



# TRILL Core IDs

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# Disclaimer

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- IDs are pre-drafts
  - Not yet submitted (will be ASAP when open)
    - Please wait to cite
  - Editor list may change
    - All text in both docs is new
    - All text in both docs is based on prev ID, paper
    - Co-editors need to decide if they *want* to be listed (on this version)
    - All contributors will be credited in ACKs



# Purpose of this Talk

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- Discuss the split
- Discuss the structure of the docs
  - Scope of the docs
  - Issues to highlight in each doc

*Please: discuss the content per se only after we agree on scope and structure*



# Document 'Split'

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- Core:
  - Problem & Applicability (JT et al., Eds.)
  - Rbridge Architecture (JT et al., Eds.)
  - Rbridge Protocol (al., Eds.)
- Others:
  - Routing protocol(s) and issues
    - Routing requirements (Grey et al., Eds.)
  - Tunneling protocol(s)
    - PWE (Bryant et al.)



# Core Document Scope

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- Problem and Applicability
  - Defines the problem
  - Few assumptions about the architecture and protocol
  - Allows for alternate solutions
  - Applicability needs to refer to existing/proposed solutions
  - Informational
- Rbridge Architecture
  - Describes structure of proposed solution
  - Allows for alternate implementations (protocols)
  - Informational
- Rbridge Protocol
  - Specifics of a particular solution
  - Standards-track



# Preliminary Question

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- RBridge or TRILL?
  - Is trill enough in filenames for WG?
  - Which to use for doc titles/text?
    - Is trill the problem and rbridge the arch/protocol?



# Problem and ...

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- Problem
  - Inefficient paths, convergence of routing, robustness of routing
  - NOT scale, node motion, data/control security
- Properties
  - Zero config, loop free, ST management, VLAN
  - ?Multiple attachments
  - Optimizations, equivalence
  - Internet architecture support/impact



# ...Applicability

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- Solve the problems
- Should better describe limits/caveats:
  - How many 'solutions' per segment?
  - System is entirely within one segment
- Discuss issues not addressed
- (unify terminology with arch.)





# Architecture

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- Terminology
- Rbridge device
  - CFT, CTT tables
- Functional description
  - Autoconfig, node discovery, tunneling, ingress/egress, forwarding, broadcast, internal routing (CFT, CTT)
  - External protocols (BPDU in/out)



# Issues

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- Case in favor – 802.1D, D++, etc.
  - Needs to define a problem to be solved
  - Problem should be ‘timeless’
    - But description can refer to current practice
- How much solution to include in P&AS?
  - Right now limited to properties, applicability
    - If general overlay not hinted at, what’s left to say?



# Issues (2) – P&AS

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- Convergence
  - Is encapsulation enough?
    - What startup delays?
  - Is splitting edge STPs required?
    - What is impact?
- How much to discuss other sol's
  - STP variants
  - Non-TTL loop avoidance (path trace)



# Issues (3) – Arch.

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- Node discovery
  - (needs to be populated)
  - Will this solve the multi-rbridge issue?
- Protocols for CFT/CTT
  - One protocol or two?
  - How to limit size of CTT?
- BPDU interaction
  - (the three cases)



# Issues (4)

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- Need for participation
  - I'm just the *editor*
  - Need supporting text, figs, refs where you agree
  - Can remove what is not desired



# IANA Issues

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- P&AS: none
- Arch: none
- Protocol
  - New ethernet protocol value for tunnel (?)
  - New ethernet protocol value for control packets (discovery, routing)