DAKSpro V9.1x

Data Sheet

Last modified: May 21, 2024

Performance feature/ Specification	DAKSpro 200 based on DAKS-200 hardware	DAKSpro 300 based on DAKS-300 hardware	DAKSpro 400 based on DAKS-400 hardware	DAKSpro as vDAKS
Housing/ Dimensions	19" hardware (1U) for rack mounting	19" hardware (3U) for rack mounting or as a tabletop unit	19" hardware (2U) for rack mounting or as a tabletop unit	Now also available as **VMware** without specific hardware features.
Basic server features	▪ Robust process computer architecture in low-power design ("Green IT") ▪ Extensive server self-monitoring incl. fault messages ▪ Very high availability with MTBF values of over 400,000 hours ▪ No failure-prone rotating components (no hard disks, no fans) **For DAKSpro 200/300 differently/additionally:** ▪ Pluggable memory card for short repair times (MTTR) **For DAKSpro 300 differently/additionally:** ▪ In conjunction with ISDN interfaces and SMS modem: emergency operation possible in the event of data network failure **For DAKSpro 400 differently/additionally:** ▪ Highest possible functional security through extensive server self-monitoring incl. processor-independent error message ▪ Highest possible data security due to 'Industrial Grade' SSD hard drive ▪ Meets even the highest security requirements through extended hardware support: – Certificates are stored encrypted within the processor – Processor supports 'Secure Boot', i.e. only a signed "U-Boot" can be loaded. – The signed "U-Boot" only loads a signed operating system – The signed operating system only loads signed applications – Access to the SSD hard disk is password protected – AES256 encryption of the data on the SSD hard drive ▪ No data loss in case of hardware defect due to replaceable SSD for short repair times			
Operating system(s)	Dual-processor system: ▪ Core 1 with Linux™ operating system ▪ Core 2 with µClinux™ operating system	Multiprocessor system: ▪ Main computer with Linux™ operating system	Multicore processor system ▪ 64bit ARM Cortex with Linux™ operating system	
Ethernet LAN ports	2x 10/100BASE-T	2x 10/100/1000BASE-T (GbE) with channel bonding		
ESPA-X based LAN data interfaces *optionally unencrypted or TLS encrypted*	Up to 5x in total, e.g. to connect: ▪ the Mail-to-Phone server ▪ DAKS-Satellite peripheral devices, each with 1 ESPA4.4.4 serial interface, 16 digital inputs and 8+1 digital outputs	Up to 60x in total, e.g. to connect: ▪ the Mail-to-Phone server ▪ DAKS-Satellite peripheral devices, each with 1 ESPA4.4.4 serial interface, 16 digital inputs and 8+1 digital outputs		
LAN data interface to DAKS Mobile Clients	▪ Support for up to 3,000 DAKS Mobile Clients (DMC) ▪ Connection to the clients via a proxy server (usually in the DMZ)			

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Other LAN data interfaces and protocols	▪ TR500 to a host system (UDP-based, unencrypted) ▪ xLink-100e to a host system (TCP-based, unencrypted) ▪ SNMP to an SNMP manager ▪ TNPP to external paging systems ▪ SMPP to external UMTS gateways ▪ UCP or SMPP to a Short Message Service Center (SMSC) ▪ Raw / Port 9001 to system printer ▪ VCON protocol to the VCON service terminal for configurations, downloads and traces ▪ Virtual serial interface with RegEx functionality (TCP socket)			Now also available as **VMware** without specific hardware features.
Serial ports *galvanically isolated*	2x (on the device): RS232 or RS422	Up to 8x (via SIO-41 module x2): RS232, RS422 or RS485	4x (on the device): RS232, RS422 or RS485	
Supported serial data interfaces	▪ ESPA 4.4.4, optionally with callback functionality ▪ TAP, optionally with callback functionality ▪ VIT1, FTI1 ▪ DUST3964R for Simatic S5 ▪ SIGMASYS coupling via SM port ▪ Modem (analog, ISDN or radio)			
USB host ports *e.g. for contact I/O, system printer, radio modem*	2x (on the device)	2x (via SDU-42 module)	2x (on the device)	
Digital inputs *for process activations and status changeovers*	Up to 32/64 (monitored/ non-monitored) via IOG-03A gateway (USB)	▪ Up to 32 (monitored) via DIO-41 module (x2) ▪ Up to 32/64 (monitored/ non-monitored) via IOG-03A gateway (USB)	Up to 32/64 (monitored/non-monitored), either via IOG-03A gateway (USB) or via IOG-11A gateway (RS485)	
Digital outputs *for process, system, fault or last-error messages*	▪ Up to 16 via IOG-03 gateway (USB) ▪ 1 special relay output (on the device)	▪ Up to 16+2 via DIO-41 module (x2) ▪ Up to 16 via IOG-03 gateway (USB) ▪ 1 special relay output via SDU-42 module	▪ Up to 16 via IOG-03A gateway (USB) or via IOG-11A gateway (RS485) ▪ 1 special relay output (on the device)	
MARS-I interface	–	–	1x (on the device)	
Audio-I/O (AF) ports on the server	–	Up to 8 IN and 8 OUT via AIO-41 module (x2), e.g. for: ▪ playback of external audio sources ▪ recording conferences ▪ direct control of PA systems	–	
Audio-I/O via DAKS-AudioConnect	Registered to the PBX	Registered to the PBX or directly to DAKSpro		
DCF77 (radio clock) synchronization* **signal only receivable within Europe*	Optional, via DCF77 port on the device (additional hardware required)	Optional, via DCF77 port on the SDU-42 module (additional hardware required)	Optional, via DCF77 port on the device (additional hardware required)	
Power supply	▪ Two simultaneously (redundantly) usable built-in power supply units: – PSU 1 from 115/230 VAC – PSU 2 from 24/48 VDC ▪ Optional power supply from 2x 115/230 VAC via external professional AC/DC converter	▪ Optionally from 115/230 VAC or from 48 VDC (= worldwide usability) ▪ Optional redundant power supply from two PSUs (AC/AC, DC/DC or AC/DC)		

