



Aalto University
School of Electrical
Engineering

S-38.3046 Value Network Design for Internet

Case: Initial Authentication Service
Value Network Configurations

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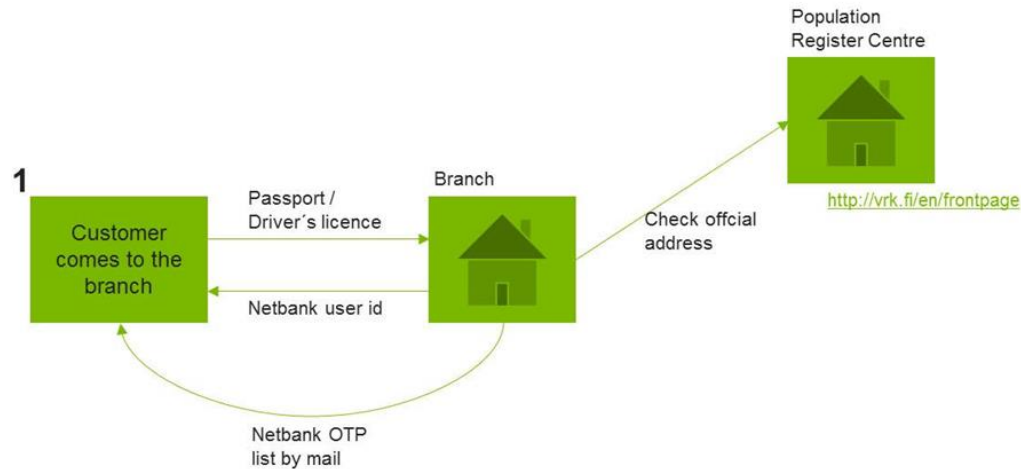
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Recap for case description



CURRENT PROCESS - MOBILE



2

Customer creates mobile netbank credentials using OTP list on paper

Is there other opportunities to get a bank credentials than visit bank office for a person who doesn't have any previous bank credentials?

S-Pankki

List of ranked uncertainties

- U1: Can new technologies allow to avoid a personal contact in a bank to open new account?
- U2: Can social media services provide stronger identification?
- U3: Will open bank APIs provide new needs for bank identification?
- U4: How EU directives like PSD2 (Payment Services Directive) change banking market? Will there be new directives?
- U5: Will technology of biometrical (ex. voice, retina), behavioral (ex. swiping speed) or physical (ex. heart rate) identification provide new identification methods?

Scenario matrix

	U1	U2	U3	U4	U5
U1	X	+	+	?	+
U2	X	X	+	0	-
U3	X	X	X	?	+
U4	X	X	X	X	?
U5	X	X	X	X	X

Important roles for Initial Authentication Services

Business actors:

- Customer
- S-Pankki
- Population register centre
- Identification service provider

Technical roles:

