# USB Disk

Below shows the products which support USB Disk feature and the corresponding firmware version:

1. Vigor2910 Series, firmware version 3.2.3.1 and above

2. Vigor2820 Series, firmware version 3.3.3 and above

3. Vigor2110 Series, firmware version 3.3.2 and above

Takes Vigor2910 series as an example for explanation :

You can leave Vigor2910 as media-sharing server while you are away home or office! Then the hard-drive or flash-based USB storage device will act as FTP server, and the users can access it by any FTP client from LAN or WAN. If you are an editor or journalist, you can let newspapers or magazine download your reports as well as high-resolution photos while you are chasing latest news. If you are film-lover, USB hard-drive can be attached to Vigor2910 router to download file without turning on your PC. Vigor2910 series let you easily back up files or access saved media files!
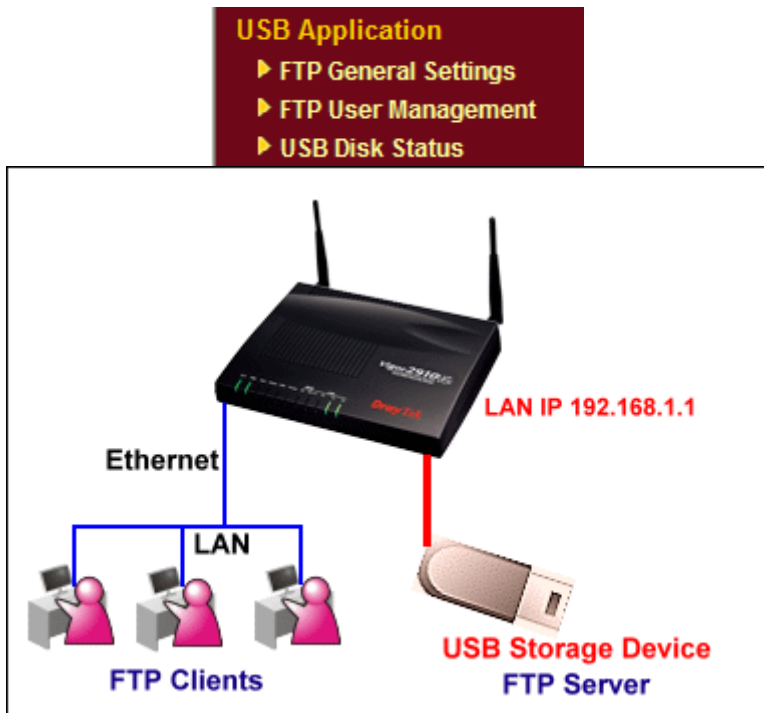
Suppose you have a USB storage device which contains the following folders and files.
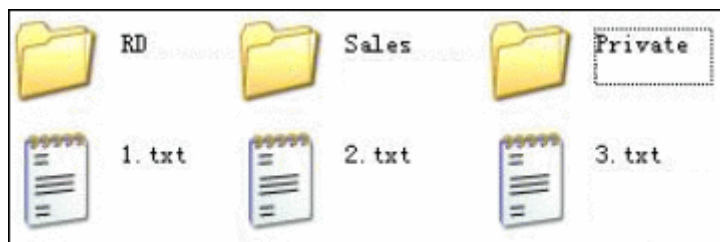
The files in the RD folder and Sales folder are for the R&D department and Sales department respectively. You can not find a server (FTP or Web, etc) to share those files, and you do not want to send the device to each person (Because there are too many persons and you don't want them to see the files in the Private folder). Now you just need to simply connect the USB storage device to the Vigor router, and take 1 or 2 minutes to setup the accounts. Then the USB storage device will act as FTP server, and the users can access it by any FTP client from LAN or WAN.

How to use this function?

1. Connect your USB storage device to the USB port on Vigor2910.

2. Open the web configurator, go to the **USB Application >> USB Disk Status** page. Before the USB storage device is recognized by the router, you will see the following status:

    Connection Status: No Disk Connected

    Disk Capacity: 0 MB

    Free Capacity: 0 MB

    Button "Disconnect USB Disk": gray out

```
USB Application >> USB Disk Status


USB Mass Storage Device Status

Connection Status: No Disk Connected          Disconnect USB Disk

Disk Capacity: 0 MB

Free Capacity: 0 MB    Refresh


FTP User Connected                                      | Refresh |

        Index            Username              IP Address
          1.
          2.
          3.
          4.
          5.
          6.
```

If the router can recognize your USB storage device, you will see the following status:

