and between countries
  - adequate legal & regulatory framework (information sharing, legitimate requests...)
  - central management/coordination
  - financing

# Who is really calling Bob?











**A number:**  
Alice's phone number  
(origin, aka CLI : Calling Line Identification)

**domestic traceback** or mandated KYC/KYT

**Harmonized national legal & regulatory frameworks to ensure Carriers participation in International Traceback**

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**International traceback** from destination country's egress int'l carrier's to origin country int'l carrier's gateway – interworking with domestic mechanisms where possible

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# International Traceback – what is it ?

“full traceback” : ideally “end to end” , spanning **two different countries** and the **international ecosystem** in between – involving multiple stakeholders in multiple jurisdictions, globally.

full traceback consists of **three segments** :

- **destination country** domestic leg: from destination number & operator back to the inbound international gateway
- **International leg** : tracing the call for the international segment, i.e.
  - from the inbound int’l gateway in the destination country,
  - back to the outbound int’l gateway in the origin country
- **origin country** domestic leg, from the international outbound gateway to the origin number & operator in the origin country

the **domestic legs** are under the jurisdiction of their **respective Regulators and Authorities**.

the international leg, in the absence of a global Authority, is the **responsibility of our ecosystem**: international carriers and regulators working together, globally

*note : information about the individual or organization that originated the call (identity, location...) can only be provided by the origin operator. The **national legal framework and judiciary process in the origin country** determines if and how this information can be obtained and communicated, and by whom.*

a simple goal

a complex environment

# International Traceback – a few interesting questions for you ...

some non-trivial  
questions  
1/2

- what is a **legitimate** international traceback **request** – who defines that ?
- **who** is **authorized** (by whom ?) to make an international traceback request ? – and how do they justify their request ?
  - international **Industry** (“participating” Carrier) ?
  - “Participating” National **Authorities** : authorized agencies, from “participating” countries, e.g. NRAs, Law Enforcement... ?
  - authorized **non governmental** organizations : consumer protection orgs, domestic traceback organization, domestic operators... ?
- what information about the call received is **required** to make a request ?
- what information is **provided back** to the requestor ? and how ?
- how will **countries** (domestic segments authorities) **cooperate** with the international segment, and between themselves ?

# International Traceback – a few interesting questions for you ...

some non-trivial  
questions  
2/2

- how to secure **cooperation/participation** from **int'l transit carriers** ?
  - incentives/penalties from industry peers ?
  - incentives/mandates from NRAs where International carriers are located/registered to participate in Int'l Traceback
- how do we harmonize the **legal/regulatory framework** to share internationally traceback information
  - this may require **evolving the national legal/regulatory framework** in multiple countries, while taking into account legitimate privacy and security concerns
- what happens if we can't build this, or not fast enough ?
- and then of course : design, implement, drive adoption, fund, operate...
- One Consortium and GIRAF have started working on this

now, please share your thoughts  
and questions!

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mahalo !

safe travels and let's stay in touch

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