i-Message™

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Glossary

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PREFACE

Company Liability

The information in this manual has been carefully compiled and checked for technical accuracy. Multitone Electronics plc accepts no liability for inaccuracies or errors.

In line with the company policy of technical advancement, the information within this document may change. The user must ensure that the correct issue of the manual is available.

Should the i-Message release version in operation at a client site differ from the i-Message release version covered by this manual, then please check with Multitone; Release Notes might have been produced that supersede parts of this manual.

About this Document

This document is a glossary of terms and definitions relating to the Multitone i-Message product.

i-Message Documents

Part No	Title
9261-8753	*i-Message Installation Guide*
9261-8754	*i-Message Operator's Guide*
9261-8755	*i-Message Administrator's Guide*
9261-8756	*i-Message Glossary*
9261-8906	*i-Message Configuration Guide*

Conventions Used in this Document

The term 'Multitone' refers to Multitone Electronics plc.

The term 'i-Message' refers to the Multitone i-Message™ product.

Except where otherwise indicated, the term 'i-Message' can refer to:

- Multitone i-Message, as used from a touch-screen System Control Unit (SCU)
- Multitone i-Message, as accessed from a web browser on a PC or laptop

Italics are used for linked cross-references within this document.

Bold italics are used for references to other manuals in the Multitone i-Message document set. For example: See ***i-Message Operator's Guide***.

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Windows is a registered trademark of the Microsoft Corporation.

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Third-Party Components

Third-party components are distributed with, used by, or integrated into, the i-Message communications system. These components are listed — along with related copyright notices and licence agreements — in the *Third Party Licences* file delivered with i-Message.

Browsers

Multitone recommends the use of the Mozilla Firefox browser with i-Message.

i-Message has been designed for use with the Mozilla Firefox browser. Multitone cannot support the use of other browsers with i-Message, except for Google Chrome version 9.0 or later.

Technical Support

Multitone provides a dedicated support service for our customers, dealers, and partners.

To use the online support site, you must have pre-registered with Multitone.

To access this service, go to http://www.multitone.com/login.php for the support site page, enter your username and password, then click Submit.

Otherwise, to contact Multitone support, please telephone 08451 849901 or send an Email to supportdesk@multitone.com.

Sales Enquiries

For all sales enquiries, go to http://www.multitone.com/ and then click Contact us.

Feedback

Your comments on this document are welcome. Please convey your comments to supportdesk@multitone.com and put 'Doc Feedback' in the Subject line.

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LIST OF TERMS AND DEFINITIONS

Absence Registration

An i-Message user can be registered absent on the system by one of four methods:

- by an operator from the System Control Unit (SCU)
- by any person from a telephone
- by putting the user's pager in an absence/charging rack
- automatically via shift schedule

Absent

See *Absence Registration*.

Access 3000

The legacy system that i-Message has been designed to replace. Access 3000 is a telecoms and radio solution that provides a control system for paging.

Action

Any response due to an event, or to an event trigger (where i-Message is awaiting a further event).

ADU

See *Audio Distribution Unit*.

Alarm Status

There are two distinct alarm statuses that are indicated by a colour.

Status		Meaning
Yellow	Acknowledged and Active	The alarm has been triggered and someone on the system has acknowledged that they will attend to the alarm event, but the alarm is not yet cleared.
Red	Active	The alarm has been triggered/activated due to the definition of the event and has had no action marked against it.

Alpha

See *Central Fast Alpha Messages* or *Receiver Fast Alpha Messages*.

Asterisk

An open-source software implementation of a telephone private branch exchange (PBX). Like any PBX, it allows attached telephones to make calls to one another, and to connect to other telephone services including the public switched telephone network (PSTN) and Voice over Internet Protocol (VoIP) services using the Session Initiation Protocol (SIP).

In i-Message, it provides the main Voice over Internet Protocol (VoIP) services, including extension plans, voice prompts, speech calls, call setup, and routing and recording functions. Asterisk also enables i-Message to communicate with SIP-based PBXs (trunk connection) and clients attached to these. See also *SIP*.

