DIVESCALE CASE STUDY · 2026

React TypeScript Node.js

HIPAA-GRADE HEALTHCARE PLATFORM

CareMind

A multi-tenant healthcare platform unifying secure video visits, document intelligence, and clinician-approved AI notes. Built under HIPAA rules with isolated tenant data, audit logging, and consent-first recording.

HEALTHCARE / HEALTHTECH TELEHEALTH CLINICAL DOCUMENTATION HIPAA-GRADE MULTI-TENANT AI-ASSISTED

DOMAIN

Healthcare / HealthTech

THE CONTEXT

The documentation burden is a structural cost.

Clinicians spend nearly two hours on administrative charting for every hour of direct patient care. That ratio converts into late-night documentation, shortened patient encounters, and a 49% global physician burnout rate. Meanwhile, telehealth adoption accelerated without matching investment in clinical workflow integration. Organizations stitched together separate tools for video, records, and scheduling, each with its own login, data model, and compliance surface area.

Fractured Toolchains

Clinics ran video on one platform, notes in another, and scheduling in a third. Data had to be manually reconciled, increasing error rates and audit risk.

Compliance Sprawl

Each additional vendor expanded the PHI footprint. Audit trails were incomplete. Consent workflows were ad hoc and HIPAA readiness became a patchwork.

Time Drained to Admin

Physicians completed charts during evenings and weekends. The cost was not hours, attrition, medical error risk, and patient access limits.

2:1	49%	3+	100%
ADMIN-CARE RATIO	PHYSICIAN BURNOUT	AVG DISCONNECTED TOOLS	AUDIT-LOGGED PHI ACCESS

PLATFORM OVERVIEW

One architecture. Three portals. Zero data overlap.

HD Video Consultations

LiveKit-powered secure rooms. Recording starts only after patient consent. Real-time transcription streams during every session.

AI Clinical Documentation

Transcripts become draft SOAP notes and visit summaries. Clinicians review, edit, and approve before anything enters the patient record.

Document Intelligence

Labs and PDFs upload with OCR and vector indexing. The AI assistant answers questions grounded in the patient's actual chart context.

Unified Scheduling

Admins and doctors book visits; patients see upcoming appointments, consent prompts, and one-click join links from any device.

Multi-Tenant Isolation

Each organization receives a dedicated database. PHI never co-mingles. Central control plane handles auth, billing, and org registry.

HIPAA-Grade Controls

Server-side access enforcement, audit logging on every PHI read, encrypted storage, and minimum-necessary data exposure by default.

Every feature is gated by role, organization, and patient scope. No data reaches an AI model or a screen without the correct claims.

FEATURE DEEP-DIVE 01

HD Video Consultations

Secure, consent-gated telehealth visits with live transcription. Built on LiveKit with end-to-end encryption and server-side recording controls.

BEFORE

Clinics relied on consumer video tools with no audit trail. Recording happened silently or not at all. Consent was a checkbox on a PDF. Transcription was a separate, paid service with its own data agreement.

PAIN

Patients missed consent steps. Recordings were stored in unknown jurisdictions. Staff spent 15 minutes per visit reconciling video logs with EHR entries. HIPAA officers had no single source of truth.

