Westfälische Hochschule
Gelsenkirchen Bocholt Recklinghausen
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A New Approach For FIDO UAF

→ Advantages of a cloud-based FIDO Client

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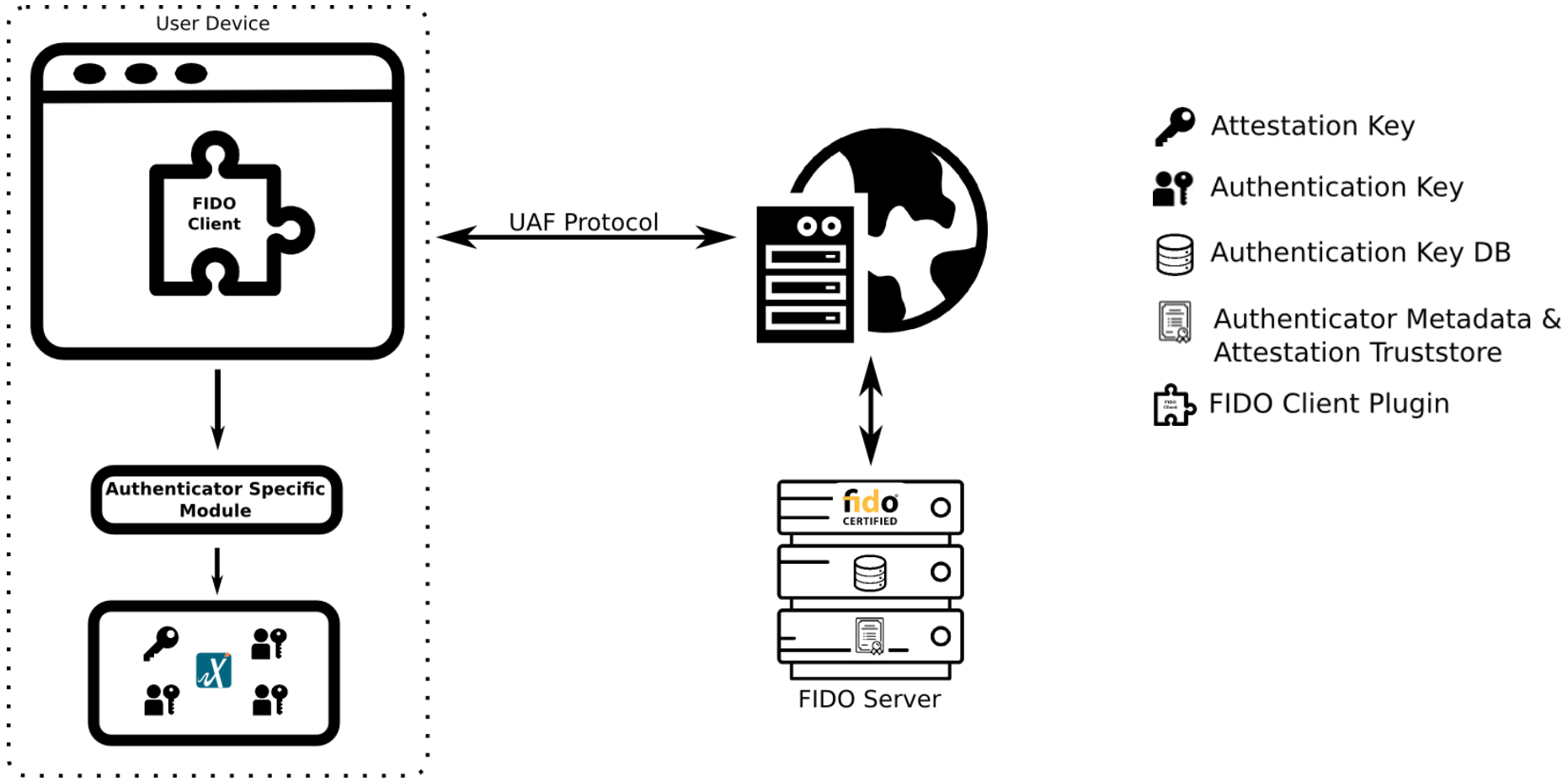
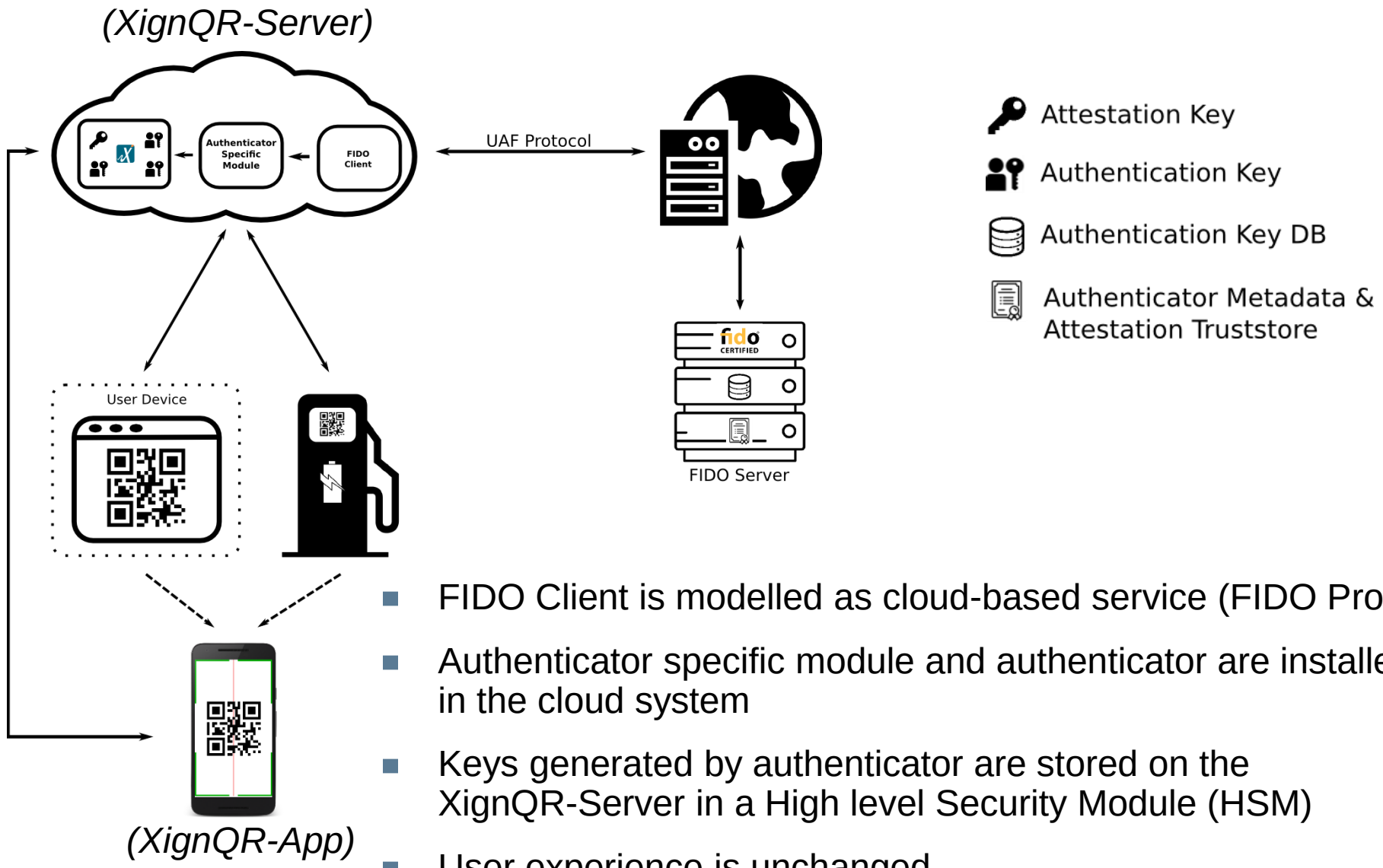
FIDO
→ The classic approach



