

## Bluetooth Glossary of Terms

### **A**ceptor

The Bluetooth device receiving an action from another Bluetooth device. The device sending the action is called the initiator. The acceptor is typically part of an established link.

### **ACK**

Acknowledge.

### **ACL**

Asynchronous Connectionless Link. An Asynchronous (packet-switched) connection between two devices created on the LMP level. This type of link is used primarily to transmit ACL packet data.

### **ACO**

Authenticated Ciphering Offset.

### **ACCY**

Accessory.

### **AG**

Audio Gateway.

### **AM\_ADDR**

Active Member Address.

### **AP**

Access Point.

### **Application Layer**

The group of protocols at the user level. The application layer in the Bluetooth protocol layers will contain those protocols involved with the user interface (UI).

### **AR\_ADDR**

Access Request Address

## **ARQ**

Automatic Repeat reQuest.

## **AT Command Handler**

A module that handles the AT commands which control a phone or modem (between a DTE and a DCE).

## **Authentication**

The process of verifying 'who' is at the other end of the link. Authentication is performed for devices. In Bluetooth, this is achieved by the authentication procedure based on the stored link key or by pairing (entering a PIN).

## **Authentication device**

A device whose identity has been verified during the lifetime of the current link based on the authentication procedure.

## **Authenticate using a passkey**

The procedure where a user is requested to enter a passkey during the establishment procedure, where the devices did not share a common link key beforehand. This differs from the bonding procedure where the user enters the passkey without it being requested.

## **Authorization**

The process of deciding if device X is allowed to have access to service Y. This is where the concept of trusted exists. Trusted devices (the device is authenticated and indicated as "trusted"), are allowed access to services. Untrusted or unknown devices may require authorization based on user interaction before it is allowed access to the services. This does not principally exclude that the authorization might be give by an application automatically. Authorization always includes authentication.

## **B**

## **Baseband**

The baseband describes the specifications of the digital signal processing part of the hardware -- the Bluetooth link controller, which carries out the baseband protocols and other mlow-level link routines.

## **BD\_ADDR**

Bluetooth Device Address.

## **BER**

Bit Error Rate

## **Bluetooth**

An open specification for wireless communication of data and voice. It is based on a low-cost short-range radio link facilitating protected ad hoc connections for stationary and mobile communication environments. Bluetooth clock The master timing mechanism defined by the master of the piconet. Bluetooth device A device that contains hardware and software allowing it to communicate with another Bluetooth device.

## **Bluetooth device class**

A parameter that indicates the type of device and which types of services that is supported. The class is received during the discovery procedure. The parameter contains the major and minor device class fields. The term "Bluetooth device class" is used on the UI level. Bluetooth device name The name of the device. (248 bytes maximum)

## **Bluetooth device type**

The term "Bluetooth device type" is used on the UI level. This term overrides the terms "Bluetooth device class" and "Bluetooth service type" when there is a mix of information containing both Bluetooth Device Class and Bluetooth Service Types.

## **Bluetooth passkey**

The name of the PIN. The term "Bluetooth passkey" is used in the UI. See PIN.

## **Bluetooth service type**

One or more services a device can provide to other devices. The service information is defined in the service class field of the Bluetooth device class parameter. Bluetooth Session The activity and participation of a device on a piconet.

## **Bond**

A link key that is exchanged between two devices. The key is used for future authentication between the devices. See also bonding.

## **Bonding**

Bonding is the creation of a relationship between two devices. The bond is a link key The relationship is created when the link key is exchanged between two devices. The devices are known to each other prior to the bonding procedure. A user initiates the bonding procedure and enters a

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passkey with the explicit purpose of creating a bond between two devices. This differs from the authenticate using a passkey procedure where the user is requested to enter a passkey during the establishment of the link.

## **BT**

Bluetooth.

## **Bus**

A set of data lines to transfer information from one device to another.

## **Business card**

The electronic date equivalent to a printed business card. This electronic version of the business card is treated like a file and can be exchanged between Bluetooth devices. See vCard.

