

X1000 II

**One box for all tasks:
Internet, Dial-In, Firewall**



The X1000 II from Bintec is based on the X1000. It provides all features of X1000. In addition, X1000 II supports all features of release 7.1.2 enabled by high performance CPU and more memory.

The X1000 II from Bintec is a fully featured and flexible ISDN multiprotocol router. It has been specially developed for remote access to small businesses, remote offices or home offices.

All branch workers can access the Internet as well as remote corporate networks. Fax and network services such as e-mail, homebanking or file transfer are also supported.

Teleworkers on the road can dial into their office via ISDN or mobile phone. They can work as if they are actually in the office.

The X1000 II integrates branch offices into the corporate network and retains the workflow of fax and e-mail services.

Remote access provides the opportunity to make the right information available at the right time. Remote access, however, involves an element of risk: information can be accessed or manipulated by unauthorized personnel. In order to prevent this abuse, extensive firewall mechanisms have been implemented in the X1000 II, as well as remote access via an Internet Virtual Private Network (optional).

The X1000 II meets the high security requirements of remote offices. Thus, these offices are integrated into the security policy of the entire organisation.

The X1000 II is much more than just a router. Besides security, Bintec places special emphasis on the management of cost and administration.

Intuitive, high quality tools simplify configuration and enable remote administration.

>> Highlights

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| > RISC processor | For computing-intensive functions such as encryption and compression |
| > ISDN leased line | Optional |
| > 10/100 Mbps Ethernet interface | Autosensing functionality for automatic adaptation to the existing network |
| > SaferNET - firewall | High security through integrated firewall mechanisms and encryption |
| > IPSec Security Pack | VPN with IPSec (optional) and powerful encryption |
| > Stateful Inspection Firewall | connection based firewall |
| > Configuration / maintenance | Simple configuration and maintenance, local and remote |
| > Configuration Wizard | Configuration assistant for HTTP |
| > Activity Monitor | Continuous check of the connection status of the Bintec routers from the PC, fast and convenient |
| > Cost management | Extensive mechanisms for cost control and cost optimization |
| > QoS | Quality of Service bandwidth management for time-critical applications |

>> Software Features

- > **TCP/IP routing** Routing information updating and distribution, static or dynamic (RIP v1/v2/triggered, RFC 2091), selectable for each interface, ProxyARP, BOOTP/DHCP forwarding
- > **OSPF** Static/dynamic updating and distribution of routing information
- > **Bridging** Spanning Tree & Transparent Mode
- > **QoS** Quality of Service with DiffServ and shaping: breakdown of IP data traffic into classes with different priorities, optimized queue handling and shaping as per these priorities
- > **BRRP** Bintec Router Redundancy Protocol, back up a service offered by a single physical router to a LAN (Virtual Router)
- > **IP load balancing** Bandwidth management
- > **BoD** Bandwidth on Demand: Scalable bandwidth to suit data traffic load
- > **AUX backup** Backup via GSM, GPRS or analogue modem
- > **PPP** Authentication mechanisms (PAP, CHAP, MS-CHAP, MS-CHAP v2), standard PPP, channel bundling over Multilink PPP (ML-PPP), transparent mode, dynamic IP address assignment (server and client mode)
- > **PPPoE** Point-to-Point Protocol over Ethernet (Client and Server) for high-speed Internet access over xDSL (RFC 2516)
- > **LAN user - ISDN WAN partner** Unlimited number
- > **Dyn. IP addresses** Simple Internet access without fixed IP addresses
- > **XoT** X.25 over IP
- > **Operating systems** Support from DOS, Windows 3.x/95/98/NT/ME/2000/XP, UNIX, Macintosh and Novell
- > **ISDN accounting** Call detail recording, number, charging information, ...
- > **IP accounting** Source, destination, port, interface, packets/bytes counter
- > **Event Scheduler** Budgets based on data volume or based on time
- > **Short hold** Static and dynamic short hold saves connection costs through automatic call clearing
- > **Keep Alive Monitoring** Saves costs by only allowing a connection to be set up if configurable IP addresses can be reached
- > **VJHC** Van Jacobsen Header Compression
- > **MPPC** Software data compression also in combination with MPPE (Microsoft Point to Point Encryption), free-of-charge licence nessecary
- > **STAC** Compression for PPP connections, free-of-charge licence nessecary
- > **Cost of ownership** Minimum, e.g. due to free software updates, full remote administration

