

Medical Transcription Process Automation

Client Background

The Customer offers one of the largest and highly skilled team of transcription writers and proofreaders with over 12 years of experience in nearly every medical specialty. Customer provides accurate transcripts within 24 business hours. Customer also provide Short Turnaround Time (STAT) of 4-6 hours on request.

Client's Challenge

The entire process of Medical transcription was manual right from downloading the Transcription audio files till uploading the reports transcribed. This manual processing approach had following challenges:

- Meeting the TATs. With manual approach, meeting the TATs with ever increasing volumes was getting difficult day after day.
- Since the download of audio files was manual work, someone needed to continuously keep checking for new volumes and download the files as and when they arrive. This always caused delays in receiving the files form FTP.
- Quality issues - Manual transcription had more errors.
- Till the time all the files were downloaded, operators may have to sit idle, reducing productivity.
- Scalability from increasing the team size point of view.

The Our Approach

We studied the existing process, suggested integration with a 3rd party Voice to Text conversion application and provided services to automate different steps in the MT process flow as follows.

- FTP Download
 - A configurable FTP download service was provided to download batches from client FTP automatically

- Work distribution
 - An admin UI was provided for admin to distribute the files for Voice to Text Conversion on different workstations for load sharing.
- Voice to Text Conversion
 - A service was provided to run on each workstation to monitor the files allocated for that workstation.
 - The service would pick up the files one at a time and pass it to the Voice to Text conversion software for conversion.
 - Once the conversion is complete, the converted transcription was then added to a predefined word template and uploaded to Share point portal for QA.
 - The template would contain the report as well as link to the original audio file.
- QA
 - Users would QA on the records assigned to them manually
- Reports Upload
 - A service was provided to convert the reports in HL7 formats and upload the client FTP from where those were imported in client's system.

Successful outcomes and results

- Efficiency improvement ~ 30-35% on each individual
- DU processes average productivity
 - ~ 8 mins/hour – without automation
 - ~ 11 mins 25 seconds/hour with automation

- With increase inefficiency and productivity, the TATs are now met without additional resources & cost.
- HL7 automation helped reduce pasting errors, saved time on manual process and improved quality of output.
- Audit process improvement ~ 50%

Technology used

- Voice to Text utility
- WinForms C#.net