## **C**

### **Channel**

A logical connection on L2CAP level between two devices serving a single application or higher layer protocol.

### **Circuit Switched**

The application of a network where a dedicated line is used to transmit information. Only one user may employ the resources of the line at a time.

### **Circuit Switched Bluetooth**

The application of a network where a dedicated line is used to transmit Bluetooth data.

## **CL**

Connectionless.

## **Class of device**

See Bluetooth device class. Also abbreviated as CoD.

## **CO**

Connection-oriented.

## **CoD**

Class of Device.

## **CODEC**

Coder/Decoder. A device that converts analog to digital, and digital to analog for transmission over a digital communications system.

## **COF**

Ciphering Offset. component An architecture element denoting an identifiable set of software that performs a well-defined purpose.

## **Connect to service**

The establishment of a connection to a service. If not already done, this includes establishment of a physical link, link and channel as well.

## **Connectable devices**

Any device within range that will respond to paging from an initiator device.

## **Connectable mode**

A device that responds to paging (an attempt to establish a communication link) is said to be in connectable mode. The opposite of connectable mode is non-connectable mode. Connected device A device that is currently connected to the (LocDev. connection A connection between two peer applications or higher layer protocols mapped onto a channel. connectionless packet A packet of data is broadcast over the network without targeting a specific recipient to receive the packet. connecting A phase in the communication between devices when a connection between them is being established. (Connecting phase follows after the link establishment phase is completed.) connectivity A domain of interconnected components that adhere to a defined set of connection rules. The set of rules is termed Connectivity Architecture. connector An architectural element denoting a path for control or information flow between components.

## **CP**

Call Processing.

## **CP**

Capability Provider. A Capability Provider is a module within the local device that provides a service to other modules. Protocol stack modules (RFCOMM, L2CAP) are Capability Providers. So are "application interface modules" such as OBEX and ESC-AT. In fact, any module that registers a port that other modules can connect to is a Capability Provider.

**CPU**

Central Processor Unit. The main processing component in a hardware device.

**CRC**

Cyclic Redundancy Check.

**CTP**

Cordless Telephone Profile.

**CVSD**

**D**

**DAC**

Device Access Code.

**DCE**

Data Communication Equipment.

**DCE**

Data Circuit-Terminating Equipment. In serial communications, DCE refers to a device between the communication endpoints whose sole task is to facilitate the communications process; typically a modem.

**DCI**

Default Check Initialization.

**DD API**

Device Driver API.

**Device Discovery**

The mechanism to request and receive the Bluetooth address, clock, class of device, used page scan mode, and names of devices.

**Device Layer**

The group of protocols that handles the hardware in a Bluetooth device. The device layer handles components such as the display, keypad, and RF communications.

**Device name**

See Bluetooth device name.

**Device security level**

Access to a device can be denied based on the required device security level. There are two levels of device security: trusted device and Untrusted device. See also service security level.

**DH**

Data-High Rate. Data packet type for high rate data.

**DIAC**

Dedicated inquire access code.

**Discoverable device**

A Bluetooth device in range that will respond to an inquiry (normally in addition to responding to page. discoverable mode A device that can respond to an inquiry is said to be in a discoverable mode. There are two types of discoverable modes: limited discoverable mode and general discoverable mode. The opposite of discoverable mode is non-discoverable mode. See also silent device. Dispatch Walkie-talkie mode where one-subscriber talks and other subscribers listen on the same talk group.

**DLCI**

Data Link Connection Identifier.

**DM**

Data - Medium Rate. Data packet type for medium rate data.

**DSP**

Digital Signal Processor.

**DSR**

Data Set Ready. A device sets an RS-232 DSR signal when it is ready to accept data.

**DT**

Data Terminal.

**DTE**

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Data Terminal Equipment. In serial communications, DTE refers to a device at the endpoint of the communications path; typically a computer or terminal.

**DTMF**

Dual Tone Multiple Frequency. dumb peripheral A peripheral that does not communicate any information to the handset. Typically, the only information the handset receives from a dumb peripheral is a signal that a connection has been made to a port on the handset. This signal is also called a cable detect.

