

e-gate smart card technology

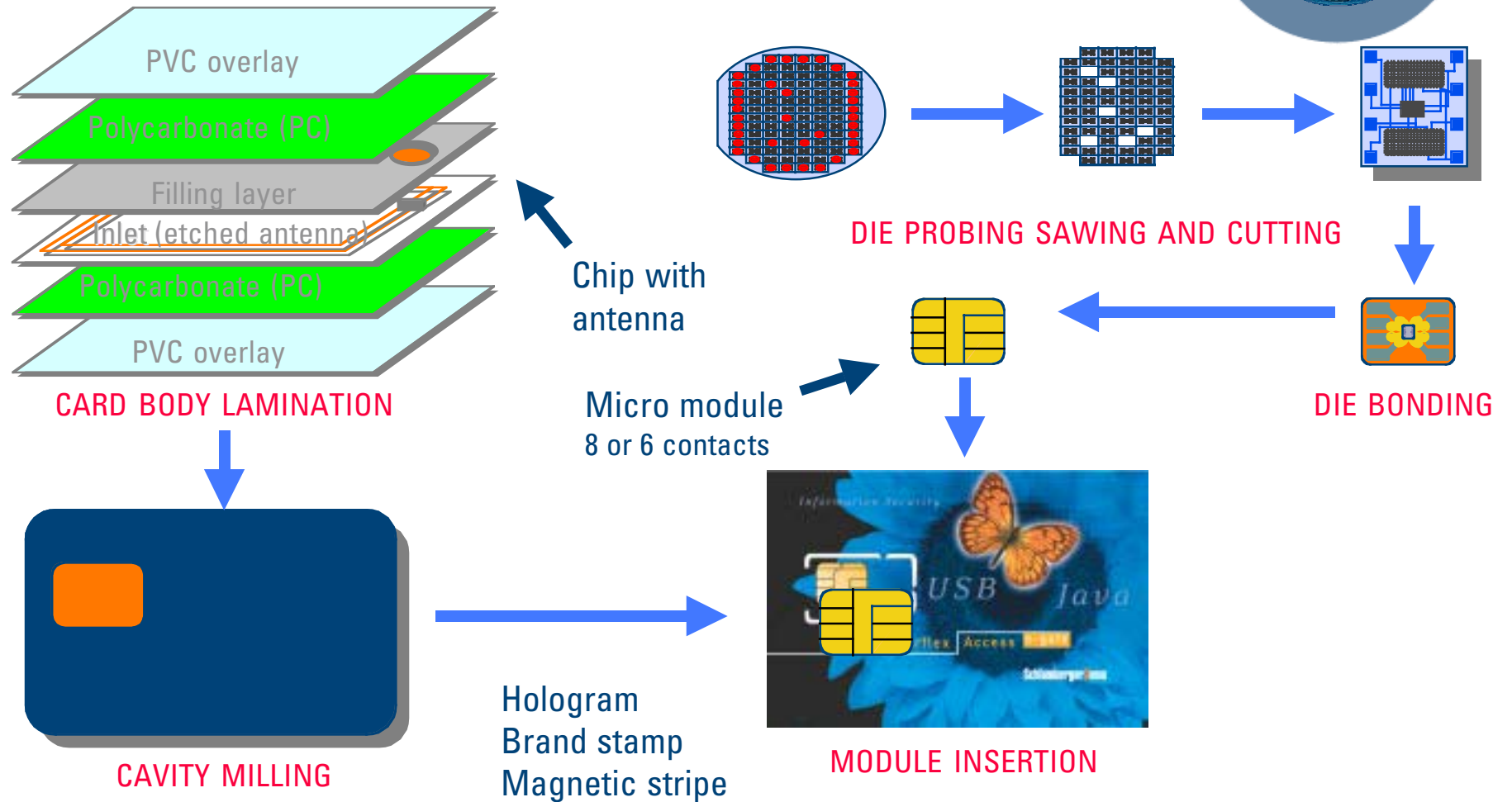
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Agenda

