

# Arcot Universal Client SAFE-Compliant Digital Signatures

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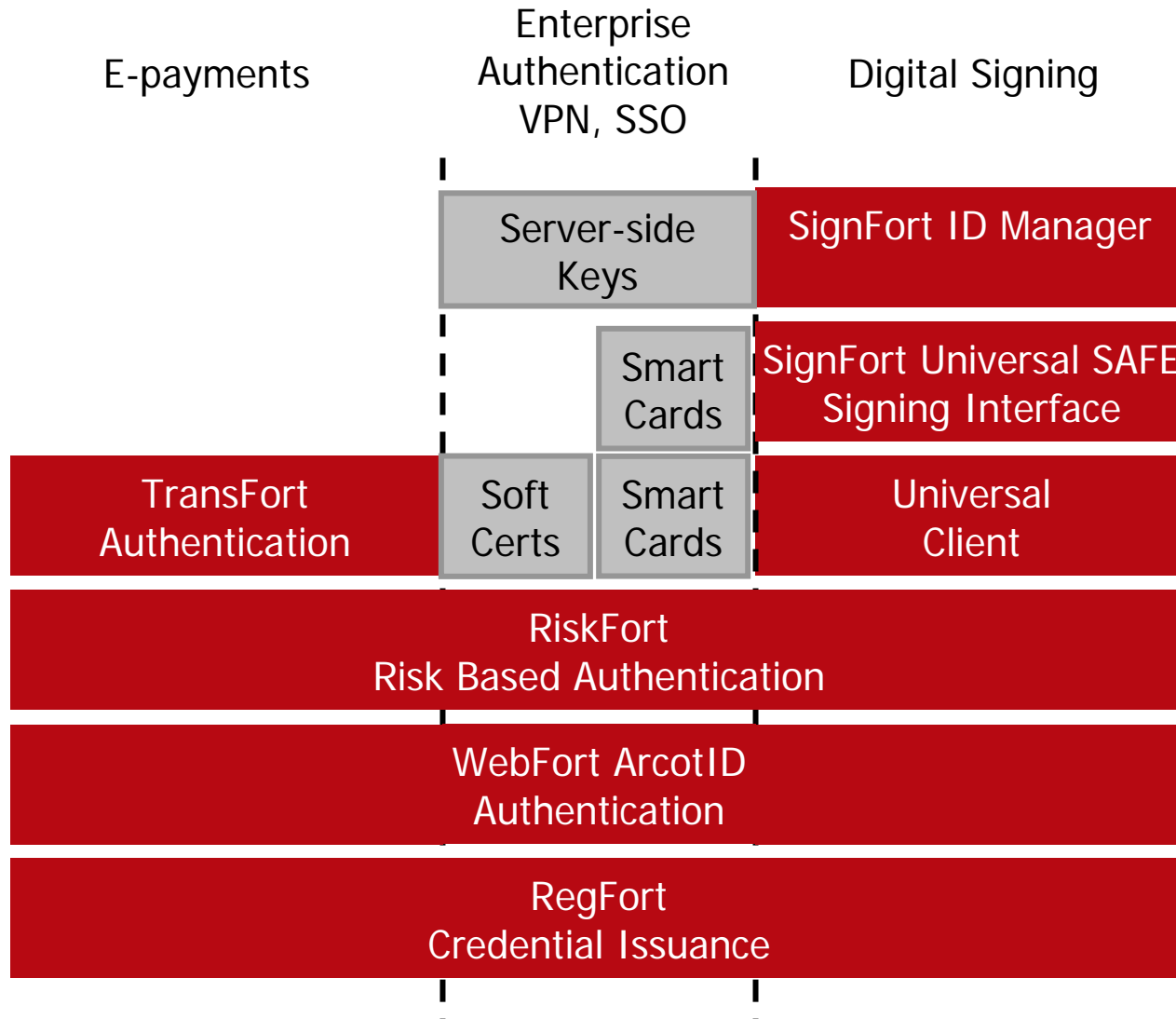
# Arcot Overview

