eCAT

Self-Service Terminal Multi-Vendor Application Platform

We Move Faster

GRGBanking Equipment Co., Ltd.

GRG Banking
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1 Open Platform eCAT

2 Advanced Features

3 Advantage and Case Study

OPEN PLATFORM

Based on software BUS technology

- implement new requirements by plugging in add-ins

1

Easy technology (Visual Studio, .net 2008, C#)

- easy to learn and develop

2

Provide mature SDK for secondary developments

- SDK Documentation
- Code sample template

3

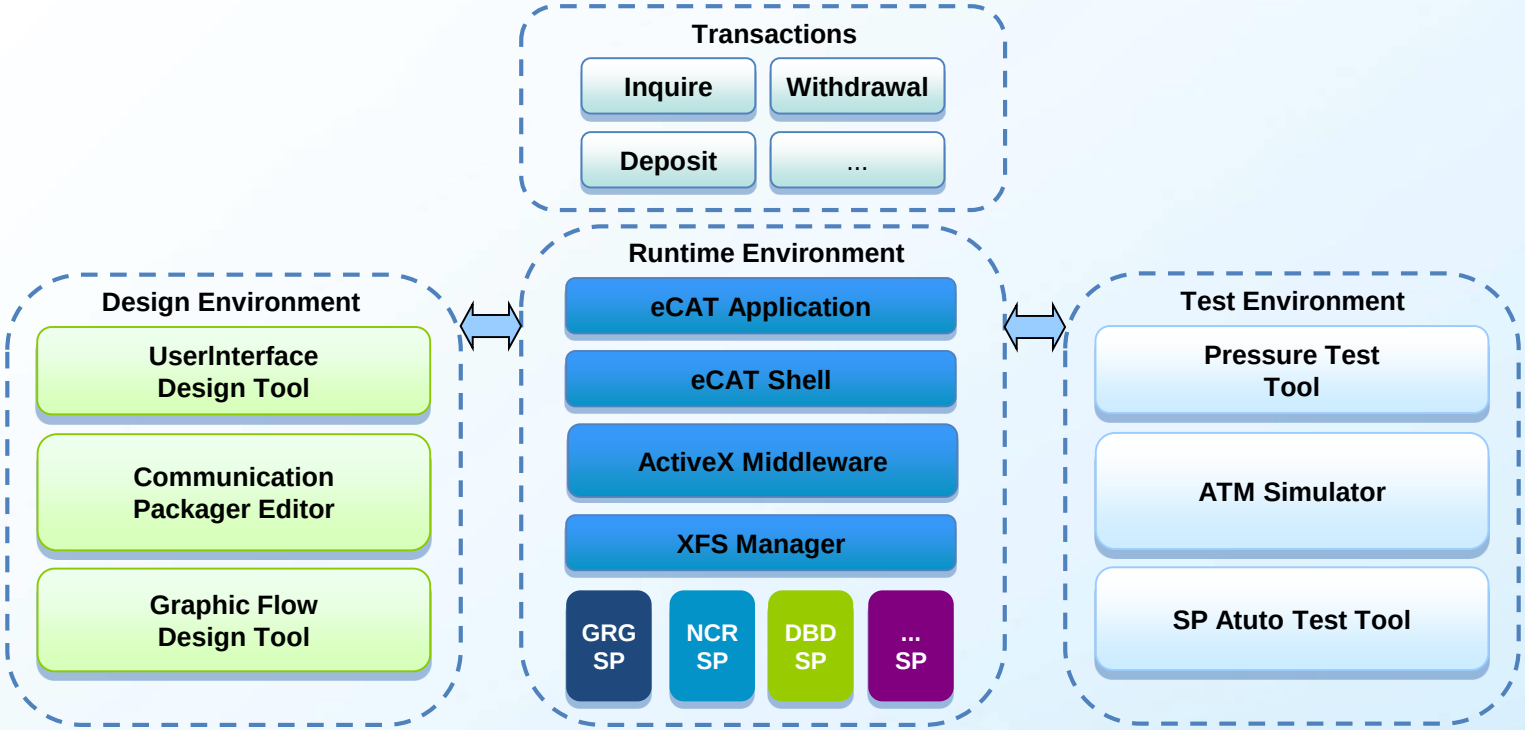
Full-scaled auxiliary tools

- GVE(GRG Visual Expression), integrated with flow designer, package editor, HTML editor, Form designer
- Automatic test platform

