



Solution Description

The future of business communication. Today.

VoXX[®] Business Communication Solution 3.6 – Software for Business Communication as a Service.

The award winning VoXX Business Communication Solution™ (BCS) enables you to get ahead in the enterprise market by offering advanced business communication as a Service. The solution delivers a user-centric experience that seamlessly integrates mobile and fixed communication, Voice over IP and existing enterprise voice infrastructure. It enables knowledge workers to cooperate efficiently in a global, multi-media and real-time environment.

Rethink Business Communication

With VoXX BCS you get a complete, open and all software based solution based on a modern user centric architecture. With one installation and one centralised management you can serve multiple companies and organizations with sophisticated, cloud-based business communication services. Compared to other solutions in the market, the unique advantages of the VoXX solution are:

- Superior user experience that is consistent across device and technology types.
- Time-to-market: The single installation minimizes time-to-market and system integration effort both during the initial launch and throughout the service life cycle through upgrades.
- Efficient IT automation through a single, centralized, provisioning API that radically reduces effort, time, cost and risk.
- Service life cycle management where the centralized control of the end-to-end solution ensures that updates, upgrades and changes in packaging can be efficiently managed over time.

Our Reseller testimonials are unanimous - since deploying VoXX BCS they have improved business key performance indicators with increased average revenue per user, shortened sales cycles and increased service up take. Through these they have experienced extensive top line growth and increased customer loyalty



Delighting End Users

Making your end users satisfied and successful is the key for market uptake and commercial success. VoXX BCS delivers this for end users, enterprise administrators as well as decision makers. A VoXX powered enterprise is flexible, efficient and cost effective. It has a productive workforce that can communicate and collaborate internally and externally through any device and from wherever they are. The solution is all-software and accessed through the Internet from the Cloud, which translates to no capital expenditure and no hardware or locally deployed software that needs to be operated and managed by the enterprise. This approach enables an enterprise to quickly respond to changing economic conditions as it allows new people, offices or even countries to be added or removed without worrying about the communication solution.

VoXX BCS provides all the real time communication tools, functionality and quality that enterprises and their employees demand. It is as easy to use as consumer applications but with a VoXX enabled service, enterprises get a business class solution that is secure and manageable.

Service Provider Deployment

VoXX BCS is a complete multi-tenant communication solution, supporting hundreds of thousands of users spread across thousands of enterprises from a single installation. It is deployed on top of Service Provider's networks and consists of the following main components:

- VoXX Management Node - the administrative hub in VoXX BCS. All servers can be managed through this single node. The management node also provides one central set of modern APIs for integration with OSS/BSS systems
- VoXX Service Node - provides all services for users in the system
- VoXX Edge Node – is a session border controller that provides SIP related security and Network Address Translators (NAT) traversal functionality. It is designed to co-exist with existing service provider intrusion protection systems
- VoXX Interconnect Node - The Interconnect Node facilitates the protection of the Service Nodes and direct incoming SIP traffic to the right Service Node and it also offers DTMF tone detection from media streams.
- VoXX Mobile+ - offers a rich, native and user-friendly mobile client to users of BlackBerry, iPhone, iPad, Android tablets and Android phones
- VoXX Mobile Light - offers a web based user-friendly interface for directory search and mobile least cost routing to users of basic phones
- VoXX Softphone+ - provides rich unified communication services on PC and Mac including advanced attendant and call centre functionality
- VoXX Phone Assistant – is a web browser client that provides directory search, presence, messaging and call back calls.

The single installation minimizes time-to-market and system integration effort both during the initial launch and throughout the service life cycle through upgrades.

The solution integrates with voice and video SIP phones, PSTN, PLMN networks and PBXs via SIP trunks. It also enables efficient IT integrations with OSS & BSS systems and business applications via web APIs, widgets and plug-ins.

Clients and Capabilities Designed and Developed Together

VoXX's end-to-end approach when designing and developing functionality all the way from the server backend to the user experiences is key for enabling sophisticated capabilities in a consistent manner across devices and platforms. This approach enables your packaging to be driven from a single configuration to respond quickly to market requirements. It also enables common security models and management capabilities and all together it sets the foundation for a short time to market both for initial service launch and upgrades over time.

