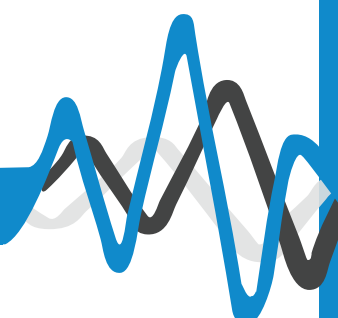


Loquendo VoxNauta Platform

VoiceXML, CCXML & SCXML PLATFORM



VoxNauta platform integrates Loquendo TTS, Loquendo ASR and Loquendo SV offering all the key drivers for voice and multimodal applications, to create both telco and enterprise self-service solutions.

VoxNauta platform allows you to differentiate your business, offering your clients new applications which make use of speech synthesis and speech recognition technologies to create a superior client experience.

You contain your costs without sacrificing on customer care quality, and reinforce your corporate branding - ensuring a positive experience for the customer.

A Complete Platform for all of Your Needs

VoxNauta is a software-only, IP-based Voice Platform which integrates Loquendo Text to Speech and Loquendo Speech Recognition.

It is easy to use and highly scalable, from just a few simultaneous ports to many thousands, and allows the development of dialogue-based voice services, multilanguage and multi-voice, able to meet the needs of a huge range of application environments.

The VoxNauta Voice Platform provides **various installation profiles**, each adaptable to specific integration scenarios, whether server or client based, making it available:

- as a **Voice Platform**, based on VoiceXML and CCXML, for self-service telephony or VoIP applications that serve thousands of calls every day, enabling deployment of complex IVR solutions able to manage thousands of concurrent calls.
- as a **Media Resource Function (MRF) Element** in the context of an IMS (IP Multimedia System) architecture. In this configuration, VoxNauta can be fully controlled by any IMS SIP Application Server for executing VoiceXML, Conference and Play Announcement services.

Tangible Benefits for Your Business

VoxNauta allows the rapid development of voice applications and advanced services, in a cost effective, efficient and scalable way, guaranteeing an immediate return on investments:

- **Standards-based:** developing services based on the Web architecture, and on standard W3C XML languages (VoiceXML, CCXML), does not require any particular skills in terms of architecture or proprietary programming.
- **Cost-effective:** an IP based, software-only solution avoids the need for expensive dedicated hardware.
- **Efficient network integration:** your software interface based on VoIP and SIP/RTP guarantees an immediate integration with any IP network, and enables access to traditional TDM networks via simple and cost-effective gateways.
- **Scalable:** allows the deployment of systems from a few simultaneous ports to many thousands, guaranteeing fault tolerance conditions and outstanding reliability.
- **Easy to deploy and future-proof:** in the MRF profile, it can provide multimedia flow services in IMS (IP Multimedia Subsystem) systems, exploiting its architectural benefits, i.e. separation between control-layer and service-layer and deployment via an IP network, thus using the same infrastructure for voice and data.

VoxNauta as a Multimodal Platform

VoxNauta is also available as a SCXML-based **Multimodal Platform**, designed to benefit developers wishing to add speech to desktop and Web applications and dedicated devices such as interactive kiosks for desktop environments.

- **Allows rapid development of multimodal applications:** enables the standards-based (SCXML) management of device resources and different modes of interaction (voice, GUI, etc.), requiring fewer computational resources and allowing interaction with third party and Web-based applications.
- **Extends choice of access devices:** requiring few computational resources, both in CPU and in memory, the Multimodal Platform is well-suited for developing applications even on compact devices.

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Loquendo
We Speak. We Listen. We Understand.

Compliance Certifications



In 2010, VoxNauta was the first of an elite group of voice platforms and technologies to be declared W3C VoiceXML 2.1 compliant by the VoiceXML Forum; certified fully compliant with the VoiceXML 2.0 Recommendation in 2005.

Loquendo VoxNauta - Technical Specifications

	Voice Portal	Media Resource Function (MRF)
Operative Systems	Red Hat Enterprise Linux 4 & 5 (32 and 64 bits) CentOS 5 (32 and 64 bits) Debian GNU/Linux 4 SuSE 10 & 11	
Network Signaling (VoIP: SIP-RTP)	RFC 3261 (Session Initiation Protocol), RFC 2327 (SDP - Session Description Protocol), RFC 3515 (Refer Method), RFC 3891 (Replaces Header), RFC 3264 (Offer/Answer Model with the SDP), RFC 3725 (Best Current Practices for Third Party Call Control in SIP), RFC 3550 (RTP: Transport Protocol for Real-Time Applications), RFC 2833 (RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals).	
IMS Signaling		RFC 4240 (Basic Network Media Services with SIP - NetAnn), RFC 5552 (SIP Interface to VoiceXML Media Services)
Interface to TDM	Through any standard VoIP media gateway or VoIP PBX	Through IMS network control layer
Standards	VoiceXML 2.0 & 2.1, CCXML 1.0, MRCP v2, SRGS 1.0, SISR 1.0, SSML 1.0 and 1.1, and EMMA 1.0.	
File Fetch	CCXML and VoiceXML documents, as well as SRGS grammars, lexicon and audio files are fetched from local file system and over HTTP (with caching support) and/or HTTPS.	
Audio Formats	G.711 (8kHz 8-bit monoA-law, mu-law [PCM] single channel, Raw or Wav). G.729, G.729.A	
Speech Technologies	Loquendo TTS, Loquendo ASR, Loquendo SV (through the IETF standard MRCP v 2 protocol).	
Languages	Norwegian, Swedish, Danish, Finnish, Australian English, U.S., U.K. and Indian English, Russian, Mandarin Chinese, French, Canadian French, American Spanish, Mexican, Chilean and Argentinian Spanish, Castilian, Catalan, Valencian, Galician, Brazilian, Portuguese, Esperanto, German, Dutch, Polish, Greek, Turkish, Italian, Arabic, Romanian.	
O&M	Based on SNMP protocol. A Graphical Centralized Management Console is provided	

	Multimodal
Operative Systems	Microsoft XP Professional Windows CE 5.0 for ARMv4I architecture
Standards	SCXML 1.0, SRGS 1.0, SISR 1.0, SSML 1.0 and 1.1 and EMMA 1.0
File Fetch	SCXML documents, as well as SRGS grammars, lexicon and audio files are fetched from local file system and over HTTP (with caching support) and/or HTTPS.
Speech Technologies	Loquendo TTS, Loquendo ASR
Languages	As above

For more detailed information see the **Loquendo TTS** and **Loquendo ASR** brochures.

To find out how Loquendo's products can position your company for success, please visit www.loquendo.com.

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Loquendo

Via Arrigo Olivetti, 6 - 10148 Torino - Italy

tel. +39 011 2913111 - fax +39 011 2913199

www.loquendo.com info@loquendo.com



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