



# Excite@ Home View of Resilient Packet Rings

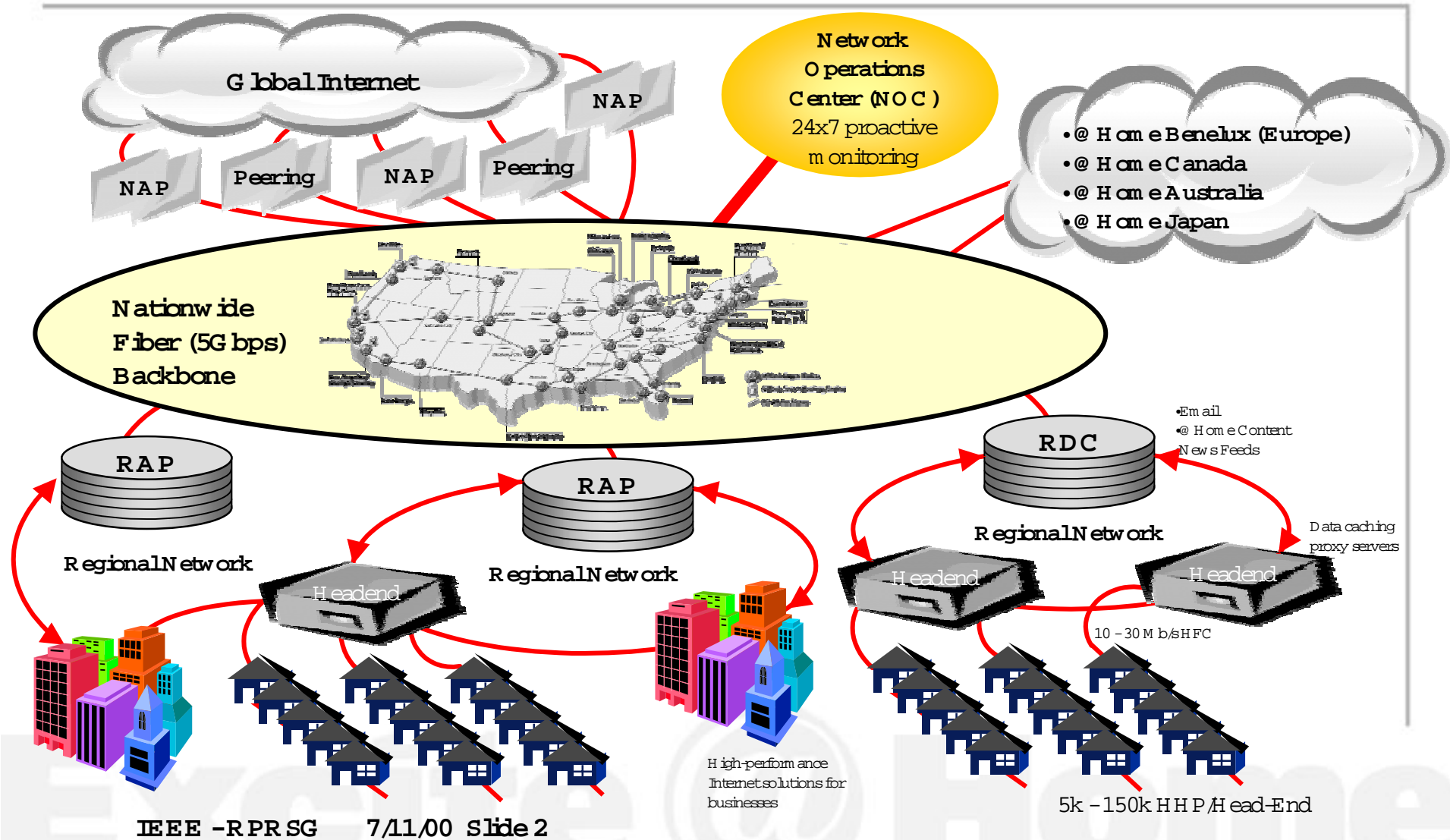