4

FEATURES

Software Architecture



Fast and Easy Deployment

1. Base on CEN XFS 3.0 or higher
2. Convenient secondary development
3. Web application

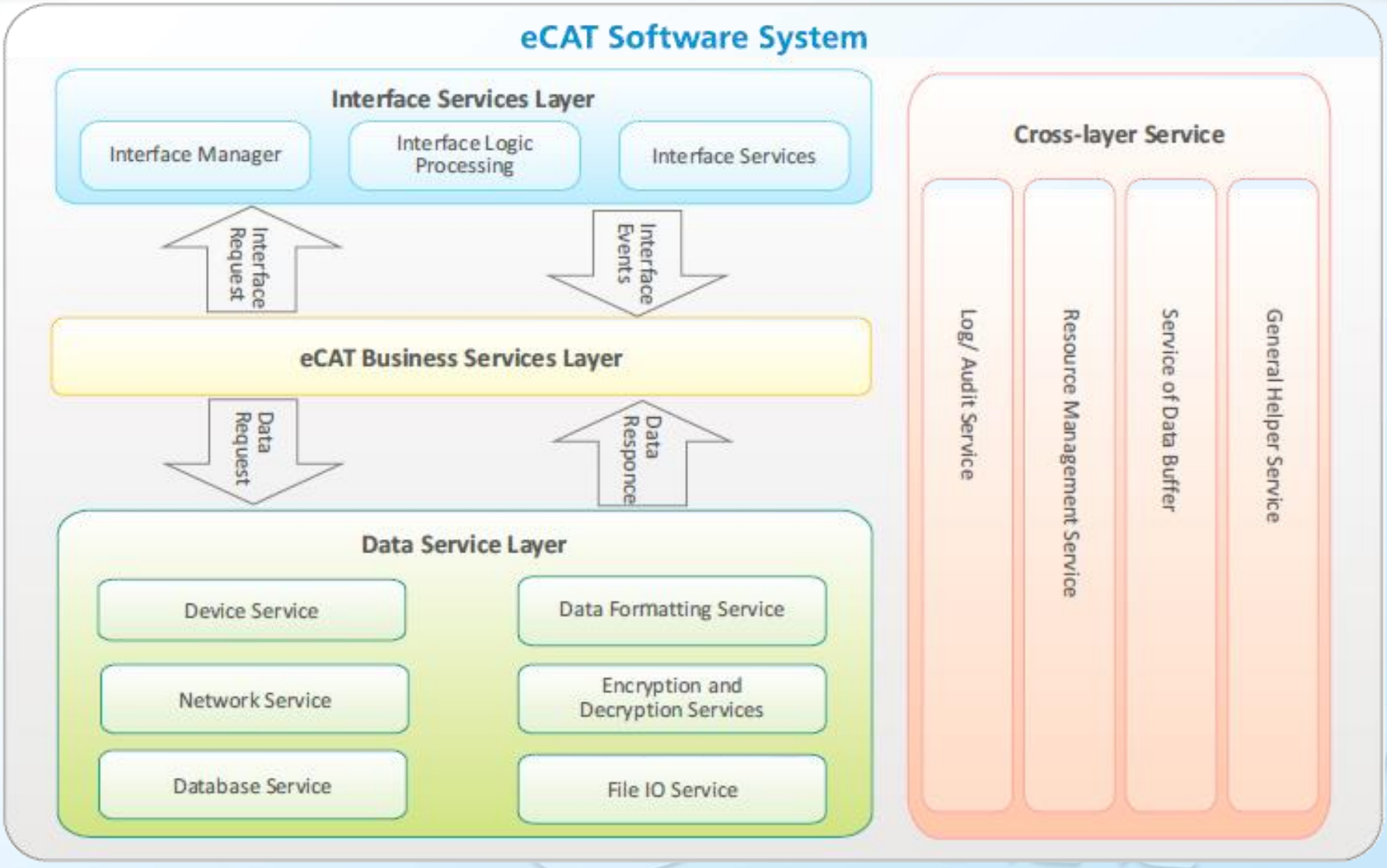
User Friendly

Graphical and configurable user interface

Intrinsic Security

EMV Level 2, DES, 3DES, MAC, 2048-bit encryption algorithms, bank card device security standards, RKL

SOFTWARE ARCHITECTURE



NEW FEATURES OF eCAT3.0R2

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Extended development Platform

- ✓ A series of related tools
- ✓ SDK platform
- ✓ Help Documents
- ✓ User can create additional actions
- ✓ Visual expression flow designer

Support NDC、DDC EMV、ADA、RKL…

Support Windows 7

Multilingual support

New products support, like VTM、sorting machine…

Support Multi-Core CPU

Multiple network protocols support, like HTTP、HTTPS、Web service…

Various touch screen operations support, like gesture…

MULTI VENDOR SUPPORT

Vendor	ATM	BNA / CRM
NCR	5886,5887,6625	6636,6676,6635
Diebold	560,562	328
Wincor Nixdorf	2050(xe),2000(xe), 2100	PC4000
Hitachi	-	2845V
OKI	-	21SE,21SX
Hyosung	MX5600(T),5050	MT8000(T)

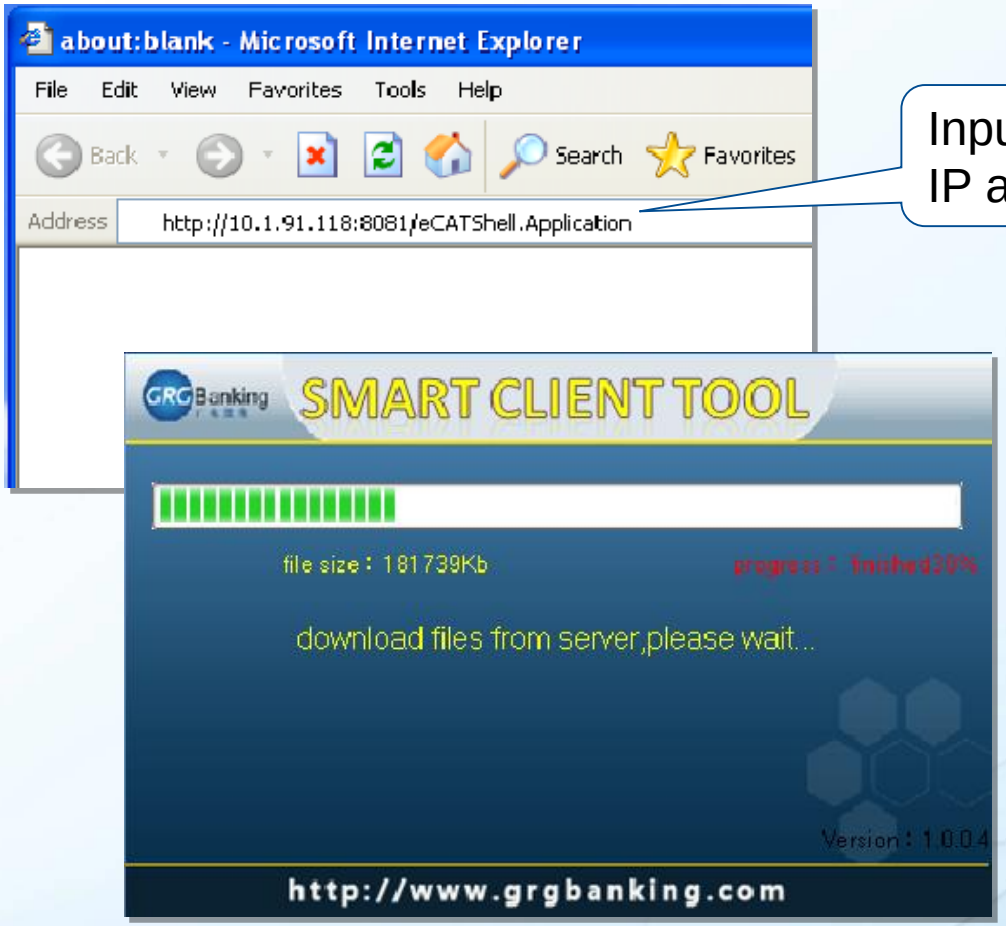
Protocol	ISO8583, NDC/NDC+,DDC, IFX(soon)

ADDING NON XFS DEVICES

Non-XFS Device

- ✓ Fingerprint Reader
- ✓ Passport Scanner
- ✓ Identification Card Reader
- ✓ Palm Vein Reader
- ✓ NFC
- .....

