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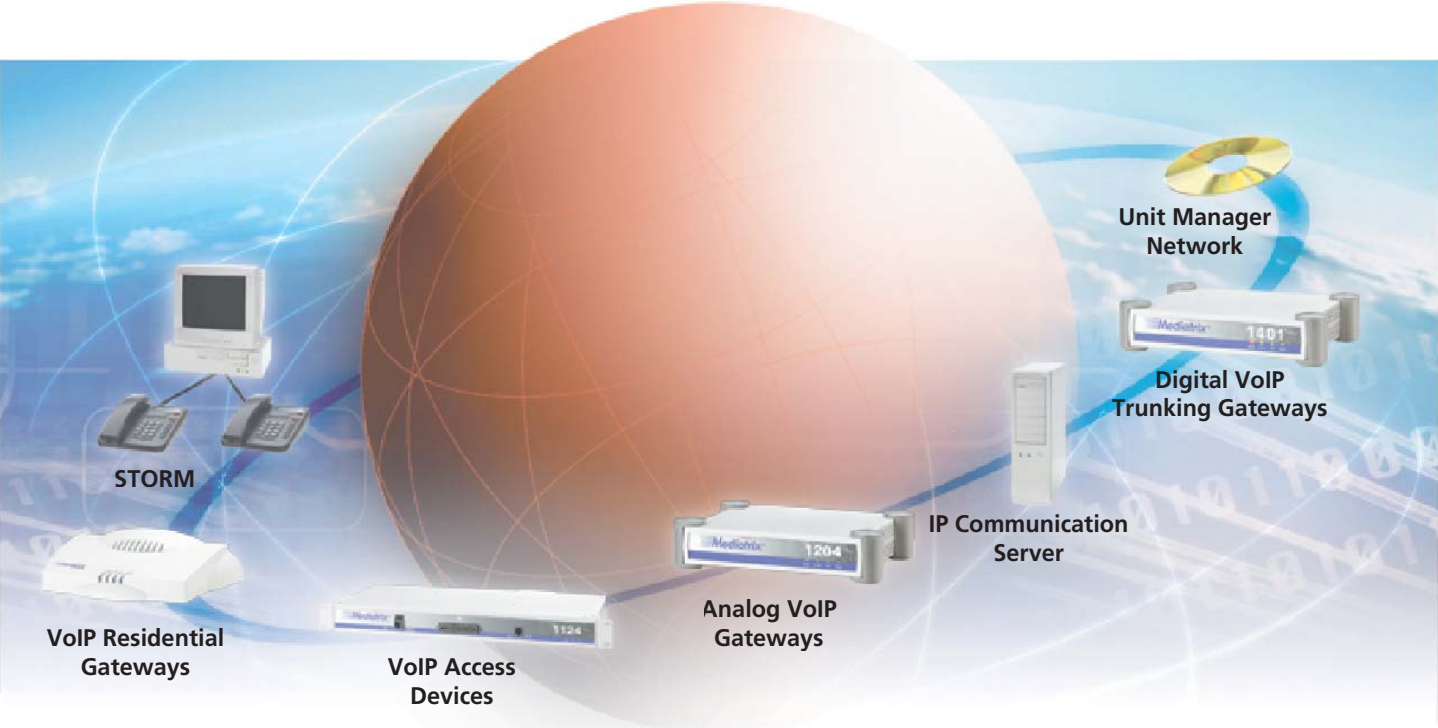

Mediatrix® 1102

Mediatrix 1100 Series

User's Manual

SIP Version

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Mediatrix® 1102 User's Manual (SIP Version)

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PREFACE

P

Introduction

Thank you for purchasing the Mediatrix 1102 from Mediatrix Telecom, Inc.

This manual illustrates some of the various call processes the Mediatrix 1102 supports. It also describes how to make and receive calls, as well as how to use the services the Mediatrix 1102 offers.

Intended Audience

This manual provides all the information needed to use the Mediatrix 1102. It is intended for end-users that will use the product on a regular basis.

Before you Begin

This manual assumes that your Mediatrix 1102 has been properly set up by your system administrator. If you need to install and configure the Mediatrix 1102 yourself, please refer to the *Administration Manual* provided with your Mediatrix 1102 or contact your system administrator.

SCN vs PSTN

In Mediatrix Telecom, Inc.'s and other vendor's documentation, the terms SCN and PSTN are used. A SCN (Switched Circuit Network) is a general term to designate a communication network in which any user may be connected to any other user through the use of message, circuit, or packet switching and control devices. The Public Switched Telephone Network (PSTN) or a Private Branch eXchange (PBX) are examples of SCNs.

Related Documentation

In addition to this Manual, each document set of the Mediatrix 1102 includes the following:

- *Administration Manual*

  Explains how to install and set up the various Mediatrix 1102 parameters. It is intended for a network administrator. The manual is not printed – it is located on the Documentation CD provided with your Mediatrix 1102.

