



BCcard

Build your Business

Powered by BC's digital commerce technology

About Us



BC is South Korea's biggest payment processing company and local brand network headquartered in Seoul, South Korea.

Our company's portfolio includes acquiring, local brand network operation under BC brand, card issuing, as well as e-commerce and mobile payment solutions

With more than 40 years of operating experience accumulated as an acquirer, BC Card has evolved to meet various client needs, a total of 33 institutions are outsourcing their acquiring business to BC Card.

Key Figure

Processing Business Experience



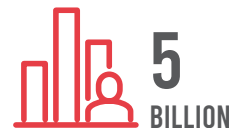
Active Merchants



BC Card Products



Number of Transactions



14

Bank



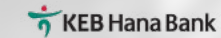
8

Securities



6

Monolinear



5

Other



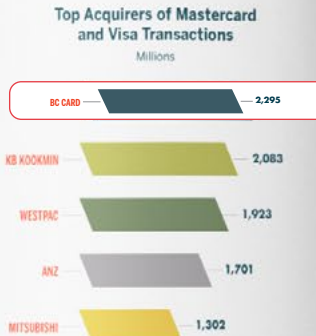
Reference

Asia-Pacific's Largest Merchant Acquirers

The 34 largest acquirers of UnionPay, Visa, Mastercard, JCB, American Express, Diners Club/Discover as well as domestic-only brand card payments from 39.1 million merchant outlets in the Asia-Pacific region in 2020 are ranked here.

Global brand and domestic-only card transactions handled by these acquirers totaled 43.03 billion last year. Those transactions combined generated \$3.649 trillion in purchase volume.

Visa and Mastercard transactions processed by this group reached 18.47 billion, up 1% from 2019. Those transactions generated \$676.44 billion in purchase volume for goods and services last year, a decline of 2%.



Top Acquirers of General Purpose Cards

Ranked by Purchase Transactions in 2020

Rank	Acquirer	Transactions (Mill.)	Volume (Bil.)
1	China UMS	11,285.0	\$2,728.14
2	BC Card	5,245.0	\$169.06
3	KB Kookmin	3,433.2	\$99.92
4	JCB	2,900.3	\$295.46
5	Westpac	2,162.4	\$98.31
6	Commonwealth	1,992.6	\$102.35
7	ANZ Merchant Services	1,883.8	\$82.96
8	Samsung Card	1,789.8	\$309.41
9	Hyundai Card	1,584.7	\$91.46
10	Mitsubishi UFJ Nicos	1,434.8	\$75.09

Figures include all Asia-Pacific business. Volume is net (gross minus chargebacks) for American Express, Diners Club, Discover, JCB, Mastercard, UnionPay, Visa and domestic general purpose cards such as BC, KB Kookmin, Samsung and EFTPOS. © 2021 Nilson Report

The top 34 acquirers handled 7.44 billion domestic-only card payments in 2020. Those domestic-only brands included EFTPOS in Australia, RuPay in India, J Debit in Japan, MyDebit and Bancnet in Malaysia, BC Card, KB Kookmin and Samsung Card in South Korea and Taiwan Pay in Taiwan.

The 10 largest acquirers processed a combined 34.15 billion purchase transactions from global and domestic brands, accounting for over 79% of all transactions handled by the 34 ranked here.

China UnionPay Merchant Services (China UMS) continued as Asia Pacific's largest acquirer. Purchase transactions decreased 15% from the prior year. However, purchase volume increased 2%.

BC Card of South Korea remained second largest based on global brand and domestic-only purchase transactions acquired. Based on purchase transactions, the other acquirers

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in the top 10 were KB Kookmin, JCB, Westpac, Commonwealth Bank, Samsung Card, ANZ Merchant Services, Hyundai Card and Mitsubishi UFJ Nicos.

The Other Cards column in the acquirers table includes 24.55 billion purchase transactions generated by UnionPay, JCB, American Express, Diners/Discover and domestic-only credit, debit and prepaid cards. This was a decline of 8% from 2019.

When combined, these card payments accounted for \$2.972 trillion in purchase volume last year, up 4% from 2019.

Based on Visa and Mastercard purchase transactions acquired, Korea-based BC Card and KB Kookmin ranked first and second largest in the region. Australia's largest acquirer, Westpac, ranked third. The largest Mastercard and Visa acquirer in Japan remained Mitsubishi UFJ Nicos.

Prior issues: 192, 199, 1138, 1116, 1094, 1071

Mastercard & Visa Merchant Acquirers in Asia-Pacific

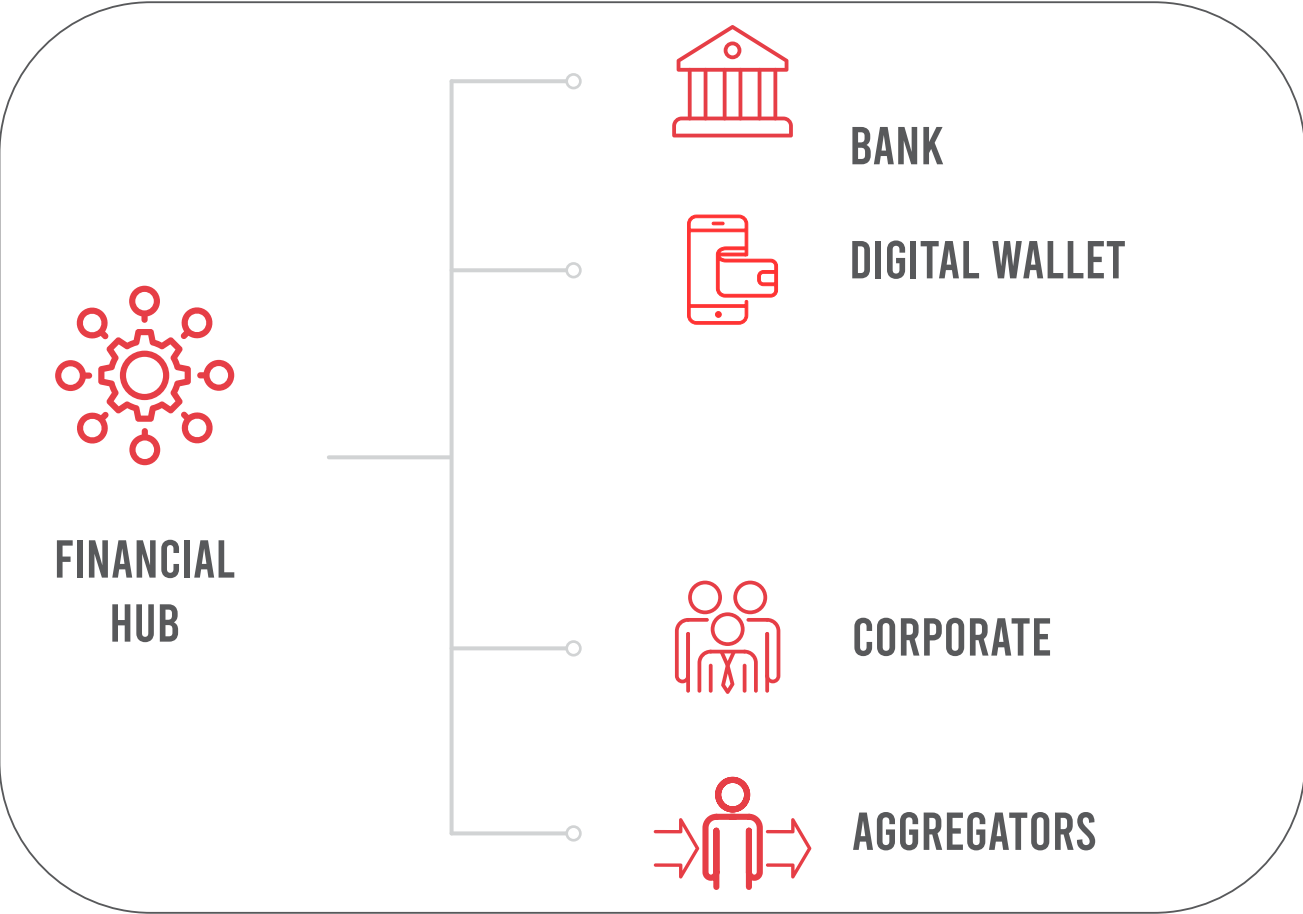
Ranked by Transactions in 2020

Rank	Acquirer	Visa and Mastercard ¹		Other Cards ²		Merchant Outlets	POG Transactions		
		Transactions (Mill.)	Volume (Bil.)	Transactions (Mill.)	Volume (Bil.)				
1	1 BC Card, South Korea	2,295.0	-3%	\$78,253.7	-5%	2,950.0	\$90,808.4	3,160,000	3,644,673
2	2 KB Kookmin, South Korea	2,083.3	8%	\$95,622.1	4%	1,321.9	\$3,298.9	2,825,363	2,941,900
3	3 Westpac, Australia	1,923.5	4%	\$91,029.3	2%	2,258.9	\$1,876.8	2,875,888	282,984
4	4 ANZ Merchant Services, Australia	1,701.5	12%	\$73,827.5	15%	1,824.4	\$9,448.9	1,101,344	172,529
5	5 Mitsubishi UFJ Nicos, Japan	1,302.0	8%	\$67,383.7	14%	1,22.9	\$7,939.3	6,677,992	7,833,763
6	6 National Australia Bank, Australia	940.8	-1%	\$58,343.9	-5%	4,722.2	\$3,262.8	255,395	389,257
7	7 ICICI Merchant Services, India	940.1	2%	\$10,429.8	4%	262.8	\$3,189.1	194,340	470,000
8	8 Samsung Card, South Korea	916.0	8%	\$50,394.8	-5%	873.8	\$58,432.6	2,700,000	3,129,676
9	9 Commonwealth Bank, Australia	879.3	2%	\$51,344.6	-3%	1,113.1	\$49,032.5	178,863	243,800
10	10 Aeon Financial Service, Japan	841.0	-1%	\$40,466.7	9%	312.3	\$18,524.6	61,870	75,934
11	11 Hyundai Card, South Korea	817.5	-5%	\$48,500.6	6%	781.1	\$42,980.4	2,444,726	2,863,864
12	12 Credit Saison, Japan	679.8	-3%	\$4,634.3	10%	123.9	\$8,137.1	193,527	235,394
13	13 Workday from FIS, Singapore ³	630.1	53%	\$2,999.9	10%	9.7	\$99.2	6,478	-
14	14 CTBC, Taiwan	370.1	11%	\$1,671.3	-8%	23.8	\$94.2	107,662	54,790
15	15 SBI Payment Services, India	329.8	23%	\$8,630.9	34%	317.9	\$1,599.6	52,742	763,330
16	16 ANZ Bank, New Zealand	289.9	0%	\$10,844.5	5%	504.0	\$12,491.7	33,820	81,500
17	17 Global Payments, Hong Kong ⁴	204.4	-7%	\$28,646.6	-5%	22.2	\$10,091.3	134,181	95,432
18	18 HDFC, India	192.2	15%	\$4,513.8	15%	53.8	\$566.0	222,664	893,884
19	19 Kasikornbank, Thailand	188.7	-5%	\$6,126.2	-9%	3.4	\$543.9	176,704	202,214
20	20 NCCO, Taiwan	159.0	-5%	\$19,958.6	11%	12.5	\$1,337.3	93,406	105,141
21	21 Bank Mandiri, Indonesia	152.6	14%	\$13,352.3	17%	-	-	240,540	303,443
22	22 Axis Bank, India	141.1	41%	\$4,612.6	82%	94.0	\$3,075.0	90,505	541,774
23	23 Daiwa Corp., Japan	135.7	1%	\$8,427.6	5%	31.9	\$1,852.8	42,441	75,818
24	24 Hang Seng, Hong Kong	120.5	-7%	\$11,676.0	-2%	11.6	\$2,293.4	13,330	36,388
25	25 FNB (FNB), Australia	101.9	2%	\$1,452.7	3%	15.4	\$58.8	18,992	19,396
26	26 FNB (FNB), Singapore ⁵	70.8	-2%	\$6,688.6	3%	1.9	\$285.6	34,912	33,182
27	27 E. Sun Commercial Bank, Taiwan	68.2	-2%	\$5,109.9	-9%	4.2	\$241.0	43,541	22,584
28	28 GHL Systems, Malaysia ⁶	16.4	21%	\$2,790.6	101%	18.8	\$192.3	114,025	114,025
29	29 The City Bank, Bangladesh	8.9	19%	\$461.4	22%	3.3	\$20.2	11,910	20,000
30	30 Sacombank, Vietnam	6.4	5%	\$486.9	10%	0.2	\$27.5	4,688	7,881
31	31 Vietcombank, Vietnam	4.8	13%	\$20.7	13%	-	-	8,652	11,628
32	32 Trade and Development Bank, Mongolia	4.2	26%	\$108.2	20%	5.4	\$87.7	4,609	9,366
33	33 China UMS, China	-	-	-	-	11,746.0	\$2,278,135.8	1,821,396	11,682,075
34	34 JCB, Japan ⁷	-	-	-	-	2,980.3	\$295,655.8	10,544,025	11,831,269