Audio Distribution Unit (ADU)

The ADU connects multiple remote transmitter sites to a single encoder by amplifying a 600ohm audio input and distributing it to up to six 600ohm audio outputs. Alternatively ADU can be used to connect up to six Line Synchronised Slave Transmitters to one Master Transmitter. ADUs may be cascaded to increase the number of sites.

Automatic Messaging

Calls to receiving devices can be initiated automatically by using the EventActionModule with several events triggered; for example, closing contacts known as *Direct Line Contacts* (DLC), Email or SMS messages received from a device, raised alarms, or scheduled events (equipment and paging tests).

Calls to receiving devices can be followed by an operator-generated speech message by displaying the appropriate message on the SCU.

Backup

The process of archiving the i-Message database in a format that will allow it to be restored back as a database or used to troubleshoot problems.

Beep Codes

A beep code relates to the audible tone patterns on a receiver.

There are up to eight possible beep codes on the i-Message system.

Note: a ‘Beep’ is half a second, whereas a ‘Pip’ is an eighth of a second in duration.

Beep codes are:

1	Triple Beep
2	Single Beep
3	Double Beep
4	Continuous Beep
5	Triple Pip
6	Single Pip
7	Double Pip
8	Continuous Pip
9	Silent; not for public knowledge.

Call Acknowledgement

The ability to respond to a call. Any device that is able to respond to a call — such as a two-way pager, SMS text, DECT, Wi-Fi, or Email — can send a confirmation receipt back to the i-Message system, which is then logged on the call logger.

Please note not all calls require acknowledgement.

i-Message can be configured to prompt recipients for a response within the message. If the recipient fails to respond, i-Message will call again until a response is elicited; if no response is received an alarm will be raised, and this allows the call to be escalated through an agreed response protocol.

If standard one-way pagers are used, i-Message supports the capability for the call to be acknowledged through the telephone system by entering a PIN code. This tells i-Message the call has been acknowledged and identifies the recipient. This information is then collected in the call logger. This feature is particularly useful where test team calls are required.

Call Transfer

A user can appoint a deputy to whom their calls will be automatically transferred while they are registered absent. See *Absence Registration*.

A call transfer chain of up to seven users can be configured depending on the system parameters. The last user can be transferred back to the first. To prevent infinite loops, if a message has not been resolved after seven steps, it will not be sent and an error will be logged.

Call Verification Unit (CVU)

The process of independent call monitoring of Multitone MK6, MK7, and POCSAG paging calls.

The unit is a receiver, designed to provide independent call verification that a call has been sent. This received data is sent back to i-Message. i-Message will compare the received message with the original message sent, determine whether the call was successful, and annotate it in the call logs.

If a fault is detected, i-Message will attempt to send a call three times. If failure continues to be reported, an automatic alarm is raised along with the appropriate escalation.

Call verification provides an additional level of confirmation to check that the call is successful and to detect faults.

Canned Message

Pre-recorded speech message that can be sent as an alternative to other message options.

Canned Voice Recording

The process of recording a canned message. The Recording function allows a user to record a voice message and save it. The recorded message becomes a system-selectable message for any user to use as a canned speech message. This avoids the need for a new message each time a call is made.

Cap Codes

See *POCSAG* and *Receiver Address*.

CCP

The CCP (Central Communications Processor) is an i-Message component that will process data and send it to the relevant Destination, whether it is a User Agent (UA) or another system via a Message Transfer Agent (MTA).

Central Fast Alpha Messages

The i-Message system can store thousands of alphanumeric messages. Each message can be up to 60 characters long.

The first character of a CFA message must be a letter. For example, “Message Code 01”, or “Cardiac Arrest”.

See also *Receiver Fast Alpha Messages*.

CFA

See *Central Fast Alpha Messages*.

Cloud

i-Message cloud. See *Primary Master and Primary Solo* and *Secondary Backup*.

Configuration

i-Message configuration defines how the system behaves; this covers everything from initial connection to what should happen when an event occurs.

The configurable parts of i-Message include agents, telephone items, user types, scheduled events, and the linking of events to actions.

Engineers perform configuration tasks from the Config tab in the i-Message user interface.

