

Hyosung Monitoring and Security Software: MoniManager and MoniGuard

Terminal Management Software

Retail & Community Bank



Operating System

- Windows 7, Windows 10

User Interface/Architecture

- PC Server Application
- Workstation Application
- Gateway for integration

Protocol

- Proprietary

Database

- SQL Express

Devices Managed

- Retail ATMs
- FI ATMs
- Branch Transformation
- TCRs

Large FI or Retail or Dealer



Operating System

- Windows xxx

User Interface/Architecture

- Browser based

Multi-vendor hardware support

Multi-vendor application support

Protocol

- SNMP
- Proprietary

Database

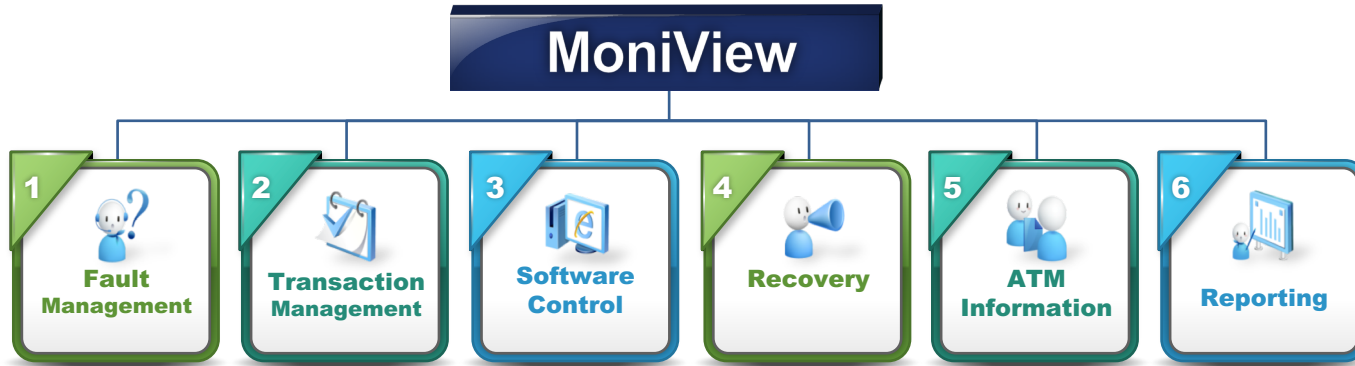
- SQL Base

Devices Managed

- FI ATMs
- Branch Transformation
- TCRs

MoniView

Retail/FI Channel



- Device Status
- Dispatching
- SMS or E-mail
- Error description
- Recommended fix

- EJ Upload
- Scheduled
- Unscheduled
- EJ export to Excel
- EJ print

- Log File Upload
- S/W Download
- Advertising Download
- Scheduled
- Unscheduled

- Remote Reboot

- Software Versions
- Cassette types
- Cassette Counts

- Add Cash History
- Cassette Total History
- Day Total History
- Transaction History
- ATM Error Report
- Cash Reject Report









