

ATM

Administrative State Management and Propagation Scheme in Object-based Hierarchical ATM Network Model

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ATM (administrative state) (MO : Managed Object)
가 .
(container-contained) (association)

1.

ATM (Asynchronous Transfer Mode)

(administrative state) ITU-T Recommendation X.731[1]
X.731
(operational state), (administrative state)
(usage state),
TMN(Telecommunications Management Network)[2]

(container - contained) 가 .

가 ,
(container - contained) 가
(association) 가 가

2.

2.1

ITU-T Recommendation X.731 가
가
가
가

Figure 1

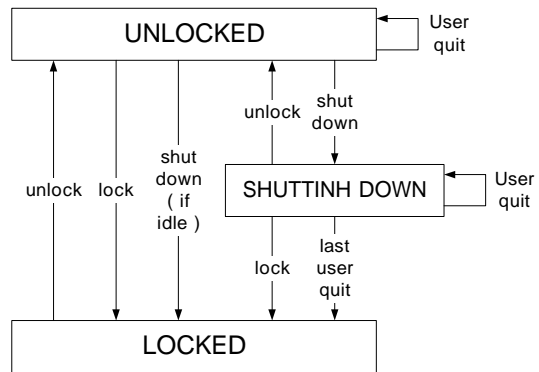


Figure 1 .

가

가

가 (locked) :
가 (shutting down) :
가 (unlocked) :

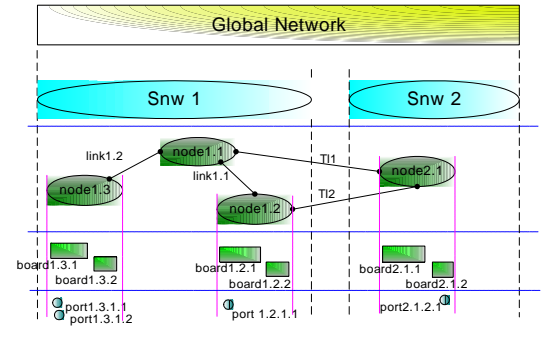


Figure 3 .

Figure 2
Recommendation G.805[3]
Figure 3

가 가
가 가
가 가
가 가
2.3

(layer)
Figure 4
ID ID ID
" " "

2.2

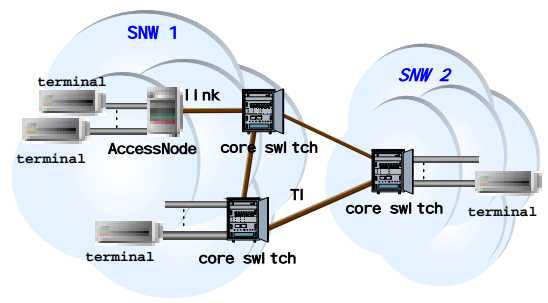


Figure 2 .

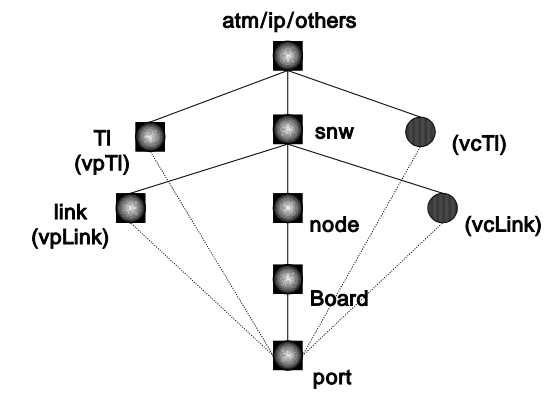


Figure 4 .

Figure 2
()

farPort nearPort,

Figure 3
(port)
(board), (node), (snw)

2.3
가
가
가

TI(Topological Link), (link) 1(snw 1) (node link 1.1, node 1.2, node 1.3) , (nearPort,

link 1.2)가

1

가

가

1.2 (port 1.2.1),
1.3 (port1.3.1, port1.3.2)가
1.3 가

2.1

가

가

1

(1)

1 2
T11, T12

(2)
(3)

(near end, far end)

>

>

(1)

가

= 2

(2)

= 1

= 0

Figure 3

1

Figure 5

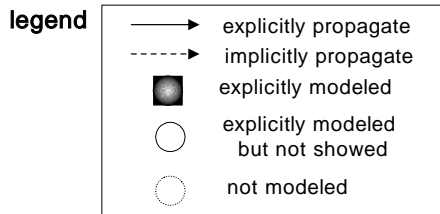
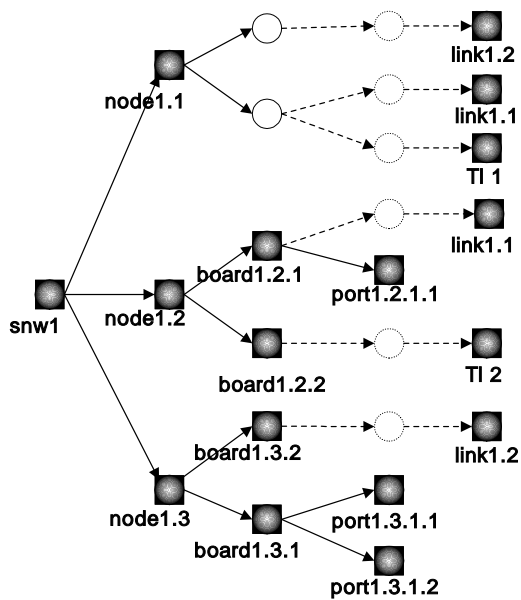


Figure 5 .

$$resultState = \max(state1, state2, \dots) \quad (3)$$

$$port1.3.1.1 \quad (4)$$

board1.3.1
port1.3.1.1
snw1, node1.3,
가

(2)

(3)

$$resultState = \max\{ s(snw1), s(node1.3), s(board1.3.1), s(port1.3.1.1) \} \quad (4)$$

가

가 가

가

, ATM, IP

3.

ITU-T Recommendation X.731

가

(administrative state)

가

(query)

가

가

가

가 가

References

- [1] ITU-T, Information Technology - Open Systems Interconnection - Systems Management: State Management Function, X.731, Jan. 1992.
- [2] ITU-T, Principles for a Telecommunications management network, M.3010, May 1996.
- [3] ITU-T, Generic Functional Architecture of Transport Networks, G.805, Nov. 1995.