Samsung Laser Printers – Network PC Fax (White paper)

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Network PC Fax Overview

Samsung Network PC Fax is a software package designed to send fax messages via Samsung multifunctional peripheral (MFP) devices supplied with fax functionality. Any kind of document can be sent using such device and this operation is as simple as printing the document on an ordinary printer. Each fax message can be addressed to one or more recipients, and the target fax device dials all of them and forwards the message to them automatically. The phone line transmission is invisible, and the document owner needs only to print the document on a special printer installed in system and with controlling options of the printer. The PC Fax printer can be shared on the network as any other regular printer in Microsoft Windows, that's why the Network PC Fax name is applied to the product.

The key functions of Samsung Network PC Fax are:

- Special Network PC Fax printer driver that can be installed on a host computer and can expose subordinated MFP PC Fax device to network clients as normal network printer,
- Ability to install the PC Fax support either by running a special installation program on the target client or by taking existing PC Fax printer from another network node using drag and drop technique or by invoking its "Connect" context menu,
- Special fax-oriented printer options like a list of recipient phone numbers integrated with system address book,
- Fax transmission history feature recording all fax operations on the given PC Fax network host and collecting access information on all clients,
- Advanced cover pages that can have different visual styles in multiple languages and can contain logo images,
- Ability to monitor transmission of any given fax message dynamically and to get a special system tray notification upon delivery.
**Installation**

To install **Samsung Network PC Fax**, run the file setup.exe included in the installation package.

The file starts the Installation Wizard. Follow the on-screen instructions to complete the software setup process.

Minimal requirements for target platform of **Network PC Fax** include Windows XP or above operating systems. Recommended configuration is Windows XP or newer.

To uninstall **Samsung Network PC Fax** software, use the standard Windows tool (menu **Start** > **Control Panel** > **Add/Remove Programs** > **Samsung Network PC Fax**).

**NOTE:** There is an alternative way to install **Samsung Network PC Fax** software. If there is a host sharing **Samsung Network PC Fax** printer on the network, it's possible to find the printer in Windows Network Neighborhood and to copy it to your local **Printers and Faxes** group using drag and drop technique or to invoke its “Connect” context menu. In this case to uninstall **Samsung Network PC Fax**, it's enough to remove the network printer from your system.
Sending Faxes

When Samsung Network PC Fax package is installed in your system, to send a fax, it’s necessary to print a document on Samsung Network PC Fax printer. It can be done from any application capable to print its data. You can control the printing process by changing options in Properties or in Printing Preferences dialogs of the given printer.

Unlike ordinary printers for Samsung Network PC Fax it’s necessary to specify at least target phone number where the fax should be sent to. For faxes it’s also possible to add cover pages that include a heading information, additional message text, subject line and so on. All these additional options are usually individual for every fax sent, so it’s needed to open an additional window with the extended fax parameters before the fax message is uploaded to the fax device. The fax options dialog is displayed by default after printing a document on Samsung Network PC Fax printer. The dialog allows not only setting up fax options, but also viewing fax pages prepared for transmission to the recipient.

Samsung Network PC Fax printer can be shared on the network, so it can be accessed either by local users or by network clients. To track fax sending activities Samsung Network PC Fax maintains a fax transmission history were all operations with fax messages are registered.

Network PC Fax options

The Samsung Network PC Fax options window is opened when printing a document is completed on Samsung Network PC Fax printer, if the Specify fax options before sending parameter was selected in the Printing Preferences of the printer. The window provides various parameters of the given fax message and can control the following.

Fax Machine
User can select fax machine by using device combo box. Each device is referred with model name. For devices connected via network, IP address is displayed also. For USB connected devices, USB port is displayed.

To connect to new devices, press Search (magnifying glass) button.

Recipient options

This group of controls selects recipients for the given fax message. The Recipients list can contain a few phone numbers either typed in manually or selected from the system address book (phone book).

Fax numbers for recipients can be entered directly in the Recipients field with multiple numbers separated by a semicolon (;). To view the available address books, click the Address Book button.

