

C-CUE

Consortium for Computing in
Undergraduate Education, Inc.

Information Security Collaboration

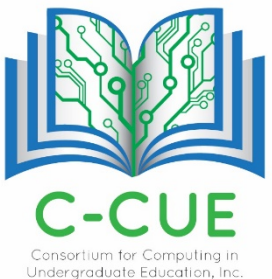
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What is C-CUE

- C-CUE is a Western-PA regional association of colleges and universities committed to developing and expanding the appropriate use of computing and other information technologies in undergraduate education.
- The Consortium promotes networking, sharing of information, expertise, and other resources through workshops and seminars.

<http://www.ccue.org/>

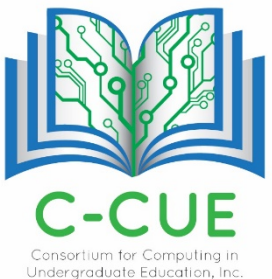


C-CUE Information Security Collaboration

- Higher Education lacks the resources to dedicate many (any) personnel to support Information Security
- Many groups have other IT Operations service Information Security Functions in dual-roles
- For the most part, we all are facing the same challenges and threats
- Our boards are becoming increasingly interested in our Information Security maturity, operations, and incident management functions

C-CUE Information Security Consortium

- All members are contributing partners of the consortium and we are being supported by both the NCFTA and Schneider Downs
- Small group of institutions are working to bring some approaches forward.
- Facilitated by Schneider Downs (who happens to be many of our schools' Internal Auditors, Duquesne University, Washington and Jefferson, Point Park, and Robert Morris have started working on various items to bring forward.



In Higher Ed, it all starts with an Assessment

- All members C-Cue member agreed to honestly complete the Higher Education Information Security Council Maturity Assessment
- The NCFTA consolidated the results for us and reported back to the larger group what opportunities exist
- Findings showed that we all commonly have a need for:
 - Information Security Management Processes and Procedures
 - Encryption of data including communications
 - Business continuity
 - Systems Acquisition, Development and Maintenance

HEISC Maturity Assessment Results

Cryptography:	0.92592592
Information Security Aspects of Business Continuity Management:	1
Systems Acquisition, Development, and Maintenance:	1.06802721
Operations Security:	1.68680556
Supplier Relationship:	1.70601852
Organization of Information Security:	1.74603175
Asset Management:	1.75
Risk Management:	1.81481481
Information Security Policies:	1.814815
Human Resources Security:	1.82222222
Compliance:	2.02083334
Access Control:	2.05648148
Information Security Incident Management:	2.11111111
Communications Security:	2.18518519
Physical and Environmental Security:	2.45601852

Consortium Efforts thus far

- Policy and Process using best practices from NCFTA and peer review
- Evaluation of SEIM solutions and options including products such as Cyberspace Analytics, Splunk (Duquesne) and RSA NetWitness (RMU)
- Resource crowdsourcing and how we can collaborate to get more done across schools
- Messaging to our boards and IT organizations about Information Security

CyberSpace Analytics Suite

1. Real-Time Network Mapping Analytics: vNOC
2. Cybersecurity & Compliance Analytics:
3. CNOC 3. Real-Time Cyberspace Analytics: Intel NUC

Cybersecurity & Compliance Analytics

Regulatory Compliance – Security Dashboard Drill-Down

The screenshot displays the Secutor Magnus interface. The main window shows system-wide scores for Compliance (9.4%, 15.6%, 71.9%), Vulnerabilities (53.1%, 12.5%, 31.2%), and Currency (68.8%, 31.2%). A gauge indicates a 9% compliance level. A table of selected targets is shown below, with one target selected for a detailed view.

Status	IP Address	Identifier	Comp.	Vuln	Last Assmnt.
OK	10.2.45.141	TESTMACHINE	25.8	82.7	2016-03-02 12:20:37
OK	10.2.45.145	redhat56			
OK	10.2.45.152	TESTMA			
OK	10.2.45.154	WINDOW			
OK	10.2.45.162	XP-FAIL			
OK	10.2.45.163	WIN7-F			

The detailed assessment window shows a list of findings for the selected target (10.2.45.154). The findings are categorized by severity and status:

- Halt on Audit Failure: (The system must not halt when the security event log has reached its maximum size.)
- Anonymous shares are not restricted: (Anonymous enumeration of shares must be restricted.)
- Bad Logon Attempts: (The number of allowed bad logon attempts must meet minimum requirements.)
- Bad Logon Counter Reset: (The period of time before the bad logon counter is reset must meet minimum requirements.)
- Lockout Duration: (The lockout duration must be configured to require an administrator to unlock an account.)
- User Right - Act as part of OS: (No accounts must be granted the Act as part of the operating system user right.)
- Maximum Password Age: (The maximum password age must meet requirements.)
- Minimum Password Age: (The minimum password age must meet requirements.)
- Password Uniqueness: (The password uniqueness must meet minimum requirements.)
- Disable Guest Account: (The built-in guest account must be disabled.)

The detailed view also includes a table of file reports and system attributes for the target:

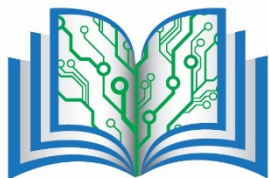
Ref.	Score	Benchmark	Version
1	62.5%	MS_Dot_Net_Framework	1.2
2	0.7%	IE11_STIG	1.3
3	20.7%	Windows_Firewall	1.3
4	50.8%	Windows_8_STIG	1.11

System Attributes for the target (10.2.45.154):

- NetBIOS Name: WINDOWS-X64
- NetBIOS Domain: TG
- Operating System: Microsoft Windows 8.1
- Last Assessment: 2016-03-02 12:20:37
- Compliance Level: 63.9%
- FIPS 199 Category: Moderate

Network Interfaces:

IP Address	MAC Address
10.2.45.154	00:00:00:00:00:00



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Why did we look at CyberSpace Analytics?

- Product was presented at the Internet2 Tech Exchange
- UMBC uses the product and they are willing to collaborate and help
- SIEM's are complex to get started and to manage
- SIEMS can be expensive
- They are willing to be a partner, not just a vendor. Many companies say this but their actions have proven their intention

What's next for C-CUE Information Security Collaboration and Consortium?

- Schneider Downs is working on reviewing the contract and agreements for Cyberspace Analytics and Duquesne is working on the technical integrations and options
- We are working on how we could build the collaboration/consortium team to work on getting this up and running in our organization
- Securing Funding at our institutions where possible for supporting Information Security
- Working with the NCFTA on Information Security Management including Policies and Procedures
- Exploring Grant Opportunities