



Protocol Control



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1: Basic overview

Brother knows that network efficiency and security are high priorities for your organisation. That's why they have included protocol control as standard in all their network print devices. So what is protocol control? There are many ways of interacting with your Brother print device, from scanning a document to email, to simply printing work from your computer. Each one of these interactions uses something called a protocol in order to communicate.

Protocol control allows you to manipulate which of these protocols you want turned on, thus providing your network with additional security. So for example, if you turn off the e-mail protocol, your Brother multifunction device will no longer be able to scan a document to email.

2: Benefits

- Increased network security
- Lower network traffic
- Better control of your Brother print devices

3: What is a protocol?

Imagine you are in a room with 20 people and each of them tries to speak with you in foreign language. In order to understand what they are saying, you must know how to speak their language.

Networking devices must also learn many languages too. This is because other network devices use many languages when communicating different functions or activities. These languages are called protocols and exist to make networks safer and more efficient. For example, when you send an email, that email will more than likely use a special protocol called SMTP (Simple Mail Transfer Protocol). This enables other networking devices to automatically recognise emails so that they know what to do with them.

Here is a list of the most common protocols used by Brother print devices:

- Web Server, IPP (Port 80)
Unsecure printing over the Internet
- Web Services (Port 80)
 - Non secure remote access to your Brother device through a web browser
- IPP (Port 631)
Secure printing through encryption
- HTTPS (Port 443)
Secure remote access to your Brother device through a web browser
- POP3/SMTP (Post Office Protocol / Simple Mail Transfer Protocol)
Used for handling most types of email
- FTP (File Transfer Protocol)
Used when scanning documents to an FTP site (remote storage location)
- TFTP (Trivial File Transfer Protocol)
Used when sending files, like firmware updates, via programs like BRAdmin
- mDNS (Multicast Domain Name Services)
An intelligent way for your Brother devices to recognise different naming structures
- SNMP (Simple Network Management Protocol)
Common protocol used for sending and receiving data files between a computer and your Brother print device over a network
- Telnet
Provides advanced remote access to your Brother device
- LDP (PC fax send)
Used for sending faxes from your PC to your Brother print device
- Raw Port
Advanced way of sending a print job to a printer

- Network scan
Protocol for scanning documents over the network
- PC fax receive
Used for receiving faxes from your Brother multifunction device to your PC
- Remote setup
Used for configuring your Brother print device from a remote location
- LDAP (Lightweight Directory Access Protocol)
Protocol used for connecting to a LDAP server
- LLTD (Link Layer Topology Discovery)
Used by Windows Vista to help it identifying networking equipment

4: Protocol control at work

A national car sales company uses Brother multifunction devices throughout all of its 117 showrooms. On occasion, their IT department began to notice that some of their devices were being dropping off the network. After an investigation they found this was because the IP address of some of these print devices was being changed. It was suspected that nothing was wrong with the network; instead the IT manager thought that the IP addresses were being changed by staff. The IT manager therefore decided to use protocol control to disable any remote access, apart from through BRAdmin, to each device.

Since implementing this simple change, no more printers have since dropped off the network, thus allowing their IT staff to concentrate on other important activities.

5: How to configure

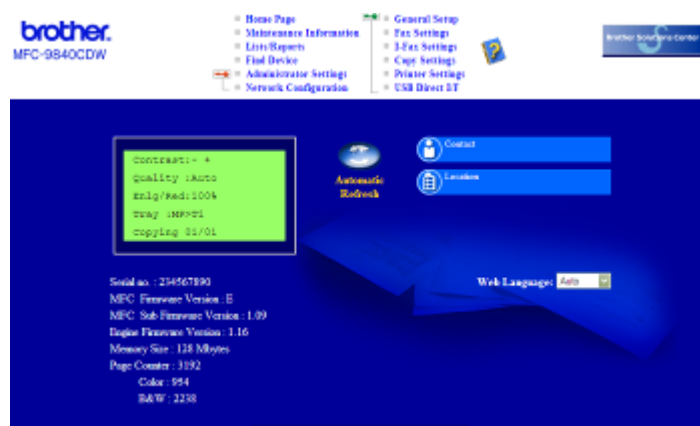
There are two common ways to configure protocol control:

1. Using the Embedded Web Server (EWS)
2. Using BRAdmin

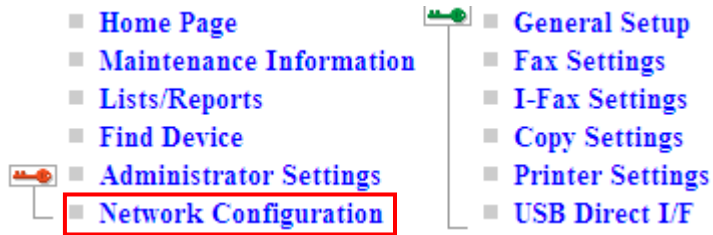
Please note that these instructions show you how to configure IP filter on an MFC-9840CDW. Other Brother devices may differ slightly.

5.1: Configuring protocol control through the Embedded Web Server

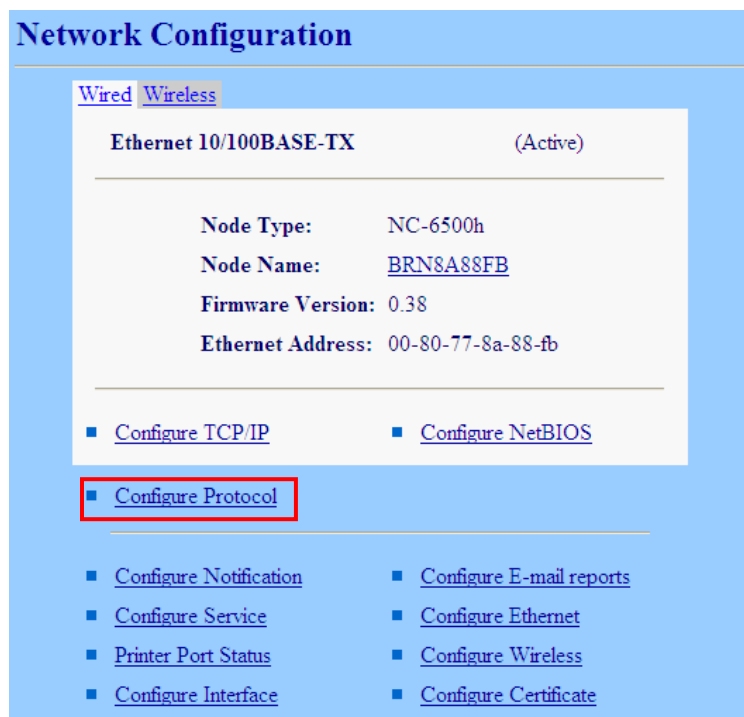
Step 1: Log onto your Brother print device through a web browser.



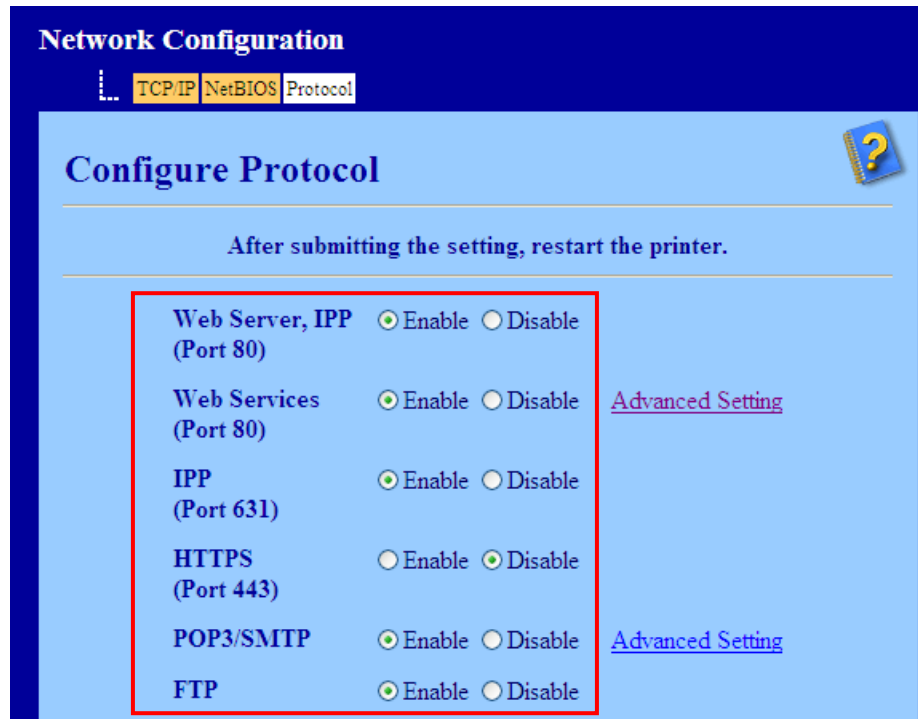
Step 2: Click on 'Network-Configuration' from list of options and enter your username and password if prompted to do so.



