October 24, 1997

To: NesCom (Rona Kershner)

From: Robert D. Love, Chair, IEEE 802.5 Token Ring

Attached are three PARs for approval at the 97Dec NesCom Meeting on enhancing the 802.5 token ring from the current 4 Mbit/s and 16 Mbit/s per second data rate up to 100 Mbit/s and 1000 Mbit/s. The IEEE 802.5 token ring customer base needs this upgrade to their installed token ring networks in order to provide an easy route to increased bandwidth without modification of the 802.5 token ring frame and 802.5 network management processes. A brief summary of the three PARs are:

PAR Title: High Speed Token Ring (100 Mbit/s) over 2-pair copper

PAR Purpose: Define high speed (100 Mbit/s operation), also defining one physical layer, 2-pair copper.

Expected Completion Date: - Nov. '98

PAR Title: High Speed Token Ring (100 Mbit/s) over multimode fiber

PAR Purpose: Define additional requirements (almost entirely physical layer) for 100 Mbit/s operation over fiber, given the operation over copper is already defined.

Expected Completion Date: - Mar. '99

PAR Title: Gigabit Token Ring Operation

PAR Purpose: Define 1000 Mbit/s operation (almost entirely physical layer) given high speed operation is already defined.

Expected Completion Date: - Jan. '99

Please contact me directly if you have any questions.

Best regards,

Robert D. Love

PAR FORM
Fill in the answers to the questions in the bracket provided. A Hard Copy of this document must be printed, signed with the appropriate signatures and mailed or faxed to the Standards Department for submission to NesCom.

1. Sponsor Date of Request [**November 13, 1997**]

2. Assigned Project Number (confer with staff) [**802.5t**]

3. PAR Approval Date (leave blank) [ ]

4. Project Title, Copyright Agreement and Working Group Chair for This Project

I will write/revise a Standards Publication with the following TITLE (Spell out all acronyms)

[**X**] Standard [for] (Document stressing the verb "SHALL."), or
[] Recommended Practice for (Document stressing the verb "SHOULD.") or
[] Guide for (Document stressing the verb "MAY.")

WRITE TITLE HERE
[**Part 5: Token Ring access method and physical layer specifications 100 Mbit/s Dedicated Token Ring Operation Over 2-Pair Cabling**]

I hereby acknowledge my appointment as Official Reporter (usually the W.G. Chair) to the (Name of Working Group)
[**IEEE 802.5 Token Ring Working Group**]
In consideration of my appointment and the publication of the Standards Publication identifying me, at my option, as an Official Reporter, I agree to avoid knowingly incorporating in the Standards Publication any copyrighted or proprietary material of another without such other's consent and acknowledge that the Standards Publication shall constitute a "work made for hire" as defined by the Copyright Act, and, that as to any work defined, I agree to and do hereby transfer any right or interest I may have in the copyright to said Standards Publication to IEEE.

Signature of Official Reporter

Chair_____

Name	[**Robert D. Love**]
Date	[**October 23, 1997**]
Title	[**Chair, IEEE 802.5 Working Group**]
Company	[**IBM**]
Address	[**PO Box 12195 E33a/656**]
City	[**Research Triangle Park**]
State	[**NC**]
Zip	[**27709**]
IEEE Member Number	[**1609353**]
Telephone	[**919 543-2746**]
Fax	[**919 254-0343**]
E-Mail	[**rdlove@us.ibm.com**]

5. Describe this project: (Choose ONE from each group below)

a. [**NO**] Update an existing PAR (Yes or No/project number/ approval date) Is this in ballot now? (Yes or No)

b. [**NO**] New Standard (Yes or No)

[**NO**] Revision of an existing standard. (No or Yes/standard number/year)

[**YES**] ISO/IEC 8802-5:1998] Supplement to an existing standard (No or
Yes/standard number/year)
c. [**X**] Full Use (5-year life cycle)
[] Trial Use (2-year life cycle)
d. [**November 1998**] Fill in target completion date for submittal to IEEE Standards Review Committee (RevCom).

6. Scope of Proposed Project (What is being done including the technical boundaries of the project?)
[**Generate a standard for 100 Mbit/s 802.5 Token Ring LANs based on the present 802.5 Token Ring MAC. It will support 2-pair Category 5 (100 ohm) and STP (150 ohm) cabling as specified in IS-11801 (and EIA/TIA 568A).**

The standard will consist of specifications for both stations and ports.

MAC Frame format will be based on that defined for IEEE 802.5, modified only to meet the specifications for the Tx PHY. The frame format between MAC and LLC is being preserved.]