What's New in this Version

- Added safety warnings. See "Safety Warnings" on page xii for more details.
- Added standards compliance statements. See "Appendix A - Standards Compliance" on page 17 for more details.

- *Quick Start booklet*

  This printed booklet allows you to quickly setup and work with your Mediatrix 1102.

- *MIB Reference Manual*

  Lists and explains all parameters in the MIB structure.

Be sure to read any readme files, technical bulletins, or additional release notes for important information.

Overview

The Mediatrix 1102 is an IP Telephony adaptor that connects up to two (2) analog terminals to a LAN or a WAN with access to an IP Packet Network to permit high-quality, full duplex, audio/fax communications. Capable of performing all required IP Telephony tasks in one standalone enclosure, the Mediatrix 1102 offers the same enhanced features present in the Mediatrix Telecom, Inc. line of products, and can be an integral part of a cost-effective IP telephony solution by complementing the existing VoIP infrastructure.

This version of the Mediatrix 1102 uses the Session Initiation Protocol (SIP), which is a protocol for transporting call setup, routing, authentication, and other feature messages to endpoints within the IP domain.

Using this Manual

The following information provides an explanation of the symbols which appear on the Mediatrix 1102 and in the documentation for the product.

Warning: Means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, you must be aware of the hazards involved with electrical circuitry and familiar with standard practices for preventing accidents.

Waarschuwing: Dit waarschuwingssymbool betekent gevaar. U overtreat in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij elektrische schakelingen betrokken risico's en dient u op de hoogte te zijn van standaard maatregelen om ongelukken te voorkomen.

Varoitus: Tämä varoitusmerkki merkitsee vaaraa. Olet tilanteessa, joka voi johtaa ruumiinvammaan. Ennen kuin työskentelet minkään laitteiston parissa, ota selvää sähkökytkentöihin liittyvistä vaaroista ja tavanomaisista onnettomuuksien ehkäisykeinoista.

Attention: Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant causer des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers posés par les circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents.

Warnung: Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu einer Körperverletzung führen könnte. Bevor Sie mit der Arbeit an irgendeinem Gerät beginnen, seien Sie sich der mit elektrischen Stromkreisen verbundenen Gefahren und der Standardpraktiken zur Vermeidung von Unfällen bewußt.

Avvertenza: Questo simbolo di avvertenza indica un pericolo. La situazione potrebbe causare infortuni alle persone. Prima di lavorare su qualsiasi apparecchiatura, occorre conoscere i pericoli relativi ai circuiti elettrici ed essere al corrente delle pratiche standard per la prevenzione di incidenti.

Advarsel: Dette varselsymbolet betyr fare. Du befinner deg i en situasjon som kan føre til personskade. Før du utfører arbeid på utstyr, må du vare oppmerksom på de faremomentene som elektriske kretser innebærer, samt gjøre deg kjent med vanlig praksis når det gjelder å unngå ulykker.

Aviso: Este símbolo de aviso indica perigo. Encontra-se numa situação que lhe poderá causar danos físicos. Antes de começar a trabalhar com qualquer equipamento, familiarize-se com os perigos relacionados com circuitos eléctricos, e com quaisquer práticas comuns que possam prevenir possíveis acidentes.

¡Advertencia!: Este símbolo de aviso significa peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considerar los riesgos que entraña la corriente eléctrica y familiarizarse con los procedimientos estándar de prevención de accidentes.

Varning!: Denna varningssymbol signalerar fara. Du befinner dig i en situation som kan leda till personskada. Innan du utför arbete på någon utrustning måste du vara medveten om farorna med elkretsar och känna till vanligt förfarande för att förebygga skador.

Caution: Caution indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury and/or damage to the equipment or property.

Note: Note indicates important information about the current topic.

Safety Warnings

This section lists the following safety warnings:

- Circuit Breaker (15A) Warning
- TN Power Warning
- Product Disposal Warning
- No. 26 AWG Warning
- LAN Port Warning
- Socket Outlet Warning

Circuit Breaker (15A) Warning

Warning: This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that a fuse or circuit breaker no larger than 120 VAC, 15A U.S. (240 VAC, 10A international) is used on the phase conductors (all current-carrying conductors).

TN Power Warning

Warning: The device is designed to work with TN power systems.

Product Disposal Warning

Warning: Ultimate disposal of this product should be handled according to all national laws and regulations.

No. 26 AWG Warning

Warning: To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.

LAN Port Warning

Warning: Do not connect the LAN port directly to the Public Switched Telephone Network (PSTN), to an off premise application, an out of plant application, any exposed plant application, or to any equipment other than the intended application. Such connection may result in a safety hazard, and/or defective operation and/or equipment damage.

