Draft of WIZ107/108SR Configuration Tool Communication Protocol

V1.00

Message format

The prefix of setting message (commands vector) is defined as follow.
If broadcast, the MAC address will be 6 bytes 0xFF, otherwise, it will
be the MAC address of the S2E device.

0

M	A	MAC Address (6 Bytes in binary)	\r	\n	PW Command

The format of one command is shown as follow figure. The 'Command' is
two bytes and the length of 'Data' field is variable. The 'Data' field
can be null which means to request the value of the command, and this
kind of command can only be used in the 'Search' function of
configuration tool.

0

Command	Data	\r	\n

Command list

Command	Data	Memo
MC	00:08:DC:14:00:00	MAC address
VR	1.0	Firmware version (Read only)
MN	WIZ107SR, or WIZ108SR…	Model name
ST	Opened(0)/Connected(1)/Upgrading(2)	Device status
IM	STATIC(0)/DHCP(1)/PPPOE(2)	Obtain IP method
OP	CLIENT(0)/SERVER(1)/MIXED(2)/UDP(3)	Operation mode
DD	ENABLE(1)/DISABLE(0)	DDNS enable or disable flag
CP	ENABLE(1)/DISABLE(0)	Connection password enable/disable flag
PO	RAW(0)/TELNET(1)	Protocol, raw or telnet
DG	ENABLE(1)/DISABLE(0)	Debug message output flag
KA	ENABLE(1)/DISABLE(0)	Keep alive flag
KI	#	Tx KeepAlive interval (0~65535ms)
KE	#	KeepAlive enable interval (0~65535ms)

RI	#	Reconnection interval (client mode, 0~65535ms)
LI		Local IP address
SM		Subnet mask
GW		Gateway
DS		DNS server IP
PI		PPPoE ID
PP		PPPoE password
DX		DDNS server domain name
DP		DDNS port
DI		DDNS ID
DW		DDNS password
DH		DDNS host name
LP		Local port
RP		Remote host port
RH		Remote host IP/name
BR	1200(0)/2400(1)…	Baud rate (refer to index)
DB	7(0)/8(1)/9(2)	Data bit
PR	NONE(0)/ODD(1)/EVEN(2)	parity
SB	1(0)	Stop bit
FL	NONE(0)/XONXOFF(1)/CTSRTS(2)	Flow
IT		Inactivity timer (0~65535ms)
PT		Serial data packing interval (0~65535ms)
PS		Packing size(0~255)
PD		Packing indicator(0~255)
TE	Enable(1)Disable(0)	Software trigger enable flag
SS		software trigger (fixed 3 bytes)
NP		Connection password (Max. 8 bytes)
SP		Search password (Max. 8 bytes)
LG		Debug log message
ER		Error message
SV	--	Save setting message
RT	--	Reboot the device
UN	0~F	UART counter

EX	--	Exit from command mode
FR	--	Factory Reset
FW	Len(firmware)\r\n	Firmware upload command
MA	6bytes MAC address	Binary
PW		Search password info (max. 8 bytes)

```
Index          Baud Rate
0:             300
1:             600
2:             1200
3:             1800
4:             2400
5:             4800
6:             9600
7:             14400
8:             19200
9:             28800
10:            38400
11:            57600
12:            115200
13:            230400

Index          Data bit
0:             7
1:             8
2:             9

Index          Stop bit
0:             1
```
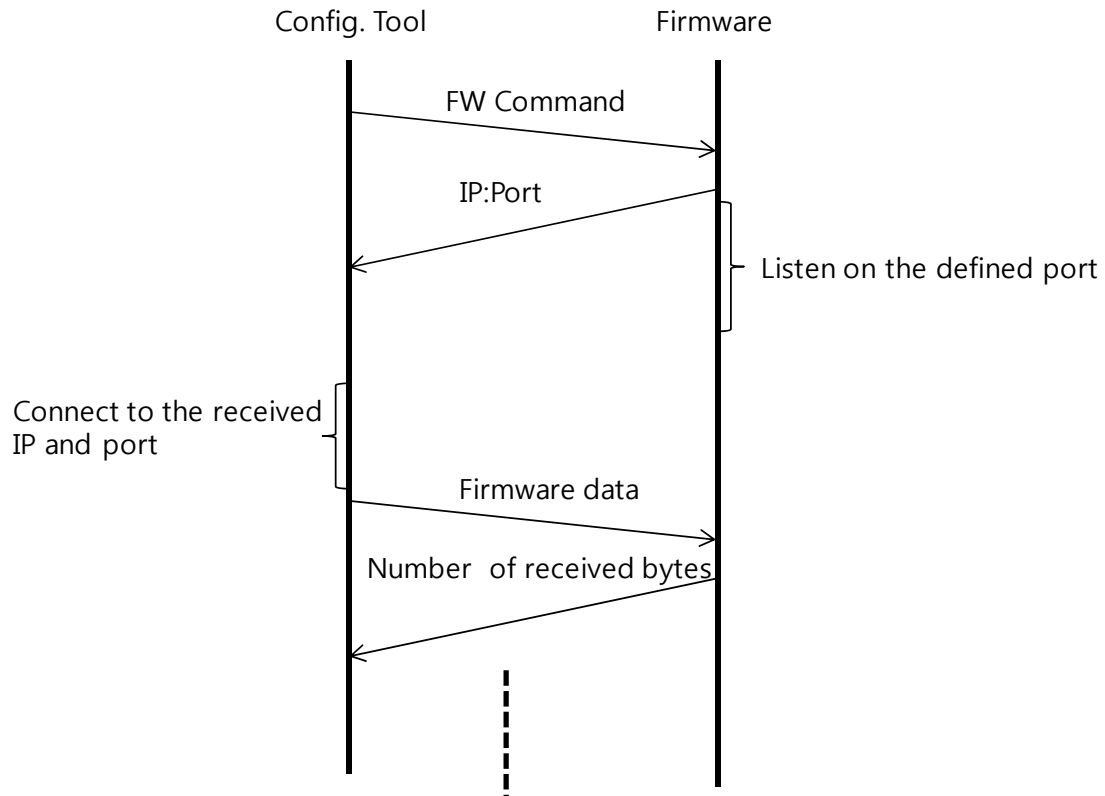
Firmware upload protocol

Using UDP to broadcast FW upload command, when a S2E receives FW command, it will compare its MAC address with the one in FW command. If the same, the S2E will send "IP:Port" to configuration tool. Then, the configuration tool will connect with the received IP and port.

```
        Config. Tool                    Firmware

                       FW Command

                        IP:Port
                                                    ⎤
                                                    ⎦  Listen on the defined port

   Connect to the received
   IP and port

                      Firmware data

                Number  of received bytes
```

TCP/UDP port

```
UDP broadcast:                  50001

TCP direct searching:           50001

*Firmware uploading:            50002 (TCP)
```