HowTo 01 - Setting up an Intinor system
From DHCP to static IP and management via web browser

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For more information please visit
http://www.intinor.com

Power up the system with no RJ45 / ETH-cable connected yet

❶ **Confirm you are in DHCP – dynamic IP address mode (we ship in DHCP-mode)**
Push: green button on front panel
Navigate to: network
Step down: Dynamic IP
Confirm: push green button to activate DHCP
Confirm: push green button

❷ **Connect the RJ45-LAN cable to IP1**

❸ **Switch to a static IP (needed for Direkt router/receiver NAT / port-forwarding, DMZ etc. Dirket Link encoders may stay in DHCP)**
Push: green button
Navigate to: network
Step down: Static IP
Enter: IP-address, subnet, gateway, DNS (e.g. 8.8.8.8)
navigate: up+down for „digits", left+right for „position", green to confirm
go to   :   Activate „Static IP" + confirm
Connect: connect the RJ45-LAN cable to IP1
Go to: network
Navigate: current IP – is it OK?
Navigate: Test internet conn. + confirm

❹ **Open browser interface locally (your PC must be in the same LAN)**
Open: browser
Type: https://IPaddress
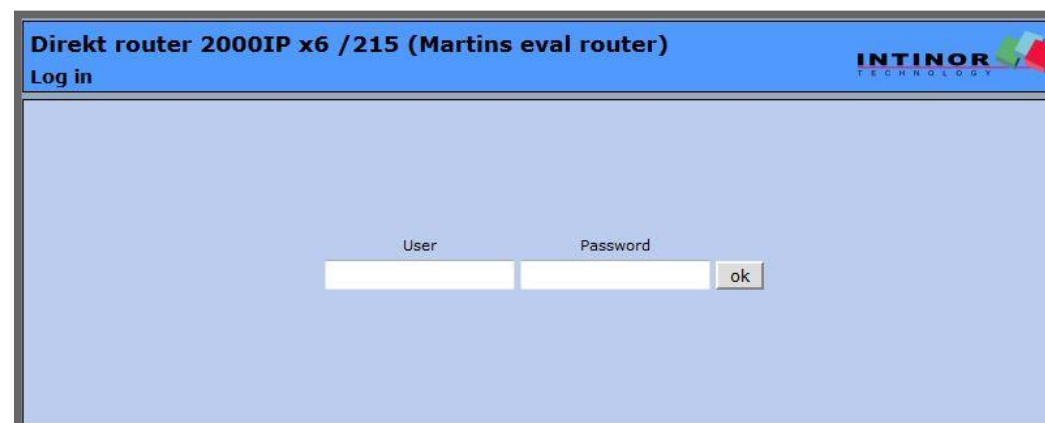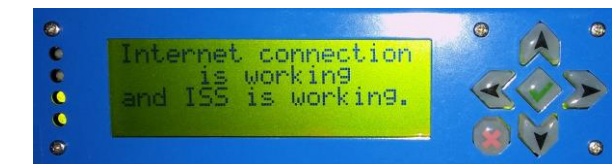Enter: admin / 1234

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Please show this to your IT-department before getting started

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For more information please visit
http://www.intinor.se/en/
http://www.intinor.se/en/products/direkt-router/

Before going WAN using ISS **I**ntinor **S**tream **S**atistics to remote manage units some ports need to be opened to allow communication.

❶ **Get these ports opened by your IT-department before using a Direkt router or receiver:**

Upgrades	TCP	9022	outgoing	upgrade-direkt.intinor.se
ISS	TCP	22017	outgoing	iss.intinor.se
Streams	Both	any	TCP+UDP	e.g. UDP and TCP port 6010/6020/6030 etc. forwarded to a specific static IP
RTMP	TCP	1935		for any webcast/RTMP-ingest/pull

❷ **If you can manage the router settings yourself**

go to:	web interface of router
enable:	NAT / port forwarding if needed
forward:	incoming ports 6010/6020/6030 etc. to the static IP of e.g. your Direkt router/receiver

