

PRIME DC (Manual Mode) Message Sequence Example

1. IEC 61334-4-32 LLC Message Sequence

1) Bind SAP

Client: Bind Sap

20 40 00 0A
02 80 00 06 02 02 00 02 00 C0

- Message Type: 0x20 → IEC_61334_4_32_LLC_BIND_SAP
- Parameter: 0x40 → DIR – 0, SOL – 1, STD – 0
- Message Payload Length: 0x00 0x0A
- Message Payload:
 - TLV level: 0
 - TLV type: 0x02 0x80 → DC_API_TLV_TYPE_PARAMS
 - TLV length: 0x00 0x06
 - TLV value:
 - TLV level: 1
 - TLV type: 0x02 0x02 → DC_API_TLV_TYPE_SAP
 - TLV length: 0x00 0x02
 - TLV value: 0x00 0xC0

2) Bind SAP Confirm

DC: Bind Sap Confirm

21 00 00 0A
02 80 00 06 02 02 00 02 00 01

- Message Type: 0x21 → IEC_61334_4_32_LLC_BIND_SAP_CNFRM
- Parameter: 0x00 (DIR – 0, SOL – 0, STD – 0)
- Message Payload Length: 0x00 0x0A
- Message Payload:
 - TLV level: 0
 - TLV type: 0x02 0x80 → DC_API_TLV_TYPE_PARAMS
 - TLV length: 0x00 0x06
 - TLV value:
 - TLV level: 1
 - TLV type: 0x02 0x02 → DC_API_TLV_TYPE_SAP
 - TLV length: 0x00 0x02
 - TLV value: 0x00 0x01

3) Data Request

Client: Data Request

10 40 00 2A
02 80 00 26 02 01 00 02 00 01 02 00 00 02 00 02
02 10 00 02 00 01 02 70 00 04 00 00 01 00 02 20
00 08 B0 B1 B2 B3 B4 B5 B6 B7

- Message Type: 0x10 → IEC_61334_4_32_LLC_DATA_REQ
- Parameter: 0x40 (DIR – 0, SOL – 1, STD – 0)
- Message Payload Length: 0x00 0x2A
- Message Payload:
 - TLV level: 0
 - TLV type: 0x02 0x80 → DC_API_TLV_TYPE_PARAMS
 - TLV length: 0x00 0x26
 - TLV value:
 - TLV level: 1
 - TLV type: 0x02 0x01 → DC_API_TLV_TYPE_SSAP
 - TLV length: 0x00 0x02
 - TLV value: 0x00 0x01
 - TLV level: 1
 - TLV type: 0x02 0x00 → DC_API_TLV_TYPE_DSAP
 - TLV length: 0x00 0x02
 - TLV value: 0x00 0x02
 - TLV level: 1
 - TLV type: 0x02 0x10 → DC_API_TLV_TYPE_DADDR
 - TLV length: 0x00 0x02
 - TLV value: 0x00 0x01
 - TLV level: 1
 - TLV type: 0x02 0x70 → DC_API_TLV_TYPE_TRX_HNDL
 - TLV length: 0x00 0x04
 - TLV value: 0x00 0x00 0x01 0x00
 - TLV level: 1
 - TLV type: 0x02 0x20 → DC_API_TLV_TYPE_SDU
 - TLV length: 0x00 0x08
 - TLV value: 0xB0 0xB1 0xB2 0xB3 0xB4 0xB5 0xB6 0xB7

4) Data Confirm

DC: Data Confirm

11 00 00 24
02 80 00 20 02 00 00 02 00 02 02 01 00 02 00 01
02 10 00 02 00 01 02 70 00 04 00 00 01 00 02 40
00 02 00 00

- Message Type: 0x11 → IEC_61334_4_32_LLC_DATA_CNFRM
- Parameter: 0x00 (DIR – 0, SOL – 1, STD – 0)
- Message Payload Length: 0x00 0x24
- Message Payload:

TLV level: 0

TLV type: 0x02 0x80 → DC_API_TLV_TYPE_PARAMS

TLV length: 0x00 0x20

TLV value:

