funkwerk
enterprise communications

MEDIA GATEWAY

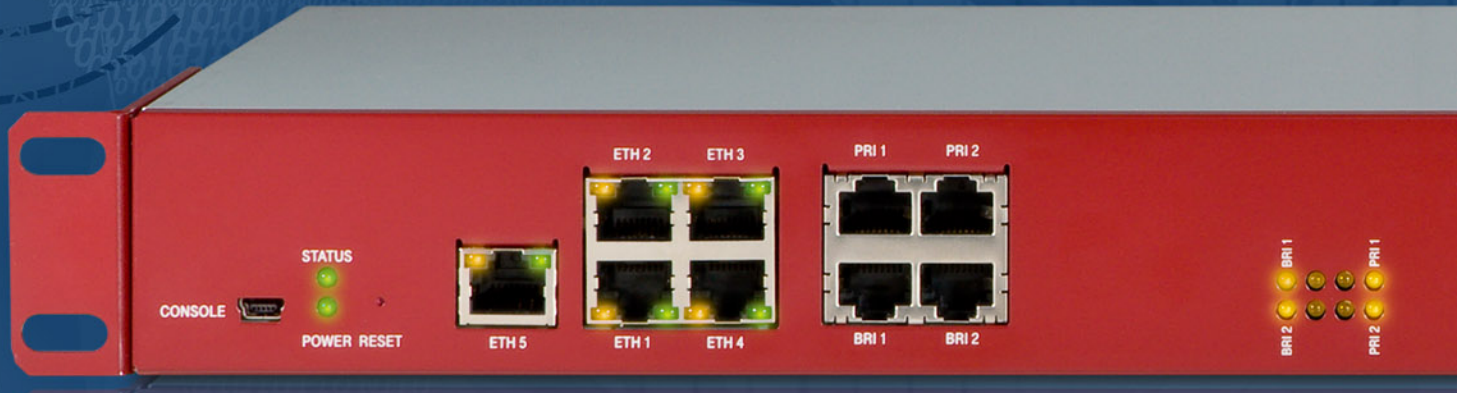
The media gateway with PRI interface

bintec RT4402

Fax Media Gateways certified by:
GFIFAXmaker™
servonic Technology Partner
Tobit.Software
TWINFAX
VIPcom Communications
Visendo by ppdv

- 2 * ISDN PRI; 2 * ISDN BRI; 30/60 DSP channels
- VoIP and fax over IP (T.38)
- CAPI server virtualisation + fax G3
- 5 * Gigabit Ethernet
- 19“ housing with integrated power supply
- IPSec – 10 tunnels, opt. up ot 110, HW acceleration

VoIP Media Gateways Certified from:
ADDIX
swyx
STARFACE COMFORTPHONING



High-end ISDN PRI media and VPN gateway

RT4402

The bintec RT4402 is a powerful and, thanks to its comprehensive equipment, flexible media and VPN gateway. With its 19-inch metal housing and highly efficient internal switched-mode power supply the fan-free and hard drive-free design guarantees long-term reliability in critical corporate applications.
Two configurable ISDN PRI and two configurable BRI interfaces (NT/TE) for the use of up to 68 ISDN B-channels and the integrated 60-channel DSP permit up to 60 simultaneous hybrid voice connections (VoIP). Up to 30 connections can be licensed for fax traffic (FoIP) if required.
The device has five Gigabit Ethernet ports, which can be configured for LAN, WAN or DMZ, and comes with a licence for 10 out of a possible 110 hardware-accelerated IPSec tunnels. This makes the RT4402 ideal for use as a media and VPN gateway in SMEs and company head offices.

Remote CAPI

The remote CAPI is multiserver and multiside-capable.
Voice and fax applications can transfer data simultaneously on all 30 available channels. Thanks to the dedicated DSP hardware available for each channel, the entire system is not overburdened and the computing power remains available for all routing and VPN tasks. The quality of each fax connection is therefore consistently high, irrespective of the capacity utilisation of the rest of the system.

As the remote CAPI is a network application, which operates independently of the MS Windows© operating system software, it is ideal for server use. Consequently, CAPI applications can be installed and maintained without suspending operation and no reboot of the server is required. The software supports 16/32/64 Bit operating systems and applications. The remote CAPI is also available for Linux.
This function is groundbreaking for the use of virtual machines. MS Hyper-V©, MS virtual PC©, VMware©, virtualBox© and other virtual platforms do not offer an option to connect ISDN cards. The bintec remote CAPI avoids this problem and
thereby allows fax and unified communication servers to be operated on virtual systems.