FAST DEPLOYMENT



Input eCAT Server IP addres

Easy installation

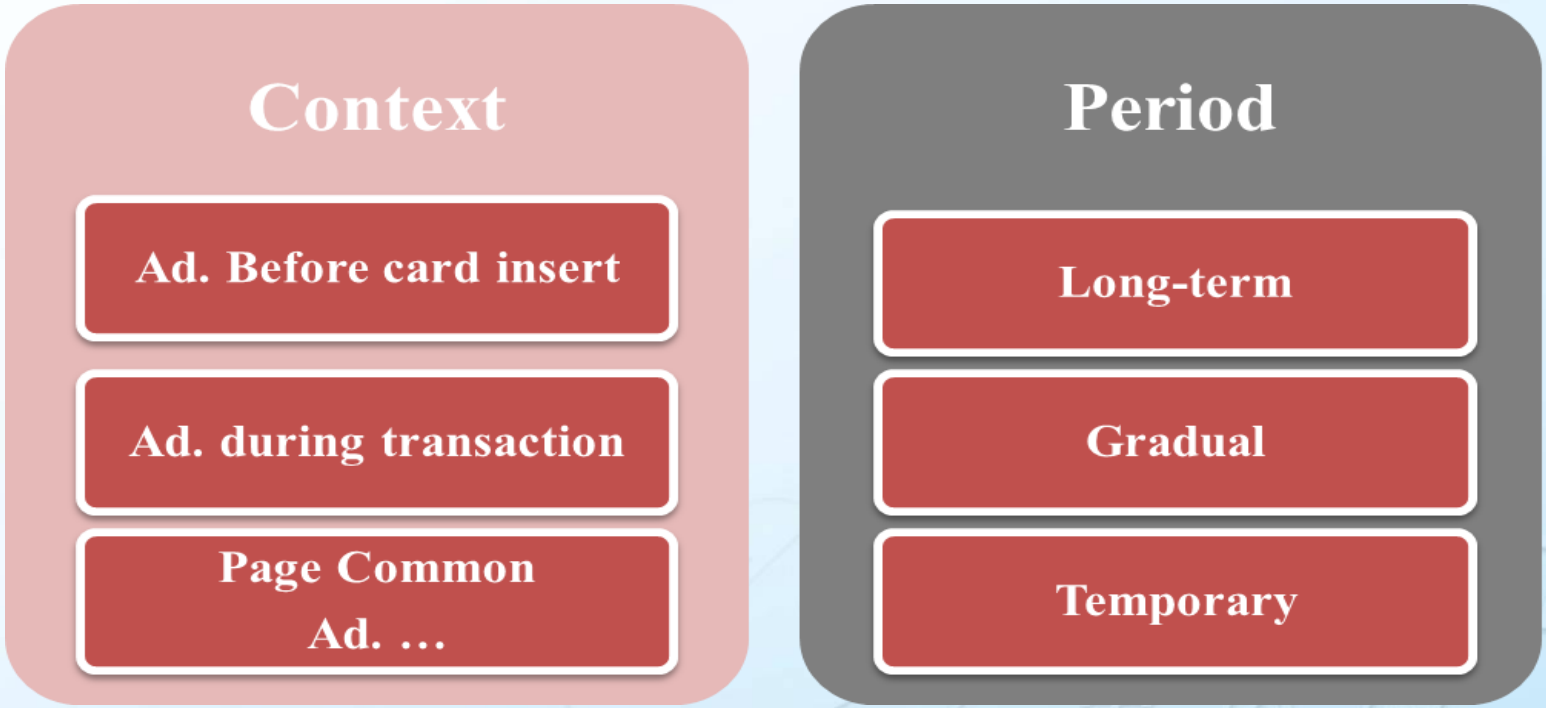
Online download from eCAT Server, USB or CD/DVD

Fast update

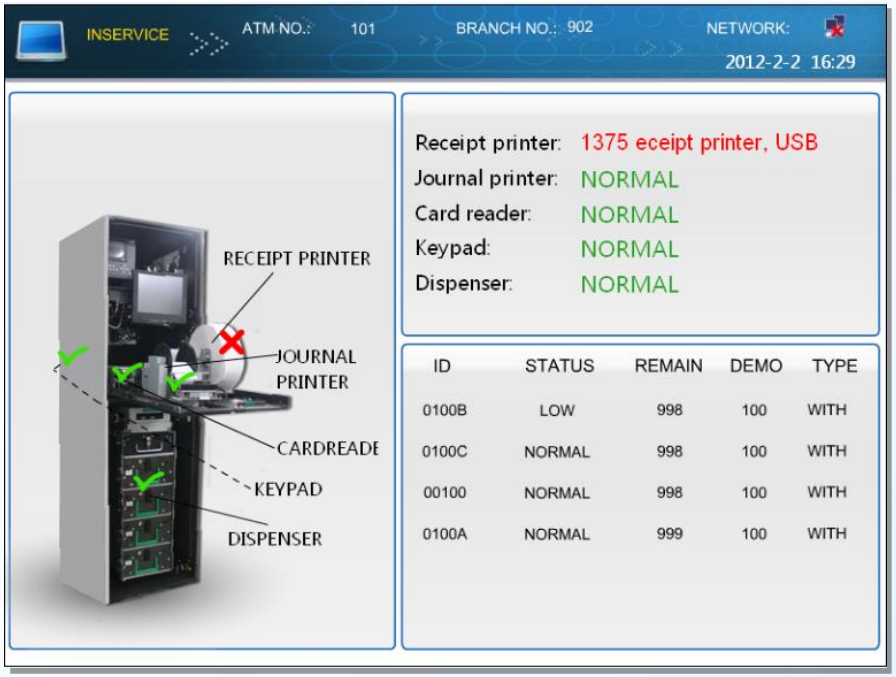
Auto check and update the latest version