    Connection Status: **Disk Connected**

    Write Protect Status: **No** (or **Yes**)

    Disk Capacity: xx MB (Here xx stands for the real size of your USB storage device)

    Free Capacity: **0 MB**

    Button "Disconnect USB Disk": available

Please note Free Capacity is still 0 MB now.

```
USB Application >> USB Disk Status


USB Mass Storage Device Status

Connection Status: Disk Connected          Disconnect USB Disk

Write Protect Status: No

Disk Capacity: 122 MB

Free Capacity: 0 MB    Refresh


FTP User Connected                                      | Refresh |

        Index            Username              IP Address
          1.
          2.
          3.
          4.
          5.
          6.
```

To query the free capacity of the USB storage device, please press the **Refresh** button, a window pops up. Please press OK.

USB Application >> USB Disk Status

USB Mass Storage Device Status

Connection Status: Disk Connected   Disconnect USB Disk

Write Protect Status: No

Disk Capacity:

Free Capacity:

Windows Internet Explorer

? This may take a few seconds.Do you want to continue?

OK   Cancel

FTP User Conne | Refresh |

Index

1.

2.

3.

4.

5.

6.

Refresh free capacity may take several seconds to some minutes, which depends on the capacity of your disk.

USB Application >> USB Disk Status

USB Mass Storage Device Status

Connection Status: Disk Connected   Disconnect USB Disk

Write Protect Status: No

Disk Capacity: 122 MB

Free Capacity: 0 MB   Refresh   Please Wait...

FTP User Connected | Refresh |

Index	Username	IP Address
1.		
2.		
3.		
4.		
5.		
6.		

The result of refresh.

Note: We do not recommend to click this button before usb status turns to "Connected".

USB Application >> USB Disk Status

USB Mass Storage Device Status

Connection Status: Disk Connected   [Disconnect USB Disk]
Write Protect Status: No
Disk Capacity: 122 MB
Free Capacity: [99 MB] Refresh

FTP User Connected | Refresh |

Index	Username	IP Address
1.		
2.		
3.		
4.		
5.		
6.		

Note: If Write Protect Status shows Yes, it means you have turned on the write protect switch on the USB storage device and it is in read-only mode.

USB Application >> USB Disk Status

USB Mass Storage Device Status

Connection Status: Disk Connected   [Disconnect USB Disk]
Write Protect Status: **Yes**
Disk Capacity: 122 MB
Free Capacity: 99 MB Refresh

FTP User Connected | Refresh |

Index	Username	IP Address
1.		
2.		
3.		
4.		
5.		
6.		

3. Go to the **USB Application >> FTP** User Management page and setup the accounts.

FTP User Management | **Set to Factory Default** |

Index	Username	Home Folder	Index	Username	Home Folder
1.			9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

For the users in the R&D department, you must first setup a login account. Then enter "/RD" in the Home Folder field which will lock the RD users within this folder. Finally give them "Read" and "List" privilege.

USB Application >> FTP User Management

Profile Index: 1

FTP User	⊙ Enable ○ Disable
Username	rd
Password	••
Confirm Password	••
Home Folder	/RD
Access Rule	
File	☑ Read ☐ Write ☐ Delete
Directory	☑ List ☐ Create ☐ Remove

Note: The folder name can only contain the following characters: A-Z a-z 0-9 $ % ' - _ @ ~ ` ! ( ) and space.

[OK]   [Clear]   [Cancel]

For the users in the Sales department, you must first setup a login account. Then enter "/Sales" in the Home Folder field which will lock the Sales users within this folder. Finally give them "Read" and "List" privilege.

USB Application >> FTP User Management

Profile Index: 2

FTP User	⦿ Enable ◯ Disable
Username	Sales
Password	••••••
Confirm Password	••••••
Home Folder	/Sales

Access Rule

File	☑ Read ☐ Write ☐ Delete
Directory	☑ List ☐ Create ☐ Remove

Note: The folder name can only contain the following characters: A-Z a-z 0-9 $ % ' - _ @ ~ ` ! ( ) and space.

[OK] [Clear] [Cancel]

For yourself, you may create an account with all the privileges. To list all the files/folders in the USB storage device, please enter "/" in the Home Folder field.

USB Application >> FTP User Management

Profile Index: 3

FTP User	⦿ Enable ◯ Disable
Username	owner
Password	••••
Confirm Password	••••
Home Folder	/

Access Rule

File	☑ Read ☑ Write ☑ Delete
Directory	☑ List ☑ Create ☑ Remove

Note: The folder name can only contain the following characters: A-Z a-z 0-9 $ % ' - _ @ ~ ` ! ( ) and space.

