MFA evolution on Campus

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Introductions
NET+ Duo Program

- **NET+ Duo program** with 200+ subscribers
- Over 10 years old!
- Last program update in 2018
- Contract and pricing developed working with NET+ Duo service advisory board
- **NET+ Duo Service Advisory Board**
  - Provide oversight of the program and vendor management for the community
- Campuses signing up for NET+ Duo directly support the program
- Worked with Duo on product/features
  - Logging, TOTP support, Universal Prompt development, etc
  - Request to work with Duo on InCommon support for Duo SSO
MFA phishing attacks
MFA Phishing Attacks

- **MITM Phishing Toolkit Research Highlighted by Stony Brook University at NET+ I2 Online Event**
  - Recording - [https://www.youtube.com/watch?v=rBM4CUWMDp8](https://www.youtube.com/watch?v=rBM4CUWMDp8)
- Discussed in detail on NET+ Duo REN-ISAC Monthly Community Calls
  - Currently 1st Friday of the month and will be changing in 2024
  - Call registration - [https://internet2.zoom.us/meeting/register/tJYtfumsqTgsE9yg2IEp_AIWfrAXmh-zEQTW#/registration](https://internet2.zoom.us/meeting/register/tJYtfumsqTgsE9yg2IEp_AIWfrAXmh-zEQTW#/registration)
The changing environment
The changing environment....

- MFA on campus has changed dramatically over the last couple years as campuses responded to the pandemic
- Cyberliability insurance has been driving changes
- MFA phishing attacks
- Changing requirements from FSA, laws, etc
- Changing technology environments – some campuses moving to platforms vs best of breed
- Budgets
2023 MFA Community survey
MFA Survey 2023

- Many thanks to RuthAnne Bevier!
- Many thanks to the academic and research organizations that responded
- MFA Community Survey from 2020 [report]
- NET+ is gathering data in other programs in a granular way for Institutional Profiles
- Worked with NET+ Duo service advisory board to develop questions
- Goal was to have it take 10 minutes or less for someone knowledgably about MFA on their campus to complete survey
- Gave campuses a month to complete the survey
- Sent to NET+ Duo users, EDUCAUSE Security and IDM, and REN-ISAC Discuss email lists
- A public version of the data will be posted as a blog by the end of the year
Response Demographics

• 225 unique with 2 anonymous from 10 countries
  – US, India, Mexico, Philippines, Canada, Sweden, New Zealand, UK, Australia, Turkey
  – Participating institutions span a range of sizes, from sites with no students to those with enrollments approaching 100,000 students, across 20 Carnegie Classifications.
  – These include Special Focus schools, 2-year Associates Colleges, Masters & Doctoral Universities, and dedicated research labs.
  – 53% of responding institutions are Doctoral Universities.
  – 45% of those with Carnegie classifications are classified as High or Very High Research Activity.

• Combined, responding institutions' services protect the learning of over 3 million students.
MFA Solutions Supported
2020 vs 2023

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco Duo</td>
<td>85%</td>
<td>68%</td>
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<tr>
<td>Microsoft Azure MFA</td>
<td>23%</td>
<td>46%</td>
</tr>
<tr>
<td>Google Authenticator</td>
<td>15%</td>
<td>11%</td>
</tr>
<tr>
<td>Okta</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>11%</td>
<td>10%</td>
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</tbody>
</table>
Single MFA Solution Supported

- 2020: 71%
- 2023: 86%
Remember Me Timeframes 2020

- 1-3 months: 28%
- 1-3 weeks: 16%
- 24 hours to less than 1 week: 12%
- 12 hours or less: 16%
- App specific: 28%
- Don't use Remember Me: 10%
Remember Me Timeframes 2023

- Don't use Remember Me: 13%

1-3 months: 34%
1-3 weeks: 9%
24 hours to less than 1 week: 7%
12 hours or less: 6%
12-24 hours: 5%
Application specific setting: 3%
3-6 months: 17%
6-12 months: 20%
one year or more: 1%
<table>
<thead>
<tr>
<th>Duration</th>
<th>2020</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 hours or less</td>
<td>12%</td>
<td>8%</td>
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<tr>
<td>12-24 hours</td>
<td></td>
<td>7%</td>
</tr>
<tr>
<td>24 hours to less than 1 week</td>
<td>16%</td>
<td>17%</td>
</tr>
<tr>
<td>1-3 weeks</td>
<td>28%</td>
<td>20%</td>
</tr>
<tr>
<td>1-3 months</td>
<td>28%</td>
<td>34%</td>
</tr>
<tr>
<td>3-6 months</td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>6-12 months</td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>1 year or more</td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Application Specific</td>
<td></td>
<td>9%</td>
</tr>
<tr>
<td>Don’t use (not included in %s)</td>
<td>10%</td>
<td>13%</td>
</tr>
</tbody>
</table>
MFA Future Directions
MFA Future Direction

- If you’re not already including students, you should be planning to do so
- Risk based auth
- Passwordless
- REFEDS MFA
- Retire telephony
Implementing Passwordless

- **Already implemented**
- **Actively testing and evaluating solutions**
- **Do not foresee any activities related to passwordless**
- **We have no active activities related to passwordless but plan to start this year**
- **We have no active activities related to passwordless and plan to start in 1-2 years.**
- **Don't know or blank**
- **Other/Waiting for vendor support**
Impediments to Adopting Passwordless

- Lack of budget or resources
- Not a priority
- Too new
- Do not see the benefit for my organization
- Other: not all apps/workflows support passwordless
- Other: lack of integrated support with Shibboleth Identity Provider software
- Other: regulatory requirements

[Graph showing the distribution of impediments]
REFEDS READINESS

- 46% Already fully implemented
- 13% Already implemented tech requirements, still working on other aspects
- 10% Actively testing and evaluating solutions
- 7% We have no active activities related to the REFEDS MFA Profile and plan to start in 1-2 years
- 3% We do not foresee any activities related to the REFEDS MFA Profile for at least 2 years
- 10% Don't know or skipped question
- 11% Unaware of it
Contact: Nick Lewis, nlewis@internet2.edu
MFA Community Report Blog
Remember Me graphs in NET+ Duo Blog update
Contact NET+ Service Management (netplus@internet2.edu) for a copy of the report
NET+ Duo program - https://internet2.edu/services/duo-security/
NET+ Duo Service Advisory Board - https://spaces.at.internet2.edu/pages/viewpage.action?pageId=159979009