ADVERTISMENT SOLUTION

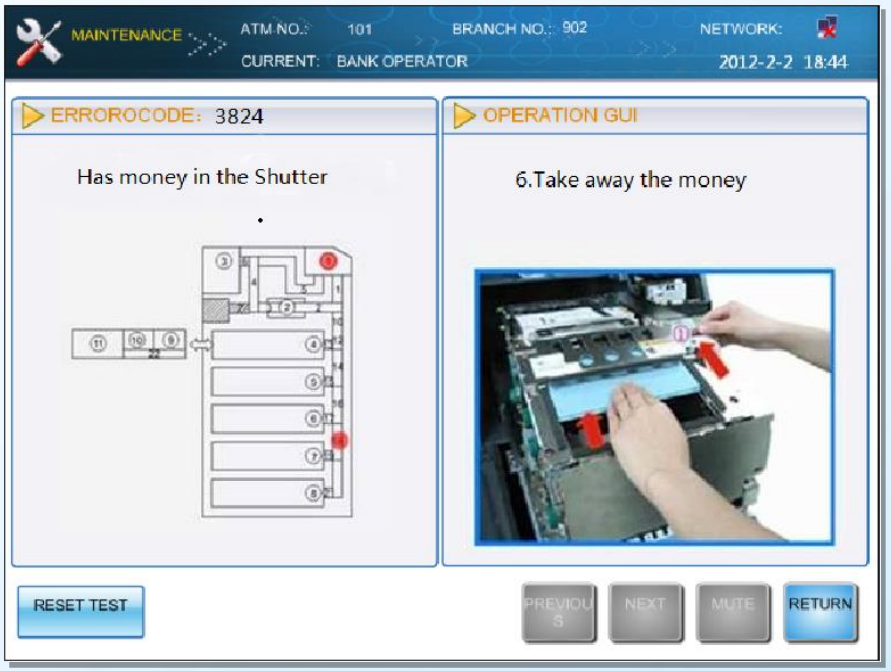
- ✓ Configure different advertisements based on different requirements
- ✓ Assign advertisements to suitable pictures based on different requirements
- ✓ Use FEEL Distribution to implement



Visualized Maintenance Guidance



Visual Status Indicator



Video or Image Guidance

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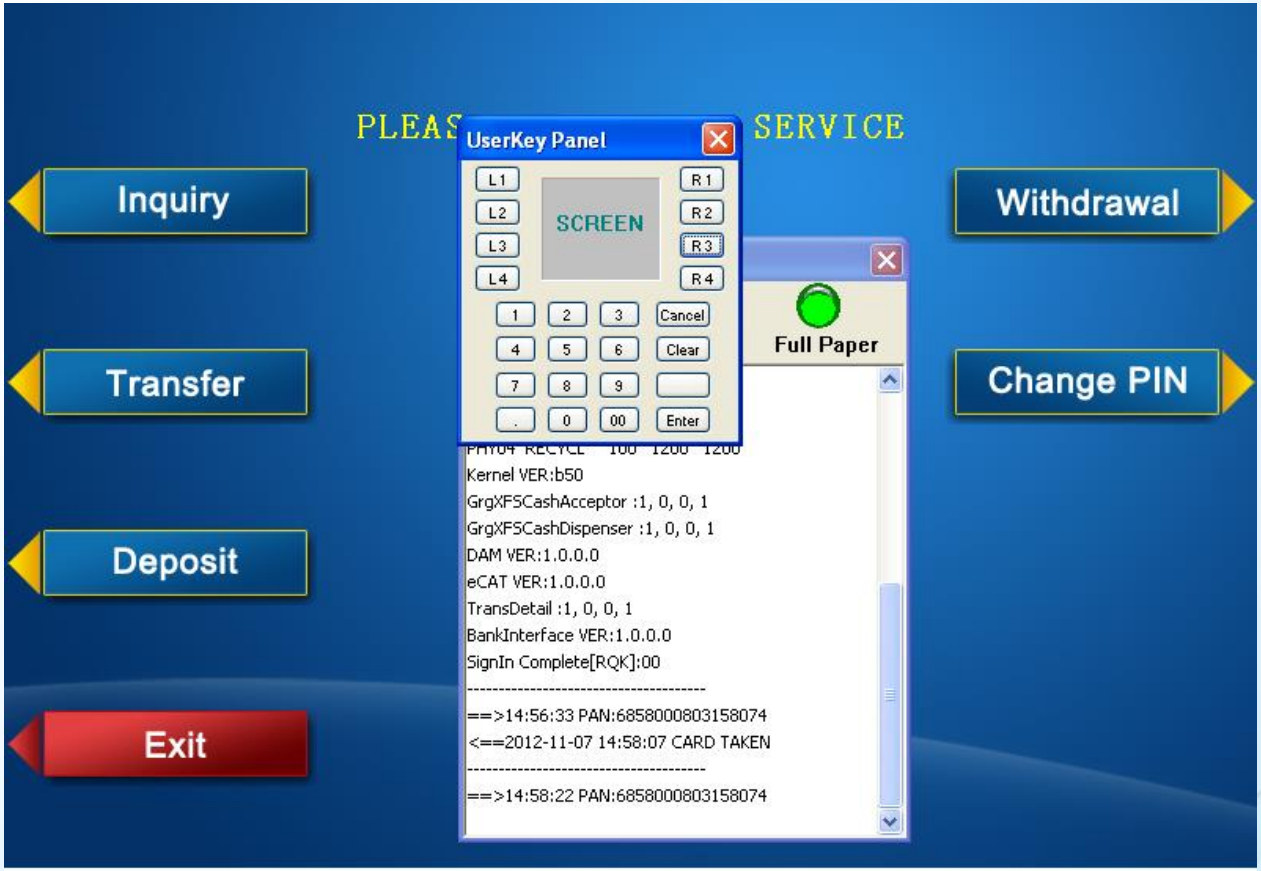
ATM Simulator



