

IT Modernization

Systems don't get better with time. Aging technology and the threats they present are the #1 issue that keeps technology leaders up at night.

SD Solutions, LLC is a CMMI DEV Level 3, SVC Level 3, ISO 9001, and ISO 27001 certified organization delivering Cybersecurity & Information Assurance, IT Modernization, and Strategy & Governance consulting services.

sdsolutionsllc.com

Winner of the U.S. Department of the Treasury Small Business Prime Contractor of the Year Award



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CMMI DEV 3
CMMI SVC 3
ISO 9001
ISO 27001

OASIS Pool 1 SB
CIO-SP3
GSA MAS, STARS III
HUBZone
SBA 8(a)
eFAST



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Overcome obstacles for success

Federal CIOs and legacy system owners face three major obstacles



High costs and risks



Changing business demands



Culture and resistance to change

SD Solutions partners with CIOs to assess, plan, and implement unique modernization strategies to:



Reduce operating costs and risks



Provide a flexible, scalable approach that allows for future alignment with business needs



Address gaps in an organization's people, processes, and technology

Leveraging Proven Models for IT Modernization

SD Solutions T-Model frameworks modernize technology by changing both culture and technology at an organization.



T-1
TRANSFORMATION
MODEL

T-1 Transformation Model - facilitates process and cultural change



T-2
TRANSLITERATION
MODEL

T-2 Transliteration Model - accelerates legacy IT modernization with artificial intelligence that delivers modern code with guaranteed functionality and maintainability

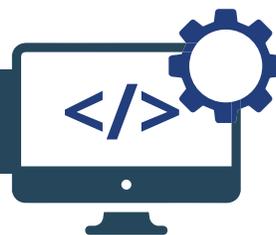
T-1 Transformation Model – Modernizing culture

Our T-1 Transformation Model can be tailored to fit any organization's vision, mission, goals, and objectives to help resolve obstructions. Regardless of the size or structure of an organization, the T-1 Model can be applied with great success.

The T-1 Model uses five primary features:

- 1 **Discovery & Assessment** – Needs assessment to help leadership teams understand gaps and obstacles
- 2 **Recommendations** – Target requirements, remediations, and recommendations
- 3 **Transformation** – Education, standards, and procedures defined
- 4 **Execution** – Coaching, training, pilot, refinement, and adoption
- 5 **Scale** – Establish a center of excellence and move toward maturity

A shift in culture is necessary to achieve an adoption of new processes. The SD Solutions T-1 Model can be the catalyst for change in your organization.



T-2 Transliteration Model – Modernizing technology

T-2 Transliteration converts legacy code to modern code that is validated, functional, and easy to maintain. A proprietary rule-based transformation engine is used to convert legacy code to modern code, including all major modern languages, databases, and architectures. Artificial intelligence is used to validate the transformation results and produce code-level documentation. The final step is functionality testing and debugging prior to complete crossover and deployment to the enterprise.

The T-2 Model involves:



Direct one-for-one translation of legacy code to modern code languages



Conversion and validation using artificial intelligence tools



Functionality testing and debugging prior to complete crossover

“More is lost by indecision than wrong decision. Indecision is the thief of opportunity. It will steal you blind.” *Marcus Tullius Cicero*

Your old legacy systems are costing your organization money and opportunity. The time for change is now.

Modernizing applications to meet Congressional tax reform deadlines

The Internal Revenue Service (IRS) Information Technology (IT) department was under tremendous pressure to quickly implement tax code reforms passed by U.S. Congress in 2018. 140+ million taxpayers use the 70-year-old 1040 system and the underlying infrastructure to file taxes. The recent tax code changes impact hundreds of systems used to file, track, and generate the tax revenue which supports our country's entire financial platform.

The tax reform legislation dropped a massive challenge at the feet of the IRS Director of Application Modernization. With a small budget and a large mountain to climb, the Director needed to locate programmers with legacy knowledge and the skill set needed to understand:

- The old code used to build the legacy applications
- Complex IRS processes and procedures
- How to modernize the applications with an approach that works within IRS technical environments



SD Solutions implemented a plan to modernize specific applications touching the Affordable Care Act and other mission-critical programs. Our staff performed the application development to convert the legacy mainframe and assembler code in to modern code along with changes required by the 2018 tax reform.

With the help of complex business processes and applications running behind the scenes, legacy tax processing systems have now been converted to modern coding and stable platforms. As a result, IRS was able to meet Congressional deadlines and keep the American financial infrastructure on solid ground.

