

# LHCONE Point-to-Point Service

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## **Agenda**

- LHCONE P2P Service Definition (Jerry)
- Experience from Running a Production P2P Service (Bill)
- Bringing P2P Services to the Campus (Gerben)
- P2P and OpenFlow (Dale)
- Next Steps LHCONE P2P Pilot (Lars)





## How to get there

- Objective: a standards-based, multiplatform point-to-point service (NSI)
- Approach 1
  - Adopt and deploy NSI-based tools, build NSIbased infrastructure
  - Start from the AutoGOLE testbed
- Approach 2
  - Initially deploy IDCP-based tools, depend on existing IDCP infrastructure (OSCARS + AutoBAHN)
  - Gradually shift to NSI as major infrastructures adopt it.





## **Starting with NSI**

#### Pros

- AutoGOLE infrastructure in place
- Multiple implementations in place
- Avoids protocol transition later

#### Cons

- No production services in place (yet)
- Lack of support from OSCARS (for now)
- Protocols and tools still evolving





## **Starting with IDCP**

#### Pros

- Production services in place
- Existing operations experience

#### Cons

- Restricted to two implementations and to infrastructures with those implementations deployed
- Cannot take advantage of development in NSI space
- Requires protocol transition (and probably dual-stack operation)





#### **Pilot**

- Which approach does the community want to pick?
- How do we set up a pilot for the approach chosen?
  - IDCP: Pilot based on set of sites connected to IDCP infrastructures – Internet2, ESnet, European NRENs participating in GN3 BoD Pilot
  - NSI: Pilot based on set of sites connected to AutoGOLE
- Can / should we do two pilots





## **Application / Site Interface**

- Need to engage experiments + software stack developers
- Proposal: workshop, Q3/12 timeframe
- We need to have a clear networking story to tell for such a workshop