The list of recipients is examined for duplicate entries prior to sending. If a recipient is specified in the list twice or more, the message will be transmitted only ones. Software implies intelligent detection of duplicates, this means only 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, *, # are considered as meaningful. So, it doesn't differ recipients 112, 1 1 2 or 1-1-2, but 112 and 112* are considered different.
The fax message will be sent to every unique fax number in the list. The MFP device will dial target numbers sequentially. Fax Transmission History will then include a separate message record for each fax number dialed.

**Address Book**

Select Recently Sent to display recently used fax numbers. Select Address Book to display contact information from the selected address book (if Microsoft Outlook is installed).

**NOTE:** If Microsoft Outlook is not installed, no option will be provided to select an address book and Windows Address Book will be provided by default.

After selecting contacts, press the Add button under the list of contacts, the contacts will be included into the list of recipients with the intelligent detection of duplicates.

To enter a fax number into the address book manually, press the New button under the list of contacts and enter the desired number. To edit a contact’s fax number, click twice in it. To search for a contact in the address book, enter a partial or full name/number in the search field above the phone book and click the magnifying glass button.

To delete one or more contacts from the address book, select the contacts and press the Delete button under the list of contacts.

**Fax Quality**

The Fax Quality group includes Standard and Fine options. They adjust quality of rendering fax pages. The Fine option improves fax quality but generates more data to send and therefore increases fax transmission time.

**Original Type**

The Original Type group includes Text, Text/Photo and Photo options. The original type setting is used to improve the quality of fax message by specifying the type of original documents. Please, use Text for originals containing mostly text. Text/Photo is to be used for originals with mixed text and photographs. Select Photo for photographs.

**Cover Page options**

The additional cover can be turned on by the Use cover page check box. To specify cover options like recipient’s and sender’s names, fax subject, date of sending and so on, press the Options button to open the Cover page dialog.

If you want to be informed on exact time of arriving the fax to the recipient, please, set the Notify me on delivery option. Appropriate notification message will be displayed when ready.

Since the fax document pages are already printed when the Samsung Network PC Fax Options window is displayed, it’s possible to look at Preview of the document. Cover page (if selected) is also added to the preview, and its look is updated dynamically upon changing the cover page options.
When adjustment of all fax options is completed, press the **Send** button to start uploading the given fax message to the MFP device.

**Cover Page window**
Provides control of various parameters of fax cover pages. The window represents final look of the current cover page on a sheet of paper and two tabs grouping basic and advanced parameters of the cover page.

**Basic Cover**
The **Message** tab contains a set of text fields adding fax identification information to the cover page (names of sender and recipient, date of transmission, subject and so on). Also defines style and language of the cover page. The **Basic Options** chapter describes these options in detail.

**Advanced Cover**
The **Style** tab collects extended cover page options. It allows loading of external image that can be placed over the main cover page contents. More information on specifics of the advanced settings is in the **Advanced Options** chapter.

**Cover Page Preview**
The **Preview** pane demonstrates a sheet of paper where contents of the current cover page is drawn. Whenever any parameter of the page changes, the “cover” sheet is updated to reflect the changes. See **Preview** for more details on preview capabilities.

**Basic Cover Options**
**Message** tab in the **Cover page** window contains main settings of fax cover pages. Two major options of this window are **Style** and **Language** selection. Their combination choses a cover page template with specified layout and language for titles of cover page fields. There are three cover page styles, namely **Standard**, **Business** and **Personal**.

- In **To** edit box you can type the fax recipient’s name. It can be arbitrary name not related to the name taken from address book.
- In **From** edit box you can type the fax sender’s name. It can be arbitrary name just to introduce the sender to the actual recipient.
- In **Date** calendar control the current date is present by default. You can choose another date that will be printed on the cover page.
- In **Subject** edit box you can type a brief description of the message.
- In **Message** edit box you can type a text that you would like to print in the message area of the cover page.

