FieldServer Driver
FS8705-13
TOA Electronics
-
VS-900 Security Intercom Systems
Serial Protocol

Description

The TOA VS-900 Serial Driver (VS900 Driver) allows the FieldServer to poll remote stations for log data and also allows the establishment of a communications channel.

The FieldServer can emulate a Client.

The driver is a serial driver using a RS232 serial port to connect between the FieldServer and the VS-900 Device. An RS485 port together with a converter can also be used for the connection.

Server functionality is provided only to support our ongoing quality assurance program by facilitating automated testing of the driver. It is not documented or supported. If required please contact the FST sales group to discuss your requirements.

Max Nodes Supported

FieldServer Mode	Nodes	Comments
Client	1	*Only 1 VS-900 Devices per connection*
Server	0	*Not supported or documented.*

Formal Driver Type

Serial
Client

Compatibility Matrix

FieldServer Model	Compatible with this driver
FS-x2010	Yes,
FS-x2011	Yes,
FS-x40	Yes,
FS-X30	Yes,

Connection Information

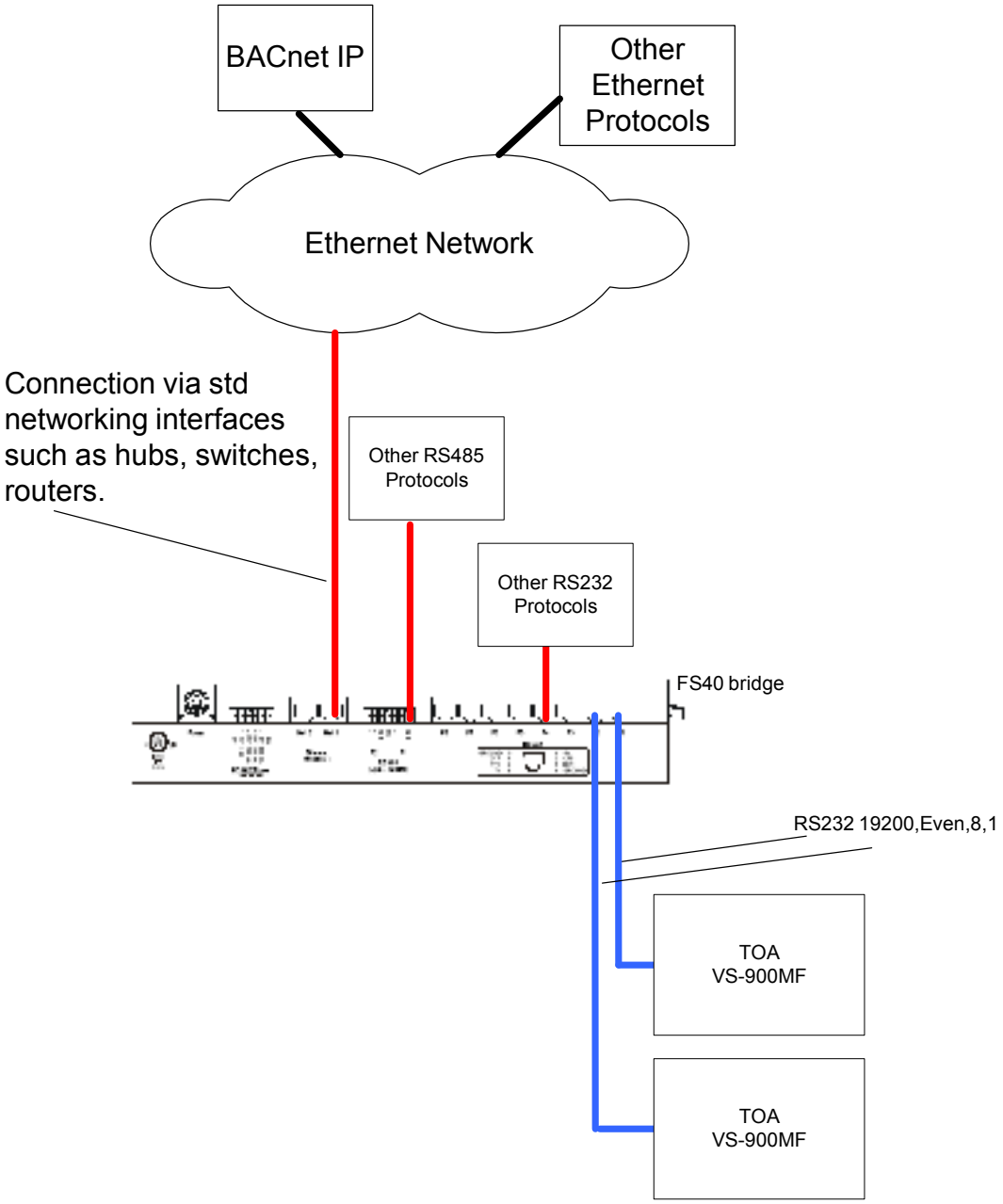
Connection type:	EIA232
Baud Rates:	Driver Supports : 110; 300; 600; 1200; 2400; 4800; **9600**; 19200; 28800; 38400; 57600; 115200 Baud *VS-900* supports: 19200
Data Bits:	Driver Supports : 7,**8** *VS-900* supports: 8
Stop Bits:	Driver Supports : **1**,2 *VS-900* supports: 1
Parity:	Driver Supports : Odd, Even, **None** *VS-900* supports: even
Hardware interface:	N/A
Multidrop Capability	No