**DUT**

Device Under Test.

**DV**

Data Voice. Data packet type for data and voice.

**DWDM**

Dense Wavelength Division Multiplexing. See WDM.

**E**

**EIA**

Electronics Industries Association.

**ESMR**

Enhanced Specialized Mobile Radio.

**ETSI**

European Telecommunications Standards Institute.

**F**

**FCC**

Federal Communications Commission.

**FEC**

Forward Error Correction.

## **FH**

Frequency Hopping.

## **FHS**

Frequency Hopping Synchronisation.

## **FIFO**

First In First Out.

## **FSK**

Frequency Shift Keying. A type of modulation.

## **G**

### **GAP**

Generic Access Profile. This profile describes the mechanism by which one device discovers and accesses another device when they do not share a common application.

### **GFSK**

Gaussian Frequency Shift Keying.

### **GIAC**

General Inquire Access Code. See also general discoverable mode.

### **General discoverable mode**

A device that can be discovered continuously or for no specific condition is said to be in general discoverable mode. See also discoverable mode.

### **GM**

Group Management.

### **GOEP**

Generic Object Exchange Profile.

### **GUID**

Globally Unique Identifier.

**GW**

Gateway. A Bluetooth technology base station which is connected to external network.

**H**

**HA**

Host Application. A software program that uses Bluetooth.

**HCI**

Host Controller Interface.

**HDLC**

High level Data Link Control.

**Headset**

A microphone and earpiece used to conduct conversations. Headsets can be connected directly to a cellular device or remotely using Bluetooth communications technology.

**HEC**

Header-Error-Check.

**HID**

Human Interface Device.

**Host**

A software and hardware platform in which the Bluetooth package runs.

**HPC**

Handheld Personal Computer.

**HS**

Headset.

**HSM**

Host-specific Mechanism.

## **HV**

High quality Voice. (E.g., HV1 packet.)

## **HW**

Hardware.

## **I**

## **IAC**

Inquiry Access Code.

## **ICS**

Iridium Communication Systems.

## **iDen**

Integrated Digital Enhanced Network.

## **Idle mode**

A device is in idle mode when it has no established links to other devices. In this mode, the device may discover other devices. In general, a device sends inquiry codes (GIAC, LIAC) to other devices. Any device that allows inquiries will respond with information. If the devices decide to form a link, then (bonding will occur.

## **IEEE**

Institute of Electronic and Electrical Engineering.

## **IETF**

Internet Engineering Task Force.

## **Initiator**

The Bluetooth device initiating an action to another Bluetooth device. The device receiving the action is called the acceptor. The initiator is typically part of an established link.

## **Inquiry Procedure**

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The inquiry procedure enables a device to discover which devices are in range, and determine the addresses and clocks for the devices. After the inquiry procedure has completed, a connection can be established using the paging procedure.

### **Inquiry State**

A mode that a LocDev enters when searching for services.

### **Inquiry Scan State**

A mode that a RemDev enters when advertising that a service is available.

### **Intelligent peripheral**

A peripheral that is capable of exchanging information with the handset. Information may include battery status, charging status, data storage status, or other high-level functionality. Also referred to as a smart peripheral.

### **Internet bridge**

Method of using a wireless modem for connecting to Internet access.

### **IP**

Internet Protocol.

### **IrDA**

Infrared Data Association. A method for communication between electronic devices, using 880-nm infrared light.

### **IrMC**

Infrared Mobile Communications.

### **IROM**

Internal Read-Only Memory.

### **ISM**

Industrial, Scientific, Medical.

### **ITU**

International Telecommunication Union. <http://www.ituaj.or.jp/index-e.html>

## **IUT**

Implementation Under Test.

## **IWF**

Interworking Function.

## **J**

### **JTAPI**

Java Telephony Application Programming Interface.

## **K**

### **Key Management**

The handling and control of encryption keys.

### **Known device**

A device for which at least the BD\_ADDR is stored.