[OK] [Clear] [Cancel]

4. When someone are accessing the USB storage device, you can check the status in the **USB Application >> USB Disk Status** page.

USB Application >> USB Disk Status

USB Mass Storage Device Status

Connection Status: Disk Connected [Disconnect USB Disk]

Write Protect Status: No

Disk Capacity: 122 MB

Free Capacity: 99 MB Refresh

FTP User Connected | Refresh |

Index	Username	IP Address
1.	rd	192.168.1.23
2.		
3.		
4.		
5.		
6.		

5. On the client PC, please open a FTP client software, such as FlashFXP. Enter the IP address of the router and the login account.
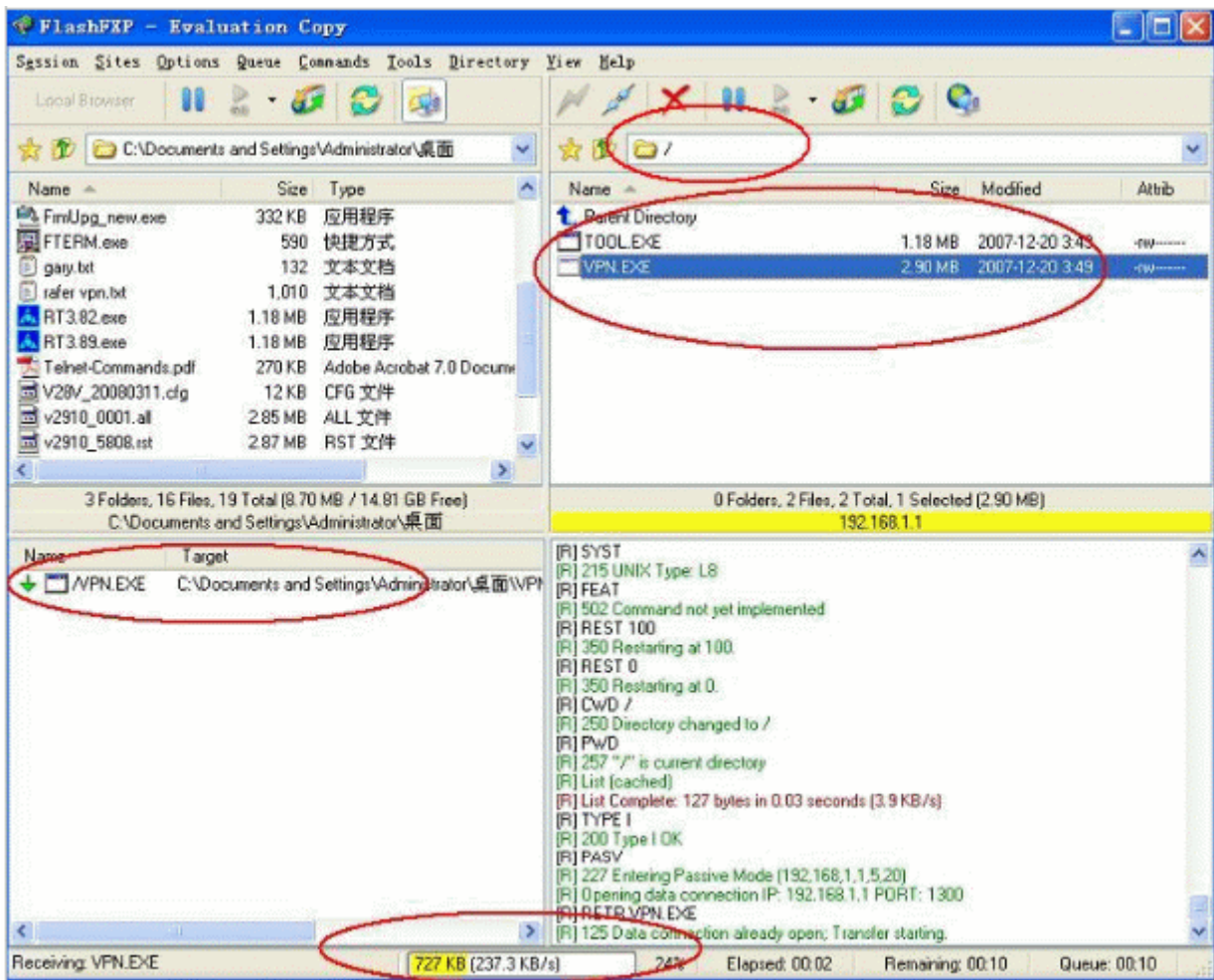
R&D users login :

