



# **NIST/NICE Cybersecurity**

**IT & Cybersecurity Workforce Training Solutions**

**By**

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### ***NIST/NICE Cybersecurity Enterprise Training Solutions***

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.

### ***NIST/NICE Cybersecurity Best Practice 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 operationalize the NIST/NICE Cybersecurity best practice frameworks and methodologies that enable it to identify, protect, detect, respond and recover from cyber-attacks.** NIST/NICE best practice programs 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.

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### *NIST/NICE Cybersecurity Enterprise Training Catalog*

NIST/NICE training and mentoring programs are designed to teach enterprises the knowledge, skills and abilities to operationalize the NIST/NICE frameworks and methods necessary to identify, protect, detect, respond and recover from cyber-attacks. Training programs include:

| NIST/NICE Service & Project Management Training   |                                  |  |   | NIST/NICE IT & Programming Training   |   |  | NIST/NICE 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<br>ITIL V4<br>RESILIA<br>COBIT<br>ISO20000<br>DEVOPS<br>DIGITAL READINESS<br>AGILEshift<br>SAFe | PMI<br>PRINCE2<br>AGILE<br>SCRUM | NIST CSF<br>NIST 800-171<br>COBIT<br>ISO27001<br>FAIR VaR<br>DEVSECOPS | AZURE<br>AWS<br>COMPTIA<br>SHAREPOINT<br>SQL SERVER<br>CLOUD SECURITY | C+<br>C++<br>JAVA<br>PYTHON<br>RUBY<br>ANGULAR 5<br>ASP.NET<br>HADOOP<br>PERL<br>SQL 2014<br>RESTFUL<br>SELENIUM<br>BOOT STRAP<br>SECURE CODING | Microsoft<br>Cisco<br>COMPTIA<br>VMware | ISC2<br>ISACA<br>COMPTIA<br>MILE2<br>IoT | O365 END USER<br>O365 ADMIN<br>O365 SHAREPOINT<br>O365 WEB APPS<br>WORD<br>EXCEL<br>POWERPOINT<br>OUTLOOK<br>ACCESS<br>PROJECT<br>LYNX<br>DATA ANALYSIS | HR<br>LEGAL<br>ACCOUNTING<br>CYBERSECURITY<br>SOCIAL MEDIA<br>COMMUNICATIONS<br>COMPUTERS<br>INTERNET<br>SHAREPOINT<br>PROJECT MGMT. |

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

### *NISTCSF.COM – NIST/NICE Cybersecurity Training Consortium*

itSM Solutions NISTCSF.COM is a global consortium of academic, government and industry thought leaders working together to create NIST/NICE cybersecurity training programs that teach organizations “how to” operationalize, maintain and improve the NIST/NICE frameworks and methodologies 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 IT and cybersecurity workforce.

### ***NIST/NICE Enterprise Training Program***

Listed below is a five-phase approach to teaching the knowledge, skills and abilities to operationalize the NIST/NICE best practices 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 NIST/NICE program | Executive Overview<br>Executive Simulations<br>Digital Readiness Training |

**NIST/NICE** executive training and simulation services are designed to help the executive team to:

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

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

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

NIST/NICE 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 NIST CSF program
- **Understand** the value of Digital Readiness
- **Perform the Assessment** to identify and document NIST CSF GAPS
- **Organize and Condition** the enterprise for NIST CSF

### *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 NIST/NICE change through a series of online awareness and simulation trainings | Awareness<br>Simulations<br>Digital Readiness Training |

NIST/NICE enterprise training and simulation services enable the enterprise business stakeholders and supply chain partners to:



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- **Understand** the NIST CSF 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.<br>Practice & Service Owners<br>Architects & Strategists<br>Operation & System, Analysts<br>Business & Quality Analysts<br>Program & Project Managers<br>Operation & Change Mgrs.<br>Service Level & CSI Mgrs.<br>Tool Administrators | To provide the NIST/NICE practitioners the knowledge and skills to plan, design, implement, operate and improve a NIST/NICE program. | NIST Cybersecurity Framework Training<br>NIST Cybersecurity Employee Training<br>NICE Cybersecurity Workforce Trainings<br>Internet of Things Training<br>ITIL Trainings<br>RESILIA Trainings<br>Prince 2 Trainings<br>ISO 27001 Training<br>Cobit Training<br>Simulation Trainings |

NIST/NICE 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 NIST CSF 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 NIST/NICE | Setup both eLearning and role-based Blended Learning<br>NIST/NICE best practice training solutions for new and existing employees |

NIST/NICE HR trainings help HR departments to:

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

- **Identify** career pathways for existing NIST CSF 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 NIST/NICE training programs enables enterprises of any size to **operationalize the NIST/NICE best practice frameworks and programs that will enable it to identify, protect, detect, respond and recover from cyber-attacks.**

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### *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.