AUTOMATIC TEST PLATFORM

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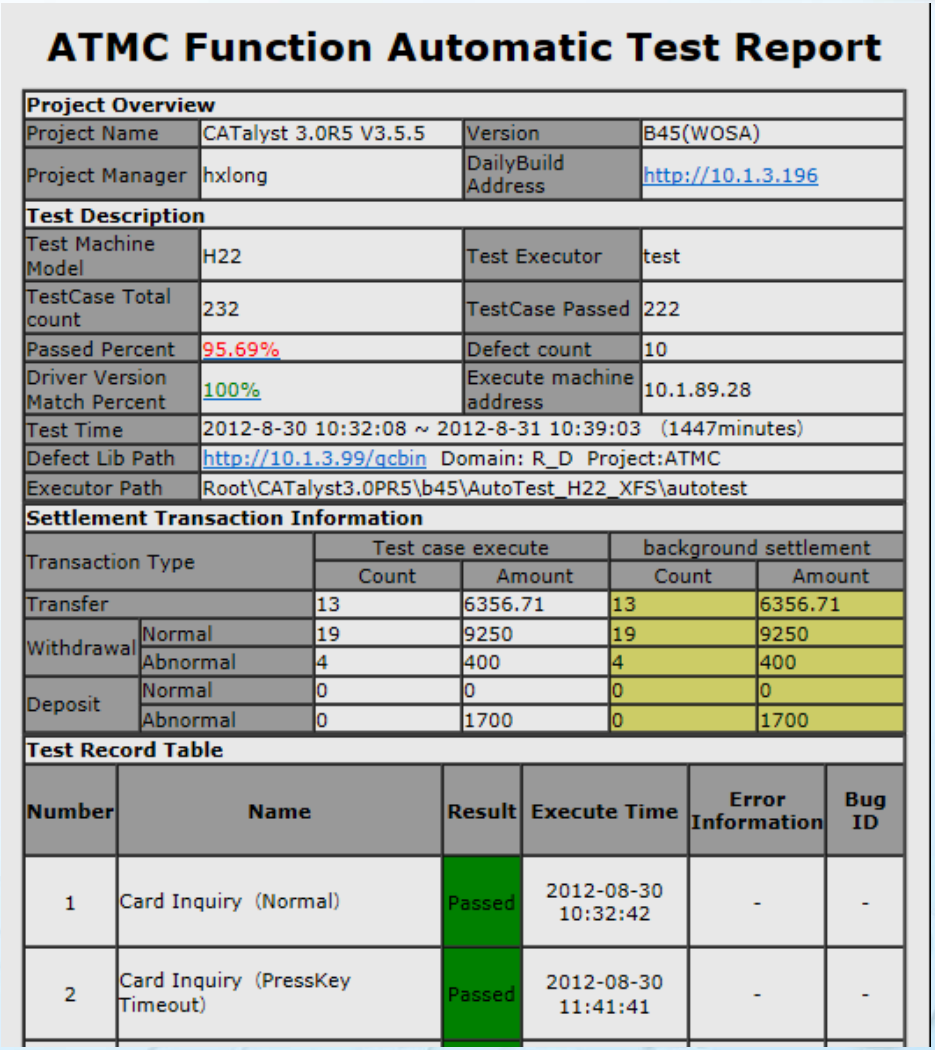
- ✓ Record automatic test scripts using Mercury Win Runner
- ✓ Customize scripts according to specific requirement
- ✓ Generate test report
- ✓ Regression test



ATMC Function Automatic Test Report

Project Overview			
Project Name	CATalyst 3.0R5 V3.5.5	Version	B45(WOSA)
Project Manager	hxlong	DailyBuild Address	http://10.1.3.196

Test Description			
Test Machine Model	H22	Test Executor	test
TestCase Total count	232	TestCase Passed	222
Passed Percent	95.69%	Defect count	10
Driver Version Match Percent	100%	Execute machine address	10.1.89.28
Test Time	2012-8-30 10:32:08 ~ 2012-8-31 10:39:03 (1447minutes)		
Defect Lib Path	http://10.1.3.99/qcbin Domain: R_D Project:ATMC		
Executor Path	Root\CATalyst3.0PR5\b45\AutoTest_H22_XFS\autotest		

Settlement Transaction Information

Transaction Type		Test case execute		background settlement	
		Count	Amount	Count	Amount
Transfer		13	6356.71	13	6356.71
Withdrawal	Normal	19	9250	19	9250
	Abnormal	4	400	4	400
Deposit	Normal	0	0	0	0
	Abnormal	0	1700	0	1700

Test Record Table

Number	Name	Result	Execute Time	Error Information	Bug ID
1	Card Inquiry (Normal)	Passed	2012-08-30 10:32:42	-	-
2	Card Inquiry (PressKey Timeout)	Passed	2012-08-30 11:41:41	-	-