PC based server. Packaged software solution

MoniManager

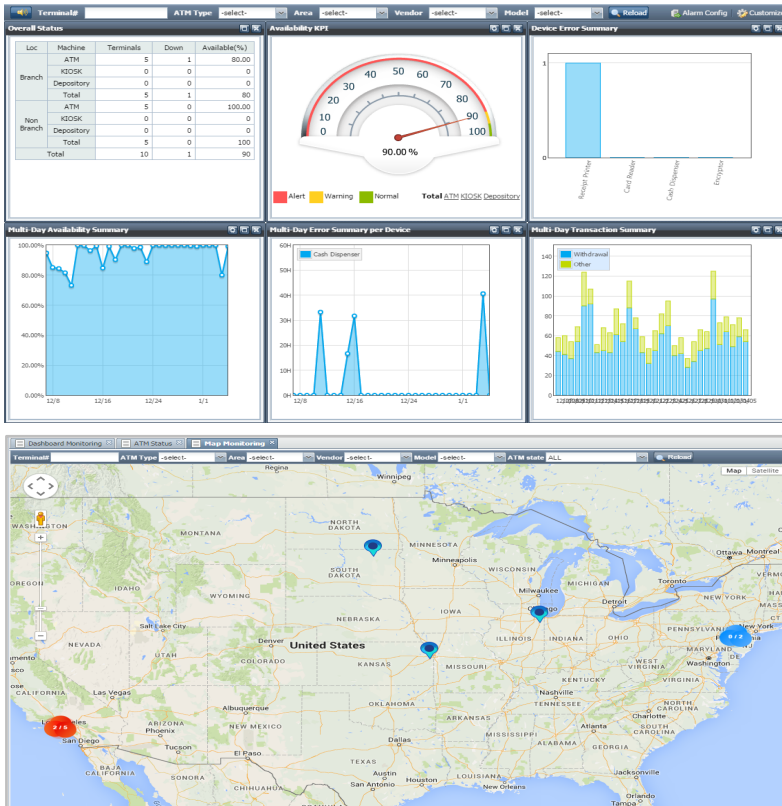
Direct Customers/VAR only/Large Channel

6 Key functions will enhance the profit for banks or outsourcing company by improving the availability of the service networks

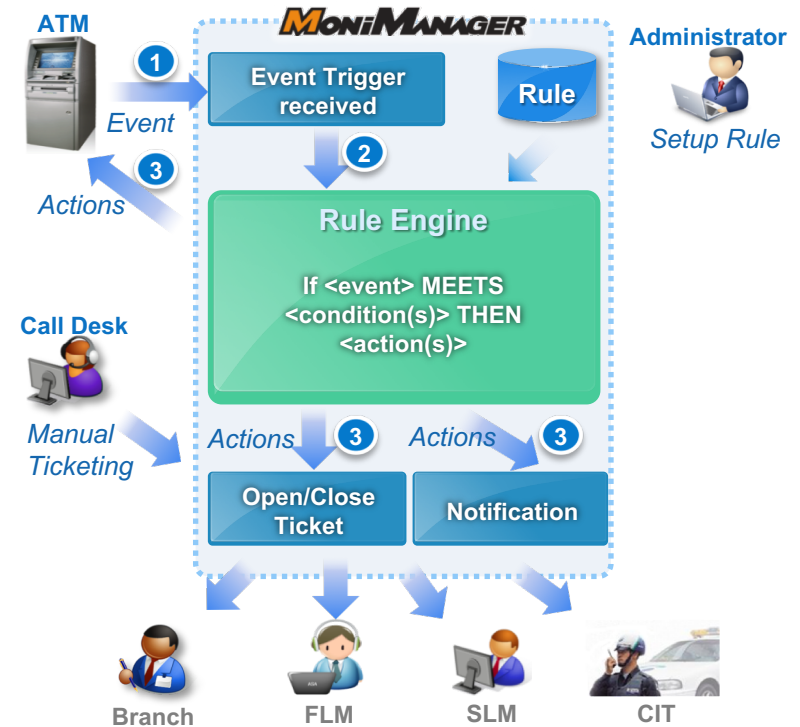
<p>1</p>  <p>Fault Management</p>	<p>2</p>  <p>EJ Pulling</p>	<p>3</p>  <p>Remote Control</p>	<p>4</p>  <p>Preventive Measures</p>	<p>5</p>  <p>Asset Management</p>	<p>6</p>  <p>Report</p>
<ul style="list-style-type: none">▪ User Friendly Interface▪ Ticket Management▪ Dashboard & Map Monitoring	<ul style="list-style-type: none">▪ Electronic Journal pulling▪ View EJ by terminal and date	<ul style="list-style-type: none">▪ Remote Control ATM▪ Log File Upload▪ S/W Download▪ Screen Download	<ul style="list-style-type: none">▪ Idle /Closed ATMs▪ ATM with multiple faults▪ ATM resource monitoring	<ul style="list-style-type: none">▪ ATM information database▪ ATM Asset Info▪ Configurable Asset info	<ul style="list-style-type: none">▪ Ad-Hoc Report

