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CROSSOVER
Medical Technology Inc

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3972 Barranca Parkway
Suite J-120
Irvine, CA 92606
(800) 556-5091
https://www.crossoverint.com

Digital Dictation System – DDS

Transfer of Patient, Doctor and Study Type Information

By Bijal Patel, CTO

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Introduction

DDS is an advanced Digital Dictation System with file management capabilities. The system provides an easy-to-use interface that enables recording, playback, re-recording and automated uploading of audio files and completed transcribed documents. The system administrator is able to automatically or manually assign files for transcription, which are then played back using the in-built audio player.

Problem Statement

1. Selection of the theme:

A brainstorming session listed over 25 different pain points which were categorized as:

a) **Automated File Transfers.**
b) **Patient, Doctor and Study Type Information transfer.**
c) **Security.**
d) **TAT.**
e) **Quality.**
f) **Management & Reporting.**

This document details the solution provided for Patient, Doctor and Study Type Information Transfer.

2. Precise definition of the problem:

- Customer Requirement – Current Reality.

3. This equation defines the appropriate metrics.

- Customer Requirement - Transfer of required information to vendor.
- Current Reality – Email Attachments or Access to their system. The problem: Tedious, manual process, lack of security, not automated.

Previous Options

The customer needed dedicated personnel to gather the required information, tabulate it daily and sort by doctor and then by study type. This document then required to be sent to the vendor via email as there was no other method in place.

The challenges this brought up ranged from missing information to not sent emails to task assigned personnel on leave, etc. DDS Solution Crossover first brought about a customization to their existing patient information management system by introducing a bar code per study done which included patient demographics, doctor and study type, date and time information.

Crossover then installed the server and DDS hosted application and the interface to set rules for file and data transfer. The next step was to provide the key element to the actual user of this system–the doctor–the Philip's Speech Mike with bar code reader attachment and a client application installed on each doctors computer terminal.

Benefit 1 **Automatically embedded patient identification information.**

Benefit 2 **Automatically embedded reading doctors identification information.**

Benefit 3 **Automatically embedded study type, date and time information. Implementation The bar code was automatically printed on the patient sheet when he/she came in for the appointment and this was carried by the patient into the doctors room. Each doctors computer terminal had the DDS client application installed and configured as per doctor settings and requirements.**

The doctor uses the Speech Mike to first read the bar code, which automatically triggers the client application to start a recording. Once the doctor completes the recording and saves the dictation file, the application uses the bar code information to create the file name.

The client application then sends the audio file to the hosted application server which makes the requisite database entries, encrypts the file using a 128 bit cipher and securely uploads the file to the Crossovers' web server. Crossover uses a vendor application that continuously scans the server for new files and when it finds a file that has been assigned to it by the customer, downloads, decrypts and changes the status in the database. At this stage, a document is automatically prepared with the relevant information gleaned from the audio file name i.e. bar code and the audio file is now ready for transcription.

Summary

DDS provides the customer with secured, automated platform to not only transfer patient information to relevant people within the established work flow, but removes completely the challenges faced by the customer in the manual transfer of sensitive and confidential data.