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Local Area Network
Asynchronous Connection Server (LANACS)
Configuration Samples, Tips, and Techniques

Local Area Network Asynchronous Connection Server (LANACS) Configuration Samples, Tips, and Techniques

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Preface

This document contains a collection of LANACS scenarios using various PC types, modems, speeds, protocol characteristics, and applications.

This document is intended for IBM system engineers and customer installation personnel.

The two applications used were Crosstalk® and YTERM©[1].

The reference to software programs in this publication are provided for the convenience of the customer and are not endorsed by IBM. Nor is the reference to be construed as a guarantee that the programs will satisfy the particular customer requirement. Other companies or organizations' programs may work as well. Users are responsible to decide whether these or other programs will satisfy their needs. Customers should contact the companies or organizations offering software to obtain further information.

The configurations included in this publication are intended as a guide to help the customer configure the product. There are many considerations that enter into establishing a useful connection. These considerations can make the configuration of a small network into a complex procedure.

Related publication:

> *IBM Local Area Network Asynchronous Connection Server Program Installation and Configuration Guide*, SC30-3509.

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Contents

Considerations

Following are a few of the factors that must be taken into consideration:

- Proper cables
- Proper physical connection to the intended equipment
- Modem switches
- Proper software levels
  - Depending on whether you use a token ring or a particular PC network, the following may be required:
    - IBM Local Area Network Support Program.
    - IBM PC Network Protocol Driver.
  - With an IBM Realtime Interface Co-Processor Multiport Adapter, the IBM Realtime Control Program DOS Support Version 1.03 is required.
  - With an IBM Realtime Interface Co-Processor Multiport/2 Adapter, the IBM Realtime Interface Co-Processor DOS Support Version 1 is required.
- Modem compatibility: speed, parity, stop bits, and data bits
- Application compatibility: speed, parity, stop bits, and data bits
- LCS.CFG speed, parity, stop bits, and data bits compatible with communications equipment and applications
- LCS.CFG netnames matching what the application expects or sends
- Whether or not asserted leads are necessary in LCS.CFG
- Proper phone numbers used
- Proper telephone and jack installation
- Possibility of the wrong LCS.CFG file being used depending on DOS PATH
- Using correct LANACS interface, ACSI or EBI
- Proper input from application

Miscellaneous Tips

Hayes Modem Switch Settings

The settings used for the scenarios in this publication for Hayes 300 bps and Hayes 1200 bps modems were:

```
Switch:  1 2 3 4 5 6 7 8
Setting: U D D D U U U D
```

The following Hayes switch settings will allow communicating without asserting DSR in the configuration file. However, the definition of the switches may then be a bit confusing. This switch configuration has been used successfully in at least one test:

```
Switch:  1 2 3 4 5 6 7 8
Setting: D U D U D D U D
```

Communications Equipment

Modems connected to the wrong port will result in a "Waiting for DSR" indication.

While trying different scenarios, communications equipment may have to be switched around. If there is a failure, before changing your configuration file, check the physical continuity of your connection. If you do switch equipment to different ports, be sure to change your configuration file immediately before you forget what changes were made.

On an outgoing line, DSR may have to be asserted in the configuration file. One could make it a practice of including "asserted_leads = DSR" on their outgoing line configurations.

If your communication lines are going through multiple lines on the same telephone, be aware that there is a possibility of a short between jacks attached to the phone. In one instance a 300 bps modem was plugged into one jack and a 1200 bps in another. Both were connected to an RTIC card. The two phone numbers happened to be wired incorrectly. When the remote modem answered the phone, the local modem that was not in use went on hook and both a 300 bps and a 1200 bps tone were generated and no modem connection could be established

When configuring Crosstalk screens and the server configuration file for modem characteristics of speed, parity, and data bits; the LAN workstation Crosstalk is ignored. The server and remote characteristics are the pair that must match. Keep in mind that the TARGET configuration will take precedence over the ADAPTER configuration.

SCENARIO 1: Remote Calls LAN at 1200 bps - Crosstalk

IBM Internal 1200 Calls Hayes 1200

The remote terminal using Crosstalk calls through an IBM internal modem at 1200 bps to a LAN workstation using Crosstalk. The LANACS server is using port 7 of the RTIC card attached to a Hayes 1200 modem. The LAN workstation will answer anyone calling the service netnames of "XTALK" by asking for the destination name (service) "Crosstalk".

PC Network Configuration: LCS.CFG

```
disp     type=status
         refresh_rate=30
         new_page=-19-1bH
con      type=console
         keyboard=unlocked
connect disp  to con

*INCOMING

XTALKS7  type=NETBIOS  orientation=ORIGINATE
         protocol=ACSI nametype=UNIQUE
MODEM7   type=RTICM    orientation=ANSWER
         adapter=0     port=7       mode=FIXED
         speed=1200    parity=ODD   data_bits=7
connect  MODEM7 to XTALKS7

********** Request Manager ********************

REQM1    type=REQMGR

  service=Crosstalk service_netname=XTALK
```

Crosstalk Screen

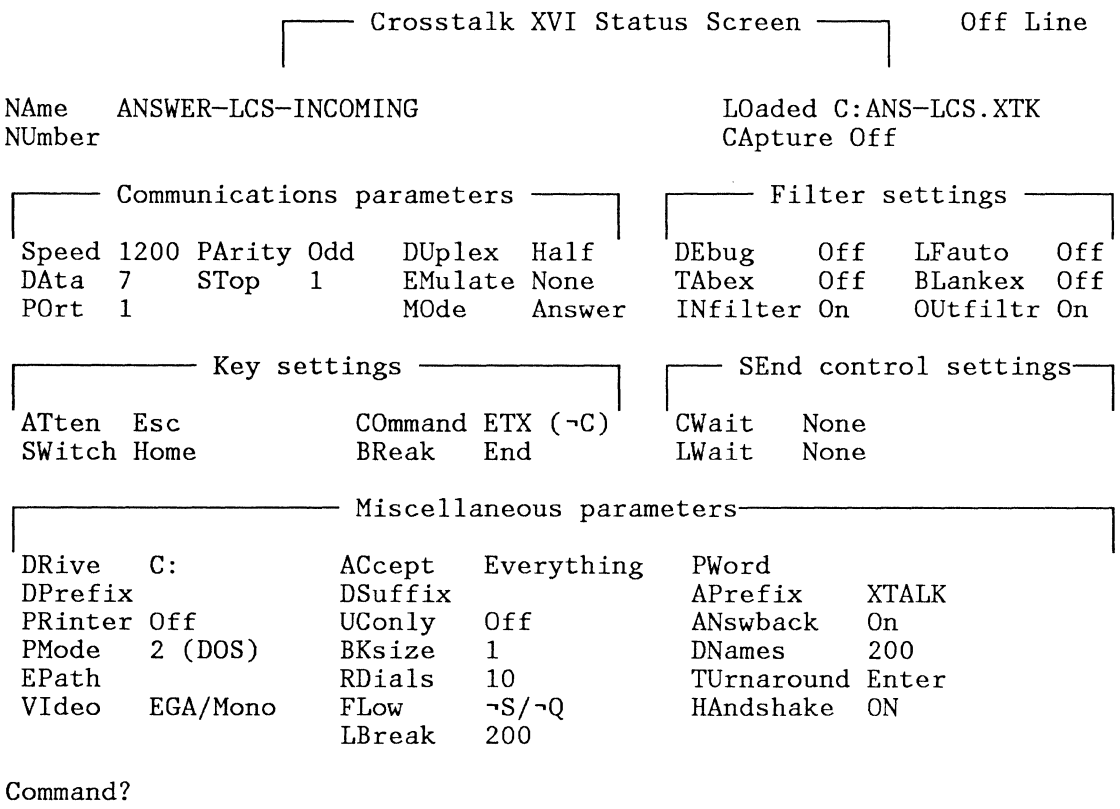
Remote Workstation Calls the LAN at 1200 bps

```
                  ┌── Crosstalk XVI Status Screen ──┐     Off Line

NAme                                                LOaded A:CALL-LCS.XTK
NUmber 86670                                        CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 1200 PArity Odd   DUplex  Full    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Call    INfilter On    OUtfiltr On

┌──────────── Key settings ─────────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)     CWait   None
 SWitch Home          BReak   End          LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────────┐
 DRive   C:              ACcept   Everything   PWord
 DPrefix (IBM defaults)  DSuffix  (defaults)   APrefix    (defaults)
 PRinter Off             UConly   Off          ANswback   On
 PMode   2 (DOS)         BKsize   1            DNames     200
 EPath                   RDials   10           TUrnaround Enter
 VIdeo   EGA/Mono        FLow     ¬S/¬Q        HAndshake  ON
                         LBreak   200

Command?
```

The DP, DS, and AP parameters default to the modem type defined during setup.