CVU

See *Call Verification Unit*.

Databases

An i-Message server hosts a number of databases:

Contacts database	Can be queried for i-Message user and team contact information.
Log database	The i-Message activity log.
Configuration database	The i-Message system configuration.
Event/Action database	Contains all i-Message events, rules, triggers, and actions.

DECT

Digital Enhanced Cordless Telecommunications

A digital, wireless technology whereby a wireless server and a series of radio basestations are wired back (analogue) or connected (IP) to the host telephone system.

DECT cordless handsets provide voice telephony to wireless basestations and the host telephone system.

Destination

The location to which a message is sent. For example, it might be a paging call sent to a pager (destination) or a system fault status to a Network Manager (destination).

Device

This is a receiving device that will allow data (that is, voice, text, or data) to be sent to display or audio outputs. Devices include pagers, Email, alarms, and mobile phones.

Device Identifier

The actual address of the device, such as a phone number, IP address, Email address, or pager RIC number. The precise meaning depends on the *Device Type*.

Device Type

This will define what the device is on the system; for example, SCU, Pager - Mark 7 (512 baud), Pager – Mark 6, DLC Input, Alarm, and so on.

Direct Line Contacts

An electrical contact such as a doorbell, an alarm panel, a fridge door, a nurse-call system, or any applicable contact where a relay is present.

On some systems, operation of a DLC not only activates an automatic paging call but also activates a DLC output line; for example, when a doorbell is pushed, a paging call is initiated which activates a DLC output line to turn a floodlight on.

DLC

See *Direct Line Contacts*.

Download

An option to download a file containing previous versions of the database, so allowing the file to be archived or used on another system.

Email

Email users are able to send and receive Emails to and from the i-Message system.

ESPA

See *RS232 Protocols*.

Event

Any incoming message that is configured to cause a change to the i-Message EventActionModule.

EventActionModule

The part of i-Message that matches an event to one or more user-configurable actions.

Engineers access the EventActionModule from the Config tab in the i-Message user interface.

Export

An option to take the user and/or team database entries from the online database, and save these to a file that can either be archived or applied to a different system configuration.

See also *Import*.

Format Groups

A group of 10 or 100 pagers of the same receiver type having a common 1 or 2 digit receiver number.

Some Multitone digital code formats allow groups of pagers with sequential receiver numbers to be paged simultaneously For example, pagers 100-109 comprise a group of ten whose format group number is `10-`, whereas pagers 200-299 comprise a group of one hundred whose format group number is `2--`.

Each format group is classed as a single member within a Team Record. See examples below:

1-digit format group

To enter a format group of up to 100 receiver numbers, type in a single number group digit, such as 2. This will allow you to call all receiver numbers from 200 to 299; that is, 100 receivers. See examples below:

Type Group Digit	These Receiver Numbers Will Be Called As A Single Team
0	000 to 099
1	100 to 199
2	200 to 299

2-digit format group

To enter a format group of up to 10 receiver numbers, type in a two number group digit, such as 30. This will allow you to call all receiver numbers from 300 to 309; that is, 10 receivers. See examples below:

Type Group Digits	These Receiver Numbers Will Be Called As A Single Team
00	000 to 009
02	020 to 029
30	300 to 309

GD92

UK Home Office-defined interface and protocols that form an important part of Multitone's existing fire service command and control communications infrastructure products. i-Message's CCP implementation uses GD92 to provide familiar and proven functionality and resilience.

GSM

See *Private GSM*.

i-Message

A secure, integrated paging and messaging system that supports multiple devices across multiple sites.

The i-Message server is connected to the CCP, using the GD92 protocol via a LAN MTA.

VoIP phones, SIP PABXs, and devices on the Multitone i-Message network that support the web browser interface, are connected locally to the i-Message server via a LAN connection. All other devices on the Multitone i-Message network are connected via a LAN connection to the CCP. For devices (such as paging transmitters) that do not support a LAN connection, an LPI is used to perform the conversion to a LAN interface.

Import

A backup option to load a file containing exported data from a different database containing users and/or teams, and apply this to the live system database.

