

# Applicability of SIMAP to Transport Networks

draft-busi-nmop-transport-simap-00

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# Motivations

- Service & Infrastructure Maps (SIMAP) is an emerging concept being developed by the NMOP WG
  - ✓ driven by operators
  - ✓ getting some traction
- SIMAP includes (even if it is not limited to) transport networks
  - ✓ OTN and WDM transport networks are included in SIMAP
- Objective of this I-D:
  - ✓ Exploring the impact/applicability of SIMAP concepts to transport networks

# Draft Outline

1. Introduction
    - 1.1. Terminology
  2. Overview of Key Requirements for Transport SIMAP
    - 2.1. Resource and Bandwidth status
    - 2.2. Delay Measurement
    - 2.3. Availability
    - 2.4. Real-time Evaluation (Risk?)
  3. Use Cases
    - 3.1. Service Provisioning
    - 3.2. Alarm and Incident
    - 3.3. Risk Prediction
  4. YANG Models Applicability
    - 4.1. Planning and Service Provisioning
    - 4.2. Alarm and Incident
    - 4.3. Risk Prediction
  5. Security Considerations
  6. IANA Considerations
  7. References
    - 7.1. Normative References
    - 7.2. Informative References
- Acknowledgments
- Authors' Addresses

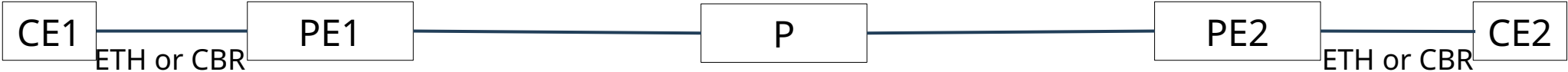
 Main content provided in the -00 version

# Service Provisioning UC

Connectivity service request (bandwidth, delay, availability)



