

WI-FI ONBOARDING

 University at Buffalo
Information Technology



Wi-Fi Onboarding

Past

- Vendor - Ruckus Cloudpath
 - PEAP/EAP Authentication
 - Protected Extensible Authentication Protocol. A tunneled EAP method that uses a server-side digital certificate for server authentication and a username/password for client authentication.

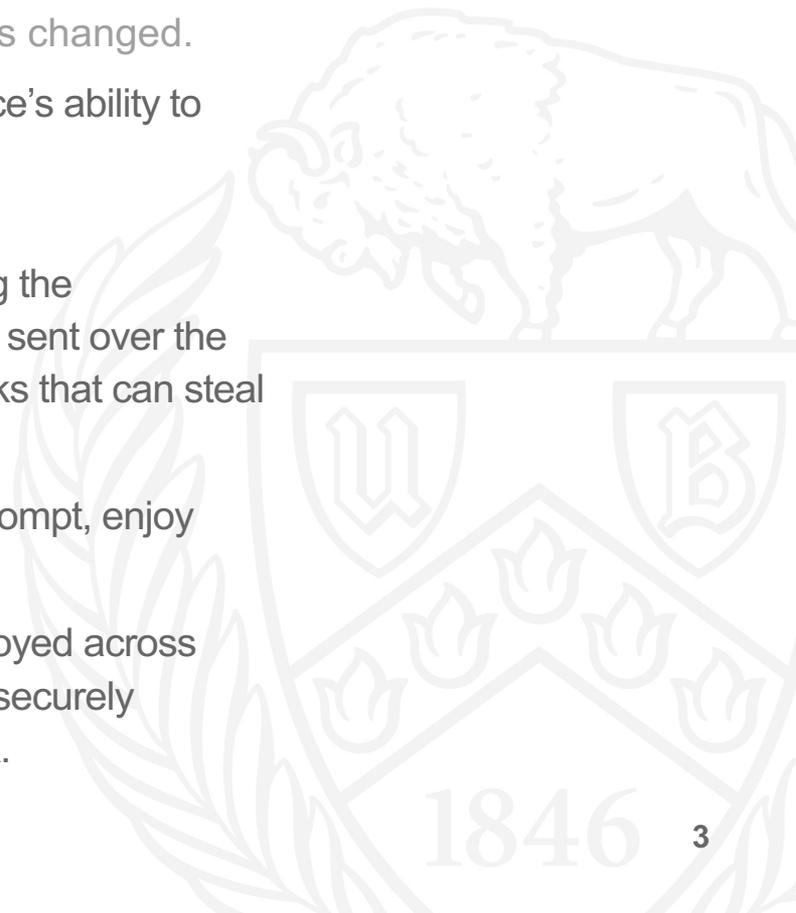
Current

- Vendor - Secure W2
 - EAP TLS Authentication
 - **EAP-Transport Layer Security**
Uses the handshake protocol in TLS. Client and server authenticate each other using digital certificates. Client generates a pre-master secret key, by encrypting a random number with the server's public key. Both client and server use the pre-master to generate the same secret key.
 - PEAP/EAP – Still works



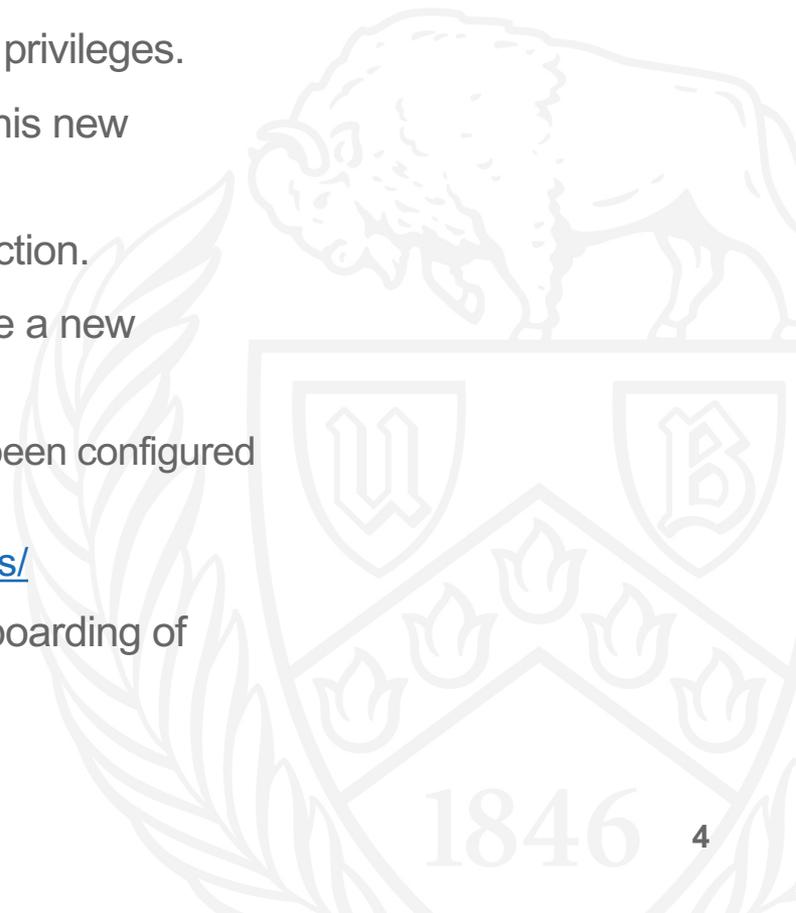
Why the Change

- Authentication is now tied to certificate not user credentials.
No more disconnects when the UBIT password is changed.
- Ability to revoke a certificate which will remove the device's ability to connect without changing UBIT credentials.
i.e. stolen/lost devices
- Secure Information – Because a certificate is generating the credentials, there is no compromising information being sent over the air. Eliminate network risks like Man-in-the-Middle attacks that can steal user data.
- Connect Faster- In addition to skipping the password prompt, enjoy almost instantaneous wireless authentication.
- #1 Eduroam™ Configuration Client - SecureW2 is deployed across hundreds of campuses worldwide to enable devices to securely connect to Eduroam™ and their home campus network.



Implementation

- Onboarding pages are fully implemented.
- In order to onboard a device you must have ADMIN privileges.
- Primary focus is to enable all self provisioning with this new method – Phase 1.
- As we move forward PEAP/EAP will continue to function.
- Device Certificates are good for 5 years, must create a new certificate after 5 years.
- Below is the link to onboard devices that have already been configured for Eduroam or UBSecure.
<https://cloud.securew2.com/public/64546/eduroam-tls/>
- After this fall we will look to modernize the mass onboarding of devices by nodes – Phase 2.



Questions

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