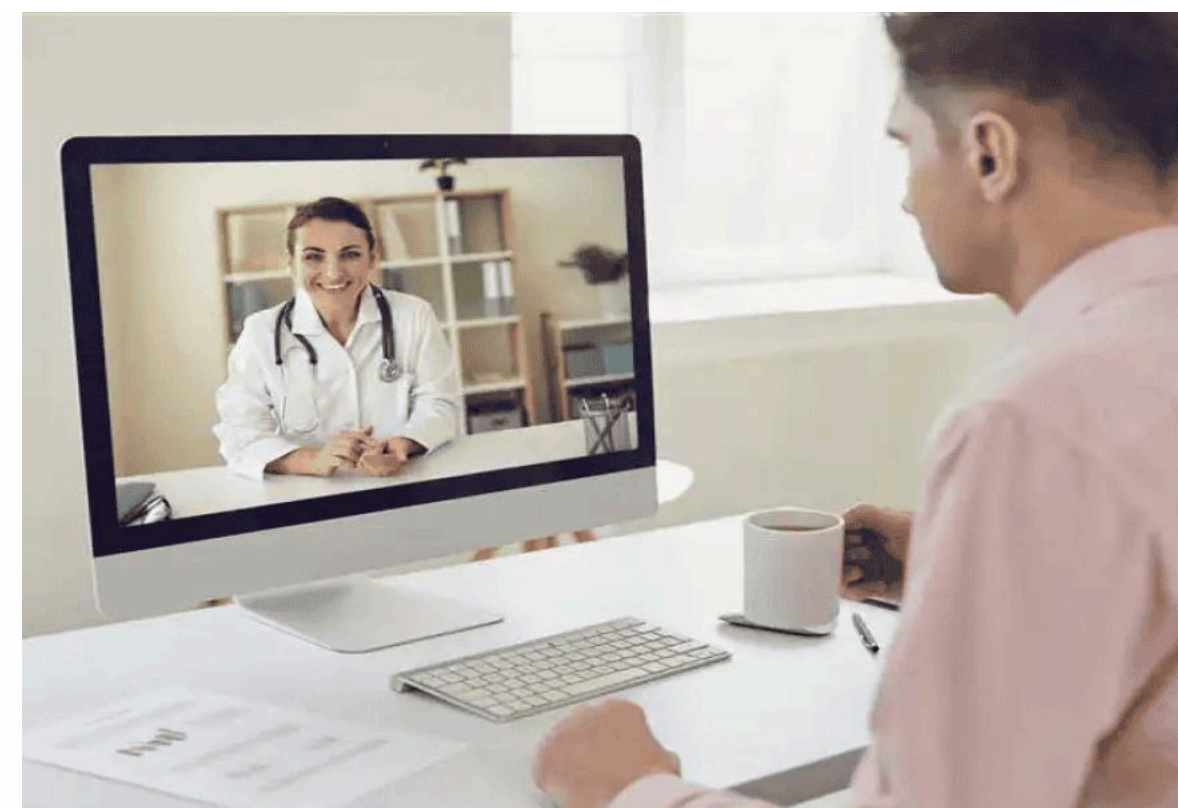


CASE STUDY

AI-Powered Telemedicine Platform for Doctor–Patient Consultations



A healthcare technology provider partnered with SpringCT to build a secure telemedicine platform enabling real-time video consultations between doctors and patients across web and mobile devices. With growing adoption and increased consultation volumes, the customer wanted to improve clinical efficiency, reduce documentation burden, and enhance patient experience by introducing Artificial Intelligence (AI) into the telemedicine workflow.

AI-Powered Telemedicine Video Collaboration -

SpringCT retained the existing WebRTC-based real-time video communication platform, ensuring secure, low-latency doctor–patient interactions. Building on this foundation, SpringCT integrated healthcare-focused AI capabilities that seamlessly assist doctors before, during, and after consultations—without altering established clinical workflows.

AI-Driven Features Added

- **AI Medical Scribe & Clinical Documentation**

During live consultations, AI automatically transcribes conversations and generates structured clinical notes, including visit summaries, symptoms discussed, and action items. This significantly reduces manual documentation effort, allowing clinicians to simply review and validate the notes instead of creating them from scratch.

- **AI Patient Triage & Intelligent Routing**

Before a consultation, patients provide symptoms via chat or voice input. AI analyzes this information to assess urgency, prioritize cases, and route patients to the appropriate specialist—improving consultation efficiency and reducing wait times.

- **AI Post-Consultation Patient Summaries & Follow-Ups**

After the consultation, AI creates patient-friendly summaries explaining the diagnosis, medications, tests, and next steps, or assists clinicians in quickly reviewing and refining the content when needed. The summaries are generated in EHR/EMR-friendly structured formats, making it easy to report data back to connected systems, while automated follow-ups and reminders improve treatment adherence and continuity of care.

Key Technical Enhancements

- **Secure WebRTC Architecture**

End-to-end encrypted audio and video with AI overlays for speech and text intelligence.

- **Healthcare-Aware AI Models**

NLP models optimized for medical terminology and structured clinical outputs.

- **Scalable Cloud Infrastructure**

Supports concurrent consultations with real-time AI processing.

- **Cross-Platform Support**

Optimized for web, mobile, and tablet-based consultations.

Results

- **Improved Doctor Productivity:** Reduced documentation effort through AI-assisted clinical notes.
- **Faster & Smarter Consultations:** Pre-consultation triage enabled better preparation and routing.
- **Enhanced Patient Experience:** Clear summaries and follow-ups improved understanding and compliance.
- **Scalable Telehealth Delivery:** AI-ready platform supports growing patient volumes and future expansion.

Conclusion

By integrating AI into its telemedicine platform, SpringCT transformed traditional video consultations into a smarter, more efficient virtual care experience. The solution empowers doctors, improves patient engagement, and provides a secure, scalable foundation for next-generation digital healthcare.