Exposed plant means where any portion of the circuit is subject to accidental contact with electric lighting or power conductors operating at a voltage exceeding 300V between conductors or is subject to lightning strikes.

Socket Outlet Warning

Warning: The socket outlet, if used, shall be located near the equipment and shall be easily accessible by the user.

Safety Recommendations

To insure general safety follow these guidelines:

- Do not open or disassemble this product.
- Do not get this product wet or pour liquids into it.
- Do not perform any action that creates a potential hazard to people or makes the equipment unsafe.

Caution: When using this equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

- Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone to report a gas leak in the vicinity of the leak.

End User Technical Support

In order to maximize technical support resources, Mediatrix Telecom, Inc. works through its partner channels to resolve technical support issues. All end users requiring technical support are encouraged to contact their vendor directly.

CHAPTER 1

Using the Mediatrix 1102

Now that your administrator has properly set up the Mediatrix 1102, you can dial any number on your phone (which is connected to the Mediatrix 1102) and place the call.

However, you should be aware that the administrator has probably set permissions and restrictions regarding local and long distance calls. Should you encounter any calling problem, please discuss it with your administrator to remedy the problem and grant the necessary permissions.

Call Processes

The following examples illustrate some of the various calling processes the Mediatrix 1102 supports. These processes can be adapted at will to suit your needs and requirements.

The Mediatrix 1102 can communicate with the following devices:

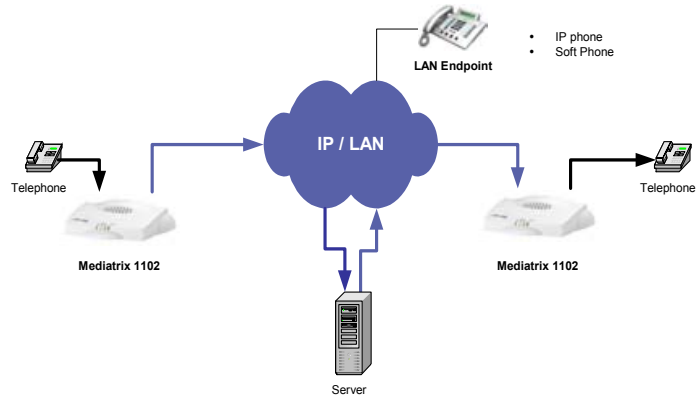
- Another telephone or fax connected to the same Mediatrix 1102.
- Another terminal on the IP network such as the Mediatrix 1104 or Mediatrix 1124.
- Any LAN Endpoint on the IP network such as:
  - a Soft Phone
  - an IP phone directly connected to the IP network
- A SCN phone or fax. However, the Mediatrix 1102 would need to contact an analog gateway such as the Mediatrix 1204.

Calls Involving Another Terminal

The following example illustrates how to reach a phone or fax on another Mediatrix 1102 terminal.

▶ **Phone/Fax -> Mediatrix 1102 A -> Mediatrix 1102 B -> Phone/Fax**

A user makes a call with the phone/fax connected to a Mediatrix 1102, which in turn contacts another Mediatrix 1102, then reaches the corresponding phone/fax.

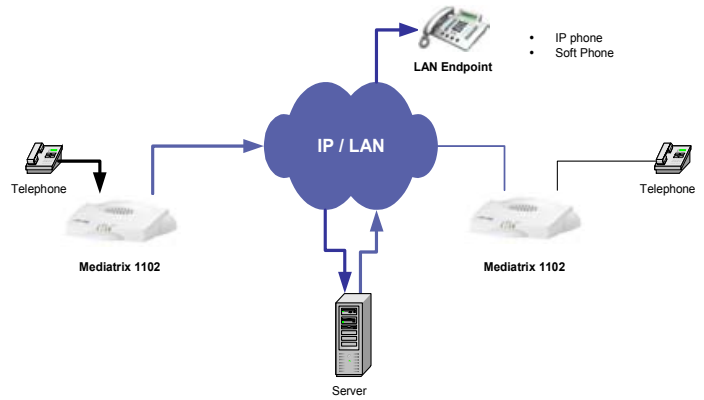


Calls Involving a Terminal and a LAN Endpoint

The following examples illustrate how a phone/fax connected to a Mediatrix 1102 terminal can communicate with a LAN Endpoint on the IP network.

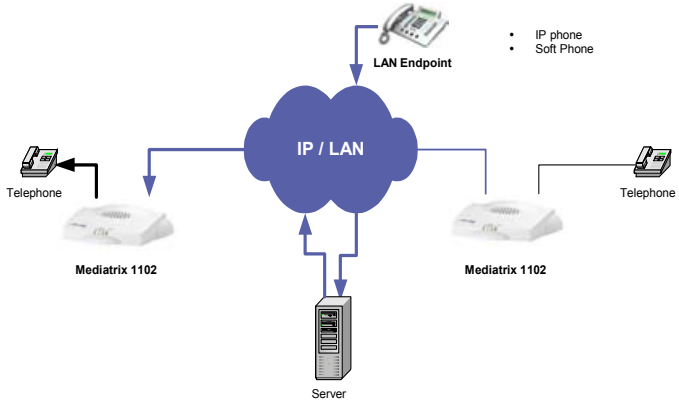
▶ **Phone/Fax -> Mediatrix 1102 -> LAN Endpoint**

A user makes a call with the phone/fax connected to a Mediatrix 1102, which reaches the corresponding LAN Endpoint on the IP network.



