VoiceXML…The Market Adopted IVR Platform that Withstands the Test of Time

VoiceXML is a standardized scripting language used for creating voice services such as interactive voice response (IVR) applications. With VoiceXML, application developers create audio dialogs that feature synthesized speech, digitized audio, recognition of spoken and DTMF key input, recording of spoken input, telephony, and mixed initiative conversations. As an XML-based language that describes the voice interface and allows for audio input and output, VoiceXML makes it easy for developers to create voice-enabled applications.

Back in the day…

What drove the need for VoiceXML? Several things. Back in the day, IVR technology was proprietary, limiting its usefulness, and developing IVR applications was cumbersome. When the Internet came along, the adoption of HTML and public standards demonstrated that using a similar model could lead to voice applications that were more open and flexible.

In the 1990s, the landscape of speech and DTMF applications changed from being based on proprietary languages to being completely based on speech standards. A role of primary importance was played by the W3C Voice Browser Working Group (VBWG). They crafted the VoiceXML standards that were broadly adopted by industry, and these standards are still the technology recommended today. The VoiceXML standard ensures that speech environments can leverage widely available web-related technologies and the related skills required, leading to the creation of more powerful voice applications.

In 1999, several experts at AT&T, IBM, Lucent, and Motorola joined forces to create the VoiceXML Forum whose mission was to promote and accelerate the worldwide adoption of VoiceXML-based applications. Over the course of 15 years as the premier trade organization for voice dialogue technology, the VoiceXML Forum succeeded in establishing VoiceXML as the standard application language for voice dialogues.

Why VoiceXML Platform Certification Matters

While interoperability is a primary objective of VoiceXML and related standards, interoperability is not assured by the existence of standards alone. A test program that certifies platform conformance to standards is critical. To ensure solution quality, platform portability and standards compliance, the VoiceXML Forum developed the Platform Certification Program for VoiceXML 2.0 and 2.1. The VoiceXML Forum's Platform Certification Program provides

vendor-independent, industry-standard certification that supports all parts of the VoiceXML ecosystem.

Developed and managed by the VoiceXML Forum's [Conformance Committee](#), the VoiceXML Platform Certification Program provides impartiality through the use of independent third-party testing laboratories. The original VoiceXML 2.0 Platform Certification Program was very successful and certified [26 VoiceXML platforms](#) from industry leaders. The VoiceXML 2.1 Platform Certification Program, launched on June 1, 2010, refreshes and adds new modules to the certification program. Today's ecosystem has certified its platforms on the VoiceXML 2.1 Platform certification program, and the Forum invites all industry vendors to participate as well. The VoiceXML Forum's "Certified Platform" logo is awarded to any vendor whose platform is certified. Vendors are encouraged to display the logo prominently on their companies' websites and in sales and marketing materials.

Leading industry research firm Gartner recommends:

"Customers should require that vendors demonstrate their commitment [to VoiceXML] by gaining formal certification of their platforms."

"Certification provides a new level of vendor differentiation on the VoiceXML platform level, Daniel Hong, Lead Analyst of Customer Interaction at Ovum"

According to Dr. Valentine Matula of Avaya and VoiceXML Forum Board member, "*Platform certification is one of VoiceXML Forum's primary responsibilities towards the industry. It is a service designed by the VoiceXML Forum members for all members of the speech recognition and IVR industries.*"

Companies like Genesys, Avaya, Nuance, Cisco, and many others have gone through the VoiceXML Platform Certification program, ensuring that their solutions conform to the standards and display the "Seal of Approval." They realize certification provides:

- Solution Completeness: VoiceXML certification means that the platform has been tested and verified, and that all the services are available, providing a more complete solution.
- Application portability: Without the VoiceXML standard, application portability required a complete reimplementation, but now it's as simple as completing the testing. Developers can be assured that the applications they create will work across different vendor platforms and can easily be ported to other platforms, saving significant development resources.
- Quality: Certification ensures these essential services work well.

For today's vendors, developers, and businesses, VoiceXML offers:
- **Vendor** differentiation from competition who have not met the certification requirements.

- Speech solutions that offer **Customers** the quality and completeness required.
- The ability for **Developers** to leverage their existing web development skills to build voice-based applications that work on multiple browsers and networks, leading to faster development of applications.

VoiceXML…Relevant Today and Beyond

Does VoiceXML and VoiceXML certification still matter in today's world of new developer tools and APIs? The answer is a resounding YES!

With Communication Platform as-a-Service (CPaaS) offerings from Twilio, Cisco, Tropo, Avaya Zang, and others, it's easier than ever to develop applications and embed voice applications in these applications. Enterprises evaluating IVR and speech platforms, need to consider factors such as interoperability, quality, performance, and investment protection, and should strongly consider working with a vendor whose platform and service has met the VoiceXML Forum's Platform Certification.

SCTC and others overwhelmingly agree that VoiceXML implies platform quality and that it's still useful in today's business communications environment.

While REST APIs and other developer tools have become more popular for cloud-based solutions, premises-based solutions still benefit from VoiceXML, which provides value for both types of solutions, and offers services that some of these other tools don't provide.

While the VoiceXML standard will remain in the core of voice applications for IVR and similar technologies for a long time, there may also be opportunities to reuse these standards in new ways as technology advances. For example, the explosion of the Internet of Things (IoT) increases the need for voice and voice commands to interact with devices and machines, and may benefit from reuse of VoiceXML and VoiceXML-related standards.

Is VoiceXML still relevant today? As long as IVR, speech recognition, and text to speech are used, VoiceXML will continue to play a critical role. Get certified today!

For more information on VXML, visit http://www.voicexml.org/.