Form 1040 Department of the Treasury—Internal Revenue Service
Simplified U.S. Individual Income Tax Return 2018 OMB No. 1545-0074

Married filing separate return Qualifying widow(er) Head of household

Your first name and initial Last name Your social security number

Standard deduction: Someone can claim you as a dependent You were born before January 2, 1954 You are blind

Spouse or qualifying person's first name and initial (see inst.) Last name Spouse's social security number

Standard deduction: Someone can claim your spouse as a dependent You were born before January 2, 1954 Your spouse is blind Your spouse was born before January 2, 1954 Your spouse files on a separate return or you were dual-status alien

Home address (number and street). If you have a P.O. box, see instructions. Apt. no. Presidential Election Campaign if you want \$3 to go to this fund (see inst.) You Spouse

City, town or post office, state, and ZIP code. If you have a foreign address, attach Schedule 6. Full-year health care coverage (see instructions)

Dependents (see instructions):		(2) Social security number	(3) Relationship	(4) <input checked="" type="checkbox"/> if qualifies for (see inst.):
(1) First name	Last name			Child tax credit
				<input type="checkbox"/>
				<input type="checkbox"/>

Sign Here Under penalties of perjury, I declare that I have examined this return and accompanying schedules and statements, and to the best of my knowledge and belief, they are true, correct, and accurately reflect all amounts and sources of income I received during the tax year. Declaration of preparer (other than taxpayer) is based on all information provided to the preparer and the preparer has any knowledge that the return contains an Identity Protection PIN.

Your signature Date Your occupation

Joint return? See instructions

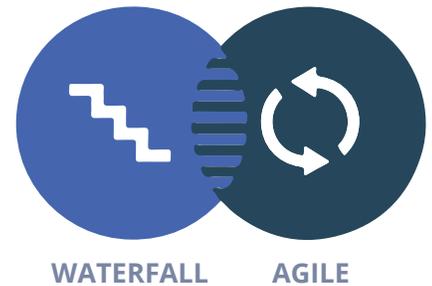
Helping DOT transition from traditional waterfall to agile procurement

The Department of Transportation (DOT) Federal Highway Administration (FHWA) manages information technology requirements and contracting for all DOT components. FHWA wanted to transition from the traditional waterfall development methodology to a more modern agile approach for their contracting and procurement processes.

SD Solutions evaluated existing systems and interviewed stakeholders regarding the use of tools, processes, and procedures. Using our T-1 Model framework, we assessed the maturity of various parameters against organizational goals and Industry standards and best practices. Next, we conducted a gap analysis and designed a roadmap that led the organization to the next maturity level.

Based on SD Solutions' analysis, FHWA realized they could benefit by adjusting their contracting practices to support agile development. The agency's primary requirement was to design contracts that support change of scope during the performance of the contract to enable an iterative approach. We developed a white paper based on case studies from various agencies and helped FHWA develop a Performance Work Statement structure that supports agile development.

The result is an acquisition life cycle that supports modular contracting and allows for Firm Fixed Price (FFP), Time and Material (T&M), and Labor Hours (LH) contracts based on either the waterfall or agile approaches. The new structure also allows development teams to be flexible and use different procurement methods for modifications, significantly reducing the total cost of procurement. Other benefits include:



Efficient and transparent business and IT processes



Synchronized development and operational support activities



Improved collaboration and information sharing



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Modernizing governance to help IRS implement technology faster, better, and cheaper

IRS IT deals with the constant challenge of technical currency and a backlog of multiple legacy technologies. As the Agency continues to evolve and offer innovative tax services, they face huge modernization obstacles.

SD Solutions provides modernized governance techniques and support staff to help the Director of Enterprise Technology Implementation efficiently manage a very vast project portfolio. With the help of SD Solutions' seasoned governance professionals and our T-1 Model methods, IRS is now able to manage their project portfolio with faster, more effective results at reduced costs:



Faster:

IRS shortened IT deployment and implementation timelines by 20%



Better:

IRS documented procedures, put together scalable and flexible governance structures, and established repeatable processes



Cheaper:

By identifying redundancies in the governance process, ETI reduced their overall costs by approximately 15%

We built a governance structure based on industry standards like PMI, ITIL, ISO and CMMI with the help of governance specialists, enterprise architects, portfolio managers, process engineers, and tools specialists. Ultimately, our team aligned these new standards with the Enterprise Life Cycle for optimized performance and outcomes.

Contact us today for a free demo of our T-2 Model transliteration tool or our T-1 Model whitepaper



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