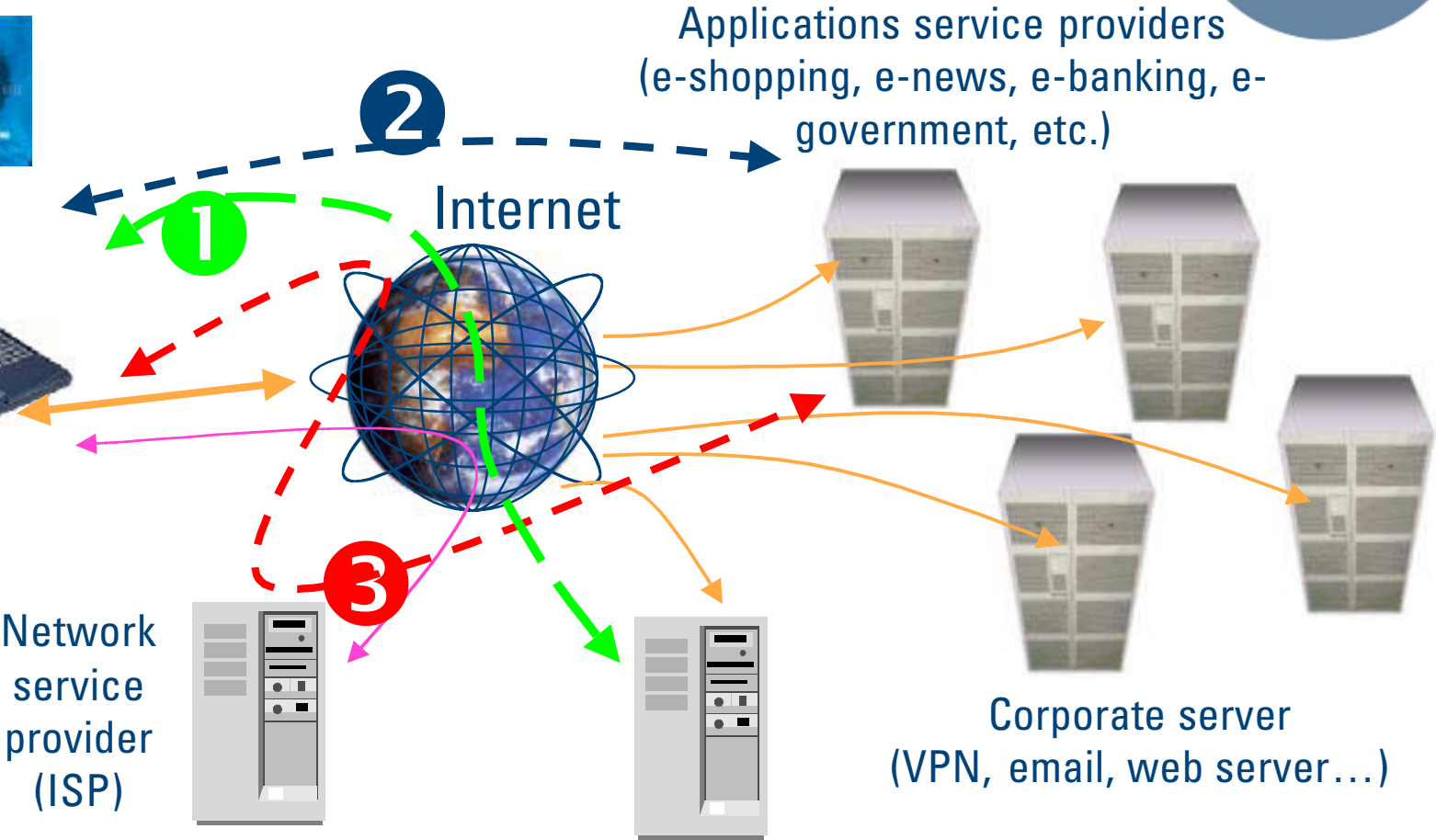


- ➔ Smart cards background and possible applications
 - Smart card and USB protocol: e-gate smart cards
 - e-gate smart card format, capabilities and performance
 - e-gate smart cards products
 - Conclusion

What is a smart card



A generic network system

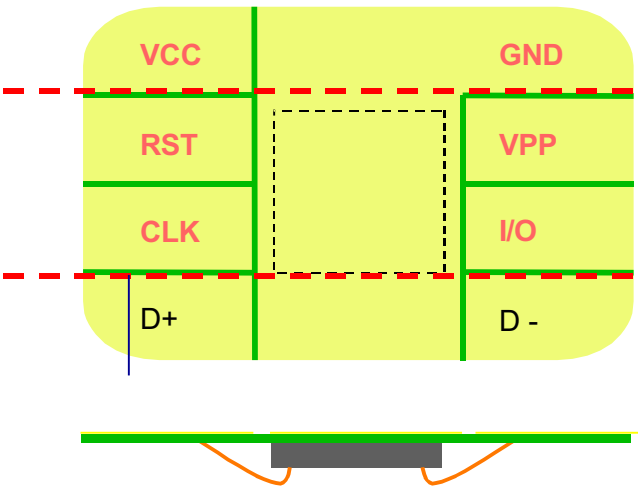


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e-gate smart card module



Power supply

ISO 7816 protocol:

