

What is a Logical Router?

- A Logical Router (LR) is a router architecture that divides the physical resources of one router into multiple independent routers within one platform
- Each LR could have its own control plane
- Each LR is configured and operated, independently
- Enables service isolation to support different functional and organizational requirements

LR Architectural Considerations

- Control plane - how are resources allocated?
 - CPU, memory, disk
- Forwarding plane implementation?
 - Inter-LR communication implementation?
 - Shared forwarding plane?
- LR power management
- Inter-LR security
- LR operational model
- Single-point of failure

Logical Router Applications

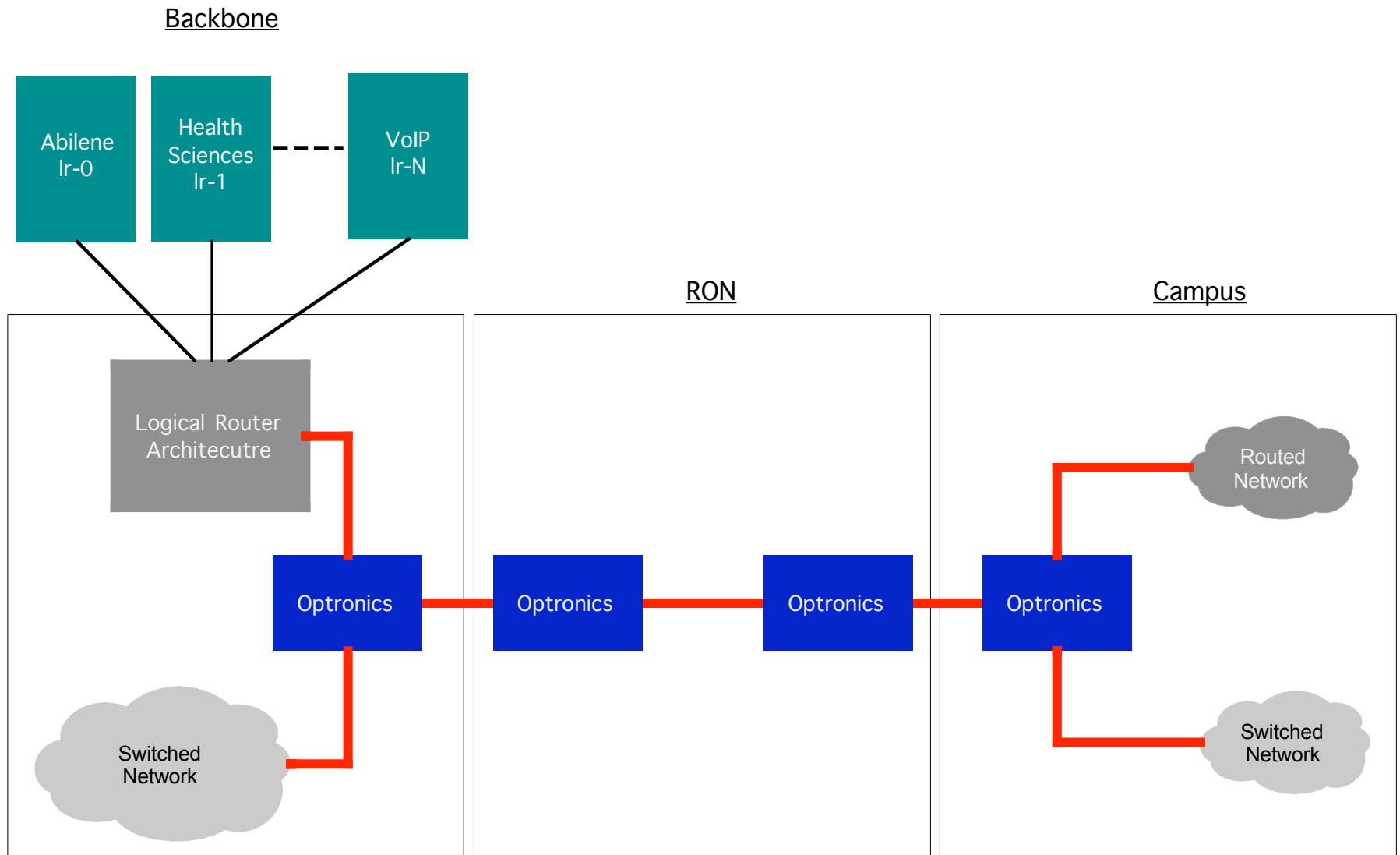
- Organizational separation

- Abilene - lr-0
- Engineering and Science Research - lr-1
- Health Science Research - lr-2
- K20 - lr-3

- Functional separation

- IPv6 - lr-4
- MPLS - lr-5
- VoIP - lr-6
- Observatory context #1 - lr-7
- Observaory context #2 - lr-8

LR Topology



LR Exchange Point