**Advanced Cover Options**
**Style** tab in the **Fax Cover Page Style** window contains extended settings which could improve overall look of fax cover pages.

In addition to the basic text fields it’s also possible to put an image on the cover page. To use this capability, it’s needed to turn the **Import file** check box on, then to push the **Browse...** button and to open a file from disk. The image is placed above cover page contents, so the cover page stays in the background. **Location** control allows changing alignment of the image, so that it can be either centered on the page or aligned to one of paper sheet edges.
The Size spin control defines zoom factor in percent for the image put on the page.

**NOTE:** The Size control expresses scaling ratio in percent for physical image size. For example, 50% value will reduce physical size of the image twice, and the resultant picture after scaling will be mapped proportionally to the preview of cover page. The preview of the cover page will have paper size selected in options of the Network PC Fax printer.

**Cover Page Preview**

Preview pane in the Fax Cover Page Style window demonstrates the final look of the cover page on paper. Each cover page is created from certain layout that defines a caption area at the top of page and a message area below. The caption area includes a few basic text fields that identify the given fax message (target phone number, names of sender and recipient, subject of the message and date of transmission). The message area displays text from the Message field of basic cover options.

Any changes applied to cover page settings are reflected in the preview pane immediately.

In addition to the basic text fields it's also possible to put an image on the cover page. The image can be selected in advanced cover page options. The image is placed above cover page contents, so the cover page stays in the background. If the image has transparent areas (like in PNG files), cover page is seen partially through them.

**Fax Preview**

The Fax Preview window represents the final look of a fax message on paper. The window shows a range of paper sheets where contents of the fax is rendered. If cover page is added to the fax, its preview is also displayed. The window provides arrow buttons for navigation between fax pages. It's possible to send the fax to the MFP device by pressing the Send button.

**Notify me on Delivery**

The Notify me on Delivery option turns on a special notification mode for the given fax message. After the message is forwarded to the target PC Fax device, the device is then queried periodically for the status of the fax transmission. In the system tray area on Windows taskbar an icon is registered which can generate balloon style tooltips as soon as the monitored fax is delivered to the recipient.

So, using this notification mode the originator of the fax message doesn't need to open fax transmission history and to refresh it manually to stay informed on fax delivery.
Printing Preferences

The Printing Preferences dialog can be opened by pressing respective button on the General tab in the properties dialog of Samsung Network PC Fax printer. This preference dialog has standard Layout tab common for most printers and the custom Fax recipients and Advanced tabs providing control over PC Fax specific options. Main options on Fax recipients tab allow selecting fax recipients and define default mode of fax sending. Options on Advanced tab allow to use Account feature.

- **Layout** - You can select paper size and orientation to specify printing application how to render your document.
- **Paper size** - Some of page sizes may be larger than your fax machine supports. In this case, Network PC Fax will automatically scale down the rendered image right before right sending.
- **Orientation** - As fax messages are always sent portrait oriented, Network PC Fax will automatically rotate pages of Landscape orientation right before sending.

Fax recipients

Specify Fax Options Before Sending
This option makes the Network PC Fax printer open a special fax options dialog when printing of original document is done and it's time to forward it to the target MFP device. The dialog provides extended capabilities for specifying fax parameters, for making preview of fax before uploading it to the device and so on.

Automatically Send To
This option can be used when it's needed to set up a list of default phone numbers, so that every document printed on the Network PC Fax printer would be sent to these numbers automatically. In this case fax transmission starts right after printing, and no additional user interface is shown. After choosing this option you can type one or more phone numbers separated by comma in the associated edit box. The numbers can also be extracted from the address book list located below. Press the Add selected button to include number of selected address book item to the target edit box. In this case comma separators are added automatically. Depending on additional option the address list can represent either Windows Address Book contents or MS Office Outlook Address Book.