>> ISDN Interface

- > **ISDN protocols** Euro-ISDN and other national ISDN protocols
- > **Dialup and leased lines** Optional: Leased lines supported: D64S, D64S2, TS02, D64S2Y
- > **B-channel protocols** Excellent interoperability with other manufacturers (Raw HDLC, CISCO HDLC, X.75)
- > **PPP, ML-PPP** (See Software)
- > **X.25 / X.31** X.25 within ISDN B- and D-channel
- > **AODI** Always On Dynamic ISDN available
- > **Multi-CAPI** CAPI 2.0 with CAPI user concept (password requested for CAPI use) permit direct access to services such as fax and e-mail
- > **Bit rate adaptation** V.110 (1,200 up to 38,400 bps), V.120 up to 57,600 kbps (HSCSD) for connection to GSM subscribers

>> Hardware Features

- > **Processor / memory** Motorola RISC Processor, 4 MB Flash, 16 MB RAM
- > **LAN** Autosensing 10/100 Mbps Ethernet twisted pair
- > **ISDN** 1 x BRI, 2 B-channels

> Console	Serial console port: RS 232 C, 8-pole Mini-DIN, 1,200 bps - 115 kbps
> Power supply	External power supply 5 V DC
> On/off switch	Available
> Status LEDs	Power, LAN, ISDN-B1, ISDN-B2, Error
> Stackable	
> Fanless design	Long lifetime
> Node/hub support	Via cable supplied as standard
> Dimensions	Approx. 141 x 50 x 145 mm (W x H x D)
> Weight	Approx. 330 g

>> Security

> NAT/PAT	Network & Port Address Translation / Stateful Packet Inspection: Isolation of complete network from public access
> CLID and callback	Calling Line Identification (CLID), callback
> Access lists	Filtering of IP packets according to different criteria (source, destination, port and interface)
> Stateful Inspection Firewall	filtering with monitoring and interpretation of the status of the individual connections
> RADIUS	Central check of access authorization at a RADIUS server (PPP and Login Authentication)
> Authentication	PPP mechanisms (see Software)
> H.323 proxy	Protection of the Intranet (e.g. by NAT)
> Content filtering	30 day evaluation licence
> VLAN	Network nodes in different network segments behave like a arbitrary group connected to the same network segment
> Encryption for PPP	MPPE up to 128 bit other up to 168 bit if VPN is licensed
> VPN - IPSec	Max. 5 tunnels inclusive (only for products produced after week 18/2004), more via separate license
> VPN - IPSec	Powerful encryption up to 256 bits (DES, 3DES, CAST, Blowfish, Twofish, AES)
> VPN - PPTP	Optional
> VPN - PPTP	Strong encryption up to 128 bits (MPPE), up to 168 bits (DES/3DES, Blowfish)
> DynDNS / DynVPN	Router can still be reached over the Internet in spite of dyn. IP address
> IKE for IPSec	Pre-Shared Keys and X.509 certificate support
> X.509	X.509 v1/v3 certificates (PKCS#7/8/10, CLRs, SCEP)
> QoS for IPSec	Available
> PKI Support for IPSec	Available
> NAT Traversal for IPSec	Available
> IPCOMP	IP Compression

>> Maintenance and Service

> ISDN autoconfiguration	Simple configuration of ISDN BRI interface
> ISDN logging	ISDN event & system logging: recording of all relevant connection data, e.g. intrusion attempts
> SNMP	Complete management with MIB-II, Enterprise MIB, inclusive SNMP management software for Windows (DIME Tools and Browser)
> SSH login	Secure connections for terminal applications
> Local / remote administration	Complete configuration and maintenance, local and remote, over Ethernet, ISDN Login or serial interface
> Trace / debugging / monitoring	Traces for ISDN B-/D-channel, R-CAPI traces, Ethernet traces, reason for call break, ISDN signaling information
> Email alert	Available
> DHCP	Server and client for simplified configuration for TCP/IP

- > **Setup Tool** Integrated, menu-based, intuitive setup program, standard for the whole Bintec product portfolio
- > **HTML Setup Tool** HTML interface accessible through a Java Script enabled browser
- > **HTML Wizard** Browser-based configuration assistant
- > **H.323 gatekeeper** Communication control between gateway and H.323 terminals
- > **XADMIN** Roll out tool for larger router installations (IP and ISDN)
- > **Activity Monitor** Controls router activities from each LAN PC
- > **Documentation** Complete toolset and documentation on CD
- > **Guarantee** 2-year manufacturer's guarantee



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Bintec Access Networks GmbH - Suedwestpark 94 - D-90449 Nuremberg

Phone: +49 - 180 300 9191 0

Fax: +49 - 180 300 9193 0

E-Mail: info@bintec.de - www.bintec.net

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