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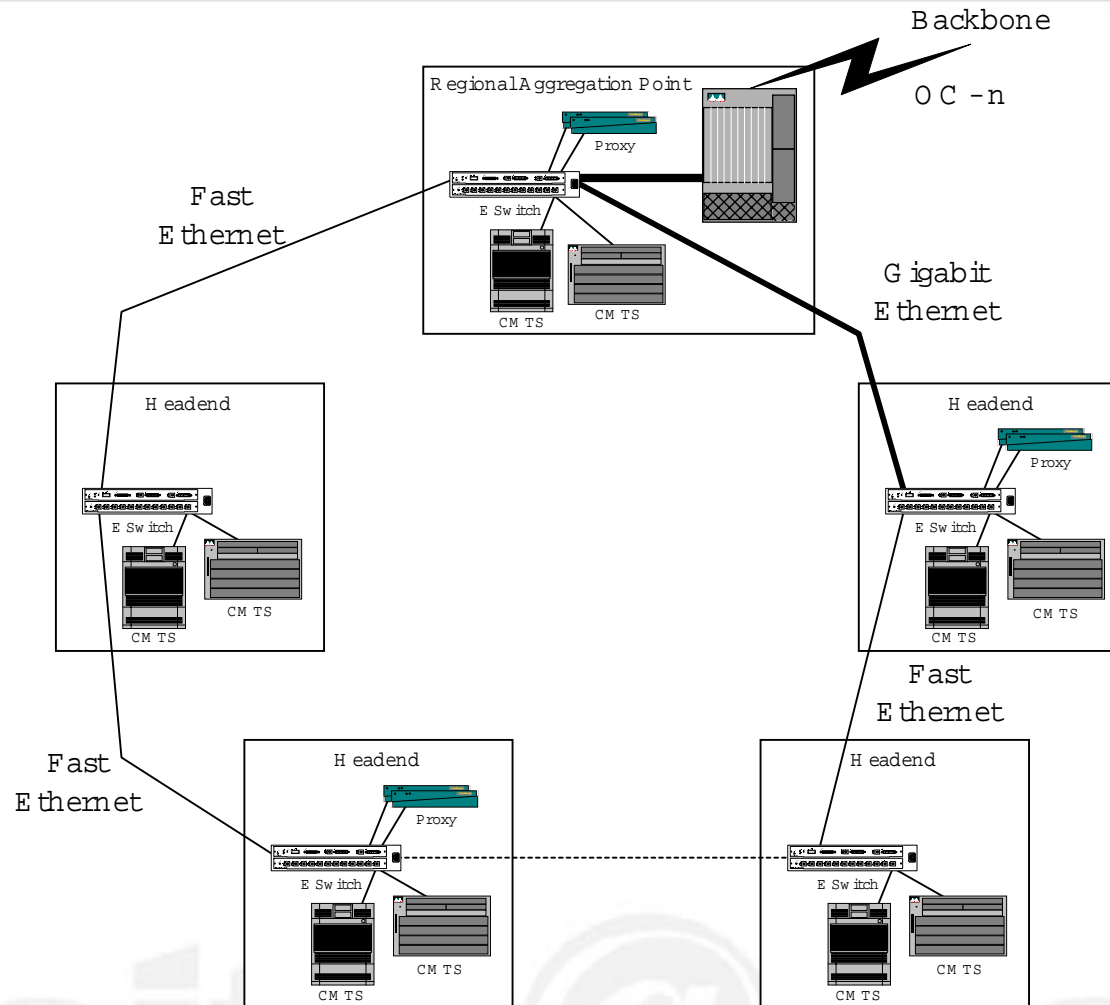