- Authentication & Digital Signing Company
- Authentication
  - 2-party and 3-party authentication
  - Strong authentication with ArcotID – software smart card
  - Expertise in 3-party consumer authentication
    - Products in use by 11,000 Financial Institutions and 50M Users
  - IdenTrust compliant solutions
  - Integrated with Microsoft CardSpace (InfoCard)
- Digital Signing
  - Premier partner in SAFE Bio-Pharma initiative
  - First FDA submission at AstraZeneca uses Arcot
  - Integrated ‘remote signing’ with Adobe Acrobat 8

# About Arcot

- 12 awarded patents
  - Cryptographic Camouflage, e-payments, DB Access...
- Supports industry initiatives
  - Co-author of 3-D Secure protocol with Visa
  - Developed Version 1 of the SAFE validation protocol
  - Co-author of the ASSP protocol with Adobe
- High volume, high performance
  - TransFort supports over 11 million users
  - WebFort authentication < 120 milliseconds

# Arcot Product Matrix



# Applying a SAFE Signature

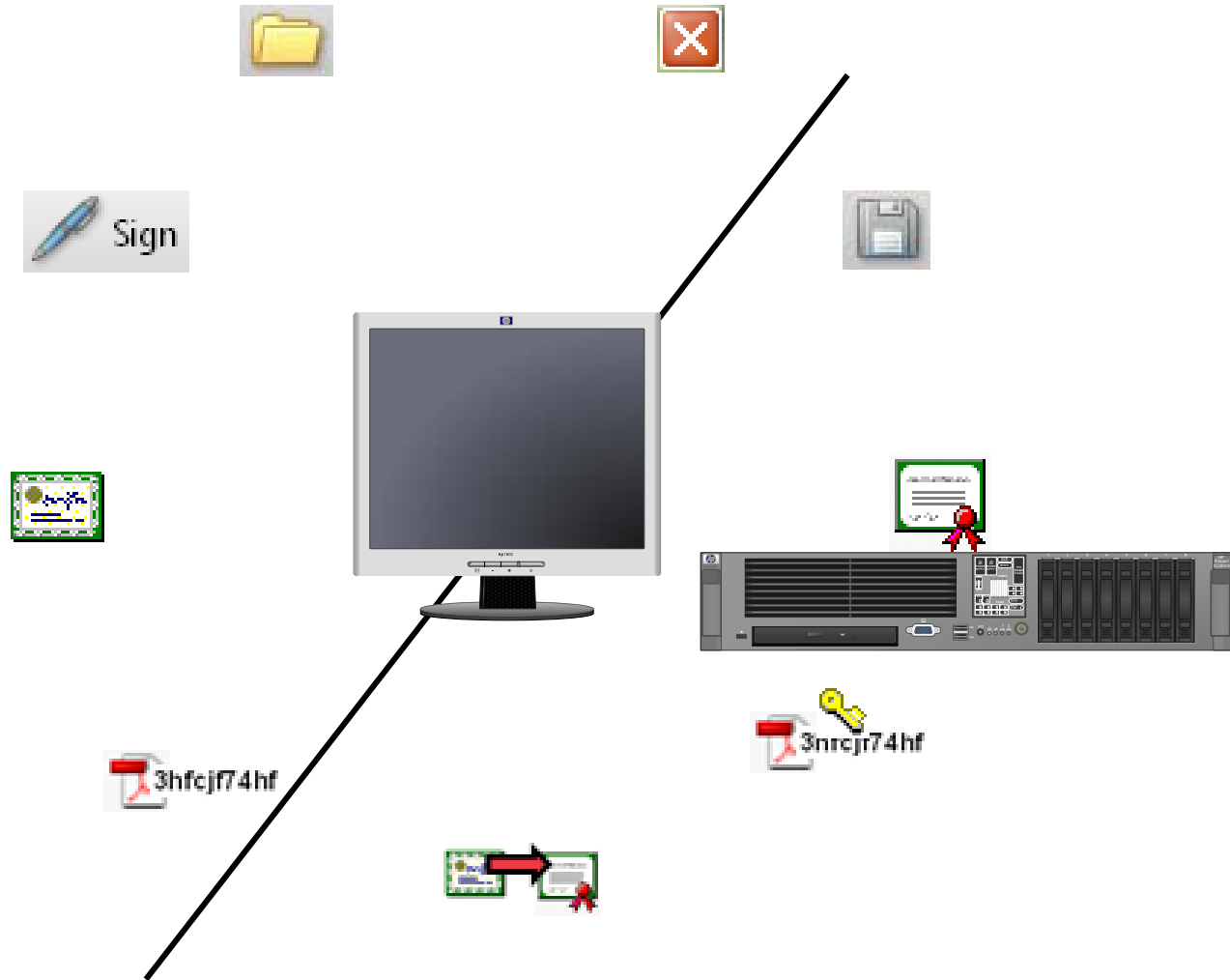
- SAFE Technical Specification - Signing UI
  - Indicate the intent to sign
  - Allow User to select appropriate SAFE certificate
  - May present one or more reasons for signing
  - SAFE Brand element
  - Allow User to assert that signature is intended to be legally enforceable under applicable SAFE agreement
  - Able to extract Reason information from workflow, if present
  - Present pass phrase dialog to User to unlock private key
  - User has option to cancel anytime
  - Provide success/failure status of signing event