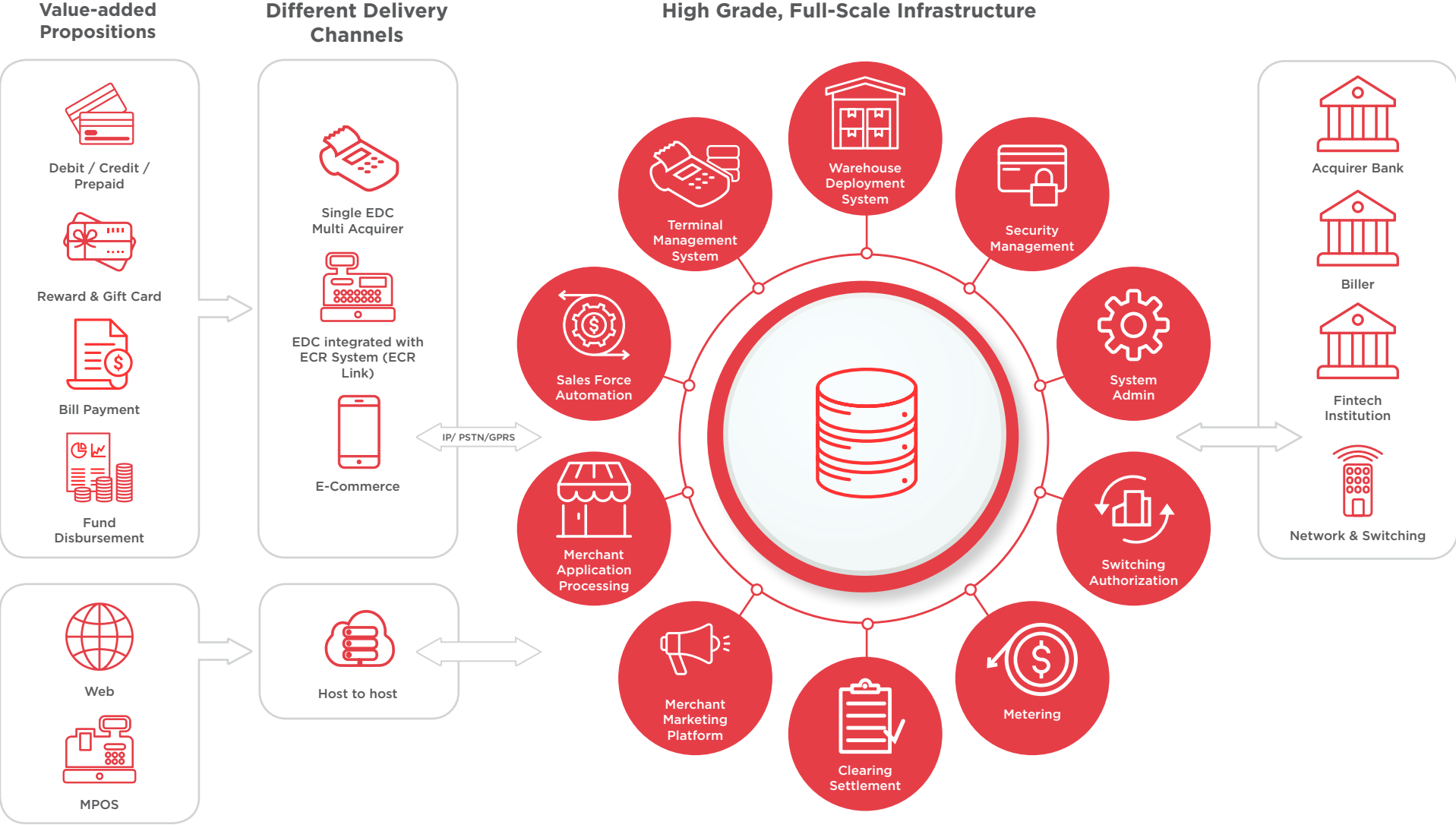
Figures are net (gross minus chargebacks). Change in volume is based on local currency. 1 Visa and Mastercard credit, debit and prepaid cards including Electron and Maestro. 2 Includes American Express, Diners Club/Discover, JCB, UnionPay and domestic debit and credit cards. 3 Includes group data in Asia-Pacific. 4 Estimate includes group data in Asia-Pacific. 5 Includes Malaysia, Hong Kong and Macau. 6 Includes Thailand and the Philippines. 7 Estimate. © 2021 Nilson Report

BC's acquiring solution - BAIS

Identity of BAIS (Beyond Acquiring Integrated System)
Our 40 years experience of long-term operation together with the partnership with leading international payment technology brands, domestic & international corporate and financial institutions brought us to provide the benefits of payment hub system with cost-effectiveness, robust usability, and market readiness with full payment scheme and regulatory compliance.



