Case Study

The voice of security: top voice biometric specialist secures ISO27001 re-certification

VoiceVault is a specialist industry leader in the provision of voice-based biometric identity verification solutions and services (see below). With operations in the United States and the United Kingdom, the company has a global customer base of public and private organisations, such as government agencies, financial institutions and healthcare companies. Keeping information secure is at the heart of their business, so they know the value of information security, and how a robust Information Security Management System (ISMS) and certification to ISO27001 can demonstrate this to their clients.

BACKGROUND

Although VoiceVault is in the business of information security technology, they are not specialists in ISO27001. Having already been through the certification process, they knew how much work it could potentially involve in a relatively tight timescale. An external agency that could lead the project, with minimal interruption to business as usual, was called for and IT Governance fit that profile neatly.

Biometrics are automated methods of recognising a person based on a measurable physiological, anatomical or behavioural characteristic. They are now seeing wide adoption as technology matures and new methods of securing systems becomes ever increasingly important.

VoiceVault is an industry leader in voice biometrics, with a rapidly growing global customer base and specialist partners such as Angel in the US and DataPoint in the UK. VoiceVault provides a more convenient, practical and secure alternative to PINs, passwords or security tokens. As well as verifying an individual's identity over the phone or the Internet, VoiceVault can be employed across a diverse range of business applications, including procurement, payment authorisation and corporate security.

As you might expect from a company so heavily focused on security, they are aware of its implications and are keen to demonstrate the company's commitment to industry best practice. As a result, they achieved BS7799 certification in 2001, managing to maintain their certification through the transition to ISO27001 in 2007.

In addition to maintaining their certificate, VoiceVault also recognises the perceptual and intrinsic value of properly implemented and audited safeguards. 'Having ISO certification is important to us for two reasons', said Operations Manager, Andrew Saunders. 'First, it gives our customers and prospects confidence that when they entrust us with their information, that we, as an organisation, have been independently assessed to be able to keep that information safe. Secondly, the ISMS is simply good practice for a business like ours, it provides an effective framework for running an organisation well.'

During 2008/09, VoiceVault went through a substantial organisational change. A strategic decision was made to relocate their head office from Dublin to Reading and co-locate their hosting platform in two separate data centres in the UK and US, ensuring maximum resilience and redundancy for their global customer base. Realising the impact on security, and to their existing ISO27001 certificate, VoiceVault engaged IT Governance to initially review their existing ISMS framework in readiness for a scheduled surveillance visit.

It was evident from the review that the original ISMS would be insufficient for the needs of the new business structure and would therefore not ensure re-certification. IT Governance was then tasked with implementing the new ISMS ready for re-certification in April 2010, and also to make sure the surveillance visit in November went well.

REQUIREMENTS

Usually a physical site move would have meant the company would need to submit a complete re-assessment for ISO27001 certification. However, as the move was scheduled to take place gradually over several months, and the heart of the business and scope was still in Dublin at the time of the scheduled surveillance visit, this was completed against the original scope.

IT Governance was engaged as a partner for VoiceVault to ensure that the new scope met the requirements of the business to reflect, not only changes to the company, but also changes to legislation and contractual obligations.

PROCESS

In addition to redefining the scope, IT Governance completed a new risk assessment, provided staff awareness training and helped VoiceVault develop ISMS documentation in order to meet the requirements for re-certification in April 2010. IT Governance then worked with VoiceVault to drive the ISMS project forward, allowing VoiceVault to focus on the relocation and yet retain ownership of their security arrangements.

OUTCOME

VoiceVault successfully completed its reassessment audit to ISO27001 in April 2010. INAB (Irish National Accreditation Board) accredited certification body, Certification Europe, conducted their audit.

'VoiceVault and IT Governance successfully navigated a number of challenges', said Michael Brophy, CEO of Certification Europe. 'Not only was the ISO system undergoing reassessment, but it was at a time when there was a significant change-over of staff, a change of premise and a new release of the core technology. Any one of these issues would normally pose a challenge, but having them all come together really tested the ISMS. Our auditors wanted to ensure that, with the change of personnel, there was still a genuine awareness and ownership of the system within VoiceVault. We also wanted to make sure that, with new staff coming on board, information security was still treated as a priority, particularly with all the competing issues.'

'The partnership between IT Governance and VoiceVault was obviously a success, as within a very short time, VoiceVault was able to demonstrate compliance with all the relevant controls in ISO27001.'

