Persistent

Taking over a platform for fully managed hybrid cloud infrastructure from a leading enterprise technology company.

Designed for enterprise customers, this platform supports a wide range of applications with diverse workloads. From legacy products to modern bigdata, analytics, IoT and microservices applications — the platform offered shortest time to value, low total cost of ownership and a unique utility based pricing model. Taking over this 10-year old platform with 1.2+ million lines of code with a diverse tech stack of Java, Python, C#, JavaScript, CSS/HTML, SQL and XML was a challenge. The client's 20-person team had system mastery over only 8% of the codebase, with remaining code having been contributed by nearly 360+ ex-developers over the history of the product.

The automatic code review within the ExtenSURE framework identified **8.2%** of the codebase as hotspots and **7** key architectural components that had significantly increased in cyclomatic and cognitive complexity over the previous 4 years — resulting in decline of the overall code health score of the product to 2/10. It also identified critical dependencies within the team and laid out the plan for systematic knowledge transition and knowledge management interventions for improving the codebase mastery within the team.

Owing to the analysis and subsequent interventions, the platform's technical debt was reduced by nearly **70%** over the next 3 quarters with feature development going hand-in-hand with fixes to improve maintainability, reliability, stability, and security of the codebase. This resulted in improvement in product CSAT and reduction in sustenance costs by nearly **37%** over the next 3 – 4 quarters.

About Persistent

Persistent Systems (BSE & NSE: PERSISTENT) builds software that drives our customers' business; enterprises and software product companies with software at the core of their digital transformation.

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