



# **NISTCSF Enterprise**

**NIST Cybersecurity Framework Enterprise Training Solutions**

**By**

**David Nichols & Rick Lemieux**

**December 2018**

### ***Copyright and Trademark Notice***

Copyright © 2018 itSM Publishing. itSM Solutions® is a Registered Trademark of itSM Solutions LLC. ITIL® is a Registered Trademark, and a Registered Community Trademark of the Axelos, and is registered in the U.S. Patent and Trademark Office and is used here by itSM Solutions LLC under license from and with the permission of Axelos (Trademark License No. 0002). Other product names mentioned in this guide may be trademarks or registered trademarks of their respective companies.

### ***Notice of Rights / Restricted Rights Legend***

All rights reserved. No title or ownership of this document, any portion thereof, or its contents is transferred. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without the prior written permission of itSM Solutions LLC. Reproduction prohibitions do not apply to this document when reproduced for non-commercial use, or to excerpts or quotes for use in reviews or attributed quotes in other works of any type as allowed for in copyright law. For additional information, please contact:

itSM Solutions LLC  
742 Mink Ave #135  
Murrells Inlet  
South Carolina, 29576  
401-480-5872  
Web <http://www.itSMSolutions.com>

### ***Notice of Liability***

This guide is distributed "As Is," without warranty of any kind, either express or implied, respecting the content of this guide, including but not limited to implied warranties for the guide's quality, performance, merchantability, or fitness for any particular purpose. Neither the authors, nor itSM Solutions LLC, its dealers or distributors shall be liable with respect to any liability, loss or damage caused or alleged to have been caused directly or indirectly by the contents of this whitepaper.

### *NISTCSF Enterprise*

Three things are certain in today's business world: first, **digital services** are now at the center of all businesses; second, business is a moving target and third businesses are under attack from those trying to steal the critical information companies rely on for daily business operations and revenue generation.

The demand for a proactive, collaborative and balanced approach for managing, securing and improving digital services across stakeholders, supply chains, functions, markets, and geographies has never been greater.

To support this new digital service business model, enterprises must train its IT workforce with the best practice knowledge, skills and capabilities to stabilize, optimize, secure and improve an enterprise digital service portfolio.

### *NISTCSF Frameworks & Methodologies*

Today, due to the ever-changing threat landscape created by Mobile Computing, Cloud, the Internet of Things (IoT) and a very sophisticated network of threat actors (i.e., the bad guys) enterprises need to need to operationalize the IT/NIST best practice controls and management systems necessary to identify, protect, detect, respond and recover from cyber-attacks on its daily business operations. Frameworks and Methods include:

**NIST Cyber Security Framework** provides guidance and training's on how enterprises can proactively manage and improve its cybersecurity risk by operationalizing the controls (Center for Internet Security) and management systems (ISO 27001, NIST 800-53 etc.) outlined in the framework.

**NICE Cybersecurity Workforce Framework** provides guidance and training's on how enterprises can proactively manage and improve its IT and Cybersecurity workforce by following the guidance outlined in the framework.

**RESILIA™ Cyber Resilience Framework** provides guidance and training's on how digital enterprises can proactively manage and improve a cyber service portfolio in terms of business resiliency and recovery.

**ITIL® Service Management Framework** provides guidance and training's on how digital enterprises can proactively manage and improve a cyber service portfolio in terms of agility, development, operations, cost, quality and compliance.

**COBIT Governance Framework** provides guidance and training's on how digital enterprises can proactively manage and improve a cyber service portfolio in terms of risk policies and controls.

**ISO/IEC 20000 Service Management Framework** provides guidance and training's for service provider to plan, establish, implement, operate, monitor, review, maintain and improve a Service Management System (SMS). The requirements include the design, transition, delivery and improvement of services to fulfill agreed service requirements.

**Digital Enterprise Readiness Framework** provides guidance and training's on how digital enterprises can manage and improve a cyber

business in terms of operational sustainability, organizational agility, strategic agility, and operating within a disruptive culture.

**Cloud Security Alliance Framework** provides guidance on how digital enterprises can adopt the cloud paradigm safely and securely.

**DEVSECOPS Framework** provides guidance and trainings on how to automate the processes between software development and IT teams, in order that they can build, test, and release secure software faster and more reliably.

**FAIR Value at Risk (VaR) Framework** provides guidance and trainings on a best practice approach to measure, manage and report on information risk from the business perspective.