## **L**

### **L2Ca**

Logical Link Controller and Adaptation.

### **L2CAP**

Logical Link Controller and Adaptation Protocol.

### **L\_CH**

Logical Channel.

### **LAN**

Local Area Network.

### **LAP**

LAN Access Point.

## **LAP**

Lower Address Part.

## **Link**

Shorthand for an ACL link.

## **LC**

Link Controller. The Link Controller manages the link to the other Bluetooth devices. It is the low-level baseband protocol handler.

## **LCP**

Link Controller Protocol.

## **LCSS**

Link Controller Service Signalling.

## **LFSR**

Linear Feedback Shift Register.

## **LIAC**

Limited Inquiry Access Code. See also limited discoverable mode.

## **Limited discoverable mode**

A device that responds to an inquiry for limited purposes. For example, a device may respond for a limited period of time, during temporary conditions, or for a specific event. Typically, the device is responding to a limited inquiry based on an inquiry using the LIAC. See also discoverable mode.

## **Link key**

The authentication key used to establish a link between devices. See also bonding.

## **LM**

Link Manager. The Link Manager software entity carries out link set-up, authentication, link configuration, and other protocols.

## **LMP**

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Link Manager Protocol. The LMP is used for peer-to-peer communication.

### **Imp-authentication**

An LMP level procedure for verifying the identity of a remote device. The procedure is based on a challenge-response mechanism using a random number, a secret key and the BD\_ADDR of the non-initiating device. The secret key used can be a previously exchanged link key or an initialization key created based on a PIN (as used when pairing).

### **Imp-pairing**

A LMP procedure that authenticates two devices based on a PIN and subsequently creates a common link key that can be used as a basis for a trusted relationship or a (single) secure connection. The procedure consists of the steps: creation of an initialization key (based on a random number and a PIN), Imp-authentication based on the initialization key and creation of a common link key.

### **LocDev**

Local Device. A Bluetooth device which initiates a SDP procedure. A Local Device is typically a master device on the piconet. However, a Local Device may not always have a master connection relationship to other devices. See also RemDev.

### **LSB**

Least Significant Bit.

### **M**

#### **MAC**

Media Access Control.

#### **MAC Address**

3-bit address to distinguish between units participating in the piconet.

#### **M\_ADDR**

Medium Access Control Address.

### **Management Entity**

Management Entity. The portion of the BT implementation that mediates the internal functions of the BT stack.

### **Master device**

A device that initiates an action or requests a service on a piconet. See also LocDev.

**Master Net**

The device in a piconet whose clock and hopping sequence are used to synchronise all other devices in the piconet.

**ME**

Management Entity

**MM**

Mobility Management.

**MMI**

Man Machine Interface

**MS**

Mobile Station.

**MS**

Multiplexing sublayer.

**MSB**

Most Significant Bit.

**MSC**

Modem Status Command.

**MSC**

Message Sequence Chart.

**MTU**

Maximum Transmission Unit.

**MUX**

**Multiplexer.** A device that combines one or more data signals into a single composite signal for communication over one data channel.

**MUX**

Multiplexing Sublayer. A sublayer of the L2CAP layer.

**MVP**

Minimum Viable Product.

**N**

N/A

Not applicable.

**NAK**

Negative Acknowledge.

**Name Discovery**

The mechanism to request and receive a device name.

**NAP**

Non-significant Address Part.

**NDIS**

Network Driver Interface Specification.

**New device**

See unknown device.

**Non-connectable mode**

A device that does not respond to paging (an attempt to establish a communication link) is said to be in non-connectable mode. The opposite of connectable mode is connectable mode.

**Non-discoverable**

Same as non-discoverable mode.

## **non-discoverable mode**

A device that cannot respond to an inquiry is said to be in non-discoverable mode. The device will not enter the INQUIRY\_RESPONSE state in this mode. See also discoverable mode. non-pairable mode A device that does not accepts pairing. is said to be in non-pairable mode. The opposite of non-pairing mode is pairable mode.

