

# Design and Construction of Local and Regional Exchange Facilities

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Packet Clearing House

# Determining Need

- ⑦ Sufficient end-user base?
- ⑦ No existing facility to build upon?
- ⑦ Sufficient degree of locally-destined traffic?

# Geographic Location

- ⑦ User population
- ⑦ Fiber facilities or rights-of-way
- ⑦ Founding participants

# Density

- ⑦ Centralized in one room
- ⑦ Campus of adjacent buildings
- ⑦ MAN
- ⑦ Frame or ATM cloud

# Building Management

- ⑦ Telco hotel
- ⑦ University computing or telecommunications facility
- ⑦ City emergency services facility

# In-Building Facilities

- ⑦ Pathways
- ⑦ Power
- ⑦ Cooling
- ⑦ Access and security

# Services

- ⑦ Switch fabric
- ⑦ Crossconnects
- ⑦ Route-server
- ⑦ Remote hands
- ⑦ NTP
- ⑦ Web caching

# Business Structure

- ⑦ Incorporated or unincorporated?
- ⑦ Staffed or volunteer?
- ⑦ Non-profit or for-profit?
- ⑦ Cooperative or external ownership?
- ⑦ Cost-recovery (predictive or actuals), ad-hoc, or market pricing?



# Policies

- ⑦ BLP, MLPA or MMPLA?
- ⑦ Mandatory looking-glass?
- ⑦ Routing and switch-port information public or members-only?
- ⑦ Secrecy in the event of security problems, failures, or mistakes
- ⑦ Extensible switch fabric?

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[www.pch.net/documents/tutorials/ep-construction](http://www.pch.net/documents/tutorials/ep-construction)