

# QUICK GUIDE



**MS 20 - NAS**

Version 1.0



## Warranty

MS 20-PC has a 24 month warranty on the electronic parts, running from the date of purchase. The warranty will not be valid in case of tampering with the device or in case personnel not authorized by the manufacturer or by the authorized dealer should carry out work on it.

N.B. responsibility of the purchaser: in case of operation under warranty, the device must be packaged so as to prevent damage during transport and shipped to the manufacturer together with all the accessories.

### Warranty rules

1. In order to exercise his warranty rights, the purchaser must enclose with the device a copy of evidence of purchase duly stamped by the dealer (bill/invoice).
2. The warranty lasts for 24 months for the electronic parts. The warranty is granted at the point of sale or else directly requested from the manufacturer.
3. The warranty only covers damage to the product which makes it work badly.
4. Work under warranty will only mean repairing or replacing, free of charge, any parts acknowledged to be defective during manufacture or in their material, including labour costs.
5. The warranty does not apply to damage caused by negligence or failure to comply with the instructions, or damage caused by unauthorised people, with a special reference to the outside parts.
6. Also, the warranty does not apply to damage caused to the device by connection to unsuitable power sources.
7. The warranty does not cover parts subject to wear after use, or the container if the material is not defective.
8. The warranty does not include transport costs, which will be paid for by the purchaser in relation to the manner and time of transport.
9. The warranty will run out after 24 months have elapsed. In this case, service will be provided charging for the parts replaced, labour costs and transport according to the current rates.
10. Any dispute will be settled exclusively before the Court of Law of Venice.

### Limitations of Liability

InOut not be held responsible for a possible loss of data on Hard Disk. The costs for possible recovery of corrupted data will be incurred by the buyer.

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## Introduction

MS 20-NAS (Network Attached Storage) offers a high security level, storage and content sharing capabilities in a easy to use device, that makes it ideal for small LAN.

The sophisticated RAID1 technology protects against the data loss caused by disk failure. The enterprise level Linux operational system ensures long term reliability with high performance at no compromise.

By a simple web based wizard you can speed up users management as well as access control list to shared folders.

## Main features of MS 20-NAS

- Processor Intel Atom
- RAM 2 Gb 667Mhz
- Linux Based O.S.
- integrated Web server (IE6.0, Firefox, Safari)
- Samba Server (SMB\CIFS)
- NTP Time server
- DHCP Client & Server
- DNS Server

## Interfaces

- LAN RJ45 10/100/1000 Base-T Ethernet (auto MDI/MDI-X)
- 2 front Port USB 2.0  
(software update only, reset procedure to factory store)
- 2 LED diagnostic (Power & Activity)
- Reset and power on button

## Hard Disk

- 2 x 320Gb 2,5" SATA HDD in RAID1 (Mirror)
- 1 x 8Gb DOM solid state O.S. use only

## Power

- mains: 90 – 132 / 187 – 264 Vac, socket IEC 320 C5 (47-63 Hz)
- Safeguard: fuse T4A/250V (both hot and neutral )
- Power consumption: 85W, (no load) 3.6W

## Case

- Dimensions: 215mm x 68 mm x 201mm (W\*H\*D)
- Weight: 1,8Kg (Hard Disks excluded)
- Chassis: steel with internal aluminium tray for self dissipation
- Working Temperature: 0°C - 40°C
- maintenance: Temperature: -10°C - 60°C, Humidity: 10-85%
- Cooling: Self regulated fan, 40mm with spherical pillow block (low-noise)