TLV level: 1

TLV type: 0x02 0x00 → DC_API_TLV_TYPE_DSAP

TLV length: 0x00 0x02

TLV value: 0x00 0x02

TLV level: 1

TLV type: 0x02 0x01 → DC_API_TLV_TYPE_SSAP

TLV length: 0x00 0x02

TLV value: 0x00 0x01

TLV level: 1

TLV type: 0x02 0x10 → DC_API_TLV_TYPE_DADDR

TLV length: 0x00 0x02

TLV value: 0x00 0x01

TLV level: 1

TLV type: 0x02 0x70 → DC_API_TLV_TYPE_TRX_HNDL

TLV length: 0x00 0x04

TLV value: 0x00 0x00 0x01 0x00

TLV level: 1

TLV type: 0x02 0x40 → DC_API_TLV_TYPE_STATUS

TLV length: 0x00 0x02

TLV value: 0x00 0x00

5) Data Indication

DC: Data Indication

12 00 00 28
02 80 00 24 02 00 00 02 00 01 02 01 00 02 00 02
02 10 00 02 00 00 02 11 00 02 00 01 02 20 00 08
B0 B1 B2 B3 B4 B5 B6 B7

- Message Type: 0x12 → IEC_61334_4_32_LLC_DATA_IND
- Parameter: 0x00 (DIR – 0, SOL – 0, STD – 0)
- Message Payload Length: 0x00 0x28
- Message Payload:

TLV level: 0

TLV type: 0x02 0x80 → DC_API_TLV_TYPE_PARAMS

TLV length: 0x00 0x24

TLV value:

TLV level: 1

TLV type: 0x02 0x00 → DC_API_TLV_TYPE_DSAP

TLV length: 0x00 0x02

TLV value: 0x00 0x01

TLV level: 1

TLV type: 0x02 0x01 → DC_API_TLV_TYPE_SSAP

TLV length: 0x00 0x02

TLV value: 0x00 0x02

TLV level: 1

TLV type: 0x02 0x10 → DC_API_TLV_TYPE_DADDR

TLV length: 0x00 0x02

TLV value: 0x00 0x00

TLV level: 1

TLV type: 0x02 0x11 → DC_API_TLV_TYPE_SADDR

TLV length: 0x00 0x02

TLV value: 0x00 0x01

TLV level: 1

TLV type: 0x02 0x20 → DC_API_TLV_TYPE_SDU

TLV length: 0x00 0x08

TLV value: 0xB0 0xB1 0xB2 0xB3 0xB4 0xB5 0xB6 0xB7

2. Management Interface Message Sequence

1) Show active nodes

Client: Show Active Nodes

41 C0 00 00

- Message Type: 0x41 (PRIME_SHOW_ACTIVE_NODES)
- Parameter: 0xC0 (DIR – 1, SOL – 1, STD – 0, LFF – 0)
- Message Payload Length: 0x00 0x00 (The message payload length fields are set to 0 because this message does not have a payload.)
- Message Payload:
None.

DC: Response

Organized info:

EUI-48	SID	LNID	LEVEL	LSID	432-ADDR	SERIAL-NR
00:00:00:00:00:30	000	0001	00	01	01	00 00 00 00 00 30
00:00:00:00:00:19	001	0001	01	02	02	00 00 00 00 00 19
00:00:00:00:00:02	002	0001	02	03	03	00 00 00 00 00 02
00:00:00:00:00:08	003	0001	03	--	04	00 00 00 00 00 08

