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| **itu-old** | INTERNATIONAL TELECOMMUNICATION UNION | COM 15 – LS 290 – E |
| **TELECOMMUNICATIONSTANDARDIZATION SECTOR**STUDY PERIOD 2013-2016 |  |
| **English only****Original: English** |
| **Question(s):** | 9/15 |  |
| **LIAISON STATEMENT** |
| **Source:** | ITU-T Study Group 15 |
| **Title:** | LS/r on additional request for clarifications on IEEE Std 802.1AX ™-2014 (reply to IEEE 802.1-LS016) |
| **LIAISON STATEMENT** |
| **For action to:** | IEEE 802.1 |
| **For comment to:** |  |
| **For information to:** |  |
| **Approval:** | ITU-T Q9/15 meeting (Wuhan, China, 19-23 October 2015) |
| **Deadline:** | 22 January 2016 |
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ITU-T Q9/15 thanks IEEE 802.1 for past liaisons and clarifications about P802.1AX-REV (now published as IEEE STD 802.1AX™-2014) Distributed Resilient Network Interconnect (DRNI).

At our 19-23 October 2015 interim meeting, ITU-T Q9/15 continued to explore the applicability of DRNI in the context of our work on Multi Domain Segment network Protection (MDSP). As a result and to help us come to a conclusion in our analysis, we have additional questions for clarification.

In your March 2014 liaison response [1] about DRNI protection switching performance, you indicated the following:

In theory, slow transmission rates, long wires, and poor implementation choices could result in a recovery time that exceeds 50 ms. In practice, bridge implementations have not found it difficult to perform almost identical actions in well under 50 ms in bridged networks with similar topologies.

Could you further qualify “slow” transmission rate (Kilobit, Megabit or few Gigabit per second) in this context?

Protected Subnetwork 2

DRNI

I1

IPL 1

Aggregation Link 1

I2

I3

I4

Aggregation Link 2

**Portal 1**

**Portal 2**

IPL 2

W1

P1

W2

P2

V1

V2

Gateway 1

Gateway 3

Interconnected Domain

Gateway 2

Gateway 4

Protected Subnetwork 1

Wj: Working path in Protected Subnetwork j (j=1, 2)

Pj: Protection path in Protected Subnetwork j (j=1, 2)

Vj: Vertical path in Protected Subnetwork j (j=1, 2)

Ix: Portal System (x=1,2,3,4)

Portal 1: I1 and I3

Portal 2: I2 and I4

Would DRNI be able to meet a Transfer time (Tt in our October 2013 liaison [2]) of 50 ms in the case of a single link failure assuming that DRNI:

* has a fiber circumference (Aggregation Link 1, IPL 2, Aggregation Link 2, and IPL 1 in the above Figure) of less than 1200 km;
* is without congestion conditions that impact the transmission performance of the DRNI control protocol messages; and
* is in idle state (i.e., when no other failures are detected or operator’s commands are issued)?

Would DRNI still be able to meet this Transfer time with the above conditions in the case of a single node failure rather than a single link failure?

We look forward to IEEE 802.1’s further clarifications on IEEE Std 802.1AX™-2014, and we look forward to further interaction between our organizations.

ITU-T Q9/15 will be meeting next 15-26 February 2016.

References:

1. Liaison response from IEEE 802.1 to COM 15 – LS 076, Thursday 06 March 2014.
2. COM 15 – LS 076 – E “*LS/r on Multi Domain Segment network Protection (MDSP) (reply to IEEE‑802.1‑LS15)*”, Geneva, 11 October 2013.

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