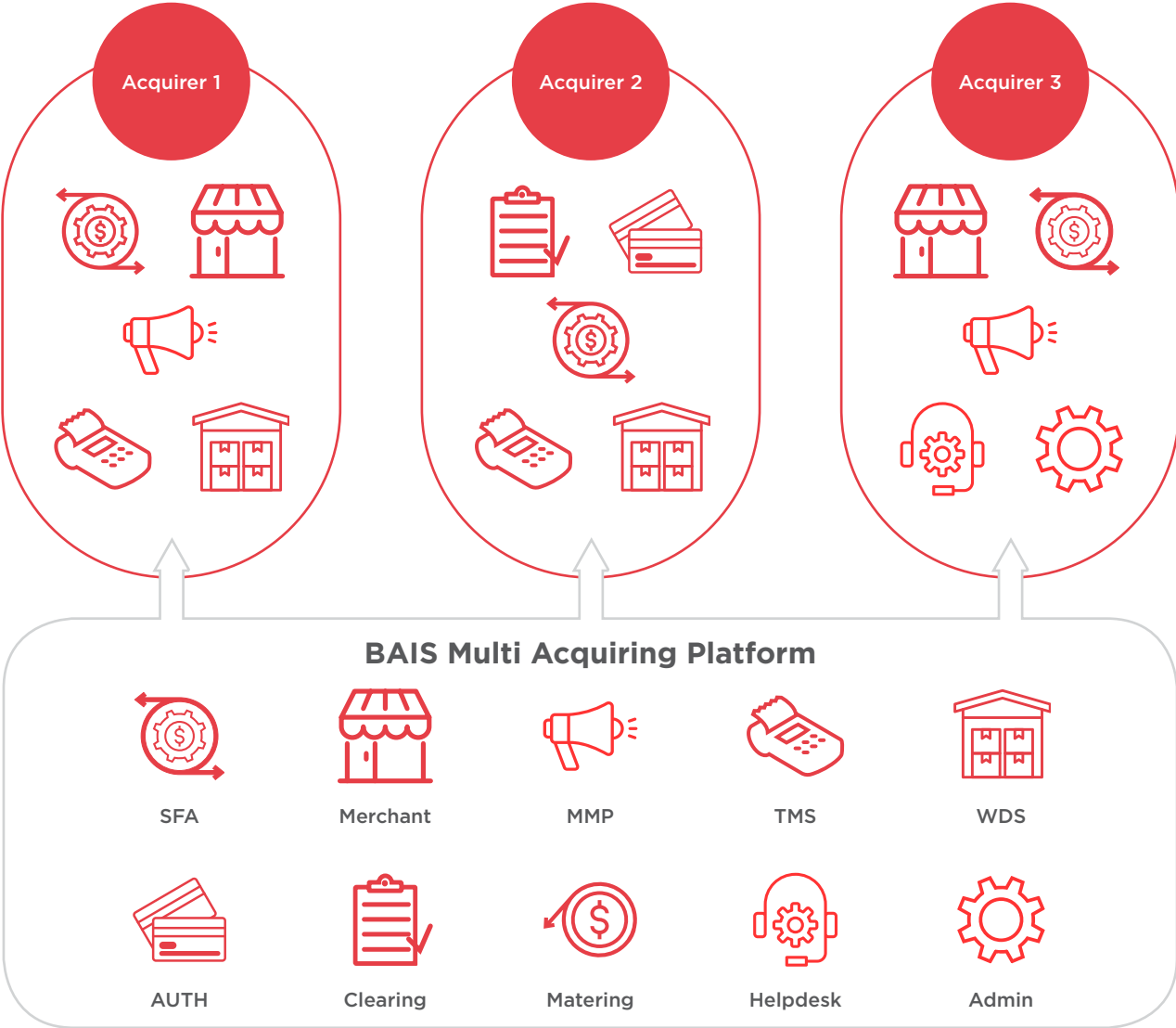
End to end Architechture





Multi Acquiring Platform

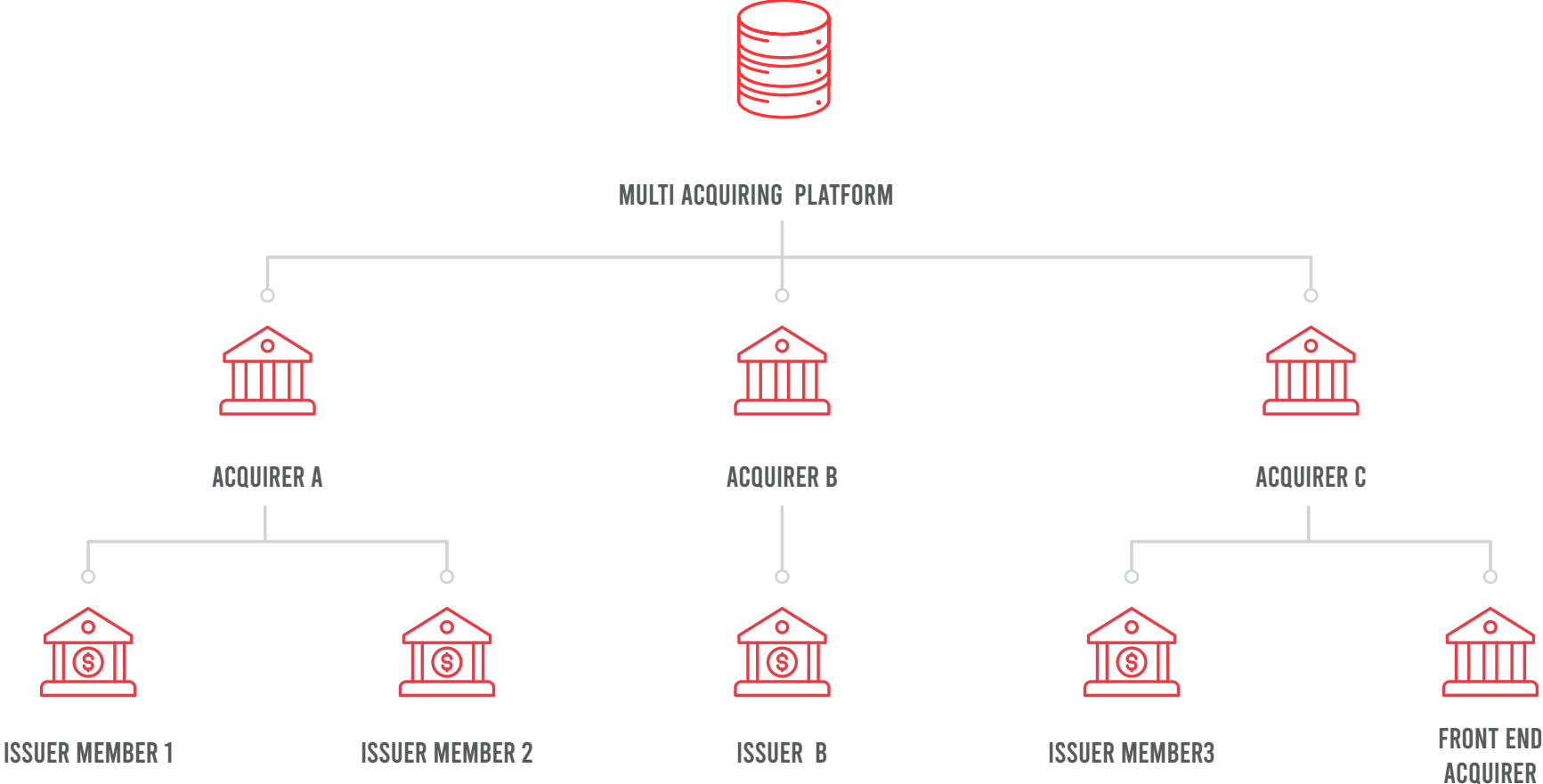
BAIS is not just a merchant acquiring solution but a multi acquiring platform. If you want to have a multi acquiring payment hub in terms of processing, BAIS perfectly works for your expectation by accommodating multiple member banks and networking to 3rd party institutions. You can manage your multiple member banks profile running on the BAIS platform, which leads to member's transaction, fee, payment, profile, configuration, etc. data management that is completely secure from each other members but only disclosed to the platform admin.



Member Hierarchy

BAIS platform can have acquirers as members.

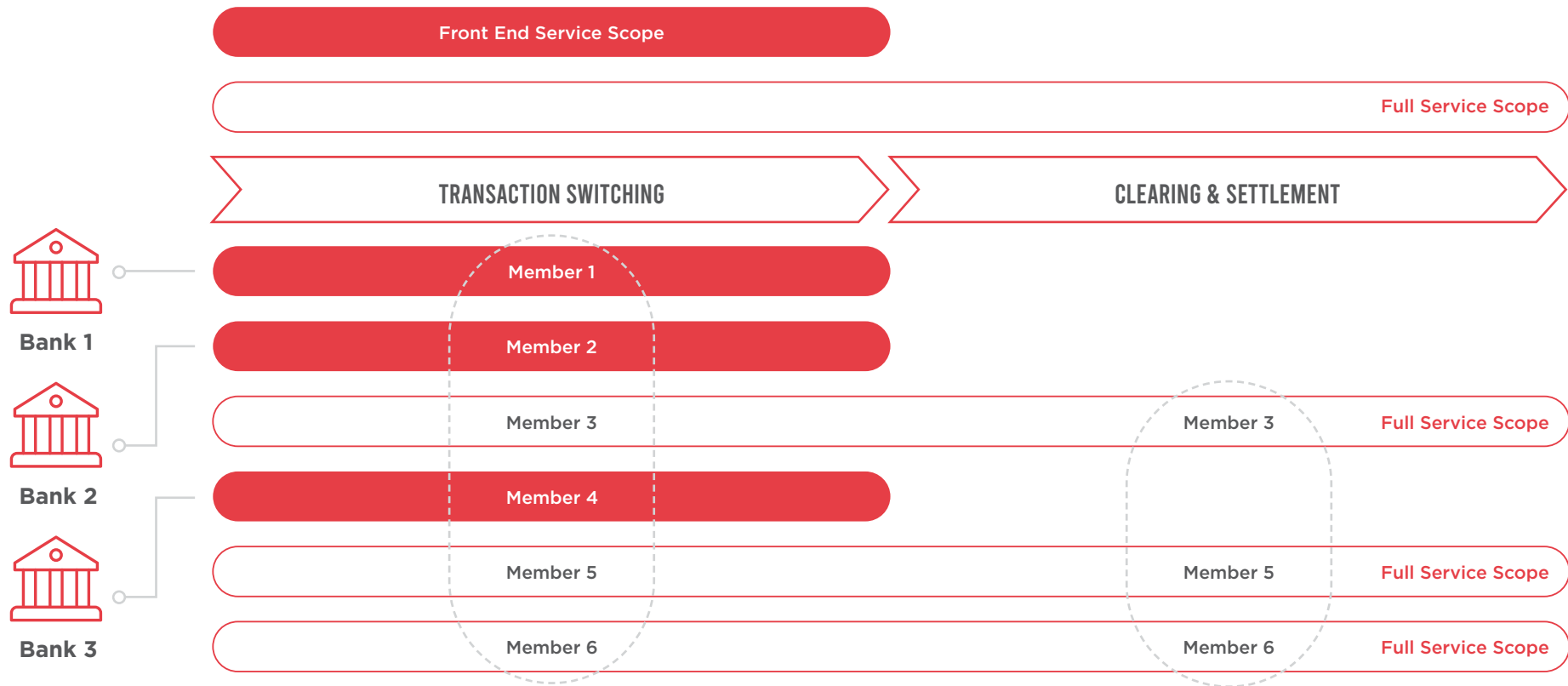
Each acquirer member can have their own front end acquirers usually for the EDC sharing scheme or issuer members to provide with issuer promotion service such as instalment, cashback, on-site discount.



Member Type & Scope

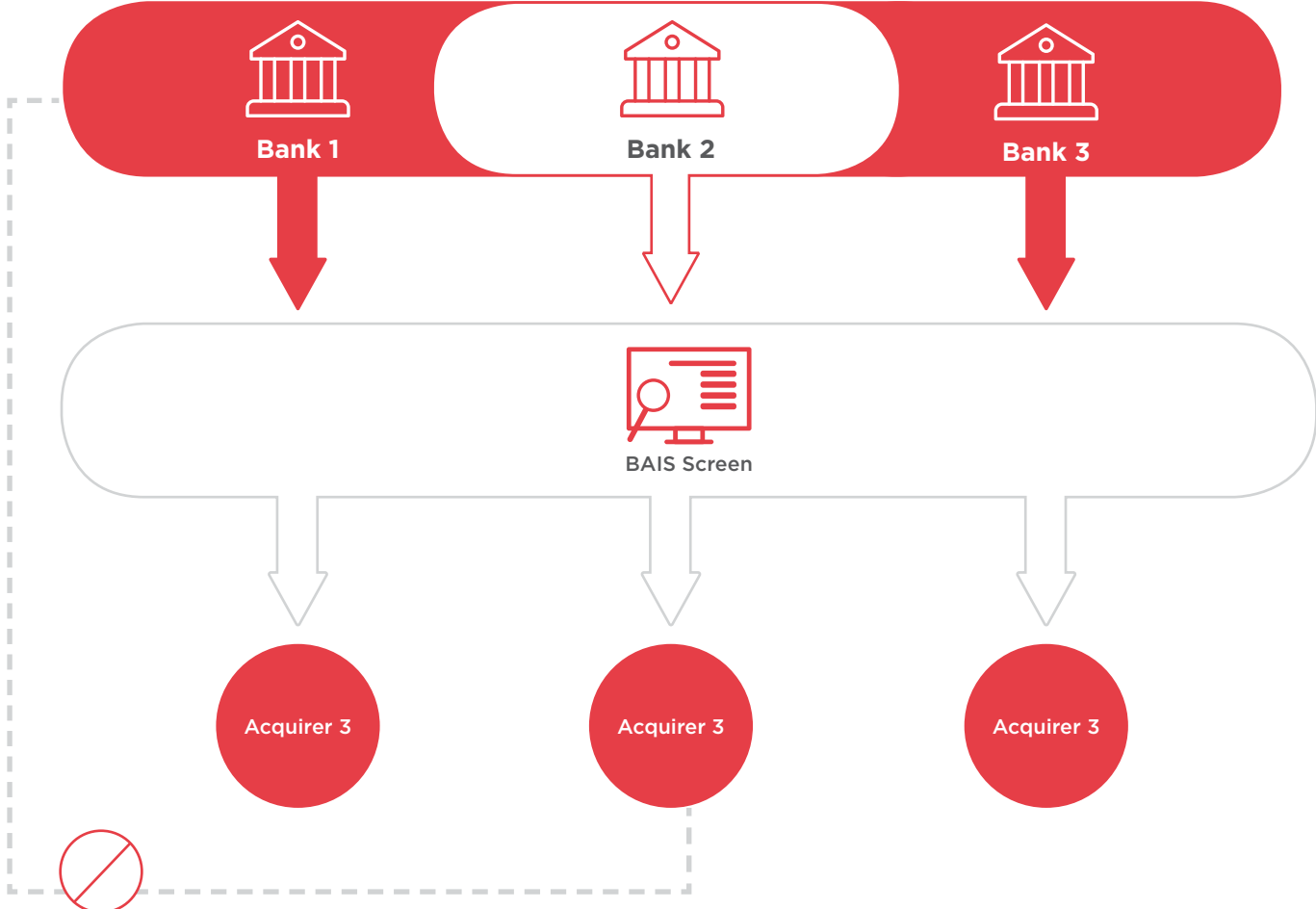
Full / Front End Acq

The difference between front end and full acquirer is that the front-end acquirer has their acquiring host. BAIS only routes the transactions to their acquiring host, while full acquirers can request the BAIS system to do all of the acquiring features.



Member Data Segregation

B AIS provides for a high level of information security and the ability to manage your own data across members and member employees. Its unique data management gives you the flexibility to segregate and consolidate vast amounts of data's access—while controlling who can see what—through a sophisticated system of workgroup roles, and it applies even to hosting processor's employees.

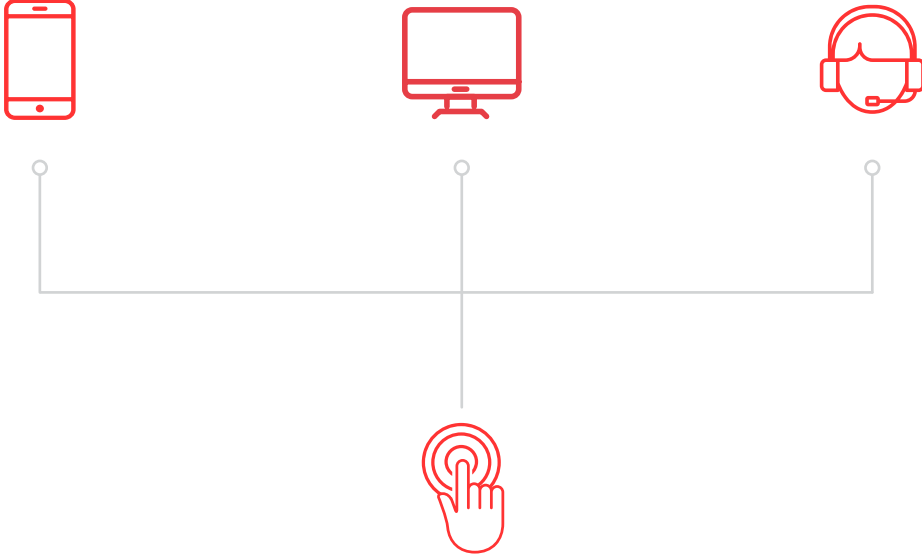












Member Configuration Panel

The member control panel of BAIS can manage each acquiring member's service profile.

