

HOW TO: PBX Integration Using Definity G3SI with Exacom FaxPath

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DESCRIPTION

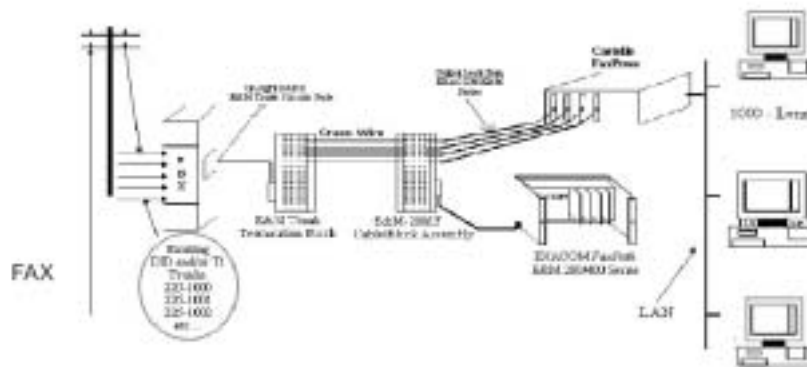
The following information shows you how to integrate your Definity G3SI to FaxPress using the Exacom FaxPath interface.



Application Note: E&M-200 "FaxPath" Series with Castelle FaxPress

DESCRIPTION: "FaxPath" Universal PBX integration interface for use with Castelle "FaxPress" (all versions)

The following diagram shows the connection of the EXACOM Model E&M-200SF "FaxPath" - Universal PBX integration unit which is used to interface the Castelle FaxPress to PBXs such as: ROLM, NorTel, Lucent, NEC, Toshiba, etc. With this integration, existing DID analog trunks, T1 digital trunks or ISDN trunks coming into the PBX can be taken advantage of for inbound fax routing via DID. The following description mentions the TN-760 analog E&M circuit card for purposes of example only. This card is an Lucent product for the Lucent Definity G3 series of PBXs. Other PBXs, such as ROLM, NEC, NorTel, and Toshiba, would use different E&M analog circuit cards.



EXAMPLE of DID Fax Call to a Castelle FaxPress integrated w/PBX via EXACOM E&M-200 "FaxPath":

Please note that the TN-760 E&M circuit card and UDP (Universal Dial Plan) mentioned in the following paragraphs are a Lucent product for Lucent Definity PBXs only and are mentioned for purposes of example only.

1. Joseph Smith is a user on your local area network (LAN) who has been assigned a fax phone number from the block of DID phone numbers associated with your DID trunk(s) or T1 trunk(s). He gives this fax number 555-1818 to his clients.
2. When a client dials this fax number, the telephone company recognizes that the number 555-1818 is one of the DID numbers assigned to your DID trunk(s) or T1 trunk(s). The telephone company goes "off hook" and seizes your DID trunk and transmits the last several digits of the dialed DID number (typically four) via DTMF signaling or Rotary Pulse to your PBX.

3. The PBX collects the DID digits and through programming knows that this is a DID fax number and routes the call to the PBX's E&M analog trunk card and then forwards the DID digits. The PBX E&M port is wired to the EXACOM E&M-200SF "FaxPath" interface unit which stores the incoming DID digits and immediately provides ringing voltage to the Castelle "FaxPress".

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3. The FaxPress card recognizes the ringing and goes "off hook" to answer the ringing line. Once the line is answered the EXACOM E&M-200 "FaxPath" interface transmits (via DTMF signalling) the DID digits it has captured and stored from the PBX. The EXACOM E&M-200 "FaxPath" interface unit now "supervises" to the PBX's E&M trunk card, allowing the in-bound audio path to the FaxPress which connects the calling fax machine to the FaxPress.
5. The Castelle FaxPress accepts the DTMF digits, and then it is up to the FaxPress software process to know who the fax is for (based on the DID digits) and route the fax via LAN/WAN to the desktop PC/workstation that is assigned that fax number.