Crosstalk Screen

LAN Workstation Answering Anyone Calling For "XTALK"



SCENARIO 2: LAN Calls Remote at 1200 bps - Crosstalk

Hayes 1200 Calls IBM Internal 1200

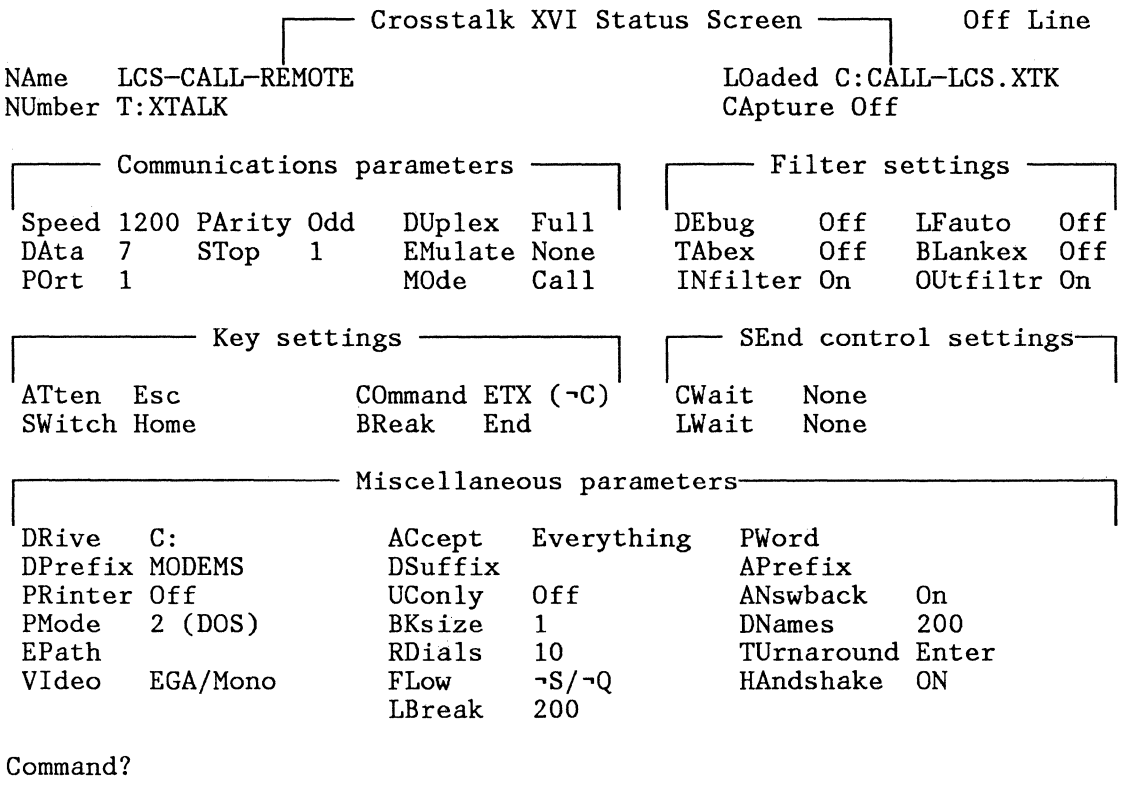
A LAN terminal using Crosstalk calls to a remote workstation using Crosstalk. The LANACS server is using port 7 of the RTIC card attached to a Hayes 1200 modem. The remote workstation is using an IBM internal 1200 bps modem. The LANACS request manager will look under the netname "MODEMS" supplied by the Crosstalk user. The Crosstalk target, "T:XTALK", will be found by the request manager. It supplies the proper phone number and points to the pool to be used, "TOREMOTES", for devices to be connected to the LAN session, "XTALKS7".

PC Network Configuration: LCS.CFG

```
disp     type=status
         refresh_rate=30
         new_page=-19-1bH
con      type=console
         keyboard=unlocked
connect disp  to con

*OUTGOING

XTALKS7  type=NETBIOS  orientation=ANSWER
         protocol=ACSI nametype=UNIQUE
H1200    type=RTICM    orientation=ORIGINATE
         adapter=0     port=7      mode=FIXED
         asserted_leads=DSR
connect  XTALKS7 to H1200

*************** Request Manager ********************

REQM1    type=REQMGR
  pool=TOREMOTES  devices=H1200

      netname=MODEMS    nametype=UNIQUE
      target=XTALK      pool=TOREMOTES     phone=86659
      speed=1200        parity=ODD         data_bits=7
```

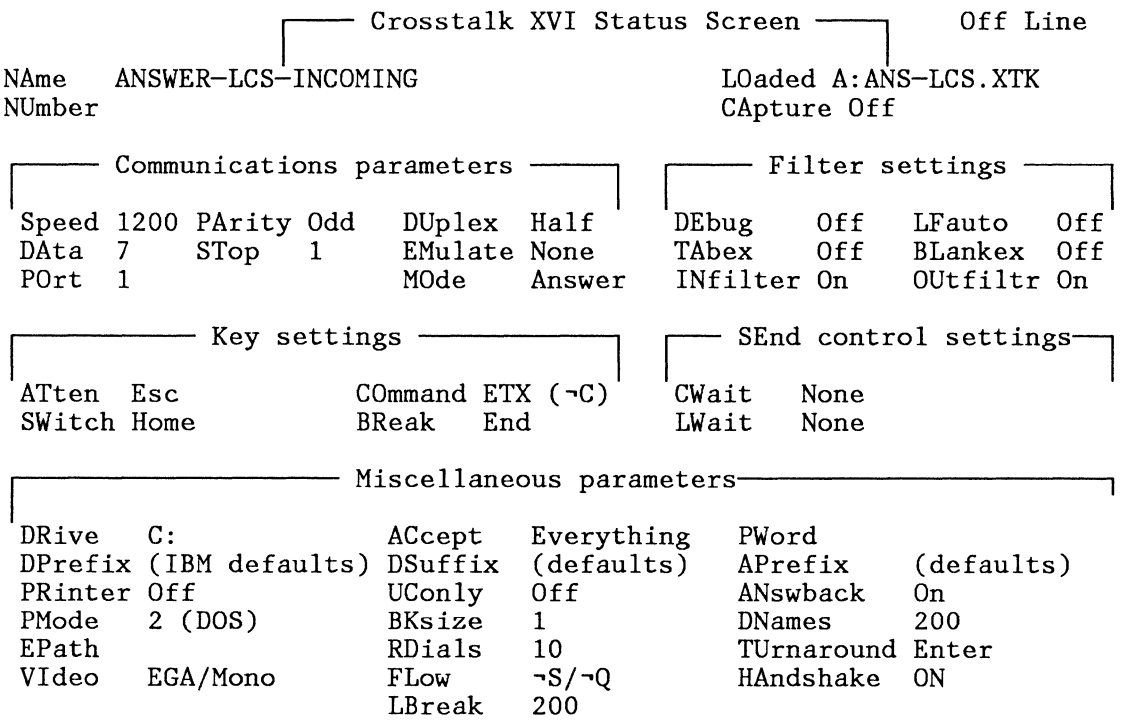
Crosstalk Screen

A LAN Workstation Calls the Remote Workstation at 1200 bps



Crosstalk Screen

Remote Workstation Answering Anyone Calling Its Number



The DP, DS, and AP commands default to the modem specified during setup.

SCENARIO 3: Remote Calls LAN at 300 bps - Crosstalk

Hayes 300 Calls Hayes 1200

The remote terminal using Crosstalk calls through a Hayes 300 modem to a LAN workstation using Crosstalk. The LANACS server is using port 7 of the RTIC card attached to a Hayes 1200 modem set to 300 bps. The LAN workstation will answer anyone calling the service netname of "XTALK" by asking for the destination name (service) "Crosstalk".