# Applying a Digital Signature

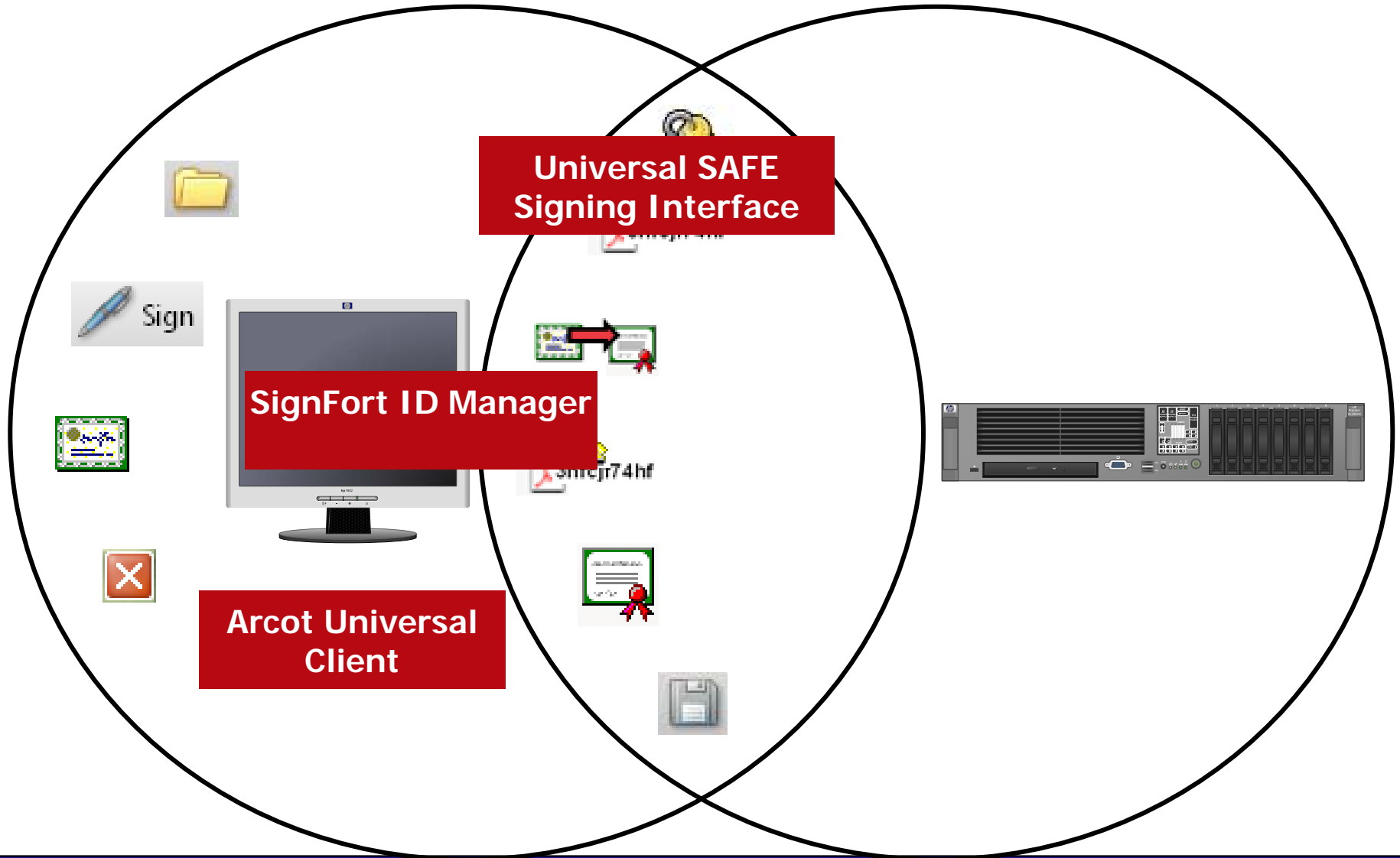


1. Open Doc
2. Click "Sign"
3. Choose Digital ID
4. Calculate Hash
5. Validate Digital ID
6. Sign Hash
7. Embed Digital Signature
8. Save Doc
9. Close Doc