PBX REQUIREMENTS:

Please note that the TN-760 E&M circuit card and UDP mentioned in the following paragraphs are a Lucent product for Lucent Definity PBXs only and is mentioned for purposes of example only.

1. E&M (TIE Line) analog circuit card. For a Lucent Definity G3 series PBX it would be the TN-760 E&M card. For NorTel Meridian PBX it would be the NT8D15 E&M card, using CDP (Coordinated Dial Plan) software on NT Meridian Options 11, 51, 61, and 81.
2. The PBX needs the ability to route incoming DID calls (based on the DID number), to the PBX's E&M analog trunk card and then forward the DID digits.

NOTE: *There may be several ways to accomplish this routing of DID digits. For example, one way is via a "software overlay" feature called the Universal Dialing Plan (UDP) which is a Lucent PBX feature.*

Note: The *DID fax numbers* assigned to the users on the Local Area Network (LAN) cannot be the same as the user's *DID voice number* (phone extension) because generally PBXs cannot interpret whether the DID call is *data or voice*.

Through PBX programming, the assigned *DID fax numbers* coming into the PBX are routed to the PBX's E&M circuit card. The "DID" digits are then forwarded to the EXACOM E&M "FaxPath" unit which rings the Castelle FaxPress and then forwards the "DID" digits via DTMF in-band signaling. The Castelle FaxPress software uses these DTMF digits to determine which user the fax is for and how to route it via LAN/WAN to the correct desktop PC/workstation.

E&M by definition is *bi-directional*. This means that out-bound faxing (initiated by the Castelle FaxPress) as well as inbound fax routing can now be accomplished by using the E&M-200SF unit. PBX features such as Least Cost Routing (LCR) can now be taken advantage of.

DIP SWITCH CONFIGURATION:

Pos. #1	Pos. #2	Pos. #3	Pos. #4	Pos. #5	Pos. #6	Pos. #7	Pos. #8
UP	UP	UP	DOWN	UP	Not Used	Not Used	Not Used

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E&M JUMPER "TYPE" and 2W/4W CONFIGURATION:

The settings for the E&M Signaling "TYPE" and "2W/4W" on the EXACOM E&M-200SF unit are based on what E&M Type the PBX is.

Note: The E&M-200SF can be configured for 2W/4W E&M signaling trunks, TYPES: 1, 2, 4, & 5

PROVISIONING the EXACOM E&M-200SF "FaxPath" Chassis:

The EXACOM E&M-200SF "FaxPath" unit is a four slot chassis which can contain up to 4 single port E&M-200SF line cards. There is a one-to-one relationship between one E&M port on the PBX's E&M trunk circuit card, EXACOM's E&M-200SF "FaxPath" line card and a port on the Castelle "FaxPress" in the DID in-bound fax routing scheme. The following guideline determine how may EXACOM E&M-200SF "FaxPath" line cards are required for in-bound fax routing:

1. For every fax port (in the Castelle FaxPress) that is to be dedicated to in-bound fax routing, 1 each EXACOM E&M-200SF "FaxPath" line card is required and therefore 1 each port on the PBX's E&M trunk circuit pack is also required.
2. If simultaneous faxing is required, 1 each EXACOM E&M-200SF "FaxPath" line card, 1 each fax port on the Castelle FaxPress, and 1 each port on the PBX E&M trunk circuit pack is required for each number of simultaneous faxes.
3. 1 each installation cable/block assembly (500-0296) is required per E&M-200SF "FaxPath".

Example:

2 simultaneous faxes = 2 each EXACOM E&M-200SF "FaxPath" line cards, **2 each** fax ports on the Castelle FaxPress, and **2 each** ports on the PBX E&M trunk circuit pack.

3 simultaneous faxes = 3 each EXACOM E&M-200SF "FaxPath" line cards, **3 each** fax ports on the Castelle FaxPress, and **3 each** ports on the PBX E&M trunk circuit pack.

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