See also *Export*.

IP Takeover

See *Secondary Backup*.

ITI (Intelligent Transmitter Interface)

The ITI interfaces a transmitter to 600ohm audio lines, splitting control signals and data from the audio and also using the return path to report back the status of the transmitter. One ITI is required for each transmitter.

Log

The Log tab in the i-Message user interface shows log entries for all paging and voice calls within i-Message, as well as system information and all events with their associated actions that are triggered.

Entries in the log are categorised by their level of importance.

LPI

Multitone LAN Peripheral Interface.

A network-connected device that allows serial and other non LAN-compatible devices (such as absence rack, CVR, and ADU) to connect to i-Message via the LAN network. Each port on the LPI has its own network port which allows i-Message to connect to the specific port via the LPI's IP address.

LPI provides a bridge from i-Message TCP/IP to the various legacy physical connections that i-Message must support. Physical connections supported are RS232, RS485, logic-level inputs and outputs, and audio in each direction.

Message Length

The length of a text message depends on the receiving device. Message length is typically shorter for text messages to mobile phones.

Message Sequence Number

Each text message sent to a mobile user and/or a pager has a message sequence number prepended to the front of the message. This number is incremented for each message sent to that specific user (starting from 00, 01, 02, and so on). When the counter has reached 99, it is reset back to 00.

For text messages sent to teams, see *Team Message*.

Message Transfer Agent (MTA)

Used to send GD92 messages across multiple bearer types in the i-Message system.

MTAs form a subset of *User Agents*.

Message Type

The type of message that devices can receive. Message types are: Tone, Numeric, Alpha, and Voice.

MK6 pagers can receive Tone and Numeric message types only.

POCSAG cannot receive Voice but can receive all other types.

MK7 can receive all message types.

Kenwood can receive all message types, but text is limited to 48 characters.

When creating a team, you must ensure that the device types of the devices included in the team are able to receive the appropriate message types.

Messaging Format

To send a message to a user (for example, a mobile phone user sends an SMS to the i-Message SMS number), there are two possible message formats:

- <user number><whitespace><message>

  For example: `1005 Please call Richard`

- <first name><whitespace><last name><whitespace><message>

  For example: `Richard Smith Please call Path Lab`

See also *User Number*.

MIP

See *RS232 Protocols*.

MK6

A paging protocol.

MK6 has a 5-digit *Receiver Address*.

i-Message supports up to 100,000 MK6 users.

MK7

A paging protocol.

MK7 has a 5-digit *Receiver Address* (using system number 0, 1, 2 or 3 as the first digit).

i-Message supports up to 40,000 MK7 users.

The MK7 Receiver Address combines the System Address (which is programmed using the pager configuration) and the Receiver Number (which has to be known by the operator when creating a user).

MSP (Scope)

See *RS232 Protocols*.

MTA

See *Message Transfer Agent*.

MySQL Database

An open-source relational database management system. In i-Message, MySQL runs as a server providing multi-user access to a number of databases.

Pager

An output device that receives radio data in a MK6, MK7, POCSAG, or EIA 2-Tone format.

Paging

A procedure to transmit data and voice over radio frequencies to devices receiving on the same radio frequency. Such a device can either display the data in text format or play the recorded voice data through the device's audio output.

Password

The keyword used to access an i-Message user account.

PBX

Private Branch Exchange. A telephone exchange that serves a particular site.

In i-Message, the PBX module provides voice services on a per-site basis. These services encompass a multi-lingual voice prompt system and more general telephony services.

PIN

A type of numeric password used to provide extra security when accessing the system via a telephone device.

If used, an i-Message PIN must be between 3 and 6 numeric characters in length.

Pip

A receiver tone pattern that is an eighth of a second in duration. See *Beep Code*.

POCSAG

Post Office Code Standardisation Advisory Group (CCIR1). An asynchronous paging protocol used to transmit data to pagers.

POCSAG has a 7-digit *Receiver Address*.

i-Message supports up to 2,000,000 POCSAG users.

Note: POCSAG addresses are generally known as cap codes. In i-Message, cap codes are known specifically as RICs.