User Centricity and Single Number Reach

Most Business users have a range of devices and phone numbers including one or more mobile phone and fixed line numbers. VoXX's user centric approach and single number reach allow business users to be reached on any devices through a single phone number. By using a single number as point of contact and combining it with intelligent call routing capabilities, the user can more efficiently enjoy the benefits of multiple devices and different media for communication. Calling the single number rings one, some or all devices simultaneously depending on user preference and rules defined. For outbound calls, single number reach ensures that the user's single number is displayed as the calling party number independent of device being used.

Intelligent Call Routing

The Intelligent call routing engine and its flexible rules provide administrators and business users with tools to automatically control how inbound and outbound voice calls are handled. Through an intuitive web interface, users can set up rules defining how their calls are processed and routed depending on time, date, day of week, user's activity, user's role, device statuses and more. The rules define to which devices calls are routed and in which order, in sequence or all at the same time and also how numbers are presented.

An enterprise administrator can set call routing rules that apply for the whole organization, groups of users as well as individuals and also control if they can be overridden by users or not.

Personal call routing can also be defined including separation between Private and Business user roles.

Rich Enterprise Presence Services

The presence service has been designed specifically for enterprise use and shows a rich, current status of everyone in the system. Enterprise presence differs from consumer presence applications by having presence states that naturally map into the daily tasks of the enterprise users. Each enterprise powered by the solution defines their own presence and administrators may control, on a user group level, which presence information should be visible to other users. The solution provides multi-level presence information including:

- User role, to differentiate between private or business use
- Activity, for example lunch or meeting, with associated end date/time, to indicate when coming back from a meeting
- A personal note to allow messages to be left for colleagues
- Device related information, such as phone state
- Availability for chat and intercom capabilities

The user controls and sets their presence information using one of the VoXX clients or the user's web portal interface. These clients also allow users to see the presence state and in-call status of other persons before calling them connecting the call. Presence can also be set through modern public web APIs.

Call Center, Attendant and Hunt Groups

For incoming calls VoXX BCS provides call center, attendant and hunt group functionality, allowing a group of users to be addressed by a single number, where both fixed, mobile and VoIP phones can be included.

For hunt groups, both sequential and parallel ringing is supported. For call center groups, skill based routing, automatic agent logout, manager assistance, presence based call distribution and agent resting time is supported with queues that have group specific greetings and progress messages.

Each user may be logged in, via web pages, PC, Mac or mobile clients, to multiple groups simultaneously and the system may be configured with policies of how to distribute calls to Softphone+, mobile phones or desk phones on a per group and user basis.

VoXX BCS includes management tools for call center groups to allow a supervisor to efficiently monitor and manage group queues and agents statistics.

Automatic call distribution group HTML widgets are provided for incorporation of statistics dashboards into portals and business applications.

Voicemail and Unified Inbox

VoXX BCS provides built-in visual voicemail, fax and call recording services where the end user can retrieve messages from the inbox in the personal web portal, VoXX Softphone+, web browser or browser in the mobile phone. Voicemail may also be managed from the voicemail retrieval number.

The user may select how to be notified about new messages using Softphone+, IP phone, e-mail or SMS text message. The basic voicemail service offers personalized greetings and spoken presence messages to callers.

Directory Search

The clients offer a user-friendly directory search feature with results shown in real time as you type. The system searches automatically among multiple fields so there is no need for the user to create explicit search queries. To find John in the sales department, just type "joh sal"

and all users matching this string will be shown with their current presence state displayed. The presence information of the search results is updated in real time as they change without any need for a new search.

An integration with Microsoft Outlook provides additional search results from the user's Microsoft Exchange account. Corporate directory search is also supported through 3rd party IP desk phones.

The search engine searches simultaneously in private and company directories and displays both search results in individual result fields in PC, Mac and mobile devices. Mobile clients for Android and iOS provide a synchronization option where users sync directories making them available for offline use. This enables low cost and faster searches when traveling or are out of data access.

Chat and Messaging

By connecting to a SMS service VoXX Service Node enables text messages to be sent from a user's computer using the web interface or from VoXX Softphone+, VoXX Phone Assistant or VoXX Mobile+. Messages can be sent from personal single numbers as well as group numbers.