You can set each member's service scope and apply their preferences with parameter-based configuration.



<p>Sales force automation</p>  <input checked="" type="checkbox"/>	<p>Statistics</p>  <input checked="" type="checkbox"/>	<p>Merchant Transactions</p>  <input type="checkbox"/>	<p>Common Settings</p>  <input checked="" type="checkbox"/>
<p>Helpdesk</p>  <input checked="" type="checkbox"/>	<p>Merchant Promotion</p>  <input type="checkbox"/>	<p>Merchant Management</p>  <input checked="" type="checkbox"/>	<p>Sales Limits</p>  <input type="checkbox"/>

BAIS All-in-one Integrated System Screen

The screenshot shows the 'Authorization History' screen in the BAIS system. At the top, a navigation bar contains various modules, with 'Authorization' highlighted. On the left, a sidebar menu lists several submenus under 'Authorization', including 'Authorization History'. The main content area features a search form with the following fields:

- Inquiry Control Item:** Card No (4137-18**.*.*.*-)
- Authorization Date:** 01-10-2021 to 05-10-2021
- Acquirer MB:** All
- Authorization Type:** All
- Transaction Type:** All
- Posting:** All
- Normal/Reject Type:** Normal
- Request Channel:** All
- Sale Type:** ALL, Purchase, TIP Adjustment, Installment, Pre-Authorization, Completion, Refund, Cash Withdrawal

Below the search form is a table titled 'Authorization History' with the following columns: Seq, ber Bank Acq, Issuer, Card No, Authorization Date, Authorization Time, Authorization Type, Transaction Type, Sale Type, Response Code, Authorization Amount, and Crncy. The table contains 17 rows of data, with the last row highlighted in yellow.

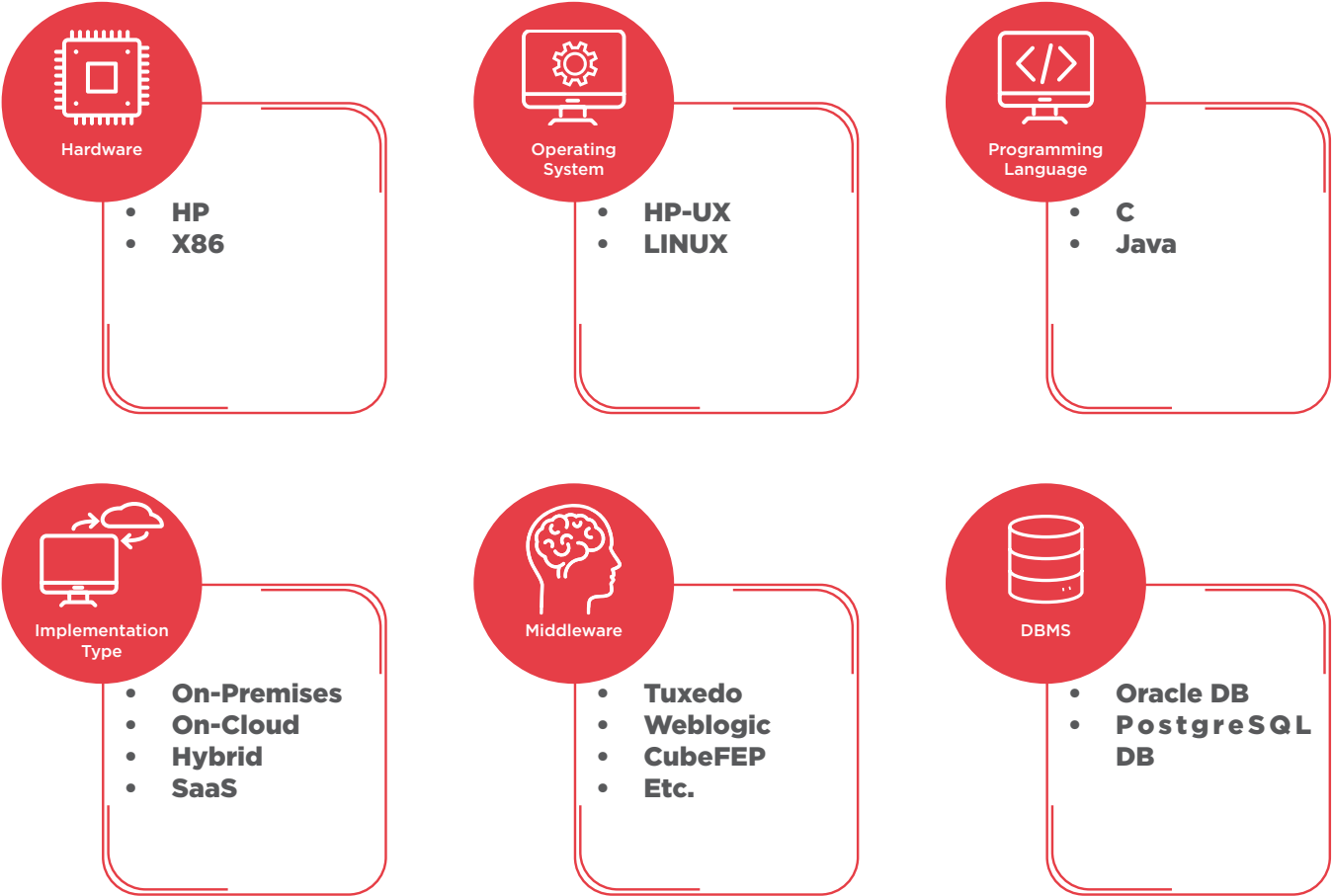
Seq	ber Bank Acq	Issuer	Card No	Authorization Date	Authorization Time	Authorization Type	Transaction Type	Sale Type	Response Code	Authorization Amount	Crncy
1		NK MAND		05-10-2021	15:17:25	Sale	Authorization	Installment	0000	2,000.00	IDR
2		NK MAND		05-10-2021	15:16:58	Sale	Authorization	Purchase	0000	2,000.00	IDR
3		NK MAND		05-10-2021	15:16:13	Sale	Authorization	Purchase	0000	2,000.00	IDR
4		NK MAND		05-10-2021	15:16:00	Sale	Authorization	Purchase	0000	2,000.00	IDR
5		NK MAND		04-10-2021	15:06:46	Sale	Authorization	Purchase	0000	2,000.00	IDR
6		NK MAND		04-10-2021	14:47:40	Sale	Authorization	Purchase	0000	2,000.00	IDR
7		NK MAND		04-10-2021	13:36:27	Sale	Cancellation	Purchase	0000	2,000.00	IDR
8		NK MAND		04-10-2021	13:34:11	Sale	Cancellation	Purchase	0000	2,000.00	IDR
9		NK MAND		04-10-2021	13:05:33	Sale	Cancellation	Purchase	0000	2,000.00	IDR
10		NK MAND		04-10-2021	13:04:39	Sale	Cancellation	Purchase	0000	2,000.00	IDR
11		NK MAND		04-10-2021	13:03:47	Sale	Authorization	Purchase	0000	2,000.00	IDR
12		NK MAND		01-10-2021	17:29:09	Sale	Authorization	Purchase	0000	2,000.00	IDR
13		NK MAND		01-10-2021	17:28:21	Sale	Cancellation	Purchase	0000	2,000.00	IDR
14		NK MAND		01-10-2021	16:14:58	Sale	Cancellation	Purchase	0000	2,000.00	IDR
15		NK MAND		01-10-2021	16:00:33	Sale	Cancellation	Purchase	0000	2,000.00	IDR
16		NK MAND		01-10-2021	15:59:25	Sale	Cancellation	Purchase	0000	2,000.00	IDR
17		NK MAND		01-10-2021	14:10:55	Sale	Authorization	Pre-Authori	0000	2,000.00	IDR

All module management screens in one menu bar.

Submenu from the selected modules management.

Product Architecture

BAIS is an open platform solution that operates on the industry-standard platform such as HP-UX, Linux. It uses industry-standard databases such as Oracle and PostgreSQL together with Java-enabled Oracle Weblogic and Oracle Tuxedo. It has been certified by the world's leading payment brands, including Visa, MasterCard, American Express, Diners Club, JCB, and CUP, as well as certification for EMV acquiring.



Implementation Type

Several types of implementations that can be applied to BAIS such as **On-premise, On-cloud, Hybrid, and SaaS** can be carried out according to the needs of customers. One of the advantages of implementing on-cloud compared to on-premise is easiest to setup, quick deployment, and no need for onsite hardware while the on-premise requires lots of hardware and consumes more time in deployment.

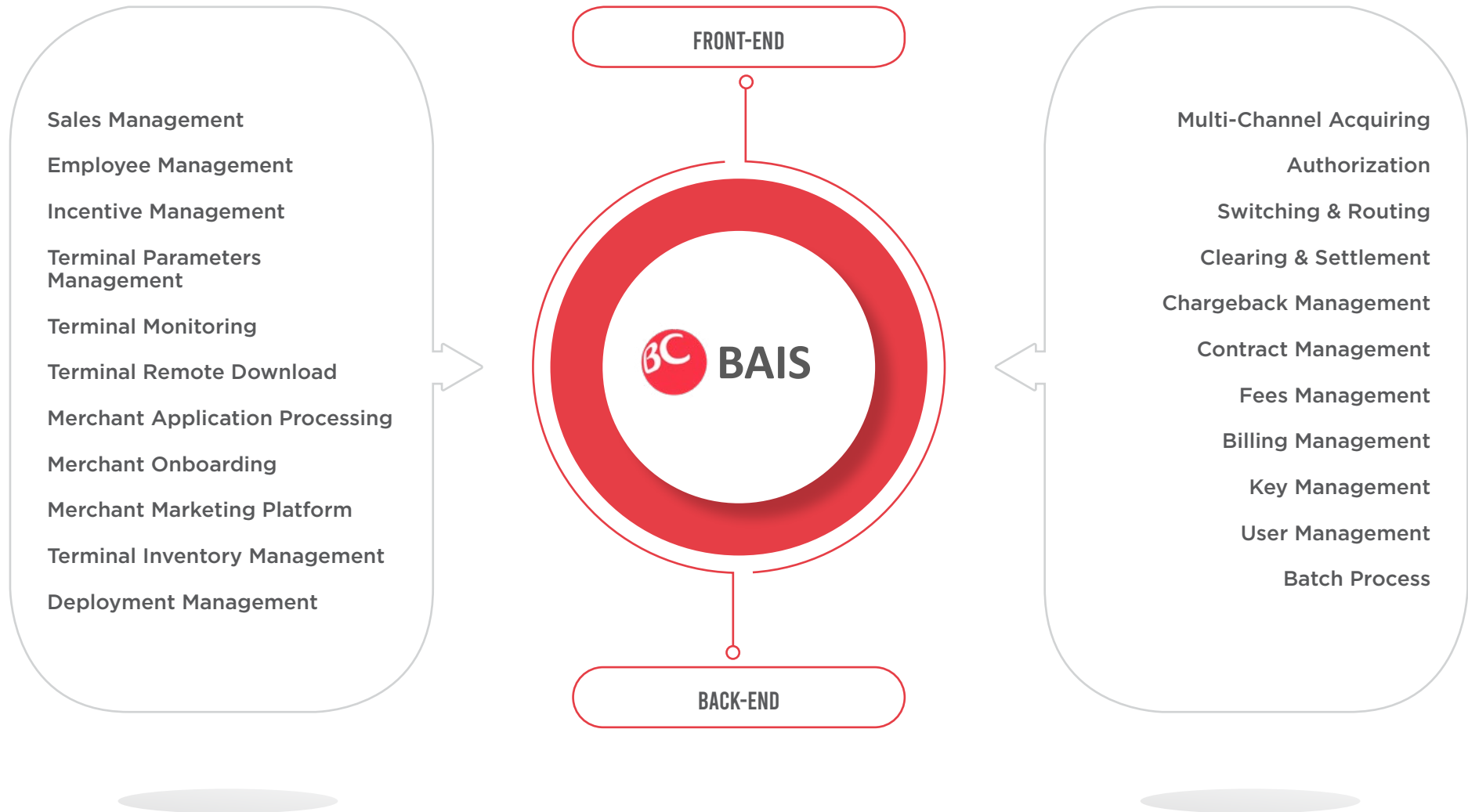
On the other hand, with on-premise, customers have more control over security while this feature does not exist on the cloud. Different with the Hybrid model where customers can combine both of the on-premise and on the cloud to achieve better security with low cost of hardware investment.