After login successfully, the RD user can list and download the files/folders within the RD folder.
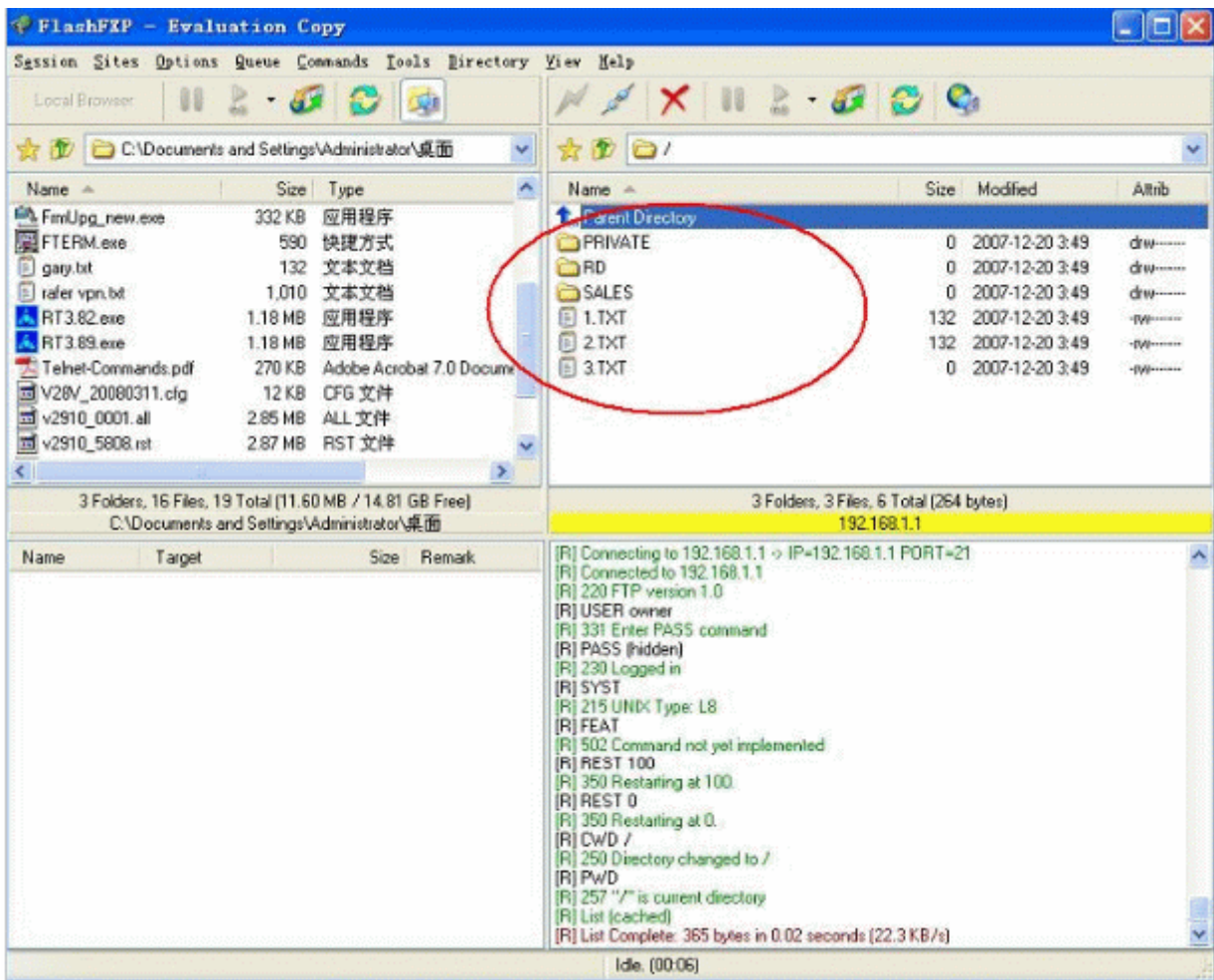
Now login using the "owner" account.
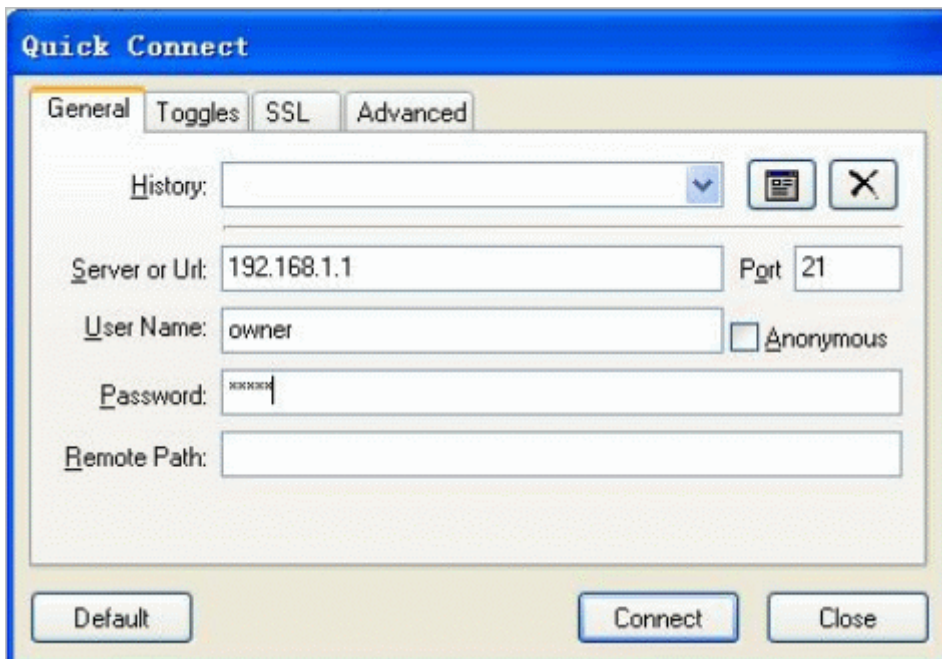
After login successfully, you have the full rights and are able to manage the USB storage device.