PC Network Configuration: LCS.CFG

```
disp     type=status
         refresh_rate=30
         new_page=-19-1bH
con      type=console
         keyboard=unlocked
connect disp  to con

*INCOMING

XTALKS7  type=NETBIOS  orientation=ORIGINATE
         protocol=ACSI nametype=UNIQUE
H1200    type=RTICM    orientation=ANSWER
         adapter=0     port=7      mode=FIXED
         speed=300     parity=ODD  data_bits=7
connect  H1200 to XTALKS7

*************** Request Manager ********************

REQM1    type=REQMGR

  service=Crosstalk service_netname=XTALK
```

Crosstalk Screen

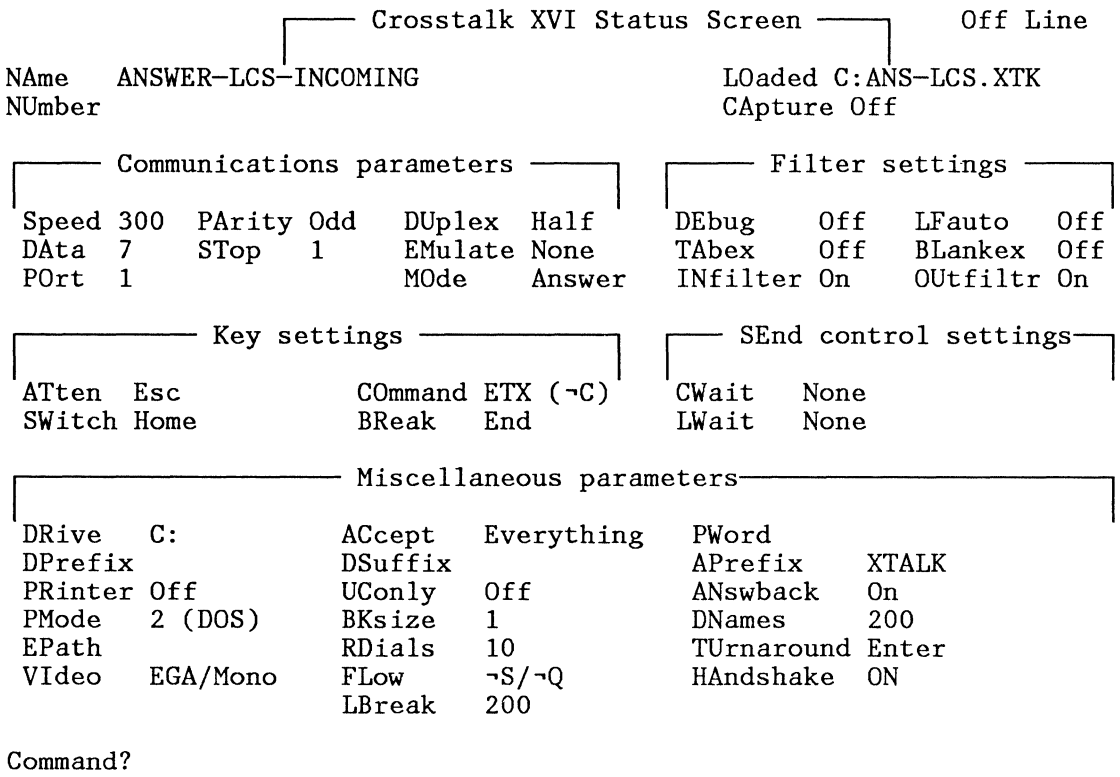
Remote Workstation Calls the LAN at 300 bps

```
                  ┌─── Crosstalk XVI Status Screen ──┐     Off Line
                  │                                  │
NAme                                                 LOaded A:CALL-LCS.XTK
NUmber 86670                                         CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
│                                   │  │                        │
Speed 300  PArity Odd   DUplex  Full     DEbug    Off   LFauto   Off
DAta  7    STop   1     EMulate None     TAbex    Off   BLankex  Off
POrt  1                 MOde    Call     INfilter On    OUtfiltr On

┌──────────── Key settings ─────────┐  ┌─── SEnd control settings──┐
│                                   │  │                           │
ATten  Esc            COmmand ETX (¬C)   CWait   None
SWitch Home           BReak   End        LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────┐
│                                                                   │
DRive   C:                ACcept   Everything   PWord
DPrefix (Hayes defaults)  DSuffix  (defaults)   APrefix    (defaults)
PRinter Off               UConly   Off          ANswback   On
PMode   2 (DOS)           BKsize   1            DNames     200
EPath                     RDials   10           TUrnaround Enter
VIdeo   EGA/Mono          FLow     ¬S/¬Q        HAndshake  ON
                          LBreak   200

Command?
```

The DP, DS, and AP parameters default to the modem type defined during setup.

Crosstalk Screen

LAN Workstation Answering Anyone Calling for "XTALK"



The speed on the Crosstalk screen of the LAN workstation does not matter. The speed is determined by the LCS.CFG file.

SCENARIO 4: LAN Calls Remote at 300 bps - Crosstalk

Hayes 1200 Calls Hayes 300

A LAN terminal using Crosstalk calls to a remote workstation using Crosstalk. The LANACS server is using port 7 of the RTIC card attached to a Hayes 1200 modem configured to run at 300 bps. The remote workstation is using a Hayes 300 bps Smartmodem™. The LANACS request manager will look under the netname, "MODEMS", supplied by the Crosstalk user. The Crosstalk target, "T:XTALK", will be found by the request manager. It supplies the proper phone number and points to the pool to be used, "TOREMOTES", for devices to be connected to the LAN session, "XTALKS7".

PC Network Configuration: LCS.CFG

```
disp     type=status
         refresh_rate=30
         new_page=-19-1bH
con      type=console
         keyboard=unlocked
connect disp  to con

*OUTGOING

XTALKS7  type=NETBIOS  orientation=ANSWER
         protocol=ACSI nametype=UNIQUE
H1200    type=RTICM    orientation=ORIGINATE
         adapter=0     port=7      mode=FIXED
         asserted_leads=DSR
connect  XTALKS7 to H1200

*************** Request Manager ********************

REQM1    type=REQMGR
  pool=TOREMOTES  devices=H1200

      netname=MODEMS    nametype=UNIQUE
      target=XTALK      pool=TOREMOTES     phone=86659
      speed=300         parity=ODD         data_bits=7
```

Crosstalk Screen

A LAN Workstation Calls the Remote Workstation at 300 bps

```
                    ┌─── Crosstalk XVI Status Screen ──┐     Off Line

NAme   LCS-CALL-REMOTE                          LOaded C:CALL-LCS.XTK
NUmber T:XTALK                                  CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 300  PArity Odd   DUplex  Full    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Call    INfilter On    OUtfiltr On

┌──────── Key settings ─────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)   CWait   None
 SWitch Home          BReak   End        LWait   None

┌──────────────── Miscellaneous parameters──────────────────────┐
 DRive   C:             ACcept   Everything   PWord
 DPrefix MODEMS         DSuffix              APrefix
 PRinter Off            UConly   Off         ANswback   On
 PMode   2 (DOS)        BKsize   1           DNames     200
 EPath                  RDials   10          TUrnaround Enter
 VIdeo   EGA/Mono       FLow     ¬S/¬Q       HAndshake  ON
                        LBreak   200

Command?
```

Crosstalk Screen

Remote Workstation Answering Anyone Calling Its Number

```
                  ┌─── Crosstalk XVI Status Screen ──┐     Off Line

NAme    ANSWER-LCS-INCOMING                    LOaded A:ANS-LCS.XTK
NUmber                                         CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 300  PArity Odd   DUplex  Half    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Answer  INfilter On    OUtfiltr On

┌──────────── Key settings ─────────────┐  ┌─── SEnd control settings──┐
 ATten  Esc            COmmand ETX (¬C)    CWait   None
 SWitch Home           BReak   End         LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────────┐
 DRive   C:                ACcept   Everything   PWord
 DPrefix (Hayes defaults)  DSuffix  (defaults)   APrefix    (defaults)
 PRinter Off               UConly   Off          ANswback   On
 PMode   2 (DOS)           BKsize   1            DNames     200
 EPath                     RDials   10           TUrnaround Enter
 VIdeo   EGA/Mono          FLow     ¬S/¬Q        HAndshake  ON
                           LBreak   200

Command?
```

The DP, DS, and AP commands default to the modem type defined during setup.

SCENARIO 5: Remote Calls LAN at 1200 bps - Crosstalk

IBM Internal 1200 Calls Hayes 2400

The remote terminal using Crosstalk calls through an IBM internal modem at 1200 bps to a LAN workstation using Crosstalk. The LANACS server is using port 1 of the RTIC card attached to a Hayes 2400 modem. The configuration file specifies a speed of 1200 bps for this modem. The LAN workstation will answer anyone calling the service netname of "XTALK" by asking for the destination name (service) "Crosstalk".

PC Network Configuration: LCS.CFG

```
disp     type=status
         refresh_rate=30
         new_page=-19-1bH
con      type=console
         keyboard=unlocked
connect disp  to con

*INCOMING

XTALKS1  type=NETBIOS  orientation=ORIGINATE
         protocol=ACSI nametype=UNIQUE
H2400    type=RTICM    orientation=ANSWER
         adapter=0     port=1      mode=FIXED
         speed=1200    parity=NONE data_bits=8
connect  H2400 to XTALKS1

************** Request Manager ********************

REQM1    type=REQMGR

  service=Crosstalk service_netname=XTALK
```

Crosstalk Screen

Remote Workstation Calls the LAN at 1200 bps

```
                  ┌── Crosstalk XVI Status Screen ──┐     Off Line

NAme                                          LOaded A:CALL-LCS.XTK
NUmber 86670                                  CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 1200 PArity None  DUplex  Full    DEbug    Off   LFauto   Off
 DAta  8    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Call    INfilter On    OUtfiltr On

┌──────────── Key settings ─────────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)     CWait   None
 SWitch Home          BReak   End          LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────────┐
 DRive   C:              ACcept   Everything   PWord
 DPrefix (IBM defaults)  DSuffix  (defaults)   APrefix    (defaults)
 PRinter Off             UConly   Off          ANswback   On
 PMode   2 (DOS)         BKsize   1            DNames     200
 EPath                   RDials   10           TUrnaround Enter
 VIdeo   EGA/Mono        FLow     ¬S/¬Q        HAndshake  ON
                         LBreak   200

Command?
```

The DP, DS, and AP parameters default to the modem type defined during setup.