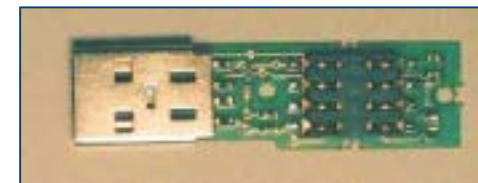
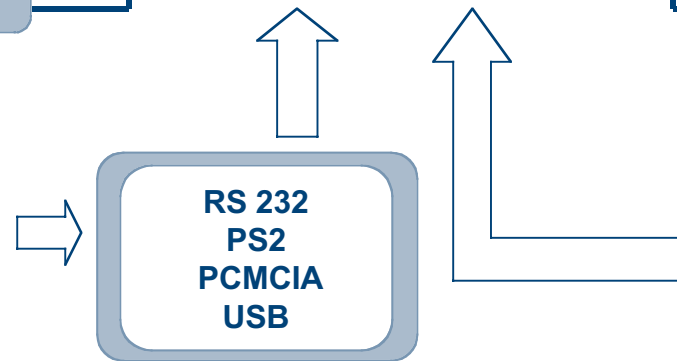
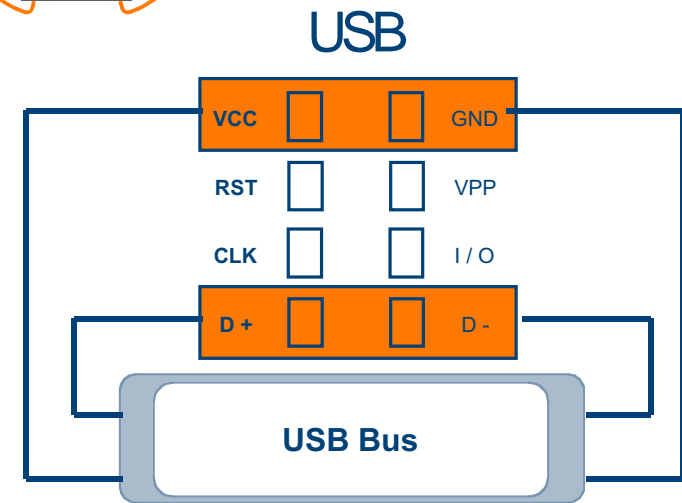
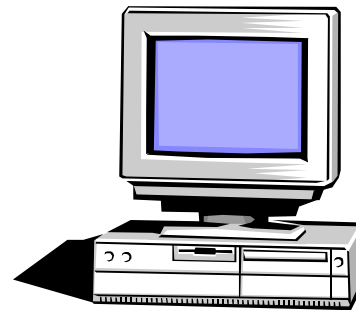
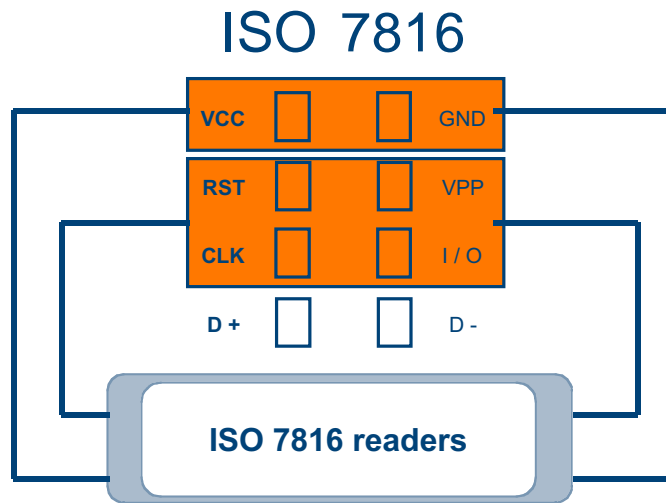
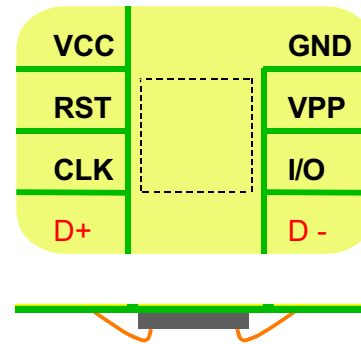
- Physical access
- protocol