VoXX Softphone+, VoXX Phone Assistant and VoXX Mobile+ also offer secure chat services for convenient instant messaging within the enterprise.

Conference Service

The built in conference service allows users to book dial-in conference calls and start ad hoc meetings. Multiple access numbers are supported to offer local dial in numbers to the service from different countries. Full time zone support allows immediate feedback on when the meeting occurs in the participants' time zones. Once a conference has been booked, invitations can be sent by iCal or e-mail notifications with dial-in details and meeting time in the user's own time zone. Text message reminders with dial in details can also be sent out to participant phones just before the meetings. Internal users receive a click-to-join link in the e-mail notification, which can be used to connect to the conference. The meeting portal gives each user a full overview on their upcoming meetings with click to join buttons.

Least Cost Routing

VoXX BCS provides a complete least cost routing service that selects the optimal call routing options across countries, networks and devices using tariff plans to select the best routes.

VoXX Mobile+ client provides least cost routing for mobile users regardless of where they are located. The service is transparent to the end-user, who can place calls as usual by dialing from the dial-pad or selecting a number from the mobile phone contact list or call log. Support for multiple SIMs per user allows for the use of a local SIM card while roaming while still keeping the same personal phone number for communication.

IP Centrex Functionality

VoXX BCS provides an extensive list of built in multitenant IP PBX and Centrex features, such as music on hold, call park, intercom calls, call recording, diversion bypass, call intrusion, call pickup, charging accounts, night mode schedules, call queues and interactive voice response. The solution provides a location concept where emergency service configuration supports multiple device locations and emergency centers.

The VoXX Mobile+ client for Android accesses IP Centrex features from the mobile phone during an on-going call, through an intuitive graphical user interface. Other mobile users can access mid-call services through a voice menu interface. Mid-call services available to the user include features such as Call Recording, Call Hold, Call Transfer, Consultation Call and Conference Call.

VoXX Softphone+ provides an intuitive call control service where on-going calls can easily be seamlessly moved between PC and Macs, mobile phones and fixed IP phones, enabling users to continue communicating using the best or most cost efficient option.

Device Administration

VoXX BCS supports connection of SIP desktop phones with plug'n'play automatic extension provisioning and bulk provisioning of phones. VoXX Mobile+ and VoXX Softphone+ clients are distributed and configured over the air from a central location by administrators or installed by end users via the self-provisioning interface minimizing overhead administration. Voice gateways and SIP trunks are also configured by the administrator from the web interface.

Security

Extended SIP security is supported in terms of SIP digest authentication, call authentication and authorization, identity spoofing protection and call policies to restrict calling locations. Additionally, encryption using TLS is supported to prevent third parties listening in to calls.

The solution offers separation of user and administration interfaces to different IP networks and allows HTTP authentication using an external web proxy, VoXX Edge Node.

The Edge node functionality is an integrated part of VoXX BCS and no enterprise specific configuration is required when a new enterprise is added to the system, as is the case with traditional third party products. The Edge node supports multiple enterprises using the same IP network range by using standard IP NATs. This allows VoIP services to be hosted without having to invest in expensive third party equipment or custom firewalls.

A multi-tiered, role based, security implementation allows different administrator roles to access different parts of the system allowing full flexibility for administrators from the Service Provider, the organization deploying the service and the end users.

PSTN Connectivity

Multiple trunks and trunk-groups are configured from the web interface. Both traditional ISDN trunks and SIP trunks can be defined in the system. Load sharing and hunting is supported as well as number conversions, number type and number plan handling. The SIP trunk configuration allows for many different SIP transport, header configuration and DTMF interworking options to support today's diversity of SIP trunks provided by different Service Providers.

