

# ViNE6430p - VoIP



## Voice Integration at Network Edge

### ViNE6430p-VoIP

The ViNE6430p-VoIP is an “all-in-one” voice and data unit for the corporate business market. The unit provides one standard G.SHDSL interface with 1 PRI port. It can sit in front of a PBX and supports SIP and MGCP protocols together with firewall, router and Ethernet functions. Remote migration between both of these VoIP protocols is possible.

### Applications

The ViNE6430p-VoIP offers separate and additional lines for Internet or business fax and voice traffic. The unit easily connects to a PBX with seamless availability of features. Up to 30 simultaneous broadband voice channels are made available over one G.SHDSL connection together with high-speed data services. In conjunction with an IP gateway or softswitch, the full range of supplementary services can be reproduced. The lines and services can all be remotely provisioned, configured and maintained.

It is also possible to use the ViNE6430p-VoIP in an IP Gateway application. The Ethernet port can be configured as the external WAN connection direct to the IP world, by-passing the DSL modem.

### Flexibility

All ViNE IADs are pre-configured to a standard customer profile but with an element management system, specific user requirements can be managed centrally, during installation or by the end user through restricted web based access.

Remote upgrade and management capabilities mean all ViNE products offer a fully scalable route to future IP centric softswitch architectures and services. Full support is provided for remote management as well as DSL Forum 'Auto-config' (TR-037) protocol. Voice interop with the major gateway and softswitch suppliers is provided, the ViNE6430p-VoIP supports both proprietary as well as industry standards.

Quality of Service is delivered by a range of different options including flow metering, transmit scheduler, algorithmic dropper, weighted (prioritised) queuing, packet classifier and VLAN tagging. Using dynamic bandwidth allocation with adaptive traffic shaping, data fragmentation and voice compression, optimum data throughput is guaranteed without impacting on the simultaneous voice calls.

## Features

### Key Benefits

- G.SHDSL modem, voice & router
- Annex A and B (auto-sensing)
- SIP and MGCP support
- 1 PRI port
- extensive inter-op experience
- full QoS management
- G.SHDSL.bis ready

### Data & CLASS Services

- up to 2.3Mb Downstream
- up to 2.3Mb Upstream
- CLI Support
- CLASS feature support
- Ethernet / router / firewall

### Open Standards

- SIP, MGCP, SNMP Management
- DSL Forum
- wide DSLAM Interoperability

### Cost Engineered Design

- Universal G.SHDSL WAN
- 10/100 BaseT Ethernet interface
- Business class router & bridge
- Integrated Software on Silicon
- Integrated web server
- SNMP, Telnet, HTTP remote mgt.
- Local management via service port
- Remotely upgradeable

### Business Class Security

- Stateful inspection firewall
- IP filtering, PAP, CHAP
- NAT, NATP (PAT)



**Hardware Interface**

- WAN interface: G.SHDSL (RJ11)
- LAN interface: 10/100 Base-T Ethernet (RJ45)
- Ethernet operation
- Telephony interfaces: 1 PRI port
- Service: V.28 (RJ45) for service engineers only

**Telephony function (PRI)**

- End points (TE) or PBX support (NT)
- Compatible with CTR4 compliant equipment
- 75ohm (BNC coaxial) termination
- 120ohm (RJ45 connection) termination
- CLASS feature support

**Codec and Packetisation support**

- AAL5 packetisation (ATM)
- Echo cancellation: G.168, 64ms
- Silence detection and comfort noise generator
- Fax and modem detection
- DTMF detection and generation
- Variable length dynamic jitter buffer
- 64 Kbps PCM (G.711)
- 32 Kbps ADPCM (G.726)
- A-Law, U-Law
- CS-ACELP (G.729)

**Encoding and line speed**

- G.SHDSL (G.991.2, G.991.bis) Annex A and B (auto-detect)
- Line speed: from 128Kbps to 2304Kbps (per line)

**Voice protocols**

- VoIP: SIP and MGCP
- SIP: RFC3261
- MGCP: NCS, RFC2705, RFC3435

**Quality of service**

- ATM: CBR, rt-VBR, nrt-VBR, UBR, UBR+
- IP: TOS bit prioritization assigned for voice packets
- VLAN tagging
- DiffServ: packet classifier, flow metering, transmit scheduler, algorithmic dropping
- Multiple priority queues

**Environmental**

- Operating temperature: 0° C to +40° C
- Power supply: external, 110 - 230Vac, 50 - 60Hz
- Power: 8watt nominal, 50watt maximum
- LEDs: Voice, DSL, LAN, Data, Power, System
- Dimensions: 430 x 70 x 200mm
- Weight: 1.85kg

**Data**

- Bridged and routed Ethernet encapsulation (RFC 1483): LLC/SNAP, VcMux, HDLC
- DHCP server, relay and client
- Point-to-Point Protocol (PAP/CHAP Authentication)
- PPP over Ethernet gateway
- PPP over ATM gateway (RFC 2364): LLC/SNAP, VcMux, HDLC
- PPP over Ethernet pass-through
- PPP over Ethernet over ATM
- IP over ATM

**Routing**

- Numbered or unnumbered WAN interface
- Up to 16 LAN subnets with DHCP server associations plus virtual interfaces
- RIP1 and RIP2 static routes
- NAT, NAPT (PAT)
- IP multicast forwarding, IGMP V1 and V2
- DHCP server, relay and client
- DNS proxy and relay
- Transparent bridging option

**Configuration and Management**

- Ethernet, service port (service engineers only)
- Embedded web server
- Command Line Interface (local or via Telnet)
- Password protection
- Radius client support for authenticating system configuration access
- SNMPV.2
- Firmware upgrade: HTTP, TFTP, FTP
- ICMP ping, system log, TFTP, Traceroute
- ILMI, UNI4.0 and F5 OAM

**Regulatory**

- CE Mark
- EN55022 for emissions
- EN55024 for immunity
- EN60950: 2000

**Security**

- Built-in stateful inspection firewall: IP filtering
- NAT / NAPT
- password access for local / remote configuration
- restricted IP access (for management)

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