



Linux Router Project – LR101

About the Project - LR101

Because of the needs of medium-sized business with a few branch-offices, this project has been started.

One of the biggest problems in mid-sized business is to connect all its branch-office in a simple, secure and cheap way. Currently this is a VPN (Virtual Private Network) solution, it's using a usual internet connection (like DSL) and is building a VPN between the branch-office and the headquarter. The main problem is, the major internet service provider cannot ensure that the connection is available at any time. DSL lines are not strong enough to manage the whole traffic or the ISP (Internet Service Provider) isn't able to serve a strong connection. In many cases there are broken lines longer than 24 hours. Until now, there wasn't a solution to realize a real working backup for VPN and ISP connections. With this project you will be able to check both sides, the connection at the branch-office and the connection at the headquarter, if necessary a backup-connection will be established.

The advantages this project offers are among other things that you'll reach a maximum of connectivity, increase the productivity and definitively no turnover loss by missing connections at the headquarter or branch-office. With the LR101 it is guaranteed that a lost internet or VPN connection is re-established within one minute, and you can decide if connecting to another ISP or connecting the branch-office with the headquarter directly.

Aim of the project

Generally the aim of the LR101 project can be defined as follows :

The implementation of the LR101 with all major protocols and routing-protocols, with VPN / ISP failover and automatic internet update you can give enterprises a possibility to ensure the connection from branch-offices to the headquarter and vice versa. This is possible with direct dial-in to the headquarter or re-establishing the VPN / ISP connection with an ISDN interface. This procedure may not take longer than one minute.

Technical Details

Linux Kernel Version :	2.4.22	(2.4.22-LR101)
Filesystem :	Ext-2	
Image-Size unpacked (30.09.03):	ca. 17 MB	
RAM :	128 MB	
Apache Version :	1.3.28	(incl. Perl und Auth.)
Zebra Version :	0.93b	(OSPF / BGP)
IP-Version :	v4	
Standard-IP :	192.168.1.254	
Standard-IP f. Failover :	10.1.1.1	
Standard-Gateway :	192.168.1.1	
Failover-Gateway :	192.168.1.253	
Failover-Test :	194.25.2.129	(Telekom – DNS)
Failover-Interval :	1 min.	
Logging :	Syslog (local or remote)	
Ethernet-Interface :	RealTek RTL8139 / NE2000 compatible PCI Cards	
IP-Tables / Netfilter Version :	1.2.6a	