



TRANSFORMING COURTROOM EFFICIENCY WITH LIBERTY NOTES PLUS

AN IN-DEPTH ANALYSIS

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FEATURING: The United States Bankruptcy Court
for the Northern District of Illinois

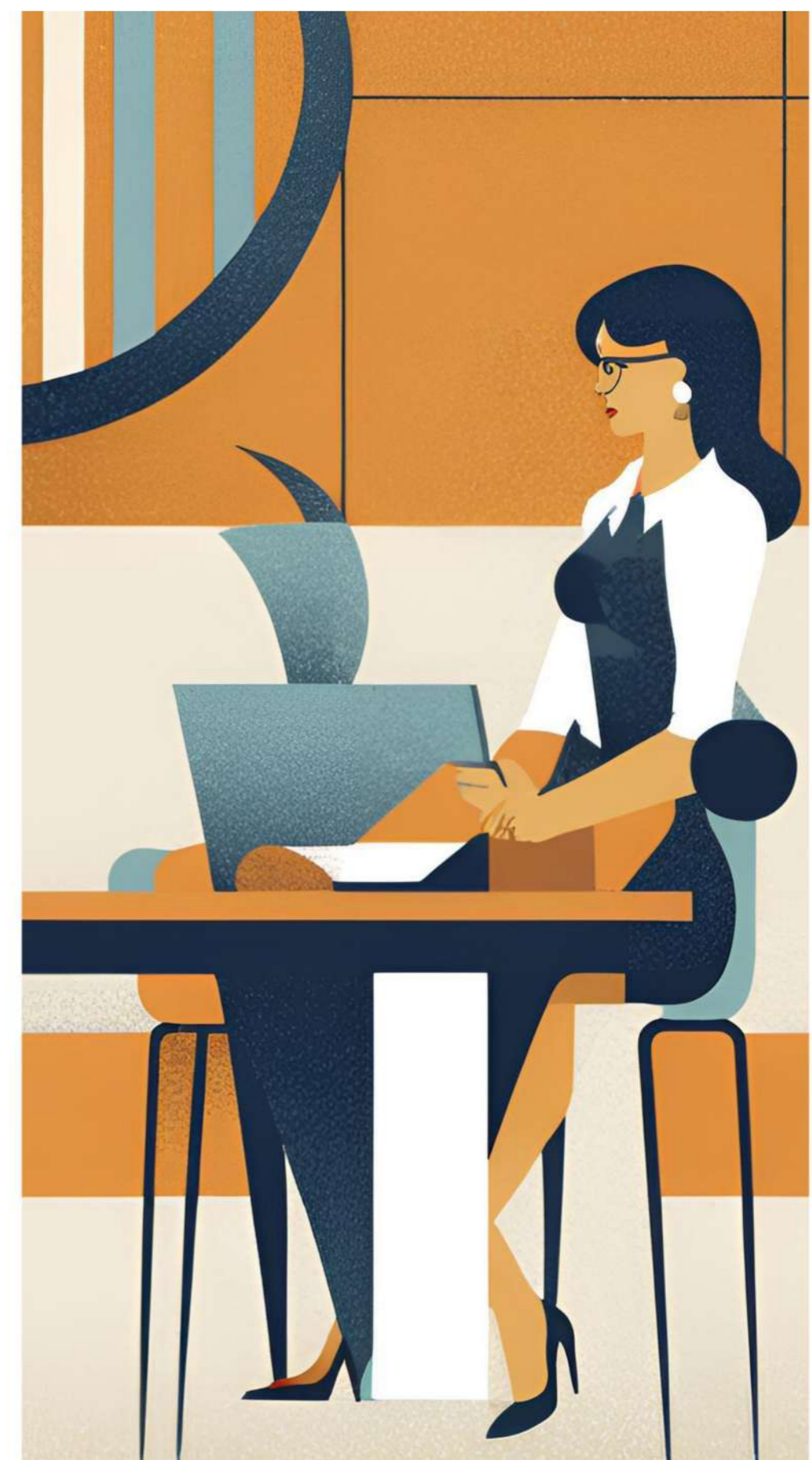
INTRODUCTION

The judiciary is increasingly turning to technology to enhance courtroom efficiency and accuracy. Speech-to-Text (STT) solutions offer real-time transcription, streamlined documentation, and improved access to records. However, the effectiveness of these systems depends on factors such as audio quality, system configuration, and the complexity of courtroom processes. This paper investigates the deployment of Liberty Notes Plus (LNP) as a tailored STT solution for courtrooms. By examining its implementation in a bankruptcy court, we explore how LNP simplifies judicial workflows.

