

## ezTCP Technical Document

# Multi Monitoring

Version 2.1

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# 1 Multi-Monitoring

## 1.1 What's Multi-Monitoring?

It is not allowed for the existing ezTCP product group to connect several hosts at the same time. In other words, only one connection is allowed for ezTCP which does not support multi-monitoring, and more than two connections are allowed for ezTCP which supports multi-monitoring. Each connection is available for both-way connection.

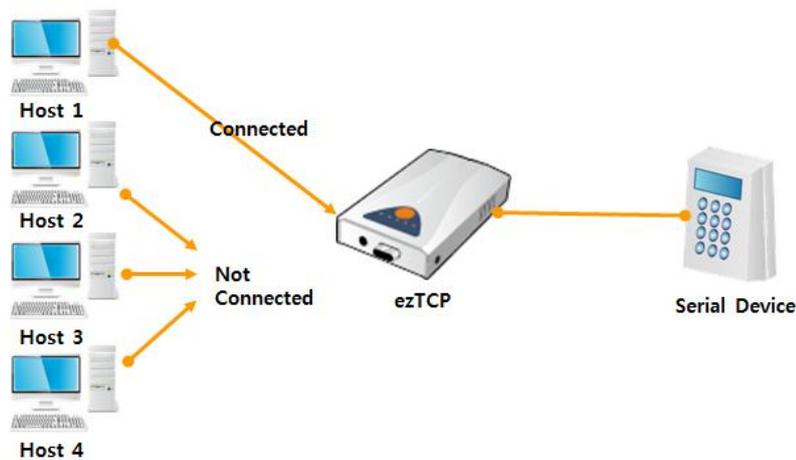


Fig 1-1 ezTCP which does not support multi-monitoring

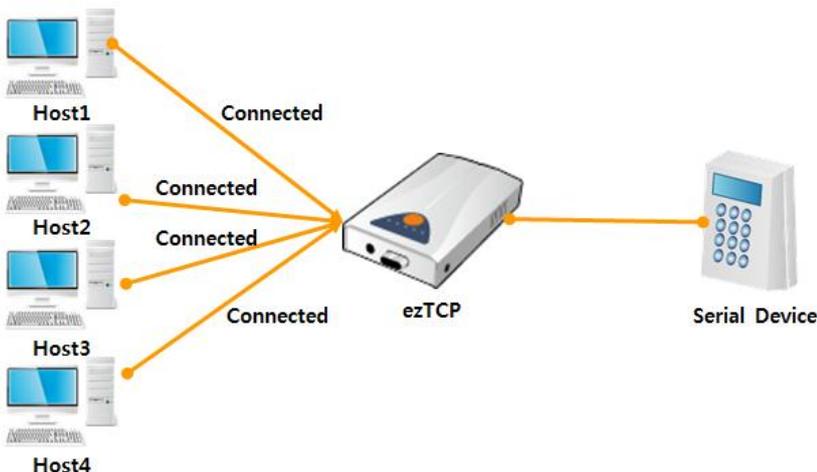


Fig 1-2 ezTCP which supports multi-monitoring

### 1.1.1 Data Flow

Data transferred from the host to EZL-200F is only transmitted to user device while data transferred from user device to EZL-200F is transmitted to all connected hosts.

