Printers within RDS Sessions

Experienced people can skip this paragraph as printing within Terminal Services/Remote Desktop Services has not changed fundamentally over the years. However, I still regularly come across customers where there are misconceptions of the way printers and drivers are used within RDS infrastructures.

There are ways printers can be connected within an RDS session. A printer assigned via the RDS client, where the printer device is defined on the client itself and a printer connected directly via the network (so connected from a printer server or directly via a hostname/ip-address).

The first category is named Client Printer Redirection, which means that the printer is connected from the client via the RDP client into the RDS session. The print's job will be sent via the RDP channels from the RDS server to the RDS client, where the job will be sent to the print device/queue.

The second category which I label as network printers are mapped directly into the session. The print job will be sent from the RDS server directly to the print device/queue.

The Easy Print functionality is only for the Client Printer Direction category, network printers cannot use this functionality. Later on in this article I will mention some possibilities for network printers, but we will focus first on Client Printer Redirection and what Microsoft has to offer in this category.

What is Microsoft Easy Print?

With Client Printer Redirection the printers available to the client are mapped into the RDS session. The redirected printer needs to be connected to a printer driver that is available on the RDS server. Before Easy Print, you needed to have the same printer driver available on the RDS server as this one was available on the connected client. This could lead to having hundreds of printer drivers on one server, which was not optimal for stability of the RDS server. A kind of solution was to "map" a specific client driver to a driver which was available on the server. For several similar printers this worked pretty well, but for many printers the exact driver was needed. Easy Print solves this issue by mapping the Client Printer to the Easy Print driver instead. So you don't need to have a separate driver for the printers that are connected via the Client Printer Redirection.

Configuring Easy Print

The Easy Printer driver is installed by default when RDS is enabled. The whole configuration is done via Group Policy Objects. The configuration settings can be found at *Computer Configuration – Administrative Templates – Remote Desktop Services – Printer Redirection*. A few settings can be found at the User Configuration in the same path *Administrative Templates – Remote Desktop Services, Printer Redirection*. As the settings are exactly the same as at Computer configuration I will describe the settings based on the Computer Configuration. I will describe later on when the user settings can come into play.
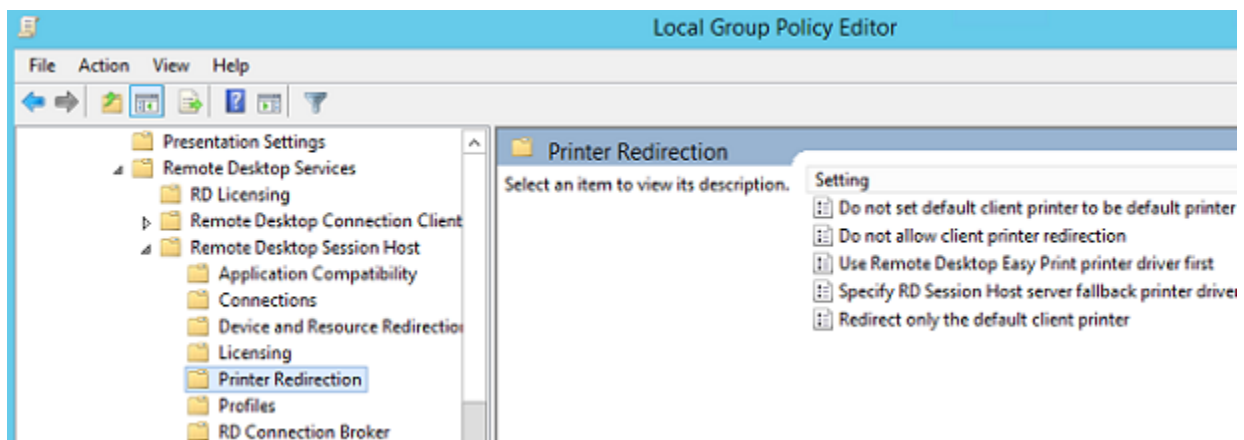

Figure 1: Easy Printer Configuration option with Group Policy Object.