Note.

1. If there is a folder "Tool" within the "RD" folder and you want to lock a user within this folder, you may type sub-directory "/RD/Tool" in the Home Folder.

2. If a user is allowed to view all the files/folders in the USB dick, please type "/" as the home folder. But you can't leave the Home Folder field empty. Otherwise you will get the error message "**The folder name could not be empty, please enter directory name or /**".
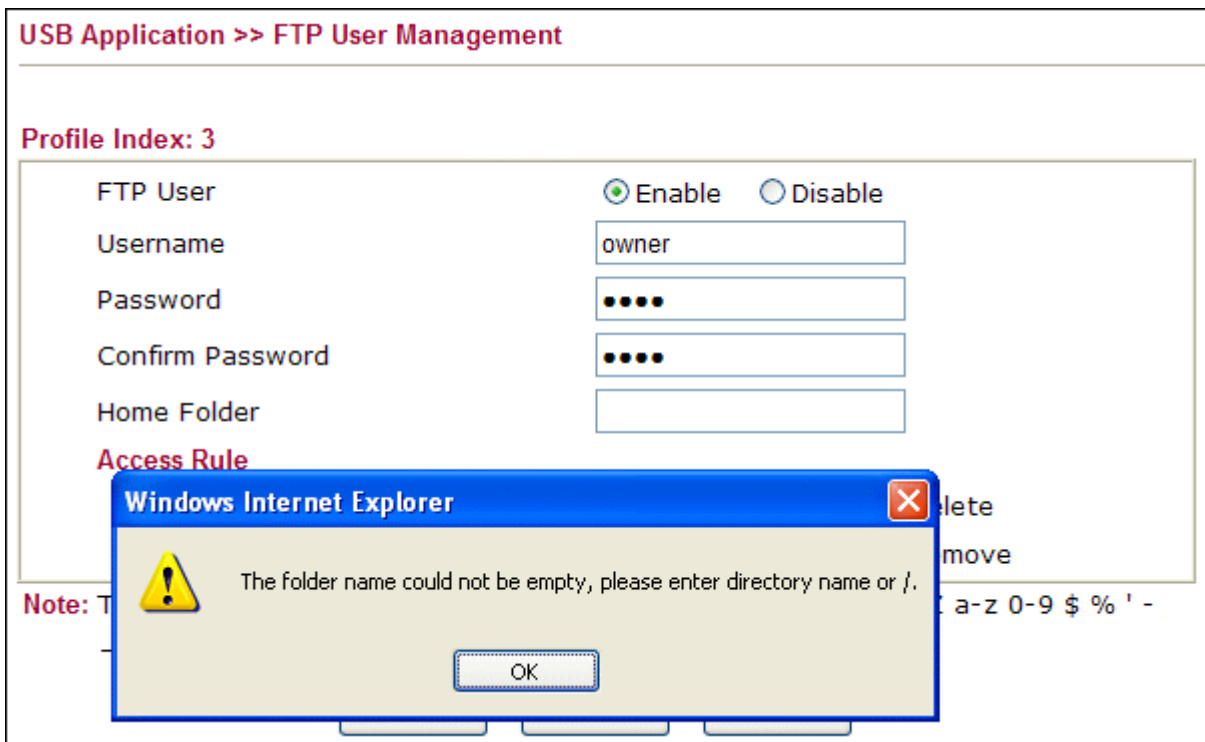
3. If the USB storage device is in read-only mode, you can not enter any directory name in the Home Folder field but "/". Otherwise you will get the error message "**Home folder setting cannot be changed, because write protect switch of USB Disk is turned on, please check it.**"