Crosstalk Screen

LAN Workstation Answering Anyone Calling for "XTALK"

```
                    Crosstalk XVI Status Screen        Off Line

NAme   ANSWER-LCS-INCOMING                    LOaded C:ANS-LCS.XTK
NUmber                                        CApture Off

 Communications parameters                    Filter settings

 Speed 1200 PArity None  DUplex  Half         DEbug    Off   LFauto   Off
 DAta  8    STop   1     EMulate None         TAbex    Off   BLankex  Off
 POrt  1                 MOde    Answer       INfilter On    OUtfiltr On

 Key settings                                 SEnd control settings

 ATten  Esc              COmmand ETX (¬C)     CWait   None
 SWitch Home             BReak   End          LWait   None

 Miscellaneous parameters

 DRive   C:          ACcept   Everything   PWord
 DPrefix             DSuffix                APrefix    XTALK
 PRinter Off         UConly   Off           ANswback   On
 PMode   2 (DOS)     BKsize   1             DNames     200
 EPath               RDials   10            TUrnaround Enter
 VIdeo   EGA/Mono    FLow     ¬S/¬Q         HAndshake  ON
                     LBreak   200

Command?
```

SCENARIO 6: LAN Calls Remote at 1200 bps - Crosstalk

Hayes 2400 Calls IBM Internal 1200

A LAN terminal using Crosstalk calls a remote workstation using Crosstalk. The LANACS server is using port 1 of the RTIC card attached to a Hayes 2400 modem. The configuration file specifies a speed of 1200 bps for this modem. The remote workstation is using an IBM internal 1200 bps modem. The LANACS request manager will look under the netname, "MODEMS", supplied by the Crosstalk user. The Crosstalk target, "T:XTALK", will be found by the request manager. It supplies the proper phone number and points to the pool to be used, "TOREMOTES", for devices to be connected to the LAN session, "XTALKS1".

PC Network Configuration: LCS.CFG

```
disp     type=status
         refresh_rate=30
         new_page=-19-1bH
con      type=console
         keyboard=unlocked
connect disp  to con

*OUTGOING

XTALKS1  type=NETBIOS  orientation=ANSWER
         protocol=ACSI nametype=UNIQUE
H2400    type=RTICM    orientation=ORIGINATE
         adapter=0     port=1
         asserted_leads=DSR
connect  XTALKS1 to H2400

************** Request Manager ********************

REQM1    type=REQMGR
  pool=TOREMOTES  devices=H2400

      netname=MODEMS    nametype=UNIQUE
      target=XTALK      pool=TOREMOTES     phone=86659
      speed=1200        parity=ODD         data_bits=7
```

Crosstalk Screen

A LAN Workstation Calls the Remote Workstation at 1200 bps

```
                  ┌─── Crosstalk XVI Status Screen ──┐     Off Line

NAme   LCS-CALL-REMOTE                          LOaded C:CALL-LCS.XTK
NUmber T:XTALK                                  CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 1200 PArity Odd   DUplex  Full    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Call    INfilter On    OUtfiltr On

┌──────────── Key settings ─────────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)    CWait   None
 SWitch Home          BReak   End         LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────────┐
 DRive   C:              ACcept   Everything   PWord
 DPrefix MODEMS          DSuffix               APrefix
 PRinter Off             UConly   Off          ANswback   On
 PMode   2 (DOS)         BKsize   1            DNames     200
 EPath                   RDials   10           TUrnaround Enter
 VIdeo   EGA/Mono        FLow     ¬S/¬Q        HAndshake  ON
                         LBreak   200

Command?
```

Crosstalk Screen

Remote Workstation Answering Anyone Calling Its Number

```
                  ┌─── Crosstalk XVI Status Screen ──┐     Off Line

NAme    ANSWER-LCS-INCOMING                    LOaded A:ANS-LCS.XTK
NUmber                                         CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 1200 PArity Odd   DUplex  Half    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Answer  INfilter On    OUtfiltr On

┌──────── Key settings ─────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)   CWait   None
 SWitch Home          BReak   End        LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────┐
 DRive   C:             ACcept   Everything   PWord
 DPrefix (IBM defaults) DSuffix  (defaults)   APrefix    (defaults)
 PRinter Off            UConly   Off          ANswback   On
 PMode   2 (DOS)        BKsize   1            DNames     200
 EPath                  RDials   10           TUrnaround Enter
 VIdeo   EGA/Mono       FLow     ¬S/¬Q        HAndshake  ON
                        LBreak   200

Command?
```

The DP, DS, and AP commands default to the modem specified during setup.

SCENARIO 7: Remote Calls LAN at 300 bps - Crosstalk

Hayes 300 Calls Hayes 2400

The remote terminal using Crosstalk calls through a Hayes 300 to a LAN workstation using Crosstalk. The LANACS server is using port 1 of the RTIC card attached to a Hayes 2400 modem. The configuration file specifies a speed of 300 bps for this modem. The LAN workstation will answer anyone calling the service netname of "XTALK" by asking for the destination name (service) "Crosstalk".

PC Network Configuration: LCS.CFG

```
disp     type=status
         refresh_rate=30
         new_page=-19-1bH
con      type=console
         keyboard=unlocked
connect disp  to con

*INCOMING

XTALKS1  type=NETBIOS  orientation=ORIGINATE
         protocol=ACSI nametype=UNIQUE
H2400    type=RTICM    orientation=ANSWER
         adapter=0     port=1
         speed=300     parity=ODD  data_bits=7
connect  H2400 to XTALKS1

*************** Request Manager ********************

REQM1    type=REQMGR

  service=Crosstalk service_netname=XTALK
```

Crosstalk Screen

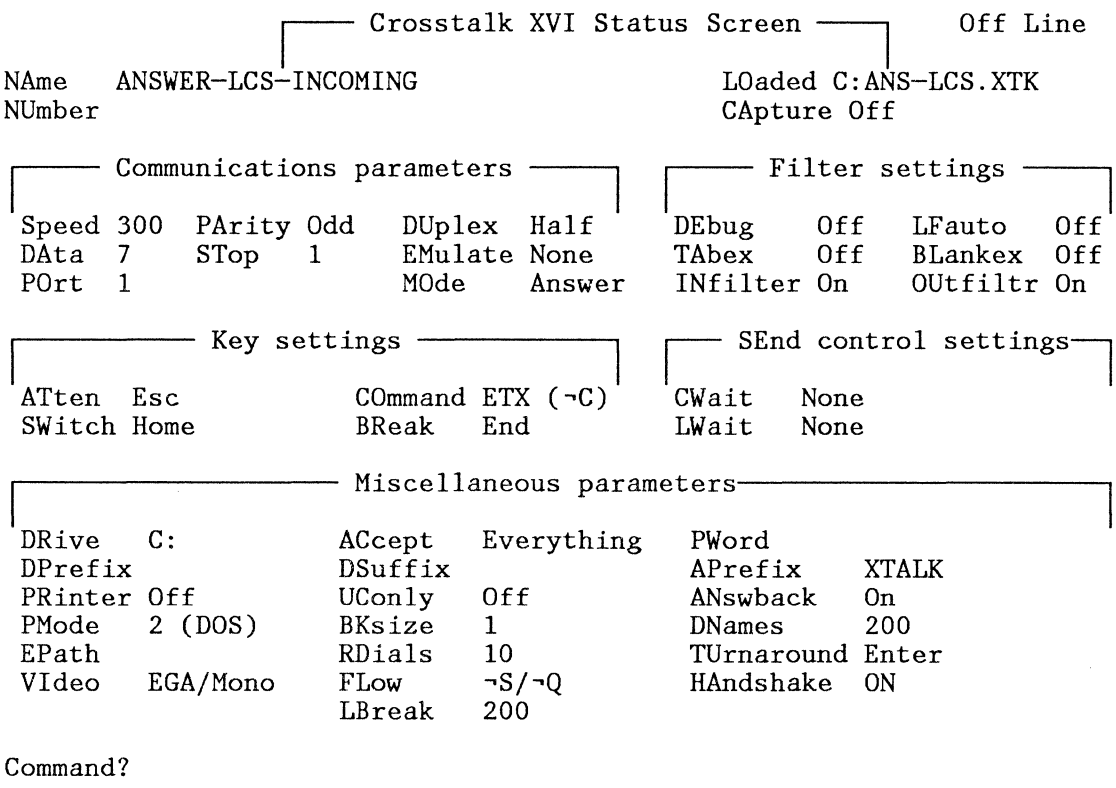
Remote Workstation Calls the LAN at 300 bps

```
                  ┌── Crosstalk XVI Status Screen ──┐     Off Line

NAme                                          LOaded A:CALL-LCS.XTK
NUmber 86670                                  CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 300  PArity Odd   DUplex  Full    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Call    INfilter On    OUtfiltr On

┌──────────── Key settings ─────────────┐  ┌── SEnd control settings──┐
 ATten  Esc            COmmand ETX (¬C)    CWait   None
 SWitch Home           BReak   End         LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────────┐
 DRive   C:                ACcept   Everything  PWord
 DPrefix (Hayes defaults)  DSuffix  (defaults)  APrefix    (defaults)
 PRinter Off               UConly   Off         ANswback   On
 PMode   2 (DOS)           BKsize   1           DNames     200
 EPath                     RDials   10          TUrnaround Enter
 VIdeo   EGA/Mono          FLow     ¬S/¬Q       HAndshake  ON
                           LBreak   200

Command?
```