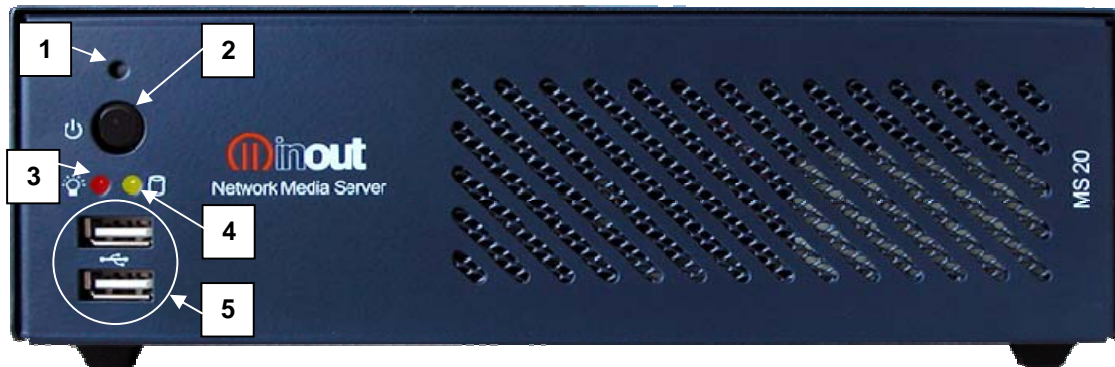
## Package Content

Before use verify the following content:

- 1 InOut MS 20-NAS
- 1 quick guide Italian – English
- 1 poer supply cable 220Vac italian IEC plug
- Wall/desk Kit bracket
- Desktop rubber Kit