# @ Home Network Architecture



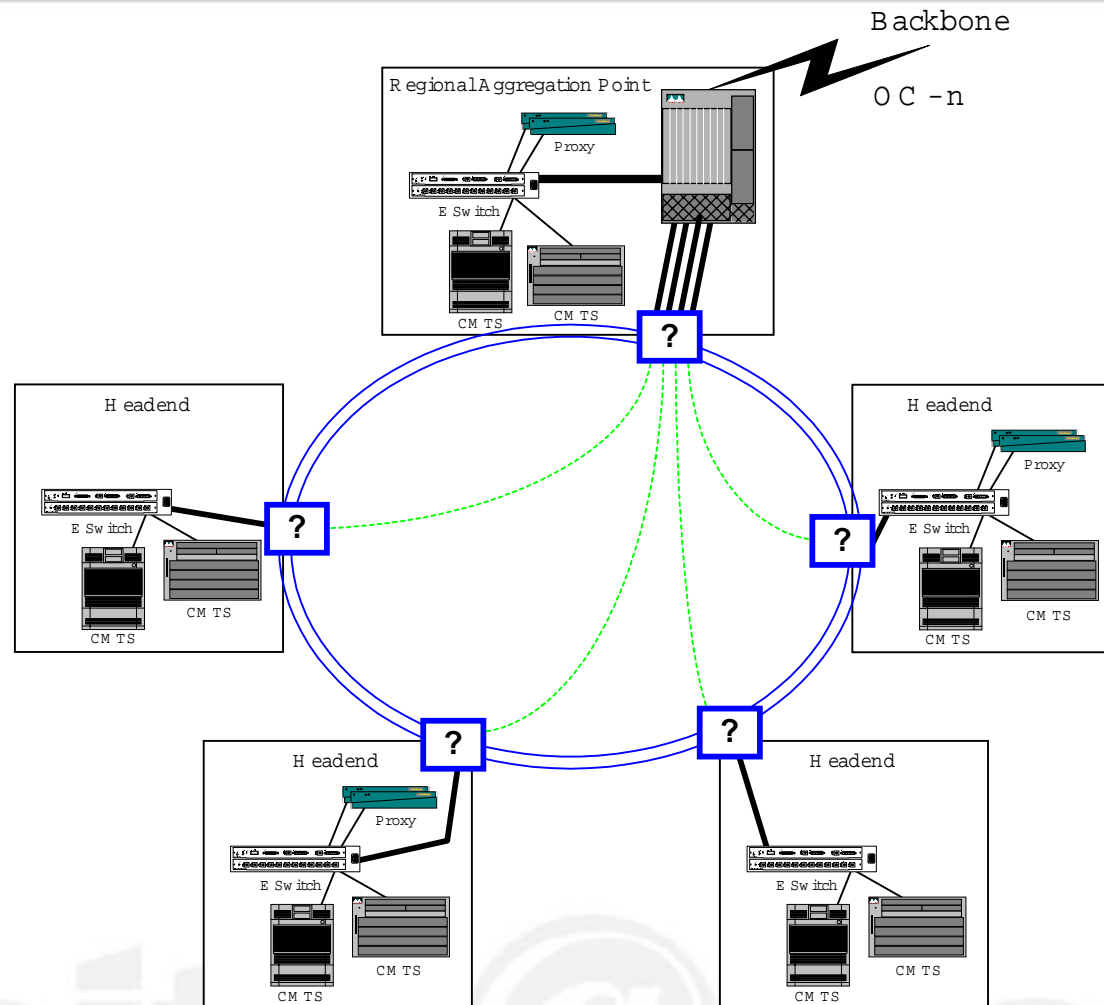


# Current Regional Architecture



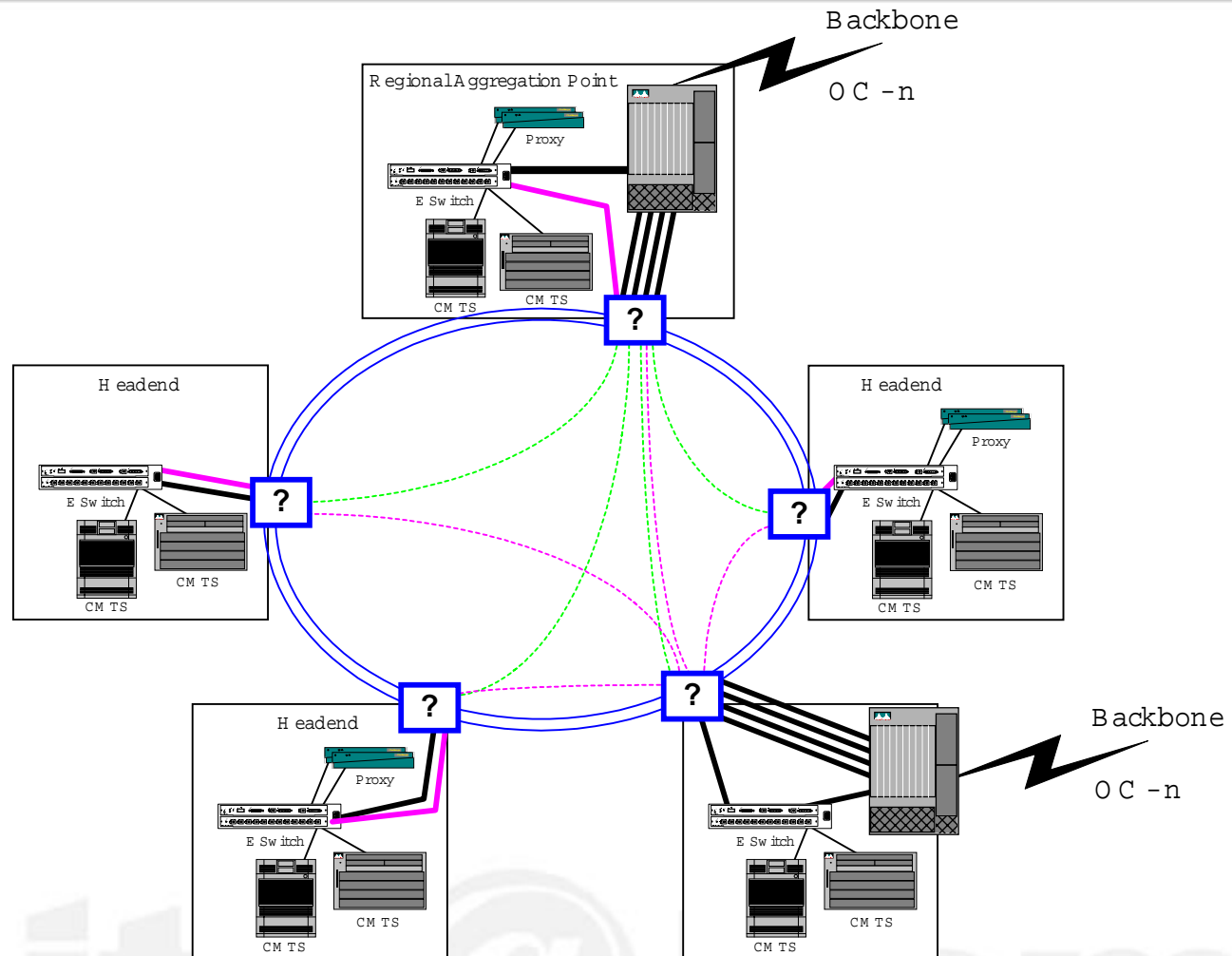


# Desired Architecture





# Desired Architecture (2)





## Requirements that may influence the standard

- Low price of admission (to the ring)
- Small size
- Path protection with "fast" recovery (sub second)
- "Dumb" (ie. transparent) pipes are better
  - L1, maybe L2, not L3
- Scales to 10+ Gbps aggregate (protected)
- Capability of redundant ingress/egress points  
(and server locations)
- Up to 2,000 Km ring circumference
- Up to 80 Km between nodes
- Up to 30 nodes per ring



## Implementation Requirements

- 19" rack mount
- Small size - 8 RU
- 110 v.AC or -48 v.DC power options
- Drop 50 M bps to 2 G bps per node
- Handoff at node is ethernet (100 M b, G b)
- Tributary connections are multimode (low cost)
- Ring allows ITU-T G.692 gridded optics
- SNMP management
- NEBS option



## Interesting Features, but...

- QoS support
  - Can use external router
  - need (simple) policing in/out of ring
- Multicast
- Integrated (optional) router



## Summary & Conclusions

- **Keep it simple**
- **Use existing, commonplace standards where possible**
- **Don't try to solve all the world's problems**
- **Evolve the standard so compliant products can be produced ASAP**