UNIFIED COMMUNICATION SERVER
FOR MODERN ENTERPRISES

Today's dynamic enterprise environment requires smarter communication solution for diversified roles of employees. Flexible device usage and round-the-clock connectivity is the need of an hour of mobile workforce for consistent in-office experience while working from home, between appointments or on the move. Increasing competition, flexible work places and timings fuels the need for more collaborative communication solutions. With Collaboration and Mobility as the key aspects of business communication, the term 'Unified Communications' has been evolved.

Presenting, Matrix PRASAR UCS – an Enterprise-grade Unified Communication solution that offers Collaboration, Communication, Messaging and Mobility. Matrix PRASAR UCS brings diverse users from multiple locations to a common communication platform for real-time collaboration and communication. The users have options of using either Matrix SPARSH desk-phones or Matrix VARTA applications on smartphones, tablets of their choice. With Embedded UC Platform and advanced call management, Matrix PRASAR UCS improves organization's agility and productivity.

MATRIX
TELECOM SOLUTIONS

TECHNICAL SPECIFICATIONS OF PRASAR UCS (SPARK200)

TECHNICAL PARTICULARS	SPARK 200	SPARK 200
Compatible Server Software	**PRASAR UCS SME**	**PRASAR UCS ENT**
IP Subscribers	Up to 250	Up to 2100
VOIP (SIP) Trunks	99	
VOIP (VOCODER) Channels	Up to 248	
Voice Mail Channels	Up to 64	
Varta UC Client	250	2100
Simultaneous Auto Attendant Sessions (Multi Lingual IVR)	64	
Power Supply	AC-DC Adapter based (24V DC, 2.5 A) (Dual Adapter Connectivity with failover option)	
Installation	19" Rack Mount with 1U Enclosure Table Top	
Redundancy*	1+1 Active-Active Redundancy (*Next Release)	

SYSTEM RESOURCES	CAPACITY
VoIP/SIP Users	2100
VoIP/SIP Trunk	99
LAN Ports	1 (Gigabit)
WAN Port	1 (Gigabit)
VoIP Channels/ Vocoder Channels	248 Channels Max. (4 Vocoders)
Max. Voice Mail Channels	64 Max.
Max. Number of Participant in Single Conference	64 Max.
Conference 3-Party	21 Max.
Call Recording/Tapping	21 Max.
Redundancy 1+1	Shall be supported in Next Release
Simultaneous RTP Relay, DRTP calls	550 Max.
Simultaneous Transcoding calls	124 Max.
Supported Audio codes	G.711u/a-law, G.729, GSM, iLBC, G.723
System should support IETF RFC	3261, 3262, 3262, 3389, 3550, 3551, 3311, 3265, 4733, 2915, 2916, 2327, 2833, 2806, 768, 793, 1034
Network Protocols	IPv6, IPv4, TCP, UDP, SNTP, STUN, ARP, ICMP, PPP, DNS, SMTP
VoIP Quality of Service	Support of Layer 2/3 CoS/QoS for SIP and RTP
Security	SRTP/TLS over SIP, MD5 Authentication for SIP, AES128 Password Protected Configuration by Admin and User
RAM	2 GB
ROM	256 MB
System Clock Speed	900MHz – Dual Core
Storage	System supports USB drive up-to 256 GB (8680 Hours of Storage)
Configuration	Web Based Intuitive GUI

SYSTEM RESOURCE	SPARK 200	DESCRIPTION
NX DBM VOCODER64	4 Modules (248 Channels)	VOCODER DAUGHTER-BOARD MODULE (Hardware) for SPARK200 capable to support maximum 64 simultaneous VOCODING channels
Concurrent IP to IP Calls Without Transcoding	550	PRASAR is built-on with IP at core
Concurrent IP to IP Calls With Transcoding	124	Two VOCODER channel is used to transcode every call using transcoding
Concurrent Video Calls from IP to IP User	55	VOCODER Channel is not used (Does not support transcoded video calls)
Concurrent Audio Conferences (3-Participants)	21	PRASAR has total 64 party conference capacity. Conference license is required for conference functionality.
Participants in a Single Audio Conference	64	PRASAR has total 64 party conference capacity. Conference license is required for conference functionality.
Concurrent Call Tapping / Conversation Recording	21	Voice Mail channels and Vocoder channel is required for Call Tapping/Conversation Recording
Concurrent Voice Mail sessions with IVR	64	Concurrent calls management with Voice Mail Auto-attendant.