FAST SECONDARY DEVELOPMENT

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Flexible Customization

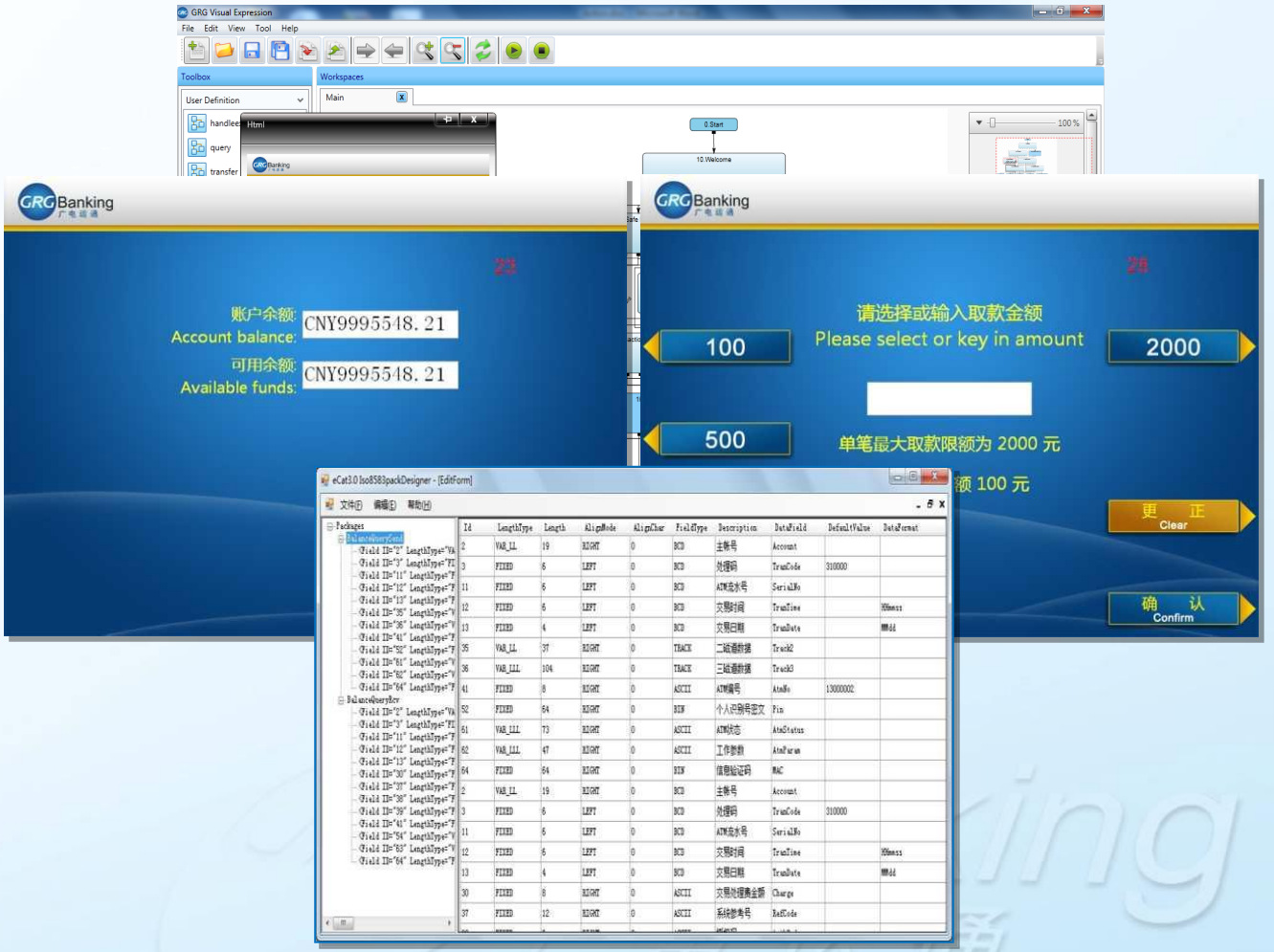
Develop Graphic Business Flow

↓

Design Page

↓

Configure Package



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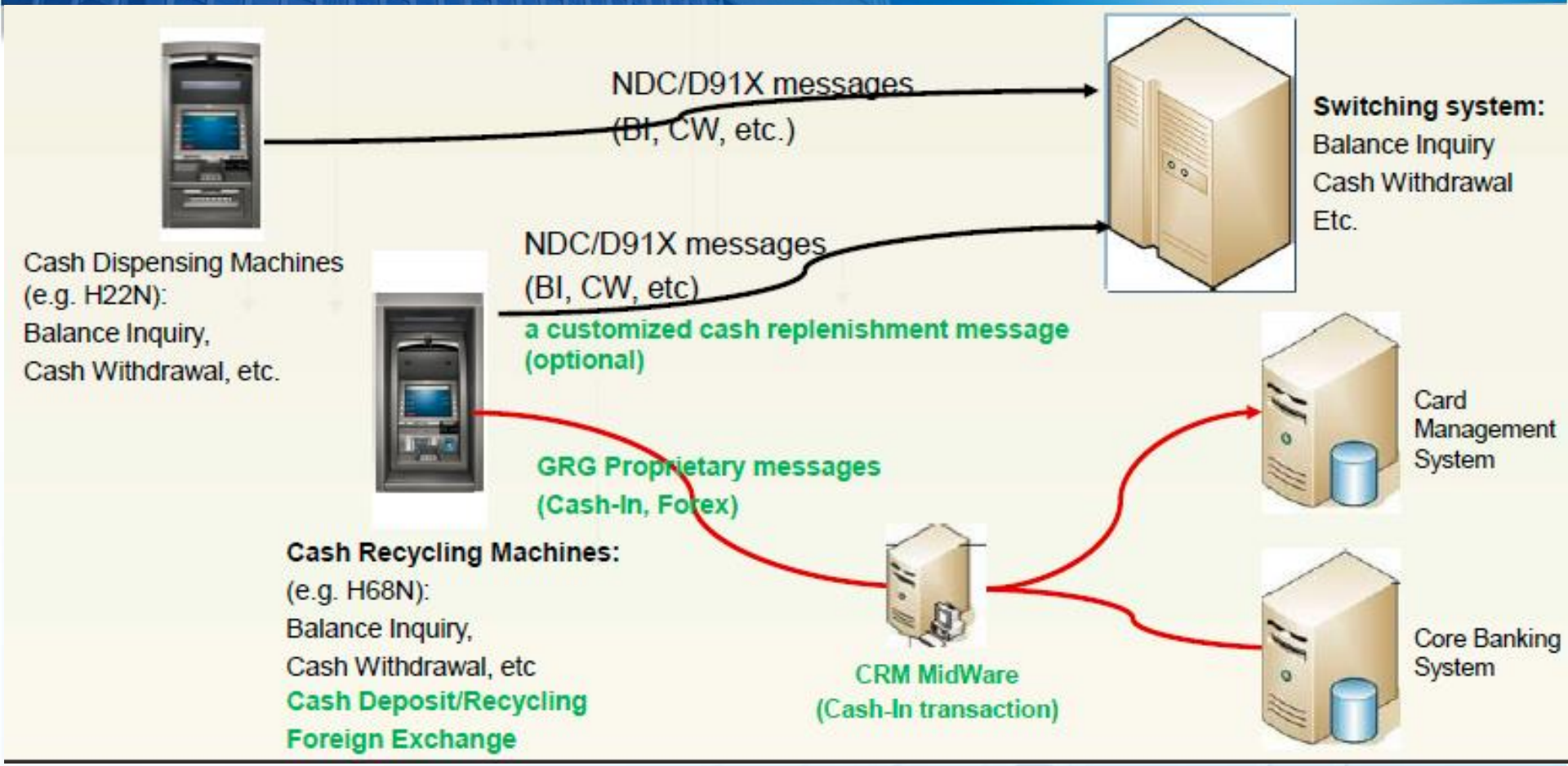
SUPPORT MIDDLEWARE



