Using the automatic backup feature in the SLM (2245/2255) for transferring measurements to a network storage.

Introduction

The SLM has a feature, where it will automatically store backups of your measurements either to a USB stick or to a network storage (network attached storage (NAS), shared file folder on Windows, etc.).

This can also be very handy, when using SLM(s) in a larger configuration, like an IOT setup, making the SLM(s) automatically transfer the measurements to an appointed file server in your network.

You may subsequently use one of the desktop apps to load the measurements directly from the network storage. Simply select "Add NAS" from the import view and browse to the measurements you wish to import and analyze.

See also: "*SLM the desktop apps.pdf*"

How does it work

The SLM does not have an actual Store/Save function. Once the SLM has made a measurement and enters Stop mode, measurement data will automatically be stored onto the SLM's internal disk.

When a backup device has been configured on the SLM, it will automatically transfer measurement from its internal disk to the backup device whenever it is connected to the same network. An icon on the SLM indicates the status of the transfer (lower right corner).

Measurements that have been transferred via this Backup mechanism, will automatically be moved to the internal Trash folder on the SLM, once the measurements get older than the 'Data Retention' period. The 'Data Retention' period is specified in 'System settings.Data management'

Setting up a backup device

All settings for the Backup device is specified in 'System settings.Data management.Backup settings'.

Note: You cannot alter these settings while network storage is enabled. You must switch 'Backup' to 'Disabled', in order to change the settings.

In the example above we have configured and shared a folder on a Windows PC: "C:\SLMRepository". The IP address of the relevant network interface on the PC is "169.254.117.100", and we have specified credentials (User and Password) to get write access to the shared folder on the PC.

Status "*Ready 16:03:05*", indicates that the SLM has established a connection to the shared folder on the PC, and is ready to transfer, when needed.

Hint: Use an iOS device with one of the apps installed, to change the Backup settings; it makes it much easier to type into the fields.

The SMB protocols

For backup and file sharing, the SLM is using **SMB** as the server/client network protocol to access remote located file folders for uploading and backing up measurements to remote shared folders.

See also: https://docs.microsoft.com/openspecs/windows_protocols/ms-smb

If there are firewalls in your network or on your computers, the file sharing services might be blocked, and you will experience problems connecting.

The main communication ports used by the SMB service is 139/TCP and 445/TCP. If these communication ports are blocked, the SMB service will also be blocked and the SLM cannot upload measurements to the file server.

If you are using shared file folders on Windows, the SMB ports are typically included as part of the "*File and Printer Sharing*" features.

Trouble shooting

When trouble shooting "Backup settings" you may experience various "Status" messages on the SLM display. Below are some examples that might help you, just in case:

- "Network is unreachable": The IP address entered does not match the IP address/Subnet mask of the SLM. Did you check the entered IP address against the SLM IP address and subnet mask?

- “Wrong path”: The remote share/folder does not exist on the server. Did you really share the folder on the server?
- “No route to host”: The SLM cannot get in contact with the host/IP address specified. Did you type the hostname or the IP address correct?
- “Wrong address”: No response from SMB service. Is sharing enabled on the server? Is the SMB service blocked by a firewall?

Also, check out this link: https://docs.microsoft.com/en-us/troubleshoot/windows-client/networking/internet-firewalls-prevent-browsing-file-sharing