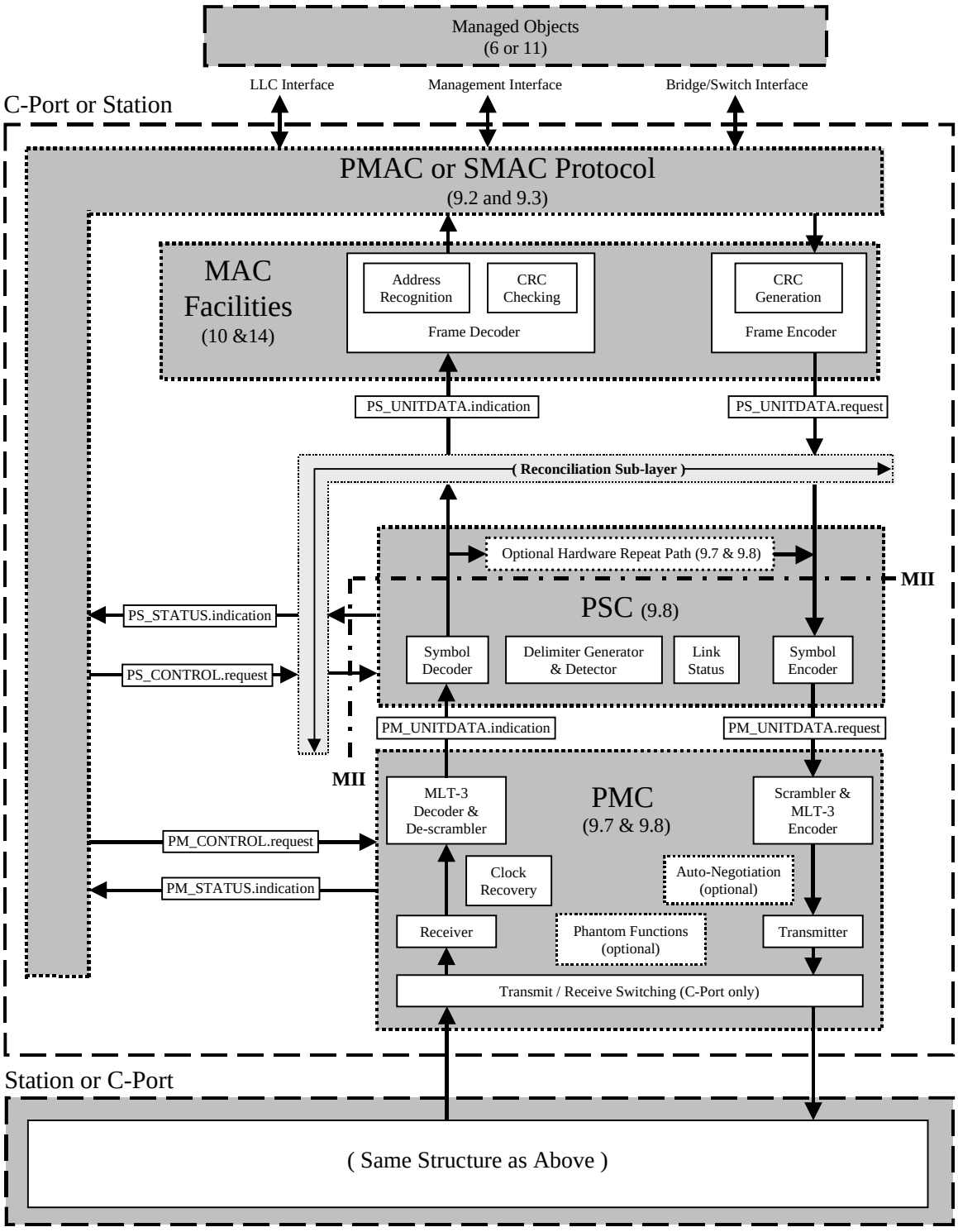
This document identifies the technical changes made to the 802.5t Draft 2.2 in order to resolve issues documented in the Draft 2.2 database (the report is published as paper number 802.5/98/08-05). Note that only technical and important editorial changes have been shown. Typographical errors are not shown (such as changing "transmit" to "transmits", etc.).

All changes either identify the line number(s) being changed or; if a Port or Station Operation Table change, the REF number and page number being changed. The words or REFs changed include the new definition without attempting to give before and after definition.