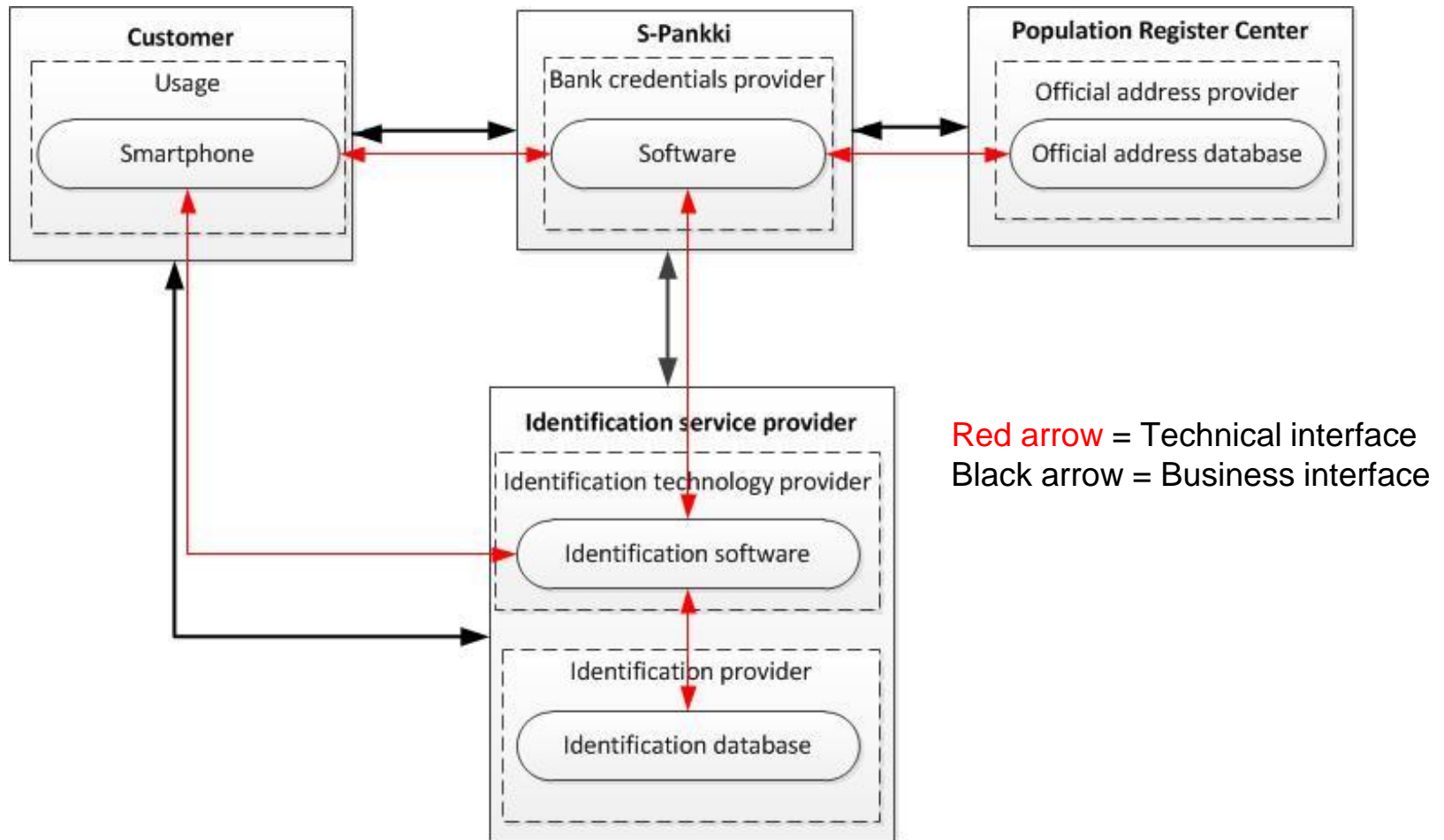
- Smart devices
- Application software
- Official address database
- Identification information database
- Identification software