Highly Customizable

- Dashboard monitoring & Map monitoring



- Rule based engine to handle large networks



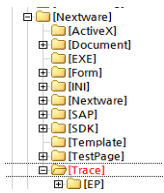
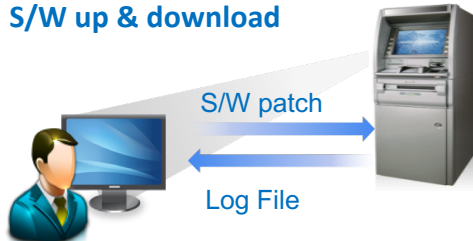
Key Functions

Remote Control



- ✓ Screen
- ✓ Reboot
- ✓ Power off
- ✓ Device Reset

S/W up & download



EJ pulling



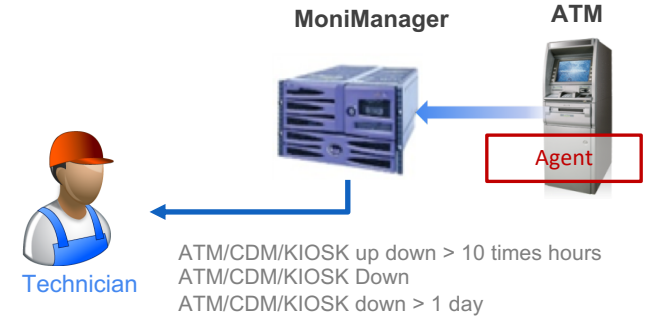
```
-----
2--08 12:58      128742
CARD:6037991010788879
WITHDRAWAL: RLS 889,000
TYPE:2=20000 RLS DISP=40
```

```
-----
2--08 12:58      128742
CARD:6037991010788879
WITHDRAWAL: RLS 889,000
TYPE:2=20000 RLS DISP=40
```

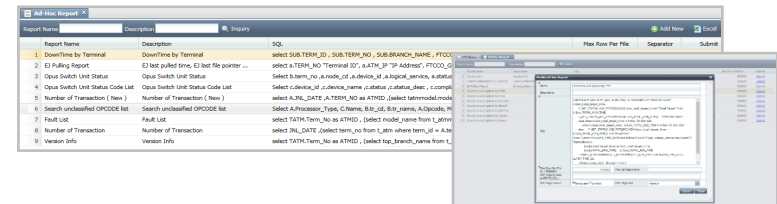
```
-----
2--08 12:58      128742
CARD:6037991010788879
WITHDRAWAL: RLS 889,000
TYPE:2=20000 RLS DISP=40
```

Preventive measure

Kanwil	WSID	Model	Last Tr time	Duration	ATM state
1	Dago	000T	06/03/12 09:32:25	0 id 03h 59m 13s	In Service
2	Bandung	0012	06/03/12 10:20:21	0 id 03h 11m 17s	Supervisor Mode
3	Menara Ancol	000F	06/03/12 12:00:02	0 id 01h 31m 36s	In Service
4	Sunter Mall	0009	06/03/12 13:25:25	0 id 00h 06m 12s	In Service
5	Batam	005N	06/03/12 15:30:30	0 id 22h 01m 08s	In Service
6	Wisma Asia	0052	06/03/12 16:50:10	0 id 20h 41m 28s	In Service
7	Medan	0005	06/03/12 16:50:20	0 id 20h 41m 18s	In Service
8	Blok A Cipete	005V	06/03/12 17:52:54	0 id 19h 38m 44s	In Service
9	Pasar Minggu Center	005R	06/03/12 18:26:54	0 id 19h 38m 44s	In Service