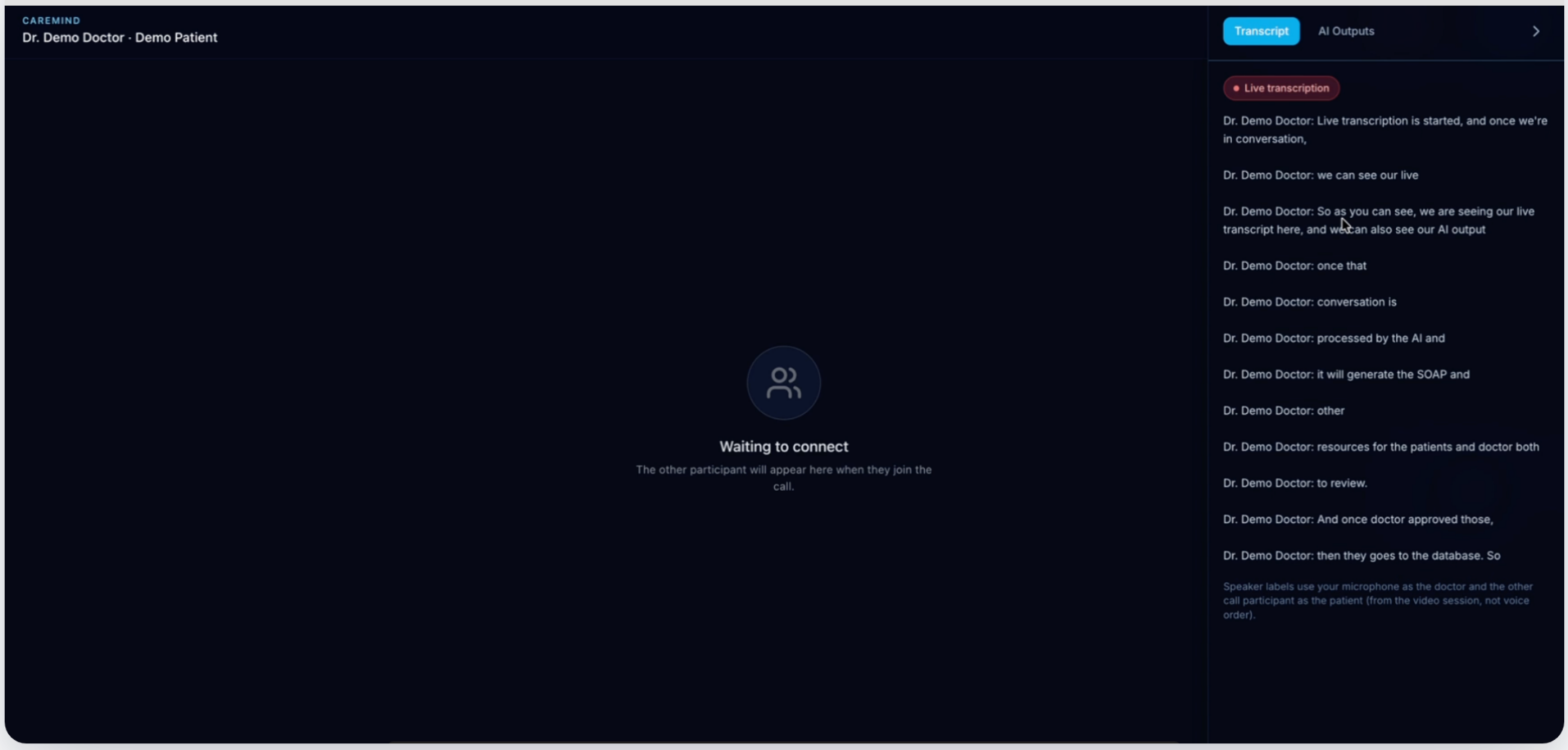
SOLUTION

A unified video room with explicit patient consent gating. Recording starts only after digital acceptance. Live transcription streams into the same session, feeding the AI documentation pipeline in real time.

OUTCOME

Every video session is logged, consented, and transcribed within a single audit chain. Clinicians review transcripts immediately after the visit. No data leaves the tenant boundary.

CareMind / Live AI Transcription



FEATURE DEEP-DIVE 02

AI Clinical Documentation

Transcripts become structured SOAP notes and visit summaries. Every output requires clinician approval before it enters the permanent record.

BEFORE

Doctors typed notes from memory after each visit. SOAP entries were inconsistent. Coding was often delayed. Summaries required re-reading the entire chart.