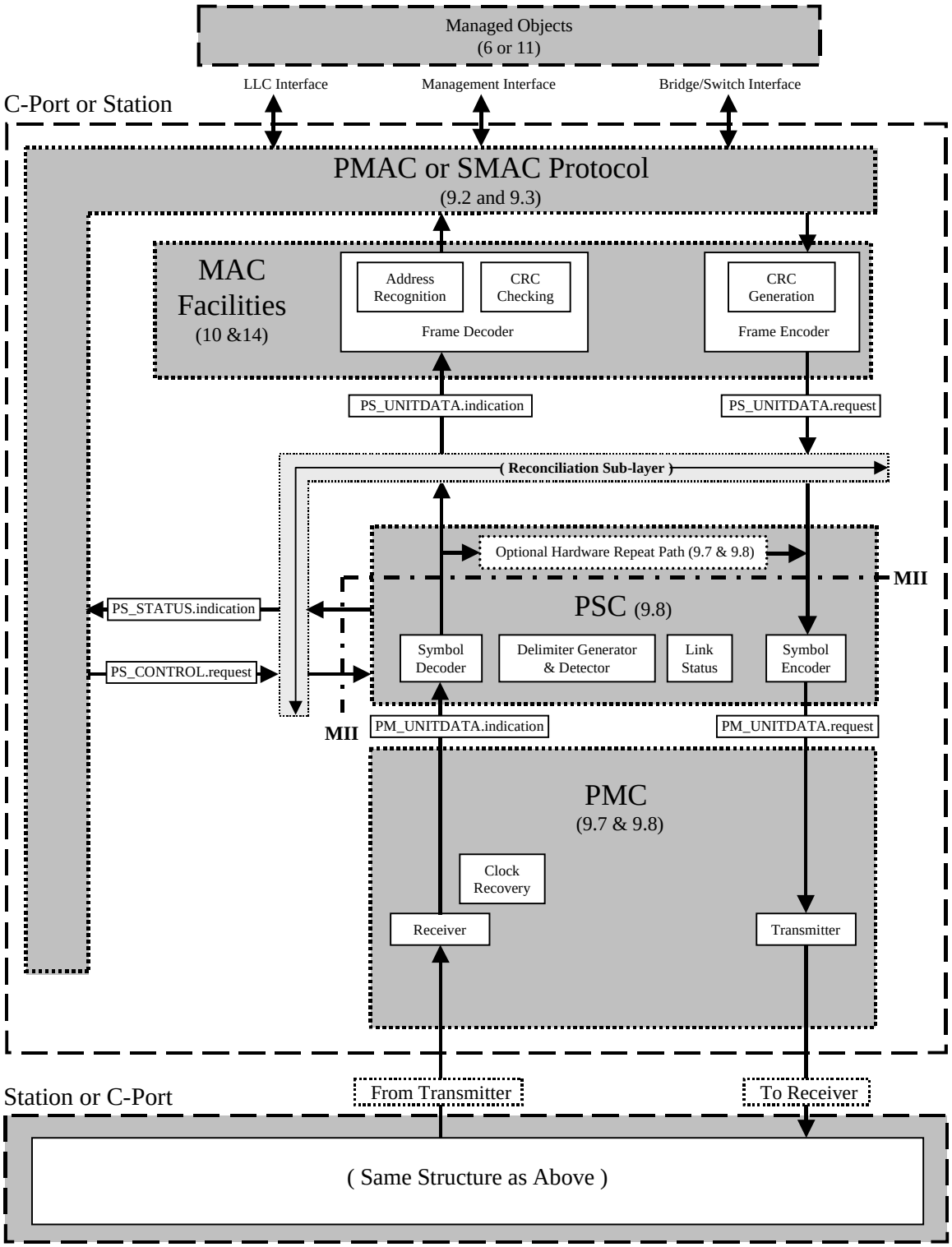
To read these changes, you must have Draft 2.2 for reference.

Clause 2.2 Changes.

- Figure 2.2-1 on page 2-3 is replaced with the following.
  Resolves Database items RJK-01 and EDTR-45.



- Figure 2.2-2 on page 2-4 is replaced with the following.
  Resolves Database items RJK-02 and EDTR-46.



End of 2.2 Changes.

Subclause 9.1 Changes.

Subclause 9.1 has been changed as follows.

- Subclause 9.1.1.7, lines 347 to 350 on page 9.1-10 have been changed to the following.
  Resolves Database items SJH-02, NAJ-03 and NAJ-04.

When a frame is addressed to a C-Port or Station and has a frame with error (FR_WITH_ERR) condition (as specified in 4.3.2 for the 4 Mbit/s and 16 Mbit/s media rates and 9.1.1.6 for the High Media Rate), the frame is not processed other than to count the error condition.

- Subclause 9.1.2, line 438 has been changed to the following.
  Resolves Database item SJH-03.

All frames are ignored during the Station's High Media Rate Trade-up State (JS=SHMRTU). The C-Port's High Media Rate Trade-up State (JS=PHMRTU) acts on REG_REQ frames only.

- Subclause 9.1.4.1, lines 542 to 545 on page 9.1-16 have been changed to the following.
  Resolves Database item SJH-04.

1. If the Station receives a C-Port REG_RSP MAC frame and its AP_RSP subvector value is equal to X'0002', then the C-Port has accepted the Station's request and the Station, after delaying for a period controlled by TSLMTD, begins the TXI Access Protocol defined in 9.2 by entering the Station Lobe Test state (JS=SLT).