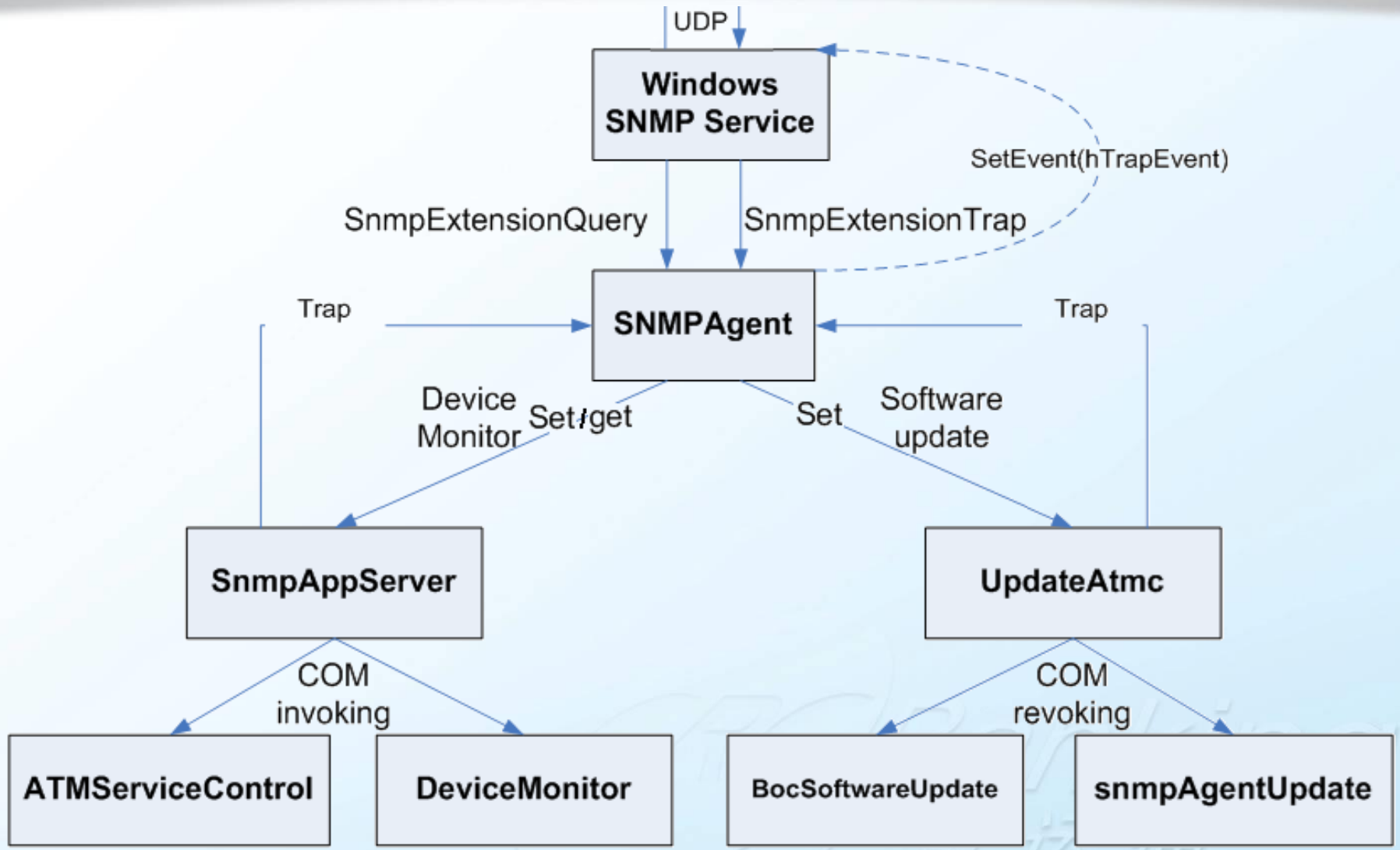
CRM MidWare can support:

- BNA (Bunch Note Acceptor)
- CRM (Cash Recycling Module)

SNMP COMPATIBILITY

- ✓ **Based on XFS MIB**
- ✓ **Set/Get**
  - Monitoring system uses Set command to configure the device information
  - Monitoring system uses Get command to retrieve the device status by OID
- ✓ **Trap**
  - When an error happened in ATM, the ATM's SNMP agent generates a SNMP trap
  - The SNMP agent forwards the trap to Monitoring system

SNMP COMPATIBILITY



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DEVELOP A PALM VEIN SOLUTION

✓ Requirement Analysis

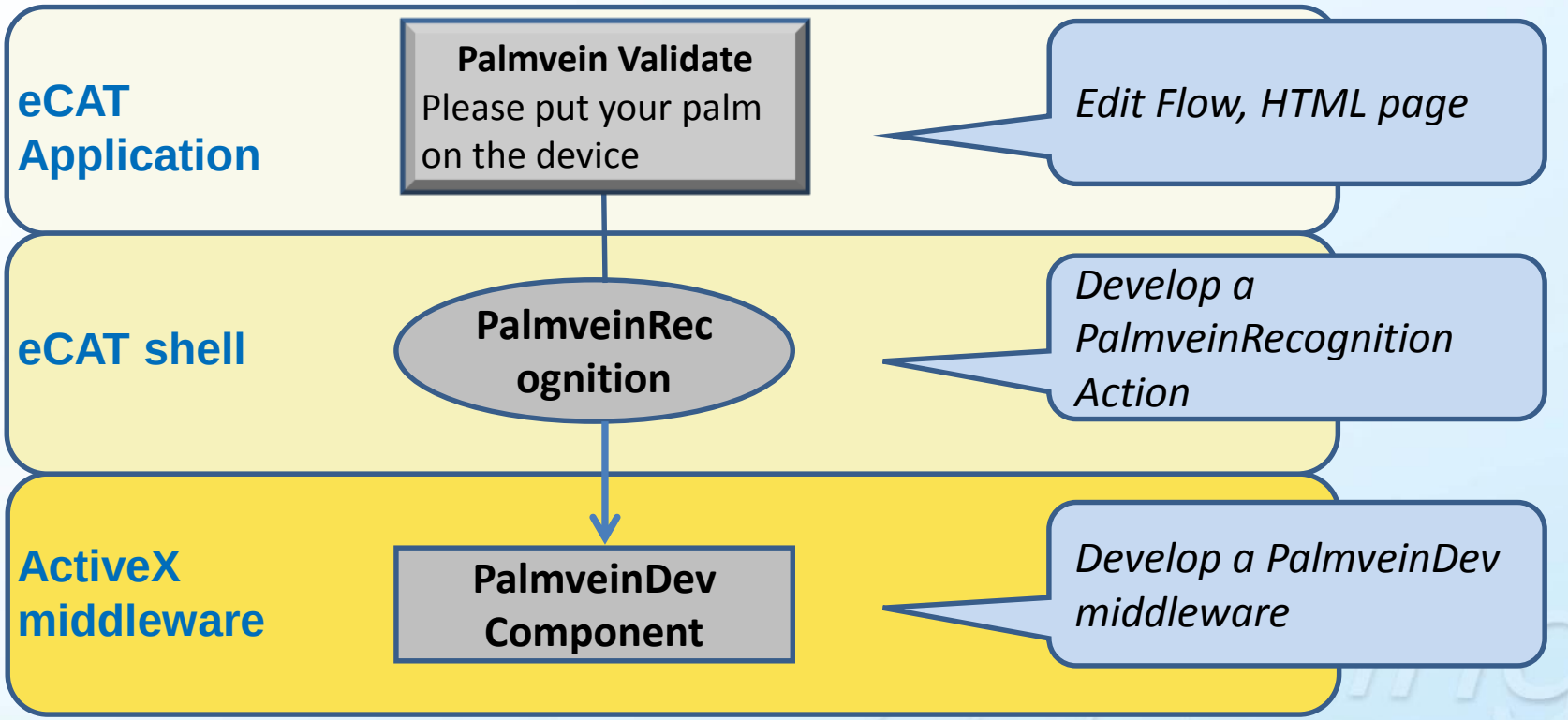
- New device module: Palm vein(non-xfs device)
- Palm vein withdrawal flow is a little different with traditional card withdrawal

