Installation Instructions for beroFos

This installation Instruction is intended to clarify the scenarios in which beroFos can be used and how to set them. It will give you the basic information on howto Install and use beroFos.

Scenarios

beroFos can be used in two Scenarios, the Failover and the bypass Scenario. In both Scenarios it is possible to switch the Port Modes either Manually or automatically. A Port mode is defined by which Ports are connected and which are unplugged.

The default Mode in every Scenario (even if beroFos fails itself by unplugging power), the Ports „A" and „D" are connected (indicated with „A-D").

Failover Scenario

The Failover Scenario is used to backup one Asterisk Server with a second one. When the first Asterisk fails for some Reason, the Second Server will take it's place and get the PSTN Connection, either manually or automatically.
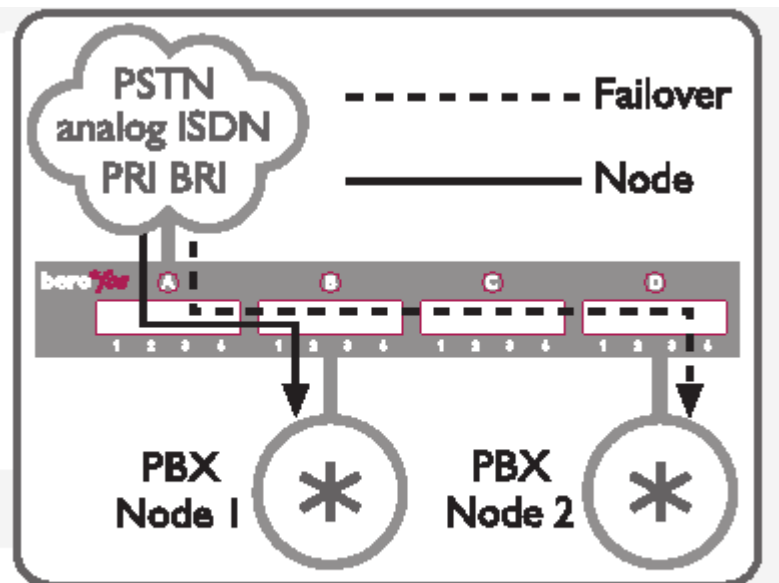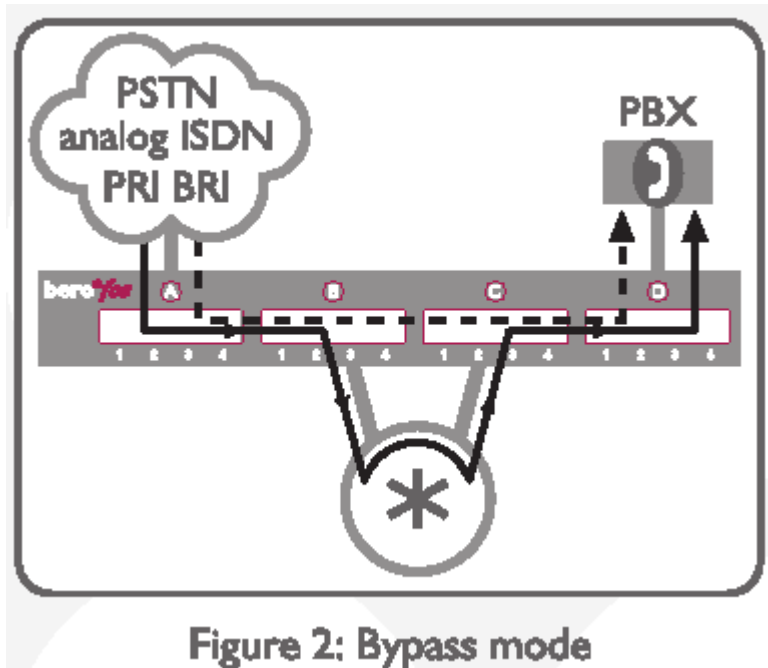

Figure 1: Failover switching mode

Bypass Scenario

The bypass Scenario is used if Asterisk is placed between an existing PBX and the PSTN. In case that Asterisk fails, beroFos will either manually or automatically switch the PSTN Connection directly to the PBX.

Figure 2: Bypass mode

Watchdog

It is possible to configure a Watchdog with a configurable timeout. When the beroFos will not receive a network signal by an external Server (for example by asterisk) within the preconfigured timeout it will automatically switch to the default mode of the running scenario („A-D"). Additionally beroFos will send a mail, send a syslog event, start an audio signal (if configured) and go into the failure mode. The failure mode will be indicated via the „Fail" LED in the front panel.