- Subclause 9.1.14.2, line 1133 on page 9.1-30 has been changed to the following.
  Resolves Database item NAJ-02.

If the C-Port *does* support the High Media Rate FPHMRTUO=1, then the C-Port responds with a

- Subclause 9.1.15 title, line 1150 on page 9.1-31 has been changed to the following.
  Resolves Database item SJH-06.

9.1.15 Remove Alert Protocol (TXI Access Protocol at the High Media Rate only)

- Subclause 9.1.15, lines 1166 to 1169 on page 9.1-31 have been changed to the following.
  Resolves Database items SJH-07 and SJH-08.

i) The C-Port detects the expiration of its timer TPPLD (failure to detect the expected Phantom loss or the reception of the Lobe Media Test Notification MAC frame in the appropriate time),

ii) The C-Port detects the expiration of its timer TPPD (failure to detect the expected Phantom presence in the appropriate time), or

iii) The Station detects a Wire Fault condition.

- Subclause 9.1.15, lines 1173 to 1175 on page 9.1-31 have been changed to the following. Item c. (line 1176) and item d. (line 1177) have been renumbered as items d. and e. respectively.
  Resolves Database items NAJ-07 and NAJ-08.

a. If the Station or C-Port is in the Join Complete state, the operational flag (FPOP or FSOP) is set to 0 to prevent transmission of upper layer frames.

b. In the Station, if phantom is asserted, then de-assert phantom.

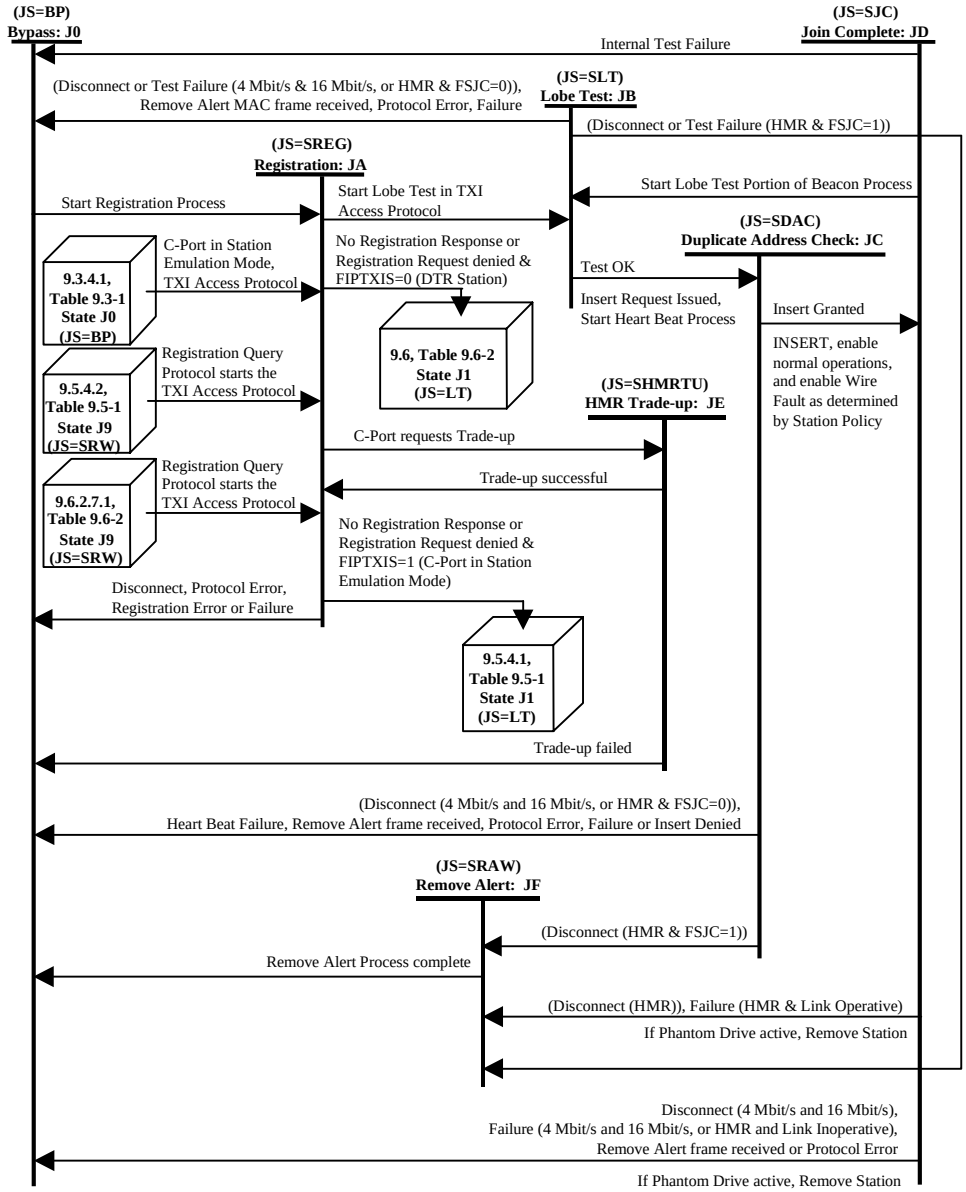
c. The Remove Alert Transmit counter (CPRAT or CSRAT) is set to its initial value and the Remove Alert Pacing timer (TPRAP or TSRAP) is reset.