USB Application >> FTP User Management

Profile Index: 1

FTP User ⊙ Enable ○ Disable

Username

Windows Internet Explorer

⚠ Home folder setting cannot be changed, because write protect swtich of USB Disk is turned on, please check it.

OK

Note: The folder name can only contain the following characters: A-Z a-z 0-9 $ % ' - _ @ ~ ` ! ( ) \ and space.

OK   Clear   Cancel
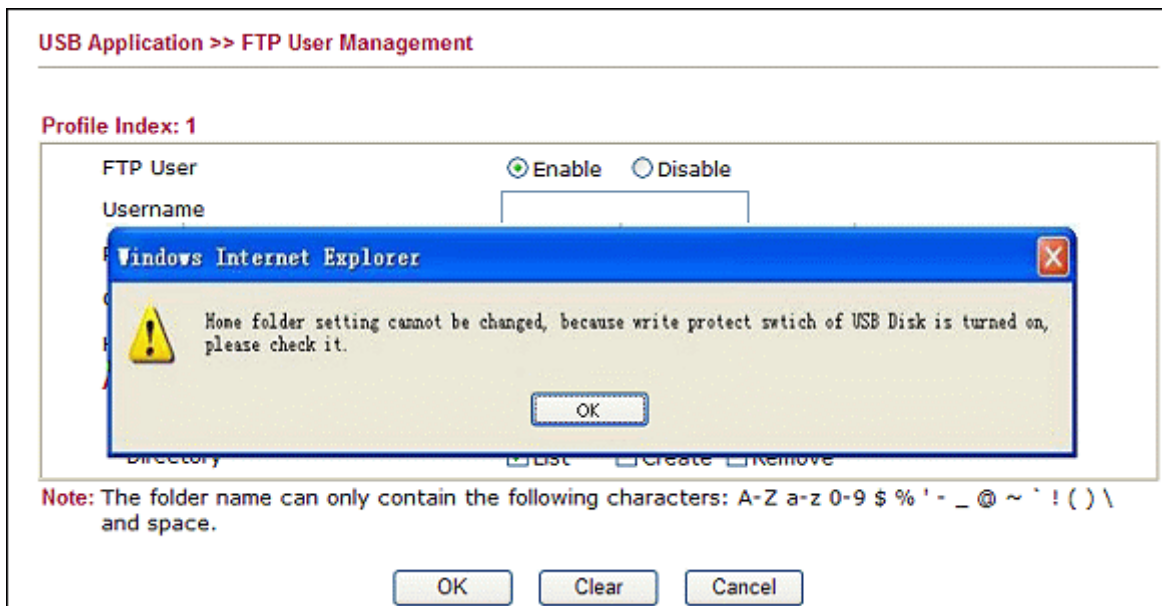
4. If there is no USB storage device connected to the router, you can not add or change an account. Otherwise you will get the error message "**No Disk Connected! Please insert the disk to connect**".

USB Application >> FTP User Management

Profile Index: 3

FTP User ⊙ Enable ○ Disable

Username owner

Password ••••

Confirm Pass

Home Folder

Access Rule

File

Directory

Windows Internet Explorer

⚠ No Disk Connected! Please insert the disc to save.

OK

Delete

Remove

Note: The folder name can only contain the following characters: A-Z a-z 0-9 $ % ' - _ @ ~ ` ! ( ) and space.