PAIN

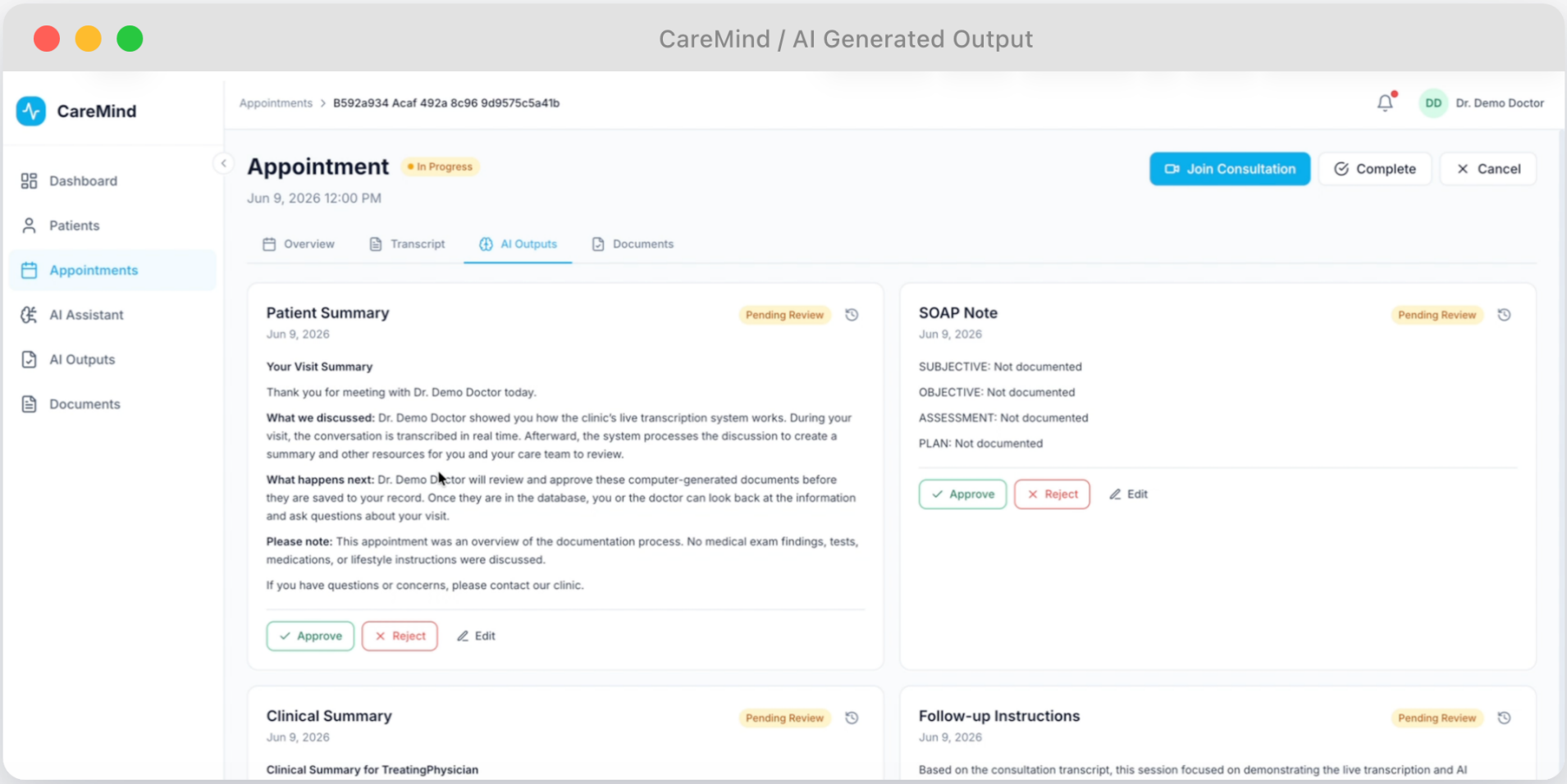
Documentation consumed evenings and weekends. Burnout rose. Patient throughput dropped because doctors could not see more without charting more.

SOLUTION

Audio from each session is streamed to live transcription. The system then generates draft SOAP notes and visit summaries. Clinicians review, edit, and approve every output before it enters the permanent record.

OUTCOME

Draft notes appear in the review queue within seconds of session end. Only approved content is indexed. Chart completion time drops from hours to minutes.



FEATURE DEEP-DIVE 03

Document Intelligence

Labs, PDFs, and scanned records upload with OCR and vector indexing. The AI assistant grounds answers in the patient's actual chart context.

BEFORE

Documents were faxed, scanned, and filed in physical or cloud folders with no link to the EHR. Retrieval meant searching filenames. AI assistants answered from generic training data.

PAIN

Clinicians could not ask "what did the last CBC show?" and get an instant answer. Document review added 8-12 minutes per patient to pre-visit prep.