VOIP

Type	DAUGHTER-BOARD MODULE on CPU
VOCODER Channels per DBM (DAUGHTER-BOARD MODULE)	64
VOIP Protocols	SIP v2, SIP over TCP, Symmetric RTP, RTCP, 100rel/PRACK
Network Protocol	IPv6, IPv4, TCP, UDP, SNTP, STUN, ARP, ICMP, PPP, DNS, SMTP
SIP	Maximum 99 SIP Accounts per System, Out Bound Proxy Support, Display Name, User Name, Password, URL, Proxy URL, Register Interval
VOIP Channels	128/248 VOIP Channels with 2/4 VOIP Daughter-Board Modules
Line Echo Cancellation	G.168 with 64/128ms Tail Length
Voice	Dynamic Jitter Buffer (Adaptive),Comfort Noise Generation and Voice Activity Detection
NAT	STUN and NAT Keep Alive
Voice CODECs	G.711 (A-law, μ-Law), G.723, G.729AB, GSM-FR, GSM-EFR and iLBC
Call Progress Tones	Dial tone, Ring Back Tone, Busy Tone, Error Tone
Fax	T.38 Relay and Pass Through
Quality of Service	SIP QoS and RTP QoS
Security	SRTP/TLS over SIP, MD5 Authentication for SIP, Password Protected Configuration by Admin and User
Physical Connector	Ethernet (RJ45) Gigabit Port, Auto MDIX (10/100/1000 base-T)

VOICEMAIL

Type	DAUGHTER-BOARD MODULE on CPU (Same module of VoIP)
VMS Channels	64
Voicemail Box	Dedicated Mail Box for each type of Extension (Analog, Digital, IP)
Voice Messages	15 Voice Messages of 16 second each
Voice Recording	Recording up to 8,680 hours with 256 GB USB Pen Drive

TECHNOLOGY

Type of Switching	IP at Core
Processor Speed	900 MHz Dual Core

ENVIRONMENTAL

Operating Temperature	0℃ to +45℃ (32°F to113°F)
Operating Humidity	5-95% RH, Non-Condensing
Storage Temperature	-20℃ to +70℃ (-4°F to +158°F)
Storage Humidity	0-95% RH, Non-Condensing

POWER SUPPLY

Product	PRASAR UCS (SPARK 200)
Inputs	24VDC @2.5 A through External adaptor (100-240 VAC, 50-50 Hz)
Power Consumption (Typical)	60 Watt
LED Indications	3 LEDs for Power Suppply and Health Status

MECHANICAL

Specifications	PRASAR UCS (SPARK 200)
Dimensions (WxHxD)	275 x 43.95 x 185.6 mm
Unit Weight	1.5kg (3.30lbs)
Shipping Weight	2.3kg (5.07lbs)
Type of Shipping Material	Corrugated Box
Installation	19" Rack Mount with 1U Enclosure Table Top

PRASAR UCS - CALL MANAGEMENT FEATURES

FEATURES

- Abbreviated Dialing (Global and Personal)
- Access Codes (Programmable)
- Account Codes (Forced)
- Multiple Alarms
- Alarms (Time, Daily, Future Date and Time, Remote)
- Alarm-snooze
- Allowed and Denied Lists
- Alternate Number Dialing
- Auto Call Back (Busy, No Reply)
- Auto Redial
- Background Music
- Backup SMDR
- Backup System Configuration
- Backup System Software
- Barge In
- Boss Ring

- Call Budget on Extensions
- Call Budget on Trunks
- Call Chaining
- Call Cost Calculation
- Call Duration Control
- Call Follow Me
- Call Forward (Busy, No Reply, Dual Ring and to External Number)
- Call Park (General and Personal Orbit)
- Call Pick Up (Group and Selective)
- Call Progress Tones (Programmable)
- Call Splitting
- Call Taping
- Call Transfer (Screened, On Busy, While Ringing and Trunk to Trunk)
- Calling Line Identification and Presentation (CLIP)
- Calling Line Identity Restriction (CLIR)