Linux tools

You will need to get the bntools to detect and configure a beroFos in your network, you can download them at:
http://www.beronet.com/component/option,com_remository/Itemid,38/func,download/filecatid,27/chk,454bb925c45038aa599afe71bbb9190e/lang,en/

Now you need to untar and compile them on your Linux System:

tar xzf bntools.tar.gz

cd bntools
make
make install

you will now have the tool „bnfos" in your path, just execute:
bnfos
to see it's possible arguments and parameters.

To detect a beroFos in your Network just use :
(Note that the Fos needs to be connected to your Network and the computer which should detect needs to be in the same switched Ethernet, it's not possible to detect a Fos through a Gateway)
bnfos –scan

The output should lool like:
#1:
 mac: 00:19:32:00:00:4D
 bootloader: v2.0
 firmware: v1.1
 device mode: OPERATIONAL
 address: 172.20.5.48
 netmask: 255.255.0.0
 gateway: 172.20.0.1
 phy conf: 0x03 (PROBE_AUTO)
 phy state: 0x03 (LINK_BEAT | LINK_100MBIT)
 options: 0x01 (OPT_DHCP)
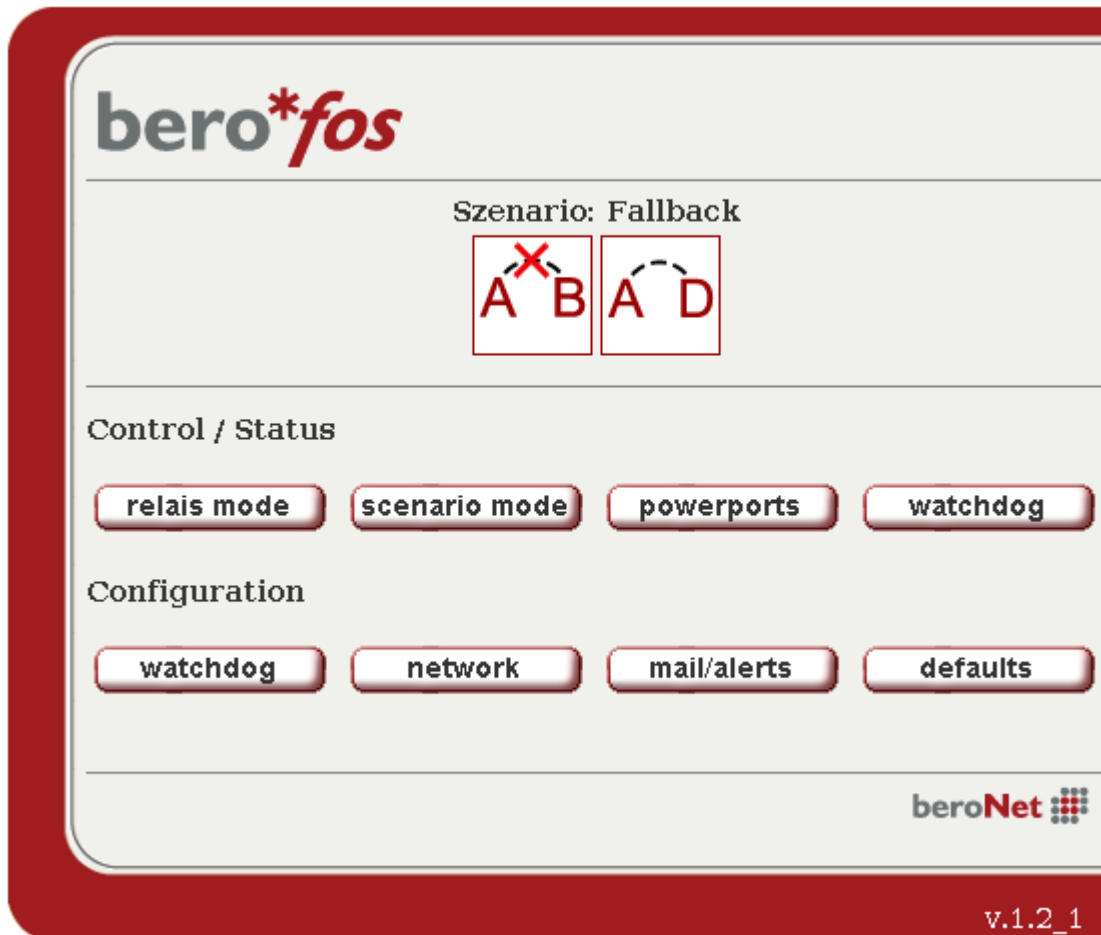 http port: 80

1 device found.

The web Interface

By default the bnfos gets its IP Address from the local dhcp Server. Just use the Address which you can see with „bnfos –scan" and enter it in your favourite Browser.

You will see a screen like:

You can see the current used Scenario and the menu to control and configure the beroFos.

Scenario Mode

The Scenario defines if you use the Fos in Failover or in Bypass Mode. You can switch the Scenario in the „scenario mode" Submenu (please see the explanation for the scenarios above).

