



## FRONIUS DATAMANAGER & SOLAR.WEB COMMUNICATION

This document has been created to assist in the understanding of the data communication and topology used by the Fronius Datamanager when communicating to the Fronius Solar.web. It also assists in the configuration of network "firewalls" in order to allow data flow to the Solar.web servers.

### Fronius Datamanager:

The Fronius Datamanager is a multi-function communication device used to log and collect data from the PV inverter, Fronius Smart Meter and 3rd party interfaces. It sends the collected logged data to the Fronius Solar.web Portal.

### Fronius Solar.web:

Fronius Solar.web (<http://www.solarweb.com>) is the online monitoring tool of Fronius, which is a web based application that is used to display logged data from the Fronius inverters and Fronius auxiliary devices.

### Topology & Protocol:

The Datamanager uses the "UDP" transport protocol to send data to the Solar.web server. To exit the network Router, a technique called "hole punching" is used. The Datamanager will attempt to exit the router starting at port 54321. If unsuccessful, will attempt to exit on 54320, then 54319 and so. The server will then reply back to the same port (key exchange) to the Datamanager.

*Destination DNS address = fdmp.solarweb.com*

*Destination IP addresses = 85.31.3.249 & 213.33.117.249*

*Destination Port = 49049/UDP*

If a firewall configuration or rule is necessary in order for the Datamanager to communicate to Solar.web, it is recommended to have this DNS based and not based on the Fronius Server IP addresses as they could change over time. The IP addresses have not changed until now, nevertheless we cannot guarantee that this will never happen in the future.

### Remote Inverter & Datamanager update function:

Via Solar.web it is possible remotely "trigger" a Datamanager firmware update or an inverter software update. In order for this function to work, the Datamanager must be able to HTTP download (without Proxy) & FTP download the files from:

*www.fronius.com - 85.31.3.110 und 213.33.117.110*

*www3.fronius.com - 85.31.3.82 und 213.33.117.82*

*transfer.fronius.com - 85.31.3.52. und 213.33.117.52*