The list of recipients is examined for duplicate entries prior to sending fax message. If a recipient is specified in the list twice or more, the message will be transmitted only ones. Software implies intelligent detection of duplicates, this means only 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, *, # are considered as meaningful. So, it doesn't differ recipients 112, 1 1 2 or 1-1-2, but 112 and 112* are considered different.

The Printing Preferences dialog can also turn on the Notify me on Delivery mode of fax sending. The mode allows you to get an automatic message when fax is delivered to the recipient.

The Fax Transmission History... button opens the Fax Transmission History window. It displays fax transmission history of the network host where the current printer is installed and shared.
Advanced

Job Account (Authentication)
Job Accounting enables you to associate User and Account identification information of registered user.

- **Accounting Type** - Select an accounting type specified by your system administrator.
  - **Accounting** - Enable fax machine authentication by user ID and password.
  - **ID Only** - Enable fax machine authentication by user ID only.
- **User permission** - If this option is enabled, the validity of a fax job is determined depending on the level of user access and control.
- **Group permission** - If this option is enabled, the validity of a fax job is determined depending on the level of access and control of the group that the user is a member of.
Fax Transmission History

The **Samsung Network PC Fax Transmission History** window represents a list of records describing each attempt to send a fax through selected network host. This means history records keep information on fax messages sent to one of PC Fax devices (Network PC Fax printers) installed on the given system. Originator of any fax message can be a local user of this system or a network client accessed Network PC Fax printer shared by the current host.

The **Samsung Network PC Fax Transmission History** window can be opened in diverse ways. Network PC Fax software installs a shortcut for accessing the history from Start menu. When using this shortcut, the history window displays faxes sent through the current host. When the history window is opened from Printing Preferences of a network printer shared by another host, the history view relates to that remote host.

Each fax message passes a few sequential steps from the time of creating the message until completion of sending it to recipient. At first a document that should be sent to recipient is printed on Samsung Network PC Fax printer, then cover page can be added and finally the PC Fax message is forwarded to MFP device. After that the MFP device starts dialing the recipient's phone number and sending the fax to it.

The fax transmission history displays the following information on fax messages:

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Contains date and time of the last status update of this fax</td>
</tr>
<tr>
<td>Number</td>
<td>Keeps phone number of the fax recipient</td>
</tr>
<tr>
<td>Fax</td>
<td>Shows the model name of MFP</td>
</tr>
<tr>
<td>User</td>
<td>Contains user name of the fax originator</td>
</tr>
<tr>
<td>Computer</td>
<td>Displays name of the computer from which the fax was sent</td>
</tr>
<tr>
<td>Document Name</td>
<td>Exposes the name of print job</td>
</tr>
<tr>
<td>Pages</td>
<td>Shows the number of pages in the given fax message</td>
</tr>
<tr>
<td>Status</td>
<td>Represents current state of the fax message</td>
</tr>
</tbody>
</table>

Fax messages can be in one of the following states:

- **Sending** - the fax was transferred to MFP device, but the device hasn't reported its status yet.
- **Sent** - the fax has been successfully sent to the recipient.
- **Error** - an error occurred during fax transmission.
- **No answer** - there was no response when dialing the fax recipient.
- **Line error** - an error occurred on the phone line during fax transmission.
- **Line busy** - the target phone number is busy, redialing.
- **Stop pressed** - “Stop” button was pressed on the control panel of the device, fax sending was interrupted.
- **Memory full** - the fax couldn't be sent due to lack of memory either at the host or at the device side.
- **Permission fail** - the fax couldn't be sent due to the issue of account permission.
- **Received** - the received fax message.

The header of **Status** column has an arrow on the right. Click the arrow to choose display filter based on the status of fax message.
The **Samsung Network PC Fax Transmission History** window provides a few operations that can be performed either with a single selected fax record or with an entire fax list. The following operations are available:

- **Preview** - opens fax document for preview.
- **Delete** - removes selected history records.
- **Resend** - tries to send the selected fax message to the same recipient again.