The DP, DS, and AP parameters default to the modem type defined during setup.

Crosstalk Screen

LAN Workstation Answering Anyone Calling For "XTALK"



SCENARIO 8: LAN Calls Remote at 300 bps - Crosstalk

Hayes 2400 Calls Hayes 300

A LAN terminal using Crosstalk calls a remote workstation using Crosstalk. The LANACS server is using port 1 of the RTIC card attached to a Hayes 2400 modem. The configuration file sets this modem to 300 bps. The remote workstation is using a Hayes 300 bps modem. The LANACS request manager will look under the netname, "MODEMS" supplied by the Crosstalk user. The Crosstalk target, "T:XTALK" , will be found by the request manager. It supplies the proper phone number and points to the pool to be used, "TOREMOTES", for devices to be connected to the LAN session, "XTALKS1".

PC Network Configuration: LCS.CFG

```
disp    type=status
        refresh_rate=30
        new_page=-19-1bH
con     type=console
        keyboard=unlocked
connect disp  to con

*OUTGOING

XTALKS1  type=NETBIOS  orientation=ANSWER
         protocol=ACSI nametype=UNIQUE
H2400    type=RTICM    orientation=ORIGINATE
         adapter=0     port=1
connect  XTALKS1 to H2400

************** Request Manager ********************

REQM1   type=REQMGR
  pool=TOREMOTES  devices=H2400

      netname=MODEMS   nametype=UNIQUE
      target=XTALK     pool=TOREMOTES    phone=86659
      speed=300        parity=ODD        data_bits=7
```

Crosstalk Screen

A LAN Workstation Calls the Remote Workstation at 300 bps

```
                  ┌─── Crosstalk XVI Status Screen ──┐     Off Line

NAme   LCS-CALL-REMOTE                          LOaded C:CALL-LCS.XTK
NUmber T:XTALK                                  CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
│                                   │  │                        │
 Speed 300  PArity Odd   DUplex  Full    DEbug    Off   LFauto  Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex Off
 POrt  1                 MOde    Call    INfilter On    OUtfiltr On

┌──────────── Key settings ─────────┐  ┌── SEnd control settings──┐
│                                   │  │                          │
 ATten  Esc           COmmand ETX (¬C)   CWait   None
 SWitch Home          BReak   End        LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────┐
│
 DRive   C:             ACcept   Everything   PWord
 DPrefix MODEMS         DSuffix              APrefix
 PRinter Off            UConly   Off         ANswback   On
 PMode   2 (DOS)        BKsize   1           DNames     200
 EPath                  RDials   10          TUrnaround Enter
 VIdeo   EGA/Mono       FLow     ¬S/¬Q       HAndshake  ON
                        LBreak   200

Command?
```

Crosstalk Screen

Remote Workstation Answering Anyone Calling Its Number

```
                    ┌─── Crosstalk XVI Status Screen ──┐     Off Line

NAme   ANSWER-LCS-INCOMING                      LOaded A:ANS-LCS.XTK
NUmber                                          CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 300  PArity Odd   DUplex  Half    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Answer  INfilter On    OUtfiltr On

┌──────── Key settings ─────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)   CWait   None
 SWitch Home          BReak   End        LWait   None

┌──────────────── Miscellaneous parameters──────────────────────┐
 DRive   C:                ACcept   Everything  PWord
 DPrefix (Hayes defaults)  DSuffix  (defaults)  APrefix    (defaults)
 PRinter Off               UConly   Off         ANswback   On
 PMode   2 (DOS)           BKsize   1           DNames     200
 EPath                     RDials   10          TUrnaround Enter
 VIdeo   EGA/Mono          FLow     ¬S/¬Q       HAndshake  ON
                           LBreak   200

Command?
```

The DP, DS, and AP parameters default to the modem type defined during setup.

SCENARIO 9: Remote Calls LAN at 300 bps - Crosstalk

Hayes 300 Calls Hayes 300

The remote terminal using Crosstalk calls through a Hayes 300 modem to a LAN workstation using Crosstalk. The LANACS server is using port 1 of the RTIC card attached to a Hayes 300 modem. The LAN workstation will answer anyone calling the service netname of "XTALK" by asking for the destination name (service) "Crosstalk".

PC Network Configuration: LCS.CFG

```
disp     type=status
         refresh_rate=30
         new_page=-19-1bH
con      type=console
         keyboard=unlocked
connect disp  to con

*INCOMING

XTALKS1  type=NETBIOS  orientation=ORIGINATE
         protocol=ACSI nametype=UNIQUE
H300     type=RTICM    orientation=ANSWER
         adapter=0     port=1
         speed=300     parity=ODD  data_bits=7
connect  H300 to XTALKS1

*************** Request Manager ********************

REQM1    type=REQMGR

  service=Crosstalk service_netname=XTALK
```

Crosstalk Screen

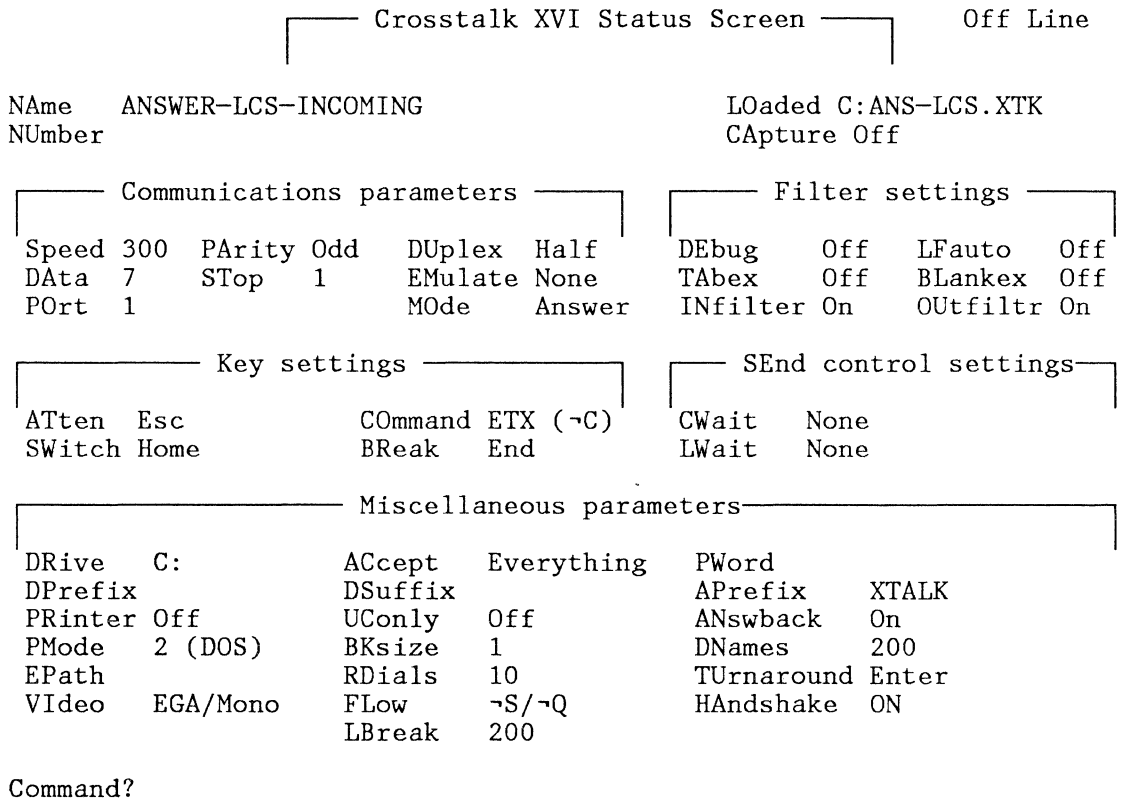
Remote Workstation Calls the LAN at 300 bps

```
                  ┌── Crosstalk XVI Status Screen ──┐     Off Line

NAme                                                LOaded A:CALL-LCS.XTK
NUmber 86670                                        CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 300  PArity Odd   DUplex  Full    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Call    INfilter On    OUtfiltr On

┌──────────── Key settings ─────────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)     CWait   None
 SWitch Home          BReak   End          LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────────┐
 DRive   C:                ACcept   Everything  PWord
 DPrefix (Hayes defaults)  DSuffix  (defaults)  APrefix    (defaults)
 PRinter Off               UConly   Off         ANswback   On
 PMode   2 (DOS)           BKsize   1           DNames     200
 EPath                     RDials   10          TUrnaround Enter
 VIdeo   EGA/Mono          FLow     ¬S/¬Q       HAndshake  ON
                           LBreak   200

Command?
```