OK   Clear   Cancel
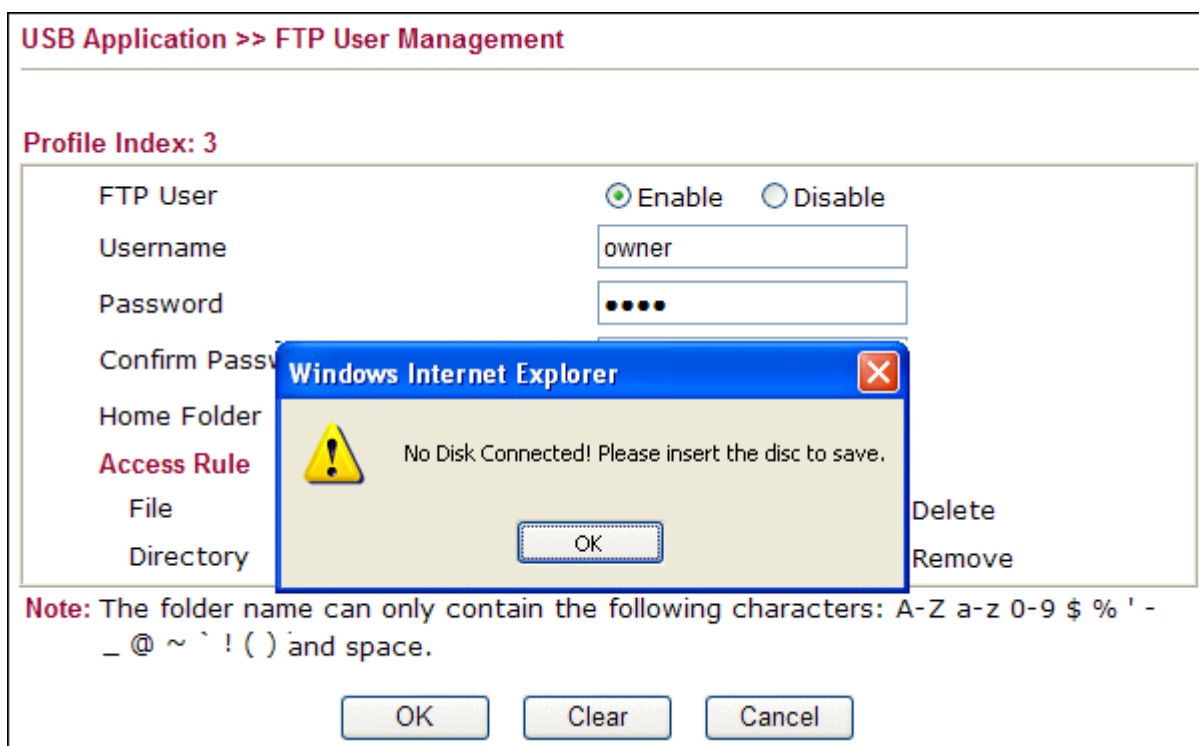
5. The FTP server for USB storage device doesn't allow anonymous login. In other words, you can??t leave the Username field empty.

6. The FTP server for USB storage device doesn't allow admin account. In other words, you can't enter "admin" in the Username field. Otherwise you will get the error message "**Admin could not be used as Username. Please re-enter**". This is because by default the admin account has been used by router for management.

USB Application >> FTP User Management

Profile Index: 3

FTP User	⊙ Enable ○ Disable
Username	admin
Password	••••
Confirm Password	••••

Home Folder

Access Rule

File

Directory

Windows Internet Explorer

⚠ "admin" could not be used as Username. Please re-enter.

OK

Note: The folder na[...] z 0-9 $ % ' - _ @ ~ ` ! ( ) and space.

OK   Clear   Cancel

7. When you use some special FTP clients, such as CuteFTP Pro, you may find even you are downloading or uploading just one file, there are two sessions shown in the status page (see below). This is because those software use different sessions for login and file transfer.

USB Application >> USB Disk Status

USB Mass Storage Device Status

Connection Status: Disk Connected   Disconnect USB Disk

Write Protect Status: No

Disk Capacity: 122 MB

Free Capacity: 99 MB   Refresh

FTP User Connected | Refresh |

Index	Username	IP Address
1.	owner	192.168.1.23
2.	owner	192.168.1.23
3.		
4.		
5.		
6.		

8. The FTP server for USB storage device supports up to 6 sessions simultaneously. You may change the setup in the **USB Application >> FTP General Settings** page.

USB Application >> FTP General Settings

FTP General Settings

Concurrent FTP Connection	5 (Maximum 6)
Default Charset	Default

Note: If charset is set to "default", only long file name (in English) will be supported.

