SOLUTION FOR HIGHER EDUCATION

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AT A GLANCE

Higher education research institutions are subject to National Institute of Standards and Technology (NIST) compliance with a deadline of December 1, 2017. These institutions risk several hundred million dollars in future research funding if not compliant. EdgeMarket's strategic partnership with VMware and the use of VMware Validated Designs (VVD) are the fastest path to a compliant architecture with which to base Research as a Services (Raas) with the greatest Time to Value.

In a nutshell, VVDs are a Reference Architecture that has been audited by a third party with detailed documentation that maps to the specific portions of compliance controls.

AT A GLANCE

- Accelerate Time to Market – streamline and simplify the usually complex design process of the SDDC
- Increase Efficiency – used detailed, step-by-step guidance to greatly reduce time and effort spent on operational tasks
- De-risk Deployments and Operations – reduce uncertainty and potential risks associated with implementing and operating the SDDC

BACKGROUND

Higher education organizations process data and provide services to the U.S. government in the form of federal financial aid administration or distribution, grant awards for research, or contract awards for services. This makes educational institutions an attractive target for hackers attempting to gain access to personally identifiable information, such as student financial aid data.

To protect against such cyber-attacks, universities and colleges may be subject to federal security standard requirements outlined in NIST SP 800-171, "Protecting Controlled Unclassified Information in non-federal Information Systems and Organizations". This typically occurs in the following scenarios:

- If the institution has been awarded a contract and is subject to FAR or DFARS regulations.
- If the language in the awarded grant stipulates security requirements.
- If the institution has received a notification from the Department of Education as part of their responsibility for protecting data related to financial aid.

NIST SP 800-171 provides the guidance they need to ensure that certain types of federal information is protected when processed, stored, and used in non-federal information systems, and helps protect the confidentiality of Controlled Unclassified Information (CUI).

The CUI requirements within NIST SP 800-171 are directly linked to the baseline controls described in NIST SP 800-53 -- "Security and Privacy Controls for Federal Information Systems and Organizations" -- and are intended for use by federal agencies in contracts or other agreements established between those agencies and non-federal organizations.

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Source:
http://www.coalfire.com/Solutions/Audit-and-Assessment/NIST-SP-800-171/NIST-SP-800-171-for-Higher-Education

VMware validated design pod architecture

WHAT IS VMWARE VALIDATED DESIGN?

A VMware Validated Design is composed of a standardized, scalable architecture backed by VMware's technical expertise and a software Bill of Materials comprehensively tested for integration and interoperability that spans across compute, storage, networking and management. Detailed guidance that synthesizes best practices on how to deploy, integrate and operate the SDDC is provided to aid end-users ensure performance, availability, security and operational efficiency.

KEY FEATURES

Standardized, Data Center-level Designs
Standardized, scalable architectures comprehensively tested for integration and interoperability among all the software components in the bill of materials.

Proven and Robust Designs
Continuous rigorous interoperability testing validates successful deployment, efficient operations and ensures designs stay valid with subsequent versions of components.

Applicable to a Broad Set of Use Cases
A variety of use case-based architectures – SDDC, Micro-segmentation, IT Automating IT – complemented with guidance to achieve a IT outcomes delivered by the SDDC.

Comprehensive Documentation
Comprehensive set of documents that describe design objectives, architecture design decisions, a software bill of materials, and extensive documentation on how to deploy, integrate and operate the SDDC in a single or dual-region environment.

Further information on VMware Validated Designs can be found at:
http://www.vmware.com/solutions/software-defined-datacenter/validated-designs.html

POTENTIAL FINANCIAL IMPACT

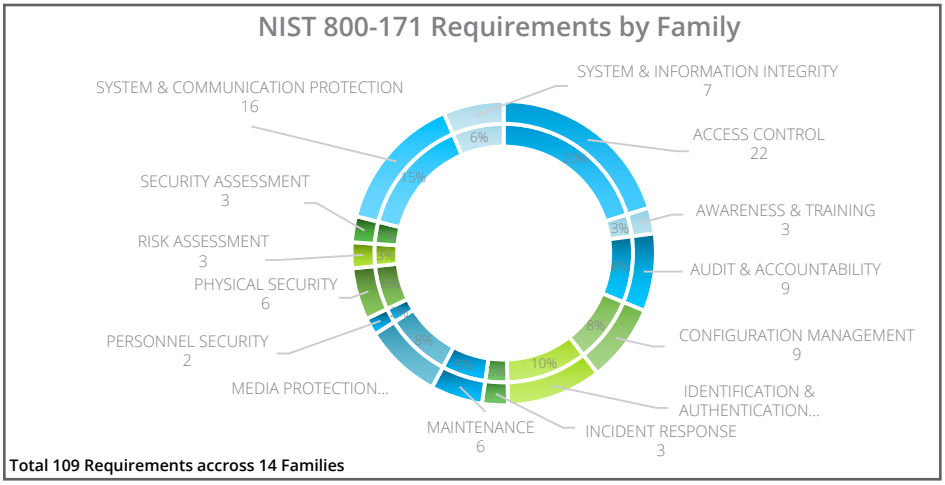
Below are a video and link that might help to identify the potential grant money impact to the institution. This is NSF data and some of those funds *may not* require NIST compliance.

VIDEO

http://bit.ly/NIST-NSF

LINK TO SEARCHABLE DATA:

https://ncsesdata.nsf.gov/profiles/site



EDGEMARKET AND VMWARE VALUE

- 41% of requirements are supported or partially supported
- 6 key Families include with VVD mapping shows overlap as follows:
  - Access Control: 45%
  - Audit and Accountability: 78%
  - Configuration Management: 89%
  - Identification and Authentication: 9%
  - System and Communications Protection: 75%
  - System and Information Integrity: 100%

The balance of the requirements fall mostly into areas outside of our direct technology like physical access and processes.

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