SOLUTION

Uploaded documents are automatically scanned, indexed, and made searchable. The AI assistant grounds every answer in the patient's own chart before responding, citing the source document.

OUTCOME

Uploaded labs are searchable within seconds. The assistant cites sources from the patient's chart. Pre-visit prep time drops and decision quality improves.

FEATURE DEEP-DIVE 04

Unified Scheduling

One calendar system for admins, doctors, and patients. Booking, reminders, consent prompts, and join links all inside the same tenant boundary.

BEFORE

Practices managed schedules in standalone calendar apps. Patients received SMS reminders from a third-party service. Video links were pasted manually into invites.

PAIN

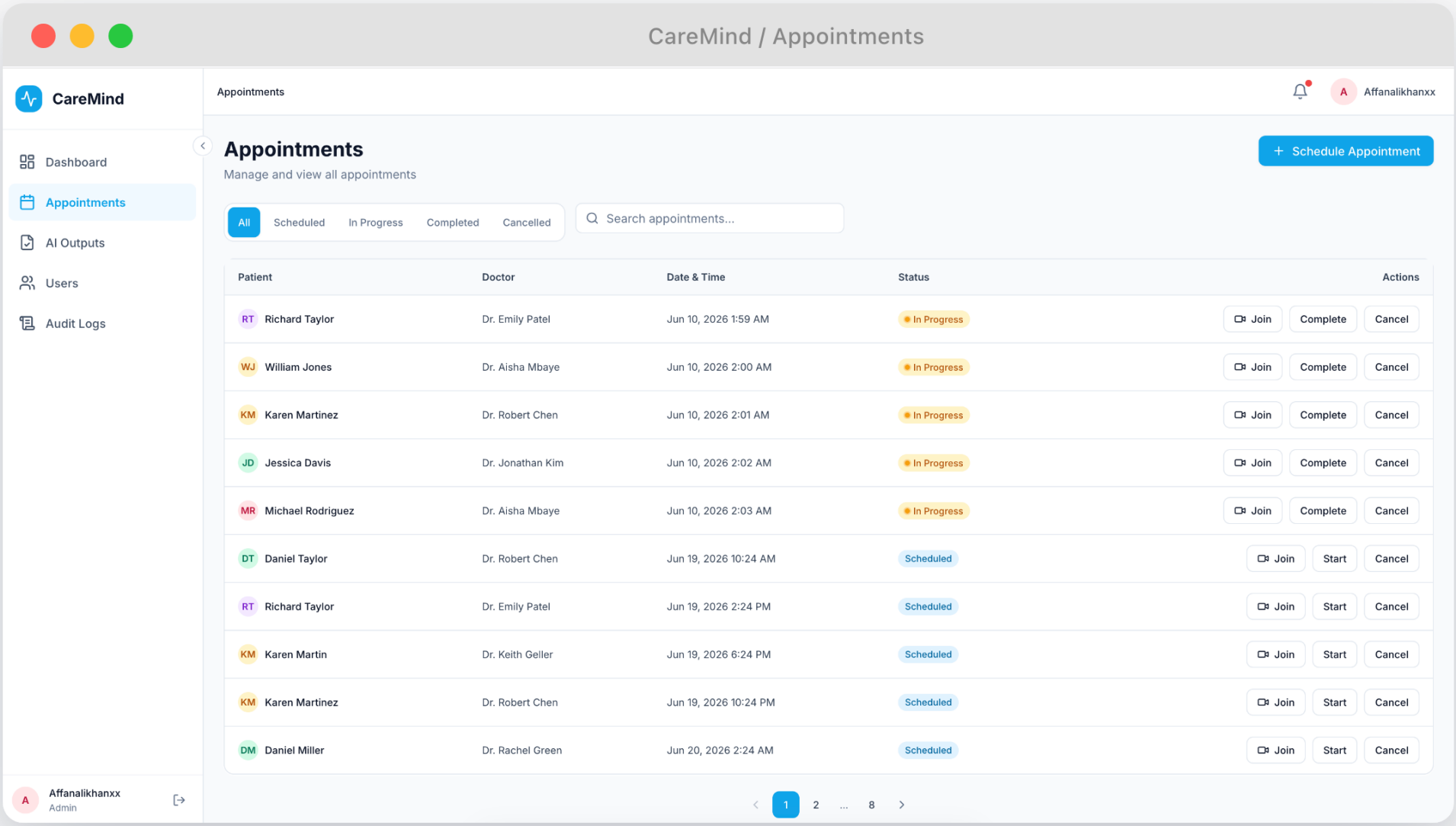
Double bookings were common. No-shows ran above 18% because reminders were generic. Staff spent 20-30 minutes per day sending links and reconciling calendars.