## **NTIA**

National Telecommunications and Information Administration.

## **NVM**

Non-Volatile Memory. Refers to the FlashROM for the P2K product.

## **NVRAM**

Non-Volatile Random Access Memory.

## **O**

### **OBEX**

Object EXchange Protocol.

### **OEM**

Original Equipment Manufacturer.

### **OS**

Operating System.

## **P**

### **Packet Switched**

A network that routes data packets based on an address contained in the data packet is said to be a packet switched network. Multiple data packets can share the same network resources.

### **Packet Switched Bluetooth**

The application of routing Bluetooth data packets on a network using addresses contained in the Bluetooth data packets.

### **Packet Switched Cellular/Radio**

The application of routing cellular/radio data packets on a network using addresses contained in the cellular/radio data packets.

### **Page**

A baseband state where a device transmits page trains and processes any eventual responses to the page trains.

### **Page Scan State**

A mode where a device listens for page trains containing its own device access code (DAC).  
A mode that a RemDev enters when advertising that a service is available.

### **Page State**

A mode that a LocDev enters when searching for services. The LocDev sends out a page to notify other devices that it wants to know about the other devices and/or their services.

### **Page train**

A series of paging messages sent over the baseband.

### **paged device**

A paged device is typically contacted by a paging device to establish a communication link.  
See acceptor. Paging The act of attempting to establish a communication link.

### **paging device**

A paging device is typically attempting to establish a communication link with other devices.  
See initiator.

### **Paging Procedure**

With the paging procedure, an actual connection can be established. The paging procedure typically follows the inquiry procedure. Only the Bluetooth device address is required to setup a connection. Knowledge about the clock will accelerate the set-up procedure. A unit that establishes a connection will carry out a page procedure and will automatically be the master of the connection.

### **Pairable mode**

A device that accepts pairing. is said to be in pairable mode. The opposite of pairing mode is non-pairable mode. paired device A device with which a link key has been exchanged (either before connection establishment was requested or during connecting phase). See also prepared device and UN-paired device.

## **pairing**

The creation and exchange of a link key between two devices. The devices (LocDev and RemDev) use the link key for future authentication when exchanging information. Pairing is also called an association between a LocDev and a RemDev based on a common link key. The link key is also referred to as a bond. Pairing can also establish a link by the user entering a PIN, which is authenticated by the device providing the service.

## **Parked Unit(s)**

Devices in a piconet which are synchronised but do not have a MAC addresses.

## **PC**

Personal Computer.

## **PC Card**

A hardware device that is attached to or installed in a PC to enable the PC to communicate with other Bluetooth devices.

## **PCM**

Pulse Coded Modulation.

## **PCMCIA**

Personal Computer Memory Card International Association.

## **PDA**

Personal Digital Assistant.

## **PDSCCF**

Packet Data Service Call Control Functions (IS-707).

## **PDU**

Protocol Data Unit. (I.e., a message.)

## **Phone Services Database**

The portion of the BT implementation that stores information about device services, both local services and remote services.

### **Physical channel**

A synchronised Bluetooth baseband-compliant RF hopping sequence. Physical link A Baseband level association between two devices established using paging. A physical link comprises a sequence of transmission slots on a physical channel alternating between master and slave transmission slots.

### **Piconet**

A collection of devices connected via Bluetooth technology in an ad hoc fashion. A piconet starts with two connected devices, such as a portable PC and cellular phone, and may grow to eight connected devices. All Bluetooth devices are peer units and have identical implementations. However, when establishing a piconet, one unit will act as a master and the other(s) as slave(s) for the duration of the piconet connection. All devices have the same physical channel defined by the master device parameters (clock and BD\_ADDR).

### **PIM**

Personal Information Manager.

### **PIN**

Personal Identification Number. The Bluetooth PIN is used to authenticate two devices that have not previously exchanged link key. By exchanging a PIN, the devices create a trusted relationship. The PIN is used in the pairing procedure to generate the initial link that is used for further identification.