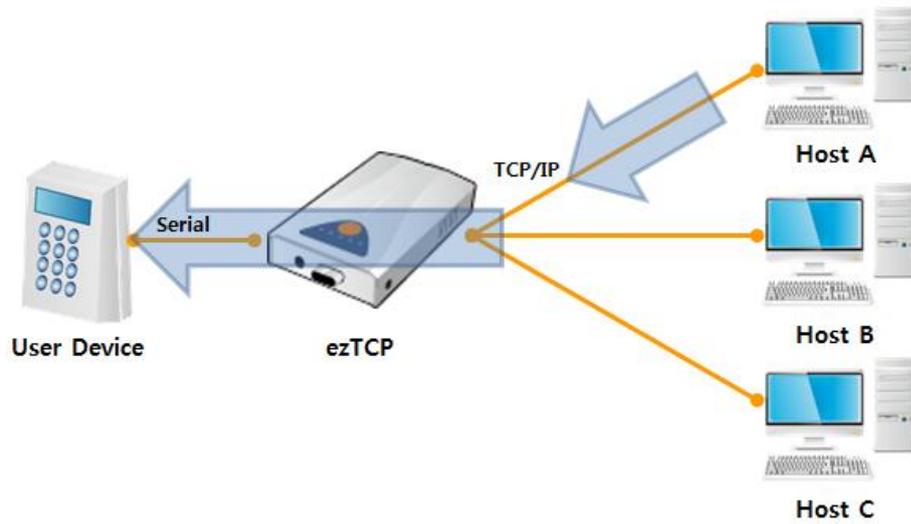


Fig. 1-3 Serial → TCP/IP data flow

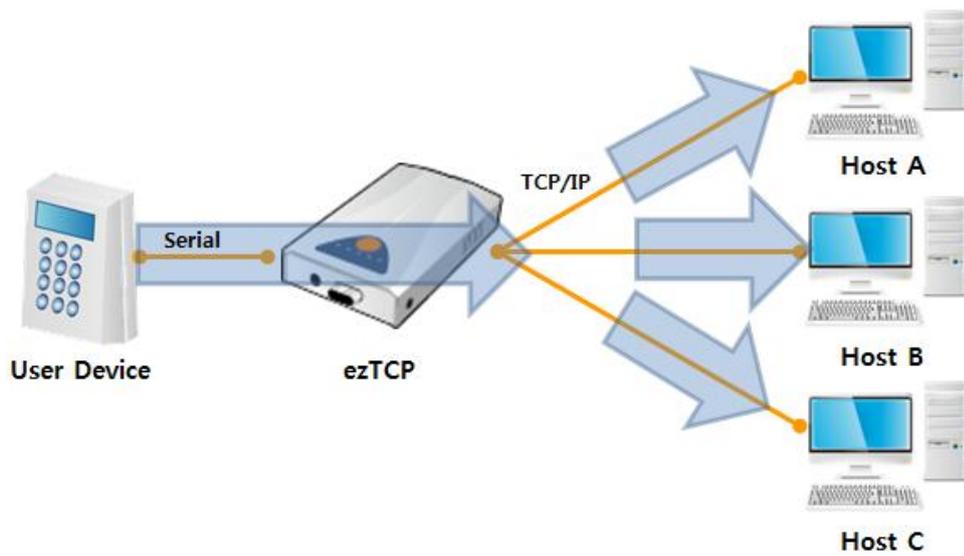


Fig. 1-4 TCP/IP → Serial data flow

## 2 How to use

### 2.1 ezConfig Setting

Activated multi-monitoring by checking [Multiple Connection] in ezConfig allows up to 8 connections. Otherwise only connection is available.

If you check [Multiple Connection] in ezConfig, multi-monitoring is activated and up to 8 connections are allowed. However, only one connection is allowed if you do not check Multiple Connection.

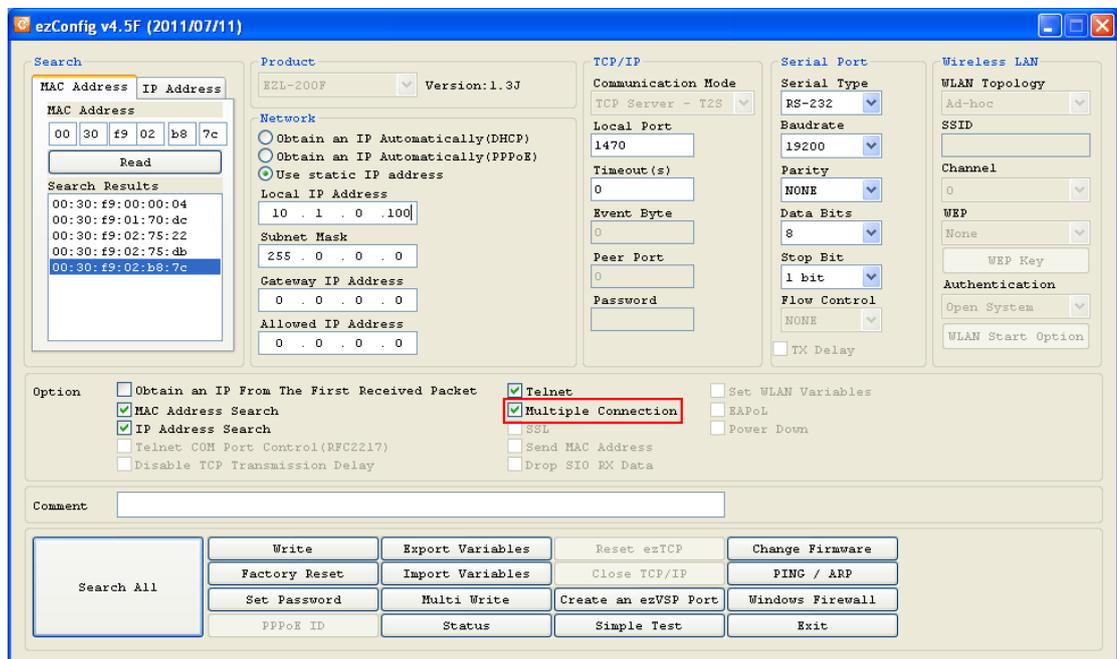


Fig. 2-1 ezConfig setting

### 2.2 Notice

#### 2.2.1 Both-way communication

Other than simple multi monitoring, matters may be caused on the system for query and response. If one of servers requests response, others will also get the

response.