THE CHALLENGES OF TRADITIONAL COURTROOM TRANSCRIPTION

Liberty Notes Plus was developed in response to the growing need for a modernized approach to courtroom transcription. Initially, STT technology was introduced as a way to mitigate stenographer shortages, reduce costs, and speed up the documentation process. However, courts have since recognized additional value in raw transcripts –not as standalone certified records, but as enhanced tools for reviewing and searching audio records.

In the early days of STT adoption, some platforms promised automated, near-perfect transcripts, positioning themselves as a full replacement for stenographers. This claim quickly collapsed under scrutiny, leading to widespread acknowledgment that **STT results, while useful, require human oversight.** Unlike traditional transcription, which involves meticulous review, STT generates unedited output that may contain errors, particularly in judicial settings where precision is paramount.



Liberty Notes Plus embraces this reality. Rather than attempting to replace human transcriptionists, it functions as a powerful supplement, offering real-time speech-to-text conversion in a searchable, editable RTF format. One of its key innovations is a dual-pane interface that allows users to annotate proceedings without overwriting the raw STT output. This approach ensures that human observations remain distinct from machine-generated text, preserving the integrity of courtroom documentation. "The process occurring real-time with the ability to immediately save the output locally offered an instant way to search for any specific time, case number, or other identifier of interest for review," Heidegger notes. This structured approach enables greater efficiency while maintaining confidence in recorded proceedings.

CASE STUDY: IMPLEMENTATION IN THE NORTHERN DISTRICT OF ILLINOIS BANKRUPTCY COURT

The United States Bankruptcy Court for the Northern District of Illinois piloted Liberty Notes Plus in a single courtroom to assess its impact on post-hearing review and transcription augmentation. The primary objective was to determine whether LNP could enhance efficiency, particularly in managing multi-docket recordings and improving access to case audio.

The results were immediate and compelling. Beyond improving transcript accessibility, LNP served as a catalyst for broader technological upgrades in the courtroom. "First, let me say, I love it," Heidegger wrote after a few weeks of use. "It was also the catalyst which allowed me to make some long-desired changes in the courtroom related to using multiple microphones with Liberty Court Recorder, which were a hit with the Judge." Enhancing audio clarity and labeling microphones allowed courtroom staff to identify speakers more accurately, improving post-hearing documentation.

Moreover, the judge and courtroom staff quickly integrated LNP into their post-hearing review workflow. Instead of manually scrubbing through hours of multi-docket audio, they could now search STT-generated transcripts by keyword, significantly reducing the time spent retrieving case details. "The judge indicated the transcripts work well for them, and as of now, there's no desire to display the live feed other than the courtroom deputy periodically checking it during the hearings," Heidegger noted.



TECHNICAL EVALUATION: WHY LIBERTY CHOSE AZURE FOR SPEECH-TO-TEXT

When selecting an STT engine for Liberty Notes Plus, Microsoft Azure’s STT engine was chosen due to its strong performance under courtroom conditions and its lower Word Error Rate (WER) compared to other platforms. While Liberty Notes Plus itself does not calculate WER, external benchmarking studies have provided insight into STT performance across various providers.

A study published by the National Library of Medicine, Benchmarking Open Source and Paid Services for Speech to Text, found that under optimal conditions, Google Cloud Speech API achieved a WER of 6.6%. However, when exposed to less-than-ideal conditions, that WER more than doubled to 13.6%. And while Azure performed better at 5% and 12.1% respectively, **both measures underscore the significant impact of compromised audio quality.** These findings, along with Microsoft’s robust government adoption and security infrastructure, made Azure the preferred choice for integration with Liberty Notes Plus. As Heidegger notes, "the accuracy under less than ideal conditions was surprisingly high. In purely anecdotal testing, Liberty Notes Plus beat out Zoom’s transcription process in reliability."