▶ LAN Endpoint -> Mediatrix 1102 -> Phone/Fax

A LAN Endpoint contacts the Mediatrix 1102, which reaches the corresponding phone/fax connected to the Mediatrix 1102 terminal.



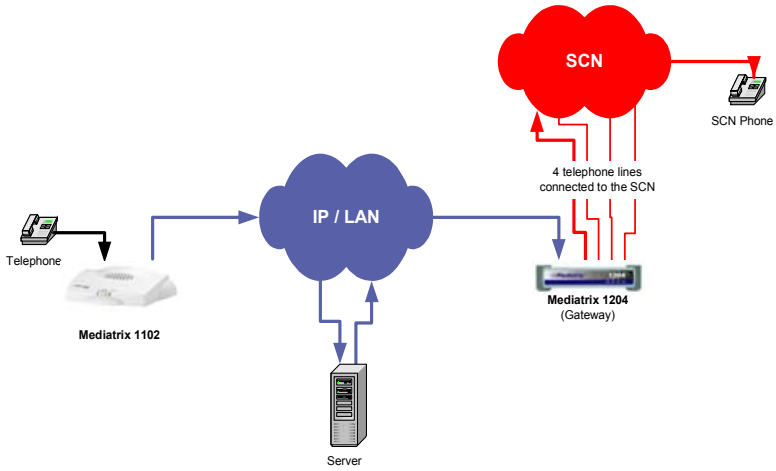
Calls Involving an Analog Gateway

The following example illustrates how a telephone/fax connected to a Mediatrix 1102 terminal and a SCN phone can communicate via an analog gateway.

▶ Phone/Fax -> Mediatrix 1102 -> Mediatrix 1204 (Gateway) -> SCN

A user makes a call with the phone/fax connected to a Mediatrix 1102, which in turn contacts a Mediatrix 1204 gateway, then reaches the corresponding SCN phone.

A SCN user can also contact the Mediatrix 1204 gateway, which in turn contacts the Mediatrix 1102, then reaches the corresponding phone/fax.

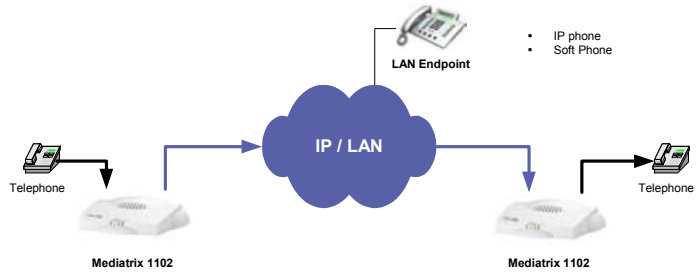


Calls Without a SIP Server

If the Mediatrix 1102 is not configured to register with a SIP Server, you can make SCN to IP network calls by dialing an IP address.

▶ IP Address Call

You can dial another unit (gateway or terminal) without the help of a SIP Server by entering its IP address. See "Dialing an IP Address" on page 6 for more details.



Note: This type of dialing is only possible when the Mediatrix 1102 is configured to allow it. See your network administrator or the *Administration* manual for more details.

Making Calls

Users that have telephones or faxes connected to a Mediatrix 1102 will dial as if they were on a standard telephony system.

Complete Dialing Sequence

There are three ways to indicate the dialed number sequence is complete and the Mediatrix 1102 can dial the number:

- your administrator has set up the dialing process so that you must end your telephone number with a particular character to indicate it is complete, e.g. a "#".
- your administrator has set up the dialing process with a timer. This timer checks the dialing process and, when no further digits have been dialed for 4 seconds, it assumes the number is complete and dials it.
- your administrator has set up the Mediatrix 1102 so it knows exactly how many digits it must collect before it places the call. It finds the number of digits to collect by looking at the first few numbers dialed. For example: a telephone number beginning by 1 should be followed by 10 more digits in North America.

Check with your administrator to determine which dialing process is defined.

Dialing a Telephone Number or Numerical Alias

This section assumes that the Mediatrix 1102 is configured to do SCN emulation. The Mediatrix 1102 could be configured to do any other kind of emulation, thus its users would simply have to dial as if they were using their old system.