End of 9.1 Changes.

Subclause 9.2 Changes.

Subclause 9.2 has been changed as follows.

- Figure 9.2-1 on page 9.2-2 has been changed as follows.
  Resolves Database item SJH-09.



- REF 3122 on page 9.2-26 was changed as follows (FSHMRTUO changed to FSHMRTUA). Resolves Database items SJH-11 and IMJ-01.

	3122	**TSREQ=E** & CSREQ>0 & FSRC=0 & JS=SREG \<\< DTR Station makes *another* request for TXI Access Protocol setup by setting subvector values for the REG_REQ_MAC frame allowing Phantom Drive (4, 16 or 100 Mbit/s) or no Phantom Drive (100 Mbit/s only) and then queues the frame for transmission. >> \<\< Request Trade-up to the High Media Rate if Station's Trade-up policy is enabled, and Media Rate is 4 Mbit/s or 16 Mbit/s. >>	CSREQ=(CSREQ-1); TSREQ=R; TXI_REG_REQ (**If** FSMR>1 then AP_REQ=0002; **If** (FSMR<2 & FSHMRTUA=0 then AP_REQ=0002); **If** (FSMR<2 & FSHMRTUA=1 then AP_REQ=0006); IAC=SPV(IAC); **If** FSPDA=0 then PD=0002; **If** FSPDA=1 then PD=0001) \<\< Transmit Registration Request with the REQ, IAC and PD Subvector setup. >>

- REFs 3417 and 3418 on page 9.2-32 were changed as follows (TS=STXD changed to TS=STXN). Resolves Database items NAJ-09 and NAJ-10 respectively.

	3417	**FSTAS=1** & TS=STXN & CSABE<FF & FSJC=1 & FSER=1 & MS=SOPT \<\< Transmitter has released an Abort Sequence >>	FSTAS=0; CSABE=(CSABE+1)
	3418	**FSTAS=1** & TS=STXN & FSJC=1 & FSER=0 & MS=SOPT	FSTAS=0; FSER=1; TSER=R; CSABE=(CSABE+1)

- Correct definition of INSERT action on page 9.2-47 as follows. Resolves Database item EDTR-47.

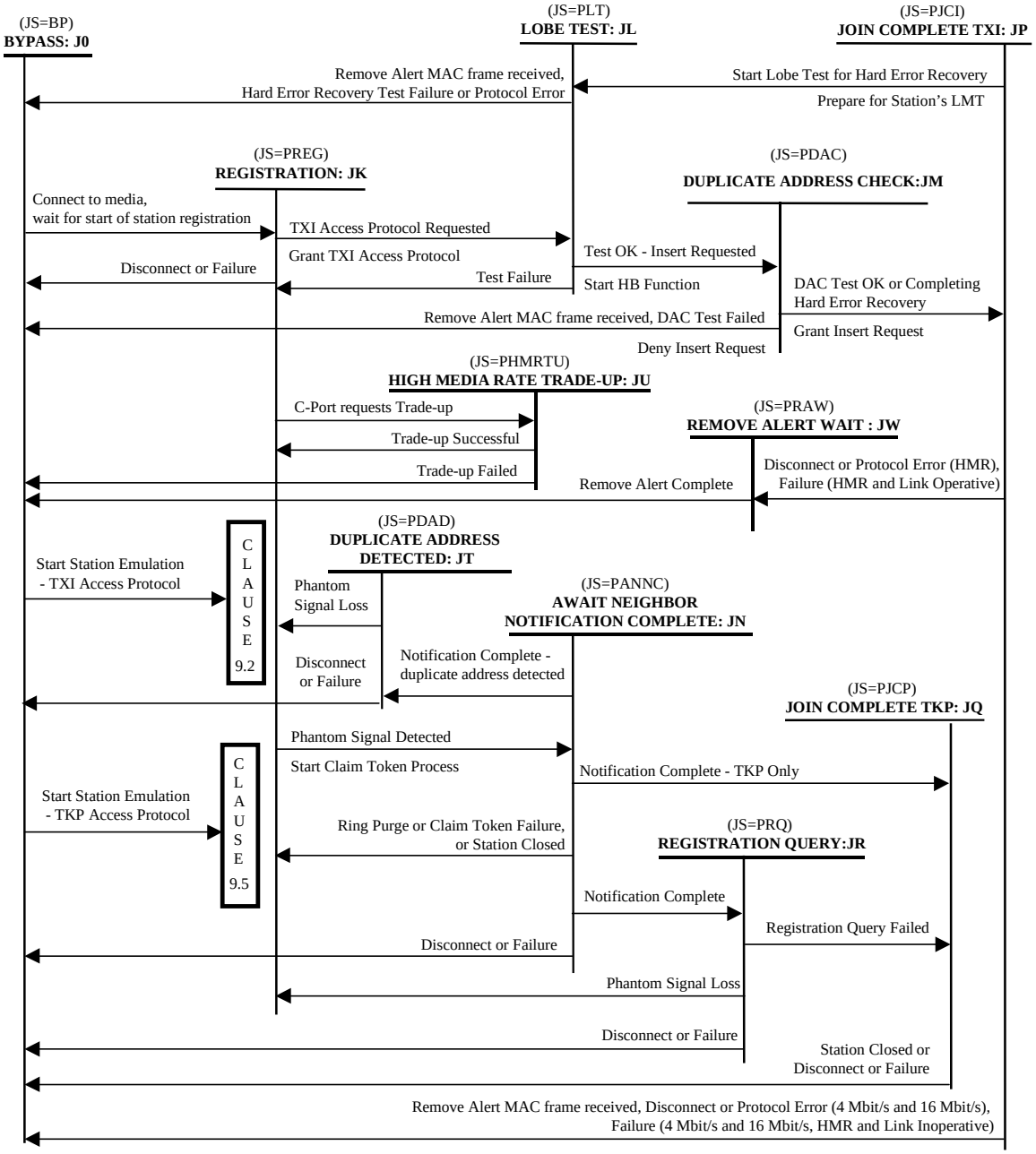
INSERT \<\< Occurs only when FSPDA=1 >>	Request the PHY to physically connect the Station to the network [PM_CONTROL.request(Insert_station) in 5.1.4.2 for 4 Mbit/s or 16 Mbit/s, and 9.8.1.1.7 for 100 Mbit/s].