Michael Brophy, CEO of Certification Europe

NEXT STEPS

As VoiceVault experienced, for an ISMS to function well it needs to be maintained regularly. Among other things, corrective and preventive actions need to be taken, documents updated, risks reviewed and regular internal audits completed.

IT Governance lead consultant Yvonne Sears said, 'Responsibility for parts of the ISMS throughout the company needs to be delegated to ensure buy-in and that responsibilities are understood, particularly around policies and procedures.' She recommended that regular meetings are conducted to report on the effectiveness of the ISMS and controls to senior management, saying, 'This will

emphasise the need for ISO27001 and hopefully, retain senior-level and commitment buy-in!' Unsurprisingly, she is all for a dedicated resource, whether internal or external, to effectively maintain the ISMS.

When asked what was next for VoiceVault and IT Governance, Andrew Saunders replied: 'We hope to have a long-term relationship with IT Governance. We recognise they have the core competency of running an ISMS and we think this will augment our own skills as well'.

About VoiceVault

VoiceVault Enterprise is the latest version of VoiceVault's award-winning voice biometric product. Enterprise is tailored to meet the growing needs of customers and partners needing to install and develop voice biometric solutions in corporate enterprise environments. Enterprise is a fully-scalable solution, established on a highly secure database-based architecture that is specifically designed for ease of integration into corporate IT infrastructure.

At the heart of VoiceVault Enterprise is an enhanced core biometric engine that increases verification accuracy, increases throughput performance, and increases replay attack detection performance. This is an enhanced version of the biometric engine that has been in continuous development and use within VoiceVault technology for over 20 years.

How it works

The voice, as with other biometric characteristics, is unique to an individual. In voice biometrics, a user speaks an utterance that is captured by the biometric system that then compares it to a previously stored voiceprint.

The initial enrolment process uses spoken words to calculate vocal measurements of an individual's vocal tract. Sophisticated algorithms then convert these measurements into a voice print, a unique digital representation of an individual's voice. Over 100 different calculations and tests are then used to compare a previously enrolled voice print with a voice print generated at the time of verification, all in a fraction of a second.

VoiceVault can detect and reject any attempt to use voice recordings; its accuracy is unaffected by the caller having a cold and even adapts voice prints over time to take account the ageing effects on the voice. It works across all types of phones – mobiles, landlines, speakerphones, even over the Internet – and callers can be accurately verified repeatedly, regardless of how they came through.

™ **About IT Governance**

IT Governance has substantial real-world experience in designing and implementing IT GRC-related management systems. Founded in 2002, we are a professional services company with a wealth of consultancy skills that originally focused on information security/cybersecurity standards, notably ISO27001. We have an impressive track record of more than 100 consultancy clients successfully certificated to ISO27001 alone. We have since developed our offerings into various other management disciplines and now provide a comprehensive single source of information, advice, books, tools, consultancy and training for IT governance, risk management, compliance and IT security.

Flexible service package

The IT Governance professional services provide you with the chosen level of support you require. This is true whether you seek a certification to international standards, based on the findings of the initial scoping phase and compliance with the agreed resource and project plan, or whether your aim is to follow best practice and 'compliance'. We recognise that no two situations are identical. Therefore, we tailor our services and solutions to meet your needs.

Risk management

Risk assessment is the core competence of modern business. In line with the Sarbanes-Oxley Act, Basel II and III, ISO31000, ISO27001, and OCTAVE requirements, we help you to formalise and structure your approach to strategic and operational risk, fully-incorporating cybersecurity into the picture. Our unique approach takes into account the complex competitive, regulatory and environmental factors that affect achievement of strategic goals. Our services can include the development of a corporate risk log, and risk assessment through to the production of formal risk treatment plans and review processes.

Ongoing support

IT Governance believes that serving you well means helping you to develop the skills and knowledge necessary to run your own management systems and compliance programmes.

Our clear focus is therefore on developing your skills and confidence. Through our empowering value-for-money approach, you can encourage and enable your people to take ownership of the resulting arrangements and improve performance across the organisation.

Single source

You and your lead IT Governance consultant will have access to the comprehensive and integrated resources, available from IT Governance, to ensure a successful project. These include:

- Risk management expertise
- Technical information security expertise
- Trainers (practitioners) and training courses (see the training pages on our website)
- Books and tools available through our on-line shop
- Recruitment support for IT governance related posts

Phone: +44 (0) 845 070 1750

E-mail: servicecentre@itgovernance.co.uk

Web: www.itgovernance.co.uk