USB v1.1:

- On more than 250 million PCs

e-gate smart cards require only an amendment on 7816-2

ISO / USB smart cards



e-gate solution: a virtual reader



Browser

Communication with the network

CSP/CAPI or PKCS#11

PC/SC

e-gate card driver



Communication from/to the card with a USB SC extension

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e-gate smart card format



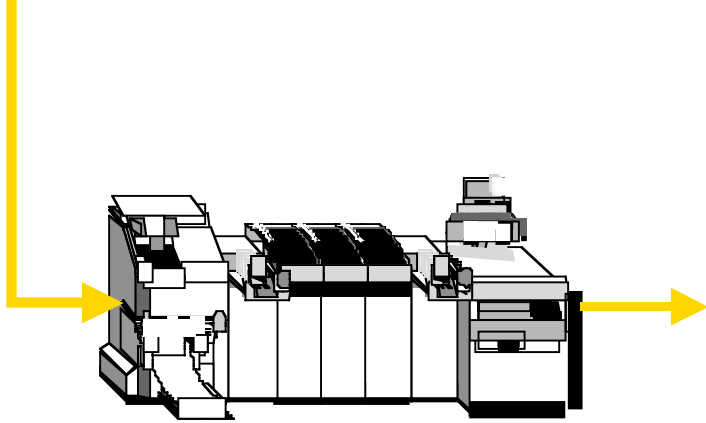
SIM card



ISO card



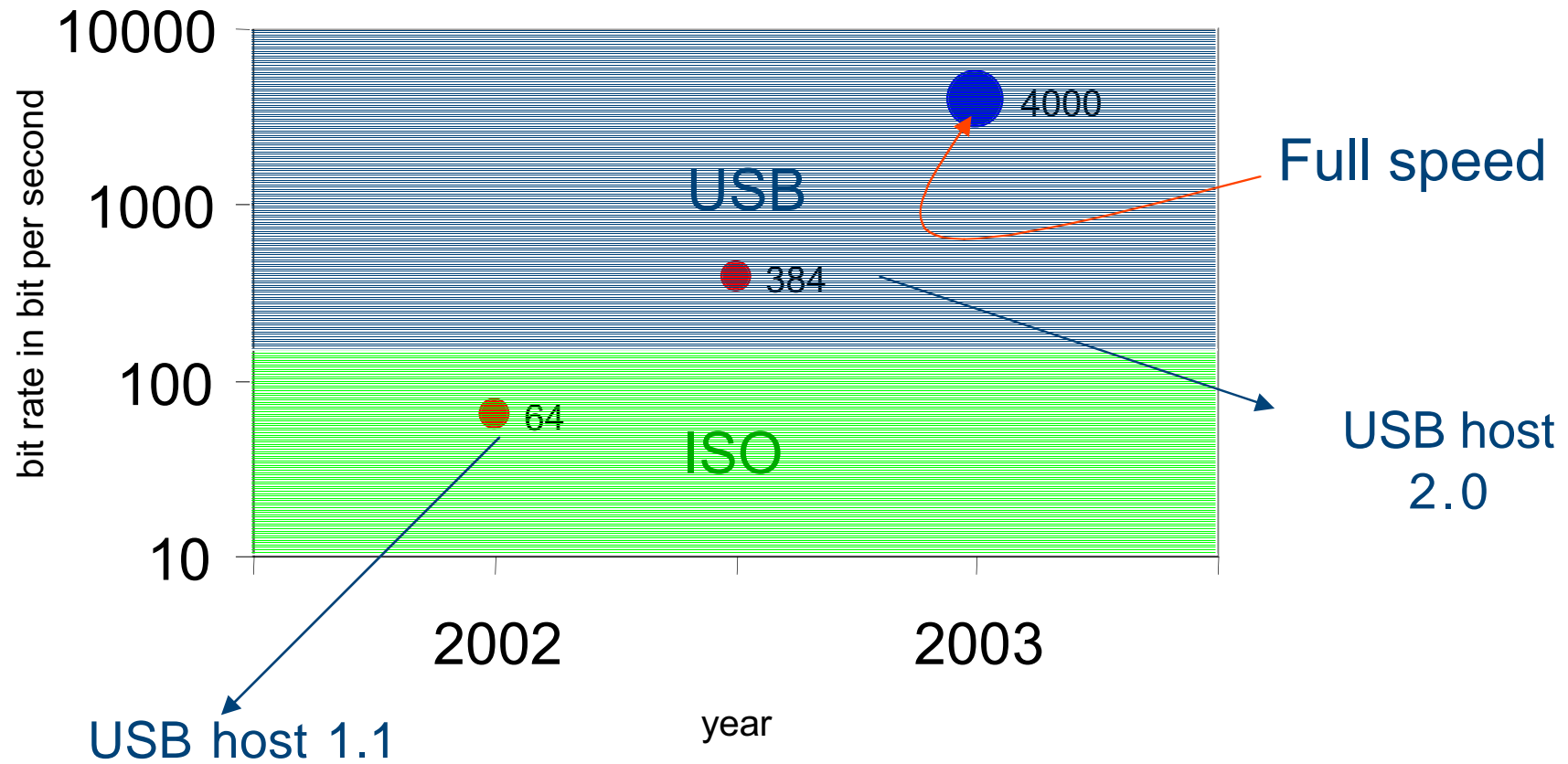
e-gate smart card personalization



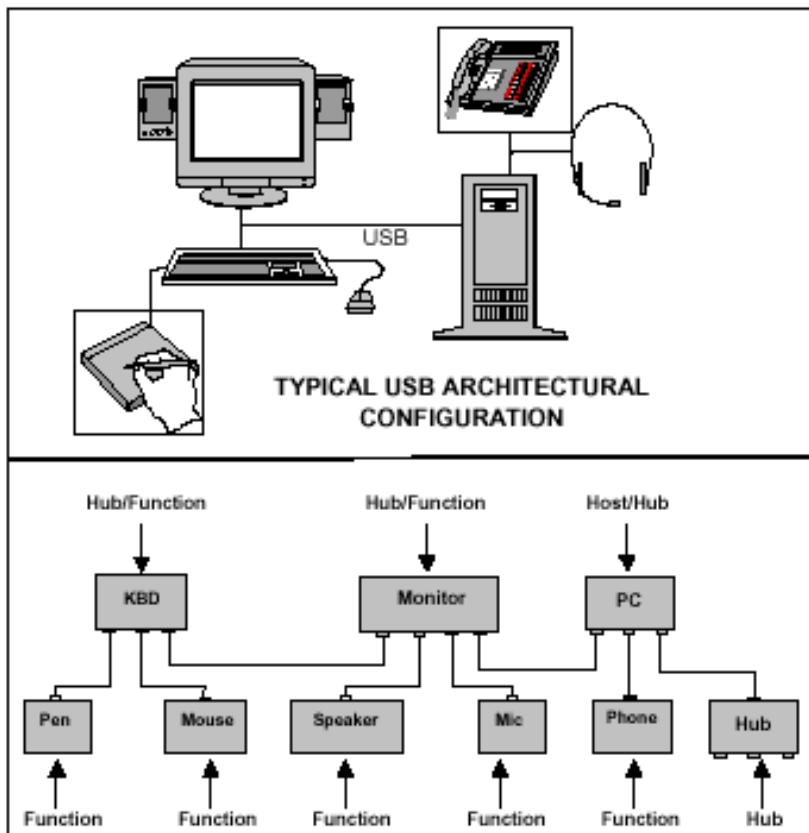
Personalization



Speed evolution



Benefits



Simplicity

- Smart « PC peripheral »
- No more slot contention issue
- Easy to install and deploy

The optimum performance/cost ratio

With the smallest sensitivity to USB bus activity

TCO reduction compared to ISO-only smart cards

- Direct cost reduction
- Ease of deployment & maintenance

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e-gate smart cards

Cyberflex

- Java card 2.1.1, VOP 2.0.1'
- T=0, T=1 in ISO; T=0 in USB
- EEPROM: 32K
- RSA up to 1024 bits
- DES, 3DES

USB compliance v1.1 (include FCC/CE)
Connector: UL certification

Cryptoflex

- EEPROM: 32K, 16K
- RSA up to 2048 bits
- DES, 3DES
- FIPS 140-1 level 2 (April 2002)
- USB compliance v1.1 (include FCC/CE)



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Today's end user needs

Easy installation & configuration

Limiting impact on PC

Convenience and ease of use

Plug & play, auto-login, pwd

Network security and privacy

Cryptography, secure storage

Mobility

Portable profile, connectivity with other devices



Card issuer's needs

Avoid technical concerns

Simplify deployment infrastructure

Ensure secure authentication

Two factor authentication, non-repudiation

Reduce PKI TCO

No reader and maintenance

Flexibility & evolution

Physical access, ID, multi-application with the same card