✓ Design

- Add a new ActiveX middleware component by middleware sample template: PalmveinDev
- Add a new Action by action sample template: PalmveinRecognition
- Add a new flow by GVE: Palmvein withdrawal

HOW TO DEVELOP A PALM VEIN SOLUTION

✓ **Implementation**



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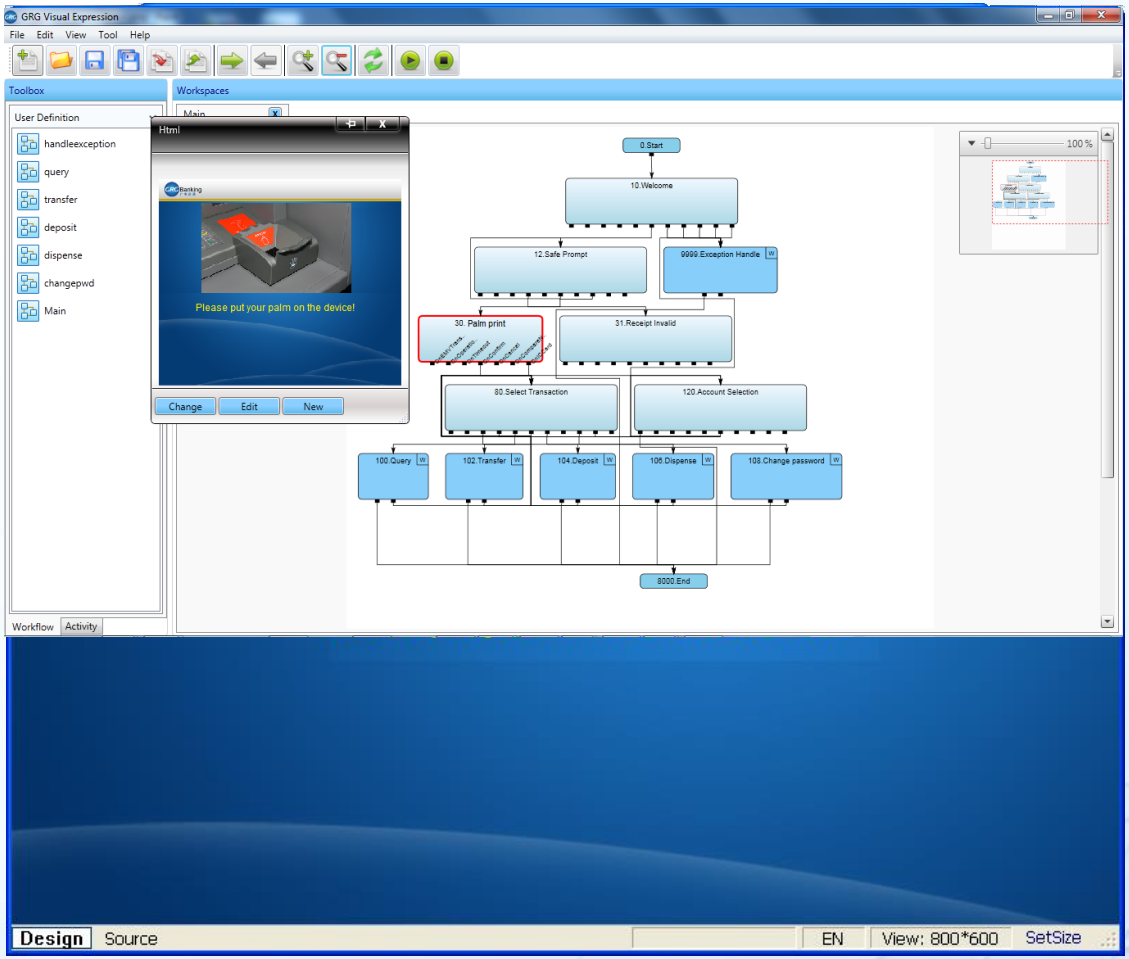
DEVELOP A PALM VEIN SOLUTION



4. Modify PalmVeinWithdrawalFlow on GVE

CASE STUDY

Ziraat Bankası

FEEL Distribution

eCAT

Remote Key Load

FEEL View

Features

- ✓ 1500+ GRG Recyclers
- ✓ Total solution
- ✓ Remote Key loading
- ✓ Palm Vein

CASE STUDY

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- ✓ **Support Machine**
  - 16,000+ ATMs installed eCAT

- ✓ **Timeframe**
  - 2 months require analysis
  - 2 months design, development and testing
  - 4 months installation and implementation

- ✓ **Special Feature**
  - EMV/PBOC
  - ISO8583
  - SNMP status monitor

- ✓ **Stability**
  - Run smoothly for 5 months

中國銀行
BANK OF CHINA

CASE STUDY

- ✓ **GRG Product**
  - eCAT (Self-service Terminal software)
  - FEEL View
- ✓ **Timeframe**
  - 2 months require analysis
  - 2 months design, development and testing
  - 2 months installation and implementation
- ✓ **Supported machine**
  - 2000+ ATMs (GRG, NCR, Hitachi, KingTeller)
  - ATM & Cash Recycler
  - 100 Kiosks
- ✓ **Special Function**
  - Implement non-XFS device modules
  - Implement an appointment withdrawal
  - Support OCR feature
  - Support multi-point touch & input

YOUR ADVANTAGES

- ✓ **Tailor Made Solution**
  - We can customize the solution for you – No out of the box product
  - Open for future requirements – Fast implantation of new hardware like biometric devices etc.

- ✓ **Close cooperation with your IT**
  - Depending on your needs and structure we can act like:
  - Internal developers
  - External developers
  - 3rd level support

- ✓ **You can rely on**
  - A flexible, modern and scalable field proven solution
  - Easy to use but powerful secondary development tools plus SDK

OUR SUPPORT

- ✓ **Training**
  - Software architecture
  - SDK training
  - Installation and configuration
- ✓ **On-line Support**
  - Remote troubleshooting
  - Phone, E-mail or IM
- ✓ **On-site Implementation**
- ✓ **On-site support**
- ✓ **New software releases**

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Thank You

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