myUTN-800: Redundant Design of the Network Connectors and Power Supplies

Information:

The UTN server myUTN-800 has two network connectors and two power supply connectors.

Technical Background:

Power supply

Two power packs are built into the myUTN-800. Each has a connector on the rear side of the device. Both power packs are completely independent of each other.

In standard operation, both power pack are used. Thus load is reduced and the life span of the power packs increased. If a power pack fails, the other power pack takes over the entire supply.

Network connectors

The myUTN-800 has two network connectors at the front. In normal operation only one connector is used, i.e. only one connection to the network is active. Only in case of failure, the myUTN-800 switches to the other network connector. (active/standby)

Therefore the myUTN-800 only has one hardware address (also known as MAC address) and only one IP address. This means it can only be connected to one network. It is not necessary to configure the switch.

The myUTN-800 does NOT have load balancing features (such as link aggregation – LACP, EtherChannel, Port Aggregation – PAgP, or Trunking).

Benefits and Purpose:

The two built-in power packs and the two network connectors assure ensure maximum reliability of the myUTN-800.

Connect the two power cords to the myUTN-800 and then to two different electric circuits. If the power supply used fails, the other power pack will take over. This way the myUTN-800 is reliable in its operation.

The same applies to the network connectors. Connect the two RJ-45 connectors to different switches in your network. If the connection used fails, the other will take over automatically.

Example 1:

Using the Rack Mount Kit type 3, you install the myUTN-800 in your rack. As an IT service provider you must guarantee high availability to your customers. Therefore your rack is designed with redundancy. Two power supplies with independent electric circuits and two switches are to guarantee reliability.

You connect your myUTN-800 to power supply 1 using a power cord, another power cord is used to connect the myUTN-800 to power supply 2. Then you connect network connector 1 of the myUTN-800 to switch 1, and network connector 2 to switch 2.

Power supply 1 fails! Power is out; all devices connected to power supply 1, including switch 1, cut out. Luckily power supply 2 still works. As switch 2 is connected to this power supply, it takes over from switch 1. The myUTN-800 continues to work: The failure at power supply 1 is detected and power supply 2 automatically takes over and supplies the myUTN-800 with power. The same applies to the network connector – the failure of switch 1 is detected at the RJ-45 connector and the myUTN-800 automatically switches to network connector 2 and thus switch 2. As you can see, the myUTN-800 neither cuts out nor fails.

The customer is aware of nothing and you can replace power supply 1 without ruffle or excitement.

Example 2:

As an IT service provider you must guarantee high availability to your customers. As you know from experience, power packs are error-prone components in IT environments. When you bought the myUTN-800 you therefore decided to get the Service^{plus} package[1] as well in order to extend the three year manufacturer's guarantee to five years and so that you can use the advance replacement service in case of a device defect.

You have been using the myUTN-800 successfully for years. Unfortunately, one of the power packs fails. The myUTN-800 continues to work because the other power pack supplies the myUTN-800 with power. Thanks to the Service^{plus} package you receive a replacement device promptly and without hassle.

The exchange in you rack is as easy as it can be: You install the new myUTN-800 and connect it to the power supply and network. The dongles are replugged quickly. You don't even have to configure the new myUTN-800: As a backup of the entire device configuration has regularly been saved to the SD card of your old myUTN-800, you only have to take the SD card of the old myUTN-800 and put it into the new myUTN-800. The new myUTN-800 then automatically loads the configuration.

Despite the hardware exchange, the downtime was very short!

Tip:

Get notified if a power supply or network connection fails!

In case that the myUTN-800 is close-by, you can configure visual and acoustic signals:

- The display at the front of the device can show if a power supply or network connection has been interrupted.
- If a power supply or network connection is interrupted, an acoustic signal ("beep") sounds.

Notifications can be given in written form as well. This type of notification is especially helpful if the myUTN-800 is far away and not easily accessible. For example in the server room. In that case, you get an automated email notification, if a power supply or network connection is interrupted. Alternatively, the myUTN-800 can send this information as SNMP trap to your network management program.

All information on notifications can be found in the myUTN User Manual; available at: http://www.seh-technology.com/services/downloads.html.

[1] optional service at additional cost