End of 9.2 Changes.

Subclause 9.3 Changes.

Subclause 9.3 has been changed as follows.

- Figure 9.3-1 on page 9.3-3 has been changed as follows.
  Resolves Database item SJH-09.



- REFs 1156 and 1153 on page 9.3-16 were changed as follows (FSJC=0 and FSJC=1 changed to FPJC=0 and FPJC=1 respectively).
  Resolves Database item SJH-12.

JL0	1156	**Disconnect.PMAC** & FPMR>1 & FPJC=0 & JS=PLT << High Media Rate only >>	JS=BP
JLW	1153	**Disconnect.PMAC** & FPMR>1 & FPJC=1 & JS=PLT << High Media Rate only >>	JS=PRAW; CPRAT=n9; TPRAP=R; TXI_RMV_ALRT

- REFs 1614 and 1617 on page 9.3-29 were changed as follows (TS=PTXD changed to TS=PTXN).
  Resolves Database items NAJ-12 and NAJ-13 respectively.

	1614	**FPTAS=1** & TS=PTXN & CPABE<FF & FPJC=1 & FPER=1 & MS=POPT << Transmitter has released an Abort Sequence >>	FPTAS=0; CPABE=(CPABE+1)
	1617	**FPTAS=1** & TS=PTXN & FPJC=1 & FPER=0 & MS=POPT << Transmitter has released an Abort Sequence >>	FPTAS=0; FPER=1; TPER=R; CPABE=(CPABE+1)

- REF 1105 on page 9.3-18 was changed as follows (media rate test added and hardware repeat test removed).
  Resolves Database item IMJ-03.

	1105	**FR_AC** & AND(PPV(AP_MASK),0001)=0000 & FPMR<2 & FPBLT=0 & JS=PREG << 4 Mbit/s and 16 Mbit/s only >>	FPBLT=1; TPBLT=R << Start sequence to break attached station's lobe test. >>

- REF 1094 on page 9.3-23 was changed as follows (media rate test added and hardware repeat test removed).
  Resolves Database item IMJ-04.