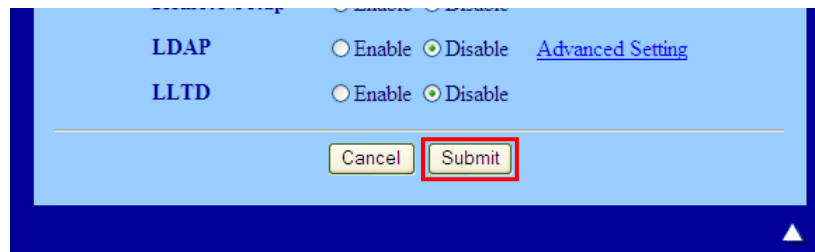
Step 3: Click 'Configure Protocol'.



Step 4: Select which protocols you want to enable, or disable, by clicking in the appropriate 'Enable' or 'Disable' circle.



Step 5: When you have finished, click on the 'Submit' button to save your settings.

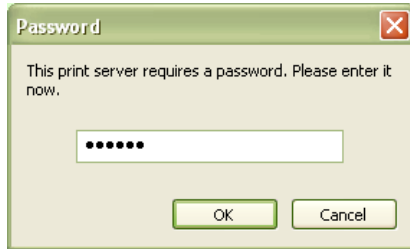


5.2: Configuring protocol control through BRAdmin Professional 3

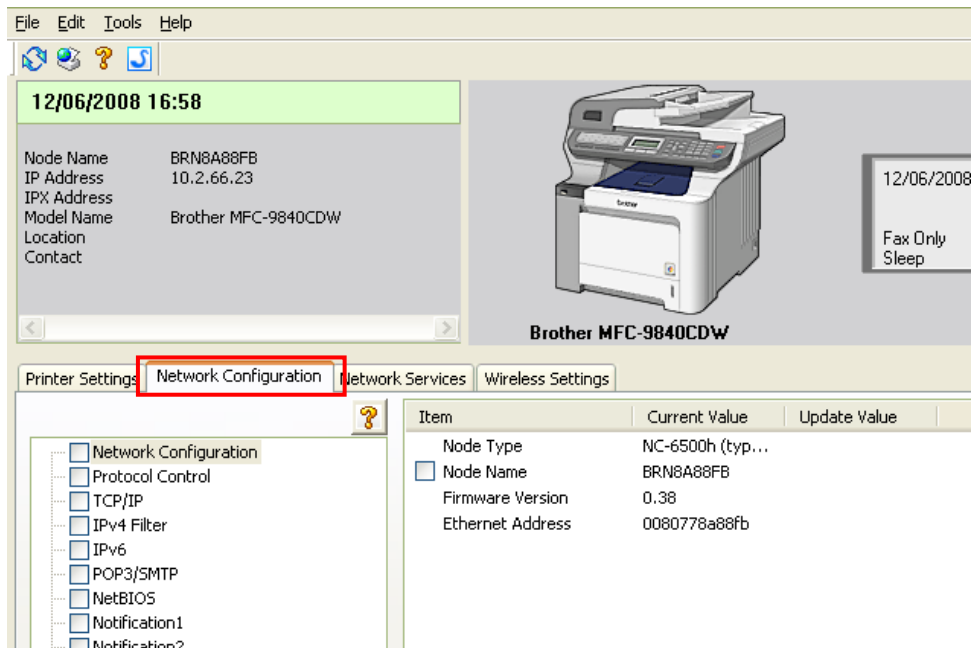
Step 1: Find the device you want to configure and double-click it (in this example the device is a Brother MFC-9840CDW).

