allworx

Allworx Improves System Reliability and Stability with CodeSonar

Allworx is a provider of VoIP phone systems, manufacturing their own hardware and providing all of the software for their systems. They serve over 30,000 customers across diverse industries, including professional services, retail, hospitals, government agencies, and school districts. Their VoIP systems must be reliable and robust, to serve their customers as well as their brand's promise of high-quality engineering.

When the Allworx software engineering team, responsible for all the embedded software in their phone systems, realized their debugging techniques needed to be augmented, they got an evaluation of CodeSonar and started using it on their existing codebase and on new products. It quickly began finding reliability and stability issues that the team hadn't found before.

"We've used other analysis tools in the past, and often encountered problems with those tools," said Jeffrey Smith, Director of Product Software at Allworx. "As a result, engineers are used to being skeptical of static analysis tools, being wary of spending more time trying to figure out whether the results of the tools are to be trusted or not, than on fixing the actual problems."

At first, the Allworx product engineers were skeptical of CodeSonar. But as the team dug into the results, the engineers who had been the most skeptical turned into the biggest proponents of CodeSonar.

"Our engineers may have skimmed over a problem initially, saying it wasn't a real issue, but as they began to explore the results CodeSonar reported, they realized that CodeSonar was finding real issues that they might not have thought about, or conditions they wouldn't have considered. We began to find and fix many problems that otherwise wouldn't have been found."

Allworx has now incorporated CodeSonar into the regular build progress. Every night, the engineering team builds new code with their continuous integration cycle, using not only unit testing tools, but also running CodeSonar every night to see what new issues have been introduced in their code. The team regularly uses CodeSonar on existing code as well.

"My engineers now suggest we look at CodeSonar if we're having a problem with our code," concluded Smith. "Using CodeSonar, we've been able to find and fix many issues in our system and improve the stability of our system, including memory issues, logic errors, and unreachable code. When we're having an issue, we look at the CodeSonar analysis and it gives us valuable information that allows us to get to the root of the problem."

"My team is happy using a tool they can trust, and our customers are getting a higher-quality product with more robust technology."

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> **Jeffrey Smith**
> Director of Product Software at Allworx

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