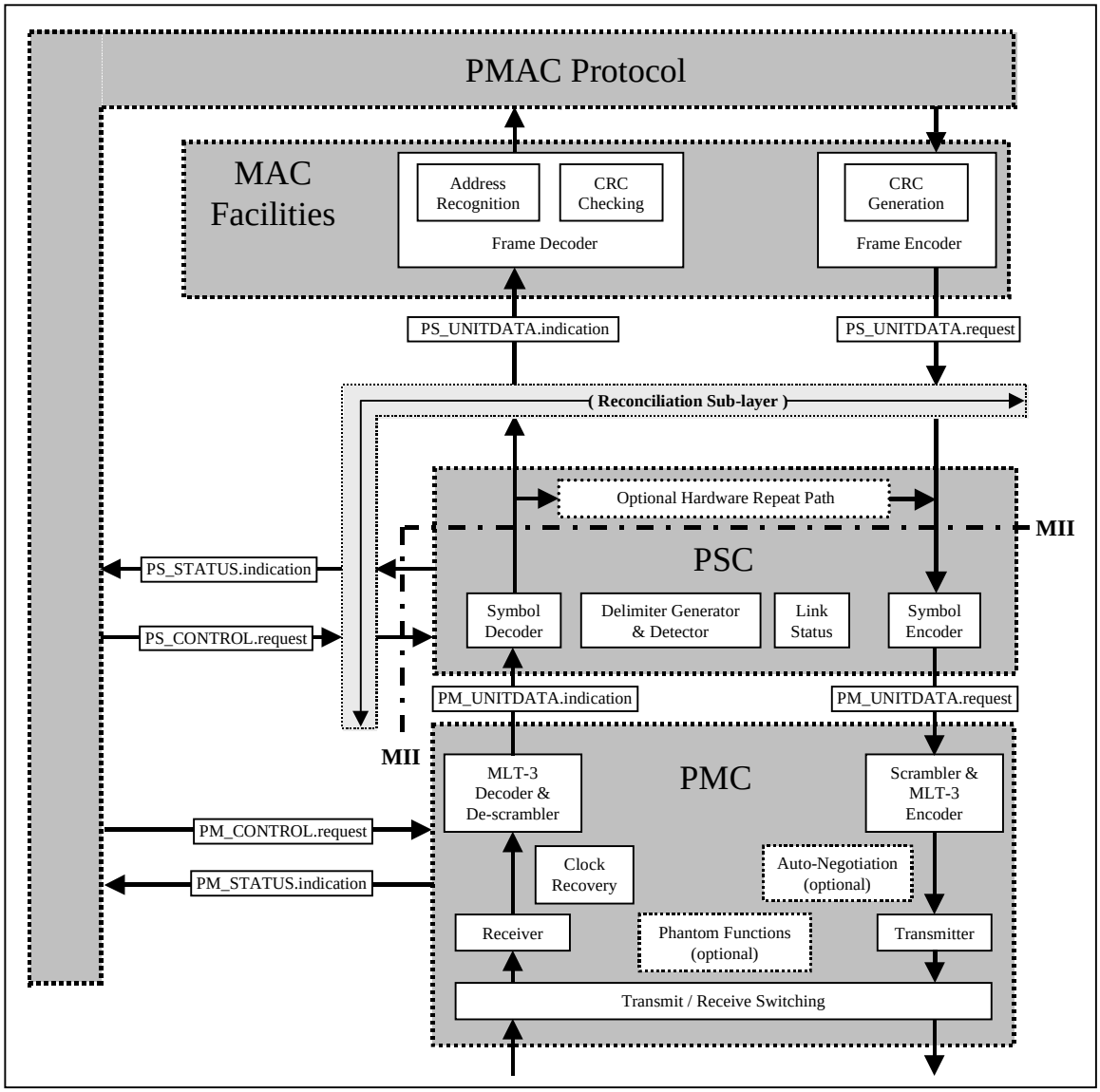
	1094	**TK_AC** & AND(PPV(AP_MASK),0001)=0000 & FPMR<2 & FPBLT=0 & JS=PREG << 4 Mbit/s and 16 Mbit/s only >>	[FPBLT=1; TPBLT=R (optional-i)] << Start sequence to break attached station's lobe test >>

End of 9.3 Changes.

Subclause 9.7 Changes.

Subclause 9.7 has been changed as follows.

- Figure 9.7-2 on page 9.7-4 has been replaced with the following.
  Resolves Database items RJK-03 & KR-01.



End of 9.7 Changes.

Subclause 9.8 Changes.

Subclause 9.8 has been changed as follows.

- The title of paragraph 9.8.1.1, line 45 page 9.8-2 has been changed as follows.
  Resolves Database item EDTR-50

9.8.1.1 100 Mbit/s Service Primitives (Common)

- Text in paragraph 9.8.1.1, lines 46 – 47 has been changed as follows.
  Resolves Database item EDTR-51.

The following service primitives specify the required information that is passed between the PMC, the PSC, the MAC and the PMAC/SMAC.

- New paragraph 9.8.1.1.7 added at line 176 on page 9.8-7, as follows.
  Resolves Database item EDTR-48.

9.8.1.1.7 PM_CONTROL.request

This is an optional primitive to be used by the SMAC to request certain actions of the PMC.

PM_CONTROL.request [Insert_station (5.9),
Remove_station (5.9)]

When Generated: The SMAC generates a PM_CONTROL.request for each action request.

Effect of Receipt: The PHY performs the appropriate action.

- The following paragraphs have been removed.
  Resolves Database item BBT-01.

9.8.1.3.11, lines 243 to 245,
9.8.1.3.12, lines 246 to 248,
9.8.1.3.16, lines 282 to 287,
9.8.1.3.21, lines 304 to 310

This, with the following changes, will cause 9.8.1.3 subclauses to be renumbered.

