

# Global IT Factory

# Voice Solutions



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**Open Source**  
**Cost Effective**  
**Flexible**  
**Reliable**  
**Best of Breed Components**

**Leveraging Global IT Expertise**



## Open Standards Voice Platform

A CAREFULLY CHOSEN BLEND OF OPEN SOURCE AND COMMERCIAL OFF THE SHELF SOFTWARE COMPONENTS LEADS TO COST EFFECTIVE AND RELIABLE VOICE SOLUTIONS

Whether you are looking for IVR, Call center, Data Capture or any other Voice driven solution, you want a reliable and cost effective solution using the latest technology. In recent years we have witnessed voice technology has transition away from the proprietary IVR systems to the Open standards systems allowing the leveraging of industry standard architecture, while reducing the cost of development, maintenance and support.

The foundation for a quality Voice solution must be a stable and versatile Voice platform. For our Voice solution we have chosen Asterisk Open standards Voice platform. It is an Industry standard Packet Voice PBX and IVR platform. The Asterisk core is complemented, depending on the functionality required, with carefully chosen components (Open Standards or Commercial) which are market leaders in their own domains.

### ASTERISK CORE

Asterisk is software based IP PBX that runs on a wide variety of operating systems and provides all the features expected from a standard PBX including many advanced features that are often associated with high end (and high cost) proprietary PBXs. Asterisk supports wide range of Voice over IP (VoIP) protocols, and can interoperate with almost all standards-based telephony equipment.

Asterisk is designed for maximum flexibility. It is built around a central PBX core system which handles the internal interconnection of the PBX and is abstracted from the specific protocols, codecs, and hardware interfaces from the telephony applications by a specific set of APIs.

Asterisk uses APIs to achieve a complete abstraction between its core functions as a PBX server system and the varied technologies in the telephony arena. Its modular architecture allows seamless integration of currently implemented telephony switching hardware and new emerging Packet Voice technologies. This makes it a future-proof platform.

Global IT Factory engineers are experts in configuring and customizing Asterisk based solutions. We use most advanced software techniques to facilitate integration of associated hardware and software components to implement cost effective Voice solutions.

### Flexible solutions for your Voice business needs

- Custom IVR Solutions
- Voice Data Capture Solutions
- Call Centre Solutions
- WEB Solutions
- eBusiness Solutions
- Speech Recognition Solutions



## SPEECH INTERFACE PRINCIPLES

- Always remind/teach users what can be said at any point in the interaction.
- Always maintain consistency across features using a vocabulary that is 'almost always available'.
- Always design for error.
- Always provide the ability to barge-in over prompts.
- Always use implicit confirmation of voice input.



## SPEECH RECOGNITION

Speech recognition applications are different from any other kind of computer applications. They open up a world of possibilities for developers and system analysts. Rather than pressing buttons or interacting with a computer screen, users speak to the computer. Final solutions are always driven by customer requirements with the idea to provide cost cutting and efficiency improvements. Our consultants work closely with customers to improve business processes and make them go hand in hand with the advanced Speech Recognition technology providing superior solutions.

The heart of the Voice Recognition system is the Speech Engine, a component which performs speech recognition from audio sources such as telephone lines, voice over IP connections, microphones etc. For our solutions we often select LumenVox Speech Engine, an accurate, standards-based speech recognizer that supports multiple languages. It provides efficient development and a runtime platform, allowing for dynamic language, grammar, audio format, and logging capabilities to customize every step of the application. Through many successful projects we have built expertise and experience in the implementation of the LumenVox engine and Speech Recognition tools.

In many solutions Speech Recognition systems are used to cut waiting times and provide customers with the information they want while reducing the number of required skilled call agents. In circumstances where users can be identified via their caller id number, it is possible to have integrated solutions which provide tailored system response regardless of whether they only provide information, capture data or provide custom IVR solution.

## INTEGRATION

Voice platforms achieve maximum effectiveness when integrated with the customer's Information Systems. Information from customer's data bases can be effectively used to customize flow, increase accuracy and create more intelligent systems. To provide effective Integration with external systems and intuitive User Interfaces, Global IT Factory uses all Open Standards technologies. We also work closely with our partner Apstel (USA) utilising their Integration Manager and Visual Dialplan software components.



## CUSTOMER CASE

Surf Life Saving Australia  
Country: Australia  
Founded: 1907  
Industry: Public service  
Website: [www.sls.com.au](http://www.sls.com.au)

## THE CHALLENGE

Surf Life Saving Australia required a custom solution to enable a quick and easy method for its life saving staff to report beach status, patrol sign on and signoff, preventative actions, life saving actions and many other activities. Voice data capture enhanced with voice recognition technology seemed like a good idea but had never been previously attempted in such a harsh (noisy) environment. This was seen as an opportunity to enhance SLSA's reputation for pushing the technical and creative boundaries.

## INTEGRATED SOLUTION

The Voice Data Capture Solution was required to integrate with existing SLSA operations systems. Firstly, it had to ensure that captured data is stored in the enterprise IT systems and becomes immediately available to staff across Australia. Also it had to utilise data from the enterprise IT systems, to recognise the user, their role and position, thus minimising the amount of data required for the voice capture, and that way greatly decreasing the burden on SLSA volunteers.



## CASE STUDY

### **SLSA - SURF LIFE SAVING AUSTRALIA**

Surf Life Saving is Australia's major water safety, drowning prevention and rescue authority. SLSA create a safe environment on Australia's beaches and coastline through patrols, education and training, public safety campaigns and the promotion of health and fitness.

With 158,806 members and 310 affiliated surf life saving clubs, Surf Life Saving is the largest volunteer movement of its kind in Australia.

The majority of its services are provided by surf lifesavers who complete surf patrols voluntarily. SLSA also operate the country's largest lifeguard service, contracting to local government and other coastal land managers.

The key driver for the implementation of Voice Data Capture software in SLSA is to enable entry of information via telephone/voice without SLSA volunteers having to fill in a form or rely on a call center agent to input data into the database. The desired outcome is to spend less time on administrative activities and more time saving lives.

It is also seen as a way to increase the accuracy of the data recorded, as members can fill out forms in a timely manner rather than trying to remember information relating to things such as beach incidents well after the event.

The implementation of Voice Data Capture technology also helped SLSA become a more environmentally friendly and less paper based organisation.

Critical success factors were:

- Cost effectiveness
- Reliability
- Increased efficiency in business processes
- Rapid deployment and development
- Easy use and customization