❸ **Using ISS**

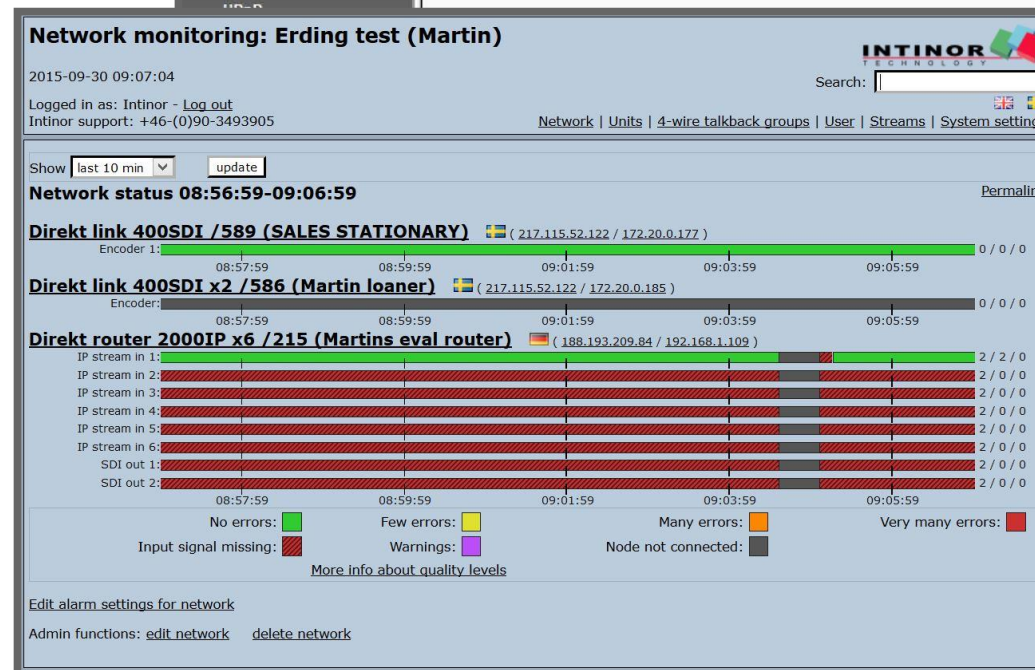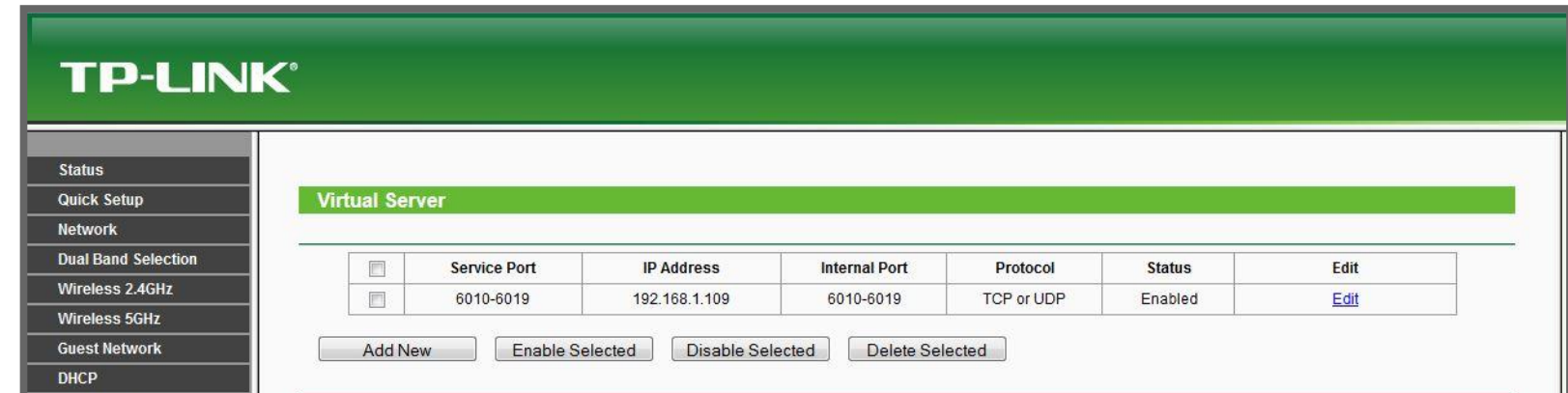|	
Browser:	iss.intinor.se
Enter:	login + password
check:	there is no „**red http**" showing in ISS in case yes = please open port 22017