7. Purpose of Proposed Project (Why is it being done, including the intended user(s) and benefits to that user(s))
[**To provide a cost effective solution for current IEEE 802.5 Token Ring users by specifically developing a standard for a High Speed Token Ring LAN based on the present IEEE 802.5 MAC, for incorporation into present 802.5 Token Ring environments with minimal increase in LAN complexity.**

This standard is expected to support emerging applications requiring higher bandwidths than are currently available with 4 and 16 Mbit/s signaling rates.]

8. Sponsor (Give full name; spell out all Acronyms)
Society/Committee:
[**IEEE Computer Society/ LAN MAN Standards Committee**]
9.
9(a.1) [**Yes. Patents which apply to the present Token Ring technology still apply. Patent letters covering these patents are on file with IEEE. If other technology to be incorporated into the standard requires the use of other patents, the appropriate letters of permission will be sought**.] Are you aware of any patents, relevant to this project? (YES, [attach explanation] or No)

9(a.2) [**No**] Are you aware of any copyrights relevant to this project? (YES, [attach explanation] or No)

9(a.3) [**No**] Are you aware of any trademarks relevant to this project? (YES, [attach explanation] or No)

9b. [**Yes, Other Standards provide 100 Mbit/s operation. However, this is the only 100 Mbit/s copper transmission standard based entirely on**

using the IEEE 802.5 MAC and management processes for easy migration.]Are you aware of any other standards or projects with a similar scope? (YES, [attach explanation] or No)

9c. [**Yes**]Is this standard intended to form the basis of an international standard? (Yes, or No [attach explanation])

9d. [**No**]Is this project intended to focus on health, safety or environmental issues? (Yes, [attach explanation], No, or Do Not Know))

10. Proposed Coordination/Recommended Method of Coordination (Coordination is accomplished in any of the following three ways: Circulation of Drafts or Liaison Membership or Common Membership.)

10a. Mandatory Coordination
SCC 10 (IEEE Dictionary) and IEEE Staff Editorial Review Circulation of Drafts
SCC 14 (Quantities, Units, and Letter Symbols) Circulation of Drafts
10b. IEEE Coordination requested by Sponsor: (Use additional page if necessary). If you believe your project will require a Registration Authority, please list IEEE RAC (refer to Working Guide)[**USTAG for JTC1/SC6 WG 1 & 3,** Circulation of Drafts **X3.T10**. Circulation of Drafts]

If coordination is not required, please attach an explanation.

10c. Additional Coordination Requested by Others. (Leave blank. This will be completed by the Standards Staff).
[]
11. Submitted by: (This MUST be the Sponsor Chair or the Sponsor's Liaison Representative to the IEEE Standards Board)

Signature of Submitter_____
Name [**James Carlo**]
Title [**IEEE802 LMSC Sponsor Chair**]
Date [_____]
Company [**Texas Instruments Inc.**]
Address [**9208 Heatherdale Drive**]
City [**Dallas**]
State [**Tx**]
Zip [**75243**]
IEEE Member Number [**05572953**]
Telephone [**972-480-2524**]
Fax [**972-480-2611**]
E-Mail [**jcarlo@ti.com**]

PAR FORM
Fill in the answers to the questions in the bracket provided. A Hard Copy of this document must be printed, signed with the appropriate signatures and mailed or faxed to the Standards Department for submission to NesCom.

1. Sponsor Date of Request [**November 13, 1997**]

2. Assigned Project Number (confer with staff) [**802.5u**]

3. PAR Approval Date (leave blank) [ ]

4. Project Title, Copyright Agreement and Working Group Chair for This Project

I will write/revise a Standards Publication with the following TITLE (Spell out all acronyms)

[**X**] Standard [for] (Document stressing the verb "SHALL."), or
[] Recommended Practice for (Document stressing the verb "SHOULD.") or
[] Guide for (Document stressing the verb "MAY.")

WRITE TITLE HERE
[**Part 5: Token Ring access method and physical layer specifications 100 Mbit/s Dedicated Token Ring Operation Over multi-mode Fibre**]

I hereby acknowledge my appointment as Official Reporter (usually the W.G. Chair) to the (Name of Working Group)
[**IEEE 802.5 Token Ring Working Group**]
In consideration of my appointment and the publication of the Standards Publication identifying me, at my option, as an Official Reporter, I agree to avoid knowingly incorporating in the Standards Publication any copyrighted or proprietary material of another without such other's consent and acknowledge that the Standards Publication shall constitute a "work made for hire" as defined by the Copyright Act, and, that as to any work defined, I agree to and do hereby transfer any right or interest I may have in the copyright to said Standards Publication to IEEE.

