EPOS integration with GeoVision

Introduction

This document should be used with setting up the GeoVision Data Capture V2(E), with EPOS systems

Explanation of terms and technologies

EPOS
Electronic Point of Sale or Till

Serial Port / COM Port / RS232 Port
A communications port, found on most POS systems and computers. 2 types of serial connections are detailed below.

RS 232
A serial connection that uses 9 or 25 pin connections to transmit data. The effective length of connections using RS 232 is about 15 Meters.

RS 232 ports are sometimes referred to as COM ports or Serial ports

RS 485
A serial connection that uses 2 core cables to transmit data over longer distances than RS 232.

The 2 core cabling is +ve and -ve

ADSL / Cable Modem
These are usually USB devices that the computer sees as a traditional dial up connection. The PC has to “dial” the Internet connection, the connection is always available, but not always connected.

ADSL Modem Router (Gateway)
These are becoming more and more common. Most ISPs now give the user a router rather than a modem.

Routers are usually connected to your computer via an Ethernet cable. A router is a device that sits between a LAN (Local Area Network) and the Internet.

Routers are far more advanced that ADSL modems, and offer the following benefits:

- Enhanced Security via a hardware firewall
- Improved connections speeds
- Always on Internet connection
- Superior reliability

If you have a router, all traffic coming from that network going to the Internet, appears to come from the same IP address (Your Internet or WAN IP

Address). Some setups will have a network of PCs sharing the Internet connection, rather than just one PC

Firewall
Either a piece of hardware (usually part of a router) or software used to limit unauthorized network connections into a network or computer.

Port Forwarding
Port Forwarding can also be referred to as Port Redirection, Virtual Servers or NAT (Network Address Translation). They all fundamentally do the same thing.

The reasons why port forwarding is necessary, is that behind one router, there may be several PCs running several services, for instance one PC may be an email server, one may be a webcam video server etc. With port forwarding we can tell the router to forward IP traffic to different LAN PCs based on the port the IP traffic is using.

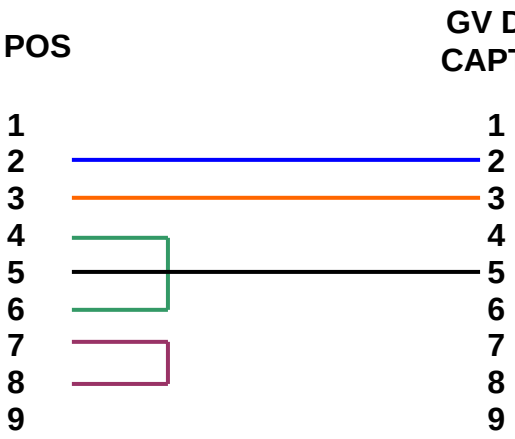
Serial ports in more depth
9 pin

9 PIN (DB9)	25 PIN (DB25)	Function
1	8	Data Carrier Detect
2	3	Receive Data
3	2	Transmit Data
4	20	Data Terminal Ready
5	7	Ground
6	6	Data Set Ready
7	4	Request To Send
8	5	Clear To Send
9	22	Ring Indicator

The table above lists the standard pin configurations of DB9 and DB25. Please note that some manufacturers use their own pin configurations, make sure you check with your manufacturer before continuing.

GREEN
These are standard connections needed in every DB9 / DB25 cable used in connecting a POS unit to the GV Data Capture.

RED / BLUE
These are needed in some cases at the POS end of a DB9 / DB25 cable. They are required for handshaking, ensuring that the device at the other end of the cable is ready for data. As the GV Data Capture is purely a listening device, and will not reply to any handshaking requests, we need to “hotwire” these pins together, an example of such a cable is diagramed below.



ALL POS UNITS

Receive Data
POS 2 (RD) GV DATA CAPTURE (RD)
Transmit Data
POS 3 (TD) GV DATA CAPTURE 3 (TD)
Ground
POS 5 (GND) GV DATA CAPTURE 5 (GND)

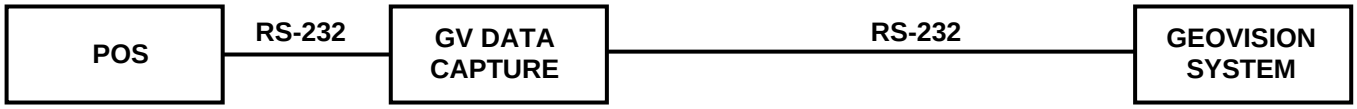
MANUFACTURER DEPENDANT (Handshaking)
Used when connecting from POS to GV Data Capture with no pass through to printer

DTR / DSR
POS 4 (DTR) POS 6 (DSR)

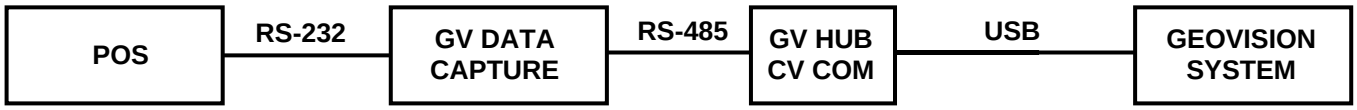
RTS / CTS
POS 7 (RTS) POS 8 (CTS)

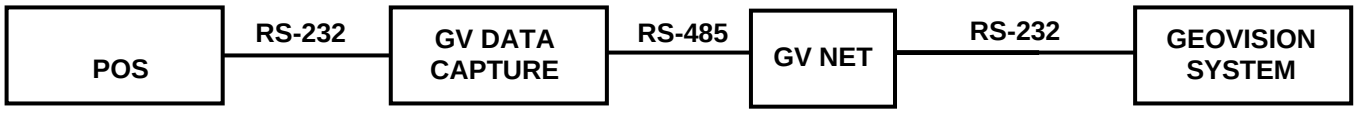
1 – 4 POS

Maximum 50 feet between GV Data Capture and GeoVision System



Maximum 2000 feet between GV Data Capture and GeoVision System





1 – 16 POS

Maximum distance between GV Data Capture and GeoVision System dependant on presence of a network