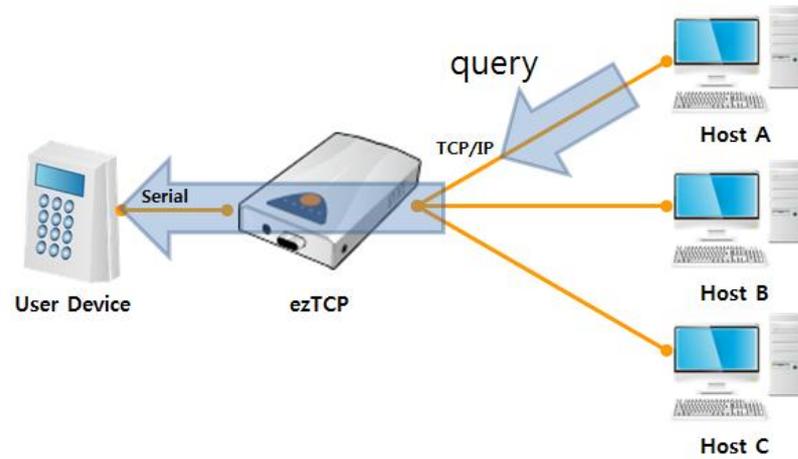


Fig 2-2. Sending query from host A

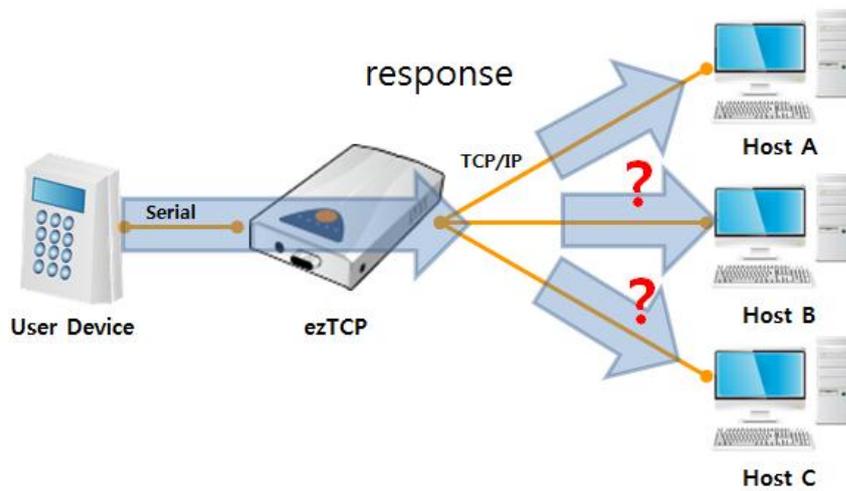


Fig 2-3 Sending response to all the hosts connected

You, therefore, are required to take extra procedure to avoid it in the server program.

*Note : If more than two servers send queries at the same time, the queries might be mixed on the serial side.*

## 2.2.2 Restriction

- Multi-monitoring is available only when ezTCP is in T2S mode.
- Multi-monitoring does not support flow control.

## 2.3 Examples

### 2.3.1 Multi-monitoring Configuration

Configure multi-monitoring as shown in 2-1.

### 2.3.2 Telnet Access

Access telnet in the command window of windows. You should enter the port number for connection. Since the local port is set to 1470, in the example, access telnet with 1470.

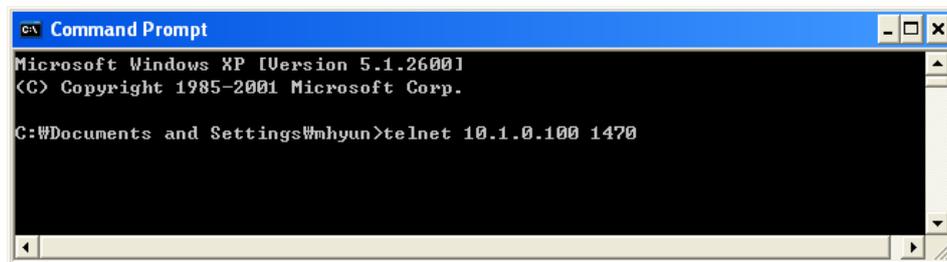


Fig 2-4 Access to ezTCP

When connection is established, DOS window becomes clear.