Signature of Official Reporter

Chair_____

Name	[**Robert D. Love**]
Date	[**October 23, 1997**]
Title	[**Chair, IEEE 802.5 Working Group**]
Company	[**IBM**]
Address	[**PO Box 12195 E33a/656**]
City	[**Research Triangle Park**]
State	[**NC**]
Zip	[**27709**]
IEEE Member Number	[**1609353**]
Telephone	[**919 543-2746**]
Fax	[**919 254-0343**]
E-Mail	[**rdlove@us.ibm.com**]

5. Describe this project: (Choose ONE from each group below)

a. [**NO**] Update an existing PAR (Yes or No/project number/ approval date) Is this in ballot now? (Yes or No)

b. [**NO**] New Standard (Yes or No)

[**NO**] Revision of an existing standard. (No or Yes/standard number/year)

[**YES**] ISO/IEC 8802-5:1998] Supplement to an existing standard (No or
Yes/standard number/year)
c. [**X**] Full Use (5-year life cycle)
[] Trial Use (2-year life cycle)
d. [**March 1999**] Fill in target completion date for submittal to IEEE Standards Review Committee (RevCom).

6. Scope of Proposed Project (What is being done including the technical boundaries of the project?)
[**Provide the appropriate extensions to the a standard for 100 Mbit/s 802.5 Token now bein written to include support for multi-mode Optical Fibre as specified in IS-11801 (and EIA/TIA 568A).**

The standard will consist of specifications for both stations and ports.

MAC Frame format will be based on that defined for IEEE 802.5, modified only to meet the specifications for the Fx, Fibre PHY. The frame format between MAC and LLC is being preserved.]

7. Purpose of Proposed Project (Why is it being done, including the intended user(s) and benefits to that user(s))
[**To provide a cost effective fibre optic solution for current IEEE 802.5 Token Ring users by specifically developing a standard for a High Speed Token Ring LAN based on the present IEEE 802.5 MAC, for incorporation into present 802.5 Token Ring environments with minimal increase in LAN complexity.**

This standard is expected to support emerging applications requiring higher bandwidths than are currently available with 4 and 16 Mbit/s signaling rates.]

8. Sponsor (Give full name; spell out all Acronyms)
Society/Committee:
[**IEEE Computer Society/ LAN MAN Standards Committee**]
9.
9(a.1) [**Yes. Patent letters similar to those appropriate for 802.3u will be obtained for this supplement. If other technology incorporated into the standard requires the use of patents, the appropriate letters of permission will also be obtained**.] Are you aware of any patents, relevant to this project? (YES, [attach explanation] or No)

9(a.2) [**No**] Are you aware of any copyrights relevant to this project? (YES, [attach explanation] or No)

9(a.3) [**No**] Are you aware of any trademarks relevant to this project? (YES, [attach explanation] or No)

9b. [**Yes, Other Standards provide 100 Mbit/s operation on fibre. However, this is the only 100 Mbit/s fibre transmission standard based entirely on using the IEEE 802.5 MAC and management processes for easy**

migration.]Are you aware of any other standards or projects with a similar scope? (YES, [attach explanation] or No)

9c. [**Yes**]Is this standard intended to form the basis of an international standard? (Yes, or No [attach explanation])

9d. [**No**]Is this project intended to focus on health, safety or environmental issues? (Yes, [attach explanation], No, or Do Not Know))

10. Proposed Coordination/Recommended Method of Coordination (Coordination is accomplished in any of the following three ways: Circulation of Drafts or Liaison Membership or Common Membership.)

10a. Mandatory Coordination
SCC 10 (IEEE Dictionary) and IEEE Staff Editorial Review Circulation of Drafts
SCC 14 (Quantities, Units, and Letter Symbols) Circulation of Drafts
10b. IEEE Coordination requested by Sponsor: (Use additional page if necessary). If you believe your project will require a Registration Authority, please list IEEE RAC (refer to Working Guide)[**USTAG for JTC1/SC6 WG 1 & 3,** Circulation of Drafts **X3.T10**. Circulation of Drafts]
10c. Additional Coordination Requested by Others. (Leave blank. This will be completed by the Standards Staff).
[]
11. Submitted by: (This MUST be the Sponsor Chair or the Sponsor's Liaison Representative to the IEEE Standards Board)

Signature of Submitter_____
Name [**James Carlo**]
Title [**IEEE802 LMSC Sponsor Chair**]
Date [_____]
Company [**Texas Instruments Inc.**]
Address [**9208 Heatherdale Drive**]
City [**Dallas**]
State [**Tx**]
Zip [**75243**]
IEEE Member Number [**05572953**]
Telephone [**972-480-2524**]
Fax [**972-480-2611**]
E-Mail [**jcarlo@ti.com**]

PAR FORM
Fill in the answers to the questions in the bracket provided. A Hard Copy of this document must be printed, signed with the appropriate signatures and mailed or faxed to the Standards Department for submission to NesCom.