OK
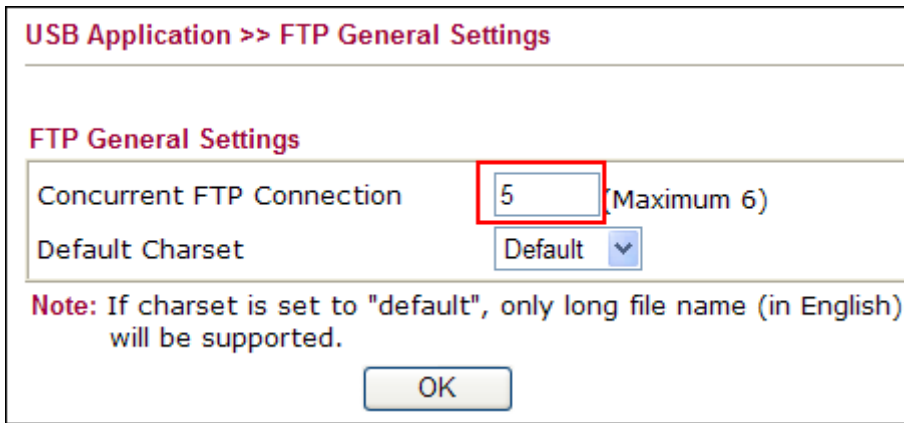
9. The USB version supported by Vigor is 1.1.

10. FAT type:
We only support FAT16 and FAT32 format for USB disk. So please make sure you have formatted your usb disk to FAT16/32, then plug it to the Vigor router.

11. The FAT16 file system supports 8 characters for the base file name and 3 characters for the extension. So if the file system of your USB storage device is FAT16 and there is a file or folder with the name size exceeds the limitation, the FTP server can not list the name completely.

For example in the USB storage device there is a folder "123456789" and file "123456789.txt". When you access the USB storage device by FTP, you may find it is listed as "123456~1" and "123456~1.TXT" (see below).

Name ▲	Size	Modified	Attrib
↰ Parent Directory			
📁 123456~1	0	2007-12-20 3:49	drw-------
📁 PRIVATE	0	2007-12-20 3:49	drw-------
📁 SALES	0	2007-12-20 3:49	drw-------
📄 123456~1.TXT	132	2007-12-20 3:49	-rw-------
📄 2.TXT	132	2007-12-20 3:49	-rw-------

About FAT32, we support long file name, then you can see "123456789.txt " instead of "123456~1.TXT ". So, fat 32 is recommended. However, there is a limitation in current release. Long directory/folder name is not allowed even in FAT32.

12. The performance differs large which depends on the USB storage device mainly.

13. If you want to change FTP server's port, please go to the **System Maintenance >> Management** page, and change the FTP Port (see below). By default it is TCP 21.

System Maintenance >> Management

Management Setup

Management Access Control

Management Port Setup

☐ Allow management from the Internet

☐ FTP Server

☑ HTTP Server

☑ HTTPS Server

☑ Telnet Server

☐ SSH Server

☑ Disable PING from the Internet

Access List

List	IP	Subnet Mask
1		
2		
3		

◉ User Define Ports   ○ Default Ports

Telnet Port   [23]   (Default: 23)

HTTP Port   [80]   (Default: 80)

HTTPS Port   [443]   (Default: 443)

FTP Port   [2121]   (Default: 21)

SSH Port   [22]   (Default: 22)

SNMP Setup

☐ Enable SNMP Agent

Get Community   [public]

Set Community   [private]

Manager Host IP   [ ]

14. For the moment we only support English and Chinese charset. If your country has its own charset, you may offer us the char table so that we can support it in the future.

If the filename contains Chinese characters, please select GB2312 (Chinese Simplified) or BIG5 (Chinese Traditional) as charset in the**USB Application >> FTP General Settings** page.

USB Application >> FTP General Settings

FTP General Settings

Concurrent FTP Connection   [5]   (Maximum 6)

Default Charset   [Default ▾]

Default
GB2312
BIG5

Note: If charset is set to "default", only lo[ ]e (in English) will be supported.

[OK]

If you have selected GB2312 or BIG5, but fail to connect the FTP server with the error message like "No ChartsTable...", it means there is no relevant encoding table in your USB storage device.

```
[R] 550 No ChartsTable or Device disconnected
[R] Connection failed
[R] Connecting to 192.168.1.1 -> IP=192.168.1.1 PORT=21
[R] Connected to 192.168.1.1
[R] 220 FTP version 1.0
[R] USER rd
[R] 331 Enter PASS command
[R] PASS (hidden)
[R] 230 Logged in
[R] SYST
[R] 550 No ChartsTable or Device disconnected
[R] FEAT
[R] QUIT
[R] 550 No ChartsTable or Device disconnected
[R] Connection failed
```

The solution is putting the code file (Uni2GBK.dat、Uni2Big.dat、GBK2Uni.dat、Big2Uni.dat) into usb disk and then connect again,it would work .