Registered Devices for Authentication Applications
Dec 22, 2015

Unique Identification Authority of India
Public Devices

• **Public Devices**: During authentication, encryption of Personal Identity Block (pid) including biometrics is happening at desktop / PoS OS level, not at device level.

• **Secure Authentication can be achieved through**:
  - Devices used in Assisted Mode viz. through appropriate trained/certified operator
  - Signed application with appropriate App Monitoring Services
  - Usage of Multi Factor Authentication and Auditing of devices from Service Provider end
  - Maintaining a dashboard at service provider side for monitoring the devices with unique identifiers
Public Devices

• Challenges
  – This is prone to **replay attack**
  – It is difficult to set the unique identity of the device
  – It is not safe to use in self mode like in Jeevan Pramaan application
  – Limitation in covering large number of devices for authentication
Registered Devices

Registered Devices Offer:

- Unique identifier for every physical sensor device
- Data Encryption at the device level
- Elimination of stored biometrics and misuse of resident biometric data on the host side where client data is transmitted to UIDAI
- Acceptance of authentication requests only from the devices that are registered with UIDAI
1. Device registration/reset includes application and hardware level specifications
2. Each manufacturer will register each device with UIDAI
3. With device registration by UIDAI, every auth transaction can be traced to a specific device
4. Implementation of registered devices is taken up in a phased manner
# REGISTER and RESET Process

## REGISTER

- Manufacturer procures public key from CA, shares public key with UIDAI, and get a “Manufacturer Key” issued by UDIAI.
- Manufacture hardware with secure storage and embedded firmware.
  - Firmware having security and biometric processing capability
  - Embed a unique PhysicalID, ModelID, Manufacturer Key.
- Certify model as a compliant registered device and other accuracy related certifications.
- Register every individual physical device unit using the secure registration API before field distribution and use.

## RESET

- Device may be reset many times during its life time.
- Administrator of the device forcing a reset due to an encryption error.
- When UIDAI server gives an explicit error code as part of authentication API indicating that a reset is mandatory due to UDIAI key rotation policy.
- Reset the device using the API.
## Registered Devices - Timelines

<table>
<thead>
<tr>
<th>Activity</th>
<th>Status / Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>RFI</td>
<td>Published on Feb 2015; Responses were reviewed in Mar 2015</td>
</tr>
<tr>
<td>EOI</td>
<td>Published on Apr 2015 – 7 Responses Received, 4 vendors shortlisted</td>
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<tr>
<td>PoC</td>
<td></td>
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</tbody>
</table>
|                   | o Back End development and initial testing with Vendors finished for all Modules of Register, Reset and Auth (Pre-Alpa)  
|                   | o A prototype is ready and can be put under extensive testing  
|                   | o PoC is completed and results are being analyzed. |
| Device Specification Finalization, Vendor Workshop | By Jan 2016 |
| STQC Device Certification | By Feb 2016 |
Thank You