- Added a new paragraph 9.8.1.3.11, after line 242, as follows.
  Resolves part of Database item BBT-02

9.8.1.3.11 Exception to [TP-PMD] 9, "Media signal interface"

In addition to [TP-PMD] 9, “Media signal interface”, note that the direct connection of 100Mbit/s, 100 Ohm compliant transmitters and receivers through the UTP-MIC to Category 5 120 Ohm or 150 Ohm cabling as specified in IS 11801 and/or EIA/TIA 568A is allowed by this standard subject to the following conditions.

When measured in an impedance environment of 150+/-1.5 Ohms, the AOI return loss and Active Input Interface differential input impedance shall conform to the following limits:

Greater than 11 dB from 2MHz to 30 MHz
Greater than (11 - 6.67 log(f/30MHz)) dB from 30MHz to 60MHz
Greater than 9 dB from 60MHz to 80MHz

The STP transmit levels as defined in [TP-PMD] 9.1.1.2 STP "Differential output voltage", [TP-PMD] 9.1.10, "Characteristics of Active Output Interface" and as referenced in [TP-PMD] Annex J, Table 3 shall not apply.

A connection meeting these conditions easily supports the recommended 100 meter cabling limits specified within those cabling standards. However, such connections may not support the full attenuation limits for Class D cabling as specified in IS 11801. For such interconnections look for manufacturer's guidance on maximum drive distances supported.

- Paragraph 9.8.1.3.13, lines 249 to 264, has been replaced with the following.
  Resolves part of Database item BBT-02

9.8.1.3.13 Exception to [TP-PMD] 9.1.5 "Return loss"

The impedance environment for the measurement of the UTP AOI return loss shall be 100+/-1 Ohms; the environment for the STP AOI return loss shall be 150+/-1.5 Ohms. A single measurement at each impedance shall be sufficient to demonstrate compliance. The impedance environment shall be nominally resistive.

- Paragraph 9.8.1.3.14, lines 265 to 279, has been replaced with the following.
  Concludes resolution of Database item BBT-02

9.8.1.3.14 Exception to [TP-PMD] 9.2.2 "Differential input impedance"

The impedance environment for the measurement of the UTP Active Input Interface return loss shall be 100+/-1 Ohms; the environment for the STP Active Input Interface return loss shall be 150+/-1.5 Ohms. A single measurement at each impedance shall be sufficient to demonstrate compliance. The impedance environment shall be nominally resistive.

End of 9.8 Changes.

Clause 11 Changes.

Clause 11 has been changed as follows to include the enumeration value for 1000 Mbit/s.

- Paragraph in subclause 11.1.2.1.1, lines 90 to 93 has been replaced with the following.
  Resolves part of Database item NAJ-16.

The RequestMediumRate parameter specifies the medium data rate to be used by the SMAC as either 4 Mbit/s, 16 Mbit/s, 100 Mbit/s or 1000 Mbit/s. This parameter may be set only by the MGT_ACTION.request(Open) service and is used to set the value of the FSMRO flag. This parameter cannot be changed while the SMAC is active.

- Paragraph in subclause 11.1.2.1.2, lines 176 to 179 has been replaced with the following.
  Resolves part of Database item NAJ-16.

The ResponseMediumRate parameter is a conditional parameter that may be returned only when the value of the ResponseStatus parameter is sSuccess. This parameter specifies the medium rate as either 4 Mbit/s, 16 Mbit/s, 100 Mbit/s or 1000 Mbit/s. When returned, the value of the ResponseMediumRate parameter indicates the current operating data rate of the SMAC.

- Paragraph in subclause 11.2.2.1.1, lines 443 to 446 has been replaced with the following.
  Resolves part of Database item NAJ-16.

The RequestMediumRate parameter specifies the medium data rate to be used by the PMAC as either 4 Mbit/s, 16 Mbit/s, 100 Mbit/s or 1000 Mbit/s. This parameter may only be set by the MGT_ACTION.request(Open) service and is used to set the value of the FPMRO flag. This parameter cannot be changed while the PMAC is active.

- Paragraph in subclause 11.2.2.1.2, lines 513 to 516 has been replaced with the following.
  Resolves part of Database item NAJ-16.

The ResponseMediumRate parameter is a conditional parameter that may be returned only when the value of the ResponseStatus parameter is sSuccess. This parameter specifies the medium rate as either 4 Mbit/s, 16 Mbit/s, 100 Mbit/s or 1000 Mbit/s. When returned, the value of the ResponseMediumRate parameter indicates the current operating data rate of the PMAC.