- Cancel all Station Features
- Class of Service (COS)
- CLI based Routing
- Closed User Group (With/Without Exchange ID)
- Conference Dial-in
- Conference – Multiple Participants
- Conflict Dialing
- Continued Dialing
- Conversation Recording
- Date and Time Format
- Day and Night Mode
- Department Call
- Digest Authentication (on SIP)
- Direct Inward System Access (DISA)
- Direct Outward System Access (DOSA)
- Distinctive Rings
- Do-not-Disturb (DND)

- Do-not-Disturb (Remote)
- Dual Ring
- Dynamic DNS (DDNS)
- Dynamic Lock (Manual)
- Emergency Calls Detection and Reporting
- Emergency Conference
- Emergency Number Dialing
- External Call
- External Call Forward (ECF)
- File Transfer Protocol
- Flexible Numbers (Up to 6 Digits)
- Forced Answer
- Help Desk
- Hold
- Hotline (Immediate and with Delay)
- Hunting/User Group
- Incoming Call Management
- Internal Call
- Internal Call Restriction
- Interrupt Request
- Last Caller Recall
- Last Number Redial
- Least Cost Routing (Number, Time and Service Provider to Service Provider)
- Live Call Screening (VMS)
- Live Call Supervision
- Missed Calls
- Multi-stage Dialing
- Music-on-Hold (MoH)
- Mute
- Name Programming (Station/Trunk)
- Inbuilt NTP Server and Client
- Online SMDR
- Operator (Single/Multiple)
- Override
- Priority (Intercom and Trunk)
- Privacy
- Programming the System (Using Ethernet Port)
- Quick Dial
- Raid
- Real-time Clock
- Region Selection
- Remote Alarm
- Remote Call Forward
- Remote Programming
- Room Monitor
- Routing Group
- SMDR Posting (Call Accounting System Interface)
- Support of SIP Trunk on LAN Port
- Security Dialing and Reporting
- Station Groups
- Station Message Detail Record (Incoming, Outgoing and Internal – 12,000 Records)
- Station Name
- System Activity Log and Display
- System Administrator (SA) Mode
- System Engineer (SE) Mode
- System Fault Log
- System Security (Password)
- Termination Barring/Allowed
- Time Tables
- Time Zone Display
- Toll Control
- Trunk Access Group
- SIP Trunk Reservation
- Upgrading the Software
- Virtual Stations
- Voice Mail (Mailbox, Greetings, Auto Attendant)
- Walk-in Class of Service (Single/Multiple Calls)
- Web based Programming

SUPPORTED MATRIX IP PHONES AND SOFT CLIENTS

IP PHONES	
• SPARSH VP310	• SPARSH VP248
• SPARSH VP510	• VARTA ADR100
• SPARSH VP330	• VARTA AMP100
• SPARSH VP710	• VARTA WIN200
• SPARSH VP110	

