

REALITY CHECK

application solutions for your world

SmartNode™ VoIP Delivers First-Line Business-Class Internet Telephony Services with green.ch

No business can afford to lose an important phone call, not even to save money. Whether the potential deal is massive or minuscule, your call has got to connect. Misunderstanding just one spoken word can break a deal, so crystal clear voice quality is non-negotiable.

When green.ch started planning their Internet telephony service for business subscribers, they knew it would have to be first-line quality. As Switzerland's leading ISP for small-to-mid-sized enterprises (SMEs), green.ch knew that no business customer would accept a Voice-over-Internet Protocol (VoIP) phone service with tinny-sounding tone or garbled speech. Accustomed to the reliability and quality of their national ISDN service, Swiss organizations would drop a low-quality Internet calling service like a hot potato.

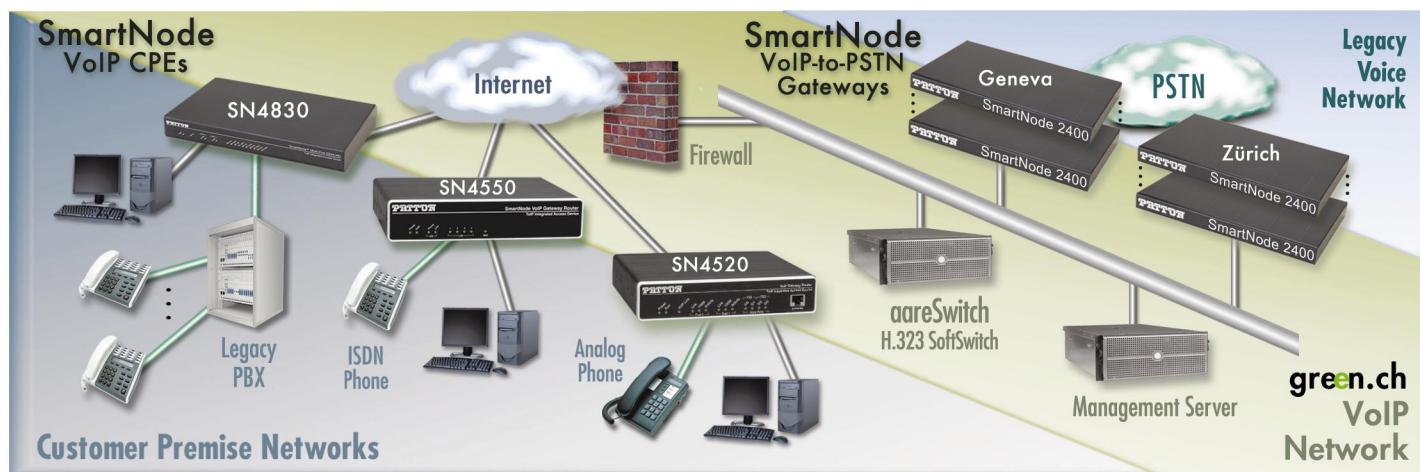
"As an Internet Telephony Service Provider, a responsive vendor is a must. When a business customer calls with an issue, we can't say 'OK we'll put that on the roadmap for next year.' With Patton-Inalp, we have a direct pipeline to the people who make things happen."

Guido Honegger
Managing Director
green.ch

First of all, the VoIP customer-premise equipment (CPE) that green would select for deployment with their Internet phone services must be mature—fully capable of delivering excellent voice quality over the Internet, while providing stable operation and reliable, routed-IP connections. Since no business wants to rip out their old phone gear, green's VoIP CPEs would have to offer all the telephony interfaces required to connect with any existing analog or ISDN phone, PBX or network (FXS, FXO, PRI, BRI, E1). Furthermore, most companies would be unwilling to renumber their phones to accommodate a new service. So the VoIP-gateway software would have to be extremely flexible—easily configured to support existing call-numbering and call-routing plans.

SmartNode™ Internet Telephony Service Provider Solution for green.ch

First-line VoIP Services for Switzerland's Business Subscribers



Key Benefits of SmartNode Solutions for Internet Telephony Service Providers

Mature VoIP Technology

- ✓ First-Line Stability & Reliability
- ✓ Rich Set of Business-class Features
- ✓ Excellent Voice Quality over the Internet (comparable to ISDN)
- ✓ State-of-the-art Security

Powerful VoIP Products

- ✓ Interface combinations to fit any network
- ✓ Call numbering that adapts to suit any customer
- ✓ Scalable solutions from 2 to 120 calls

Flexible VoIP Partner

- ✓ Open communication with Patton engineering & manufacturing
- ✓ Quick response to change requests and special features
- ✓ Free Tech Support in all phases...from design to refine

Design and refine.