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Power consumption	▪ With AC power supply: approx. 25 watts ▪ With DC power supply: approx. 20 watts	Depending on expansion: typically around 30 watts	Maximum 33 watts	Now also available as **VMware** without specific hardware features.
Voice processing	▪ Channel-specific announcement recording, audible tone and DTMF generation ▪ Variable uni- and bidirectional voice interconnections incl. conferences (without hardware limitation on the number of conferences and conference participants) ▪ Direct recording and playback of composed announcements, each consisting of up to 16 partial announcements			
Voice memory	1 hour	2 hours		
Voice communication	5 to 30 parallel channels	5 to 480 parallel channels	5 to 500 parallel channels	
	–	ISDN trunking (S_0, S_{2M}) with QSIG or CorNet-NQ D-channel protocol and channel-specific inband DTMF detection	–	
	VoIP trunking with SIP or SIP-Q signaling, unencrypted or encrypted (SRTP; SIP over TLS, SDES)	VoIP trunking with SIP or SIP-Q signaling, unencrypted or up to 60-channel encrypted (SRTP; SIP over TLS, SDES)	VoIP trunking with SIP or SIP-Q signaling, unencrypted or up to 500-channel encrypted (SRTP; SIP over TLS, SDES)	
	▪ Voice communication with a VoIP sub-system (e.g. a call system in a hospital) ▪ Registrar and switch for SIP phones or DAKS-AudioConnect devices registered directly to DAKSpro ▪ Support for geo-separation and OpenScape Voice/Branch configurations ▪ Codec: 64 kbit/s G.711 A-law or µ-law			
Special telephony features with Unify OpenScape 4000 using CorNet-NQ or SIP-Q *special features in connection with other TC systems on request*	▪ Variable ringing of the dialed phones: – normal call signaling – urgent call signaling (typical application: calls from external) – alarm call signaling (“emergency call”) ▪ In case of busy subscribers: – intrusion or emergency intrusion with prior neutral announcement – forced disconnect of ongoing calls – call waiting ▪ In case of busy connecting paths: – automatic release – emergency intrusion with prior neutral announcement ▪ Ignore call forwarding or redirection, e.g. to prevent voice mail activation ▪ Ignore call pickup groups ▪ Direct reaching of the boss in a boss-secretary setup ▪ Break through a Do Not Disturb (DND) ▪ In conjunction with HFA telephones (wired or DECT): – multiline alphanumeric display outputs (2-line display and scrolling option) ▪ Dialogs with operator guidance in the telephone display ▪ Support of keypad function (instead of inband DTMF) ▪ Connecting path optimization (“path replacement”) ▪ Multi-Level Precedence and Preemption (MLPP) ▪ Locating DECT subscribers (querying base station field strength)			

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SMS dispatch	▪ Via GSM-SMS radio modem (connection via USB or serial) ▪ Via TCP/IP with UCP or SMPP protocol via Short Message Service Center (SMSC) or UMTS gateway			Now also available as **VMware** without specific hardware features.
System printer interface	Spooled; optionally connected via LAN or USB; printer protocol: Generic Printer Interface			
Supported languages	German, English, French (user interfaces, output texts and announcements)			
Operating temperature	+5°C to +35°C (+41°F to +95°F)			
Storage temperature	-20°C to +70°C (-4°F to +158°F)			
Rel. humidity	5% to 80% (non-condensing)			
Certifications	UL, FCC and CE		FCC and CE	
National approvals *country codes acc. to ISO 3166*	▪ All EU countries: AT, BE, BG, CY, CZ, DE, DK, EE, ES, FI, FR, GR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK ▪ Countries outside the EU: AU, CA, CH, GB, IN, MY, NZ, SG, TH, TR, US		▪ All EU countries: AT, BE, BG, CY, CZ, DE, DK, EE, ES, FI, FR, GR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK ▪ Countries outside the EU: AU, CA, CH, CO, GB, HK, ID, ME, MK, MY, NZ, PA, PH, RS, SG*, TR, US **only available as an industrial product in Singapore*	

Further Information

For additional information on DAKSpro, please refer to our product info flyer on DAKSpro and its applications, the flyer 'DAKSpro Innovations', and our website.

Note: Upgrades of older DAKSpro systems are always performed based on the price list items in effect at the time of the upgrade.

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