

EMBED SPEECH RECOGNITION IN YOUR APPLICATION.



360 | SpeechMagic SDK

CHALLENGE:

How can I optimise my report creation and information capture processes to achieve faster and more cost efficient medical documentation?

SOLUTION:

360 | SpeechMagic SDK makes it possible to introduce an electronic speech infrastructure – no matter if at departmental level within a hospital or throughout an entire healthcare region, serving the adoption of EHRs.

360 | SpeechMagic SDK is a robust, scalable speech recognition platform that accompanies the healthcare industry’s trend towards large-scale electronic speech infrastructure.

360 | SpeechMagic SDK offers an extensive SDK set to deeply embed state-of-the-art speech recognition capabilities in your application with the utmost flexibility, such as: digital dictation, front-end and backend speech recognition, workflow, transcription, correction, command and control.

KEY BENEFITS

- **Reduces** document turnaround times
- **Saves** on transcription costs
- **Increases** patient record accuracy and access
- **Improves** clinician satisfaction and EHR adoption
- **Enhances** patient care in a demanding environment

KEY FEATURES

- **Industrial-grade speech recognition**
- **Multiple workflow options**
- **Seamlessly integrated** within your Information System
- **Central, low-effort** administration & maintenance
- **Speech Analytics** include Key Performance Indicators (KPI) and KPIviewer

Supporting 22 recognition languages!



360 | SpeechMagic SDK: the foundation of the 360 | Development Platform

The 360 | Development platform is... a global, enterprise-class clinical documentation and communication services platform for developers who want to embed advanced speech functionalities. It delivers network-based, secure speech services and client-side software to support speech-enabled clinical documentation and communication workflows from any application, on any device, at any time. Deployed via an on-demand (cloud) model or as a complete on-premise solution.

If you are a healthcare IT solution vendor, register here to test the platform:

www.nuancehealthcaredeveloper.com

KEY COMPONENTS OF THE PLATFORM ARE:

- **360 | SpeechMagic SDK 7 Release 3**
- **360 | SpeechAnywhere Services:** A new set of cloud- and network-based web services that brings speech recognition to mobile healthcare IT computing as well as traditional desktop and thin clients.

As a doctor, you want to...

... spend time providing care instead of documenting it; access and deliver accurate and complete information where and when needed, practice personalised, evidence-based medicine; order the right tests and know you are getting the right results; and leave the office on time at the end of the day.

... streamline clinical documentation and reduce turnaround time.

Using front-end speech recognition clinicians dictate, self-edit and sign transcription-free, completed reports in one sitting and have full control. Alternatively you can also delegate the draft to your transcription centre.

Using backend speech recognition clinician dictations are turned into speech-recognised drafts that medical transcriptionists edit, resulting in up to a 100% gain in their productivity when compared to traditional transcription.

Using remote speech recognition clinicians can access the dictation and speech recognition system outside the central network, on a laptop or tablet pc. When reconnecting the device to the network, the central functions and services are performed.

High initial performance: doctors using front-end, interactive speech recognition can now easily add and remove words themselves. This enables them to build up their own customised recognition vocabularies in addition to the centralised vocabularies for all users at a site. Together with the expanded out-of-the-box vocabulary and advanced learning algorithms the performance and accuracy of the speech recognition engine has been raised significantly.

DIAGNOSTIC REPORTING:

Fits your workflow and integrates with your PACS/RIS

Deeply integrated into your radiology solution, 360 | SpeechMagic SDK is a natural feature of your radiology reporting and communications process, simplifying report completion and communication, reducing turnaround time and transcription cost.

CLINICAL DOCUMENTATION:

Accelerates productivity with your EHR

Studies have shown that EHRs add as much as 90 minutes to a doctor's day. Nuance speech recognition helps clinicians document the patient's story through highly accurate software, while reducing turnaround time and dramatically reducing transcription costs.

IMPROVED DEPLOYMENT AND LESS INTEGRATION EFFORT

... reduce implementation and maintenance costs and lead to lower total cost of ownership (TCO).

