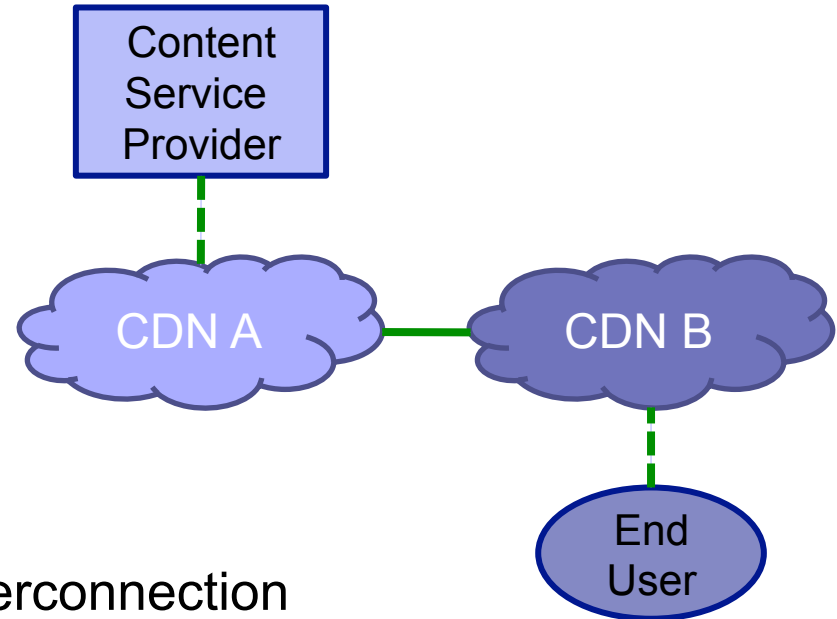BoF CDNI

IETF80 – Prague

Content Distribution Network Interconnection (CDNI) Experiments
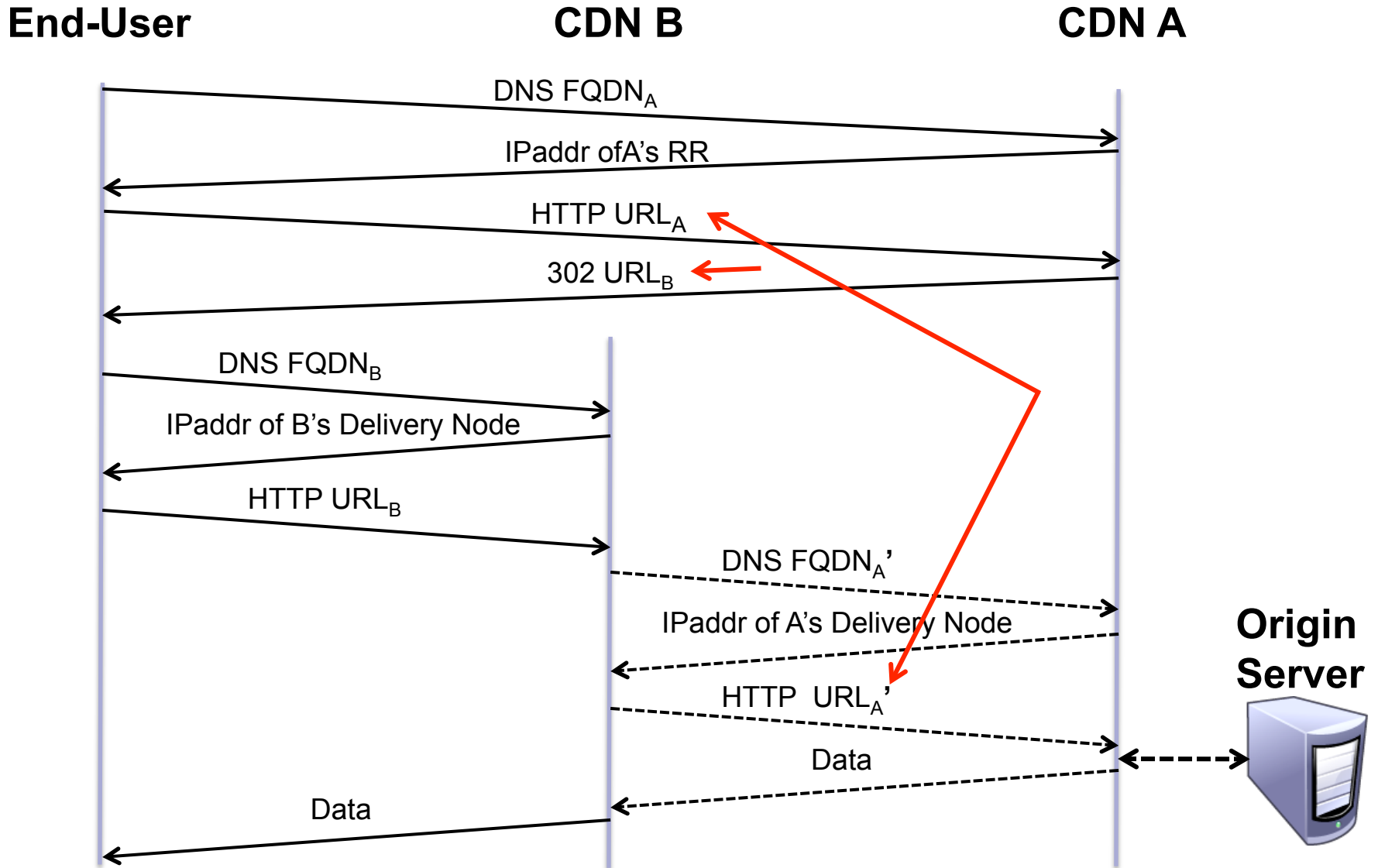
Gilles Bertrand, France Telecom

Francois Le Faucheur, Cisco

Larry Peterson, Verivue

# Setting

- Two Network Operators
  - France Telecom (FT)
  - Polish Telecom (TP)
- Two CDN Vendors
  - Cisco
  - Verivue
- Objectives
  - Demonstrate simple CDN Interconnection
  - Discover what we don't know
- Limited Scope
  - Request Routing and Content Acquisition
  - Metadata configured manually

Content Service Provider

CDN A

CDN B

End User

# Request Routing



**End-User**

**CDN B**

**CDN A**

**Origin Server**

DNS FQDN$_A$

IPaddr ofA's RR

HTTP URL$_A$

302 URL$_B$

DNS FQDN$_B$

IPaddr of B's Delivery Node

HTTP URL$_B$

DNS FQDN$_A$'

IPaddr of A's Delivery Node

HTTP  URL$_A$'

Data

Data

# Lessons

- Nothing beats experience building and using a system
  - → Implementing introduces practical trade-offs into the design
  - → Implementing encourages feature-prioritization
- Feasibility demonstrated with…
  - → In-band signaling using existing protocols (HTTP & DNS)
  - → Minimal metadata and maximal CDN opaqueness
- We've only scratched the surface
  - → Many features not yet explored (e.g., purge, reporting)
  - → Relied on assumptions and conventions in lieu of standards