▶ **To dial a Standard Call:**

1. Dial the telephone number as if you were using a standard telephone, with country code and area code when required.

   Examples:

   ```
   8298749
   15145701234
   ```

   A Standard Call uses the server to contact the remote dialed user. The server takes the decision as to redirect the call on the SCN or to keep it on the network. Keeping the call on the network takes precedence over redirecting it on the SCN. If the call needs to go on the SCN, the server will redirect it to a proper analog gateway (such as the Mediatrix 1204) that will place the call to the SCN network.

Note: You can dial one star numbers *xx (such as *69). These numbers will be automatically inserted in the Request-URL of the SIP INVITE request.

▶ **To dial a Forced SCN call:**

1. Dial "**".
2. Dial the telephone number as if you were using a standard telephone, with country code and area code when required.

   Examples:

   ```
   **8298749
   **15145701234
   ```

   A Forced SCN Call allows you to specify that the user you want to reach is located on the SCN network. This leaves no decisions to the server; it must find a proper gateway and place the call on the SCN. This option can be useful only when a SCN number is shadowed by a network number.

Note: A forced SCN call will only be possible if an analog gateway such as the Mediatrix 1204 is available on the IP network.

Making an Urgent Call

In case of emergency, you can make 911-style calls to a pre-defined urgent gateway. The emergency number to dial and the address of the urgent gateway have been set up by your network administrator. You should ask for the number that has been set up so you can make emergency calls if required.

Dialing an IP Address

You can dial another Mediatrix 1102 without the help of a SIP server by entering its IP address and the port you want to reach.

▶ **To make an IP address call:**

1. Dial "**" (IP address prefix).
2. Dial the numerical digits of the IP address and use the "*" for the "." of the IP address.
3. Dial "#" to terminate the IP address.
4. Dial the telephone number of the specific port you want to reach.

   For example, let's say you want to reach the telephone connected to Port 2 of the Mediatrix 1102 with the IP address 192.168.0.23. The phone number assigned to Port 2 of this Mediatrix 1102 is 1234. You must then dial the following digits:

   `**192*168*0*23#1234`

   In this case, the Mediatrix 1102 will send an INVITE *1234@192.168.0.23*.

Using Basic Telephony Services

The Mediatrix 1102 offers some basic telephony services.

Call Hold

The Call Hold service allows you to temporarily put an existing call on hold.

This assumes that your system administrator has properly enabled the Call Hold service.

▶ **To put the current call on hold:**

1. Perform a Flash-Hook.

   This will put the call on hold. You can resume the call in the same way.

Second Call

The Second Call service allows you to put an active call on hold, then initiate a new call on the second line. This service is most useful with the transfer and conference services.

This assumes that your system administrator has properly enabled the Second Call service.

▶ **To use the second call service:**

1. Perform a Flash-Hook.

   This will put the call on hold and the second line is automatically connected to your line.

2. Initiate the second call.

Using the Call Waiting Feature

The call waiting feature alerts you if you are already on the phone and a second call happens. A "beep" (the call waiting tone) will be heard and repeated every ten (10) seconds to indicate there is a second incoming call. This assumes that your system administrator has properly enabled the Call Waiting service.

▶ **To put the current call on hold:**

1. Perform a Flash-Hook.

   This will put the call on hold and the second line is automatically connected to your line.

2. Answer the call on the second line.

▶ **To switch from one line to the other:**

1. Perform a Flash-Hook each time you want to switch between lines.

▶ **To terminate the first call before answering the second call:**

1. Hang up the phone.
2. Wait for the phone to ring.
3. Answer the phone.

   The second call is on the line.

Temporarily Removing the Call Waiting Tone

You can temporarily activate/deactivate the call waiting tone indicating a call is waiting. This is especially useful when transmitting faxes. If you are about to send a fax, you can thus deactivate the call waiting tone to ensure that the fax transmission is not disrupted by an unwanted second call. When the fax transmission is completed and the line is on-hook, the call waiting tone is automatically reactivated.

This assumes that your system administrator has properly enabled the Call Waiting Cancel service.

▶ **To deactivate the call waiting tone:**

1. Take the receiver off-hook.
2. Wait for the dial tone.
3. Dial the sequence your system administrator has implemented to deactivate the call waiting tone.

   This sequence could be something like *70.
4. Wait for the transfer tone (three "beeps") followed by the dial tone.

   The call waiting tone is disabled.

▶ **To re-enable the call waiting tone:**

1. Take the receiver off-hook.
2. Replace the receiver on-hook.

   The call waiting tone is re-enabled.

Using the Call Transfer Features

The call transfer features allow you to transfer a current call to any other extension or phone number. There are two (2) types of call transfer features available:

- attended transfer
- blind transfer

Attended Call Transfer

The attended call transfer – (also known as call transfer with consultation) allows you to transfer a current call to any other extension or phone number. The individual at the other extension or phone number must answer to complete the transfer.

This assumes that your system administrator has properly enabled the Attended Call Transfer service.