MODULES

Service Map

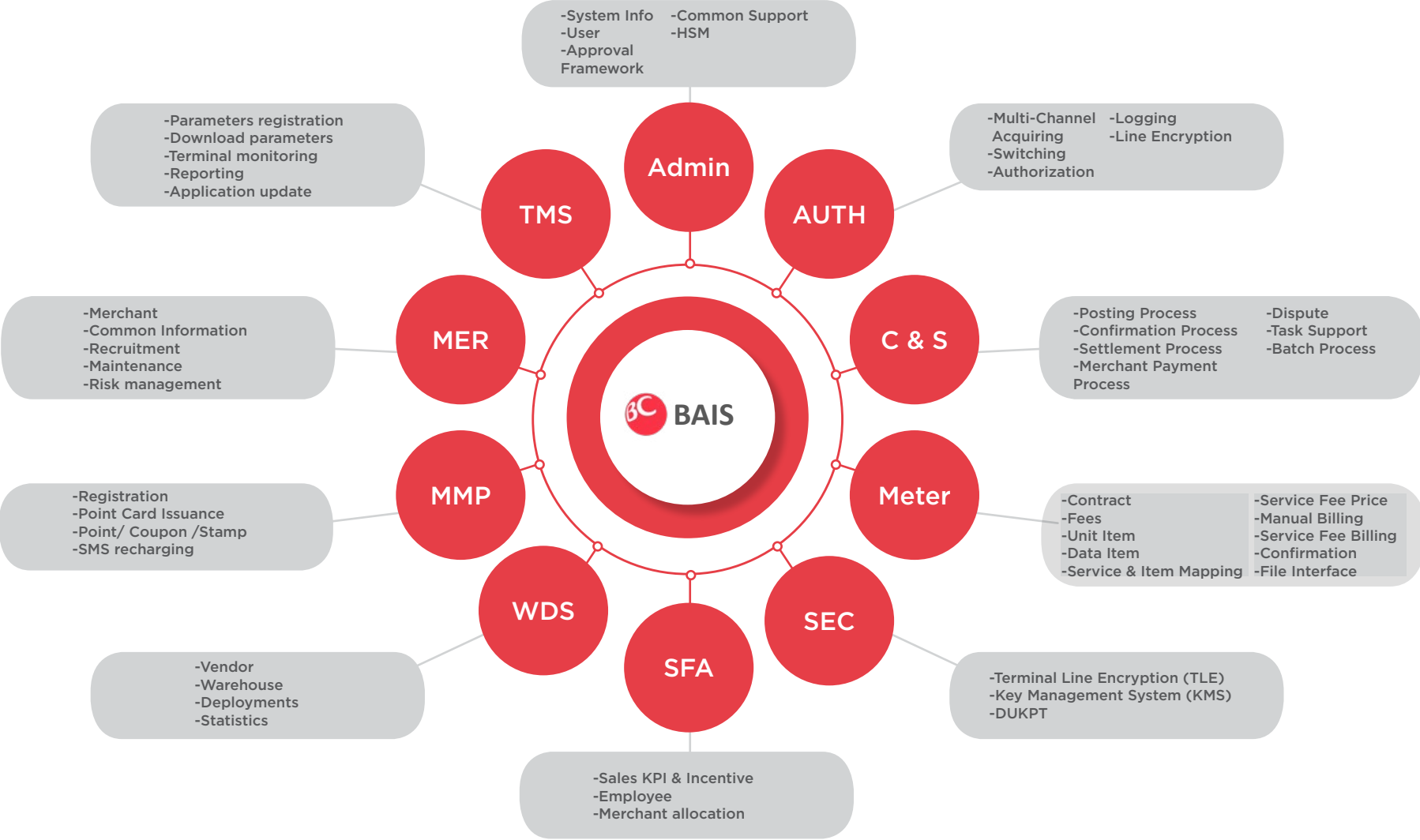




BCcard



Modules Functionalities





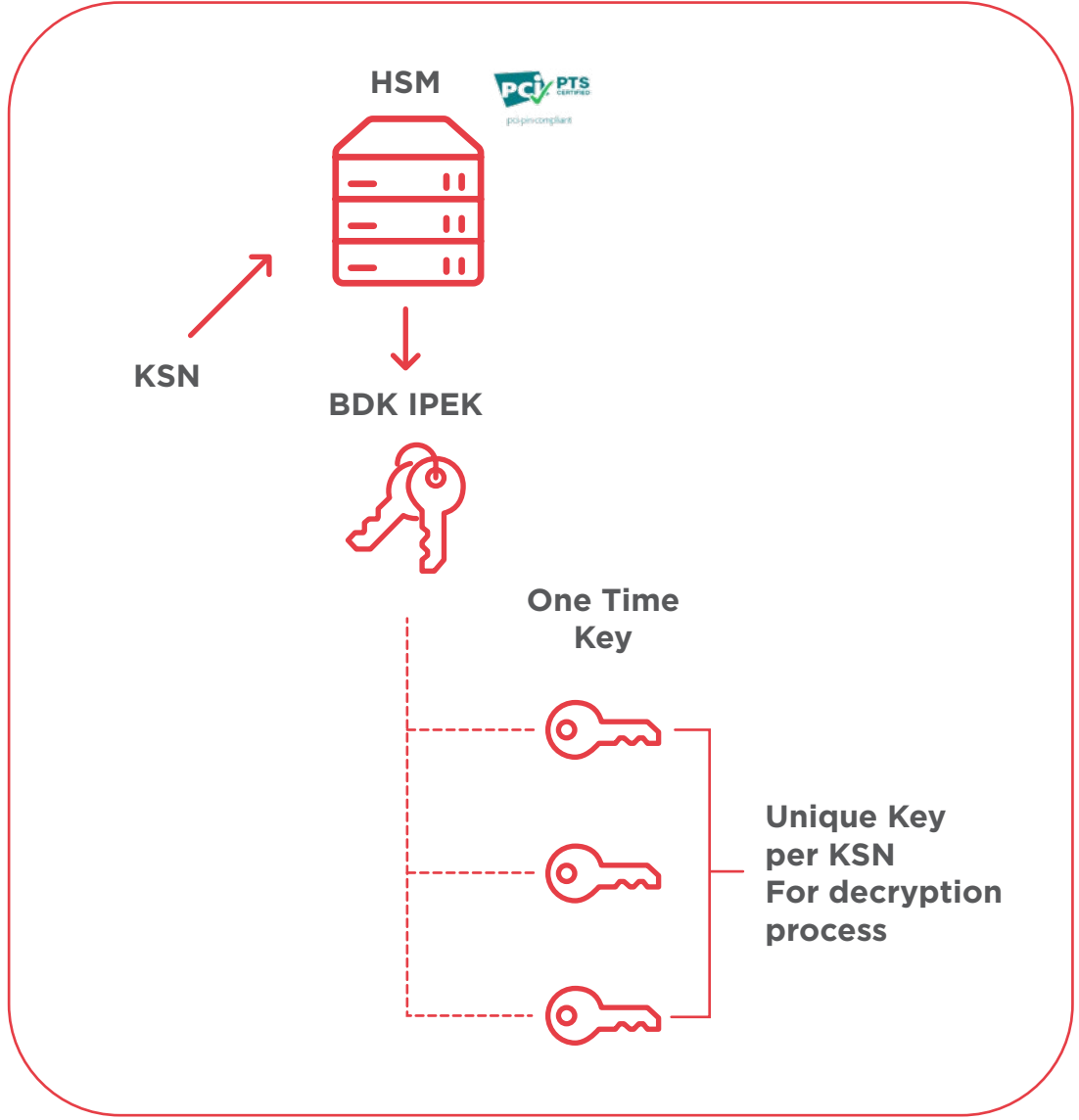
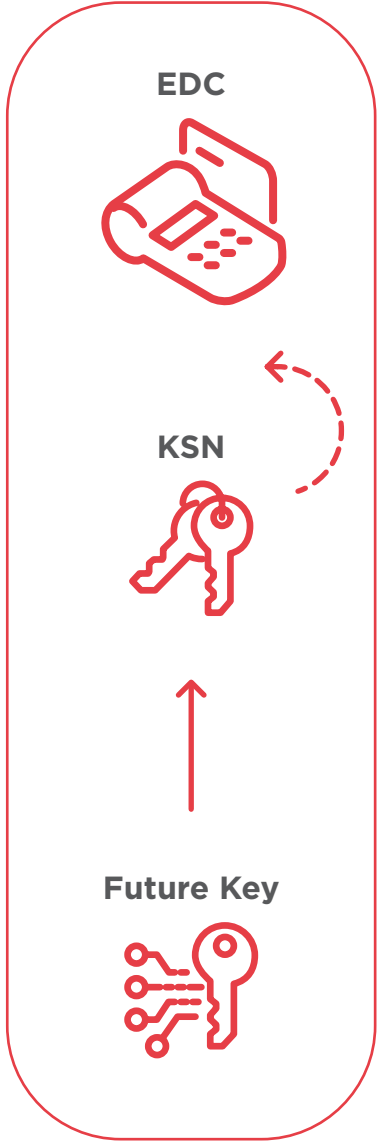
FEATURED
SERVICES



DUKPT

Transaction data security is our top priority. So, based on PCI-PTS standard regulation, all banks and institution's transaction data that transmits to our BAIS is secured by the PIN and Field encryption process.

BAIS uses DUKPT (Derived Unique Key Per Transaction) key management scheme in which for every transaction, a unique key is used which is derived from a fixed key. Therefore, if a derived key is composed, future and past transaction data are still protected since the next or prior keys cannot be determined easily.



