SI3000 Compact Call Server

For a modern enterprise, the transportation or energy industries, the Compact Call Server (cCS) is the only product that provides communication experience together with the unique capability of connecting to an extensive list of legacy networks and interfaces already in place at various industries. This means that with the SI3000 cCS customers will benefit from reduced communications costs and operational expenses and increased productivity, while protecting their existing investments by allowing their parts of data and communications networks equipment to connect and interwork with Iskratel's new communication platform, the SI3000 Compact Call Server.

Highlights

- A business communication platform for medium, large and enterprise companies, alternative operators and small rural exchanges
- Advanced service platform for corporate networks and special networks (Railways, Energy and Government)
- Personnel notification system
- Support from 2/4 wire analog trunks to modern SIP/SIP-T trunks
- Options to work in corporate (PBX), telco (transit exchange) networks, operation in multiservice networks as an emergency switch, providing local switching and access to emergency services (R-controller)
- Centralized or distributed network architecture
- Use of centralized management where one SI3000 MN is used for provisioning, inventorying and alarming of many entities

Key Features and Benefits

- VoIP trunk signaling (SIP-T, SIP-NNI, H.323)
- VoIP access signaling (SIP, MGCP, H.248)
- Full set of versatile TDM signaling (SS7, CAS, DSS1, QSIG, V5.2 and INAP)
- Integrated different types of subscribers from analog, ISDN BRA, subscribers on other access modules through V5.2 protocol, VoIP subscribers (SIP, MGCP for access gateway)
- Service platform for different advanced services through standard open protocols like VoiceXML, CSTA, SOAP and ParlayX
- Unified voice mail
- Auto attendant
- Notification services
- Interactive voice response services
- Tariff data collection & sorting
- High availability

Challenges

- Lack of communication platforms supporting both modern and special legacy interfaces
- Adaptable platform for future growth
- Investment protection → replacement of all equipment with new is not an option

Capacity	20 slot (ETSI)	10 slot (ETSI, 19")	6 slot (ETSI, 19")	2 slot (ETSI, 19")
Redundancy	yes	yes	yes	yes
Maximum number of subscribers	4000	4000	4000	4000
Maximum number of ISDN/analog	288 / 1152	128 / 512	64 / 256	0/0
Maximum number of trunks	960	960	960	960
Maximum number of VoiceXML channels	512	512	512	512
Processing capacity	38,700 BHCA			
E1 links (non-duplicated/duplicated)	16 E1 / 32 E1	16 E1 / 32 E1	16 E1 / 32 E1	16 E1 / 32 E1
Physical Interfaces				
Per blade	2 x cSFP case, 2 x RJ45 (1000BaseT), 2 x USB, 1 x RS232, 1 x 16 E1			
Combinations of Ethernet Interface	2 x 1000BaseT (RJ45) and 2 x 1000BaseX (standard SFP) or 4 x 1000BaseX (2 x cSFP) or 4 x 1000BaseT (2 x Fast Ethernet SFP + 2 x RJ45)			
Signaling				
CAS signaling	E&M, MFC, Decadic, 1VSK, 2VSK			
TDM signaling	SSN7, QSIG, DSS1, V5.2, INAP			
Analog signaling	1VF, 2VF, E&M, CAS 2/6, CAS 2/7, CAS 2/11, FXO, LB, FXS, EIP			
VoIP trunk signaling	SIP-T, SIP-NNI, H.323			
VoIP access signaling	SIP, H.248, MGCP			
SIGTRAN signaling	M2UA, M3UA, M2PA, IUA, V5UA, MGCP, H.248			
Peripheral Units	**20 slot (ETSI)**	**10 slot (ETSI, 19")**	**6 slot (ETSI, 19")**	**2 slot (ETSI, 19")**
Analog subscribers per blade	32/64	32/64	32/64	0/0
ISDN subscribers per blade (U_{k0})	16	16	16	0
Analog trunks per blade	16-port (2-wire) 600Ω trunks			
	8-port (4-wire) 600Ω trunks			
	16-port FXO			
	4-port FXS (3kΩ subscriber loop)			
	16-port hiZ trunks			
Analog Subscriber Access				
Characteristics	48V/400Ω feeding bridge			
Pulse dialing	8 to 12 pulses/s			
DTMF dialing	as in ITU-T recommendation Q.23			
Metering	12 or 16 kHz pulses polarity reversal			
FSK	as in ETS 300 659			
ISDN Subscriber Access				
Basic rate access	2B+D (U_{k0}), DSS1 signaling			
Primary rate access	30B+D (S_{2M}), DSS1 signaling			
IP Subscriber Access				
Ethernet	SIP			
VoIP				
Codecs	G.711 A-law /μ-law , G.723.1, G.726, G.729 A/AB, AMR-NR, AMR-WB, G.722, G.722.1c, GSM-EFR, iLBC, T.38			
QoS	IEEE 802.1 p/Q, TOS/Diff Serv			
Video (signaling only)				
Codecs	H.261, H.263, H.264			
Power Supply	**20 slot (ETSI)**	**10 slot (ETSI, 19")**	**6 slot (ETSI, 19")**	**2 slot (ETSI, 19")**
Power consumption	460W	270W	200W	90W
Supply voltage	-48V or -60V DC (tolerance: -38V to -72V DC)			-48V, DC or AC
Power consumption per subscriber line	0.5-0.6 W/ subscriber line			
General Data				
Performance and reliability	as in ITU-T Q.541 and Q.543			
Transmission characteristics	as in ITU-T Q.551			
Synchronization	synchronous operation			
Plesiochronous	10^{-9}, external source			
Environmental Conditions				
Safety	EN 60950-1:2006 with amendments, UL 60950-1			
EMC	EN 300 386:2001 v1.5.1, EN55022 Class A, FCC Class A			
Storage	As in ETS 300 019-1-1, class 1.2 , temperature -50 to 70°C, rel. humidity 5–100%			
Transport	As in ETS 300 019-1-2, class 2.3			
Operation	As in ETS 300 019-1-3, class 3.1E, temperature -5 to 55°C, rel. humidity 5–90%			
Dimensions	**20 slot (ETSI)**	**10 slot (ETSI, 19")**	**6 slot (ETSI, 19")**	**2 slot (ETSI, 19")**
(H x W x D) [mm]	400 x 500 x 233	267 x 450 x 233	178 x 450 x 233	90 x 450 x233

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* Using the AMR-WB, AMR-NB, GSM-EFR resource in connection with a Iskratel product described herein are to be practiced only upon preliminary obtained patent license agreements for the AMR-WB, AMR-NB, GSM-EFR standards.

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