To transfer a current call attended:

1. Perform a Flash-Hook.

   This will put the call on hold.

2. Wait for the transfer tone (three "beeps").

3. Dial the number to which you want to transfer the call.

   The third party will answer.

4. Hang up your phone.

   The call will be transferred.

5. If you want to get back to the first call (the call on hold), you must perform two Flash-Hooks.

   You are back with the first call and the third party is released.

Note: If the number to which you want to transfer the call is busy or does not answer, quickly perform a Flash-Hook twice. The busy tone or ring tone is cancelled and you are back with the first call.

Blind Call Transfer

The blind call transfer – (also known as call transfer without consultation or unattended) allows you to transfer a current call to any other extension or phone number. The individual at the other extension or phone number does not need to answer to complete the transfer.

This assumes that your system administrator has properly enabled the Blind Call Transfer service.

To transfer a current call blind:

1. Perform a Flash-Hook.

   This will put the call on hold.

2. Wait for the transfer tone (three "beeps").

3. Dial the number to which you want to transfer the call.

4. Wait for the ringback tone, then hang up your phone.

   The call will be transferred. You can also wait for the third party to answer if you want. In this case, the call transfer becomes attended.

5. If you want to get back to the first call (the call on hold), you must perform two Flash-Hooks.

   You are back with the first call and the third party is released.

Using the Call Forward Feature

There are three types of Call Forward:

- Unconditional
- On Busy
- On No Answer

Call Forward Unconditional

The Call Forward – Unconditional feature allows you to forward your calls to another extension or line. When forwarding your calls outside the system, a brief ring will be heard on your phone to remind you that the call forward service is active. You can still make calls from your phone.

This assumes that your system administrator has properly enabled the Call Forward – Unconditional service.

To forward calls:

1. Take the receiver off-hook.

2. Wait for the dial tone.

3. Dial the sequence your system administrator has implemented to activate the call forward – unconditional service.

   This sequence could be something like *70.

4. Wait for the transfer tone (three "beeps") followed by the dial tone.

5. Dial the number to which you want to forward your calls.

   Dial any access code if required.

6. Wait for three "beeps" followed by a silent pause.

   The call forward is established.

7. Hang up your phone.

   The calls are checked against the digit maps set up by your system administrator. See your system administrator for more information.

▶ **To check if the call forward has been properly established:**

1. Take the receiver off-hook.
2. Wait for the dial tone.
3. Dial your extension or phone number.

   The call is forwarded to the desired phone number.

4. Hang up your phone.

▶ **To cancel the call forward:**

1. Take the receiver off-hook.
2. Wait for the dial tone.
3. Dial the sequence your system administrator has implemented to deactivate the call forward – unconditional service.

   This sequence could be something like *70.

4. Wait for the transfer tone (three "beeps") followed by the dial tone.

   The call forward is cancelled.

5. Hang up your phone.

Call Forward on Busy

The Call Forward – On Busy feature allows you to forward your calls to a pre-determined extension if you are already on the line.

This assumes that your system administrator has properly enabled the Call Forward on Busy service.

▶ **To forward calls:**

1. Take the receiver off-hook.

2. Wait for the dial tone.
3. Dial the sequence your system administrator has implemented to activate the call forward on busy service.

   This sequence could be something like *70.
4. Wait for the transfer tone (three "beeps") followed by the dial tone.
5. Dial the number to which you want to forward your calls.

   Dial any access code if required.
6. Wait for three "beeps" followed by a silent pause.

   The call forward is established.
7. Hang up your phone.

   The calls are checked against the digit maps set up by your system administrator. See your system administrator for more information.

▶ **To cancel the call forward:**

1. Take the receiver off-hook.
2. Wait for the dial tone.
3. Dial the sequence your system administrator has implemented to deactivate the call forward on busy service.

   This sequence could be something like *70.
4. Wait for the transfer tone (three "beeps") followed by the dial tone.

   The call forward is cancelled.
5. Hang up your phone.

Call Forward on No Answer

The Call Forward – On No Answer feature allows you to forward your calls to a pre-determined extension if you do not answer before a specific amount of time. This amount of time has been set up by your system administrator.

This assumes that your system administrator has properly enabled the Call Forward on No Answer service.

▶ **To forward calls:**

1. Take the receiver off-hook.

2. Wait for the dial tone.
3. Dial the sequence your system administrator has implemented to activate the call forward on no answer service.

   This sequence could be something like *70.
4. Wait for the transfer tone (three "beeps") followed by the dial tone.
5. Dial the number to which you want to forward your calls.

   Dial any access code if required.
6. Wait for three "beeps" followed by a silent pause.

   The call forward is established.
7. Hang up your phone.

   The calls are checked against the digit maps set up by your system administrator. See your system administrator for more information.