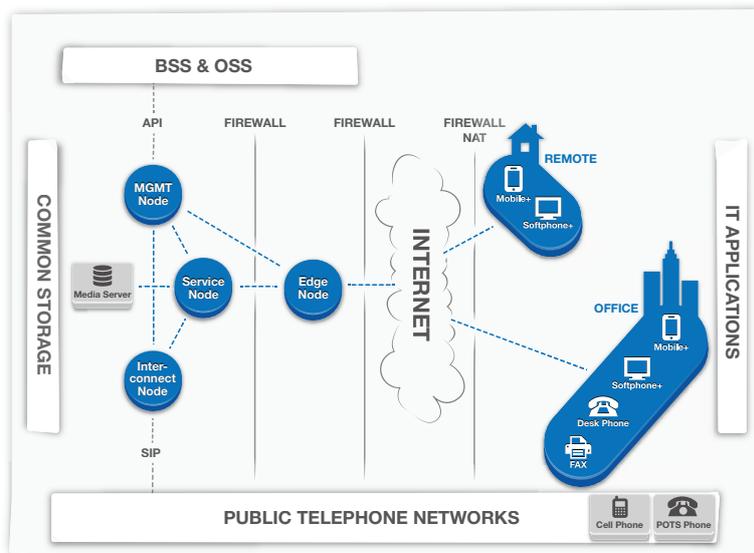
Over-the-air Deployment, Configuration and Remote Diagnostics of Devices and Services

VoXX has created an easy to use process for adding and provisioning services, users and end-user devices. VoXX BCS includes an integrated over-the-air deployment and configuration service for VoXX Mobile+, VoXX Softphone+ and selected SIP desktop phones. Administrators can distribute optional as well as mandatory VoXX Mobile+ and VoXX Softphone+ version updates.

Large Scale Provisioning and System Administration

VoXX BCS offers a user provisioning system that is designed for administering a large number of users, while keeping the cost of operations low. A fundamental principle is that all service and user settings are performed on a user group level. Users may be provisioned from the user centric and administrator friendly web interface or BSS/OSS solutions connected to the web APIs.

Access to administration functions is controlled by role-based authorization. Different roles grant access to different administrative functions and system data. This allows the web-based administration interface to be used both by VoXX partners reselling the service, enterprise administrators and enterprise users. A VoXX partner is able to leave the day-to-day administrative task to an administrator within each customer organization in the system through the three-tier administration model. Each enterprise administrator can manage users and configure services for their own organization without being able to access data from other organizations.



High Availability

VoXX BCS includes high availability support including redundant servers and automatic fail-over mechanisms to achieve carrier grade characteristics. Configuration of an external SNMP monitoring platform allows for efficient monitoring of the system through SNMP traps.

Virtualisation

VoXX BCS supports deployments on cloud environments such as Xen. VoXX BCS, with its all software approach, is the first solution that offers a true cloud deployment without any need for additional hardware.

Integration with third party Business Applications and Other Services

VoXX BCS is built on open IETF standards including SIP, HTTP and LDAP, with web API access to the BCS to offer interoperability with a wide range of endpoint devices, BSS/OSS systems and other business applications – now and in the future.

Conclusion

VoXX is a software platform vendor enabling any type of Service Provider to offer advanced business communication as a Service. Its software solution integrates mobile, fixed and IP-based communication networks, delivering true mobility, increased productivity, improved cost control and savings for enterprises.

Key Features

Business communication

- Full Service Provider branding
- IP Centrex and Mobile Centrex functionality
- Attendant and Call Center services
- User Centricity and Single Number Reach
- Chat and Messaging services
- Conference services
- Corporate directory search
- Group number services
- Intelligent call routing
- Move calls between fixed and mobile phone
- Voicemail and Unified inbox

Clients & IP Telephones

- Native clients for PC and Mac.
- Native mobile clients for Android, iPhone/iPad, BlackBerry and Windows phones.

- Web browser clients for use on other platforms.
- Web widgets/gadgets for calling, presence and tagline
- Web widgets for contact center performance monitoring
- SNOM IP phones
- Other standard SIP phones (voice and video)
- Polycom conference phones
- Fax ATA devices (T.38)

Presence

- Rich Enterprise Presence Services
- Presence based call routing
- API to let 3rd party software set presence

Least Cost Routing

- Cost control and Least Cost Routing (LCR)

Security and Availability

- NAT and firewall traversal
- SRTP
- Call encryption SIP/TLS
- Local PBX interworking
- Policy enforcement and security
- High availability
- Integrated Over-The-Air application deployment and upgrades
- Device administration
- Multi-tenancy
- CDR generation and multiple export formats
- Centralized provisioning APIs for OSS / BSS integration
- Cloud deployment

VoXX. We enable cloud communication as a service. With no hassle.

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