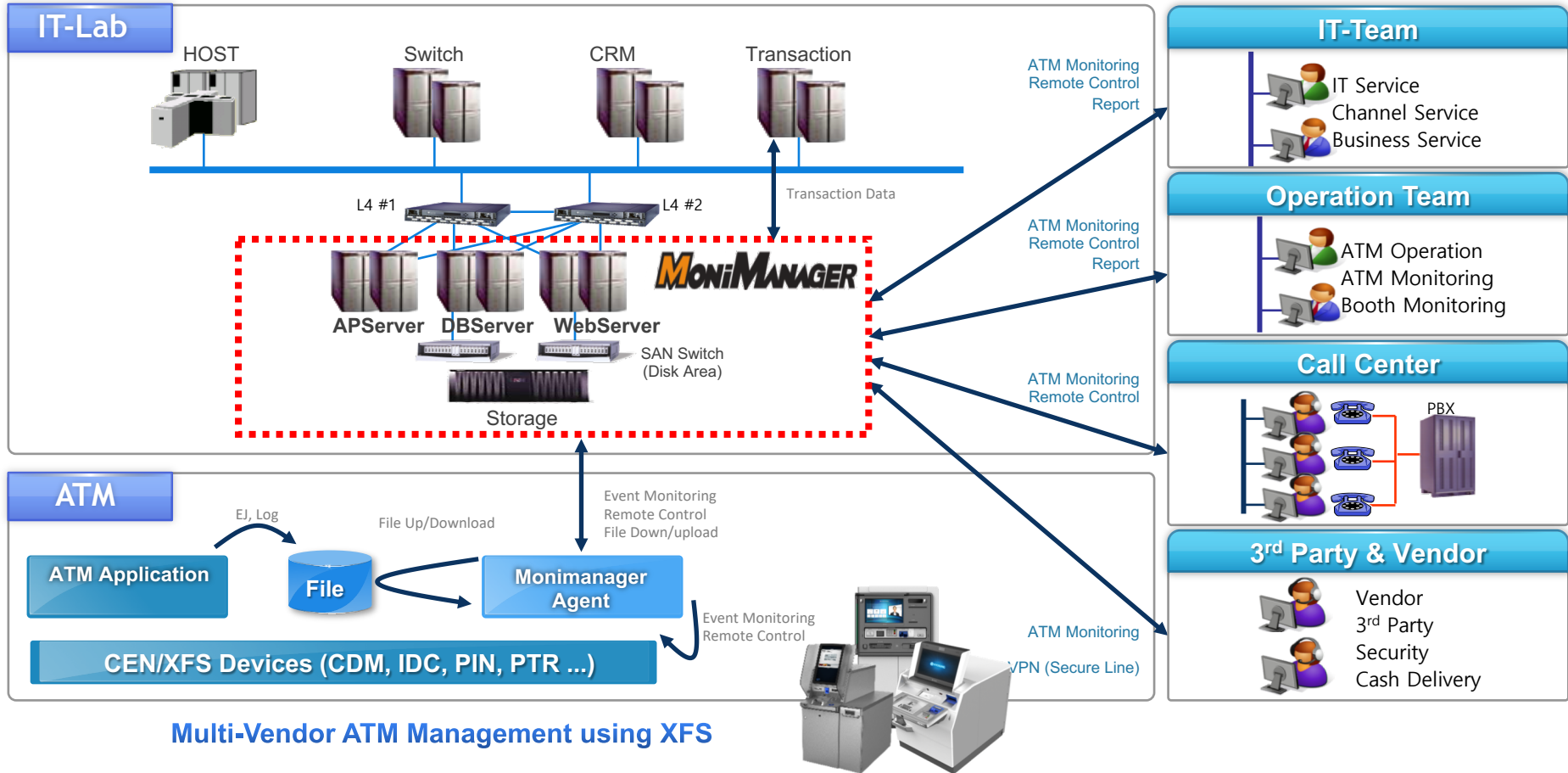
Report – operation status, faults, cash



Ad-Hoc report (customized report by user)

System Architecture

MoniManager supports proactive end to end management of heterogeneous ATMs.



References

MoniManager has been evolved over 15 years to manage a various ATM network from small bank to the largest ATM network in the world. It can manage all kinds of ATMs such as cash dispensers, kiosks, cash & check depositors and cash recyclers from most global ATM manufacturers.