Value Logic Drivers for role importance

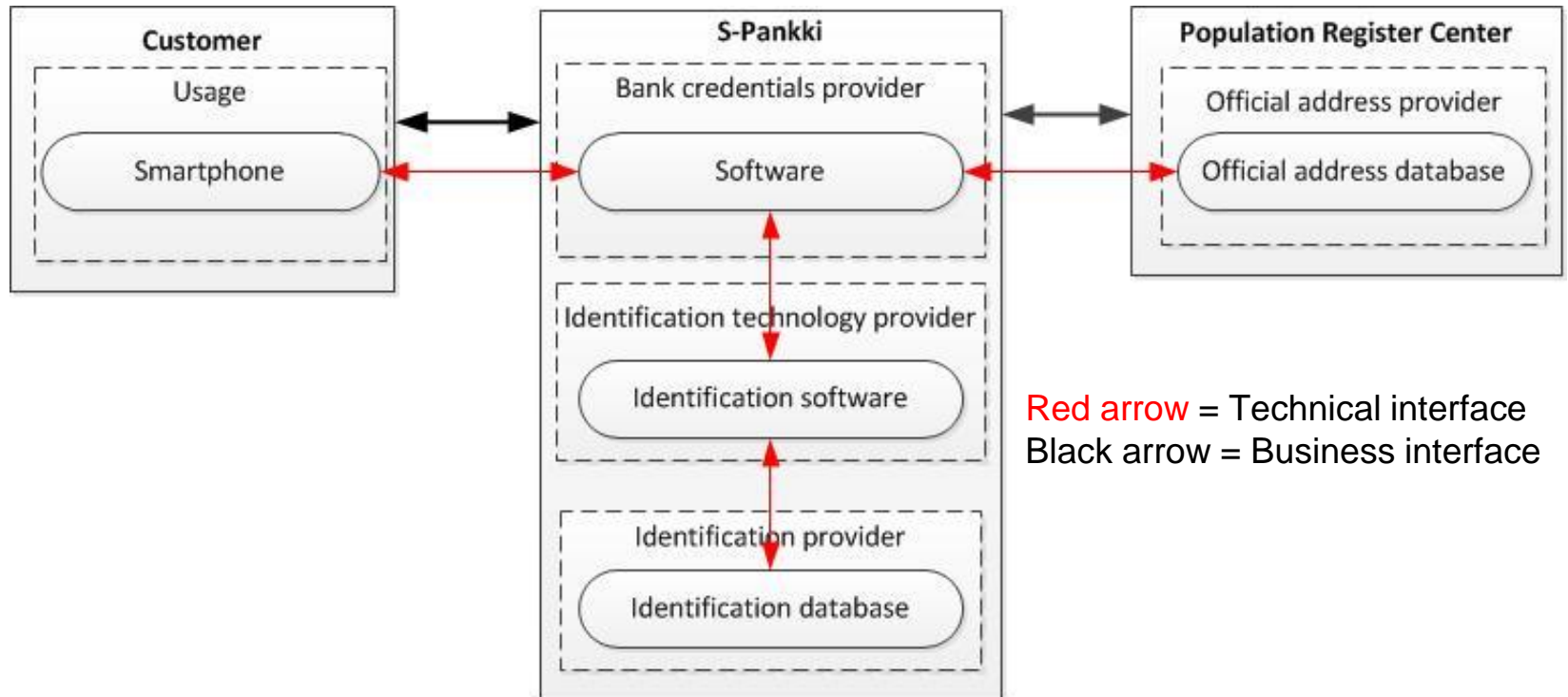
Role	Value Logic	Drivers for Role Importance
Identification Software		<ul style="list-style-type: none">+It is automated+Lessens the man power-If prone to errors, it results in major damage/loss- Security issues
Identification Information Database		<ul style="list-style-type: none">+It helps to structure/store the data we need.+Easy to find data we are particular looking for+ Can be updated easily with any new information regarding the customer+ Genuine identification- Database might have human based errors when updating (replication, something missing, etc.)

Role	Value Logic	Drivers for Role Importance
Official Address Database		<ul style="list-style-type: none"> + Since most of the times address keeps changing, it is important to have an official address database that can be updated when necessary + Banks could use this for any intimation of anything related to the account. - The person doesn't yet have an official address (moving to different place) - Person stays in the country where he/she has the bank account
Application Software		<ul style="list-style-type: none"> + Using latest technology + Easy access for all the target groups + Multilingual - Application error could lead to loss - Security issues need to be taken into account very well
Smart Devices		<ul style="list-style-type: none"> + Easy to access + Faster service than visiting the bank - Security issues with open networks