# Client-side vs. Server-side



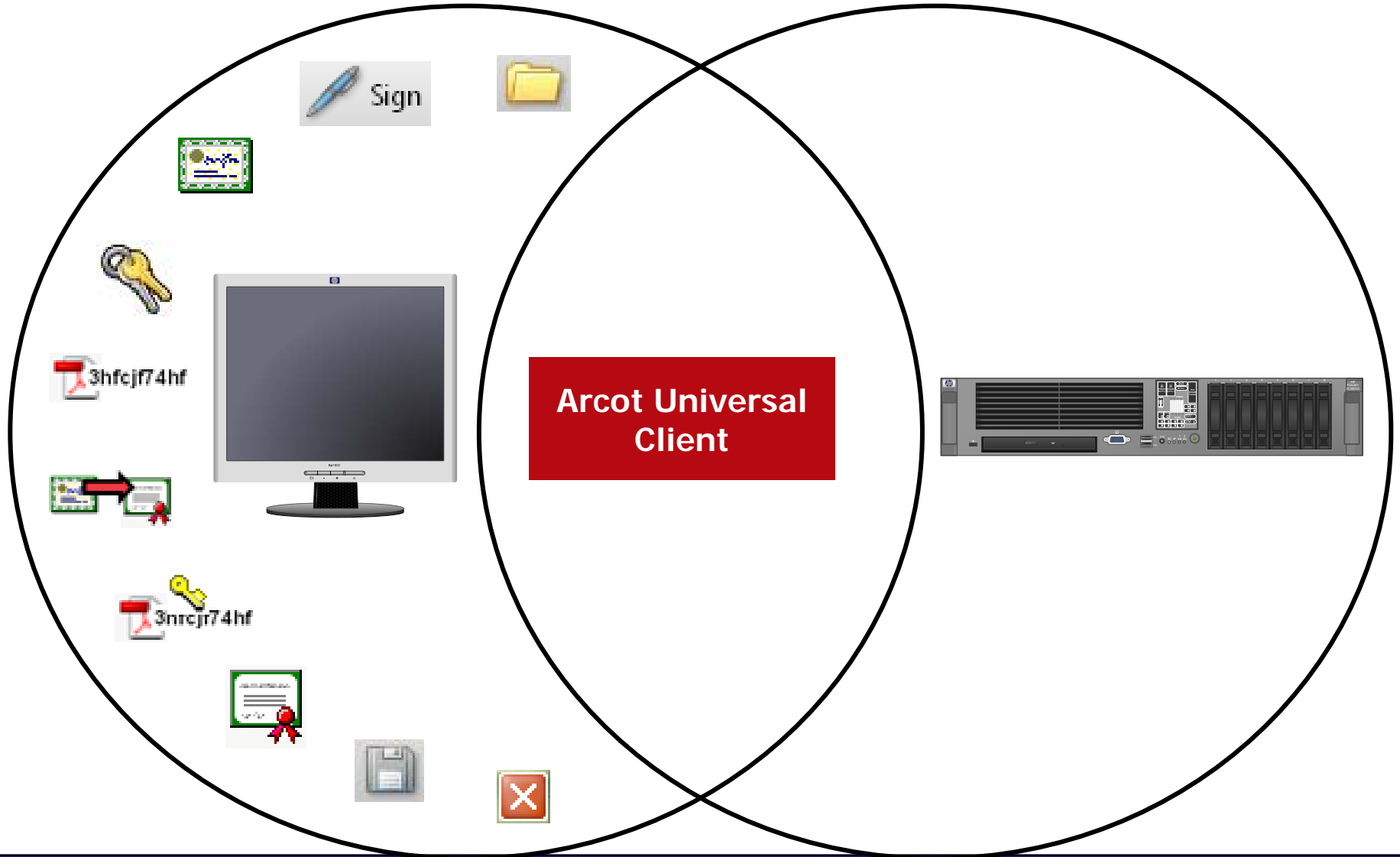
# Client-side vs. Server-side



# Arcot Universal Client

## Client-side Signing and Validation

# Arcot Universal Client



# **Demonstration – Arcot Universal Client and Adobe 6 Professional**

**File and Folder Tasks**

- Make a new folder
- Publish this folder to the Web
- Share this folder

**Other Places**

- Desktop
- My Documents
- My Computer
- My Network Places

**Details**

**Sign**  
File Folder  
Date Modified: Today, January 25, 2007, 12:44 PM

Name	Size	Type	Date Modified
Adobe Reader 7.0	2 KB	Shortcut	1/25/2007 9:06 AM
FDA-1572.pdf	159 KB	Adobe Acrobat 7.0 ...	1/25/2007 12:51 PM
FDA-1572_2.pdf	80 KB	Adobe Acrobat 7.0 ...	1/25/2007 12:42 PM

# Advantages of AUC

## Benefits

- Same AUC install provides signing in web browser or Adobe Acrobat Standard, Professional and Reader, versions 6 and 7
- Supports multiple Digital ID's
- Supports multiple smartcard and USB crypto tokens
- User sees consistent signing interface
- Provides IdenTrust and SAFE compliant signing and full OCSP validation