- **Roll-out:** The one-click deployment concept supports integration of browser and/or plugin-based systems to facilitate large-scale roll-outs.
- **Installation and upgrade** concepts include export and import tools that help the smooth transition to the latest version.
- **Wide support of existing IT infrastructure** includes compatibility with Windows 7 (32-bit/64-bit), UTF-8 character encoding for Oracle databases and Microsoft SQL Server Compact Edition (SQL CE). Linux-based thin clients and Citrix Ready certification complete 360 | SpeechMagic SDK unique Citrix offering.
- **Improvements in the Edit Control Adapter** allow better frontend recognition support for a variety of edit controls, including .NET and Java environments.
- **“Down-time free”** system updates via enhanced synchronisation routines do not interrupt users in their daily work.
- **Native 64-bit support** for client components allows integration with high-memory applications, such as Picture Archiving and Communications Systems (PACS).
- **New Remote SMAPI** gives you better and easier access to backend functionality. Easier management of larger systems, easier deployment.
- **New Data Sync API's** for easier synchronisation between remote sites and over the internet. Possibility to use cache server to manage bandwidth consumption.

As CIO/CFO, you're looking to...

... maintain highly reliable clinical and financial systems, maximise the benefits of EHR investments, improve workflow, optimise resources, ensure doctor satisfaction and improve operational efficiencies and overall patient care... and work with a partner you can trust.

- **Accelerate EHR adoption, maximise system ROI**
- **Reduce operational costs and optimise system maintenance**
- **Control costs, improve revenue cycle, and increase medical secretary productivity**

360 | SpeechMagic SDK is seamlessly integrated into information systems or reporting solutions, enabling the end user to efficiently capture information within their familiar working environment.

360 | SpeechMagic SDK captures dictated information and automatically generates formatted and structured medical information, saving valuable time and raising documentation quality.

Speech Analytics deliver data about return on investment and the efficiency of medical documentation for evidence-based decision making in healthcare administration.

„Speech recognition is the only IT solution I have introduced in 20 years that led to measurable cost savings.“

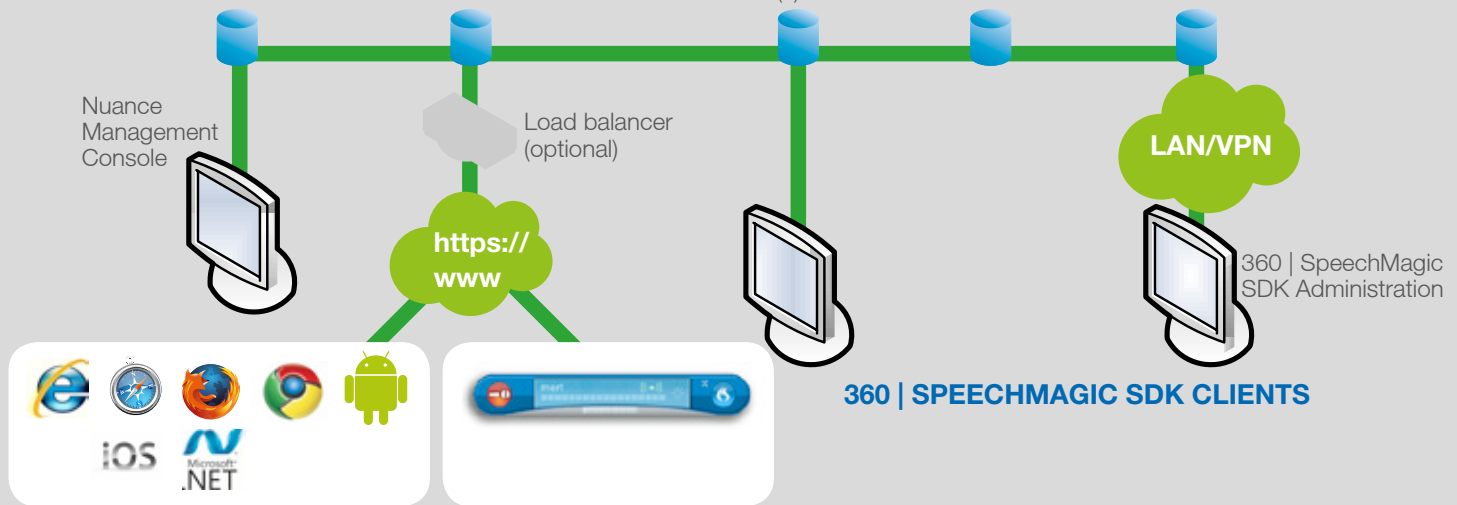
Per Urdahl, Head of the medical department
Telemark HF hospital (STHF), Norway

360 | SPEECHANYWHERE SERVICES SUPPORT

Management Server 360 | SpeechAnywhere Services Server(s)

360 | SPEECHMAGIC SDK BACKEND

Remote SMAPI & Data Sync & Optional Caching Server(s) Backend Recognition & Adaptation Database & File Server

**360 | SPEECHANYWHERE SERVICES DESKTOP & MOBILE CLIENTS**

What's new in 360 | SpeechMagic SDK Version 7 Release 3

This new release is the foundation of our powerful, robust, multi-user and multi-network speech recognition 360 | Development Platform, enabling speech recognition in the cloud.