### **PIN(BB)**

The PIN used on the baseband level. The PIN(BB) is used by the baseband mechanism for calculating the initialization key during the pairing procedure. (128 bits)

### **PIN(UI)**

The PIN used on the user interface level. The PIN(UI) is the character representation of the PIN that is entered on the UI level.

### **PM\_ADDR**

Parked Member Address.

### **PN**

Pseudo-random Noise.

### **PnP**

Plug and Play.

**POC**

Proof of Concept.

**POTS**

Plain Old Telephone system.

**PPP**

Point to Point Protocol.

**PRBS**

Pseudorandom Bit Sequence. Pre-paired device A device with which a link key was exchanged, and the link key is stored, before link establishment. See also paired device and UN-paired device.

**PRNG**

Pseudo Random Noise Generation.

**Profile**

A description of the operation of a device or application.

**PSM**

Protocol/Service Multiplexer.

**PSTN**

Public switched telephone network.

**Q**

**QoS**

Quality of Service.

**R**

**RAM**

Random Access Memory.

**RAND**

Random number.

**RemDev**

Remote Device. A Bluetooth device that participates in the SDP process. A Remote Device must contain a SDP server along with a service record database. A Remote Device is typically a slave device, however, a Remote Device may not always have a slave connection with a LocDev. requestor. An entity that requests information from another entity via the Bluetooth API.

**RF**

Radio Frequency.

**RFC**

Request For Comments.

**RFCOMM**

Serial Cable Emulation Protocol based on ETSI TS 07.10.

**RLP**

Radio Link Protocol (IS-707).

**ROM**

Read-Only Memory

**RS-232**

A serial communications interface. Serial communication standards are defined by the Electronic Industries Association (EIA).

**RSSI**

Received Signal Strength Indication.

**RTOS**

Real Time Operating System.

**RX**

Receiver.

## **S**

### **S**

Slave.

### **SAP**

Service Access Points.

### **SAR**

Segmentation and Reassembly.

### **Scatternet**

Multiple independent and non-synchronised piconets form a scatternet.

### **SCO**

Synchronous Connection Oriented link. A synchronous (circuit-switched) connection for reserved bandwidth communications, e.g. voice, between two devices created on the LMP level by reserving slots periodically on a physical channel. This type of link is used primarily to transport SCO packets (voice data). Supports time-bounded information like voice. (Master to single slave.) SCO links can be established only after an ACL link has first been established.

### **SD**

Service Discovery.

### **SDA**

Service Discovery Application. Also sometimes called the Service Discovery User Application.

### **SDAP**

Service Discovery Application Profile.

### **SDDB**

Service Discovery Database.

### **SDP**

Service Discovery Protocol.

### **SDP client**

The SDP in a Local Device (LocDev). The SDP client requests service information from SDP servers.

### **SDP server**

The SDP in a Remote Device (RemDev). The SDP server responds to requests made by SDP clients.

### **SDP Session**

The exchange of information between an SDP client and an SDP server. The exchange of information is referred to as an SDP transaction.

### **SDP Transaction**

The exchange of an SDP request from an SDP client to an SDP server, and the corresponding SDP response from an SDP server back to the SDP client.

### **Security Manager**

The module in a Bluetooth device that controls security aspects of communications to other Bluetooth devices.

### **Security Mode 1**

A device will not initiate any security. A non-secure mode.

### **Security Mode 2**

A device does not initiate security procedures before channel establishment on L2CAP level This mode allows different and flexible access policies for applications, especially running applications with different security requirements in parallel. A service level enforced security mode.

### **Security Mode 3**

A device initiates security procedures before the link set-up on LMP level is completed. A link level enforced security mode.

### **SeP**

Serial Port.

### **SEQN**

Sequential Numbering scheme.

## **SerDscApp**

Service Discovery Application.

## **Serial Interface**

An interface to provide serial communications. Service this term refers to a service that one device provides for others. Examples are printers, PIM. Synchronisation servers, modems (or modem emulators).

## **Service Advisor**

The portion of the UI that handles BT services for the UI.

## **Service Discovery**

See SDP.