Devices tested

Device	Tested (FACTORY, SITE)
VS-900	Customer Site

Connection configurations

Multiple VS-900 Systems can be connected. One per port.
Multiple upstream protocols and connection supported. See list of FieldServer Drivers.



Communications functions

Supported Functions	Implementation Variations / Notes
Remote Dial All variations of the command will be provided in two flavors. One where the command is sent and another where the command is prefixed by an instruction to terminate existing connections. It is expected that these commands will be configured to execute when a trigger occurs.	Terminate Connection
	Remote Dial
Request Log Data It is expected that these request will be configured to be sent continuously based on a time interval.	All Zone Page Single Zone Page Emergency Page Configurable command. Sends command specified inside Data Arrays. This variation of the command is a blank slate. The contents of the dial message will be extracted from the FieldServer's Data Arrays. This means that any command can be sent. How does the command payload get into the Data Arrays ? Either the upstream protocol sends the data to the Arrays or the Arrays are pre-loaded using the configuration file. Thus to send a command that the driver doesn't explicitly support such as Emergency Paging the driver needs to send the command '****'. This can be preloaded into the Data Array or the other driver can be used to load the Data Array. The driver will request log data from a specified exchange. It will read all the log records from that exchange until there are none remaining. Each time a log record is received in response to the request the driver will update the FieldServer Data Arrays so that some other protocol can read this data and determine 1) the current state of a station/sub-station The state is provided as an enumerated integer where each value represents a different condition. Time stamp information is provided too. Additional information will be provided

	where applicable. A table of state codes is provided below. By monitoring these state codes a remote application can determine the state of each station.

State Code	Description
01	Call from Normal sub-station.
02	Call from Emergency sub-station.
03	Call from Master Station (Telephone Master)
04	Call from C/O line
	“Axxy " ("xx" is exchange #, and "y" is
	C/O line # 1 - 2
05	Master Station (Telephone Master) reception of a
	call from Normal sub-station
06	Master Station (Telephone Master) reception of a
	call from Emergency sub-station
07	Master Station (Telephone Master) reception of a
	call from other Master Station (Telephone Master)
08	Master Station (Telephone Master) reception of a
	C/O line call
09	Call operation completion at Master Station
	(Telephone Master)
10	Start of Normal conversation
11	Start of Emergency conversation
12	Start of C/O line conversation
13	Automatic response to an incoming C/O line call
	(direct-in dial)
	“Axxy " ("xx" is exchange #, and "y" is
	C/O line # 1 - 2
14	Start of Individual-zone or All-zone Paging
	"pagxx " ("xx" is paging zone #01 - 19)
15	Start of Emergency All-zone Paging
	"pagxx " ("xx" is paging zone #01 - 19)
16	Start of External Broadcast activation
	"chx " ("x" is the external line # 1 - 4)
17	Connection of Scan Monitor
18	Not used
19	Start of Conference call

20	Connection of Conference call
21	Start of Emergency Conference call
22	Connection of Emergency Conference call
23	Automatic Call Forward log
24 -	Not Used
29	
30	Call termination by disappearance of waiting
	stations. Displayed when reception mode is
	switched to standby mode.
31	Call termination before dialing completion
32	Normal call termination
33	Receiving C/O line call interruption
	“Axxy " ("xx" is exchange #, and "y" is
	C/O line # 1 - 2
34	Paging termination
35	Emergency Paging termination
36	Termination of external input broadcast.
	"chx " ("x" is the external line # 1 - 4)
37	Termination of Scan Monitor
38	Termination of Conference
39	Termination of Emergency Conference
40	Line disconnection. Displayed when only a single
	line for call transfer or call-back is disconnected.
41	Call termination due to the ringing repetition limit
	(No-Answer)
42	Call termination due to the time limit (conversation,
	C/O and Paging)
43	Call termination (at the called station). Displayed
	when a received call disappears.
44	Forced call termination (Priority)

Support

This driver was developed by Chipkin Automation Systems (CAS), a FieldServer Approved Integrator®. CAS are proud to provide support for the driver. For support please call CAS at (866) 383-1657.

Revision History

Date	Resp	Format	Driver	Doc.	Comment

			Ver.	Rev.	
25 Sep 08	PMC		0.00	0	Created