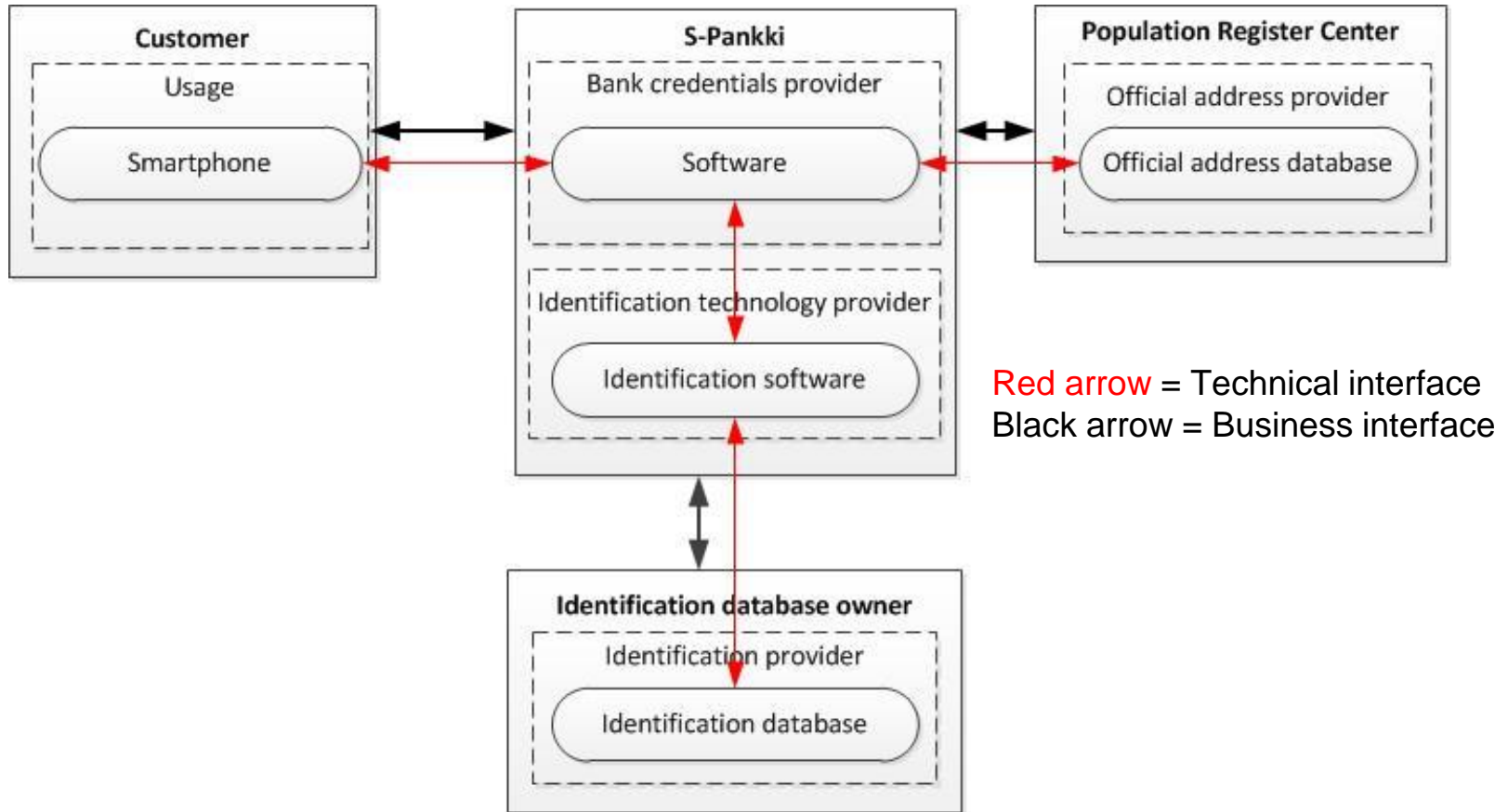
End-user driven VNC



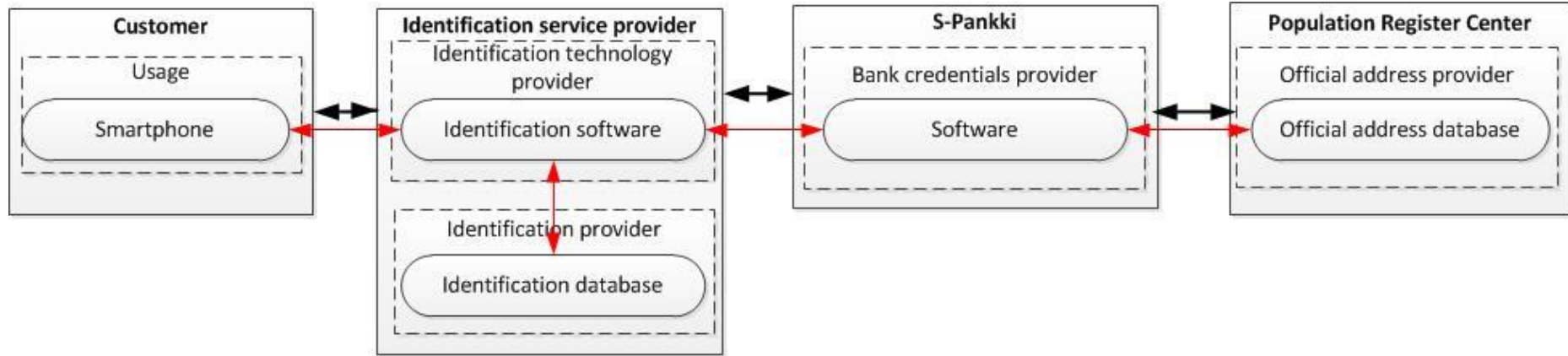
Bank driven VNC



Bank driven VNC with separate identification database