▶ **To cancel the call forward:**

1. Take the receiver off-hook.
2. Wait for the dial tone.
3. Dial the sequence your system administrator has implemented to deactivate the call forward on no answer service.

   This sequence could be something like *70.
4. Wait for the transfer tone (three "beeps") followed by the dial tone.

   The call forward is cancelled.
5. Hang up your phone.

Conferencing Calls

A conference call between two or more parties can be set up.

Note that:

- Only 3-way conferences are supported.
- It is possible for any participant of the conference to put the conference on hold and make other calls. This participant may then rejoin the conference at a later time by unholding it. It is not possible for the participant that has initiated the conference to put the conference on hold.

This assumes that your system administrator has properly enabled the Conference service.

Requirements

For the conference call to occur succesfully, all parties must meet the following requirements:

- Support at least one of the PCM codecs (G.711 µ-law and G.711 A-law) enabled on the port that is having the conference.
- Ability to dynamically change codec during a call.

Managing a Conference Call

If you are on the phone with one person and want to conference with a third one, you can do so. In the following examples, let's assume that:

- A is the conference initiator.
- B is the person called on the first line.
- C is the person called on the second line.

To initiate a three-way conference (A and B already connected):

1. A performs a Flash-Hook.

   This will put B on hold and the second line is automatically connected. A hears a dial tone.

2. A dials C's number.

   A and C are now connected.

3. A performs another Flash-Hook.

   The call on hold (B) is reactivated. A is now conferencing with B and C.

▶ **A wants to transfer B to C during the conference:**

1. A hangs up.

   The conference is terminated. B and C are now connected.

▶ **A wants to terminate the call with C and get back to the call with B during the conference:**

1. A performs a Flash-Hook.

   The conference is terminated and the call with C is disconnected. A and B are still connected and can go on with their conversation.

▶ **B (or C) hangs up during the conference:**

1. B (or C) hangs up during the conference.

   The conference is terminated, but the call between A and C (or B) is not affected and they are still connected.

Using the Automatic Speed Dialing

When using the automatic speed dialing, a specific number is automatically dialed upon taking the receiver off hook. This number has been set up by your system administrator.

APPENDIX A

Standards Compliance

This Appendix lists the various standards compliance of the Mediatrix 1102.

Standards Supported

The Mediatrix 1102 complies to the following standards:

Table 1: Standards Compliance

Category	Specification
Agency approvals	• cULus • European Union, CE mark (Declaration of Conformity)
Safety standards	• UL60950 3rd Edition (2000) • CAN/CSA-C22.2 No. 60950-00 • IEC 60950 (3rd Edition (1999) with all national deviation)
Emissions	• FCC (47 CFR Part 15) Subpart B 1994 Class B • EN55022 (1994) Class B • AS/NZS 3548:1995 Class B • EN61000-3-2 Harmonic current emissions • EN61000-3-3 Voltage fluctuations and flicker
Immunity	EN55024:1998 including the following: • EN61000-4-2, ESD • EN61000-4-3, Radiated RF • EN61000-4-4, Burst Transients • EN61000-4-5, Surge • EN61000-4-6, Conducted RF • EN61000-4-11, Voltage Dips and Interruptions

Note: The standards compliance of the Mediatrix 1102 are printed on a sticker located on the bottom of the unit.

Disclaimers

The following are the disclaimers related to the Mediatrix 1102.

Federal Communications Commission (FCC) Part 15

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

Note: Any changes or modifications not expressly approved by Mediatrix Telecom, Inc. could void the user's authority to operate the equipment.

CE Marking

DECLARATION OF CONFORMITY

We Mediatrix Telecom, Inc. located at 4229 Garlock st. Sherbrooke, Québec, Canada J1L 2C8 declare that for the hereinafter mentioned product the presumption of conformity with the applicable essential requirements of DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT (RTTE DIRECTIVE) is given.

Any unauthorized modification of the product voids this declaration.

For a copy of the original signed Declaration Of Conformity please contact Mediatrix Telecom, Inc. at the above address.

APPENDIX

B Glossary

Area Code The preliminary digits that a user must dial to be connected to a particular outgoing trunk group or line. In North America, an area code has three (3) digits and is used with a NXX (office code) number. For example, in the North American telephone number *561-955-1212*, the numbers are defined as follows:

Table 2: North American Numbering Plan

No.	Description
561	Area code, corresponding to a geographical zone in a non-LNP (Local Number Portability) network.
955	NXX (office code), which corresponds to a specific area such as a city region.
1212	Unique number to reach a specific destination.

Outside North America, the area code may have any number of digits, depending on the national telecommunication regulation of the country. In France, for instance, the numbering terminology is defined as *xZABPQ 12 34*, where:

Table 3: France Numbering Plan

No.	Description
x	Operator forwarding the call. This prefix can be made of 4 digits.
Z	Geographical (regional) zone of the number (in France, there are 5 zones). It has two (2) digits.
ABPQ	First 4 digits corresponding to a local zone defined by central offices.
12 34	Unique number to reach a specific destination.