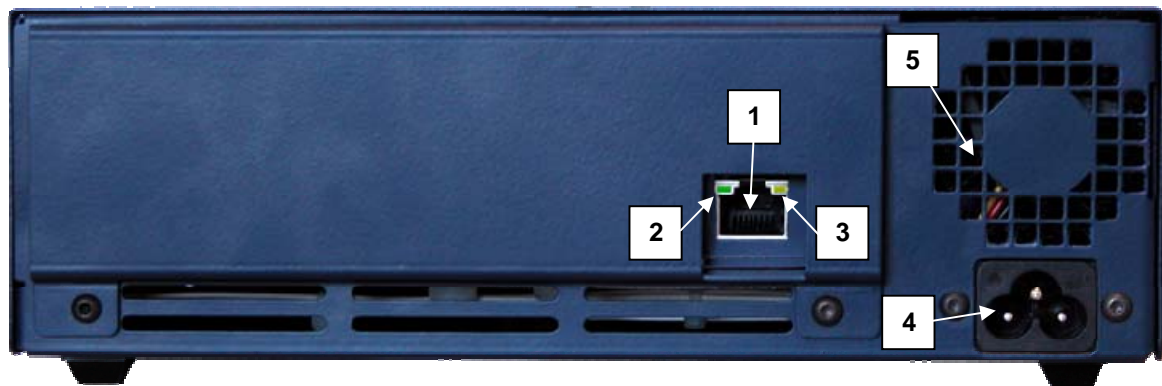


## Front panel description



1. Reset button
2. on/off switch
3. Led indicator power on/off
4. Led indicator disk activity
5. USB 2.0 port

## Rear panel description

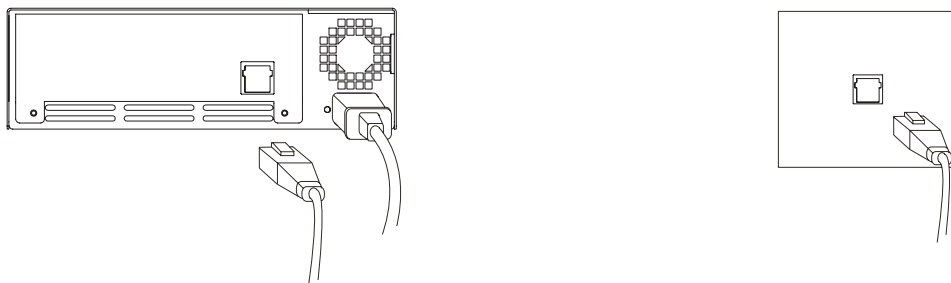


1. Lan Port 100/1000 Mbit/s
2. Led Link
3. Led indicator lan activity
4. power socket 220 Vac
5. Fan cooler

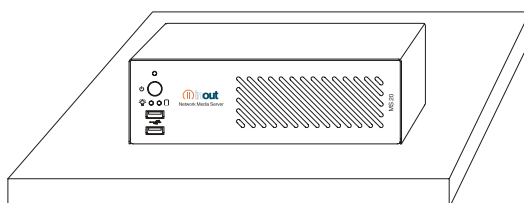
## Installation

Choose to place the InOut MS20-NAS according to the following:

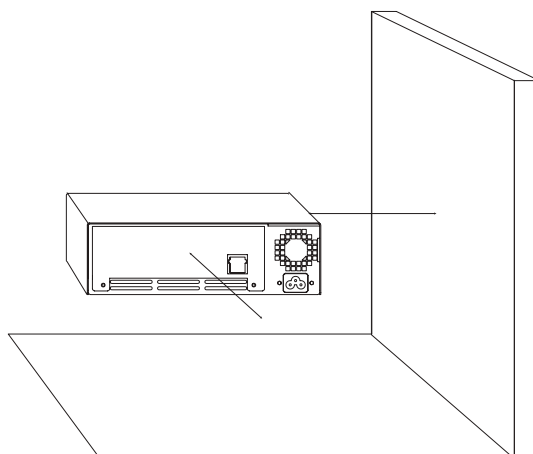
- *Place it near an Ethernet port*



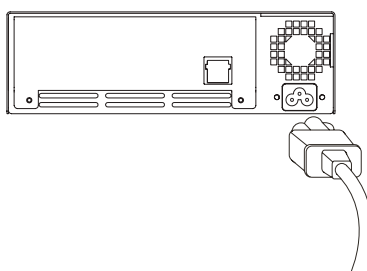
- *Place it on a solid surface capable of at least 3 Kg*



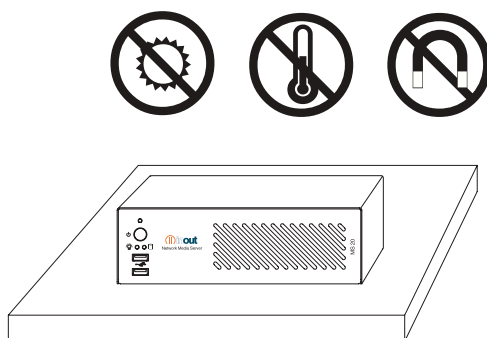
- *Let enough room near the fan to allow a good air flow. In case of vertical mounting the fan should be placed upside.*



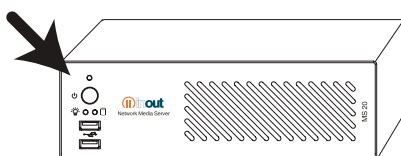
- *Better if connected to a grounded power source. We suggest to connect the device to a UPS unit.*



- *Avoid to expose to direct sunlight, high temperatures, dust e and source of electromagnetic fields.*



- *Once settled, turn on the device by pressing the power-on button and go ahead with the device configuration as following described.*



## Default configuration

Default settings of the NAS MS20-NAS are:

- USER NAME: **admin**
- PASSWORD: **admin**
- INDIRIZZO IP: **192.168.100.1** (NETMASK: **255.255.255.0**)
- NETBIOS NAME: **ms20nas**
- WORKGROUP: **WORKGROUP**

A DHCP Server is also provided by default configuration with the following parameters:

- SUBNET: **192.168.100.0**
- NETMASK: **255.255.255.0**
- START IP: **192.168.100.100**
- STOP IP: **192.168.100.200**

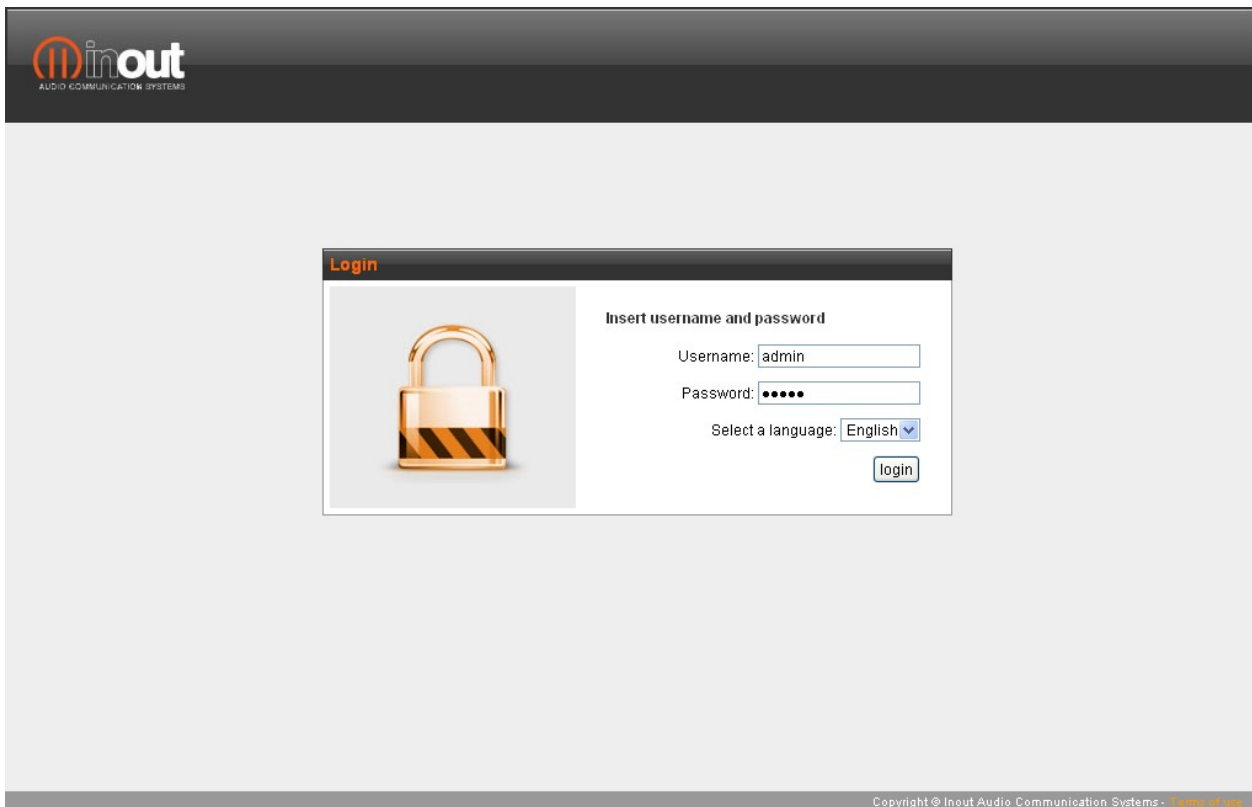
The NAS function must be set as local DNS server.