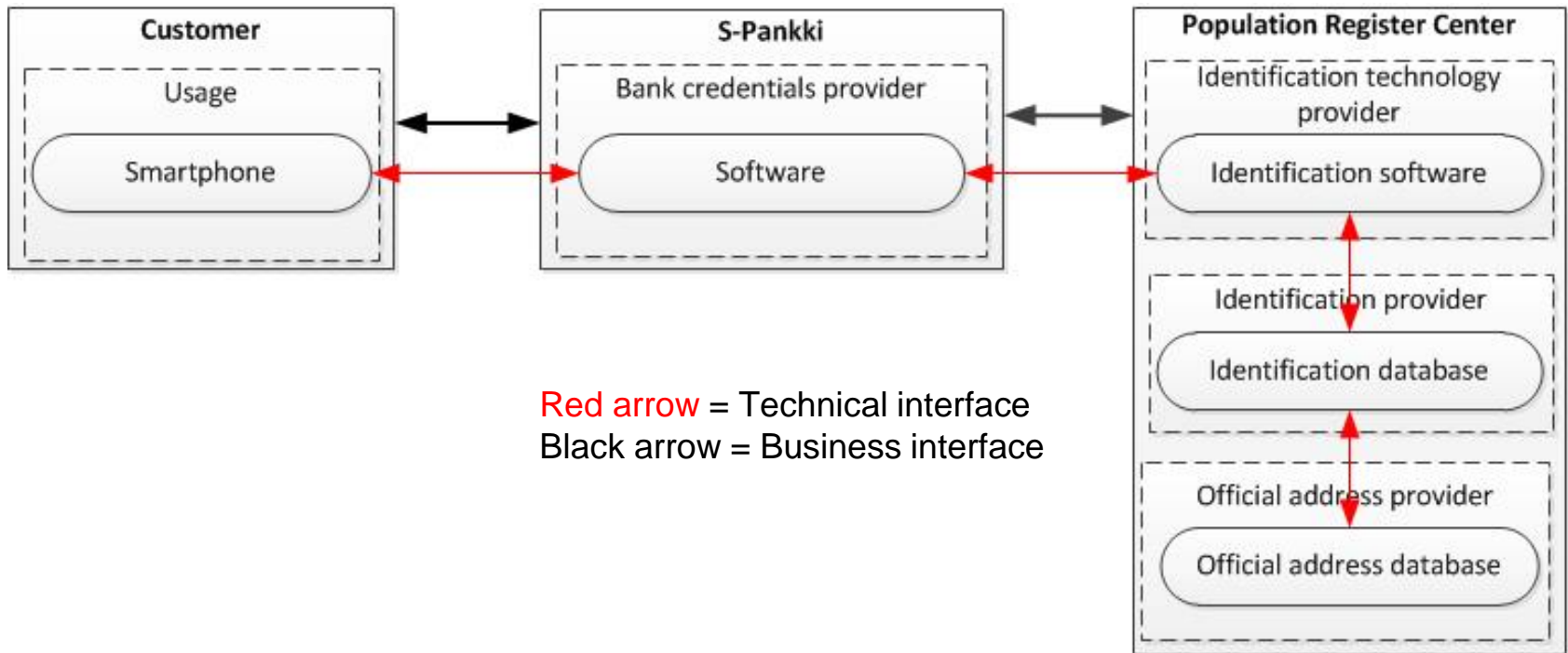


Identification service driven VNC

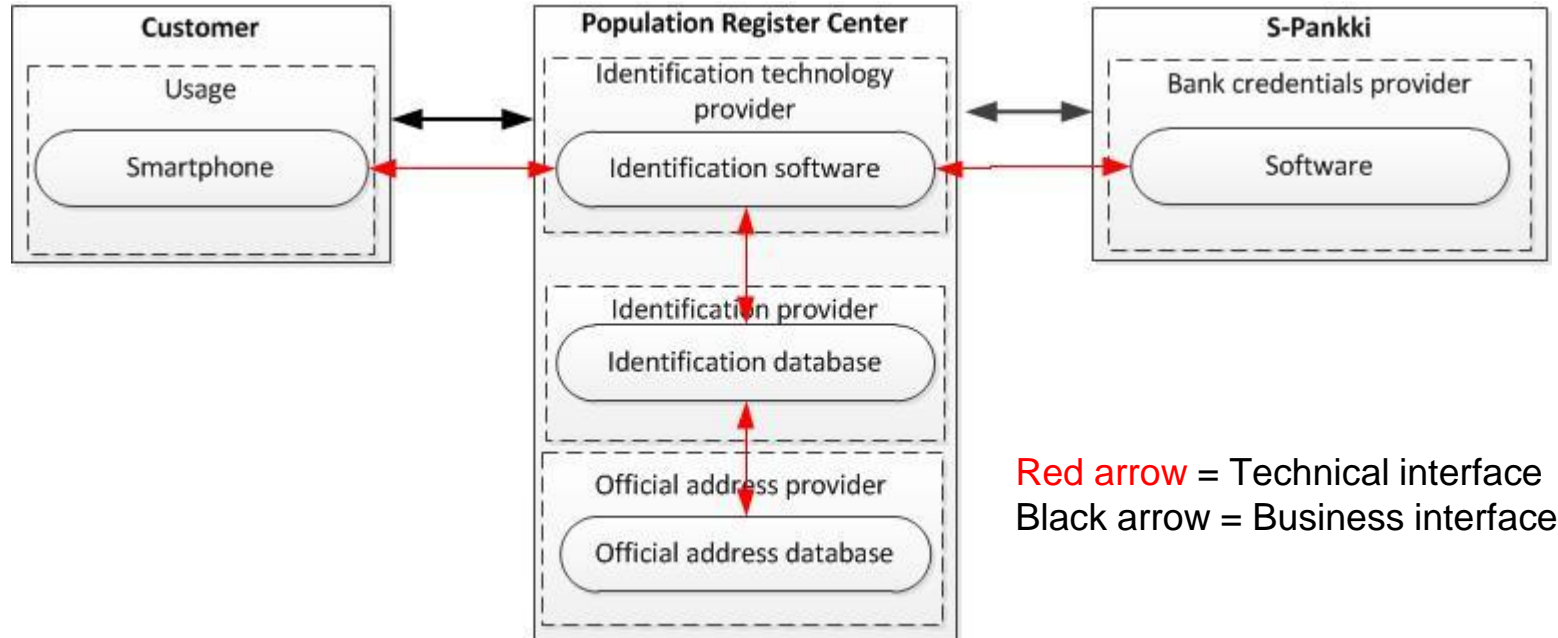


Red arrow = Technical interface
Black arrow = Business interface

Identity information provider driven VNC (redirect from bank application)



Identity information provider driven VNC (redirect from population register)



Thank you!

Questions, comments or feedback?