- FIDO Client is browser extension/plugin
- Authenticator specific module and authenticator are installed in the user's system
- Keys generated by authenticator are stored in the user's system (ideally in TPM)

FIDO
→ A new approach (XignQR)



- FIDO Client is modelled as cloud-based service (FIDO Proxy)
- Authenticator specific module and authenticator are installed in the cloud system
- Keys generated by authenticator are stored on the XignQR-Server in a High level Security Module (HSM)
- User experience is unchanged

FIDO – A new approach
→ Advantages

- Usable with any browser (Independent of browser vendors)
- Does not rely on plugins or extensions,
  therefore usable with public terminals
- Keys are stored in a secure environment
  (no requirement for TPM as secure key storage)
- Loss of user device not so fatal
  (keys are stored in cloud-system's HSM)
- Authenticator needs to be registered only once

FIDO – A new approach
→ New Use Cases

- The alternative approach enables new use cases in scenarios other than web authentication
  - Terminals without displays (charging stations, …)
  - Physical access management (smart home, industrial Internet, …)
  - Mobile transactions (mobile commerce, …)
  - …

FIDO – A new approach
→ Requirements for alternative scenarios

- There where are no displays involved:
  - Authentication and transaction confirmation by XignQR and static QR Code
  - XignQR (Smartphone-XignApp) displays transaction data and receives user's confirmation
  - XignQR System delivers FIDO assertions on behalf of user to FIDO Server
  - XignApp communicates with FIDO Client Proxy in cloud-system

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Thank you for your attention!
Questions?

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