POSP

Private Off-Site Paging. A time division multiplex protocol for POCSAG paging which allows transmitters to transmit only during certain timeslots.

Primary Master and Primary Solo

i-Message as a solution is defined as follows:

i-Message cloud:	Comprises multiple i-Message systems.
i-Message system:	Each i-Message system supports one server cluster.
i-Message server cluster:	Supports up to four servers running on the same IP subnet.

For each i-Message cloud the master system is defined. This is referred to as the **Primary Master**. Any additional systems linked to the Primary Master are **Primary Solo** systems. There is no limit to the number of Primary Solo systems that the Primary Master system will support. The Primary Master and Primary Solo systems support up to four servers: the primary server, secondary server, and two back-up servers. This is referred to as an i-Message **server cluster**.

There is one Primary Master per i-Message cloud. Any additional systems located on the same site, or on satellite sites, must be nominated as Primary Solo systems.

All i-Message database transactions are resolved by the Primary Master. A transaction might be the creation or editing of a user record, or any database conflicts. Once a transaction is completed or a database conflict is

resolved, it is then copied from the Primary Master to the Primary Solo systems. This process ensures that all databases are synchronised across the i-Message cloud.

If the IP link between the Primary Master and Primary Solo systems fails, no database transactions can be executed until the link between the systems has been restored. However, i-Message systems will continue to operate independently in terms of sending and receiving calls during this time. Furthermore, the satellite site will not be able to modify any data in the i-Message cloud until the synchronisation between sites has been restored, although the Primary Master system will continue to operate as normal.

Private GSM

In addition to paging, i-Message has been designed to support a micro-cellular GSM network, allowing the system to support both voice and data communication through a single handset. i-Message GSM capability supports both user and team calling with the addition of full call acknowledgement. The system is designed as a private GSM network and therefore specifically supports time-critical, fault-tolerant messaging. The same services can be provided via a third-party system/network, but this would not resolve coverage, security and reliability issues.

i-Message GSM supports GSM, GPRS and Edge operating at 200mW. It is a low-power GSM solution, making it safe to use in the vicinity of medical equipment. The system can be specifically designed for either voice or data applications, or a mixture of both.

The design will determine system capacity with respect to size and complexity. If the system is designed for a high data/low voice capacity, the number of base stations required can be minimized. For a GSM device to operate on the system, separate SIM cards will be required. The great benefit of this aspect of the i-Message system is that all GSM calls operating within the system coverage area are free and that the GSM community using the system can be limited to high priority users.

i-Message GSM will also provide a link to a customer's PBX (provided that SIP is supported) enabling calls to be sent to a GSM device from any telephone within the organisation. It enables the responder to immediately acknowledge a user or team call and if required an additional text or speech message can be sent. Users can initiate user or team calls from their GSM device to pagers, Email or mobile phones (depending on access rights).

PSTN

Public Switched Telephone Network

Query

A database questioning tool that will allow you to search and filter the database information to obtain only the data you require.

Queries can be created, edited, saved, and reused as required.

Receiver Address

The Receiver Address is the physical identity of a pager. It is the number sent out by i-Message that causes the pager to beep. It is also known as the Receiver Identity Code (RIC).

The Receiver Address consists of 5 or 7 digits. MK6 and MK7 are 5-digit addresses whereas POCSAG is a 7-digit address.

Pager Receiver Addresses are added to the system by configuring them as a device against the appropriate pager type. These can then be assigned to a user in the user configuration such that when the user is called that pager receives the message. Alternatively the device itself can be called via the SCU.

Note: POCSAG addresses are generally known as cap codes. In i-Message, cap codes are known specifically as RICs.

Receiver Fast Alpha Messages (RFA)

Pagers are able to store pre-formatted alphanumeric messages (with message numbers 00 to 15). These can be displayed on the pager by sending the appropriate 2-digit message number with an associated *Beep Code*. These messages are configured within the pager itself.

RFA messages are limited to 240 characters distributed over a maximum of 16 messages. For example, as a maximum there can be 16 messages of 15 characters each, or 1 message of up to 240 characters each. More typically there would be up to 5 messages of up to 48 characters each.

