ECOTEL® multichannel



GSM / CDMA* / 3G gateways for corporations and service providers

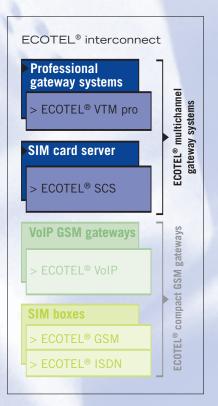
Reliable, cost-effective connectivity between fixed and mobile radio networks

The ECOTEL® VTM family of gateways is designed for reliable, cost-effective routing between GSM, CDMA*, 3G and VoIP or ISDN and the analog fixed network. VTM gateways are optimized for use by large corporations and service providers with a high volume of mobile radio traffic. VTM gateways offer up to 32 GSM, 3G or CDMA* channels, 30 VoIP channels and max. 8 PRI interfaces (E1/T1). For bigger applications, you can cascade multiple VTM gateways.

ECOTEL® VTM pro has been designed as a multichannel gateway. The gateway is very useful for cost-effective routing of huge amounts of calls into mobile radio networks.

The **ECOTEL® SIM Card Server** (SCS) allows centralized hosting of SIM cards for multiple ECOTEL® VTM pro, ECOTEL® VoIP or ECOTEL® ISDN2-2x gateways.

The **ECOTEL® SIM Management Center** (SMC) assigns local SIM cards and/or SIM cards stored in the SCS to the GSM channels.



VIERLING



CORPORATE CLASS

Integration into a service provider network

Integration via VoIP

Least cost routing

Last mile connections / wireless local loop (WLL)

Business continuity

Linux-based

Script-enabled



Reduce charges, gain functions

ECOTEL® VTM pro - the next generation multichannel gateway

ECOTEL[®] VTM pro allows domestic and international long-distance network operators, local network operators and prepaid card operators to cost-effectively route mobile radio calls on a large scale. The gateway supports various mobile radio networks. Service providers with an IP backbone can use ECOTEL[®] VTM pro in conjunction with a VoIP gateway. With its optimized SS7 signaling, ECOTEL[®] VTM pro meets professional standards.



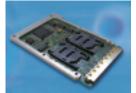
Besides saving money through optimum exploitation of price differences, ECOTEL[®] VTM pro is also useful for implementing last-mile solutions. The gateway provides a fast, cost-effective connection between subscribers and carrier networks via mobile radio.

Additionally carriers and organizations with high security requirements can use ECOTEL® VTM pro to create back-up solutions for business continuity during landline failures. ECOTEL® VTM pro is connected directly in front of the telephone system or the switch. In case the landline fails, all of the communication can be transported via GSM.

ECOTEL[®] VTM pro is based on Linux which makes it easy to implement extensions, additional applications and customer-specific adaptations.



ECOTEL® ISA 4 xx plug-in card with 4 GSM-, CDMA or UMTS channels



PCMCIA plug-in card to change SIM cards easily and quickly



Screenshot ECOTEL® VTM pro

Least Cost Routing on a large scale



With ECOTEL® SCS, you no longer have to operate SIM cards locally in ECOTEL® VTM pro, ECOTEL® VoIP or ECOTEL® ISDN2-2x. You can now install and use the cards at a central site. All gateways can access the SIM cards via the IP network and assign them to the different GSM channels. This assignment can be static or dynamic depending on a certain time schedule. Changing prepaid cards in ECOTEL® VTM SCS and other

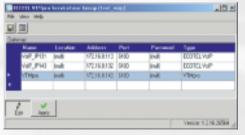
maintenance work can be performed from a central site. Excellent theft prevention is ensured. Using the SIM card server, basi-**ECOTEL®** VTM cally any pro, ECOTEL® VoIP or ECOTEL® ISDN2-2x that is connected can use each SIM card in the server via all of the GSM channels. The SIM cards stored in the SCS or a local gateway are scheduled by the ECOTEL® SIM Management Center.



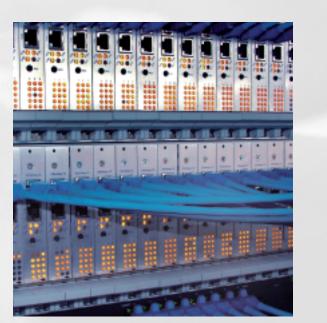
ECOTEL® SCS array

ECOTEL® SCS subrack

ECOTEL® SCS manager



Screenshot ECOTEL® SIM Card Server





CARRIER CLASS

All SIM cards at a central site

No on-site maintenance to change SIM cards

Flexible, centralized SIM card switching

SMC software can assign any SIM card in the SCS to any GSM channel

Online time contingent monitoring

Compatible with ECOTEL® VTM pro, ECOTEL® VoIP, ECOTEL® ISDN2-2x



Always the right solution: **ECOTEL® multichannel**

TECHNICAL SPECIFICATIONS

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	VTM pro
Applications	Corporate networks, service provider networks, business continuity, mobile extension
Special options	flexible routing options, data capable, SIM Card Server interface,
	enhanced SIM switching , options, functions expandable by user via scripts
PRI (E1/T1)	up to 8
GSM	up to 32
CDMA*	up to 32
VoIP	up to 30
GSM900/1800	•
GSM850/1900	•
GSM-R	•
3G	•
GSM Codecs	FR, HR, EFR, AMR
2 backup GSM channels	•
VoIP standard	H.323/SIP
VoIP Codecs	G.711, G.726, G.729, G.723
Option Echo Compensation	•
Height	4U
SIM8	•
SIM16	•
SIM32	•
SIM Emulation (SCS integration)	•
EDSS1	•
SS7	•
NI2	•
Remote Management	optional IP, ISDN, a/b
Missed Call List	•

*on request

ECOTEL [®] SIM Card Server	ECOTEL [®] SIM Management Center
ECOTEL® SCS Base Package • Complete Package for 225 SIM cards • including ECOTEL® SCS manager • including 1 ECOTEL® SCS sub rack ECOTEL® SCS extension unit • Extension unit for 225 additional SIM cards • For 15 ECOTEL® SCS SIM array 15 ECOTEL® SCS SIM array 15 • SIM card board for up to 15 SIM cards	Consists of • SIM Management Center software • Industrial PC 19" Direct mode • SMC controls local SIM cards SCS mode • SMC distributes SIM cards stored in the SCS • SMC controls up to 10 SCS units
ECOTEL® SCS SIM emulation board • For SIM emulation	

Maximum configuration 1 ECOTEL® SCS Base Package 4 additional ECOTEL® SCS extension units

When using mobile radio gateways for carrier applications (termination), you are solely responsible for compliance with all applicable country-specific laws and regulations.