

IRMA-W-RU

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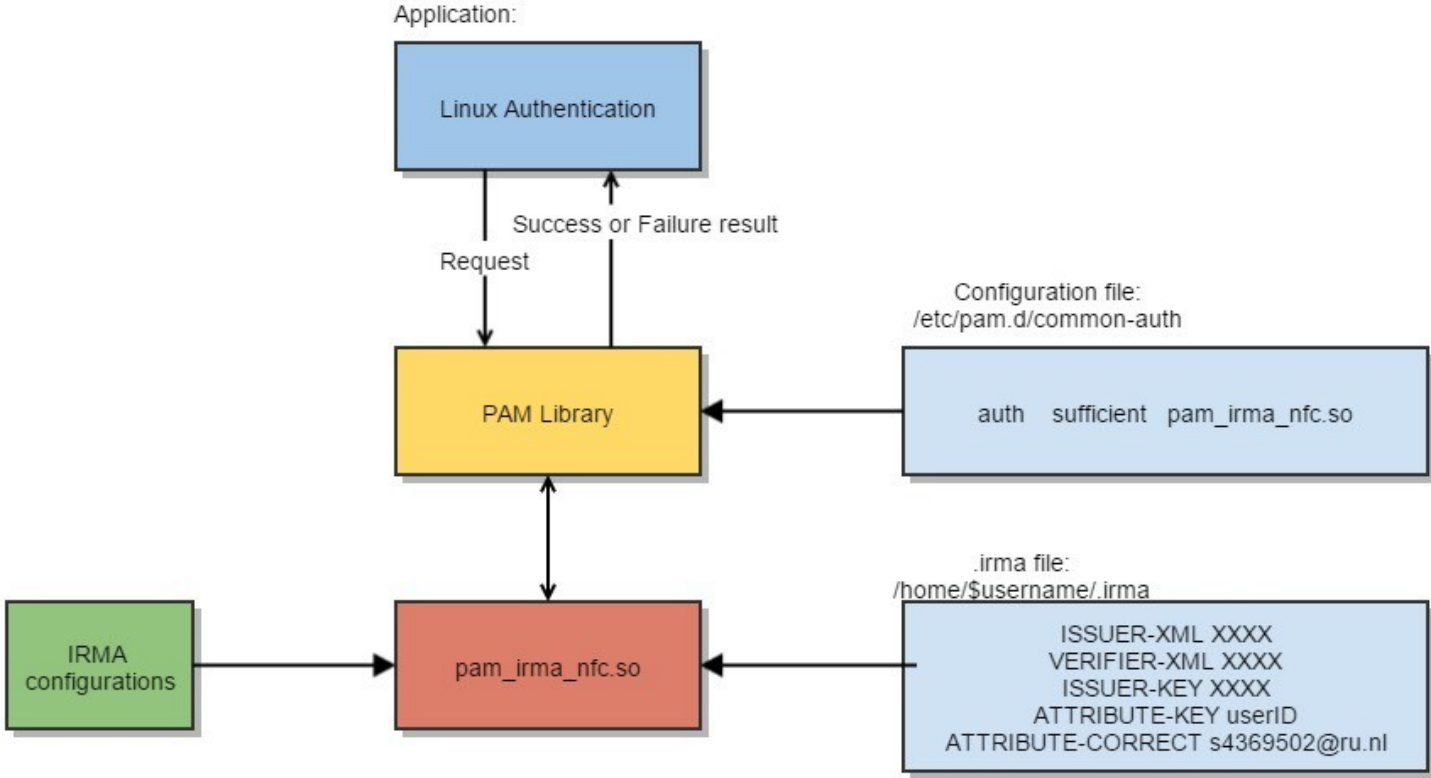


