

# A Vocabulary of Path Properties

draft-enghardt-panrg-path-properties-03

Theresa Enghardt  
Cyrill Krähenbühl

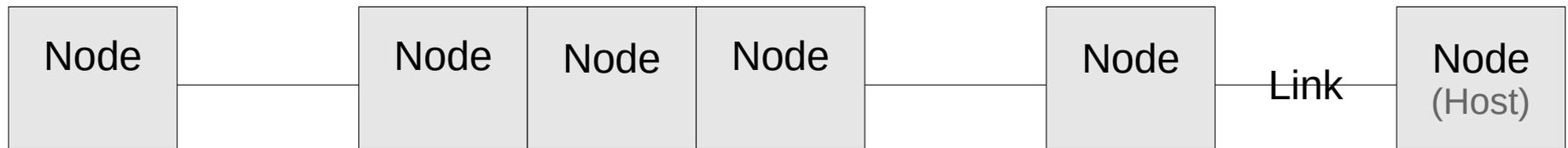
# Intro and Scope

- Path-aware network
  - ...exposes **information**
  - about **forwarding paths** and **services**
  - associated with these paths
  - to **hosts** or other entities

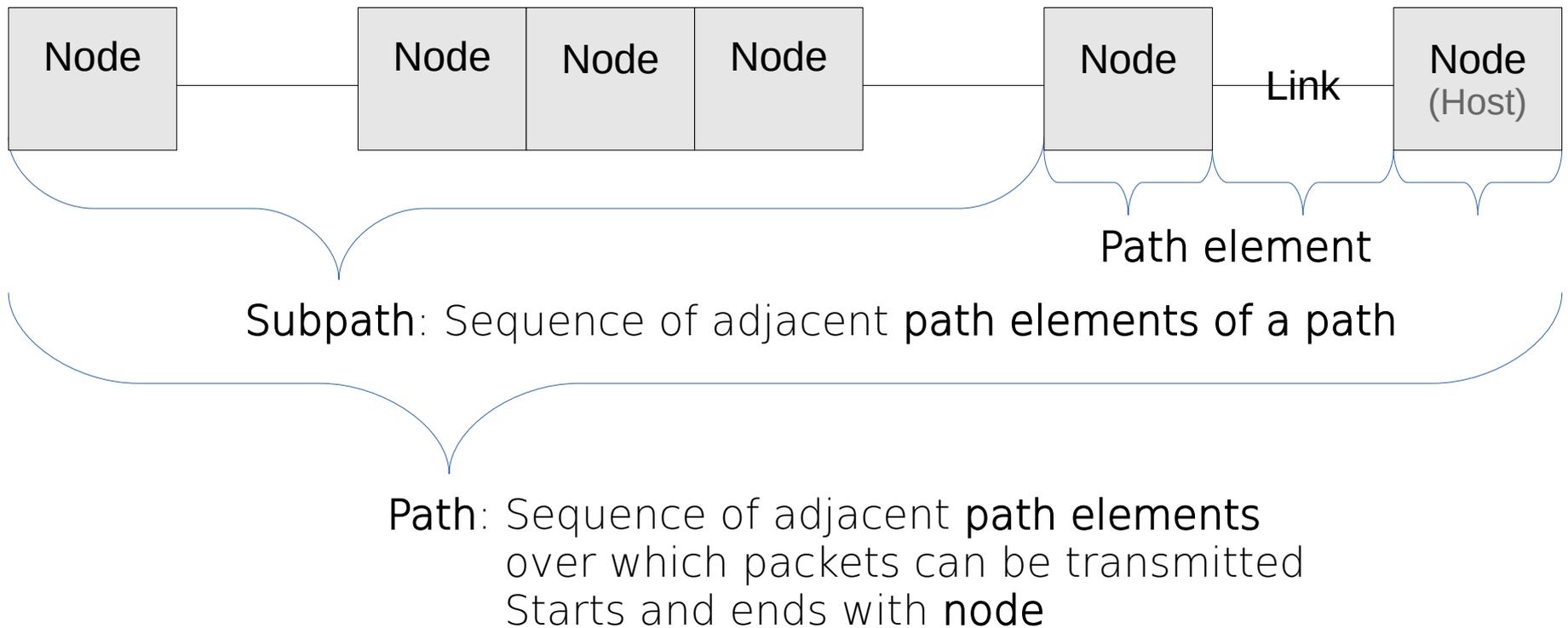
(See draft-irtf-panrg-questions)
- This draft: How to express this **information**  
= Path Properties

