



SOFTWARE DEVELOPMENT SURETY

It's challenging to identify hidden risks and deployment impacts from within a software development team. In spite of "client-focused" mandates, many coders have limited exposure to actual customers, which can reduce or eliminate empathy with individual needs, and even the mission itself.

Why is it so difficult to predict problems in software development?

Software development—with its variety of components, systems, and levels—is risky. The demand within agencies and from citizen customers for services has dramatically increased, while resources have not—and time-to-satisfaction requirements are often measured in seconds.

Unlike the typical software workflow, agency decisions and actions are not linear, making it even more difficult to identify hidden risks and deployment impacts from within the software development team.

We think there's a better way—an approach based on proven methodologies that can surface the risks and adverse impacts that traditional risk management programs cannot.

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TRADITIONAL RISK MANAGEMENT DOESN'T WORK

Traditional risk management strategies generally focus on requirements, technology issues, schedule, and budget. Most large projects employ only two FTEs to develop and deploy a comprehensive risk management program, and typical risk management plans result in a casual review during project meetings. Often these check-ins become simply a review of the existing list of risks at the start of the project. Despite the improvements introduced with the Agile and DevOps methodologies, risk management still takes a back seat to budget and schedule. This can result in hidden flaws—frequently related to workflow—that propagate through the software and are not identified until post-production.

Most importantly, observational and report-based risk management does not reveal the more subtle risks inherent in the behavior of high-tech teams, who are commonly subject to a set of behavioral habits that can unwittingly introduce risks with significant impacts.

OUR APPROACH IS GROUNDED IN PROVEN METHODOLOGIES

Organizations and teams subjected to a consistent level of complex technical tasks intended to improve critical outcomes require specialized risk management programs to sustain reliability.

9th Way Solutions' Software Development Surety approach can surface the risks and adverse impacts that traditional risk management programs cannot. Our approach—which has been proven on commercial software development teams—integrates high-performance team behavior management with high reliability organization strategies that are typical of complex organizations.

Complementing human-centered design principles, our approach combines High Reliability Organization (HRO) theory with proven behavioral management tools. We transform the software development organization by:

- Identifying—and anticipating—risks specific to an organization and defining repeatable risk management processes designed to mitigate those risks. We make no initial assumptions and resist unproductive simplification.
- Continuously assessing and refining the risk identification and mitigation processes. We focus on managing individual and team dynamics beyond technical skills to move from mitigation to containment and correction.
- Identifying subtle trends or isolated incidents that result in failure. We go beyond passive risk management to predictive risk reduction—or even elimination.

We create high-reliability teams who are "present" in the decision-making and remain resilient.



OUR PILOT IS DESIGNED TO BUILD TOWARDS A SOFTWARE DEVELOPMENT SURETY PROGRAM

9th Way Solutions has developed a pilot Software Development Surety Program that takes a hypothesis-driven approach to developing a plan tailored to a specific organization, based on the organization’s successes and failures in previous activities. At a high level, our approach entails:

- Introductory training and goal setting. We assess team dynamics, current risk management processes, and risk realization, and define post-deployment success.
- Behavioral evaluation, cultural assessment, and process/technology gap analysis. We conduct a team behavioral diagnostic and reliability assessment and hypothesize the ideal high-reliability team.
- Tailored behavioral identification and mitigation activities. We identify negative and positive team momentum and process deviation.
- Expert-level change management. Our experienced consultants deliver a tailored HRO Transition and Implementation Plan and an HRO Sustainment Plan.

OUR APPROACH IMPROVES SOFTWARE OUTCOMES

In the commercial world, HRO theory and behavioral management techniques have led to near-zero failure in multiple technical environments—success that can be mirrored in Government programs. Our Software Development Surety approach will create high-reliability teams who are “present” in decision-making, remain resilient, and can sustain quality throughout complex software development projects.

ABOUT 9TH WAY SOLUTIONS

9th Way Solutions is an emerging Service-Disabled, Veteran-Owned Small Business (SDVOSB) committed to working with our clients to provide next-generation, results-oriented technology—on time and under budget—in health IT, infrastructure design and build, cybersecurity, cloud solutions, and data analytics. Where most large companies claim to operate with a “small business mindset” as it relates to maneuverability, 9th Way Solutions is a new company that can draw on the wisdom of its core team of thought leaders to operate immediately on a large scale. We are committed to working with our clients to provide next-generation, results-oriented technology powered by creative people with the talent to always see the better path.

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