IRMA Windows Authentication

- Project: Windows logon with IRMA

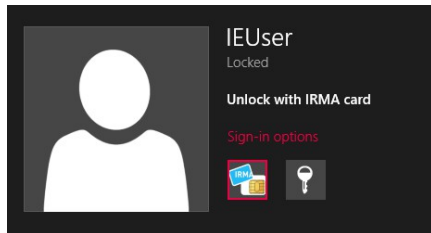


PAM IRMA



Process flow

IRMA
Credential provider



Windows
Logon



Use IRMA

LSA



User = IRMAUser

IRMA
Authentication
package

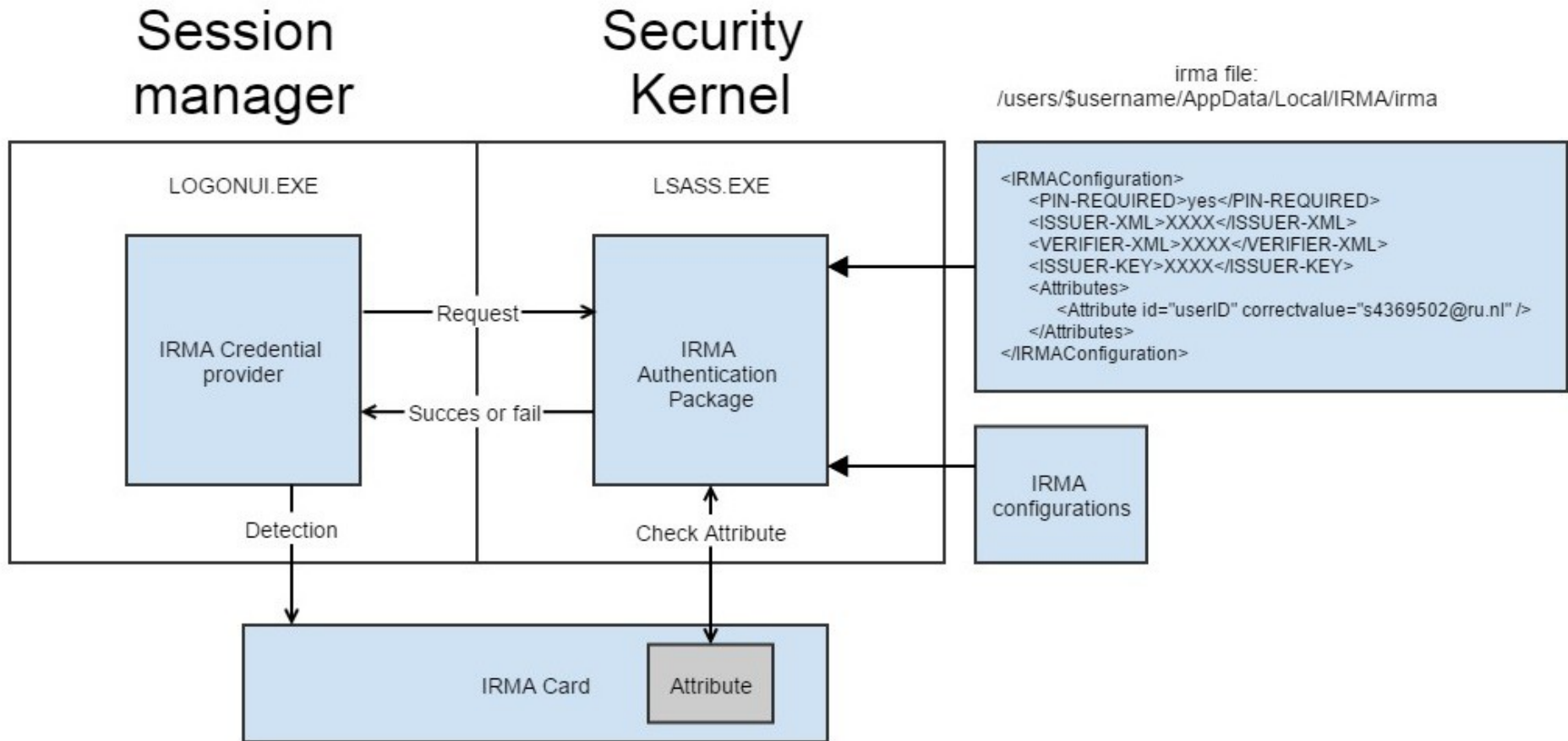


Verify attribute
Account = s1234567?