Do not allow client printer redirection

The first setting is not really related to Easy Print, but is an important one. By default Client Printer Redirection is enabled, so no configuration changes are needed. I assume that you don't want to disable Client Printer Redirection, otherwise you cannot use the Easy Print feature. So, by default this setting would not be configured. If you want to override settings configured at a different level you could set this setting to disabled (as policies have the highest priority). For example you can configure enable or disable Client Printer Redirection (and some configuration settings) on the Collection Set.
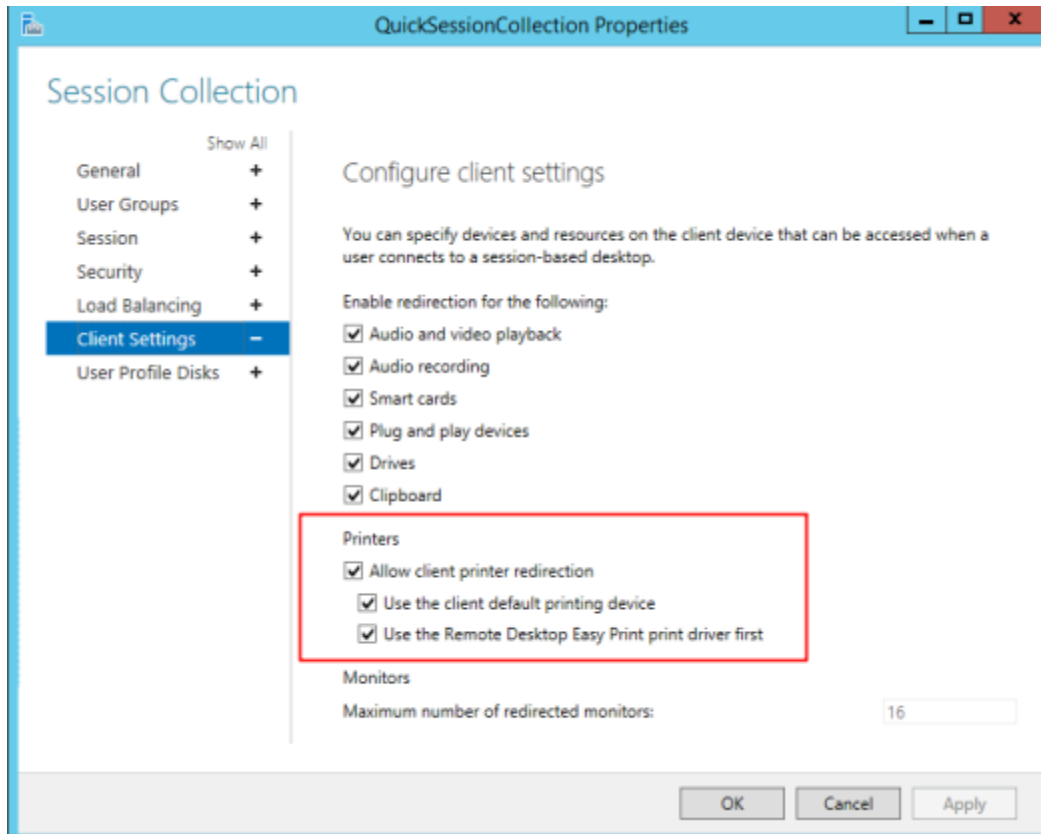
Figure 2: Client Printer Redirection can also be enabled/disabled within a collection set.

Do not set default printer to be default printer in a session

The second one is also not specific for Easy Print, but is usually overlooked. When Client Printers are detected and Client Printer Redirection is enabled, the printer defined as default on the client will also be set as the default client within the RDS session. When network printers are being used it may be the case that this behavior is not the way to go. By enabling this policy the Client Printers will be redirected, but will not be set as the default printers.

Redirect only the default client printer

This setting is not specific to Easy Printer, but also related to Client Printer Direction. By default all available Client Printers will be redirected to the RDS session. Users with many client printers can complicate matters and usually the default printer is enough for end-users. By enabling this policy setting you can define that only the client printer that is set as default will be redirected into the session and the other printers are not redirected. It really depends if this is the desired behavior in the organization.

Use Remote Desktop Easy Print printer driver first

This setting is one of the ways to enable the Easy Printer functionality. By enabling Easy Print, printer driver will be used for all Client Printer Redirection that will be created. In normal situations this will make all Client Printers created using the Easy Print driver. I did not see a case that the driver could not be used. That this behavior can cause some issues is true as I will describe in the next paragraph. By default the Easy Printer driver will not be used, so you should enable this policy if you would like to use Easy Print for all Client Printers.

Specify RD Session Host server fallback printer driver behavior

This setting sounds like it's not related to the Easy Printer driver but it is. With this policy you define the use of the Easy Print Driver in another way as Use Remote Easy Print printer driver first setting. By default the Easy Print option is disabled, which is the same as configuring this setting with the Do nothing if one is not found. In other words, if no suitable driver is found for the Client Printer the printer will not be redirected. The other three configuration options enable the Easy Print printer driver when a suitable driver cannot be found in the first place. So, only when there is no driver available (third party added or natively available on the Windows server version) the Easy Print driver will be used. With this policy you can define whether to use PCL, PS version or both when the Easy Printer driver will be used as a fallback scenario.