Guido Honegger, Managing Director at green.ch, also knew that successfully rolling out a new service always takes some tweaking. Once deployed, CPE configurations are sure to want tuning. As the system matures, network elements will require continuing adjustments to software, and often to hardware as well. Those things can't happen without open channels of communication with the vendor's technical support, engineering, and manufacturing teams. So the VoIP-equipment vendor should view the business relationship as a cooperative partnership. Without a doubt, a responsive supplier would be a must.

Getting personal. As it turned out, Guido Honegger, Managing Director at green.ch, knew someone (a professional acquaintance) at just such a company. Dr. Andreas Danuser, CEO of Patton-Inalp Networks, AG, had played an instrumental role in creating the SmartNode™ line of VoIP gateway-routers. With solutions scaling from 2 to 120 concurrent calls, Mr. Honegger believed SmartNode™ could easily support the full portfolio of business-class services that green.ch had planned. The new set of services

would target subscribers ranging from small-office and home-office (SoHo) users with a single analog phone, all the way up to full-sized businesses requiring multiple PRIs to support hundreds of extensions.

Against Patton's SmartNode™, green.ch considered VoIP CPE solutions by Cisco and AudioCodes. After rig-

"Patton SmartNode™ comes with real support from real people — you don't get stuck in an endless loop of voice-mail prompts. And it's FREE! They don't kill you with add-on support charges like certain other suppliers."

Guido Honegger

"Patton's engineering and support teams have carried us far beyond system design and deployment. We are well into the fine-tuning and refinements of the operations phase. We keep making special change requests to enhance our services... Patton and SmartNode™ keep on delivering."

Guido Honegger
Managing Director
green.ch

orous interoperability testing with their H.323 softswitch (the aareSwitch), green.ch selected SmartNode™ for its superior voice quality—comparable to ISDN—over their existing broadband-ADSL Internet-access service.

Product maturity and stability as well as Patton's responsive partner-oriented approach to the business relationship were also key factors. Other considerations included state-of-the-art voice and data security, support for fax-over-IP, plus a rich set of business-class features including caller-ID and caller-ID restriction.

Deciding Factors

- ✓ ISDN-quality voice
- ✓ First-line stability
- ✓ Responsive Supplier
- ✓ ISDN & analog interfaces
- ✓ Interoperable with softswitch
- ✓ Secure authentication
- ✓ Business-class call features
- ✓ Fax-over-IP

Today, green.ch offers business-class, first-line Internet-telephony services (including 911 emergency service) throughout Switzerland, based on SmartNode™ VoIP CPEs. Deployed SmartNode™ models include the 2-port ISDN SN4552, the 4-port analog SN4524, the 8-call ISDN SN4638 with up to 5 BRI ports, and the 60-call SN2300 modular VoIP gateway. For larger businesses, green.ch offers automatic fallback over the PSTN in case of occasional Internet failure. Two arrays of the 120-call SN2400 modular gateway, located in Geneva and Zurich provide dual-redundant connections to the Swiss PSTN

Keep on tweaking. As of this writing, Patton has implemented over 40 modifications in response to requests from green.ch. Early on, Patton customized a fraud-proof authentication procedure for interoperation with the aareSwitch H.323 softswitch. The two companies still meet weekly to jointly manage ongoing enhancements

green.ch numbers

Revenue	\$34,500,000
Customers	70,000
Employees	55

About Patton

Patton is a multi-national manufacturer of voice and data-communications equipment for carrier, enterprise, and industrial networks worldwide. Incorporated in 1984, Patton markets a catalog of more than 500 products including SmartNode™ VoIP solutions that support SIP, H.323, and MGCP for analog and ISDN telephony; ForeFront™ multi-service access infrastructure solutions for TDM and IP service delivery (T1/E1, G.SHDSL, xDSL, dial-up); IPLink™ CPE solutions for last-mile/local-loop access (WAN routers, modems, remote access servers, NTUs, CSU/DSUs); CopperLink™ Ethernet Extenders, EtherBITS™ device servers; and a full range of network-connectivity Micro-Products (interface converters, short-range modems, multiplexers, surge protectors).



Extending, Converting & Converging

For more information or to request a free datacom catalog, please contact:

Patton Electronics Company

7622 Rickenbacker Drive, Gaithersburg, MD 20879 USA

Tel: +1 301-975-1000 • Fax: +1 301-869-9293

www.patton.com