Up for a Challenge? Learn How to Become a Successful Higher Education CISO

MODERATOR: Joanna Grama
EDUCAUSE

PANELISTS: Neal Fisch
California State University, Channel Islands
Randy Marchany
Virginia Tech
Tina Thorstenson
Arizona State University
EDUCAUSE helps people who lead, manage, and use IT in higher education to make better decisions about:

- Enterprise systems
- Strategic leadership
- Teaching and learning
- Cybersecurity
California State University Channel Islands

Neal Fisch, Director, Enterprise Services & Security, ISO

- Located in beautiful Camarillo, California
- Youngest of the 23 California State University System campuses
- 6,611 students
- 21:1 student-faculty ratio
- 25 undergraduate degree programs
- 10 minutes from Ventura County beaches
Virginia Tech

Randy Marchany, University IT Security Officer
- Located in Blacksburg, Virginia
- Nine colleges & graduate school
- 31,000 full-time students
- 16:1 student-faculty ratio
- Main campus includes more than 135 buildings, 2,600 acres, and an airport
- Ranked 38th in university research in the United States
Arizona State University

Tina Thorstenson, AVP & CISO

- Based in Tempe, Arizona
- 98,000+ students
- 20,000+ degrees produced
- Over 1/2 billion in research expenditure
- Ranked #1 for Innovation from US News and World Report
- Starbucks partnership
- Global Freshman Academy (try before you buy)
- Center for Cybersecurity & Digital Forensics
EDU World: CISO of a Small City

- ISP (BYOD)
  - Students required to purchase a computer. Can’t control what software is loaded on individually owned systems/devices
  - On-campus students bring 3-5 devices (required computer, smartphone, tablet, gaming system, smart devices – smart TV, etc.)
- Administrative
  - Traditional corporate security model
- Physical Plant
  - ICS, IOT
- Law Enforcement – campus police
- Transportation – bus, traffic mgt
- Medical – student health, counseling, etc.
- Commercial - Dining, Cultural, athletics, Special events, parking, commercial (bookstore)
- Media – TV, Radio, Newspaper, www
State of the CISO in Higher Education

EDUCAUSE CENTER FOR ANALYSIS AND RESEARCH

The IT Workforce in Higher Ed, 2016

New research explores what's needed to support contemporary models of IT service delivery.
Today’s Higher Ed CISO


Age (median) | U.S. workforce | HE IT professionals | CISOs | CIOs
--- | --- | --- | --- | ---
42 years | 48 years | 49 years | 53 years | 66% | 85% | 85% | 84% | 83% | 73% | 67% | 53% | 73%
Today’s Higher Ed CISO

Median Years Worked

<table>
<thead>
<tr>
<th>Position</th>
<th>CIO</th>
<th>CISO</th>
</tr>
</thead>
<tbody>
<tr>
<td>In higher education</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>In current institution</td>
<td>17</td>
<td>10</td>
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<tr>
<td>In any leadership position</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>In your current leadership position</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

Today’s Higher Ed CISO

Top CISO Responsibilities
1. Information security policies (including policy development and compliance)
2. Incident management
3. Awareness and training
4. Information security compliance
5. Risk assessment and management
6. Organization of information security

At least 90% of CISOs said they are currently responsible for these duties at their institution.

Top CISO *Aspirational* Responsibilities

1. Identification and authentication (47%)
2. Operations security (39%)
3. Communications security (33%)
4. Awareness and training* (33%)
5. Data privacy (32%)
6. Organization of information security* (30%)

*Appears on both responsible for- and aspirational responsibilities- lists (small n’s)

At least 30% of CISOs said they ARE NOT currently responsible for these duties at their institution, but SHOULD BE.
Nature of Board Meeting Responsibilities

1. I give occasional/as-needed reports updates at board meetings. 77%
2. I brief the board on topical issues that relate to information security issues. 59%
3. I give a board report/update at each board meeting. 5%
4. I have a designated seat at the board table. 0%

What it really means:
- Report out on latest infosec incident.
- Respond to latest criticism of higher ed infosec.
- The board takes infosec seriously.
- ???

Today’s Higher Ed CISO

Top Higher Ed IT Positions in Short Supply

Today’s Higher Ed CISO

Top Skills for Success
1. Communication skills, 100.00%
2. Thinking skills, 98.00%
3. Individual leadership skills, 94.06%
4. Relationship and networking skills, 97.03%
5. Collaborative skills, 93.07%
6. Political skills, 91.09%
7. Business skills, 80.20%
8. Technical skills, 58.42%

Today’s Higher Ed CISO -- APPLY

• Higher Education CISOs are becoming increasingly skilled at balancing an IT security infrastructure that works in a "small city" environment. It’s an exciting environment.
• IT security workforce shortages are severe in higher education in part due to salary constraints.
• Address workforce shortage by creating programs to:
  • Expose student workers to cyber security tools, training, tasks
  • Allow staff to focus on new and interesting projects
  • Prepare students to work in cybersecurity roles, empowering staff as mentors.
  • Partner with research & education areas of your school or university, taking advantage of programs such as CyberCorps Scholarship for Service, tuition-waiver programs for university staff.
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