The DP, DS, and AP parameters default to the modem type defined during setup.

Crosstalk Screen

LAN Workstation Answering Anyone Calling For "XTALK"



SCENARIO 10: LAN Calls Remote at 300 bps - Crosstalk

Hayes 300 Calls Hayes 300

A LAN terminal using Crosstalk calls a remote workstation using Crosstalk. The LANACS server is using port 1 of the RTIC card attached to a HAYES 300 modem. The remote workstation is also using a Hayes 300 modem. The LANACS request manager will look under the netname, "MODEMS", supplied by the Crosstalk user. The Crosstalk target, "T:XTALK", will be found by the request manager. It supplies the proper phone number and points to the pool to be used, "TOREMOTES", for devices to be connected to the LAN session, "XTALKS1".

PC Network Configuration: LCS.CFG

```
disp     type=status
         refresh_rate=30
         new_page=-19-1bH
con      type=console
         keyboard=unlocked
connect disp  to con

*OUTGOING

XTALKS1  type=NETBIOS  orientation=ANSWER
         protocol=ACSI nametype=UNIQUE
H300     type=RTICM    orientation=ORIGINATE
         adapter=0     port=1      mode=FIXED
         asserted_leads=DSR
connect  XTALKS1 to H300

*************** Request Manager ********************

REQM1    type=REQMGR
  pool=TOREMOTES  devices=H300

       netname=MODEMS    nametype=UNIQUE
       target=XTALK      pool=TOREMOTES     phone=86659
       speed=300         parity=ODD         data_bits=7
```

Crosstalk Screen

A LAN Workstation Calls the Remote Workstation at 300 bps

```
                    ┌─── Crosstalk XVI Status Screen ──┐     Off Line

NAme    LCS-CALL-REMOTE                          LOaded C:CALL-LCS.XTK
NUmber T:XTALK                                   CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 300  PArity Odd   DUplex  Full    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Call    INfilter On    OUtfiltr On

┌──────── Key settings ─────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)   CWait   None
 SWitch Home          BReak   End        LWait   None

┌──────────────── Miscellaneous parameters──────────────────────┐
 DRive   C:             ACcept   Everything   PWord
 DPrefix MODEMS         DSuffix              APrefix
 PRinter Off            UConly   Off         ANswback   On
 PMode   2 (DOS)        BKsize   1           DNames     200
 EPath                  RDials   10          TUrnaround Enter
 VIdeo   EGA/Mono       FLow     ¬S/¬Q       HAndshake  ON
                        LBreak   200

Command?
```

Crosstalk Screen

Remote Workstation Answering Anyone Calling Its Number

```
                    ┌─── Crosstalk XVI Status Screen ──┐     Off Line

NAme   ANSWER-LCS-INCOMING                      LOaded A:ANS-LCS.XTK
NUmber                                          CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 300  PArity Odd   DUplex  Half    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Answer  INfilter On    OUtfiltr On

┌──────────── Key settings ──────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)   CWait   None
 SWitch Home          BReak   End        LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────┐
 DRive   C:                ACcept   Everything   PWord
 DPrefix (Hayes defaults)  DSuffix  (defaults)   APrefix    (defaults)
 PRinter Off               UConly   Off          ANswback   On
 PMode   2 (DOS)           BKsize   1            DNames     200
 EPath                     RDials   10           TUrnaround Enter
 VIdeo   EGA/Mono          FLow     ¬S/¬Q        HAndshake  ON
                           LBreak   200

Command?
```

The DP, DS, and AP commands default to the modem type defined during setup.

SCENARIO 11: Remote Calls Remote via LAN at 300 bps - Crosstalk

Hayes 300 Calls Hayes 300, Then Hayes 1200 Calls IBM Internal 1200

A remote Crosstalk terminal calls through the LAN to another remote. The calling remote using a Hayes 300 calls the LANACS server using port 7 of the RTIC card attached to a Hayes 300. The LANACS server using port 1 of the RTIC card attached to a Hayes 1200 calls out at 300 bps to a remote workstation using an IBM Internal 1200. When the calling station dials into port 7, it will ask for destination "Crosstalk" which is the service. The call will be directed to the target "XTALK" under the service_netname "MODEMS", then to pool "TOREMOTES" which will use Modem1 attached to port 1 to dial the destination workstation.

PC Network Configuration: LCS.CFG

```
disp     type=status
         refresh_rate=30
         new_page=-19-1bH
con      type=console
         keyboard=unlocked
connect disp  to con

*OUTGOING

XTALKS1  type=NETBIOS  orientation=ANSWER
         protocol=ACSI nametype=UNIQUE
MODEM1   type=RTICM    orientation=ORIGINATE
         adapter=0     port=1
         asserted_leads=DSR
connect  XTALKS1 to MODEM1

*INCOMING

XTALKS7  type=NETBIOS  orientation=ORIGINATE
         protocol=ACSI nametype=UNIQUE
MODEM7   type=RTICM    orientation=ANSWER
         adapter=0     port=7
         speed=300     parity=ODD  data_bits=7
connect  MODEM7 to XTALKS7

*************** Request Manager ********************

REQM1    type=REQMGR
  pool=TOREMOTES  devices=MODEM1

      netname=MODEMS    nametype=UNIQUE
      target=XTALK      pool=TOREMOTES     phone=86659
      speed=300         parity=ODD         data_bits=7

  service=Crosstalk service_netname=MODEMS target=XTALK
```

Crosstalk Screen

Remote Workstation Calls LAN at 300 bps

```
                    ┌─── Crosstalk XVI Status Screen ──┐     Off Line

NAme   LCS-CALL-REMOTE                          LOaded C:CALL-LCS.XTK
NUmber 86670                                    CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 300  PArity Odd   DUplex  Full    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Call    INfilter On    OUtfiltr On

┌──────────── Key settings ─────────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)     CWait   None
 SWitch Home          BReak   End          LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────────┐
 DRive   C:                ACcept   Everything   PWord
 DPrefix (Hayes defaults)  DSuffix  (defaults)   APrefix(defaults)
 PRinter Off               UConly   Off          ANswback   On
 PMode   2 (DOS)           BKsize   1            DNames     200
 EPath                     RDials   10           TUrnaround Enter
 VIdeo   EGA/Mono          FLow     ¬S/¬Q        HAndshake  ON
                           LBreak   200

Command?
```

Crosstalk Screen

Remote Workstation Answering at 300 bps

```
                    ┌─── Crosstalk XVI Status Screen ──┐     Off Line

NAme   ANSWER-LCS-INCOMING                    LOaded A:ANS-LCS.XTK
NUmber                                        CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
│                                   │  │                        │
 Speed 300  PArity Odd   DUplex  Half    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Answer  INfilter On    OUtfiltr On

┌──────────── Key settings ─────────┐  ┌─── SEnd control settings──┐
│                                   │  │                           │
 ATten  Esc           COmmand ETX (¬C)   CWait   None
 SWitch Home          BReak   End        LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────┐
│                                                                   │
 DRive   C:                ACcept   Everything   PWord
 DPrefix (IBM defaults)    DSuffix  (defaults)   APrefix    (defaults)
 PRinter Off               UConly   Off          ANswback   On
 PMode   2 (DOS)           BKsize   1            DNames     200
 EPath                     RDials   10           TUrnaround Enter
 VIdeo   EGA/Mono          FLow     ¬S/¬Q        HAndshake  ON
                           LBreak   200

Command?
```

The DP, DS, and AP commands default to the modem type defined during setup.