1. Sponsor Date of Request [**November 13, 1997**]

2. Assigned Project Number (confer with staff) [**802.5v**]

3. PAR Approval Date (leave blank) [ ]

4. Project Title, Copyright Agreement and Working Group Chair for This Project

I will write/revise a Standards Publication with the following TITLE (Spell out all acronyms)

[**X**] Standard [for] (Document stressing the verb "SHALL."), or
[] Recommended Practice for (Document stressing the verb "SHOULD.") or
[] Guide for (Document stressing the verb "MAY.")

WRITE TITLE HERE
[**Part 5: Token Ring access method and physical layer specifications Media Access Control Parameters, Physical Layers, and Management Parameters for 1000 Mbit/s Operation or above**]

I hereby acknowledge my appointment as Official Reporter (usually the W.G. Chair) to the (Name of Working Group)
[**IEEE 802.5 Token Ring Working Group**]
In consideration of my appointment and the publication of the Standards Publication identifying me, at my option, as an Official Reporter, I agree to avoid knowingly incorporating in the Standards Publication any copyrighted or proprietary material of another without such other's consent and acknowledge that the Standards Publication shall constitute a "work made for hire" as defined by the Copyright Act, and, that as to any work defined, I agree to and do hereby transfer any right or interest I may have in the copyright to said Standards Publication to IEEE.

Signature of Official Reporter

Chair_____

Name [**Robert D. Love**]
Date [**October 23, 1997**]
Title [**Chair, IEEE 802.5 Working Group**]
Company [**IBM**]
Address [**PO Box 12195 E33a/656**]
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5. Describe this project: (Choose ONE from each group

below)
a. [**NO**] Update an existing PAR (Yes or No/project number/ approval date) Is this in ballot now? (Yes or No)

b. [**NO**] New Standard (Yes or No)

[**NO**] Revision of an existing standard. (No or Yes/standard number/year)

[**YES**] ISO/IEC 8802-5:1998] Supplement to an existing standard (No or Yes/standard number/year)

c. [**X**] Full Use (5-year life cycle)
[] Trial Use (2-year life cycle)

d. [**January, 1999**] Fill in target completion date for submittal to IEEE Standards Review Committee (RevCom).

6. Scope of Proposed Project (What is being done including the technical boundaries of the project?)
[**Define IEEE 802.5 Token Ring (MAC) parameters and minimal augmentation of its operation, physical layer characteristics, and management parameters for transfer of 802.5 format frames at 1,000 Mb/s or faster. Provide for full (and possibly half) duplex operation at 1,000 Mb/s or faster.**]

The standard will consist of specifications for both stations and ports.

MAC Frame format will be based on that defined for IEEE 802.5. The frame format between MAC and LLC is being preserved.]

7. Purpose of Proposed Project (Why is it being done, including the intended user(s) and benefits to that user(s))
[**To extend the IEEE 802.5 protocol to an operating speed of 1,000 Mbit/s or faster, to provide a significant increase in bandwidth while maintaining maximum compatibility with the installed base of Token Ring nodes, previous investment in research and development, and principles of network operation and management.]**

8. Sponsor (Give full name; spell out all Acronyms)
Society/Committee:
[**IEEE Computer Society/ LAN MAN Standards Committee**]
9.
9(a.1) [**Yes. Patents which apply to the present Token Ring technology still apply. Patent letters covering these patents are on file with IEEE. If other technology to be incorporated into the standard requires the use of other patents, the appropriate letters of permission will be sought**.] Are you aware of any patents, relevant to this project? (YES, [attach explanation] or No)

9(a.2) [**No**] Are you aware of any copyrights relevant to this project? (YES, [attach explanation] or No)

9(a.3) [**No**] Are you aware of any trademarks relevant to this project? (YES, [attach explanation] or No)

9b. [**Yes, Other Standards provide for gigabit operation. However, this is the only gigabit standard based entirely on using the IEEE 802.5 MAC and management processes for easy migration.**]Are you aware of any other

standards or projects with a similar scope? (YES, [attach explanation] or No)

9c. [**Yes**]Is this standard intended to form the basis of an international standard? (Yes, or No [attach explanation])

9d. [**No**]Is this project intended to focus on health, safety or environmental issues? (Yes, [attach explanation], No, or Do Not Know))

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11. Submitted by: (This MUST be the Sponsor Chair or the Sponsor's Liaison Representative to the IEEE Standards Board)

Signature of Submitter_____
Name [**James Carlo**]
Title [**IEEE802 LMSC Sponsor Chair**]
Date [_____]
Company [**Texas Instruments Inc.**]
Address [**9208 Heatherdale Drive**]
City [**Dallas**]
State [**Tx**]
Zip [**75243**]
IEEE Member Number [**05572953**]
Telephone [**972-480-2524**]
Fax [**972-480-2611**]
E-Mail [**jcarlo@ti.com**]