WHY UPGRADE?

- 360 | SpeechAnywhere Services** allows you to extend your reach to new mobile platforms and widen the availability of speech-based concepts. 360 | SpeechAnywhere Services can be connected to both existing and new 360 | SpeechMagic SDK installations.
- The Speech Analytics' functionalities** show you how the key performance indicators (KPIs) can be presented in a meaningful and easily accessible way for optimised use of the technology.
- The improved Speech Accuracy Trainer** enables users to provide a recording of how they pronounce a word or by entering a written representation of the word.
- The Data Sync Cache Server** makes synchronisation between remote sites and over the internet easier and helps you to manage your bandwidth consumption and timing.
- Admin rights-free 360 | SpeechMagic SDK Client installation**
- Remote 360 | SpeechMagic SDK API** can now be deployed independent of a 360 | SpeechMagic SDK Workstation. Easy to integrate with .NET languages. A higher number of concurrent clients is supported.
- Improved Linux thin client support** including Igel UD2/3/5 series Linux thin clients.
- Record Standby** mode default handling
- Advanced resolution Acoustic Reference Files** in front-end recognition
- 360 | SpeechMagic SDK sample applications** ported to the new 360 | SpeechMagic SDK Client
- New supported hardware** Olympus DR and Olympus RS devices in addition to the Nuance PowerMic II, Philips SpeechMike, Philips Digital Pocket Memo and Grundig Digta SonicMic, Grundig Digta CordEx.
- Additional operating system support** Windows Embedded Standard 7

SPEECH ANALYTICS

Get transparency. Improve control.
Enrich the performance.

The latest version of 360 | SpeechMagic SDK 7 will help healthcare providers achieve faster and more cost-efficient medical documentation. Nuance delivers new tools to measure and analyse the clinical reporting in your hospital. CIO's, CFO's and department heads can get an exact overview of their documentation volume, turnaround-times, ROI as well as costs implied.

The new data-centric approach to optimise your speech-enabled information capturing processes includes:

Key Performance Indicators to deliver data about return-on-investment and the efficiency of medical documentation for evidence-based decision making in healthcare administration. Higher initial recognition accuracy and reduced deployment/integration effort positively affects total cost of ownership (TCO).

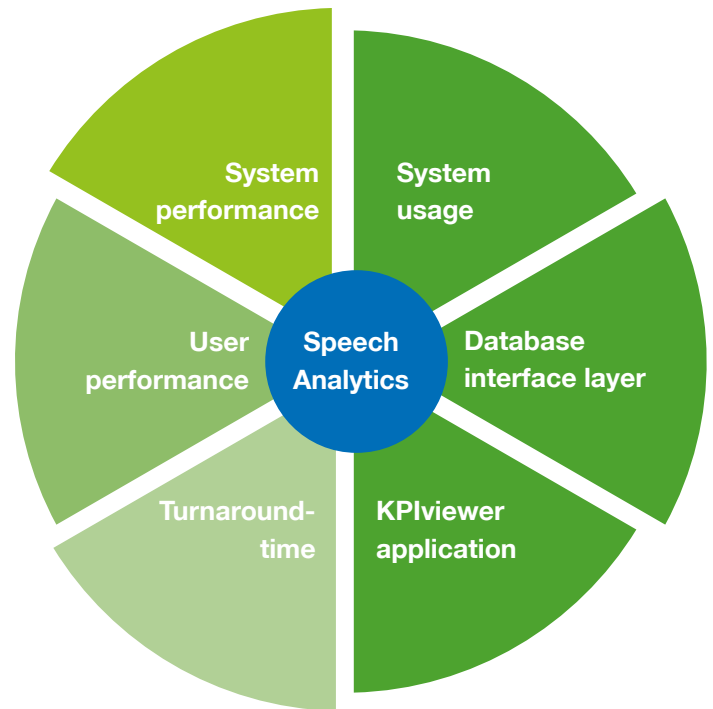
The KPIviewer – a brand new application that allows care givers, integrators and healthcare IT service specialists to better understand the performance of your system via a powerful visualisation tool. This tool helps healthcare organisations using systems powered by 360 | SpeechMagic SDK to manage system performance and get the most out of it.

Speech Accuracy Trainer

Superior accuracy for information capture

The improved Speech Accuracy Trainer enables doctors to build up their own personalised vocabulary by giving them the capability to easily add and remove words on the client side to further customise the product and improve their recognition level.