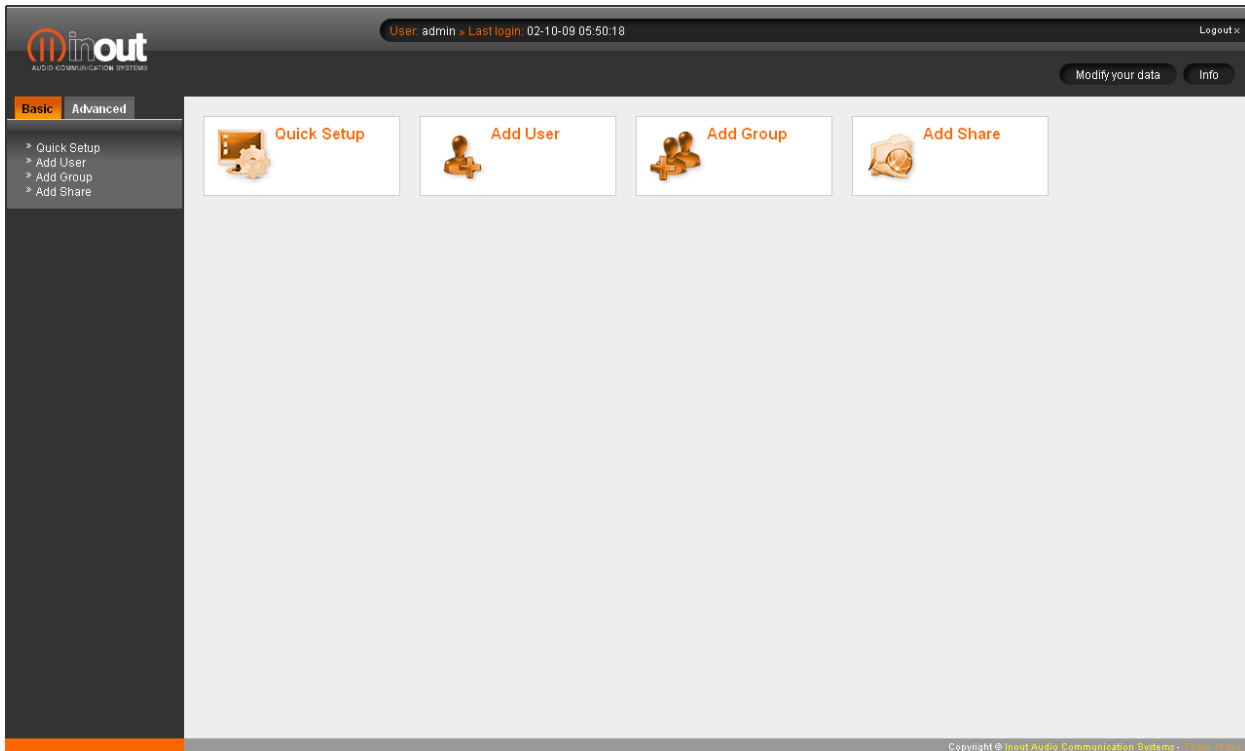
## Configuring the MS20-NAS –WEB interface

You can use the default settings to connect to an InOut MS20-NAS by whatever web browser (Internet Explorer, FireFox, Safari etc.) and make it quickly operational just by the configuration available wizards.

Type the IP address of the storage unit in the web address bar to get access to the authentication page, fill in the username and password to login the system.



After the logon you can start the wizards to configure the NAS step by step.



**Quick Configuration Wizard** allow to modify based on your needs:

- *Password*
- *Network parameters (Hostname , IP address, subnet mask, Gateway, DNS Server)*
- *Workgroup, NetBios name, WINS server*
- *Data and hour, NTP server*

Other Wizards allow you to quickly configure **Users, Groups and sharing policy**.

A simple demo of the configuration wizard procedure is available at the InOut-Digital web page.

## Reset to default settings

Save an empty file on a USB key to restore the InOut MS20-NAS to the factory settings.

The filename must be ***servermanager-reset.tar.gz***

Insert the key on a USB port and power cycle the device.

The reset will affect the following:

- *LAN settings will be set to the default value*
- ***admin**'s password will be set to the default value*
- *DHCP server will be set to the default value*
- *Proxy will be disabled*
- *NAS will be set as local DNS Server*

Sharing policy, users and user-groups will not be affected.

## Disk formatting

Should be necessary the disk formatting it would be enough to access the RAID configuration page in the advanced settings.