SOLUTION

A single scheduling layer with role-aware views for admins, doctors, and patients. Patients receive consent prompts and one-click join links. Automated reminders and background jobs keep the calendar synchronized.

OUTCOME

Schedules update in real time across all three portals. No-shows drop. Staff no longer copy-paste links. Every booking event is audit-logged.



FEATURE DEEP-DIVE 05

Security & Compliance

HIPAA-aligned from day one. PHI isolation, server-side enforcement, audit trails, and consent gates at every layer.

BEFORE

Compliance was a post-launch checklist. Access control was client-side. Logs were scattered. Data co-mingled in shared databases. Recording consent was verbal or paper-based.

PAIN

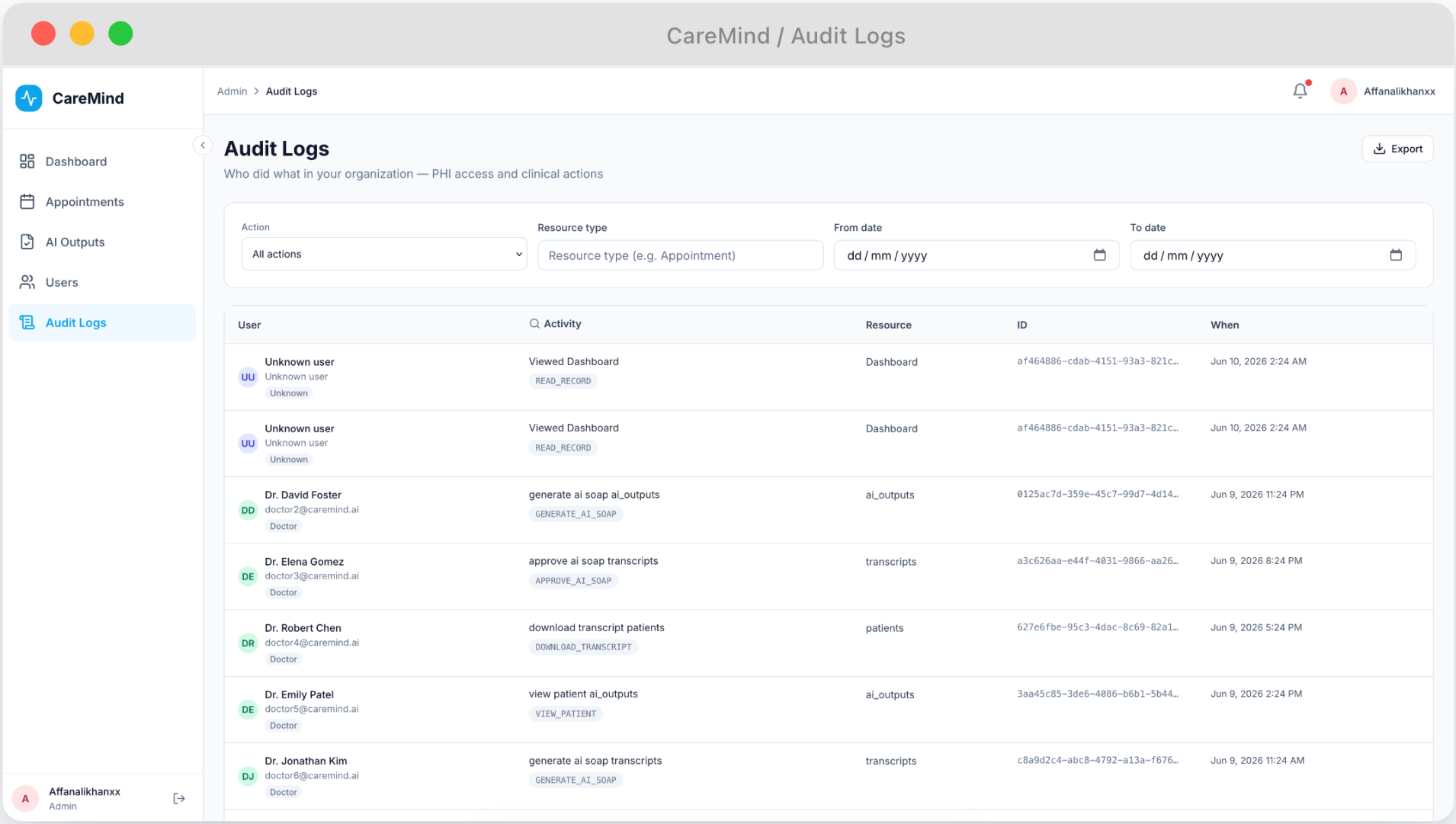
Breach risk was high. Audits took weeks to prepare. Staff could not prove who accessed what record and when. Minimum necessary was impossible to enforce.