Low integration effort and synchronised backend adaptation processes guarantee smooth system performance. Improve the speech recognition performance by explicitly training the system.



Unknown words can be added to or removed from a user's private lexicon.

Acoustic training of new and existing words.

Voice training (Acoustic Reference Files).

Electronic Speech Infrastructure powered by NUANCE

Speech-based information capturing in health IT systems has gained great momentum over recent years, driven by the digitisation of healthcare. 360 | SpeechMagic SDK is used across the healthcare systems of many European regions, like the Basque Country in Spain, the Northumbria NHS Trust in the UK, several provinces in Norway as well as social workers in Denmark, or all major university clinics in Germany. Many of these regions have proven multi-million euro cost savings through their electronic speech infrastructure.

SYSTEM REQUIREMENTS

Operating system for 360 | SpeechMagic SDK Clients Microsoft Windows XP Service Pack 3 or higher // Windows Vista SP1 or higher // Windows 7; (all 32-bit and 64-bit editions)

Database environment Microsoft SQL Server 2000 (SP3 or higher) // 2005 // 2008, Oracle Server - Oracle 9i (9.0.1 or higher) // 10g (10.1 or higher) // 11g (11.1 or higher)

Word processor for online recognition and correction (latest service pack is mandatory):

Microsoft Word 2003, 2007 and 2010 // TX Text Control ActiveX 11.0,12.0, 13.0, 14.0 15.0, 15.1, 16 // Microsoft .NET Framework, RichTextBox // Microsoft Rich Edit Control 2.0 // SpeechMagic, Edit Control Adapter API allows integration with a wide range of additional edit controls

Citrix Citrix Presentation Server 4.0 and 4.5, Citrix XenApp 5.0 or XenApp 6 (32-bit and 64-bit editions) // Linux-based Fujitsu Siemens S400/S450 thin clients // Linux-based Igel UD-2/3/5 clients

Windows Terminal Server Microsoft Windows Server 2003 or higher (32-bit and 64-bit editions) including Windows 7

Virtualisation support Tested using the latest version of VMware Workstation and VMware ESXi 4.0

360 | SpeechMagic SDK Hard disk space: 6 GB

Frontend recognition

- CPU: Intel Core or equivalent, RAM: Follow operating system recommendation + 500 MB

Digital dictation

- CPU: Pentium III 800 MHz, RAM: Follow operating system recommendation

Correction

- CPU: Pentium IV 2 GHz, RAM: Follow operating system recommendation + 256 MB

Dictation devices Nuance PowerMic II, Philips SpeechMike LFH2000/3000 series, Philips SpeechMike Air, Grundig Digta SonicMic, Grundig Digta CordEx, Philips Digital Pocket Memo, Olympus DR and AS series

For more information, see the SpeechMagic Installation Online Help.

About Nuance Healthcare

Nuance Healthcare, a division of Nuance Communications, gives doctors access to voice recognition technology anywhere, any time, on any device. Nuance Healthcare empowers healthcare provider organisations and individual doctors to accurately capture and transform the patient story into meaningful, actionable information in 22 languages. Today, over 10,000 care giver organisations and 450,000 users worldwide trust Nuance voice recognition technology to deliver higher quality care, improve financial performance and enhance compliance efforts. Discover how Nuance Healthcare's wide range of voice recognition solutions and services can increase clinician satisfaction and EHR adoption at www.nuance.co.uk/healthcare

For more information on the Nuance Healthcare solutions and services:

speechrecognition.healthcare@nuance.com

NUANCE HEALTHCARE – QIPP EFFICIENT SOLUTIONS

360 | Development Platform SpeechMagic SDK

An SDK designed to be seamlessly integrated into healthcare IT applications and deliver state-of-the-art speech recognition capabilities enabling the use of a variety of workflows (digital dictation, front-end speech recognition, backend speech recognition, workflow, transcription, correction, command and control).

360 | Development Platform SpeechAnywhere Services

A secure cloud-based set of speech recognition services enabling Healthcare Software Vendors to speech-enable end-user healthcare applications with minimal development effort.

Power Scribe | 360

A powerful radiology reporting platform that combines speech recognition technology, peer review, data capture, multisite workflow, and structured reporting in a single solution.

Dragon Medical | 360 network edition

A cloud-based, real-time, front-end click once speech recognition solution designed for clinicians to make their systems faster and easier to use.



A desktop-based, real-time, front-end and feature-rich speech recognition solution that helps clinicians efficiently navigate and dictate medical decision-making and treatment plans directly into a patient's EHR.

HEALTHCARE