The screenshot shows the 'Raid Settings' page in the Inout NAS web interface. The page title is 'Raid Settings' with a 'Maintenance' icon. The interface includes a navigation menu on the left with categories: Basic, Advanced, Users and Groups, Files and Shares, Network Settings, System Settings, Maintenance, and Logs. The main content area displays the RAID configuration for a RAID device /dev/md0. The configuration table is as follows:

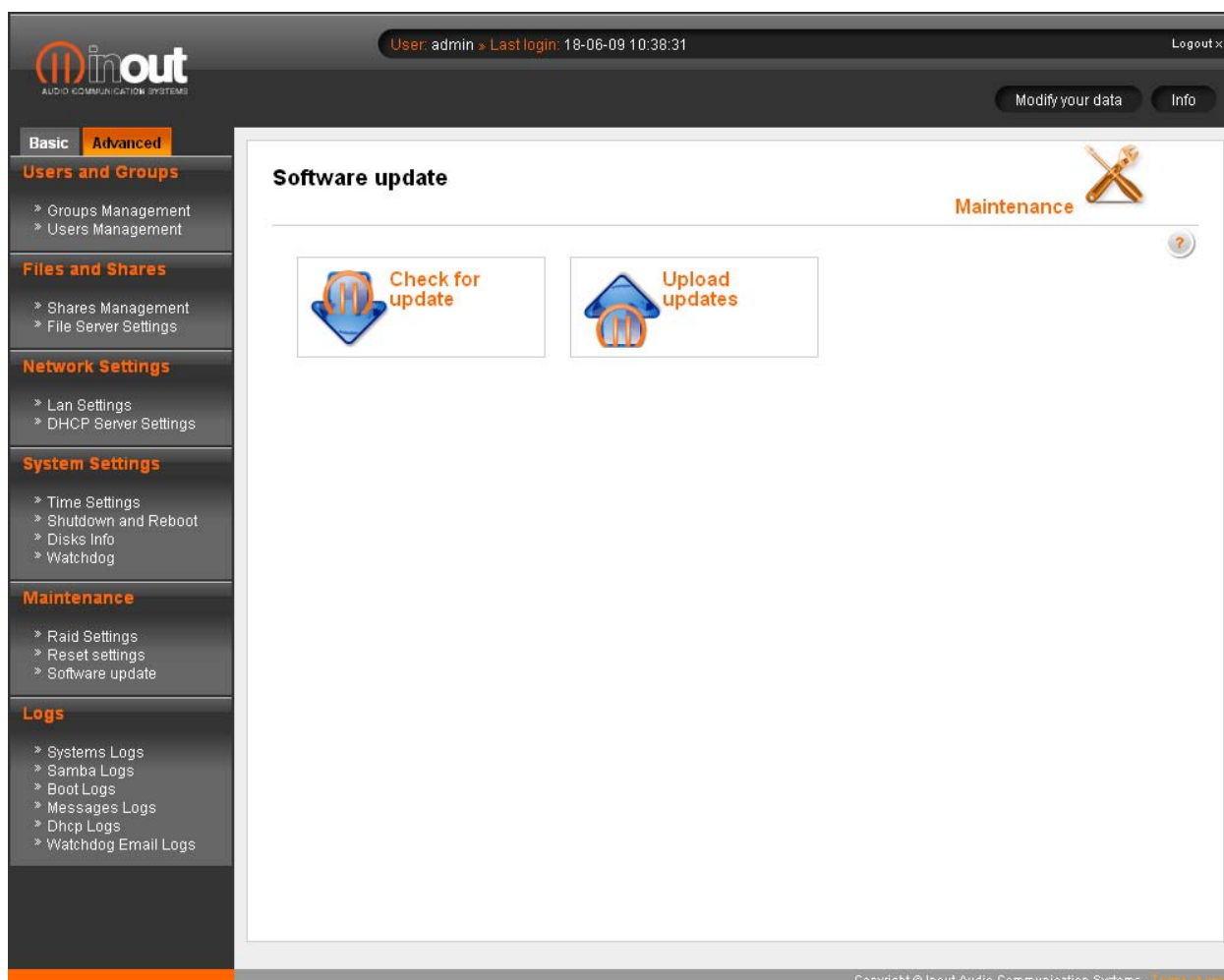
Raid Device	Disks	Type	Status	Mount point	Format disk	Raid level	Create Date	Disks Usage
/dev/md0	/dev/sda /dev/sdb Active devices: 2	ext3	clean Mounted: yes	/storage	Format disk	raid1	Tue May 19 15:21:46 2009	0% Total size: 307663736 KB Used size: 218240 KB Available size: 291817068 KB