SCENARIO 12: PCNW Calls Remote at 300, TR Calls PCNW at 1200 - Crosstalk

Hayes 300 Calls Hayes 300 and IBM Internal 1200 Calls Hayes 1200

PHYSICAL NETWORK CONFIGURATION

The network consists of three PCs on a PC Network, two PCs on a Token Ring, and one remote PC.

THE PC NETWORK

- Workstation #1 is an XT running Crosstalk on the PC Network.
- Workstation #2 is an AT® running Crosstalk on the PC Network.
- A PC XT™ is dedicated as the LAN Asynchronous Connection Server on the PC Network. It is using ports 1 and 7 of an RTIC card. Port 1 is connected to a 1200 bps external modem. Port 7 is connected to a 300 bps external modem.

THE TR NETWORK

- TR #1 is a PC XT workstation running Crosstalk on the Token Ring.
- An IBM Personal System/2™, Model 50, is dedicated as the LAN Asynchronous Connection Server on the Token Ring. It uses a 1200 bps internal modem on COM2.

THE REMOTE WORKSTATION

- A PC is used as a remote workstation running Crosstalk. It uses a 1200 bps internal modem on COM1.

CAPABILITIES

The configuration files and Crosstalk setups that follow allow the following:

- Workstation #1 on the PC Network can call the remote workstation at 300 bps.
- Workstation #2 on the PC Network can answer any caller looking for a service on the LAN with the name, "XTALK" (Crosstalk).
- TR #1 workstation on the Token Ring can call the PC Network and ask for a service called "XTALK".
- The remote workstation is in answer mode to anyone that calls for Crosstalk.

PC Network Configuration: LCS.CFG

```
disp    type=status
        refresh_rate=30
        new_page=-19-1bH
con     type=console
        keyboard=unlocked
connect disp  to con

*INCOMING

XTALKS1  type=NETBIOS  orientation=ORIGINATE
         protocol=ACSI nametype=UNIQUE
MODEM1   type=RTICM  orientation=ANSWER
         adapter=0 port=1
         speed=AUTOBAUD  parity=ODD  data_bits=7
connect  MODEM1 to XTALKS1

*OUTGOING

XTALKS7  type=NETBIOS  orientation=ANSWER
         protocol=ACSI nametype=UNIQUE
MODEM7   type=RTICM  orientation=ORIGINATE
         adapter=0 port=7
         asserted_leads=DSR
connect  XTALKS7 to MODEM7

*************** Request Manager ********************

REQM1   type=REQMGR
  pool=TOREMOTES devices=MODEM7

       netname=MODEMS   nametype=UNIQUE
       target=XTALK  pool=TOREMOTES  phone=86659
       speed=300     parity=ODD      data_bits=7

  service=Crosstalk service_netname=XTALK
```

TR Network Configuration: LCS.CFG

```
disp     type=status
         refresh_rate=30
         new_page=-19-1bH
con      type=console
         keyboard=unlocked
connect disp  to con

*OUTGOING

XTALKS2  type=NETBIOS  orientation=ANSWER
         protocol=ACSI nametype=UNIQUE
MODEM2   type=COM      orientation=ORIGINATE
         adapter=COM2
         asserted_leads=DSR
connect  XTALKS2 to MODEM2

*************** Request Manager ********************

REQM1  type=REQMGR
  pool=TOREMOTES devices=MODEM2

       netname=MODEMS   nametype=UNIQUE
       target=XTALK pool=TOREMOTES  phone=86670
       speed=1200   parity=odd      data_bits=7

  service=Crosstalk service_netname=XTALK     target=XTALKS

TRACE DATA+INTERNALS+STATUS+EVENTS OF MODEM1 TO TRACE.FIL
write log to log.fil
write errors to error.fil
```

The trace and write statements are included to show samples of both functions.

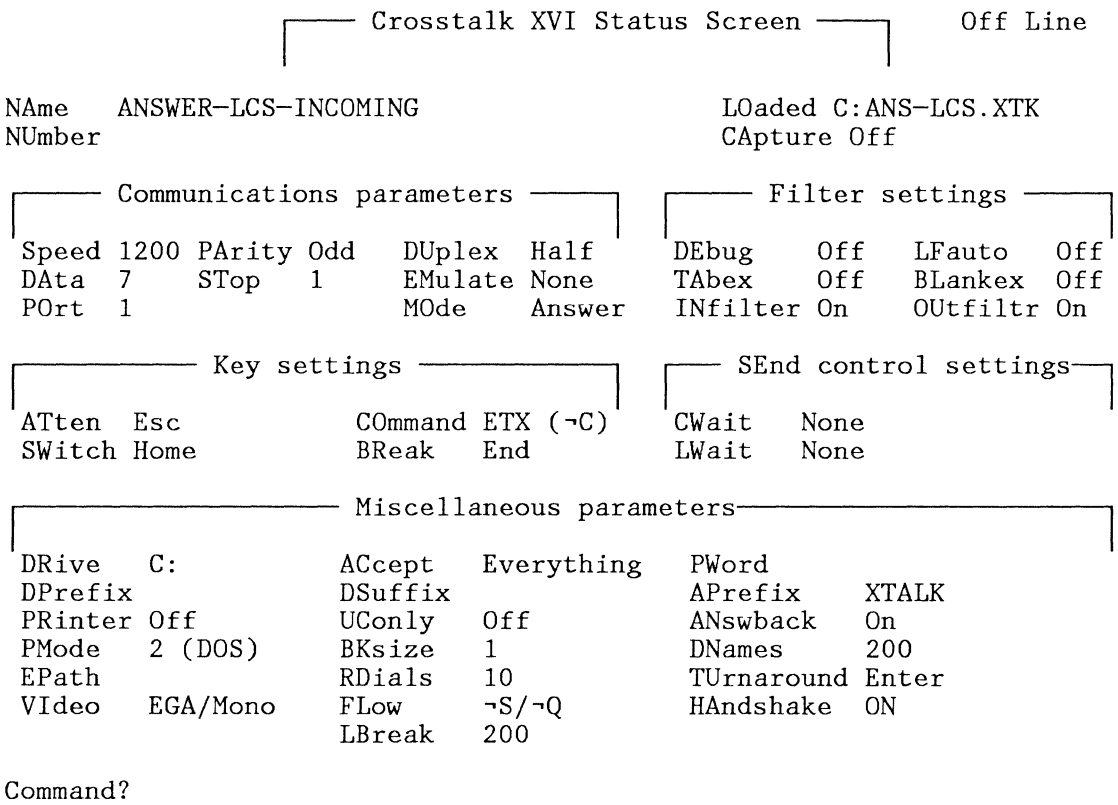
Crosstalk Screen

Workstation #1 Calls Remote at 300 bps

```
                  ┌─── Crosstalk XVI Status Screen ──┐     Off Line

NAme   LCS-CALL-REMOTE                          LOaded C:CALL-LCS.XTK
NUmber T:XTALK                                  CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 300  PArity Odd   DUplex  Full    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Call    INfilter On    OUtfiltr On

┌──────────── Key settings ──────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)   CWait   None
 SWitch Home          BReak   End        LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────┐
 DRive   C:          ACcept   Everything   PWord
 DPrefix MODEMS      DSuffix               APrefix
 PRinter Off         UConly   Off          ANswback   On
 PMode   2 (DOS)     BKsize   1            DNames     200
 EPath               RDials   10           TUrnaround Enter
 VIdeo   EGA/Mono    FLow     ¬S/¬Q        HAndshake  ON
                     LBreak   200

Command?
```

Crosstalk Screen

Workstation #2 Answering Anyone Calling for "XTALK"



Crosstalk Screen

Remote Workstation Answering Anyone Calling Its Number At 300 bps

```
                  ┌── Crosstalk XVI Status Screen ──┐     Off Line

NAme   REMOTE-ANSWERING                          LOaded  C:ANS-LCS.XTK
NUmber                                           CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 300  PArity Odd   DUplex  Half    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Answer  INfilter On    OUtfiltr On

┌──────── Key settings ─────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)   CWait   None
 SWitch Home          BReak   End        LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────┐
 DRive   C:              ACcept   Everything PWord
 DPrefix (IBM defaults)  DSuffix  (defaults) APrefix    (defaults)
 PRinter Off             UConly   Off        ANswback   On
 PMode   2 (DOS)         BKsize   1          DNames     200
 EPath                   RDials   10         TUrnaround Enter
 VIdeo   EGA/Mono        FLow     ¬S/¬Q      HAndshake  ON
                         LBreak   200

Command?
```

The (IBM defaults) in the DP, DS, and AP parameters are set automatically when setup is used to define the modem type.