**Software & Application Testing Methodology** provides guidance and training's on how digital enterprises can make software systems and applications safer regardless of their operating environment (web, IoT, Cloud)

**PMI PMBOK Framework & PRINCE 2® Project Management** provide guidance and training's on how digital enterprises can improve the success of its cyber service projects by using knowledge and techniques that result in desired business outcomes.

***NISTCSF Enterprise Training Catalog***

NISTCSF training programs are designed to help enterprises acquire the knowledge, skills and abilities to operationalize, maintain and improve IT & NIST cybersecurity best practice controls and management systems across an enterprise and its supply chain. Training programs are listed below:

NISTCSF Enterprise Digital Service Management Training				NISTCSF Enterprise IT & Development Training			NISTCSF Business Skills Training	
IT Service Management	IT Project Management	Cybersecurity Management	IT Cloud Management	Software Programming	IT Networking	Information Security	Microsoft Office Skills	General Business Skills
27 Courses	17 Courses	15 Courses	11 Courses	24 Courses	45 Courses	30 Courses	68 Courses	31 Courses
ITIL V3 ITIL V4 RESILIA COBIT <b>ISO20000</b> <b>DEVOPS</b> <b>DIGITAL READINESS</b> <b>AGILEshift</b> <b>SAFE</b>	PMI PRINCE2 AGILE SCRUM	NIST CSF NIST 800-171 COBIT <b>ISO27001</b> <b>FAIR VaR</b> <b>DEVSECOPS</b>	AZURE AWS COMPTIA SHAREPOINT <b>SQL SERVER</b> <b>CLOUD SECURITY</b>	C+ C++ JAVA PYTHON RUBY ANGULAR 5 ASP.NET <b>HADOOP</b> <b>PERL</b> <b>SQL 2014</b> <b>RESTFUL</b> <b>SELENIUM</b> <b>BOOT STRAP</b> <b>SECURE CODING</b>	Microsoft Cisco COMPTIA VMware	ISC2 ISACA COMPTIA MILE2 <b>IoT</b>	O365 END USER O365 ADMIN O365 SHAREPOINT O365 WEB APPS WORD EXCEL POWERPOINT OUTLOOK ACCESS PROJECT LYNX DATA ANALYSIS	HR LEGAL ACCOUNTING CYBERSECURITY SOCIAL MEDIA COMMUNICATIONS COMPUTERS INTERNET SHAREPOINT PROJECT MGMT.

Note: Items in **RED** are in the planning or development stage

***NISTCSF.COM – IT & NIST Cybersecurity Workforce Development Consortium***

**itSM Solutions NISTCSF.COM is a global consortium of academic, government and industry thought leaders** working together to create IT and NIST cybersecurity training programs that teach organizations “how to” operationalize, maintain and improve the controls and management systems outlined in the best practice frameworks and methods created by the National Institute of Standards & Technologies (NIST) and other internationally recognized institutes and standards organizations.

The consortium’s goal is to provide academia and enterprises with an affordable and scalable way to train, skill and certify today’s cybersecurity workforce.

***NISTCSF - Enterprise Training Program***

Listed below is a five-phase approach to teaching the knowledge, skills and capabilities to operationalize the NISTCSF across an enterprise and its supply chain,

***Phase 1 – Executive Team Training***

Organization Role	Objective	Training Programs
CEO, CFO, CIO, CISO CRO, CCO, PMO Director, SMO Director, Governance Director	To help the executive team understand the benefits associated with operationalizing a NISTCSF program	Executive Overview Executive Simulations Digital Readiness Training

NISTCSF executive training and simulation services are designed to help the executive team to:

- **Understand** the benefits of adopting an Dx program
- **Understand** the value of Digital Readiness
- **Secure** funding for the Dx program
- **Select** a leadership team to drive the Dx program

***Phase 2 – Program Leadership Team Training***

Organization Role	Objective	Training Programs
Practice Owners, Service Owners, Change Mgrs. Operation Mgrs. CSI Mgrs. Business Analysts	To help the leadership team acquire the knowledge and skills to develop an actionable NISTCSF plan	Assessment Training NCSF Assessment Training Digital Readiness Training Planning to Change Workshop Internet of Things Training ITIL® Training RESILIA Training Prince 2 Training NIST Cybersecurity Training Simulations

NISTCSF leadership training and simulation services are designed to help the leadership team acquire a systemic structure for thinking and planning and the skills to:

- **Become** thought leaders for the Dx program
- **Understand** the value of Digital Readiness
- **Perform the Assessment** to identify and document DX GAPS
- **Organize and Condition** the enterprise for Dx

***Phase 3 – Enterprise Awareness & Readiness Training***

Organization Role	Objective	Training Program
All IT staff, senior leadership, stakeholders and supply chain partners	To help condition the enterprise for NISTCSF change through a series of online awareness and simulation trainings	Awareness Simulations Digital Readiness Training



NISTCSF enterprise training and simulation services enable the enterprise business stakeholders and supply chain partners to:

- **Understand** the Dx program and its value to the organization in terms of improving the quality, risk and security of an enterprise digital service portfolio
- **Understand** the value of Digital Readiness

***Phase 4 – Practitioner Training***

Organization Role	Objective	Training Programs
1st Line Mgrs. Practice & Service Owners Architects & Strategists Operation & System, Analysts Business & Quality Analysts Program & Project Managers Operation & Change Mgrs. Service Level & CSI Mgrs. Tool Administrators	To provide the NISTCSF practitioners the knowledge and skills to plan, design, implement, operate and improve a NISTCSF program.	NIST Cybersecurity Framework Training NIST Cybersecurity Employee Training NICE Cybersecurity Workforce Trainings Internet of Things Training ITIL Trainings RESILIA Trainings Prince 2 Trainings ISO 27001 Training Cobit Training Simulation Trainings

NISTCSF information technology training and simulation services will enable the IT organization to acquire the knowledge and skills to:

- **Plan, Design, Implement, Operate and Improve** a Dx program

***Phase 5 – HR Policy & Procedure Training***

Organization Role	Objective	Activities
HR Manager	To establish HR policies and procedures for training new employees and a career pathway for existing employees practicing NISTCSF	Setup both eLearning and role-based Blended Learning NISTCSF best practice training solutions for new and existing employees

NISTCSF HR trainings help HR departments to:

- **Establish** policies and procedures for training new employees

- **Identify** career pathways for existing DX practitioners.

### *Summary*

Three things are certain: first, digital services are now at the center of most businesses; second, business is a moving target, third organizations are under attack from those trying to steal the information companies rely on for daily business operations and revenue.

The itSM Solutions NISTCSF enterprise training programs enable organizations to create a workforce capable of operationalizing , maintaining and improving the NIST cybersecurity best practice controls and management systems necessary to identify, protect, detect, respond and recover from attacks on its daily business operations.

### *About itSM Solutions LLC*

itSM Solutions LLC is an accredited content publishing company specializing in the creation of assessment, certification and skills training content for Information Technology (IT) and NIST Cybersecurity professionals. itSM's training solutions have been adopted by the who's who of industry including HPE, Microsoft, Disney, Cisco, IRS, Navy, Lowes, Staples, Genzyme, Boeing, Intel, Molina Healthcare and many others.

itSM Solutions is also the founder of NISTCSF.COM a global consortium of academic, government and industry thought leaders working together to create cybersecurity training programs that help organizations operationalize, maintain and improve the frameworks and methods created by the National Institute of Standards & Technologies (NIST), the National Institute of Cybersecurity Education (NICE) and other internationally recognized institutes and standards organizations. The consortium's goal is to provide academia and enterprises with an affordable and scalable way to train, skill and certify today's cybersecurity workforce.

### *About the Authors*

**David Nichols** is the President and CEO of itSM Solutions LLC, an ITSM consulting and training company. He has over 40 years experience in Information Technology. As an early adopter of the IT Service Management processes as described in the IT Infrastructure Library (ITIL), he has utilized his hardware and software engineering background as a foundation for implementing sweeping changes in how IT Services are delivered at several fortune 100 companies in the US. Working closely with the executive management teams, David has helped the strategic goals of the IT organization with those of the company and develop a more effective IT Strategy. Strategies that are customer focused, process-oriented and cost/performance optimized, and help business and IT organization establish the value of IT Services. David holds ITSM Service Manager certification.

**Rick Lemieux** is a managing partner and the Vice President of Business Development. He is responsible for overseeing the company's Sales, Marketing & Business Development programs. Rick has been involved in selling IT solutions for the past 30 years. Prior to itSM, Rick, an early proponent of ITSM and ITIL, led the Sales and Business Development teams at software companies focused on automating the best practices guidance outlined in ITIL. Rick holds a Foundation Certificate in IT Service Management and was recently identified as one of the top 5 IT Entrepreneurs in the State of Rhode Island by the TECH 10 awards.