Method	Price (USD/min)	LibriSpeech (clean)	LibriSpeech (other)	CommonVoice	TEDLIUM	WSJ	CHiME-5
Amazon Transcribe	0.024	5.2	9.6	15.9	4.3	1.4	40.3
Microsoft Azure	0.013	5.0	9.7	12.1	5.0	1.6	40.6
Google Cloud Speech API	0.024	6.6	13.6	18.4	6.7	2.9	49.1

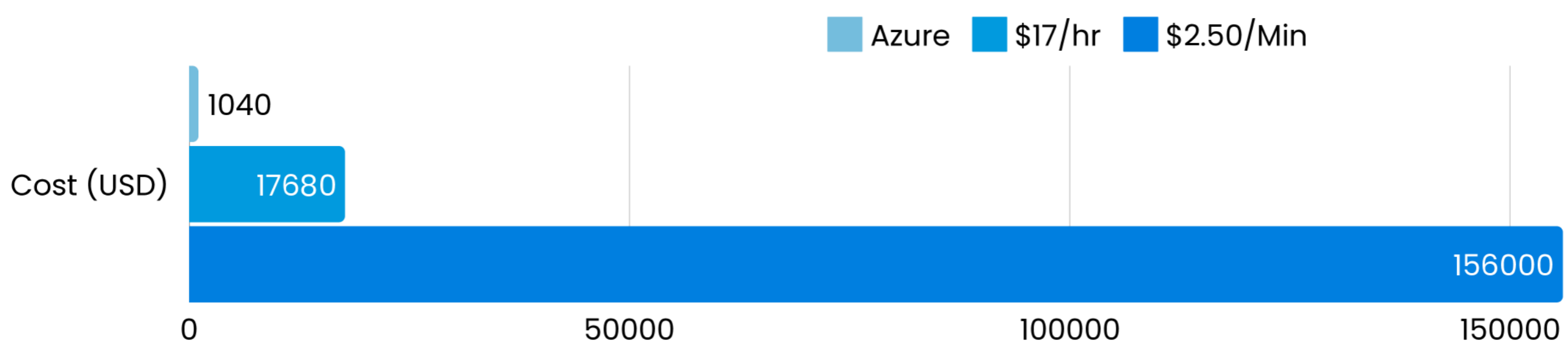
Another critical advantage of Azure is its strong presence in government IT environments. Many courts and agencies already work with Microsoft, making Azure a natural fit from a security and integration standpoint. This ensures that Liberty Notes Plus aligns with existing IT policies and procurement processes, minimizing potential barriers to adoption.

COST-BENEFIT ANALYSIS: LIBERTY NOTES PLUS VS. COMPETING STT SOLUTIONS

Courts evaluating STT solutions must weigh cost against performance. While stenography remains the gold standard for certified transcripts, its limited availability and high cost have driven courts toward automated alternatives. However, not all STT solutions offer the same value—pricing models, accuracy rates, and integration capabilities vary widely.

Liberty Notes Plus distinguishes itself by offering direct access to Microsoft’s API. Many competitors act as intermediaries, bundling STT with proprietary platforms and charging transcription fees that far exceed their raw costs. **Liberty takes a different approach:** clients are billed directly by Microsoft for transcription usage, ensuring full transparency, long-term affordability, and eliminating unnecessary markup without any additional value.

This model results in significant cost savings. Traditional transcription services charge between \$1.50 and \$5.00 per audio minute, while cloud-based STT platforms often charge fluctuating per-minute rates. By contrast, Azure STT processes an hour of audio for approximately \$1.00. For a court transcribing 20 hours of hearings per week, a service charging \$2.50 per minute would cost around \$156,000 annually. With LNP, the same workload would cost roughly \$1,040 per year—a **dramatic reduction in operational expenses.**



Beyond cost savings, LNP’s real-time transcription eliminates the need for manual file uploads and external processing. Its seamless integration with Liberty Court Recorder and Liberty Player further streamlines workflows. “Having a timestamped, searchable document immediately available has mitigated much of the wasted effort in reviewing audio files,” Heidegger explains.

CONCLUSION

Liberty Notes Plus represents a significant advancement in courtroom transcription technology, offering real-time transcription, cost savings, and improved operational efficiency. Its successful implementation in the Northern District of Illinois Bankruptcy Court underscores the potential of STT technology to enhance judicial workflows. **"The output from Liberty Notes Plus has been a welcome addition to the post-hearing review process.** The familiar Liberty interface has made learning and use of the product easy," Heidegger states. As courts continue to modernize their transcription processes, LNP stands out as a powerful tool for increasing accessibility, reducing costs, and streamlining legal documentation.

For more information about Liberty Notes Plus and how it can enhance your courtroom's transcription workflow, contact Liberty Recording today.

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