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TP-LINK®

| Status |
| Quick Setup |
| Network |
| Dual Band Selection |
| Wireless 2.4GHz |
| Wireless 5GHz |
| Guest Network |
| DHCP |
| USB Settings |
| NAT |
| **Forwarding** |
| - Virtual Server |
| - Port Triggering |
| - DMZ |

Virtual Server

	Service Port	IP Address	Internal Port	Protocol	Status	Edit
☐	6010-6019	192.168.1.109	6010-6019	TCP or UDP	Enabled	Edit

[Add New] [Enable Selected] [Disable Selected] [Delete Selected]

Service Port:	6010-6019	(XX-XX or XX)
IP Address:	192.168.1.109	
Internal Port:	6010-6019	(XX or keep empty.
Protocol:	ALL	
Status:	Enabled	
Common Service Port:	---Please Select---	

[Save] [Back]

Network monitoring: Erding test (Martin)

INTINOR TECHNOLOGY

2015-09-30 09:07:04

Logged in as: Intinor - Log out
Intinor support: +46-(0)90-3493905

Search:

Network | Units | 4-wire talkback groups | User | Streams | System settings

Show [last 10 min] [update]

Network status 08:56:59-09:06:59   Permalink

Direkt link 400SDI /589 (SALES STATIONARY) 🇸🇪 (217.115.52.122 / 172.20.0.177)
Encoder 1:   08:57:59   08:59:59   09:01:59   09:03:59   09:05:59   0 / 0 / 0

Direkt link 400SDI x2 /586 (Martin loaner) 🇸🇪 (217.115.52.122 / 172.20.0.185)
Encoder: 08:57:59   08:59:59   09:01:59   09:03:59   09:05:59   0 / 0 / 0

Direkt router 2000IP x6 /215 (Martins eval router) 🇩🇪 (188.193.209.84 / 192.168.1.109)
IP stream in 1:   2 / 2 / 0
IP stream in 2:   2 / 0 / 0
IP stream in 3:   2 / 0 / 0
IP stream in 4:   2 / 0 / 0
IP stream in 5:   2 / 0 / 0
IP stream in 6:   2 / 0 / 0
SDI out 1:   2 / 0 / 0
SDI out 2:   2 / 0 / 0
08:57:59   08:59:59   09:01:59   09:03:59   09:05:59

No errors: ■   Few errors: ■   Many errors: ■   Very many errors: ■
Input signal missing: ■   Warnings: ■   Node not connected: ■

More info about quality levels

Edit alarm settings for network

Admin functions: edit network   delete network

HowTo 03 - How to do a DMZ (get an external IP address)
Make sure you have changed the password

Please read about the concepts for a DMZ
https://en.wikipedia.org/wiki/DMZ_%28computing%29

Why would you want an Intinor system to be in a DMZ?
1) Direkt Link encoders allow „TCP-requests – no port-forwarding needed
2) Direkt Routers / receivers can receive streams with no port forwarding needed
Good the evaluations, demos and testing to avoid IT-issues.
As the unit is available on the internet you need to change the password from „1234" to a „more secure" password

Assign a static IP to you Intinor system
front panel: go to network
Go to: Static IP (if you see a * / star go to current IP to read out the IP
Enter: IP, subnet, gateway and DNS (8.8.8.8) and confirm
check: go to **Current IP** to confirm your settings are correct.