KSN and Cryptogram
 ←-----→

Issuer Identification Number	Merchant ID	Grup ID	Device ID	Transaction Counter

Single EDC Sharing

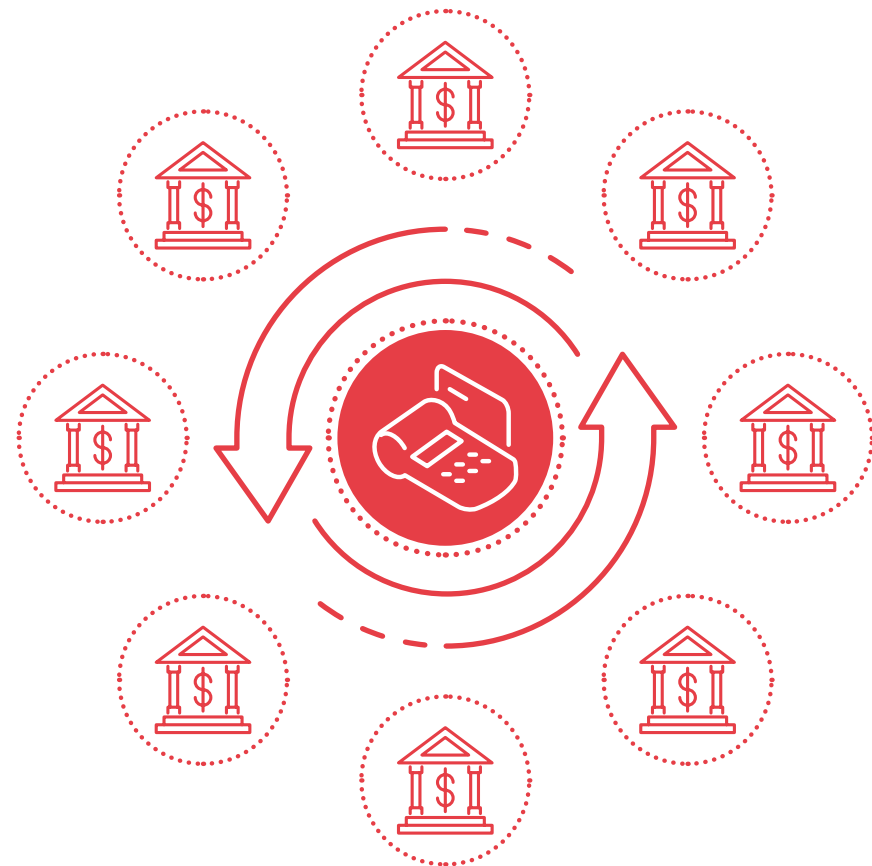
Nowadays, with the EDC sharing feature, services to merchants and customers are expected to be even more optimal. Because merchants no longer need to set up many EDC machines with different card-issuing banks. Just 1 EDC machine with the EDC sharing concept is enough.

BAIS provides an EDC Sharing platform that a single EDC can be used & maintained by multiple acquirer members.

- Capex, Opex Sharing model (ideally 1/N)
- On-us transaction is given to its acquirer member or member host
- Off-us transaction is shared by pre-set ratio among member



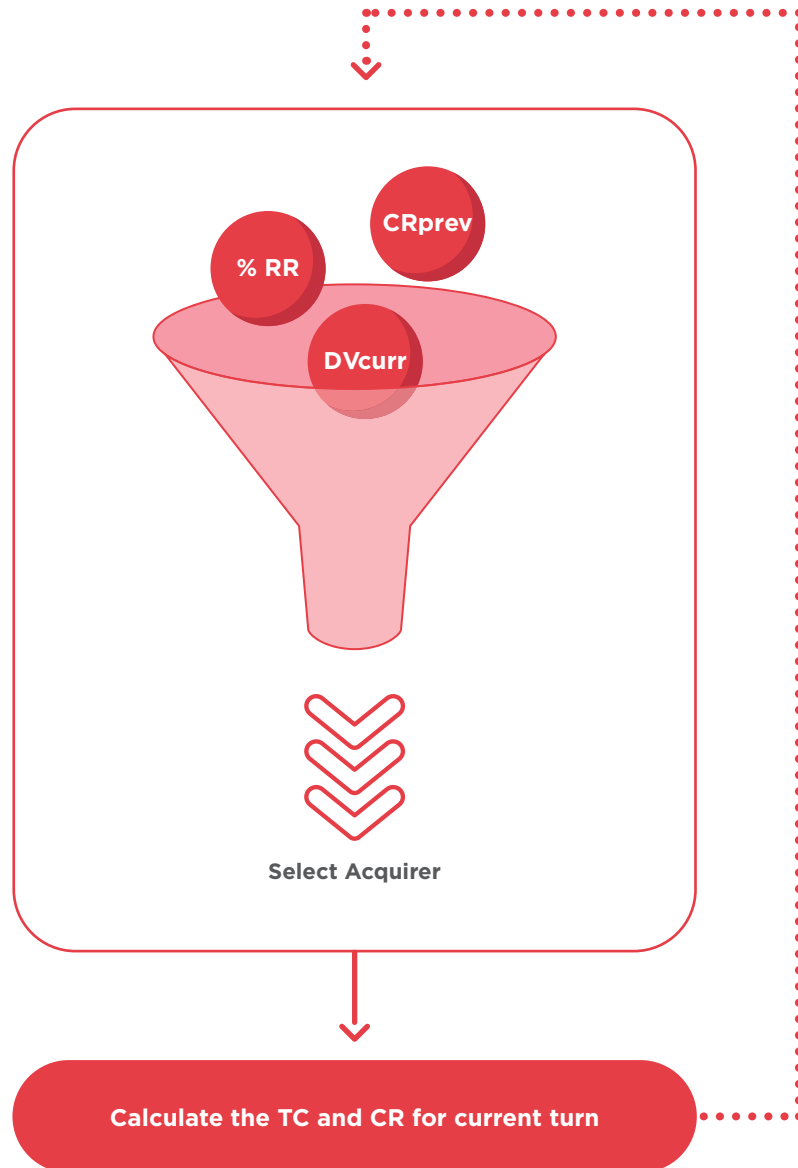
Works like as if your own bank's EDC



CAPEX+OPEX is shared ideally 1/n

EDC SHARING

Off-us Round Robin Mechanism



The round-robin method is only intended for transactions using off-us cards. This means that if the EDC terminal owned by Bank X uses a card issued by the X bank, then the transaction is fully owned by the owner bank and the round-robin method is not applied. However, if it is an off-us transaction, for example, the card does not belong to Bank X, Y, Z but acquirer from Bank Oversea, then the EDC Sharing system selects a random acquirer based on the acquirer selection logic.

	Bank A	Bank B	Bank C
% RR	50	30	20

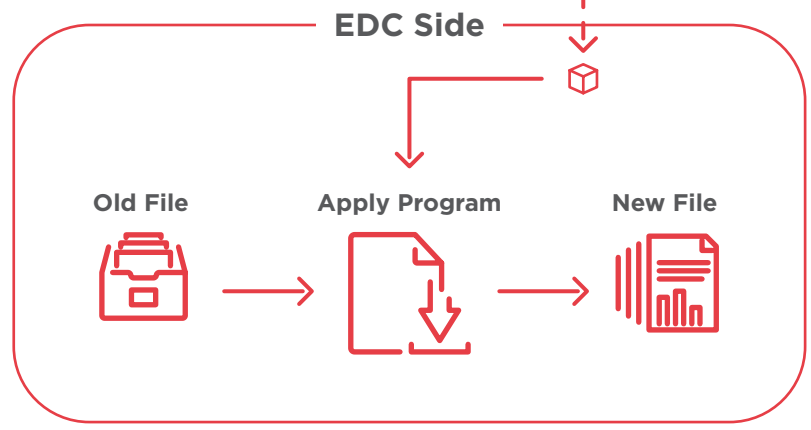
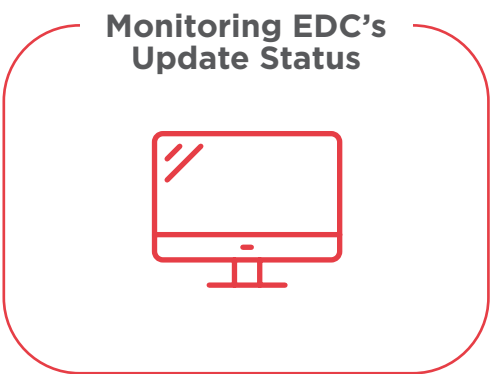
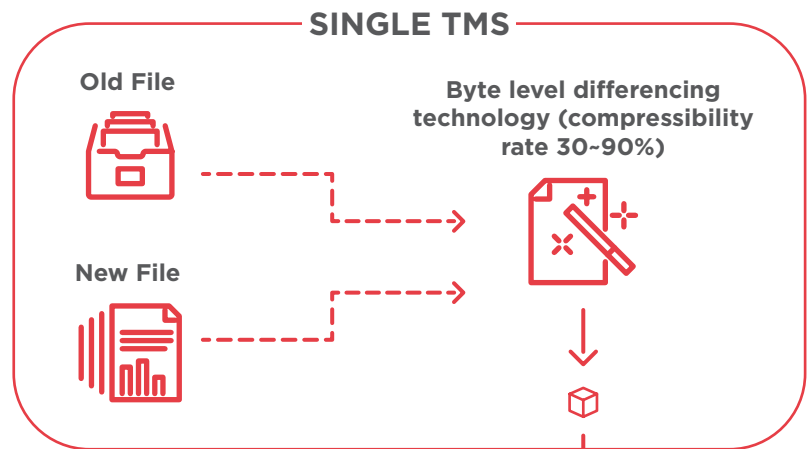
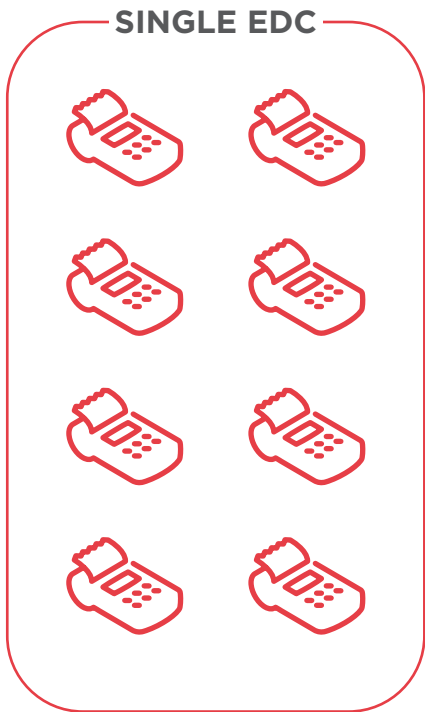
#	RR Turn		
	A	B	C
1	S		
2		S	
3			S
4	S		
5		S	
6	S		
7			S
8	S		
9		S	
10	S		

Application Update Over-the-Air (OTA) Feature

An OTA update is convenient for end users because it prevents them from going to a merchant(store) or connecting to a PC to update their devices.

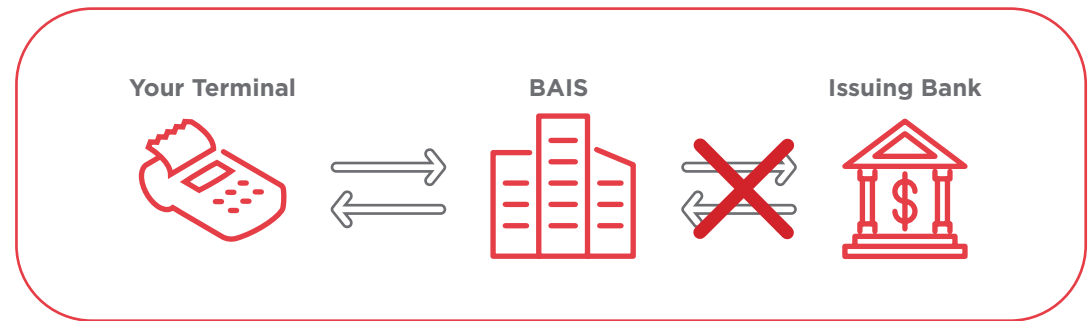
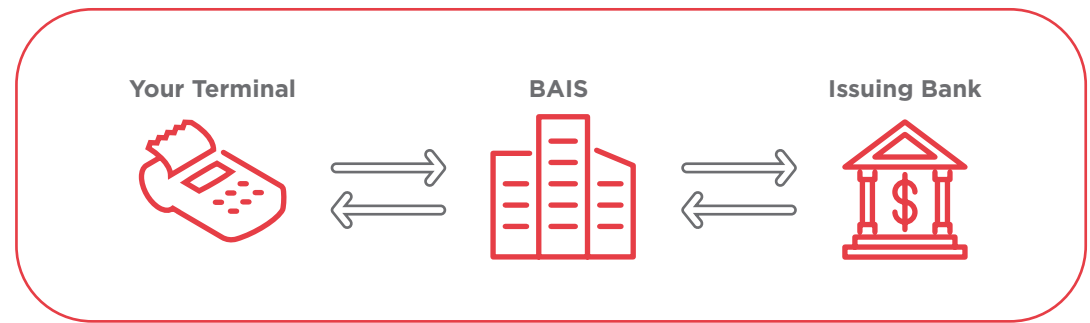
Our BAIS modules already support partial download and recovery download if the connection between EDC and server suddenly fails. So this feature makes it very easy for users to resume downloading applications, not from the beginning.