The following partners have already successfully certified our solution:
Servonic (IXI), Tobit (David), COM2 (TWINFAX), GFI (Faxmaker), ppedv(Visendo)

VoIP Media Gateway

With the RT4402 up to 60 telephone calls and fax transmissions (T.38) can be transferred simultaneously between the IP network and the traditional telephone network. This can be carried out either directly as a terminal adapter (an ISDN telephone is registered with the VoIP provider) or using a PBX.
A traditional ISDN PABX can be coupled with SIP providers or a modern IP PABX can be operated on the ISDN BRI/PRI exchange connection. Fax transmission over T.38 is supported in both scenarios. A fax device on the analogue connection of the traditional PABX can thus send and receive faxes over the SIP provider. This allows FoIP clients and servers in the LAN to fax over the ISDN exchange.
The G.711, G.726 and G.729A voice coding offered by the SIP trunking and DDI-capable Funkwerk Media Gateway can be adapted to suit your quality requirements and thereby ensure ISDN quality and high compression. Echoes are successfully suppressed in G.168.
Fax over IP, T.38, permits implementation of the analogue T.30 group 3 fax protocol.
Thanks to the intelligent quality of service bandwidth management and adjustment, you can prioritise voice traffic over normal data traffic over the internet, for example, and thereby always ensure sufficient bandwidth for your IP voice connections.
Pure VoIP calls are not limited and are only restricted in terms of number by the existing bandwidth for the provider.

Media gateways are certified by:

Swyx with its Swyxware communication solution

Addix with its Asterisk Appliance Astimax

Routing and VPN gateway

The additional media services, which the bintec RT Series permits, in no way restrict the standard scope of functions of

the bintec R Series. You can use the entire scope of services of the VPN gateway with identical data rates in parallel to media services.
Bintec gateways have features that go far beyond just IP routing and allow it to be seamlessly integrated into complex IT infrastructures.
As routing protocols, you can use RIP, OSPF or the Multicast routing protocol PIM-SM for example, and the comprehensive multicast support makes the device ideal for use in multimedia and streaming applications.
Even the basic equipment provides a SIP application level gateway (ALG) for the direct connection of IP telephones in the network or for registering with a VoIP provider. The ALG automatically controls the internal firewall making it easier to configure your VoIP solution, if the media gateway is not active.
You can prioritise voice traffic over normal data traffic using QoS support. If required you can give normal data traffic priority over e-mail traffic.
The DNS proxy function supports the LAN for address implementation and the automated IP configuration of PCs is carried out over an integrated DHCP server. The time server allows you to send the current time to all computers in the LAN without having to query each computer on the internet.

The VPN IPSec solution works both with preshared keys as well as with certificates for authentication, which allows a public key infrastructure to be created for maximum security.
Furthermore, the bintec IPSec implementation offers support when creating VPN connections with dynamic public IP addresses. The exchange of IP addresses is carried out either over dynamic DNS providers or directly over ISDN.
IKE Config Mode and X-Auth (extended authentication) permit IPSec dialin solutions for multiple clients with minimal costs and one-time password ensuring the highest level of security.
The professional functions are rounded off with bundling for parallel internet connections with load balancing and our bintec Router Redundancy Protocol (BRRP).

VPN gateways are certified by Kobil with "Secure One Time Verification and Identification" (SecOVID) and Starface, amongst others, which realise secure IP PABX connections over VPN with VoVPN.

Simple configuration and maintenance

The gateway is configured over the Funkwerk Configuration Interface (FCI), using the integrated configuration wizards for example. The FCI is a web-based graphic user surface that you can use from any PC with an up-to-date Web browser via an HTTP or encrypted HTTPS connection. It also offers the opportunity to manage the devices locally and remotely over other configuration accesses such as Telnet, SSH and ISDN login.

DIME Manager from Funkwerk Enterprise Communications (FEC) is a free tool for managing FEC devices.
DIME Manager is aimed at administrators who manage networks with up to 50 devices. The software simplifies the management and configuration of gateways or access points either individually or in logical groups.
When developing DIME Manager, simple and efficient operation was the primary aim. It allows, for example, software updates to be applied to individual devices or groups of devices simply by drag and drop. DIME Manager recognises and manages new devices in the network using SNMP multicasts, in other words independent of their current IP address.

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