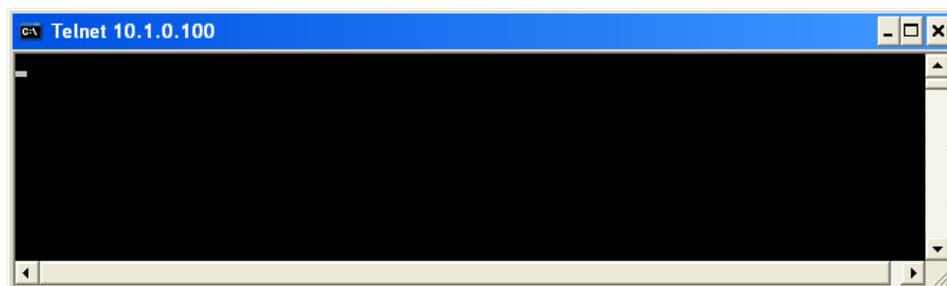


Fig 2-5 Connected Status

### 2.3.3 Checking telnet Connection

Open the new command window and enter the following command to check that telnet connection has actually been established.

```

C:\Documents and Settings\mhyun>netstat -n

Active Connections

Proto Local Address          Foreign Address        State
TCP   10.1.0.154:2665        10.1.0.100:1470       ESTABLISHED
TCP   218.49.162.156:1031   218.49.162.162:139   ESTABLISHED
TCP   218.49.162.156:1046   207.46.106.94:1863   ESTABLISHED
TCP   218.49.162.156:1056   203.226.253.167:5004 ESTABLISHED
TCP   218.49.162.156:2658   203.226.253.124:5004 ESTABLISHED

C:\Documents and Settings\mhyun>

```

Fig 2-6 Check for connected status between PC and ezTCP

- Check the Local IP Address matches the IP address of your PC.
- Check the Foreign IP Address and Port Number match the values set in EZL-200F.
- Check State is ESTABLISHED.

### 2.3.4 Second Telnet Access

Try to establish second telnet access.

```

Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\mhyun>telnet 10.1.0.100 1470

```

Fig 2-7 Secondary connect to ezTCP

### 2.3.5 Checking telnet Connection

Open a new command window and enter the following command to check that telnet connection has actually been established.

```

C:\>netstat -n

Active Connections

  Proto Local Address          Foreign Address        State
  ----  -
  TCP    10.1.0.154:2665        10.1.0.100:1470       ESTABLISHED
  TCP    10.1.0.154:2682        10.1.0.100:1470       ESTABLISHED
  TCP    218.49.162.156:1031    218.49.162.162:139    ESTABLISHED
  TCP    218.49.162.156:1046    207.46.106.94:1863    ESTABLISHED
  TCP    218.49.162.156:1056    203.226.253.167:5004  ESTABLISHED
  TCP    218.49.162.156:2658    203.226.253.124:5004  ESTABLISHED
  TCP    218.49.162.156:2681    218.49.162.161:139    TIME_WAIT
  
```

Fig 2-8 Check for second connected status between PC and ezTCP

- Check the Local IP Address matches the IP address of your PC.
- Check that the Foreign IP Address and Port Number match the values set in EZL-200F.
- Check that State is ESTABLISHED.
- Check there are two connections established as shown in the figure above.

The figure below shows 8 connections (Up to 8 connections are allowed.).

```

C:\>netstat -n

Active Connections

  Proto Local Address          Foreign Address        State
  ----  -
  TCP    10.1.0.154:2665        10.1.0.100:1470       ESTABLISHED
  TCP    10.1.0.154:2682        10.1.0.100:1470       ESTABLISHED
  TCP    10.1.0.154:2685        10.1.0.100:1470       ESTABLISHED
  TCP    10.1.0.154:2687        10.1.0.100:1470       ESTABLISHED
  TCP    10.1.0.154:2688        10.1.0.100:1470       ESTABLISHED
  TCP    10.1.0.154:2689        10.1.0.100:1470       ESTABLISHED
  TCP    10.1.0.154:2690        10.1.0.100:1470       ESTABLISHED
  TCP    10.1.0.154:2691        10.1.0.100:1470       ESTABLISHED
  TCP    218.49.162.156:1031    218.49.162.162:139    ESTABLISHED
  TCP    218.49.162.156:1046    207.46.106.94:1863    ESTABLISHED
  TCP    218.49.162.156:1056    203.226.253.167:5004  ESTABLISHED
  TCP    218.49.162.156:2658    203.226.253.124:5004  ESTABLISHED
  
```

Fig 2-9 Status of number of 8 connect to ezTCP

### 3 Revision History

Date	version	Comments	Author
2005.07.13	1.0	○ Created	
2005.12.06	2.0	○ Added revision history ○ Changed all fonts into Times New Roman	
2012.04.23	2.1	○ The Restrictions has been modified	Lisa Shin