NATIONAL ASSOCIATION OF STATE TREASURERS

Honorable Josh Haeder, South Dakota State Treasurer
Jim Edman Chief Information Security Officer
Bureau of Information & Telecommunications
STATE OF SOUTH DAKOTA

• ~890,000 population, 5th smallest
  • 187,000 Sioux Falls; 74,000 Rapid City; 28,388 Aberdeen

• 77,000 square miles, 17th largest

• #1 Industry Retail + Finance + Health Care

• #2 Industry Government

• State Budget: $4.9B ($1.7B General Funds)

• 14K FTE (including Higher Education)

• No State Income Tax

• Lake Oahe – 231 miles (Missouri River)

• Centralized I/T / statewide

• ~9,000 computers
1. Security and Risk Management

governance; budget and resource requirements; security frameworks; data protection; training and awareness; insider threats; third party security practices as outsourcing increases
Critical Cyber Security Recommendations

- **Backup Your Data**
  - Decouple Backup
  - Test Restoring It

- **Apply Automatic Updates & Patches**
  - Windows, Adobe, Java, etc.

- **Education & Training**
  - Cybersecurity
  - Business Email Compromise

- **Assess & Update Business Applications**

- **Evaluate Cyber Insurance**
### Threat Actors

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>Advanced Persistence Threat</strong></td>
<td>• Nation State funded threat actors</td>
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<tr>
<td><strong>Cybercriminals</strong></td>
<td>• Groups and individuals that either target or utilize opportunistic methods based on system vulnerabilities</td>
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<tr>
<td><strong>Criminal Hackers</strong></td>
<td>• Hackers for hire; typically motivated by financial gain</td>
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<td></td>
<td>• Identity theft and healthcare fraud are their main targets</td>
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<td><strong>Terrorists</strong></td>
<td>• Politically driven groups and individuals</td>
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<td></td>
<td>• Utilize target or opportunistic methods with system vulnerabilities</td>
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<td><strong>Employees</strong></td>
<td>• Malcontents</td>
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<td>• Spies</td>
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Why CYBERSECURITY is Important

- Financial Data
- Titles Registrations Parking Permits
- Personally Identifiable Information (PII)
- Federal Tax Information (FTI)
- Veteran's Information
- Federal Employee Identification Number (FEIN)
- Protected Health Information (PHI)
- Investigation Information Evidence Victims Information Criminal History
- Family & Medical Leave Act (FMLA)
- Federal Parent Locator Services Social Security Administration National Security Agency FBI
Average amount of time hackers are in a network before being discovered: 206 Days
Since 2010, CISOs have been challenged by insufficient funding and cyber talent availability.

Identify the top barriers that your state faces in addressing cybersecurity challenges (top three per study):

1. Lack of sufficient funding
2. Increasing sophistication of threats
3. Inadequate availability of security professionals

Business Email Compromise Scams

- Vendor & Payroll Direct Deposit / W9
- Payroll Direct Deposit
- Account Credentials (Username & password)
- Wire Transfer Request
- Vendor Purchase Order request
- Real Estate/Escrow Fund Transfer
- Malware Delivery
- Gift Cards

Date:
FROM: Vendor
TO: Purchasing@<state>.gov
SUBJECT: Account Change

Good morning. We are in the process of changing our accounts. Please remit payment to <new account>. 
HR Cybersecurity Policy

- BHR Policy authorizes monthly assessments

- Repercussions for failing (accumulative in a 12 month rolling period)

<table>
<thead>
<tr>
<th>Web Site Tutorial</th>
<th>CISO Notification &amp; Video (Cc: Dept leader)</th>
<th>Mandatory In-Person Class</th>
<th>Letter of Reprimand</th>
<th>Suspended 3 days without pay</th>
<th>Up to &amp; including termination</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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http://bhr.sd.gov/policies-forms/BHRCyberSecurityAwarenessFINAL04092019.pdf
Slowing down isn’t just for children

When reading through your email, **STOP** and **THINK** before you click
SHOW STIMULANTS CATEGORY

- **CRYSTAL METH 7 gram**
  - $1.61
  - BUY

- **COKE From PERU 93%, 7 gram, FINALIZE EARLY**
  - $2.37
  - BUY

- **COKE From PERU 93%, 3 gram**
  - $1.27
  - BUY

- **Crystal Meth - 2g**
  - $0.85
  - BUY

- **LSD Anonymous 140μg, 50 blotters**
  - $1.1
  - BUY

- **1 OZ Super Stong Mushrooms**
  - $0.59
  - BUY

- **1oz Cubensis Mushrooms**
  - $0.61
  - BUY

- **!! SPECIAL OFFER 1oz DRY PSILOCYBIN CUBENSIS SHROOMS!!**
  - $0.42
  - BUY
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