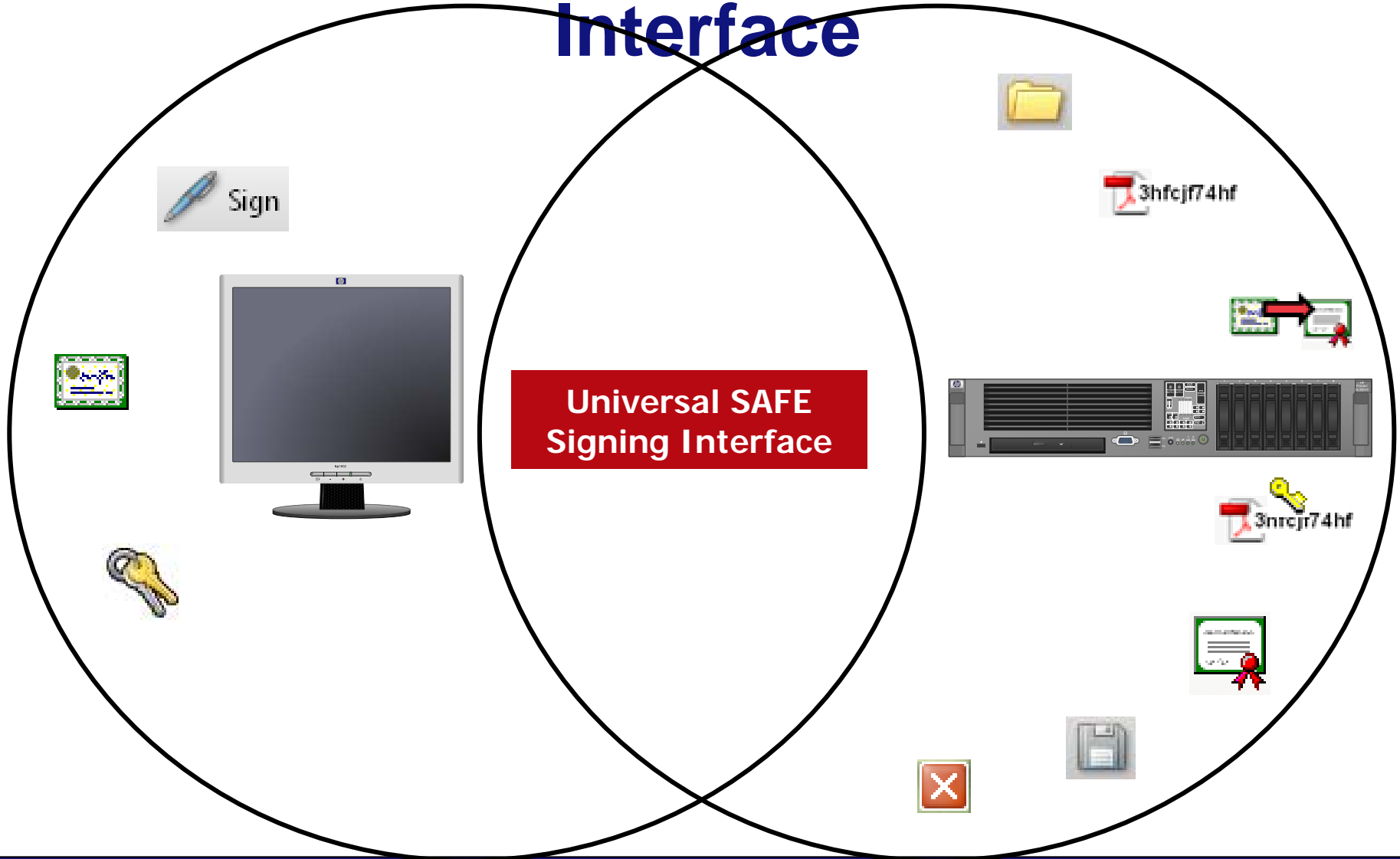
## Considerations

- User must have the Digital ID at their computer
- Digital ID infrastructure (drivers, reader etc) must be installed on user's computer

# SignFort USSI

Universal SAFE Signing Interface

# SignFort Universal SAFE Signing Interface



# Demonstration – USSI Stand-Alone



# Advantages of USSI

## Benefits

- Application does not have to managing signing – simple integration
- User does not need a signing platform
- User sees consistent signing interface
- USSI manages all digital signing details – OCSP check, time stamping, verification report

## Considerations

- User must have the Digital ID at their computer
- Digital ID infrastructure (drivers, reader etc) must be installed on user's computer

# Arcot Digital Signing Summary

- Arcot Universal Client (AUC)
  - All digital signature operations happen on user's machine
  - Great for POC's, small deployments, etc
  - Used by AstraZeneca for FDA submission
  - SAFE-compliant
- SignFort USSI
  - Digital signing process managed by server
  - Some operations performed by server
  - Designed for integration with document management systems
  - Integrated with EMC Documentum
  - SAFE-compliant
- SignFort ID Manager
  - User's private key stored securely at server- no hardware required
  - Embedded solution in Adobe 8 Acrobat and Reader- no plug-in required
  - Not currently SAFE-compliant

# Thanks!

- For more information please contact:

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