

1. ASSIGNED PROJECT NUMBER: 802.17b

2. SPONSOR DATE OF REQUEST: 2004-10-07

3. TYPE OF DOCUMENT: Standard

4. TITLE OF DOCUMENT: Information Technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Resilient Packet Ring Access Method & Physical Layer Specifications – Amendment 1 - Spatially Aware Sublayer

5. LIFE CYCLE: Full-Use

6. TYPE OF PROJECT: Amendment 802.17-2004

Modified PAR?

In Ballot? No

7. WORKING GROUP INFORMATION

Name of Working Group: Resilient Packet Ring

Approximate Number of Expected Working Group Members: 30

8. CONTACT INFO FOR WORKING GROUP CHAIR

Name of Working Group Chair: Michael Takefman

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9. CONTACT INFO OF CO-CHAIR/OFFICIAL REPORTER

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10. CONTACT INFO OF SPONSOR

Sponsor: C/LM

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CO-SPONSOR INFORMATION (THIS IS BEING SPONSORED BY TWO SPONSORS):

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Name of Cosponsor Chair:

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Standards Coordinator for Cosponsor (Power Engineering Society Only):

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11. TYPE OF SPONSOR BALLOT: Individual

Expected Date of Submission for Initial Sponsor Ballot: 2005-12-01

12. PROJECTED COMPLETION DATE FOR SUBMITTAL TO REVCOM: 2006-09-01

13. SCOPE: This project amends 802.17-2004 adding one or more new clauses defining optional extensions to support increased spatial reuse on the media. 802.17-2004 allows spatial reuse for ring local unicast transmissions, this amendment adds support for spatial reuse of other frame transmissions (e.g. remote bridging as seen in 802.1 D/Q). Changes to existing clauses of 802.17-2004 are permitted if required to support the new clauses.

Completion of this document contingent? No

14. PURPOSE: 802.17-2004 provides spatial reuse for ring-local unicast transmissions. This limits spatial reuse to host stations (e.g. routers) attached to the ring and precludes other devices that(eg. bridges). The amendment will extend the class of frame types and device types that can achieve spatial reuse to significantly improve bandwidth efficiency on Resilient Packet Rings.

14a. Reason: Spatial Reuse is achieved by stations stripping a frame from the media once it has reached its destination. This differs from previous 802 ring technologies where the frame was required to circulate around the entire ring. Destination stripping increases overall ring efficiency

as bandwidth is not wasted with continued circulation of the frame. 802.17 is being used on a variety of networking equipment including, ethernet switches, IP routers, MPLS switches and Add-Drop-Multiplexors. Internet Service providers, Network Service providers, Cable MSOs, PTTs, ITTs and large enterprises are deploying RPR technology and require the benefits of spatial reuse to be extended to the other frame transmission types being used in their networks.

15. INTELLECTUAL PROPERTY:

Patent Policy: Yes

Copyrights: No

Trademarks: No

Registration of Object: Yes A 48-bit multicast address to be used for control may be required from the IEEE RAC.

16. SIMILAR SCOPE: No**17. FUTURE ADOPTION - INTERNATIONAL SPONSOR: Do not know at this time**

Int'l Organization:

Int'l Contact Person:

Telephone:

FAX:

E-mail:

18. FOCUS ON HEALTH, SAFETY OR ENVIRONMENTAL ISSUES:

Explanation:

19. ADDITIONAL NOTES:

I acknowledge having read and understood the IEEE Code of Ethics I agree to conduct myself in a manner which adheres to the IEEE Code of Ethics when engaged in official IEEE business.

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