Optical Network Controller

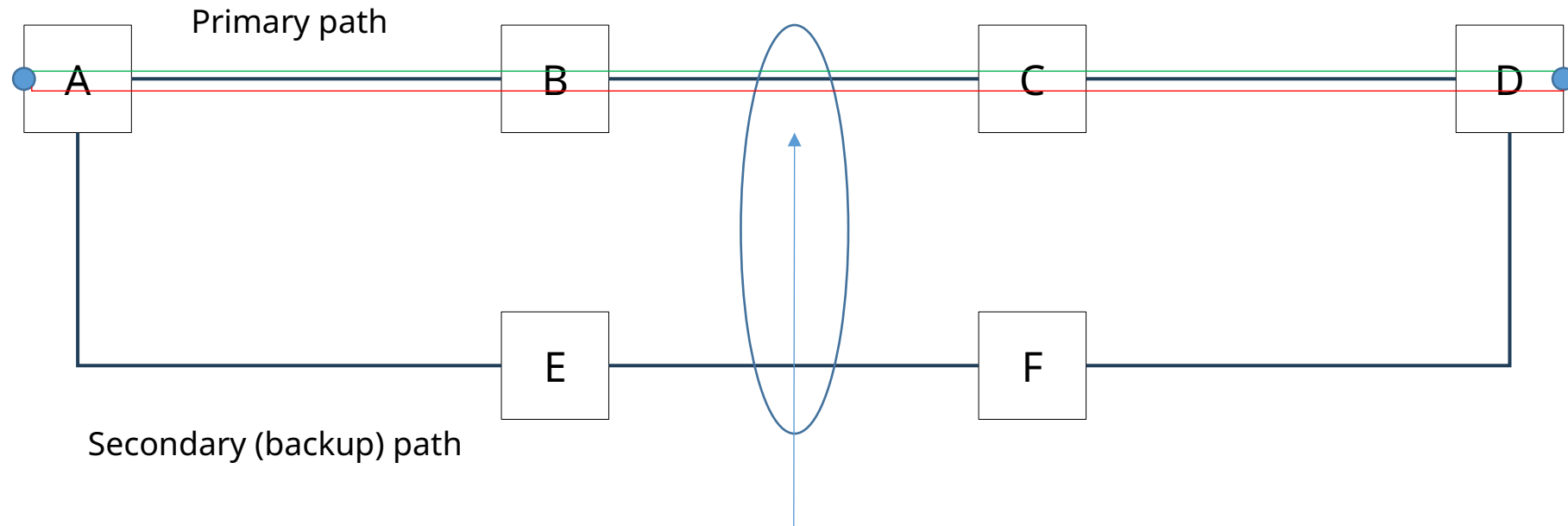


● Link Termination Point

▼ Tunnel Termination Point

...  
Fibers/Cables/Trenches

# Shared Risk Link Group (SRLG)



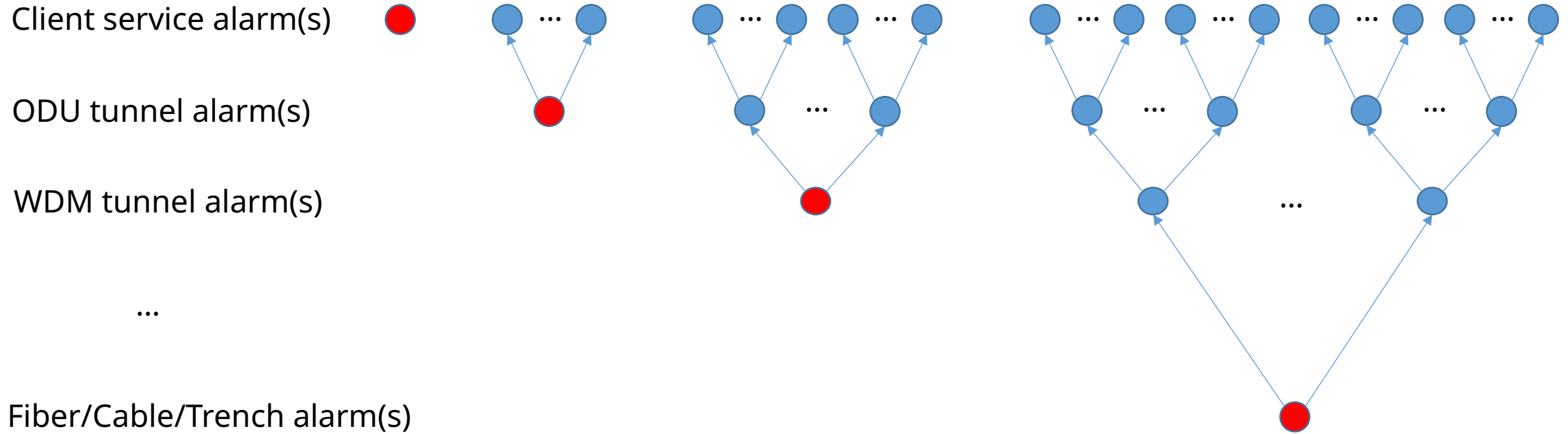
These two links can share a common risk (e.g., have a common fiber, cable or trench):

- SRLG information needs to be taken into account when provisioning a connectivity service with availability requirements

Manual configuration of SRLG is error-prone:

- SRLG information can be automatically provided by the optical controller using co-cabling/co-trenching advanced algorithms

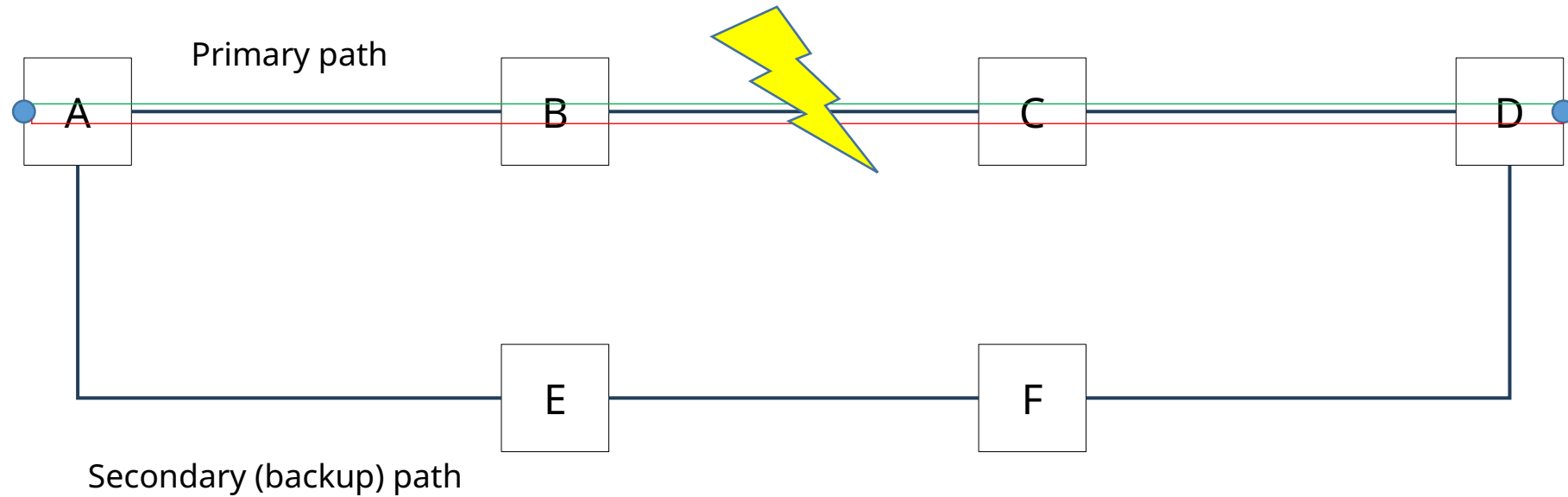
# Alarm and Incident UC



● Root Cause Alarm

● Secondary Alarm

# Risk Prediction



After a failure occurs on the primary path, protection mechanisms cannot recover any additional failure

- Report the resiliency mechanism in use and its status

## Next Step

- Get feedbacks on the interest for this work
  - ✓ Anybody who is interested to contribute, please contact the co-author(s)
- Identify the home WG for this work
  - ✓ Candidates
    - CCAMP is the home for transport network technology-specific work
    - NMOP is the home of SIMAP
  - ✓ No matter which WG is selected as the home WG, need to keep the other WG aligned and informed on the progress of this work
- Complete the missing sections