

## Retiring use of Weak Encryption

As of January 18, 2022 Zeenath Fernandes Sr. Lead, Enterprise Information Security



Revisions

Updated Production implementation for the Voting application



## **Impact Details**

<b>Product - Action Required</b>	Deadline	Who May Be Affected
PJM requests that each company update the encryption on the source devices to use an acceptable level of encryption documented in <u>https://www.pjm.com/-</u> /media/etools/security/weak-encryption- remediation-guide.ashx. There is no impact if updates are made to the encryption prior to the Production implementation.	February 28 6 p.m. to 8 p.m.	Participants who use PJM's internet facing applications and use weak encryption cipher suites on their source devices. Impacted Tools: Voting (browser and browserless interactions)
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## **Impact Details**

<b>Product - Action Required</b>	Deadline	Who May Be Affected
PJM requests that each company update the encryption on the source devices to use an acceptable level of encryption	TBD	Participants who use PJM's internet facing applications and use weak encryption cipher suites on their source devices.
documented in <u>https://www.pjm.com/-</u> /media/etools/security/weak-encryption- remediation-guide.ashx.		Impacted Tools: Account Manager, Billing Line Item Transfer, Bulletin Board, Capacity Exchange, Data Viewer, DER Directory, DR Hub, eCredit, eDART, eGADS, Emergency Procedures,
There is no impact if updates are made to the encryption prior to the Production implementation.		ExSchedule, FTR Center, InSchedule, Markets Gateway, MSRS, OASIS, PJM.com, Planning Center, Power Meter, Resource Tracker, TO Connection, Tools Home
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## 2022 Roadmap for Retirement of Weak Encryption

	2022											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
PJM shuts off weak cipher support on Production Internet facing tools		Voting Feb 28										







- National Security Agency (NSA) Recommendation:
  - Eliminating Obsolete Transport Layer Security (TLS)
- 3DES was deprecated by the National Institute of Standards and Technology in 2017. An established reference can be found here:
  - <u>https://csrc.nist.gov/news/2017/update-to-current-use-and-deprecation-of-tdea</u>
- TLS 1.0 and TLS 1.1 were released in 1999 and 2006 respectively. Security flaws in design of TLS 1.1 lead to the release of TLS 1.2 in 2008.
  - In October 2018, Apple, Google, Microsoft, and Mozilla jointly announced they would deprecate TLS 1.0 and 1.1 in March 2020.
  - An overview of TLS can be found here:
    - <u>https://en.wikipedia.org/wiki/Transport\_Layer\_Security</u>
- TLS\_RSA\_\* Site describing method to attack this cipher suite can be found at <u>https://robotattack.org/</u>.



- PJM will no longer support the TLS 1.0 or TLS 1.1 protocols.
- PJM will no longer support the 3DES cipher and the TLS\_RSA\_\* and TLS\_DHE\_RSA\* ciphers in TLS 1.2.
  - Participants need to upgrade the encryption used on systems that connect to PJM externally facing systems.
  - Browser and browserless support for these ciphers will stop for the Voting application on February 28
  - Additional details will be provided in the future for the other Tools





- PJM has supplied Weak Encryption Remediation Guide to member companies.
- PJM has shut off weak cipher support in Train (browser and browser less) to facilitate member company testing.
- Impacted member company should contact PJM's <u>member relations</u> to verify list of sources and discuss next steps.
- Questions or feedback can be sent to: <u>TechChangeForum@pjm.com</u>.





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**Retiring use of Weak Encryption** 

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