Relais Mode

According to the currently used scenario you can Switch between the 2 Modes of each Scenario. Each scenario has two Modes, where either the Fallback Asterisk will be connected to the PSTN or classical PBX is connected to the PSTN.

The Relais Mode Menu makes it possible to switch modes manually.

Fallback Scenario

In the following Example the Ports „A" and „D" are switched and Port „B" is unplugged, if you press the „switch A-B" Button, the Ports „A" and „B" will be switched, and Port „D" will be unplugged.

Bypass Scenario

In the default bypass setting, the Ports „A" and „D" are switched and the Ports „B" and „C" are unplugged. By pressing the „switch A-B C-D" Button, the Ports „A" and „B" will be switched as well as the Ports „C" and „D".

Power Ports

The Power Ports menu allows you to manually turn on and off the two Power Ports on the rear of the Fos. You can use that to shutdown an Asterisk Server completely when it is crashed, or to shutdown other devices when necessary. Just use the Buttons „On" and „Off" to turn the corresonding Port on and Off.
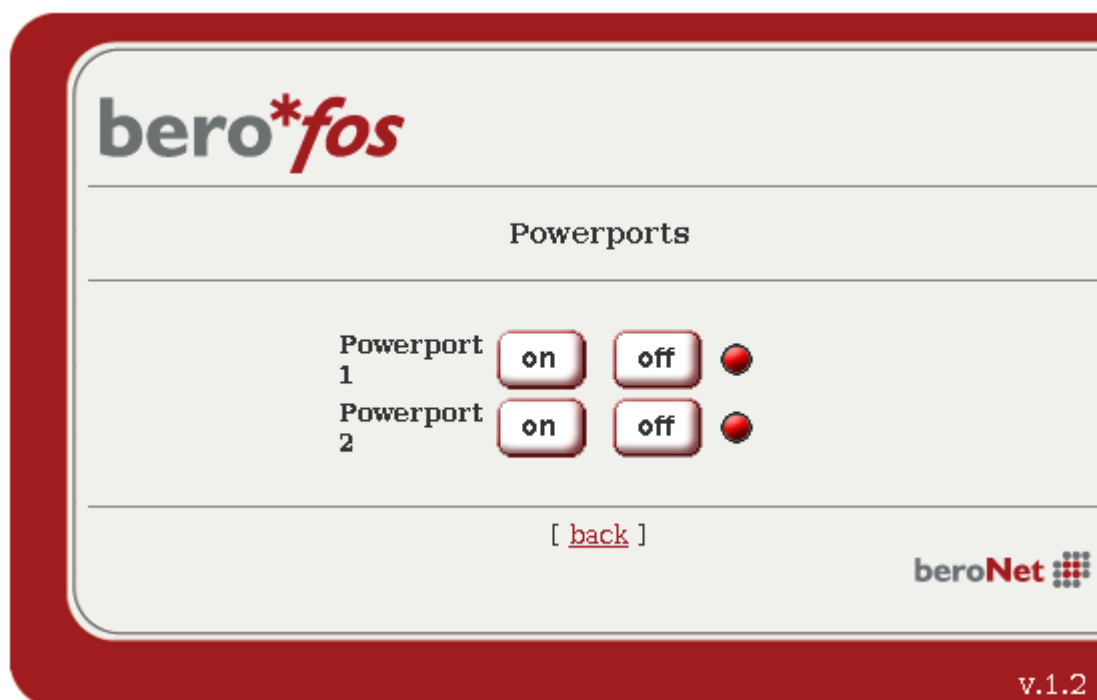
Watchdog

The watchdog menu is used to enable the preconfigured watchdog. If the beroFos will not receive the Watchdog signal before the timeout is expired it will switch the current used Mode of the Scenario to the default Mode. The default Mode of the Fallback Scenario is „A-D" and the default mode of the Bypass Scenario is as well „A-D", also if the Fos is turned off „A-D" is the default Scenario.

When you enable the Watchdog, you can see it counting down to 0 when you press the „refresh" button.

Configuration

The configuration allows you to modify the Network Settings and the Settings for automated processes in the failover scenarios.

Default

The default section allows you to modify the behaviour of beroFos on Startup. Here you can define if the Powerports are turned „On" or „Off" after bootup. Also you can define which mode is enabled by default (according to the scenario, see explanation above).

Watchdog

The watchdog Menu allows you to modify the Timeout for the Watchdog, if the watchdog is enabled and if in the fail case an audio signal should be generated.

Network Config

Here you can set the beroFos in automated (dhcp) or manual network configuration mode. You can also set an administrator password, to protect the beroFos from not allowed users.

Mail/Alerts

This menu allows you to set and enable eMail notification of fail events. You can also set a syslog server to log all important Fos events. To test your mail settings use the „send testmail" button.