**NOTE:** Records of the **Network PC Fax Transmission History** don't keep information on actual MFP device used to send a fax message. Only target fax number is considered important, and it's stored in every record. If sending a fax failed at previous attempt, you can try to send it again later. To resend the fax to the same number, you can choose one of Samsung **Network PC Fax** printers displayed in the **Resend using** combo box.

**NOTE:** If **Account feature** is enabled in the device, User ID and Password specified in the default document preferences of Samsung **Network PC Fax** printer displayed in the **Resend using** combo box will be used for accessing device. To change the User ID and Password, navigate to Printers folder in Windows Explorer, select the same printer as displayed in the combo box and choose **Printing Preferences...** in the context menu. Then activate **Advanced** tab.
Network PC Fax Port

Samsung Network PC Fax printer uses a special printer port supporting extended communication with MFP devices over the Network PC Fax protocol. The port is registered in Windows printing system as standard one, so it can be accessed in a regular way. To open the port configuration dialog, it’s necessary to follow the path: Windows Control Panel > Printers and Faxes > Samsung Network PC Fax Properties > Ports > Configure Port.

- **Setup Port** - The port configuration dialog controls communication with MFP device via local USB port or network connection via TCP/IP protocol. The dialog allows changing communication type and selecting address of the device.
- **Browse for Network Fax** - When the port is configured for network connection, it’s possible to browse for MFP on the network using automatic discovery procedure.

**Setup Port**

- **Setup Port** configuration dialog allows selecting local or network connection to the MFP device associated with the given printer.
- **Port name** text field shows the current name of port registered in Windows printing system. This name cannot be changed in the dialog, it’s only possible to define port name at the time of port creation.
- **Select Fax Machine** contains combo box for selecting device. The **Browse...** button opens **Available Fax** window. This window allows to select devices connected via USB and to perform automatic discovery of Network PC Fax devices on the network.

**Device Discovery**

Before you can take advantage of the benefits offered by Network PC Fax, you must find and add devices to the device list. Network PC Fax offers three types of device discovery:

- **Broadcast** - use this method to search the entire network for devices.
- **IP Address** - use this method to search for locally connected devices or when you just need to search for one device and know the device’s IPv4 address.
- **IP Range** - use this method to search only a small portion of the network. This also only searches IPv4 addresses.
Find the printer using Broadcast
The broadcast method of device discovery will search the entire network for connected devices. Follow these steps to use this method:

1. Click the **Add** button in the device list. The **Add Printer** window will open.
2. Click **Search icon**. The list is populated with the found devices.
3. Select the devices to be added to the device list.
4. Click **Add** to add the devices. A confirmation window will display. Click **Yes** to add the devices.

   **NOTE:** If an error occurs while trying to connect to a device, click **OK** to close the window and check the printer. The window will close automatically after printers are added.

Find the printer using IP Address (IPv4)
The IP Address method of device discovery will search the entire network for the given IP address. Follow these steps to use this method:

1. Click the **Add** button in the device list. The **Add Device** window will open.
2. Select **Search by IP address**, enter an IP address, and click **Search** to search for a network device. If you’re adding a locally connected printer, click **Add**. The list is populated with the device if it is found; otherwise, it remains empty.
3. Select the device to add it to the device list.
4. Click **Add** to add the devices. A confirmation window will display. Click **Yes** to add the devices.

   **NOTE:** If an error occurs while trying to connect to a device, click **OK** to close the window and check the printer. The window will close automatically after printers are added.

Find the printer using IP Range
The IP range method of device discovery will search the given range of IPv4 addresses for devices. Follow these steps to use this method:

1. Click the **Add** button in the device list. The **Add Printer** window will open.
2. Select **Search by IP Range**, enter a range of IPv4 addresses, and click **Search**. The list is populated with the found devices; otherwise, it remains empty.

3. Select the devices to add to the device list.
4. Click **Add** to add the devices. A confirmation window will display. Click **Yes** to add the devices.

   **NOTE:** If an error occurs while trying to connect to a device, click **OK** to close the window and check the printer. The window will close automatically after printers are added.