Tools Security Roadmap

As of March 18, 2020
• Added Single Sign On Login UI Changes
<table>
<thead>
<tr>
<th>Product - Action Required</th>
<th>Dates</th>
<th>Who May Be Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Sign On (SSO) - Delete book marked SSO Login URL</td>
<td>April 21 5 p.m.</td>
<td>All Users of Single Sign On Tools</td>
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<tr>
<td>Product - Action Required</td>
<td>Dates</td>
<td>Who May Be Affected</td>
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<tr>
<td>ExSchedule &amp; OASIS</td>
<td>Q3, 2020</td>
<td>• Users of ExSchedule and OASIS</td>
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<tr>
<td>• Obtain valid PKI certificates from approved Certificate Authorities</td>
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<td>• 3rd party Vendors for ExSchedule and OASIS</td>
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<tr>
<td>• Rewrite Browserless/API authentication code</td>
<td></td>
<td>• Developers of ExSchedule and OASIS Browserless/API code</td>
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<tr>
<td>• Use PJM provided command line interface (CLI)</td>
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<tr>
<td>Account Manager</td>
<td>Q3, 2020</td>
<td>• Users of ExSchedule and OASIS</td>
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<tr>
<td>• Associate valid PKI certificates with user account in Account Manager</td>
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# 2020 Tentative Roadmap

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<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
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<th>Nov</th>
<th>Dec</th>
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<tbody>
<tr>
<td>PKI for OASIS &amp; ExSchedule</td>
<td>Development and Testing</td>
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<td>Train &amp; Member Testing: TBD</td>
<td>Production: TBD</td>
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<tr>
<td>Browserless/API 2 Factor Authentication</td>
<td>Development and Testing</td>
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<td>Train &amp; Member Testing: TBD</td>
<td>Production (Opt-In): TBD</td>
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<tr>
<td>SSO Login UI Changes</td>
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<td>Train: March 25</td>
<td>Production: April 21</td>
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- Train: March 25
- Production: April 21
ExSchedule & OASIS Public Key Infrastructure (PKI)

Browser-less/API 2 Factor Authentication

Login UI Changes
• PKI
  – On February 4, 2020 FERC issued an order to comply with NAESB 3.2 changes
  – Implement PKI to provide secure access to
    • OASIS
    • E-Tagging applications (ExSchedule)
  – Existing certificates that meet NAESB requirements will be accepted
  – When:
    • Train: Q3, 2020
    • Production: Q4, 2020
Background – Browser-less/API 2 Factor Authentication

- Browserless/API 2 Factor Authentication
  - Leverage PKI solution
  - Scope
    - Included: All PJM Tools that are part of Single Sign On and have Browserless APIs
    - Excluded: ExSchedule and OASIS
  - When:
    - Optional in Q4, 2020
    - Mandatory in 2021
• https://www.pjm.com/-/media/etools/security/pki-faqs.ashx?la=en
SSO Login UI Changes

- UI framework change
- Login URL changed from https://sso.pjm.com/access/UI/Login to https://sso.pjm.com/access/XUI/#login/
- Delete SSO Login URL bookmarks
- Bookmarking of Application URL is preferred
- When:
  - Train: March 25
  - Production: April 21
Login UI Changes

Old Page

Enter Soft Token

Check your email and enter the soft token provided in the form below. Be sure to check your spam/junk inbox.

Soft Token:  
Finish Login | Sign Out

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New Page

Enter Soft Token

Check your email and enter the soft token provided in the form below. Be sure to check your spam/junk inbox.

Soft Token:  
Finish Login | Request Soft Token

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