# Terminology (1)

- Node:** Processes **packets** (sends, receives, forwards, modifies them)  
Physical or virtual
- Host:** Node that executes application programs on behalf of users  
(RFC 1122)
- Link:** Connects two or more **nodes**, enables to exchange **packets**.  
Physical or virtual, unidirectional



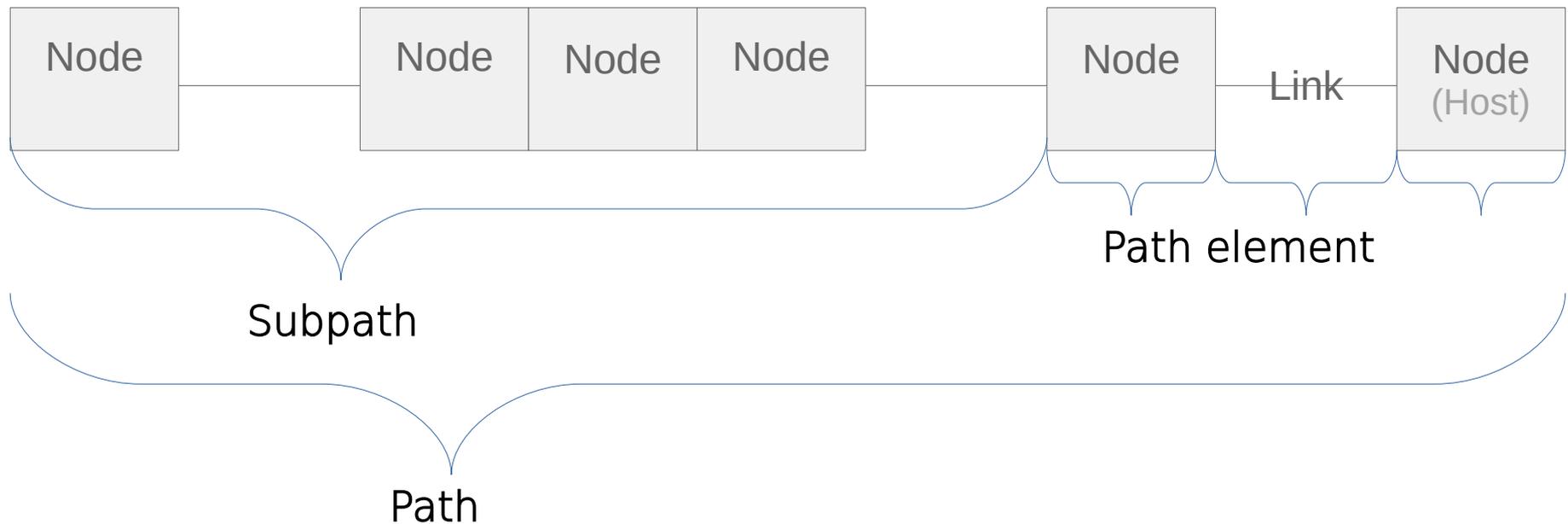
# Terminology (2)



# Terminology (3)

**Flow:** Entity made of **packets** to which the traits of a path or set of subpaths can be applied in a functional sense

**Property:** Trait of **path element** or **sequence** of path elements  
or trait of a **flow** with respect to one or a sequence of path elements  
→ Tuple of sequence of path elements, (flow), name, value



# Path Properties (examples)

- Access Technology
- Monetary cost
- Administrative domain
- Transport protocols available
- Link Capacity
- Link Usage
- One-Way Delay

# Use cases (examples)

- Performance monitoring, enhancement
  - Observe Quality of Service
  - Identify problems, trigger countermeasures
- Path Selection
  - Choose which traffic to send over which path(s)
  - Goal, e.g., related to security or performance
- Traffic configuration
  - Adjust parameters of traffic sent on path
  - Invoke path elements to be involved

# Questions to RG

- Do these terms work  
...as a **basis**  
to develop a **common language**  
to talk about paths in this **Research Group?**
- Adoption?