SILVIA/IRMA



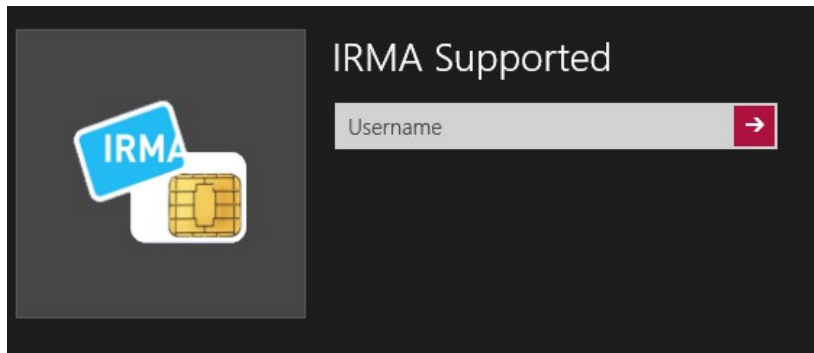
Technical overview



Credential provider

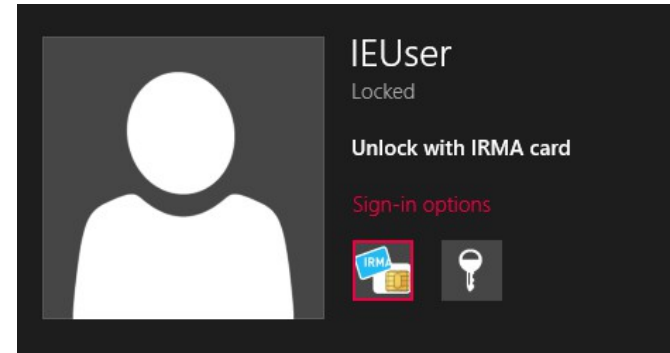
V1 Credential

Windows Vista and up



V2 Credential

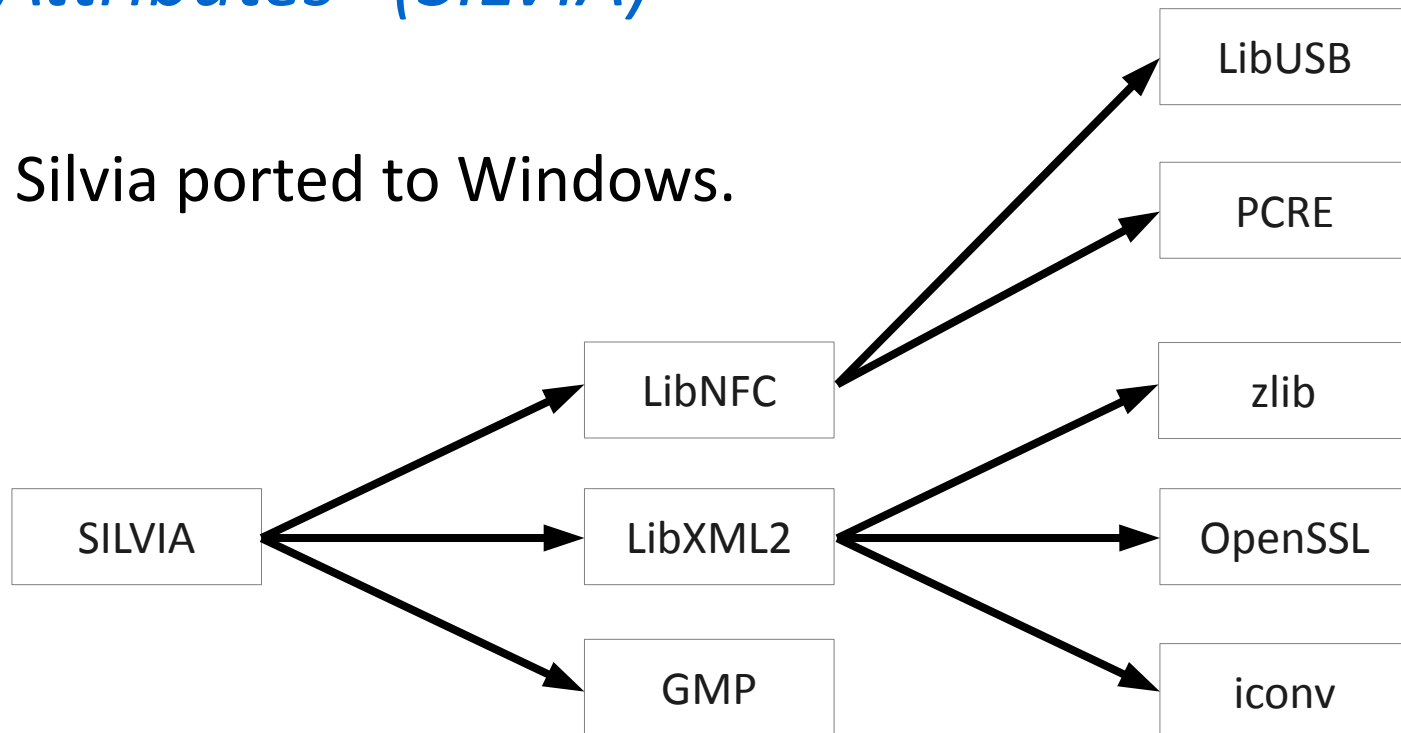
Windows 8



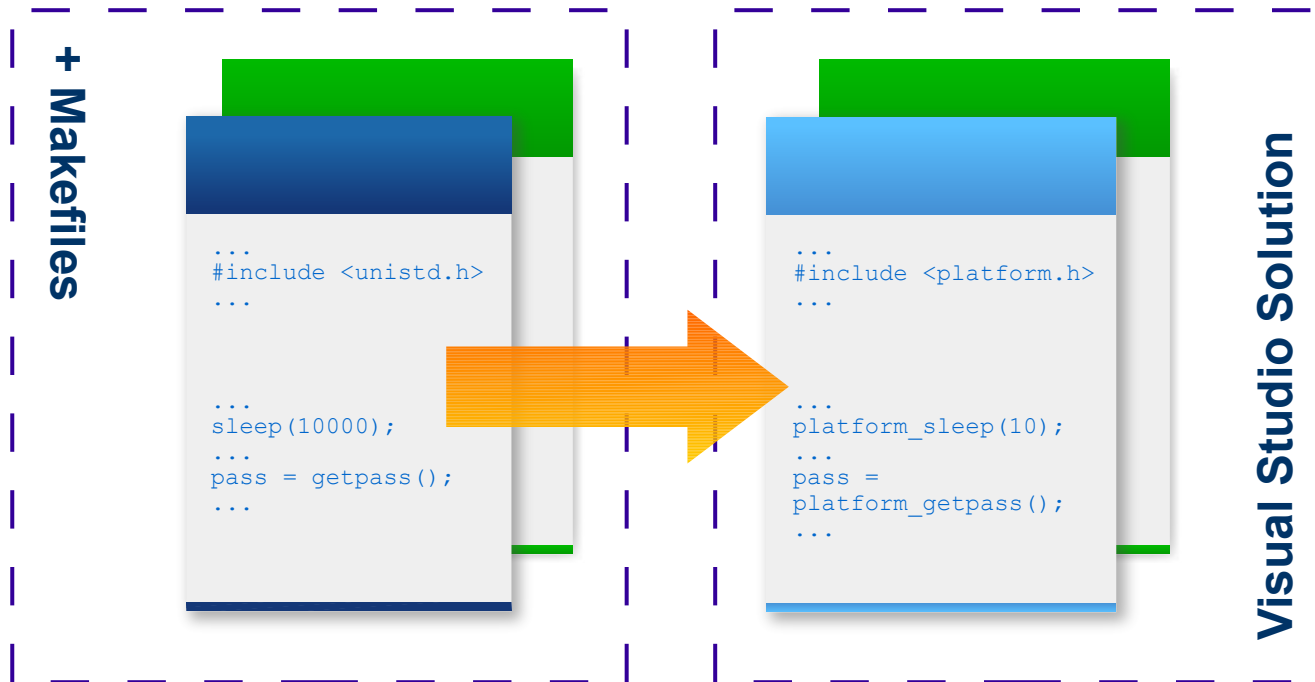
SILVIA for Windows

“The Simple Library for Verifying and Issuing Attributes” (SILVIA)

- Silvia ported to Windows.



SILVIA for Windows



- Abstract platform-specific functions to a platform module.
- Combine modules in a Visual Studio solution.

SILVIA for Logon

“Silvia Verification for Logon and Authentication for Windows”

- Based on SILVIA.
- Support authentication software by providing abstractions for:
 - Configuration file operations
 - IRMA card interaction
 - Attribute verification

SILVIA for Logon

The User specific configuration file

- Located in a user's *Local AppData* folder.
- Layout:

```
<IRMAConfiguration>  
  <PIN-REQUIRED> yes </PIN-REQUIRED>  
  <ISSUER-XML> XXXX </ISSUER-XML>  
  <VERIFIER-XML> XXXX </VERIFIER-XML>  
  <Attributes>  
    <Attribute id="userID"  
correctvalue="s4369502@ru.nl"/>  
  </Attributes>  
</IRMAConfiguration>
```

Difficulties

Credential Provider and Authentication Package

- No good example of Authentication package
- Limited freedom in Credential provider (User interface)
- Debugging

Silvia and Silvia for logon

- API has to “work around” restrictions; not always pretty.
- Exact working of the PIN mechanism.

Demo

Questions?