See also *Central Fast Alpha Messages*.

Receiver Identity Code (RIC)

See *Receiver Address*.

Receiver Number

A pager's Receiver Number comprises the last three numbers of the *Receiver Address*. These three digits are entered when creating a user record. The Receiver Number can be totally independent of the pager wearer's User Number.

Receiver Type (paging)

Paging receivers can have a variety of message facilities: Tone Only, Numeric Message, Alphanumeric Message, and Voice Message.

i-Message identifies each different type of receiver to ensure that the user is prompted to enter only the correct type of message for the pager being called. For example, Pager – 2TONE, Responder, Mobile Phone, Fixed Line, and Pager – Mark 7 RPR750 (1200 baud).

i-Message currently supports 20 different Receiver Types.

Recording

A voice file containing data recorded by a user.

Restore

A backup option to apply the database information from a previously downloaded database file.

RFA

See *Receiver Fast Alpha Messages*.

RIC

Receiver Identity Code. See *Receiver Address*.

Router Agent

Core CCP agent that routes data into and out of the i-Message system.

RS232 Protocols

As with all Multitone products, i-Message supports TAP, ESPA 4.4.4., MEP, and MSP (Scope) RS232 Serial Protocols. These are used to interface to alarm or other communication equipment.

The TAP protocol also provides PSTN dial-out into the National Paging Networks or Paging Carriers enabling i-Message to send calls to wide area POCSAG or Flex paging receiver. Likewise, the TAP protocol is accepted by most GSM network service providers with regard to SMS text support. This provides an alternative means of sending outbound-only SMS messages.

Scheduled Event

Scheduled events are triggered at pre-defined times. When the scheduled event time matches the current time, the EventActionModule ensures that the event and its associated actions are executed.

All scheduled events are logged.

SCU

See *System Control Unit*.

Secondary Backup

Each i-Message system is designed to link multiple servers (installed with i-Message software) together in server clusters. This ensures service continuity should one or more servers fail within the server cluster. This feature is referred to as **IP Takeover** or 'IP Failover', where each server within the server cluster is a mirror image of the other.

Each i-Message server cluster will support up to four servers, comprising the Primary Server, Secondary Server and up to two Backup Servers. Servers can be co-located in a single rack, or they can be distributed across different locations provided that they reside on the same IP subnet. Only different i-Message systems can be distributed across different IP subnets to form an i-Message cloud.

Each i-Message system must include one server (installed with i-Message software) as a minimum requirement; this becomes the Primary Server, and without this item the i-Message system will not operate. In order to ensure service continuity, it is highly recommended (though not essential) that a second server (installed with the i-Message software) is provided. This will elect itself to the Secondary Server function. Depending on assessed risk, up to two Backup Servers may also be supplied.

The total number of servers required for the whole i-Message cloud must be specified. The licence will include this item as a total number of servers and each of the server identifiers must be specified during licence generation. In the example below, there are five sites. These require a total of 5 Primary Servers, 3 Secondary Servers, and 2 Backup Servers, making a total requirement of 10 i-Message Servers.

Example of Distribution of Servers by Site

Site 1 Server Cluster		Site 2 Server Cluster		Site 3 Server Cluster		Site 4 Server Cluster		Site 5 Server Cluster	
Primary Server	1	Primary Server	1	Primary Server	1	Primary Server	1	Primary Server	1
Secondary Server	1	Secondary Server	1	Secondary Server	1				
Backup Server	1	Backup Server	1						
Servers per site:	**3**		**3**		**2**		**1**		**1**
Total Servers:	3 Servers (Site 1) + 3 Servers (Site 2) + 2 Servers (Site 3) +1 Server (Site 4) + 1 Server (Site 5) = **10 Server Licences**								

Server Cluster

See *Primary Master and Primary Solo* and *Secondary Backup*.

SIP

Session Initiation Protocol. A signalling protocol for Internet telephony.

In i-Message, SIP is used to make calls across the system.

The Asterisk open source SIP server/client system is integrated into i-Message to act as a SIP PBX.