❶   **Check your WAN-IP address**
browser: https://www.whatismyip.com/
example: 188.195.162.202
Router: go to status of your router (you will see the same WAN IP-address)
ISS: go to ISS (WAN IP-address + internal IP address)

❷   **Open the router management browser interface**
open: 192.168.1.1 (just an example)
go to: Forwarding / DMZ or similar
Assign: assign a DMZ to the static IP of your Intinor system (192.168.1.109)
Broser: open your intinor system via external IP: https://188.195.162.202

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Make sure you have changed the password

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There a several ways to remote control the unit – see the next pages for all options

❗ **via ISS = Intinor Stream Statistics**
http://intinor.com/products/iss-intinor-stream-statistics/

please search for an email labeled „[ISS] ISS user assigned" - you will see:
url: iss.intinor.se
login: your email address
password: generated by ISS

the ISS-system-admin will see your request to remote control the unit and has to approve this via the ISS-GUI or via front-panel of a given unit – this is a security feature. For „direct access without confirmation" system-administrators can submit a list of email-addresses and users. This can be done „per unit" with user-rights such as „admin, operator, oberserver".

User rights per unit:
Please change default-admin = admin:1234 to a new password
create individual user-specific logins+passwords

when clicking on remote control icon
a) when icon is red: user needs approval by administrator
b) when icon is green: user has rights to remote access with his personal login+password – also see HowTo #01

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Network monitoring: Martin_evaluation_delay test

2020-02-26 09:23:19

Logged in as: Intinor - Log out - [Drop admin]
Intinor support: +46-(0)90-3493905

Search: [   ]

Network | Units | 4-wire talkback groups | Users | Streams | System settings

Show [last 10 min ▾]   [update]

Permalink

Network status 09:13:15-09:23:15

Direkt router rack x6 /810 (ready for KASAT too) 🏳️ (95.91.239.56 / 192.168.0.1) ■ 1 alarms!

Enc 1 - PGM: 0 / 0 / 0
Enc 2 - Muktivie...:   0 / 0 / 0

09:14:15   09:16:15   09:18:15   09:20:15   09:22:15

Remote control

No errors: ■(green)   Few errors: ■(yellow)   Many errors: ■(orange)   Very many errors: ■(red)
Input signal missing: ▨   Warnings: ■(purple)   Node not connected: ■(gray)

More info about quality levels

Edit alarm settings for network   Show unit list

Admin functions: edit network   delete network   add network

Direkt router rack x6 /D00810 (ready for KASAT too)   **INTINOR**
Log in

User   Password
[   ]   [   ] [ok]

HowTo 05 – How to access the unit – part #2
Make sure you have changed the password

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There a several ways to remote control the unit

❷   **Via static IP**
covered in HowTo #01

❸   **Via IP2 in management mode**
The ETH-port „IP2" per default is in management mode, allowing you to use an ETH-
cable to connect your latop to IP2 on the back of the unit and receive an IP-address
when you laptop is in dynamic mode. Pleasse note there is a DHCP-server behind
IP2 when used in management mode. Never connect to your LAN to avoid conflicts.
front panel: read-out the current IP for IP2 (which might be 172.50.99.1)
Browser: enter: https://172.50.99.1
GUI: enter login+password

when there is no front-panel on a system such as Direkt router lite
Windows: use the Windows „command promt" or similar
enter: ipconfig + hit „ENTER"
read-out: IP-address of laptop
Browser: IP-address ending with xxx.xxx.xxx.1

Via IP2 when in static mode
front panel: read-out the current IP for IP2 (which might be 192.168.1.x)
Browser: enter: 192.168.1.x

❹   **Via external IP with https = 443 port forwarding**
a port 443 forwarding to the static IP of a system must be enabled in the „IP-router"
Broswer: enter „https://external-IP"

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Eingabeaufforderung — □ ✕

```
Microsoft Windows [Version 10.0.18362.657]
(c) 2019 Microsoft Corporation. Alle Rechte vorbehalten.

C:\Users\Martin>ipconfig
```

