max: frame frequency per port (frames per second) L: low ≤ 1/60
M: medium ≥ 1/60, ≤ 1
H: high > 1

max: frame transmit delay (seconds) S: short ≤ 0.1
M: medium > 0.1 ≤ 1
L: long > 1

error detection N: none; P: parity; CS: checksum (n) CRC: cyclic redundancy check (n)

hamming distance 1, 2, 3, 4, n

error recovery N: none; R: repetition;
C: correction

At layer 3:

LCN network size (ports) S: small ≤ 32
M: medium > 32, ≤ 256
L: large > 256 ≤ 2048
VL: very large > 2048

routing Y: yes; N: no

(un) packing Y: yes; N: no

connections N: none; P: permanent; SW: switched

priority Y: yes; N: no

The other layers are for further study.

At layer 1:

configuration S: star; B: bus; R: ring
number of ports per S: small ≤ 8
configuration (ports) M: medium > 8, ≤ 32
L: large > 32, ≤ 128
VL: very large > 128
physical medium SP: screened pair; TP: twisted pair CP: coaxial pair; OF: optical fiber
O: other
transmission mode S: synchronous; AS: asynchronous; HD: half duplex; FD: full duplex
operating speed 1200, 2400, 4800, 9600, 19200,
(bits per second) 64000, 128 000, 1 000 000
communication distance VS: very short ≤ 10
(meters) S: short > 10 ≤ 100
M: medium > 100, ≤ 1000
L: long > 1000
communication environment WR: within-rack; OF: on the same floor;
IB: in-building; OB: out of building
availability (%) L: low
M: medium under study
H: high

At layer 2:

data link connection CO: connection oriented;
CL: connection less.
data link initiator M: master; AP: all participants
data link address size S: small ≤ 8
(addresses) M: medium > 8, ≤ 32
L: large > 32, ≤ 128
VL: very large > 128
receipt confirmation Y: yes; N: no
maximum frame size S: small ≤ 256
(octets) M: medium > 256, ≤ 4096
L: large > 4096

ANNEX E

(to Recommendation G.771)

LCN protocol selection attributes

These LCN protocol selection attributes summarise the capabilities of the individual PQ(lcn) protocol suites for use in the LCN protocol suite selection process described in § 5.3.2.

Note - Abbreviations are given for each allowed attribute value as a key to Table F.5/G.771.

The protocol selection attributes are:

3.Number of ports per configuration

Specifies how many ports are to be interconnected within a single configuration (star, bus or ring) of the LCN.

For a star configuration count the number of branches, as one port per branch is implicitly assumed. For master-slave protocol suites for the bus or ring configuration, the master is excluded from the count of ports per configuration.

Descriptor: (ports) small ≤ 8
medium > 8, ≤ 32
large > 32, ≤ 128
very large > 128

4.Communication distance

Specifies the distance to be bridged within the LCN.

Descriptor: (meters) very short ≤ 10
short > 10, ≤ 100
medium > 100, ≤ 1000
long > 1000

5.Communication environment

Descriptor: within-rack
on the same floor
in-building
out of building

The need to provide further attributes is for further study.

ANNEX B

(to Recommendation G.771)

LCN physical configuration attributes

These LCN physical configuration attributes represent the requirements an administration imposes on the configuration of the whole of the particular LCN to be designed. In the PQ(lcn) protocol suite selection process (§ 5.3.2) these LCN physical configuration attributes will not only influence the choice of PQ(lcn) protocol suite, but also determine the type and quantity of mediation devices needed.

During the design of the LCN the administration may also consider the number of ports per configuration and the number of such configurations that can be served by a particular mediation device that implements the selected protocol suite.

Together with the distribution of network elements over space and the cascadibility of the mediation devices this leads to the layout of the LCN.

However, such mediation device design characteristics are beyond the scope of this Recommendation.

Some LCN physical configuration attributes are:

1.Number of NE ports

Specifies how many network element local communication ports are to be served by an LCN (including mediation devices).

Descriptor: (ports) small $\leq$ 32
medium > 32, $\leq$ 256
large > 256, $\leq$ 2048
very large > 2048

2.Configuration

Specifies the configuration to be used for the LCN.

Descriptor: star;
bus;
ring.