In this context, the area code corresponds to the *Z* portion of the numbering plan. Since virtually every country has a different dialing plan nomenclature, it is recommended to identify the equivalent of an area code for the location of your device.

Country Code (CC) In international direct telephone dialing, a code that consists of 1-, 2-, or 3-digit numbers in which the first digit designates the region and succeeding digits, if any, designate the country.

Dual-Tone Multi-Frequency (DTMF) In telephone systems, multi-frequency signaling in which a standard set combinations of two specific voice band frequencies, one from a group of four low frequencies and the other from a group of four higher frequencies, are used. Although some military telephones have 16 keys, telephones using DTMF usually have 12 keys. Each key corresponds to a different pair of frequencies. Each pair of frequencies corresponds to one of the ten decimal digits, or to the symbol "#" or "*", the "*" being reserved for special purposes.

Dynamic Host Configuration Protocol (DHCP) TCP/IP protocol that enables PCs and workstations to get temporary or permanent IP addresses (out of a pool) from centrally-administered servers.

Flash-Hook Quickly depressing and releasing the plunger in or the actual handset-cradle to create a signal to a PBX or Centrex that special instructions will follow such as transferring the call to another extension.

Gateway A device that links two different types of networks that use different protocols (for example, between the packet network and the Public Switched Telephone Network).

Internet Protocol (IP) The IP protocol is a standard describing software that keeps track of the Internet's addresses for different nodes, routes outgoing messages, and recognizes incoming messages.

Light Emitting Diode (LED) A semiconductor diode that emits light when a current is passed through it.

Local Area Network (LAN) Data-only communications network confined to a limited geographic area, with moderate to high data rates. Contrasts with WAN.

Network A group of two or more computer systems that are linked.

Off-hook A line condition caused when a telephone handset is removed from its cradle.

On-hook A line condition caused when a telephone handset is resting in its cradle.

Packet Group of bits transmitted as a complete package on a packet-switched network.

Port Network access point, the identifier used to distinguish among multiple simultaneous connections to a host.

Private Branch Exchange (PBX) A small to medium sized telephone system and switch that provides communications between onsite telephones and exterior communications networks.

Protocol Defines a common set of rules and signals that computers on the network use to communicate.

Public Switched Telephone Network (PSTN) The local telephone company network that carries voice data over analog telephone lines.

Server A computer or device on a network that works with a client to perform some operation.

Session Initiation Protocol (SIP) SIP is a protocol for transporting call setup, routing, authentication, and other feature messages to endpoints within the IP domain.

Simple Network Management Protocol (SNMP) SNMP is the protocol governing network management and the monitoring of network devices and their functions.

Switched Circuit Network (SCN) A communication network, such as the Public Switched Telephone Network (PSTN), in which any user may be connected to any other user through the use of message, circuit, or packet switching and control devices.

T.38 An ITU-T Recommendation for Real-time fax over IP. T.38 addresses IP fax transmissions for IP-enabled fax devices and fax gateways, defining the translation of T.30 fax signals and Internet Fax Protocols (IFP) packets.

Telephony The science of translating sound into electrical signals, transmitting them, and then converting them back into sound.

Terminal Device capable of sending or receiving data over a data communications channel.

Transmission Control Protocol/Internet Protocol (TCP/IP)	A suite of communications protocols developed by the Department of Defense in the 1970s that connects hosts on the Internet and provides the standards for transmitting data over networks.
Trivial File Transfer Protocol (TFTP)	Allows for transferring files (such as software upgrades) from a remote device.
Voice Over IP (VoIP)	The technology used to transmit voice conversations over a data network using the Internet Protocol. Such data network may be the Internet or a corporate Intranet.
Wide Area Network (WAN)	A computer network where the computers are not geographically close and are linked by telephone lines or radio waves.

APPENDIX C

List of Acronyms

AWG	American Wire Gauge
CE	Cummunauté européenne (French)
DHCP	Dynamic Host Configuration Protocol
DTMF	Dual-Tone Multi-Frequency
IP	Internet Protocol
ITU	International Telecommunication Union
LAN	Local Area Network
LED	Light Emitting Diode
PBX	Private Branch eXchange
PCM	Pulse Code Modulation
PSTN	Public Switched Telephone Network
SCN	Switched Circuit Network
SIP	Session Initiation Protocol
SNMP	Simple Network Management Protocol
TCP/IP	Transmission Control Protocol/Internet Protocol
TFTP	Trivial File Transfer Protocol
UL	Underwriters Laboratories Incorporated
VoIP	Voice over Internet Protocol
WAN	Wide Area Network

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Manual Name: *Mediatrix 1102 User's Manual (SIP Version)*
Software Version: 4.3 Revision: G Date: January 14, 2003

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