## **Service Layer**

The group of protocols that provides services to the application layer and the driver layer in a Bluetooth device.

## **Service Record Database**

A database that contains the service discovery-related information.

## **Service security level**

Access to services can be denied based on the required service security level. There are three levels of service security: authorization and authentication; authentication only, and no security (open to all). Encryption can be another security requirement for service use in addition to the requirements listed above. Encryption is typically applied at the physical level (baseband). See also device security level.

## **SIG**

Special Interest Group. The Bluetooth standards body & steering committee.

## **Silent device**

A device that is in discoverable mode but cannot respond due to other baseband activity is said to be a silent device. The device could also be in non-discoverable mode and would also not respond to an inquiry.

## **SIM**

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Subscriber Identity Module. The SIM is a non-volatile storage device that contains information about your phone. This allows the SIM to be used in any GSM phone.

**Slave Unit**

All devices in a piconet that are not the master.

**Smart peripheral**

See intelligent peripheral.

**SMS**

Short Message Service. Similar to paging, a short text message can be delivered to a subscriber's cellular handset. Sniff and hold mode Devices synchronised to a piconet can enter power-saving modes in which device activity is lowered.

**SP**

Service Provider.

**SRES**

Signed Response.

**SrvDscApp**

Service Discovery Application.

**SS**

Supplementary Services.

**SSI**

Signal Strength Indication.

**SU**

Subscriber Unit. Another name for the phone.

**SUT**

System Under Test.

**SW**

Software.

**T**

**TAE**

Terminal Adapter Equipment.

**TBD**

To Be Defined.

**TBS**

To Be Supplied.

**TC**

Test Concept.

**TCI**

Test Control Interface.

**TCP**

Transport Control Protocol.

**TCP/IP**

Transport Control Protocol/Internet Protocol.

**TCS**

Telephone Control protocol Specification.

**TCS-AT**

A set of AT-commands by which a mobile phone and modem can be controlled in the multiple usage models. In BT, AT-commands are based on ITU-T recommendation v.250 and ETS 300 916(GSM 07.07). In addition, the commands used for fax services are specified by the implementation. TCS-AT will also be used for dial-up networking and headset profiles.

**TCS Binary**

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Bluetooth Telephony Control protocol Specification using bit-Oriented protocol. It is also referred to as the TCS-BIN system. TCS-BIN will be used for cordless telephony profiles.

**TDD**

Time Division Duplex

**TDMA**

An improvement over standard analog cellular service by digitising the voice stream thereby providing more calls per channel.

**TGAP**

Timer used in the General Access Profile (GAP).

**TIA**

Telecommunications Industries Association. Tier-one testing A minimal test to verify that newly built code will download and start correctly.

**TL**

Terminal.

**TLO**

Terminal Originating a Call.

**TLT**

Terminal terminating a call.

**TTC**

Telecommunications Technology Council.

**TTCN**

Tree and Tabular Combined Notation. It is a special purpose notation to describe test suites. TTCN is a language standardised by ISO for the specification of tests for communicating systems.

**TTP**

Tiny Transport Protocol between OBEX and UDP [TBD].

## **TX**

Transmit.

## **U**

### **UA**

User Asynchronous. Asynchronous user data.

### **UAP**

Upper Address Part.

### **UART**

Universal Asynchronous Receiver Transmitter. A device which converts parallel data into serial data for transmission, or it converts serial data into parallel data for receiving data.

### **UC**

User Control.

### **UDP**

User Datagram Protocol.

### **UDP/IP**

User Datagram Protocol/Internet Protocol.

### **UI**

User Interface. The area on a device that contains interface mechanisms such as displays, dialog boxes, manuals, packaging, advertising, etc., where the user is likely to encounter Bluetooth terminology and parameters.

### **UIAC**

Unlimited Inquiry Access Code.

### **Unknown device**

A device that is currently not connected with the (LocDev and the LocDev has not paired with it in the past. Also called a new device. No information about the device is stored (e.g., BD\_ADDR, link key, or other information).