Brother DCP-9045CDN	Contrast:- □ + Quality :Auto	10.2.66.29
Brother MFC-9840CDW	24/01/2008 00:13	10.2.66.32
Brother MFC-9840CDW	Toner Low	10.2.66.33
Brother DCP-7045N	Stack Copies:01 Sleep	10.2.22.95

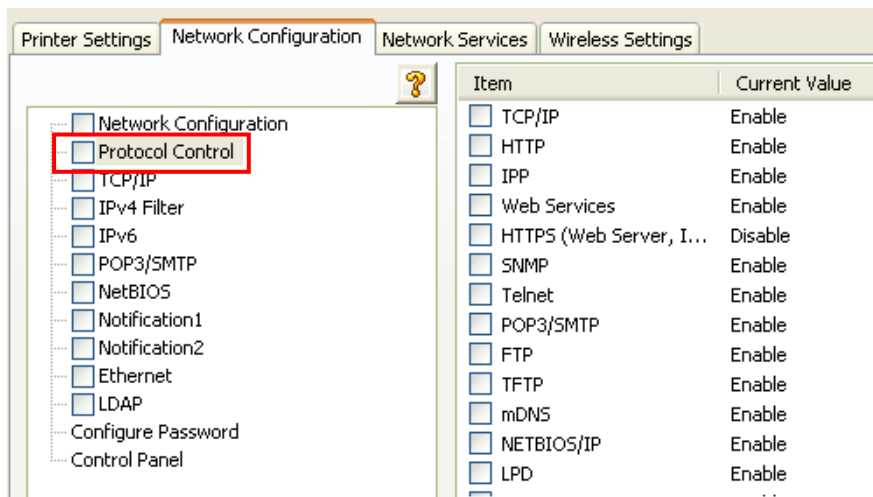
Step 2: Enter the password of your device when requested.



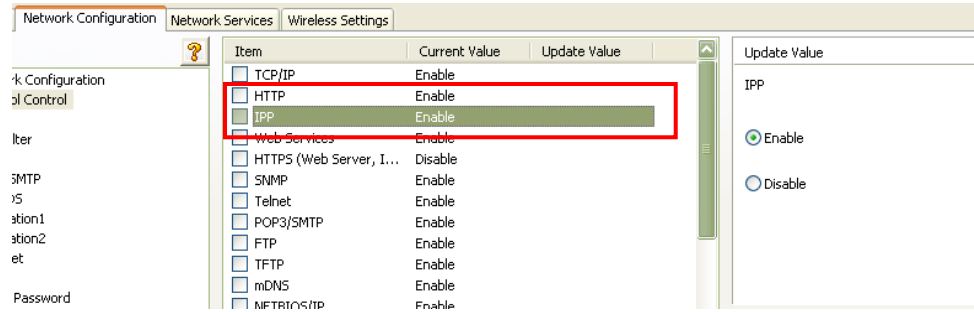
Step 3: Click on the 'Network Configuration' tab.



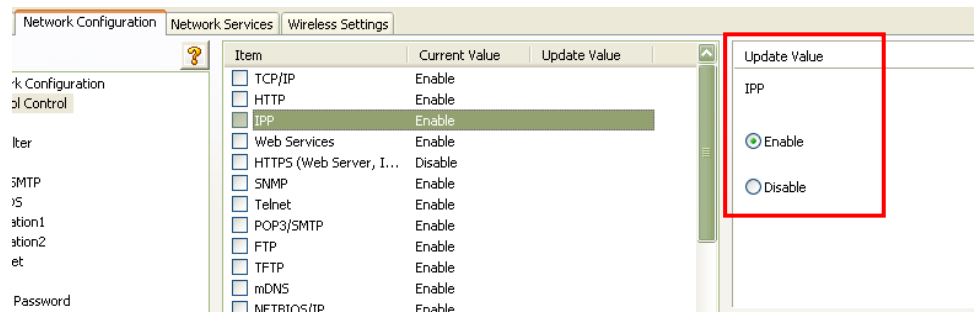
Step 4: Click on 'Protocol Control' from the list of options in the left hand window pane.



Step 5: From the list of protocols in the middle window pane, one by one select which protocols you want to either enable or disable.



Step 6: Then select either 'Enable' or 'Disable' in the right hand window pane.



Step 7: When you are finished, click on the 'Send Settings' button to save your settings.

