UNC
INFORMATION
TECHNOLOGY SERVICES

Internet2 Project and H.325

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Do We Need Another Protocol?

- Wrong question.
- Better to ask:
  - Are people's needs being met?
  - Are applications being served?
  - Are products available?
  - Do current products solve business problems?

What Are People's Needs?

- Purchase a range of devices that function without external infrastructure
- End to end identity assertion for business and SPAM prevention
- No interoperability problems
- Mobility across devices and networks
- Simple deployment and access over features

Do Today's Protocols Meet These Needs?

- No. They require extensive network infrastructure. Call servers, middleware, NAT traversal, B2BUAs, IMS.
- No. End to middle identity assertion at best.
- No. Major interoperability issues and growing.
- No. Mobility is hampered mostly by NAT.
- No. Deployment is complex and there are many features trying to emulate PSTN feature sets.

Let's Not Build A Protocol

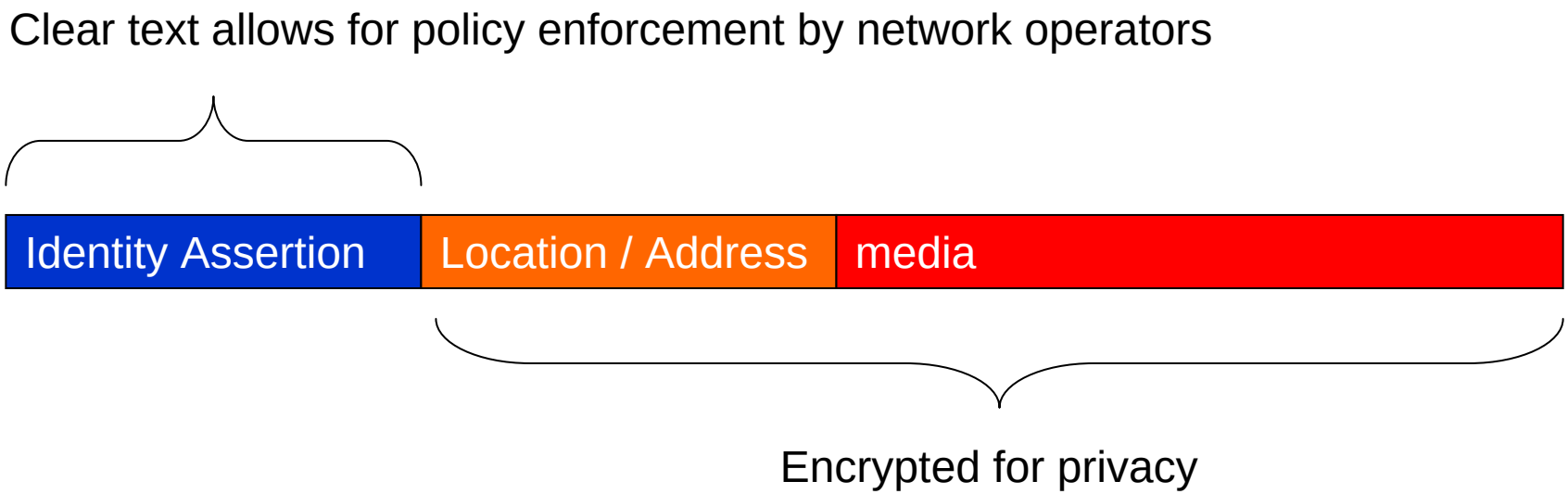
- Media coders achieve very high interoperability levels and are still not limited because they define a decoder. The encoder can cause the desired effect in the decoder without need for protocol extensions.
- Apply the same model to RTC
  - Specify receive behavior
  - Minimal messaging
- Result: A commodity endpoint that is dumb in terms of signaling, but smart in terms of features.

OK. We Might Need SOME Protocol Elements

- Registration / Location
  - Identify the endpoint to the public Internet across NAT
  - Use very lightweight protocols, take a lesson from P2P and use HTTP when possible.
- Identity Assertion
  - Is it possible that RTC is a big enough application to have its own identity assertion scheme, to avoid waiting for global PKI?

Legal Intercept and Identity

- Starting communications with identity assertion allows appropriate policy enforcement.



Conclusion

- Growing perception in Internet2 that SIP will twilight. Preparing for it.
- Current protocols
  - too voice-centric
  - Do not support mobility through NAT adequately
  - Not distributed enough
  - Do not push RTC into the commodity market, instead retain old carrier business model
- H.325 is not a replacement for H.323/SIP but something different that fits a more mature view of communications
- Internet2 community is interested to contribute