41 00 01 0C
04 00 01 08 04 01 00 44 06 05 00 06 00 00 00 00
00 30 06 11 00 02 00 01 06 00 00 02 00 01 06 01
00 02 00 00 06 03 00 06 00 00 00 00 00 30 06 0C
00 02 00 00 06 02 00 02 00 01 06 1A 00 02 00 00
06 18 00 02 00 02 06 19 00 02 00 02 04 01 00 44
06 05 00 06 00 00 00 00 00 19 06 11 00 02 00 02
06 00 00 02 00 01 06 01 00 02 00 01 06 03 00 06
00 00 00 00 00 19 06 0C 00 02 00 01 06 02 00 02
00 02 06 1A 00 02 00 01 06 18 00 02 00 02 06 19
00 02 00 02 04 01 00 44 06 05 00 06 00 00 00 00
00 02 06 11 00 02 00 03 06 00 00 02 00 01 06 01
00 02 00 02 06 03 00 06 00 00 00 00 00 02 06 0C
00 02 00 02 06 02 00 02 00 03 06 1A 00 02 00 02
06 18 00 02 00 02 06 19 00 02 00 02 04 01 00 2C
06 05 00 06 00 00 00 00 00 08 06 11 00 02 00 04
06 00 00 02 00 01 06 01 00 02 00 03 06 03 00 06
00 00 00 00 00 08 06 0C 00 02 00 03

- Message Type: 0x41 → PRIME_SHOW_ACTIVE_NODES
- Parameter: 0x00
- Message Payload Length: 0x01 0x0C
- Message Payload:
TLV level: 0
TLV type: 0x04 0x00 → GMT_TLV_TYPE_ACTIVE_NODE_INFO_LIST
TLV length field value: 0x01 0x08

TLV value:

TLV level: 1

TLV type: 0x04 0x01 → MGMT_TLV_TYPE_ACTIVE_NODE_INFO

TLV length field value: 0x00 0x44

TLV value:

TLV level: 2

TLV type: 0x06 0x05 → MGMT_TLV_TYPE_DEV_SERIAL_NR

TLV length field value: 0x00 0x06

TLV value: 0x00 0x00 0x00 0x00 0x00 0x30

TLV level: 2

TLV type: 0x06 0x11 → MGMT_TLV_TYPE_DEV_61334_4_32_ADDR

TLV length field value: 0x00 0x02

TLV value: 0x00 0x01

TLV level: 2

TLV type: 0x06 0x00 → MGMT_TLV_TYPE_NODE_LNID

TLV length field value: 0x00 0x02

TLV value: 0x00 0x01

TLV level: 2

TLV type: 0x06 0x01 → MGMT_TLV_TYPE_NODE_SID

TLV length field value: 0x00 0x02

TLV value: 0x00 0x00

TLV level: 2

TLV type: 0x06 0x03 → MGMT_TLV_TYPE_NODE_EUI_48

TLV length field value: 0x00 0x06

TLV value: 0x00 0x00 0x00 0x00 0x00 0x30

TLV level: 2

TLV type: 0x06 0x0C → MGMT_TLV_TYPE_NODE_LEVEL

TLV length field value: 0x00 0x02

TLV value: 0x00 0x00

TLV level: 2

TLV type: 0x06 0x02 → MGMT_TLV_TYPE_NODE_LSID

TLV length field value: 0x00 0x02

TLV value: 0x00 0x01

TLV level: 2

TLV type: 0x06 0x1A → MGMT_TLV_TYPE_FRAME_SEQ_NR

TLV length field value: 0x00 0x02

TLV value: 0x00 0x00

TLV level: 2

TLV type: 0x06 0x18 → MGMT_TLV_TYPE_BCN_SLOT

TLV length field value: 0x00 0x02

TLV value: 0x00 0x02

TLV level: 2

TLV type: 0x06 0x19 ➔ MGMT_TLV_TYPE_BCN_FREQ
TLV length field value: 0x00 0x02
TLV value: 0x00 0x02

TLV level: 1

TLV type: 0x04 0x01 ➔ MGMT_TLV_TYPE_ACTIVE_NODE_INFO
TLV length field value: 0x00 0x44
TLV value:

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TLV level: 1

TLV type: 0x04 0x01 ➔ MGMT_TLV_TYPE_ACTIVE_NODE_INFO
TLV length field value: 0x00 0x44
TLV value:

.....

TLV level: 1

TLV type: 0x04 0x01 ➔ MGMT_TLV_TYPE_ACTIVE_NODE_INFO
TLV length field value: 0x00 0x2C
TLV value:

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