- MIB item in subclause 11.3.1, lines 1380 to 1394 has been replaced with the following.
  Resolves part of Database item NAJ-16.

```
dtrStationAdminMediumRateOption    OBJECT-TYPE
 SYNTAX        INTEGER{ rate4Mbps(1), rate16Mbps(2), rate100Mbps(3),
                        rate1000Mbps(4) }
 MAX-ACCESS    read-write
 STATUS        current
 DESCRIPTION
    “The value of this object specifies the medium rate as either 4 Mbit/s, 16
    Mbit/s, 100 Mbit/s or 1000 Mbit/s. If set to rate4Mbps(1), then
    SMAC operates the medium at 4 Mbit/s. If set to rate16Mbps(2), then
    SMAC operates the medium at 16 Mbit/s. If set to rate100Mbps(3), then
    SMAC operates the medium at 100 Mbit/s. If set to rate1000Mbps(4), then
    SMAC operates the medium at 1000 Mbit/s. This object indicates the value
    of the FSMRO flag to be used at the next Connect.SMAC event. A write
    operation to this object will not change the operational value
    reflected in dtrStationOperMediumRateOption until the next
    Connect.SMAC event.”
::= { dtrStationEntry 14 }
```

- MIB item in subclause 11.3.1, lines 1481 to 1492 has been replaced with the following.
  Resolves part of Database item NAJ-16.

```
dtrStationOperMediumRateOption    OBJECT-TYPE
 SYNTAX        INTEGER{ rate4Mbps(1), rate16Mbps(2), rate100Mbps(3),
                        rate1000Mbps(4) }
 MAX-ACCESS    read-only
 STATUS        current
 DESCRIPTION
    “The value of this object specifies the medium rate as either 4 Mbit/s,
    16 Mbit/s, 100 Mbit/s or 1000 Mbit/s. If set to rate4Mbps(1), then
    SMAC operates the medium at 4 Mbit/s. If set to rate16Mbps(2), then
    SMAC operates the medium at 16 Mbit/s. If set to rate100Mbps(3), then
    SMAC operates the medium at 100 Mbit/s. If set to rate1000Mbps(4), then
    SMAC operates the medium at 1000 Mbit/s. This object indicates the media
    rate at which the Station is currently operating.”
::= { dtrStationEntry 21 }
```

- MIB item in subclause 11.3.1, lines 1756 to 1769 has been replaced with the following.
  Resolves Database item NAJ-16.

```
dtrCportAdminMediumRateOption    OBJECT-TYPE
 SYNTAX        INTEGER{ rate4Mbps(1), rate16Mbps(2), rate100Mbps(3),
                        rate1000Mbps(4) }
 MAX-ACCESS    read-write
 STATUS        current
 DESCRIPTION
    “The value of this object specifies the medium rate as either 4 Mbit/s, 16
    Mbit/, 100 Mbit/s or 1000 Mbit/s. If set to rate4Mbps(1), then
    PMAC operates the medium at 4 Mbit/s. If set to rate16Mbps(2), then PMAC
    operates the medium at 16 Mbit/s. If set to rate100Mbps(3), then PMAC
    operates the medium at 100 Mbit/s. If set to rate1000Mbps(4), then PMAC
    operates the medium at 1000 Mbit/s. The PMAC uses this object to set the
    value of the FPMRO flag to be used at the next Connect.PMAC event. A write
    operation to this object will not change the operational value reflected in
    dtrCportOperMediumRateOption until the next Connect.PMAC event.”
::= { dtrCportEntry 7 }
```

- MIB item in subclause 11.3.1, lines 1870 to 1882 has been replaced with the following.
  Concludes resolution of Database item NAJ-16.

```
dtrCportOperMediumRateOption    OBJECT-TYPE
 SYNTAX        INTEGER{ rate4Mbps(1), rate16Mbps(2), rate100Mbps(3),
                        rate1000Mbps(4) }
 MAX-ACCESS    read-only
 STATUS        current
 DESCRIPTION
    “The value of this object specifies the medium rate as either 4 Mbit/s,
    16 Mbit/s, 100 Mbit/s or 1000 Mbit/s.  If set to rate4Mbps(1), then
    PMAC operates the medium at 4 Mbit/s. If set to rate16Mbps(2), then
    PMAC operates the medium at 16 Mbit/s. If set to rate100Mbps(3), then
    PMAC operates the medium at 100 Mbit/s. If set to rate1000Mbps(4), then
    PMAC operates the medium at 1000 Mbit/s. The PMAC uses this object during a
    MGT_ACTION.request(OPEN). This object specifies the value at which the
    C-Port is currently operating.”
::= { dtrCportEntry 14 }
```

End of 11 Changes.

Clause 14 Changes.

Clause 14 has been changed as follows.

- Paragraph in subclause 14.5.2.1.5, lines 337 to 338 has been replaced with the following.
  Resolves Database item EDTR-44.

The flag FPRPTO is used to indicate whether a hardware frame repeat path is available in the C-Port. If FPRPTO is set to 1, the hardware repeat path is available. If the flag is set to 0 there is no hardware repeat path. At 4 or 16 Mbit/s, FPRPTO shall be set to 1 indicating that a hardware repeat path is available.

End of 14 Changes.

Annex Z Changes.

Annex Z has been changed as follows.

- A new sentence has been added to paragraph Z1.1 line 17 on page Z-1 as follows.
  Resolves Database item EDTR-49.

Note: the current value of this 5 bit word is a dummy value which is being used as a placeholder until a final value has been assigned. The editor will substitute the assigned value when it becomes available.

End of Z Changes.

End of document.