SOLUTION

Server-side authorization on every request. Each organization operates on an isolated database with tenant-level separation. Audit middleware logs every PHI read, export, and clinical action. Consent gates block recording until digitally signed.

OUTCOME

100% of PHI access is tamper-evident. Audit reports generate in minutes. Patient data never crosses organizational boundaries. AI outputs require clinician sign-off.



VERIFIED IMPACT

What changed in measurable terms

-60%
DOCUMENTATION TIME

100%
AUDIT-LOGGED PHI ACCESS

3
ROLE-BASED PORTALS

0
DATA CO-MINGLING

Workflow	Manual / Legacy	With CareMind
Post-visit charting	1.5 - 2.0 hours per clinic day	**20 - 35 minutes (draft + review)**
Document retrieval	8 - 12 minutes per patient	**Instant vector search**
Audit trail prep	Days of log collection across tools	**One-click report export**
Consent recording	Verbal / paper; no timestamp proof	**Digital consent + session lock**
Scheduling reconciliation	20 - 30 min/day staff overhead	**Automated; zero manual linking**

Source: Time estimates derived from ambient clinical documentation literature and Divescale engineering benchmarks. Actual results vary by clinic size, specialty, and documentation standards.

ANNUAL ROI

Business value of unified clinical operations

The platform eliminates the hidden cost of fragmented tools. A single-physician clinic previously subscribed to video, transcription, scheduling, and storage services separately. CareMind replaces that stack with one tenant-isolated platform. The savings are not only subscription costs but also the hours reclaimed from administrative reconciliation and the reduced risk of compliance gaps.

Before: ~2.0 hrs admin per 1.0 hr care

After: ~0.6 hrs admin per 1.0 hr care

Reclaimed clinical hours / year
Per physician, 4-day clinic week
~380 hrs

Reduced tool spend
Video + transcript + scheduling + storage
-40%

Audit preparation time
From days to minutes
-95%

Real-world outcome summary

Reduces clinician documentation time via AI-generated SOAP notes. Improves patient access through unified telehealth. Strengthens compliance with audit trails and tenant isolation. Enables clinics to scale digital care without separate tools for video, records, and AI.

TECHNOLOGY STACK

What we built it with

React
UI Framework

TypeScript
Type Safety

Vite
Build Tool

Tailwind CSS
Styling

Zustand
State Mgmt

TanStack Query
Data Fetching

Node.js
Runtime

Express
Server

Prisma
ORM

PostgreSQL
Database

pgvector
Vector Search

Redis
Cache / PubSub

BullMQ
Job Queue

S3
Object Storage

LiveKit
Video / RTC

OpenRouter
LLM Routing

Voyage AI
Embeddings

Deepgram
Speech-to-Text

Tesseract
OCR

Puppeteer
Browser Automation

Docker
Containerization

RESULT

A consent-first, audit-ready clinical platform built under HIPAA rules from day one.

CareMind gives clinicians their time back. It gives patients secure, transparent access. And it gives clinic operators a single tenant-isolated system with a complete audit trail.

-60%	100%	3
DOCUMENTATION TIME	PHI ACCESS AUDITED	UNIFIED PORTALS

Built by Divescale