

# Badgeo Dual FIDO2

## FIDO2 (+U2F) and DESFire EV2/EV3 dual smart card Passwordless



## Strong authentication for the web/cloud

Badgeo Dual FIDO2 (+U2F) includes:

- ✓ ISO 7816 contact and contactless / NFC interface
- ✓ Smart card certified Common Criteria EAL6+
- ✓ FIDO2 (CTAP 2.1) + FIDO U2F applet
- ✓ DESFire EV2/EV3 interface
- ✓ Contactless / NFC options: ISO 15693 and 125 KHz

FIDO2 products are compatible with FIDO2 and FIDO U2F services.



### Supported operating systems and browsers

- Windows, Mac OS, Linux, Android, iOS
- Chrome, Edge, Firefox, Safari
- No software installation on the client Workstation



### Smart card component

- Java Card™ JCOP4
  - CC EAL6+
- DES/3DES, AES, ECC, RSA
  - Credential generation, management and storage inside the smart card



### Wide compatibility

- Windows 10/11 with Microsoft Entra ID and over 250 online services such as Gmail, paypal, OVH, WordPress, Dropbox
  - Identity federations such as Evidian, Ilex, Okta, Ping Identity



- ✓ Easy to use and deploy (HID device: no driver required)
- ✓ Compatible with Windows, Android and iOS
- ✓ Credential generation, management and storage inside the smart card
- ✓ Credential number limited by the quantity of available persistent memory
- ✓ Anti-Phishing protection (to replace vulnerable SMS, OTP or TOTP solutions)
- ✓ No “key wrapping” / No shared key preinstalled
- ✓ Graphical personalization

### Supported protocols

- Contact ISO/IEC 7816
- Contactless / NFC ISO/IEC 14443-A & DESFire EV2/EV3
- Contactless / NFC options: ISO 15693 and 125 KHz

### FIDO2.0 / FIDO2.1 features

- Extensions:
  - credProtect
  - hmac-secret
- Options :
  - rk (resident keys) - Discoverable credentials
    - Maximum number limited by available persistent memory (256 to 512 bytes per credential)
  - client PIN, PIN protocol 1
    - PIN length between 4 and 63 bytes
    - PIN try limit set to 8. After 8 unsuccessful tries, the authenticator must be reset
    - No default value

### Mechanical features

- Size: length 85.6 mm / width 54 mm / height 0,76 mm
- Weight: 3 g

### Supported crypto-algorithm

- ECC P-256 (secp256r1)

### FIDO2.1 features

- Extensions:
  - credBlob (personalization option)
  - largeBlobKey (personalization option)
  - minPinLength (personalization option)
- Options:
  - clientPIN, PIN protocol 2
    - PIN value length between 4 Unicode characters and 63 bytes
  - pinUvAuthToken
  - noMcGaPermissionsWithClientPin (personalization option)
  - largeBlobs (personalization option)
  - ep - Enterprise Attestation (personalization option)
  - authnrCfg
  - credMgmt (personalization option)
  - setMinPINLength (personalization option)
  - makeCredUvNotRqd (personalization option)
  - alwaysUv (personalization option)



### About FIDO (Fast IDentity Online)

The FIDO Alliance, bringing together major players such as Google, Microsoft and Apple, encourages the adoption of FIDO2 for passwordless authentication using passkeys based on cryptographic keys, as well as FIDO U2F for enhanced second factor authentication. Devices such as Winkeo keys and Badgeo cards contribute to increased protection against phishing cyberattacks.

### About NEOWAVE

NEOWAVE specializes in strong authentication and secure transactions. NEOWAVE's products combine the high level of security provided by smart cards with the advantages of storage and connectivity technologies: USB, RFID / NFC and Bluetooth Low Energy (BLE). NEOWAVE products and services address the cybersecurity, digital trust and identity management markets.