ORDERING INFORMATION

PRODUCT	DESCRIPTION
PRASAR UCS SME	License for Unified Communication Server SPARK200 for SME (up to 250 users). Preloaded with NX DBM VOCODER64 module and following software licenses: • Licenses for 100 IP Subscriber • 8 Vocoder Channels i.e. Common for Transcoding calls, Auto-attendant/Voice Mail/ Call Recording/Call Taping functionality and conference • Licenses for 4 concurrent Auto-Attendant/Voice Mail/Call Recording/Call Taping functionality • Licenses for 8 Conference Participants (3x2 or 1x8). • Licenses for 5 VARTA ESSENTIAL • Licenses for one-year upgrade from the date of PRASAR UCS SME activation Max. IP Users to scale: 250
PRASAR UCS ENT	License for Unified Communication Server SPARK200 for ENT (up to 2100 users). Preloaded with NX DBM VOCODER64 module and following software licenses: • Licenses for 200 IP Subscriber • 8 Vocoder Channels i.e. Common for Transcoding calls, Auto-attendant/Voice Mail/ Call Recording/Call Taping functionality and conference • Licenses for 4 concurrent Auto-Attendant/Voice Mail/Call Recording/Call Taping functionality • Licenses for 8 Conference Participants (3x2 or 1x8). • Licenses for 10 VARTA ESSENTIAL • Licenses for one-year upgrade from the date of PRASAR UCS SME activation Max. IP Users to scale: 2100
PRASAR UCS SCALE SME TO ENT	License to scale software platform from PRASAR UCS SME to PRASAR UCS ENT • Licenses for 100 IP Subscriber • Licenses for 5 VARTA ESSENTIAL
PRASAR IPSUB5 PRASAR IPSUB10 PRASAR IPSUB50 PRASAR IPSUB100 PRASAR IPSUB500	License of IP Subscribers for PRASAR UCS to create 5/10/50/100/500 VOIP subscribers.
PRASAR VARTA USER5E PRASAR VARTA USER10E PRASAR VARTA USER50E PRASAR VARTA USER100E PRASAR VARTA USER500E	License for 5/10/50/100/500 VARTA UCS SOFT CLIENTS with ESSENTIAL features. PRASAR UCS needs this license to register ANDROID/IOS/WINDOWS desktop UCS clients. This license is not required for HARDWARE IP-PHONES.
PRASAR VARTA USER5P PRASAR VARTA USER10P PRASAR VARTA USER50P PRASAR VARTA USER100P PRASAR VARTA USER500P	License for 5/10/50/100/500 VARTA UCS SOFT CLIENTS with PROFESSIONAL features. PRASAR UCS needs this license to register ANDROID/IOS/WINDOWS desktop UCS clients. This license is not required for HARDWARE IP-PHONES.
PRASAR VARTA USER5C PRASAR VARTA USER10C PRASAR VARTA USER50C PRASAR VARTA USER100C PRASAR VARTA USER500C	License for 5/10/50/100/500 VARTA UCS SOFT CLIENTS with COLLABORATION features. PRASAR UCS needs this license to register ANDROID/IOS/WINDOWS desktop UCS clients. This license is not required for HARDWARE IP-PHONES.

PRASAR VMS CHNL4	License Voice Mail channels for PRASAR UCS to support 4 simultaneous voice mail sessions. (Vocoder Channel is required & license is common for SME and ENT)
PRASAR VMS CHNL16	License Voice Mail channels for PRASAR UCS to support 16 simultaneous voice mail sessions. (Vocoder Channel is required & license is common for SME and ENT)
PRASAR VOCODER CNNL4	License for 4 VOCODER channels for PRASAR UCS. Vocoder channel are common resource pool for Transcoding calls, Voice Mail, Call Recording, Call Tapping and Conference
PRASAR VOCODER CNNL16	License for 16 VOCODER channels for PRASAR UCS. Vocoder channel are common resource pool for Transcoding calls, Voice Mail, Call Recording, Call Tapping and Conference
PRASAR CONF8	License for 8 parties Conference participant, this can be 1 CONF with 8 participant or 2 CONF with 3 participants and so on. (VOCODER CHNL is required & license is common for SME and ENT)
PRASAR SOFTWARE AUP (Annual Upgrade Package) 1 Year	This license is for software support. All system will come with built in 1 year software support license. During support period, all the releases/ upgrades/ patches release for the product shall be available to the customer free of cost.
NX DBM VOCODER64	VOIP DAUGHTER-BOARD MODULE (Hardware) having capability to support maximum 64 simultaneous VOIP sessions for SPARK200 Hardware. Separate VOCODER channel license is required to activate desired number of channels.
SPARK200	Next-Generation hardware platform with on-board CPU and PS, AC Power Supply in 19 inch 1U Enclosure. Vocoder Hardware Daughter-Boards are not included.

ABOUT MATRIX

Established in 1991, Matrix is a leader in security and telecom solutions for modern businesses and enterprises. Matrix, an innovative, technology driven and customer focused organization, is committed to keep pace with the revolutions in security and telecom industries. With more than 40% of its human resources dedicated to the development of new products, Matrix has launched cutting-edge products such as Unified Communications, IP-PBX, Universal Gateways, Convergence, VoIP Gateways, GSM Gateways, IP Video Surveillance, Access Control and Time-Attendance. These solutions are feature-rich, reliable and conform to the international standards. Having global footprints in Europe, North America, South America, Africa and Asia through an extensive network of more than 1000 system integrators, Matrix ensures that the products serve the needs of its customers faster and longer. Matrix has gained trust and admiration of customers representing the entire spectrum of industries. Matrix has won many national and international awards for its innovative products.

For further information, please contact:

MATRIX

TELECOM SOLUTIONS

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Due to continuous technology upgradations, product specifications are subject to change without notice.