Crosstalk Screen

Workstation TR #1 Calls the PC Network at 1200 bps

```
                    ┌─── Crosstalk XVI Status Screen ──┐     Off Line

NAme    LCS-CALL-REMOTE                          LOaded C:CALL-LCS.XTK
NUmber T:XTALK                                   CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 1200 PArity Odd   DUplex  Full    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Call    INfilter On    OUtfiltr On

┌──────── Key settings ─────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)   CWait   None
 SWitch Home          BReak   End        LWait   None

┌──────────────── Miscellaneous parameters──────────────────────┐
 DRive   C:          ACcept   Everything   PWord
 DPrefix MODEMS      DSuffix               APrefix
 PRinter Off         UConly   Off          ANswback   On
 PMode   2 (DOS)     BKsize   1            DNames     200
 EPath               RDials   10           TUrnaround Enter
 VIdeo   EGA/Mono    FLow     ¬S/¬Q        HAndshake  ON
                     LBreak   200

Command?
```

SCENARIO 13: Direct Attach 3161 Calls Remote or LAN - Crosstalk

As soon as the 3161 is connected, it is asked for destination. XTALK will connect it through the service_netname, MODEMS, and the target, XTALKREM, to the remote. Crosstalk will connect through XTALK to anyone on the LAN with a Dial Suffix (DS) of XTALK. The 3161 is connected to port 4 through a null modem.

3161 Setup

Machine mode	IBM 3161
Operating mode	Echo
	Main Port
Interface	RS-232 C
Line Control	PRTS
Line Speed (bps)	1200
Parity	Even
Turnaround Character	CR
Stop Bit	1
Word Length (bits)	7
Response Delay (ms)	100
Break Signal (ms)	17

Select the following parameters:

Enter = Send	Auto LF = Off	Scroll = Off
Return = New Line	Send = Line	Print = Viewpoint
New Line = CR	Send Null = Off	Printnull = On
Tab = Field	Insert = Mode	Print EOL = Off
Line Wrap= Off	Trace = Alt	Line End = CR-LF
	CRT Saver = No	

```
disp     type=status
         refresh_rate=30
         new_page=-19-1bH
con      type=console
         keyboard=unlocked
connect disp  to con

*INCOMING

XTALKS1  type=NETBIOS  orientation=ORIGINATE
         protocol=ACSI nametype=UNIQUE
MODEM1   type=RTICM  orientation=ANSWER
         adapter=0 port=1
         speed=AUTOBAUD parity=ODD  data_bits=7
connect  MODEM1 to XTALKS1

XTALKS4  type=NETBIOS  orientation=ORIGINATE
         protocol=ACSI nametype=UNIQUE
3161     type=RTICM  orientation=ANSWER
         adapter=0 port=4
         speed=1200  parity=ODD  data_bits=7
         asserted_leads=DSR
connect  3161 to XTALKS4

*OUTGOING

XTALKS7  type=NETBIOS  orientation=ANSWER
         protocol=ACSI nametype=UNIQUE
MODEM7   type=RTICM  orientation=ORIGINATE
         adapter=0 port=7
         asserted_leads=DSR
connect  XTALKS7 to MODEM7

********** Request Manager ********************

REQM1   type=REQMGR
  pool=TOREMOTES devices=MODEM7

       netname=MODEMS   nametype=UNIQUE
       target=XTALK  pool=TOREMOTES  phone=86659
       speed=300     parity=ODD      data_bits=7

  service=Crosstalk service_netname=XTALK
  service=XTALK     service_netname=MODEMS  target=XTALKREM
```

Remote Workstation Answering Anyone Calling Its Number At 1200 bps

```
                    ┌─── Crosstalk XVI Status Screen ──┐     Off Line

NAme   REMOTE-ANSWERING                          LOaded  C:ANS-LCS.XTK
NUmber                                           CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 1200 PArity Even  DUplex  Half    DEbug    Off   LFauto   Off
 DAta  7    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Answer  INfilter On    OUtfiltr On

┌──────── Key settings ─────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)   CWait   None
 SWitch Home          BReak   End        LWait   None

┌──────────────── Miscellaneous parameters──────────────────────┐
 DRive   C:              ACcept   Everything PWord
 DPrefix (defaults)      DSuffix  (defaults) APrefix    (defaults)
 PRinter Off             UConly   Off        ANswback   On
 PMode   2 (DOS)         BKsize   1          DNames     200
 EPath                   RDials   10         TUrnaround Enter
 VIdeo   EGA/Mono        FLow     ¬S/¬Q      HAndshake  ON
                         LBreak   200

Command?
```

The DP, DS, and AP parameters default to the modem type defined during setup.

SCENARIO 14: LAN Calls Remote at 1200 bps - YTERM

Hayes 1200 Calls IBM Internal 1200

A Token Ring Network workstation brings up YTERM and calls through LANACS to a remote workstation using Crosstalk. The LANACS server is using COM2 attached to a Hayes 1200 modem.

Token Ring Network Configuration: LCS.CFG

```
disp     type=status
         refresh_rate=30
         new_page=-19-1bH
con      type=console
         keyboard=unlocked
connect disp  to con


*OUTGOING

XTALKS2  type=NETBIOS  orientation=ANSWER
         protocol=EBI  netname=REMOTE
H1200    type=COM      orientation=ORIGINATE
         adapter=COM2
         speed=1200    parity=NONE data_bits=8
         asserted_leads=DSR
connect  XTALKS2 to H1200
```

YTERM Installation

- Do not use EBIOS.SYS in CONFIG.SYS.
- After installing YTERM software in a subdirectory, copy XBIOS.COM into the subdirectory from the LANACS diskette.

YTERM Instructions

1. After LANACS is running on the dedicated server, in order to begin the YTERM session, change to your YTERM subdirectory and enter "XBIOS".
2. Enter "Redirect COM1 to remote". (Remote is the netname in the session definition portion of LCS.CFG). Output to COM1 will be redirected to the session which will be connected to Modem2.
3. To bring up YTERM, enter "T O" if using 7 bit odd parity or "T M" if using 8 bit no parity. Other YTERM defaults for this command will work.
4. Depress the CAPS LOCK key because YTERM has put the keyboard in lower case and you must converse with the modem in upper case.
5. You must be familiar with the command language of your modem. At this point the connection was made between applications. In this example, the following commands were issued to the Hayes 1200 Modem.
   a. "ATE1" (echoes what is keyed in).
   b. "ATV1" (responds in words instead of code).
   c. "ATDT" followed by the phone number.

Crosstalk Screen

Remote Workstation Answering

```
                  ┌─── Crosstalk XVI Status Screen ──┐     Off Line

NAme   ANSWER-YTERM                                  LOaded A:CALL-LCS.XTK
NUmber                                               CApture Off

┌──── Communications parameters ────┐  ┌──── Filter settings ────┐
 Speed 1200 PArity None  DUplex  Full    DEbug    Off   LFauto   Off
 DAta  8    STop   1     EMulate None    TAbex    Off   BLankex  Off
 POrt  1                 MOde    Call    INfilter On    OUtfiltr On

┌──────────── Key settings ─────────────┐  ┌── SEnd control settings──┐
 ATten  Esc           COmmand ETX (¬C)     CWait   None
 SWitch Home          BReak   End          LWait   None

┌──────────────────── Miscellaneous parameters──────────────────────────┐
 DRive   C:              ACcept   Everything   PWord
 DPrefix (IBM defaults)  DSuffix  (defaults)   APrefix    (defaults)
 PRinter Off             UConly   Off          ANswback   On
 PMode   2 (DOS)         BKsize   1            DNames     200
 EPath                   RDials   10           TUrnaround Enter
 VIdeo   EGA/Mono        FLow     ¬S/¬Q        HAndshake  ON
                         LBreak   200

Command?
```

The DP, DS, and AP parameters default to the modem type defined during setup.

Glossary

A

ACSI. Asynchronous Communications Server Interface

AP. Answer Prefix

AT. IBM Personal Computer AT

B

bps. bits per second

D

DOS. Disk Operating System

DP. Dial Prefix

DS. Dial Suffix

DSR. Data Set Ready

E

EBI. Enhanced Basic Input/Output System Interface

L

LAN. Local Area Network

LANACS. Local Area Network Asynchronous Connection Server

M

ms. millisecond

N

NETBIOS. Local Area Network Basic Input/Output System

P

PC. IBM Personal Computer

PCNW. PC Network

PC XT. IBM Personal Computer XT

R

RTIC. Realtime Interface Co-Processor

T

TR. Token Ring

READER'S COMMENT FORM

Local Area Network
Asynchronous Connection Server (LANACS)
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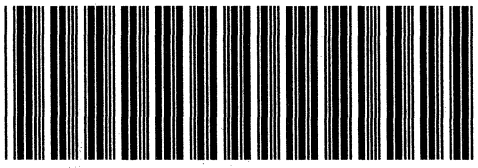

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