

Voice-Interactive Web Applications

NDP Research – Tech Note

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Tech Note Number	NDP-TN-103
Problem	Adaptation of a customer’s signal processing algorithms for advanced speech recognition (ASR) to provide real-time interactive web applications and services.
Solution	NDP developed a service oriented architecture (SOA) incorporating streaming media software, voice codec software, and customer ASR software. These services were used by a Flash application developed by NDP for browser-based audio streaming, control, and result handling. The result was a cross-platform voice-interactive web application usable from any browser with Flash support and a microphone.
Core Technology	The developed net-centric system utilizes open-standards, free and open source software (FOSS), and service oriented architecture (SOA), resulting in flexible and expandable system at lower cost without sacrificing features or performance. The versatility of the NDP engineering team was demonstrated through the use of Java, C, PHP, Flash, and JavaScript.
Benefit	Our customer was able to focus on their core technology and algorithms, while NDP efficiently transitioned their system from the lab to the web.
Market	Undisclosed.
Technology Readiness Level	7. System prototype demonstration in an operational environment.
Keywords	SOA, RESTful, RTMP, Speex, speech recognition, web service, web app.

About NDP	NDP designs and deploys complex computer systems and networks. We also assure that these systems and networks can operate securely in cyberspace. By integrating sound net-centric designs into our customer systems, we enable them to gain a competitive advantage that translates to mission effectiveness. We primarily support DoD , Intel and Federal customers and are currently expanding our offerings to the commercial and academic markets. We are a customer-centric, technology-centric and people-centric company.
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