

802.17 Interoperability Requirements

IEEE 802.17

March 12-14, 2001

Nader Vije

Harry Peng

nader@lanterncom.com

hpeng@nortelnetworks.com

MAC Interoperable Interfaces

- MSAP
 - MAC/LLC Service Access Point (middle of Data Link Layer)
 - MSAP messages
- PhSAP
 - Physical Layer interface
- Management Interface
 - FCAPS
 - Fault, Configuration, Accounting, Performance and Security

Interoperable Packet Format

- Packet format and delineation (delimiting)
 - Compatibility with the Phy chosen
 - Using an existing or accepted encoding scheme can minimize maintenance cost
- Interoperable L2 messaging protocol for
 - Auto-discovery
 - Protection
 - Inter-node messages (Fairness Messaging)
- Multicast handling

Resiliency (Protection Scheme)

- L0 (e.g. LOS, BER)
- L1 (e.g. LOF, RF, LF)
- L2 (Inter node messaging)
 - Failure detect and Source Redirect within 50 ms
 - Discovery Protocol
 - Node insertion and removal
- Transit path is transparent when node is inserted (Plug & Play)

Fairness Algorithm

- Rate update message format
- Bandwidth allocation algorithm

Layer Management

- Statistics
- Alarms
- Events
- Management Information for
 - Bandwidth allocation
 - Link Layer
 - Security
 - MAC Layer
 - Physical Layer