RAID building procedure takes a relatively long time to complete, all the NAS functionality will however be available.

**Warning:** disk formatting involve the complete cancellation of every saved data as well as the shared folders. Proceed if necessary to back-up the entire disk before formatting.

## OS automatic updates

In case of availability of an Internet connection it is possible to perform the NAS automatic software update. The whole automatic procedure requests to submit a registration form.



The screenshot displays the Inout NAS web interface. At the top, the user is logged in as 'admin' with a last login time of '18-06-09 10:38:31'. The interface features a dark sidebar on the left with a navigation menu. The main content area is titled 'Software update' and includes a 'Maintenance' section with a wrench icon. Two primary actions are available: 'Check for update' (represented by a blue downward arrow icon) and 'Upload updates' (represented by a blue house icon). The sidebar menu includes sections for 'Basic', 'Advanced', 'Users and Groups', 'Files and Shares', 'Network Settings', 'System Settings', 'Maintenance', and 'Logs'. The footer of the interface contains the copyright notice: 'Copyright © Inout Audio Communication Systems - Terms of use'.

Should the Internet Connection not be available it is possible to download the update and manually upload it to the device.

## Problem solving

### ***Power on led doesn't light up***

Verify the power cable should be properly connected to both the MS20-NAS and the AC socket.

### ***Lan led doesn't light up***

Verify that RJ45 connectors should be properly connected by the Ethernet cable between the MS20-NAS and a network switch or a PC. Verify the port whom the cable is connected to is properly working.

### ***Browser fails to link NAS address – forgotten IP address***

Restore to factory setting of the NAS is mandatory, please refer to the above procedure.

### ***Authentication failure – forgotten Username and Password***

Restore to factory setting of the NAS is mandatory, please refer to the above procedure.

### ***It was set to acquire IP address automatically and you do not connect more to the NAS***

Verify the IP released list by the DHCP server from the configuration page. Should not be available the procedure to know the released IP it would be necessary to restore the NAS to the factory settings.

### ***It's not possible to access to the shares***

Verify the network symbolic path as follow \\NetBIOS-name\share-path. Verify the authentication and type the correct credentials (*user-group-password*).

Verify the File server is enabled (**Advanced** section).

Remember that, on Windows OS based systems, whenever should be changed the sharing credentials, it is mandatory to restart the computer. Gaining access by NetBIOS name is not allowed if multiple IP address are defined on the same network card (alias): if so set one single IP address or use the following symbolic path: \\IP-address\share-path.

### ***It's not possible to access to the automatic updates***

Verify in the **Diagnostic** page whether or not the MS 20-NAS is provided of an internet connection (Ping). Should the operation not succeed, verify in the **Lan Configuration** that *Gateway and DNS Server are enabled*. Behind a Proxy server within a LAN set the correct parameters in the **Client-Proxy http Settings**.

For further troubles exploit the **Disk information** section to test the proper functionality of the hard disks. Try if necessary with the disk formatting at the **Raid Configuration** section.

## Technical support

All the supported is available at the web address:

**[www.inout-digital.com](http://www.inout-digital.com)**

In case of technical issues it is possible to contact the technical support InOut at the e-mail address:

**[service@inout-digital.com](mailto:service@inout-digital.com)**



Manufactured by:  Noventa di Piave (VE) - ITALY