Monitor your streams from a PC or Laptop/smartphone

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Intinor provides a Direkt Router with an external IP address on 213.115.198.66 to „pull a stream via TCP or SRT" protocol. **There is content playing for you 24/7/365.**

❶ **With VLC**
open: network stream
Copy+Paste: tcp://213.115.198.66:7150
srt://213.115.198.66:7152
Requesting/pulling a stream via TCP or SRT protocol is allowed in most networks.
Therefore „requesting a stream via TCP/SRT" is **an easy way to test..**

❷ **With Direkt router or Direct receiver**
open: browser interface
Enter: login + password
Go to: Active Settings
Go to: IP stream in 1
check: ❷ TCP (request) on 213.115.198.66 on port 7150
SRT is a paid option/license use port 7152
confirm: by hitting return-key or scroll down and push the button
Go to: ❸ show inputs status to see a thumbnail of the stream
(this is a feature that needs multiview or an encoder to be enabled)

You may not just pull a test strteam from an Intinor-hosted Direkt router in sweden, but your own Direkt link encoder/receiver/router too. Please activate as seen in the screenshot

❸ **Output on SDI#1 or SDI#2**
when you have a Direkt receiver / router
(Direkt router needs to have an SDI-card)

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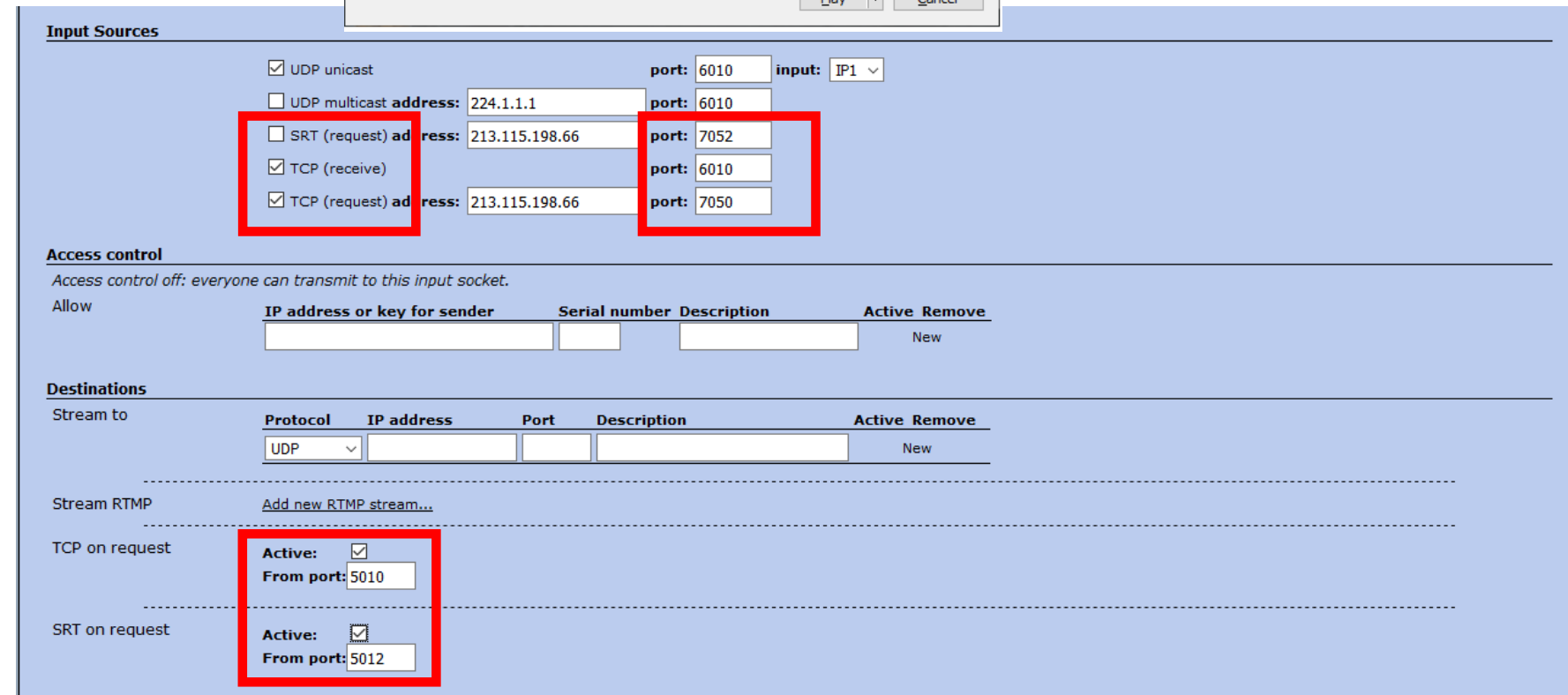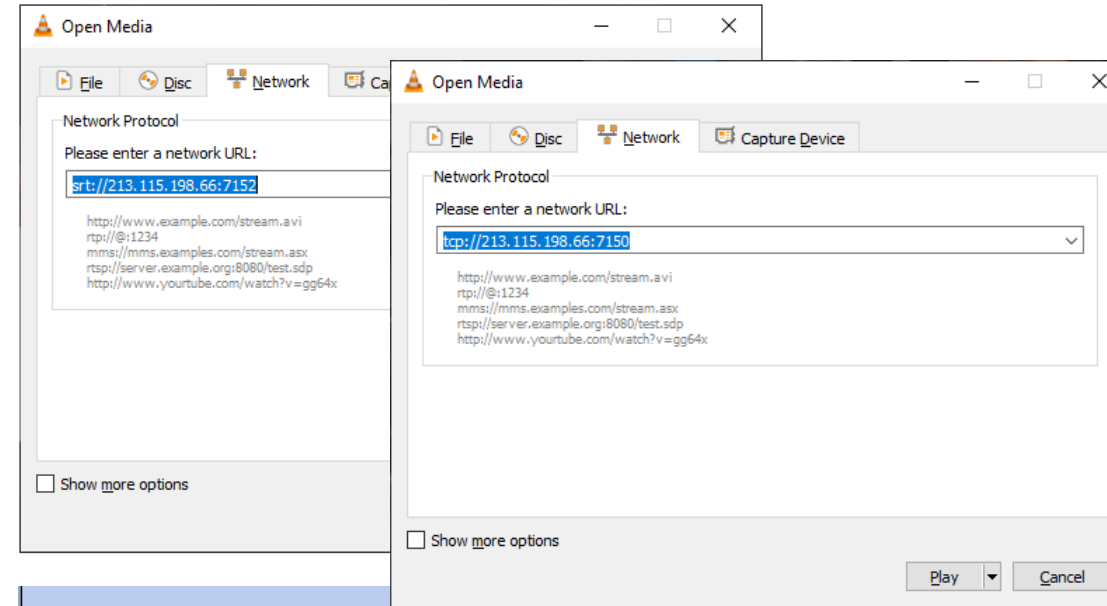
HowTo 07 – getting prepared for 24/7
Assign alarms in ISS

There a several ways to remote control the unit

❶ **Via static IP**
covered in HowTo #01

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Browser: enter: https://172.50.99.1
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when there is no front-panel on a system such as Direkt router lite
Windows: use the Windows „command promt" or similar
enter: ipconfig + hit „ENTER"
read-out: IP-address of laptop
Browser: IP-address ending with xxx.xxx.xxx.1

Via IP2 when in static mode
front panel: read-out the current IP for IP2 (which might be 192.168.1.x)
Browser: enter: 192.168.1.x

❸ **Via external IP with https = 443 port forwarding**
a port 443 forwarding to the static IP of a system must be enabled in the „IP-router"
Broswer: enter „https://external-IP"

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HowTo 08 – assigning user rights
User rights per system

❶ administrator password
please go to system-password

❷ user rights per user
please go system-users
assign individual password per user
assign individual rights per user

when a project is finished or when a user leave the organisation you can easily delete the user.

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