SMPP

Short Message Peer-to-Peer

The SMPP protocol is a telecommunications industry protocol for exchanging SMS messages between SMS peer entities such as short message service centres and/or External Short Messaging Entities. In the context of i-Message, SMPP enables messages to be sent and received from an i-Message (user or automated) interface to enable a message to be sent or received from a private GSM/GPRS device.

SNPP

Simple Network Paging Protocol

The SNPP protocol defines a method by which a pager can receive a message over the Internet. Most paging service providers support SNPP and it serves as an alternative to the paging modems, such as TAP or ESPA 4.4.4. Prior to selecting this message agent, it is important to check that the customer's paging service provider supports this protocol.

Source

The details of where a system action has been created.

Status

There are two ways that i-Message considers status: user status and device status.

User status can be Present or Absent. Status can be changed from either an SCU or a telephone.

Device status can also be Present or Absent. If there are absence racks on the system, the pager (device) status will be set to absence if the pager is in the charging and absence rack whereas the pager (device) status will be set to presence if the pager is not in the charging and absence rack.

System Control Unit

A desktop control module with a microphone, loudspeaker, and a touch-screen keyboard which uses a web browser to access i-Message content.

This device enables the operator to send voice or text calls to all i-Message compatible receivers.

TAP

See *RS232 Protocols*.

Team

A collection of users and/or groups of pagers that can be paged by a single call.

Teams can consist of paging users, *Format Groups*, or a mixture of both, and are paged at emergency priority.

Each paging user or format group is classed as a 'member' of the team.

Team Message

Each text message sent to a mobile team has a team message sequence number prepended to it. This number is incremented for each message sent to that specific team. A team message has the letter T prepended to the message sequence number (starting from T00, T01, T02, and so on). When the counter has reached 99, it is reset back to 00.

Timestamp

This is a data entry of when an action occurred. The time of the event is logged with the action.

Transaction

An event and actions that are related to each other.

Transfer

This is an option within i-Message that allows a call sent to a given user or device to be sent to an alternative user or device when the destination user or device is marked as not available on the system.

Trunk

A PBX to PBX connection.

UA

See *User Agent*.

UPI

USB Peripheral Interface.

This allows a hardware connection for inputs and output for closing contacts and external devices such as transmitters.

User Agent

User Agents act as proxies for the i-Message server in communicating with peripherals and service providers.

User Number

The number assigned to a User. It is used to send messages to the User's devices.

Note: the User Number is totally independent of the *Receiver Number*.

User Record

A database entry containing the i-Message privileges and data pertaining to an individual. For example, the information held includes the devices held by the user, the user's normal shift patterns as specified for the employee connected to this account.

User Type

The user type determines which parts of the i-Message user interface a user can see and use (including a suitably designed whiteboard), and the user type thereby provides a powerful and highly configurable level of access rights. When the i-Message administrator sets up a new user account, that user has to be associated with a specific user type.

i-Message provides a number of user types as standard, such as Engineering User and Administrator User. A Multitone i-Message engineer will adapt these to the needs of each customer site.

Verification Receiver (VR)

The VRx demodulates the off-air signal from the transmitters so that it can be decoded by the system.

Voice Recording

See *Canned Voice Recording*.

VR

See *Verification Receiver*.

Ward Client

A specific user type which is department-based. A ward client user logs in and sees only information for the appropriate department. Thus, ward client users can send messages or alarms only to users, teams, and devices in their own department. The i-Message administrator is responsible for configuring a different ward client user type for each relevant department.

See also *User Type*.

Whiteboard

The whiteboard allows the user to see or enter information, based on the user type associated with that user. The whiteboard also provides pre-programmed click-through options such as the ability to make team calls and speed dials.

The whiteboard includes a notice board facility (which is implemented as an i-Message note item); this can be customised for different user groups and allows i-Message to be used by a wider community rather than be limited to a switchboard function.

The whiteboard can be regularly updated so that information can be shared amongst a department or user group. Key teams and staff can be added to the whiteboard as ‘favourites’ (implemented as an i-Message label item), allowing ‘touch-of-an-icon’ contact.

See also *User Type*.