Stand in Processing

For the typical authorization process, BAIS routes the authorization request to the issuer for approval. However, in certain circumstances, such as when the issuer's systems are unavailable, BAIS may perform stand-in processing and review and authorize or deny the transaction based on the issuer's given criteria.



Interchange Rate Optimizer

Interchange Rate Optimization takes the member transaction data, performs the analysis of every data element for every transaction, and calculates the best valid IRD (Interchange Rate Designator) to minimize the interchange fee cost.



Acquiring Member Clearing Files



PDS0158



PDS0158-SF04 =
75

Acquiring Member Clearing Files



PDS0158



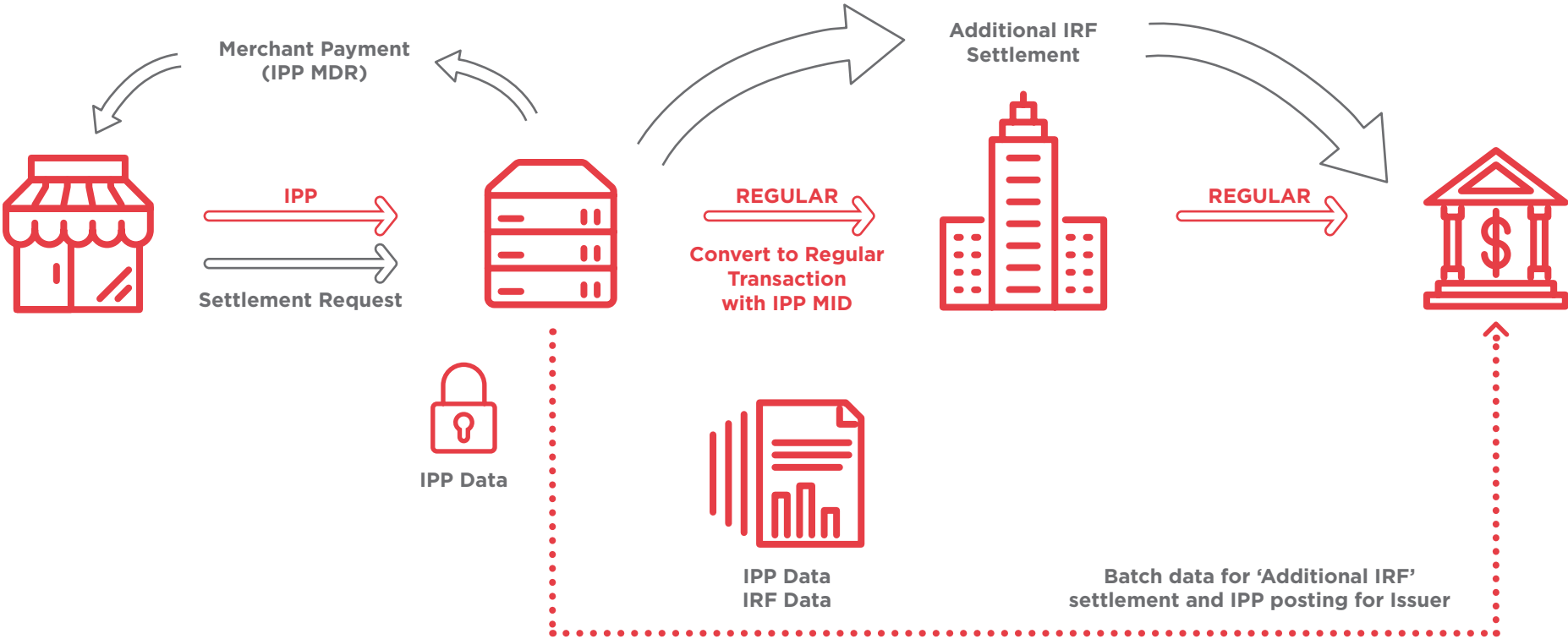
PDS0158-SF04 =
24

Interchange
Rate Optimizer



Issuer Promotion

BAIS converts IPP (Installment Payment Plan) transactions into regular purchases while maintaining IPP MID (higher MDR) and switches to Brand Networks. Promotion can be registered on BAIS system with the agreement between the acquirer member and Issuer member for the fixed period and fee scheme.



PROMO CODE

BUY
NOW 

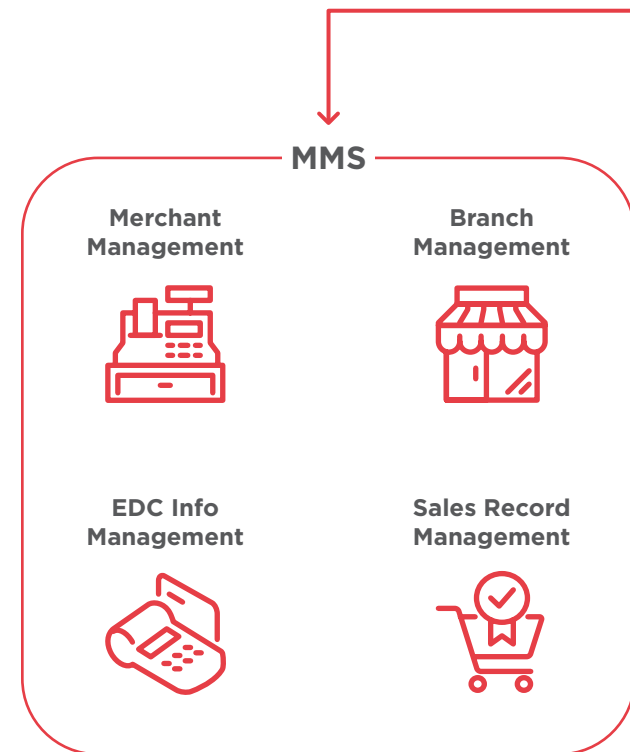


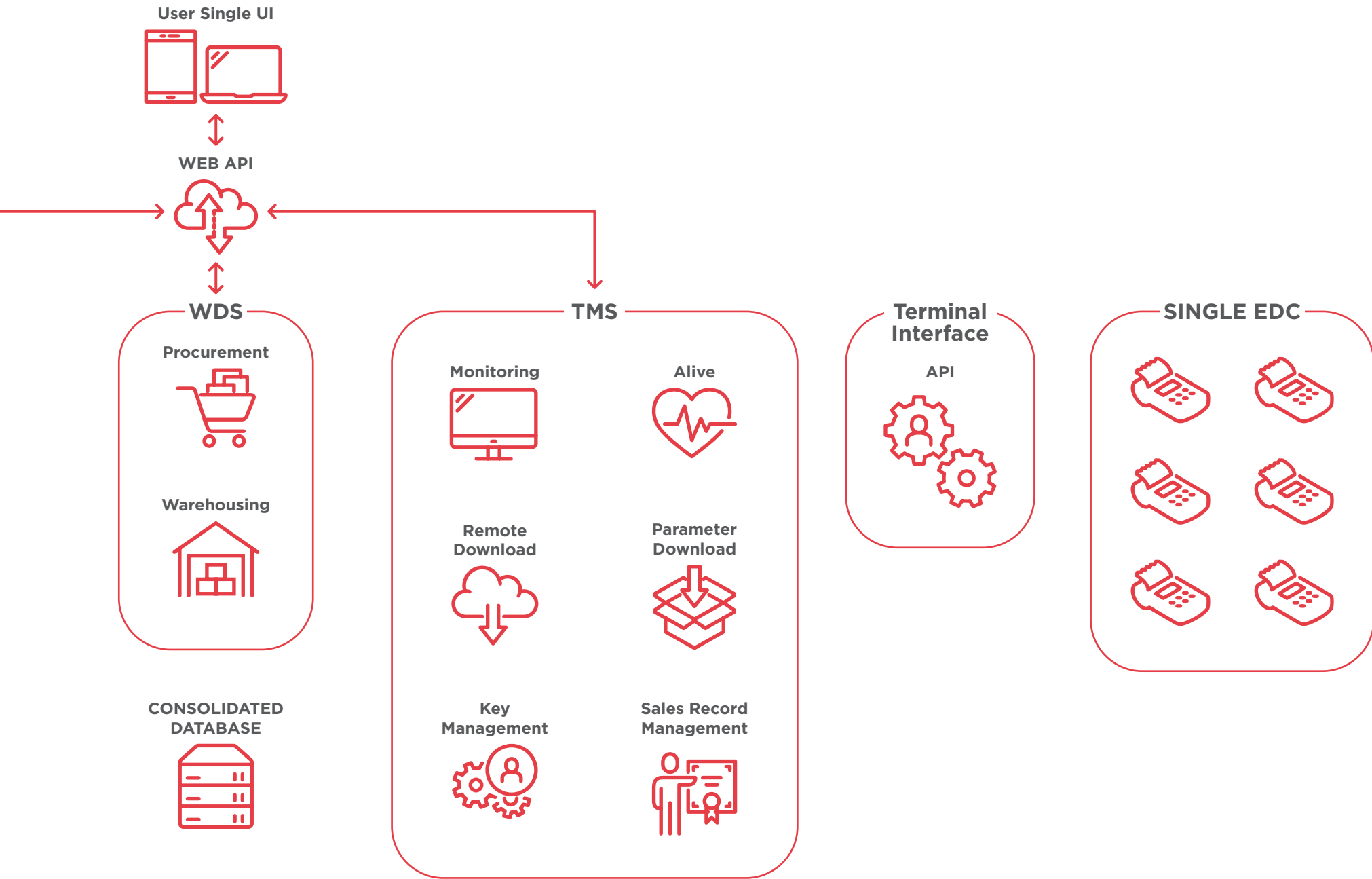
TMS

Single Terminal Management

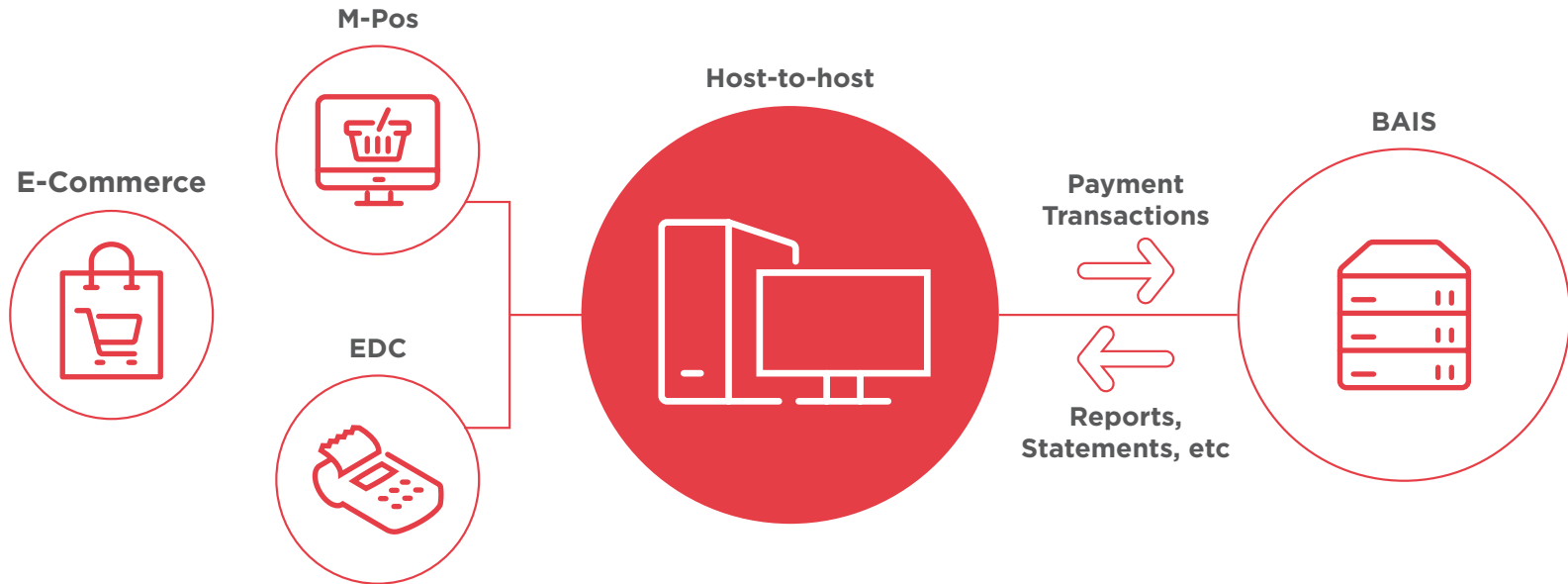
Following Conceptual Architecture shows that TMS provides:

- Consolidated Terminal Interface API allowing one-stop control over multiple brand/type of EDC
- Single User Interface for both merchant and EDC management maximizing business efficiency
- Host-based operation including remote application/parameter download





Host-to-Host Payment



Secure channels
Safe and secure networks protocols to safeguard sensitive data



Reconciliation
Provides report for all authorized and unpaid transaction



Time Optimization
Save a lot of time in handling automatic processes



Payment Transaction
Supported for all payment transaction types with each delivery channel (m-Pos, EDC, or e-Commerce)



Seamless File Transfer
The H2H connection provides seamless file transfer without any resets and any retransmission from the beginning of the file



DELIVERY
CHANNEL

EDC Line Up



**Ingenico MOVE
2500 & 3500 series**

- Telium Tetra OS
- 2.4" backlit, 320x240 px QVGA display
- Cortex A5 processor
- 128 MB RAM | 128 up to 512 MB Flash
- Ethernet, Wi-Fi, 3G(GPRS) and Dial-up communication
- 2 SIM | 2 up to 3 SAM slots available
- NFC, CTLS, Bluetooth (optional)
- 2200 mA of battery capacity



Verifone VX 520C

- Verix V + EOS Operating System
- 2.8" QVGA Colour display
- 400 MHz, ARM11 32-bit processor
- 32 MB RAM | 128 MB Flash
- Ethernet, 3G(GPRS) and Dial-up communication
- 1 SIM | 3 SAM slots available
- NFC, CTLS (optional)
- 2200 mA of battery capacity



Ingenico APOS A8

- Android 5.1 OS
- 5.5" IPS 1280x720 pixels
- Cortex A7 and M4 32-bit processor
- 1 up to 2 GB RAM | 8 up to 16 GB Flash
- Ethernet, Wi-Fi, 4G(GPRS)
- 1 SIM | 2 SAM slots available
- NFC, CTLS, Bluetooth available
- 2600 mA of battery capacity



Verifone C680

- Verix + EOS Operating System
- 3.5" TFT display
- 400 MHz, ARM11 32-bit RISC processor
- 64 MB RAM | 128 MB Flash
- Ethernet, Wi-Fi, 3G(GPRS) and Dial-up communication
- 1 SIM | 2 SAM slots available
- NFC, CTLS (optional)
- 2450 mA of battery capacity



**Ingenico iWL
220 series**

- Telium OS
- 2.51" 128 x 64 px with monochrome color
- RISC 380 MHz ARM9 & 57 MHz ARM7 32-bit processor
- 16 up to 32 MB RAM | 16 up to 128 MB Flash
- Ethernet, Wi-Fi, 3G(GPRS) and Dial-up communication
- 1 SIM | 2 SAM slots available
- - NFC, CTLS, Bluetooth (optional)
- - 2200 mA of battery capacity



**Ingenico iCT 220
& 250 series**

- Telium OS
- 2.51" backlit 128 x 64 px and QVGA (250)
- RISC 450 MHz ARM9 & 50 MHz ARM7 32-bit processor
- 8 up to 32 MB RAM | 16 up to 128 MB Flash
- Ethernet, Wi-Fi, 3G(GPRS) and Dial-up communication
- 1 SIM | 2 SAM slots available
- - NFC, CTLS, Bluetooth (optional)



Verifone VX 675


- Verix V + EOS Operating System
- 2.8" QVGA Color display
- 400 MHz, ARM11 32-bit processor
- 64 MB RAM | 128 MB Flash
- Ethernet, Wi-Fi, 3G(GPRS) and Dial-up communication
- 1 SIM | 2 SAM slots available
- NFC, CTLS, Bluetooth (optional)
- 2200 mA of battery capacity



Verifone VX 520

- Verix V + EOS Operating System
- 128 x 64 px graphical, white backlit LCD
- 400 MHz, ARM11 32-bit processor
- 32 MB RAM | 128 MB Flash
- Ethernet, 3G(GPRS) and Dial-up communication
- 1 SIM | 3 SAM slots available
- NFC, CTLS (optional)
- 2200 mA of battery capacity


Certifications


Visa Confidential


Visa ADVT Chip Terminal Review Report

Comments

All test cases passed during review.



pci-dss compliant



pci-pin compliant


Profile

Technology:
 Participation History: 4 years
 Region of Operation: AP

Validation Details

Service Provider Type	Validation Type	Valid Through Date	Assessor
PAYMENT FACILITATOR	PCI DSS	Mar 31, 2021	UL Transaction Security Pty Ltd.
HIGH RISK INTERNET PAYMENT FACILITATOR	VISA TPA PROGRAM (HR IS2)	N/A/N/A	NOT APPLICABLE
THIRD PARTY SERVER	VISA TPA PROGRAM (IS2-M)	Apr 30, 2021	NOT APPLICABLE
TPS - PIN	PCI-PIN		UL Transaction Security Pty Ltd.
ESD			
DYNAMIC CURRENCY CONVERSION			
VISANET PROCESSOR			
ISD - HIGH RISK			
GO - MERCHANT			

Mastercard Terminal Integration Process M-TIP Letter of Approval



Approval

Deployment

List of Countries: Indonesia

Terminal Configuration

Terminal Configuration	
Terminal Type	Attended POS
Configuration as per	M-TIP_170314 043816932_170318-072141_TSE2
Special program(s)	None
Contact Interface	
EMV Kernel	Vx EMV Module Version 7.0.0
EMVCo Level 2	2-83281-1-SC-FIM-1015-4.3.d
Payment Application Software	M-TIP-PaymentApp v1.0
Products	Mastercard
Contactless Interface	
Contactless Product Type	Standalone Intelligent Contactless Card Reader
Contactless Product Link	TLOA-VERI50801-150920(a)
Specifications	PayPass - M/Chip Reader Card Application Interface Specification Version 3.0.2
Products & Terminal CVM	Transactions <i>with other CVM</i> than GDCVM* Transactions <i>with</i> GDCVM
Required Limit Configuration	permitted above CVM Required Limit permitted above CVM Required Limit
	Mastercard Yes Yes

*GDCVM: Genuine Linked Cardholder Verification Method


Terminal(s)

Tested with	Terminal	Card Reader
Terminal Reference	Verifone Inc. V4520	Verifone Inc. V4520
Vendor Name	Verifone Inc.	Verifone Inc.
Vendor Country	Indonesia	United States
TQM References*	IFM: TQM00055/03	PCD: TQM0445/01
Contact EMVCo Level 1	12646 0312 400 21 FIM	
PCI PTS Approval Number	4-30052	
<small>*All interfaces include PCI-Proxy Coupling Device</small>		

M-TIP References


Testing References	
Test Plan Version	M-TIP 2.0 (Contact & Contactless)-4-325
Specification Reference	M/Chip Requirements for Contact and Contactless - 29 September 2015

Payment Card Industry Data Security Standard (PCI DSS) v 3.2



Service Covered:

Date of Compliance: 13th April 2017



The aforementioned service has been assessed by UL Transaction Security Pty Ltd against PCI DSS v3.2

- Compliance is subject to the rules and processes detailed in the PCI DSS program.
- The entity assessed has a responsibility to maintain compliance as per PCI DSS v3.2 at all times and must undergo annual assessments within 12 months from the date listed.
- This compliance does not guarantee or warrant that the entity assessed is unassailable to cardholder data breaches. UL Transaction Security Pty Ltd is not liable to any third party for any loss or damage caused by the listed entity.
- This document is a commercial representation of work completed and is not officially sanctioned by PCI DSS or any card brand.

UL Transaction Security
 Level 1, 277 Midland Street
 Melbourne VIC 3000
 A/NZ 25 003 302 760
 T: +61 3 9646 2763 F: +61 3 9647 0390
 E: ul@ul.com.au www.ul.com



JCB Co., Ltd.
5-1-13 Minami Aoyama
Minato-ku, Tokyo 107-8002 Japan
Phone: +81-3-4778-7100
Fax: +81-3-4778-7103

Date: November 24, 2016

Letter of Confirmation for Terminal Check for Implementation (TCI)

We confirm that the following terminal has passed TCI in accordance with TCI Procedure.

Please be noted that the tested product below must be retested when:

- > JPM or format is modified.
- > Proprietary Application that affects IC card processing is modified.
- > An interoperability issue that affects JCB card acceptance is fixed.
- > JCB requests a retest.

Submission Date: November 21, 2016
Test Version: 1.4
Reference Number: A16280101118174019
Tested Terminal:

JPM Manufacturer	Verifone Inc
EMVCo Level 1 Approval Number	12648 0312 408 21 F81
Application Kernel Manufacturer	Verifone Inc.
EMVCo Level 2 Approval Number	3-02285-5-NC-F81-1815-4.3.d
Proprietary Application Name (version)	Vx EMV Module Version 7.0.0
Terminal Market Name	Vx528

No Warranty and No Liability:

Even though the test results have met JCB requirements, JCB provides no warranty of any kind for the tested terminals. Also, JCB is not responsible for any damages caused by the test.

Note on Selecting and Setting-up Terminals:

1. To prevent interoperability issues, we recommend that the Acquirer select terminals that have been certified as compliant with the latest EMV specifications. The risk of interoperability issues is higher with terminals compliant only with older EMV specifications. You may find information about the latest EMV specifications on the EMVCo web site. An "Issues List" of known interoperability issues is also published on the EMVCo web site: <http://www.emvco.com/>

2. For proper processing of JCB cards, the terminal must be properly set up. In particular:

- Do not set Cirrus AID to POS terminals
- Load the CAPK properly

Sincerely,

Masaki Yokawa
Senior Vice President
Brand Infrastructure & Technologies Department
JCB Co., Ltd.



JCB Co., Ltd.
5-1-13 Minami Aoyama
Minato-ku, Tokyo 107-8002 Japan
Phone: +81-3-4778-7100
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- > JCB requests a retest.

Submission Date: November 21, 2016
Test Version: 1.4
Reference Number: A16280101118173550
Tested Terminal:

JPM Manufacturer	Ingenix
EMVCo Level 1 Approval Number	12702 8012 408 21 C0T
Application Kernel Manufacturer	Ingenix
EMVCo Level 2 Approval Number	3-02486-5-IC-PP14013-4.3.d
Proprietary Application Name (version)	EMVCC 4.86
Terminal Market Name	IC720

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JCB Co., Ltd.

www.bccardglobal.com



Equity Tower, SCBD Lot. 9 35th FI Unit B,
Jl. Jend. Sudirman, RT.5/RW.3, Senayan,
Kec. Kby. Baru, Kota Jakarta Selatan,
Daerah Khusus Ibukota Jakarta 12190

P. (021) 5155141
F. (021) 5155141