'04~'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19
 KB '04/03 12,000	 Hana	 KPIC	 CU	 WooRi	 KFCC	 IBK	 Shinhan	 KB	 Skye	 Jaiz	 SBI		
 Daegu '05/10 1,000	'07/10 ATM 4,500	'08/08 ATM 6,500	'09/04 ATM 3,000	'10/02 ATM 8,500	'12/04 ATM 8,000	'13/04 ATM 4,300	'14/11 ATM 8,000	'15/06 ATM 12,000	'16/01 ATM 900 Nigeria	'17/11 ATM 100 Nigeria		'18/07 ~ 19/06 ATM 48,000 India	
 IBK '06/01 3,200		 Shinhan		 KyongNam		 BNI	 SBI	 ShinHan	 Fidelity	 BRI	 Sinarmas		
		'08/10 ATM 8,000		'10/02 ATM 1,200		'12/12 1,000 MoniCRM Indonesia	'13/12 ATM 9,000 India	'14/01 ATM200 Vietnam	'15/01 ATM 500 Nigeria	'16/05 ATM 6,000 Indonesia	'17/10 ATM 900 Indonesia		
	 ATMU	 Jateng					 CUB	 Indian	 Keystone	 Kalbar			
	'08/06 ATM 3,500 China	'11/06 ATM 500 Indonesia					'14/08 ATM 1,000 India	'15/08 ATM 300 India	'15/08 ATM 350 Nigeria	'16/05 ATM 200 Indonesia			

Subscription

Combined payment

- Combines into a monthly fee
 - server license
 - server software maintenance
 - terminal license
 - terminal software maintenance
- Minimum \$1150/month
- Dealer is responsible for:
 - Server HW
 - IIS server license
 - SQL Base License
 - Network
 - Redundancy for high availability
 - Server software updates/backups/etc.
 - VPN set up for each customer
 - VPN/reverse NAT'ing solution
 - Agent Installation
 - VPN/connectivity test
- Dealer does all administration
 - Add customers/terminals
 - Builds rules
 - Software distribution
 - Etc.

SaaS

Combined payment

- Combines into a monthly fee
 - server license
 - server software maintenance
 - terminal license
 - terminal software maintenance
 - Server HW
 - IIS license
 - SQL Base
 - Server Network
 - Server software updates/backups/etc.
 - VPN set up for each customer
 - VPN/reverse NAT'ing solution
- Minimum \$1500/month
 - Agent Installation
 - VPN/connectivity test
- Dealer does all administration
 - Add customers/terminals
 - Builds rules
 - Software distribution
 - Etc.

Security Software

Windows 10 has been “hardened”

Extensive use of Microsoft security features

- Controlled access to desktop
- Secure admin password

Some Hyosung extensions

- Controlled access to keyboard
- PCI DSS certified
 - Primary Account Number (PAN) not stored in clear text
 - Customer specific information not stored on hard drive
 - Customer information scrubbed in the logs

Windows firewall can be configured for extra security

Comes with purchase of MoniPlus2s applications

Windows 10 required for Drive Encryption

Whitelisting – Superior to Virus Protection

- Blocks execution of unauthorized applications
 - Day zero security
 - Doesn't require virus definition updates
 - List of authorized software is specific to each FI – PS engagement
 - Tracks software changes – know what changed, when and by whom
 - McAfee MCC, MAC based



Drive Encryption

- Military strength, certified encryption algorithms
- Automatic, transparent encryption without impacting performance
- McAfee Endpoint Encryption based



Compatible with McAfee ePO

- Centralized control of whitelists
- Centralized review of software changes
- Centralized control of encryption



Professional Services Engagement

Project Manager

Installation of ePO server

- Centralized control of whitelists and drive encryption
- Whitelist defined
- Drive encryption enabled
- Installation media created (Dealer responsible for installation)
- Training of FI on how to use ePO server going forward



Thank You!

WWW.HYOSUNGAMERICAS.COM



US Headquarter

6641 N. Beltline Rd. Suite 100
Irving, TX 75063
972-350-7650



Columbus Office

470 Olde Worthington Road
Suite 430
Westerville, OH 43082
740-953-0187