MCP Problem Statement (Dental Transcription)
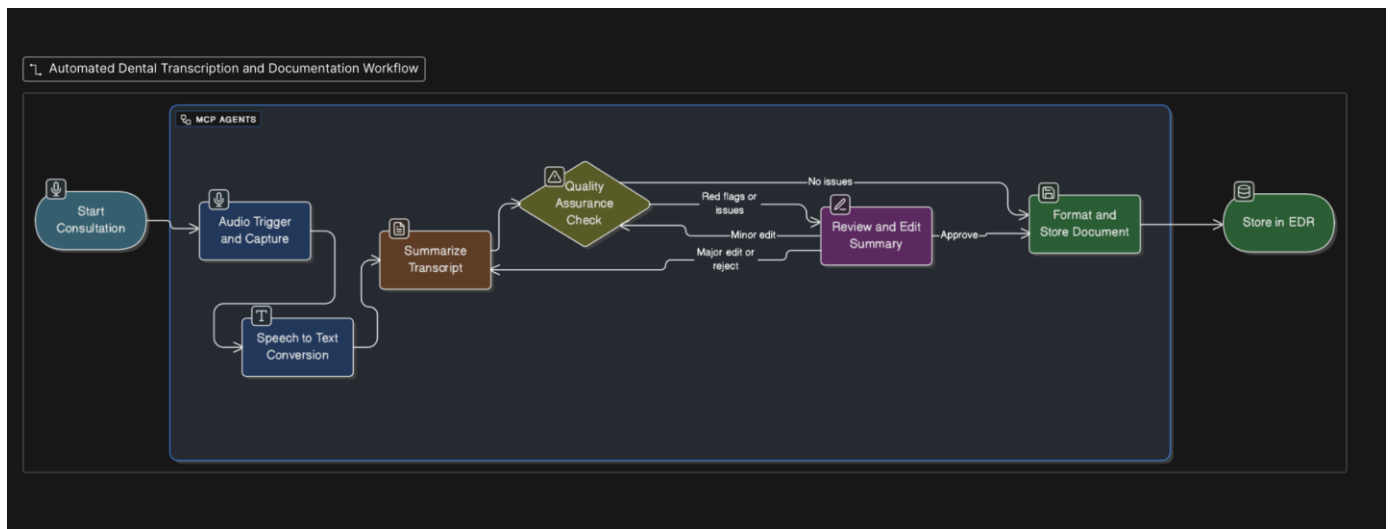
Problem:
Dental clinicians spend significant time manually documenting patient interactions, typically after each consultation. This delays records, introduces errors, and reduces clinical productivity. Manual transcription is especially inefficient in high-volume clinics and contributes to burnout and inconsistent record quality.

Proposed Solution:
Deploy an MCP-based AI transcription and summarization workflow that listens during consultations, transcribes the audio in real-time, summarizes it into structured clinical notes (e.g. SOAP), and allows for clinician review before storage in the EDR system. This will automate notetaking, improve documentation consistency, and free up time for patient care.

WORKFLOW VISUALISATION

TOOLS & SERVICES FOR MCP IMPLEMENTATION

Component	Tool/Service Options
Audio Capture	Native App Recorder (Android/iOS) - Web Mic (WebRTC) - Vapi SDK - USB/Bluetooth Mic
Transcription	Whisper (OpenAI), AssemblyAI, Vapi
Summarization	GPT-4, Claude 3, TextCortex, MedPaLM
EHR Sync	OneDrive/SharePoint connector

	- Google Cloud Healthcare API - Direct .docx/.pdf export into Electronic Medical Record drive