



Retail Store Solutions

RSS/STG Systems Management RMA Version 2.0

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Agenda

- Introduction and Architectural Overview
- RMA Agents
- RMA Retail Extensions for IBM Director



Retail Store Solutions

Introduction and Architectural Overview

Paul Ruocchio

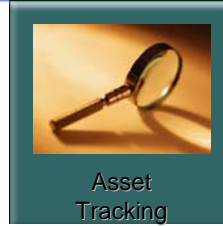
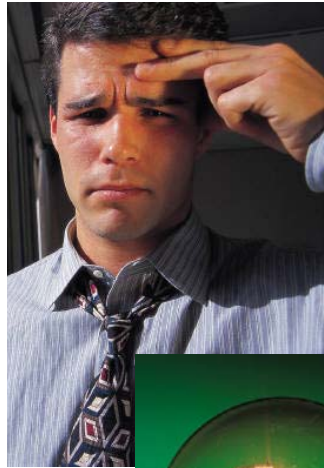
What do we mean by Systems Management?

***Supervision and
Administration
of IT systems***

ALL IT systems



What do I have?

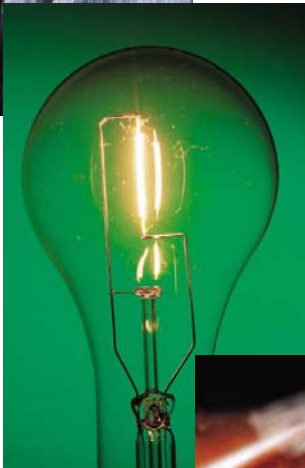


■ Business problem

- Identifying stores systems and peripherals that require upgrades
- Tracking devices that require maintenance

■ Solution: Asset tracking from the datacenter

- View vital product data of each store system and (*soon!*) attached peripherals including the OS version and firmware levels
- Identify which systems and devices need maintenance



■ Business value

- Maintain consistent hardware system levels across the store
- By also monitoring device wear statistics, provide maintenance only when needed



Managing software distribution



Software
Distribution

■ Business problem

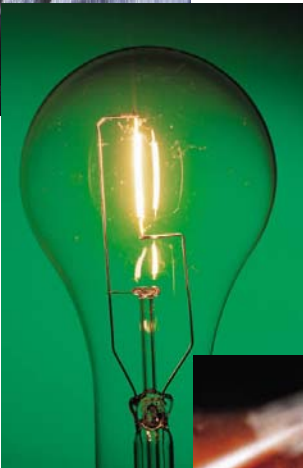
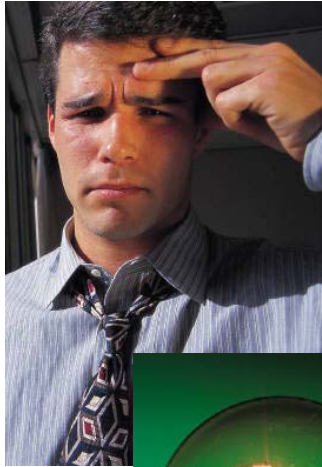
- High frequency and complexity of manual updates is time-consuming, error prone

■ Solution: Automated software distribution

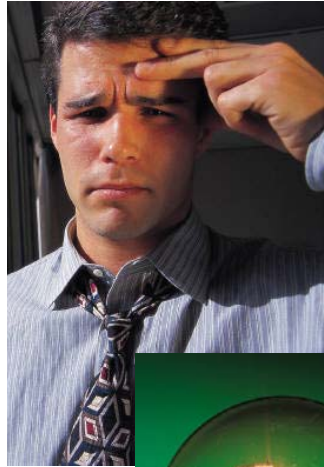
- Remotely update software, firmware, or device drivers
- Schedule updates immediately or at a future time
- Target updates for specific systems and devices
- Automated roll-back for incomplete or failed updates

■ Business value

- Schedule updates for off-hours to avoid consumer impact
- Reduce errors, or missed updates

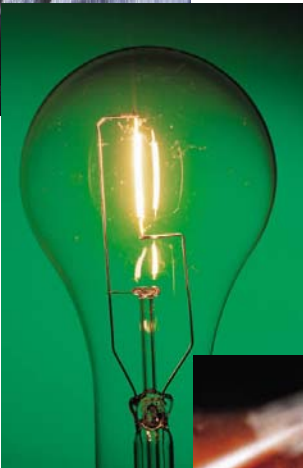


Reducing store system downtime



■ Business problem

- Lost revenue and consumer loyalty due to store system outages
- Store system status unknown until the customer is impacted
- Store associates unable to assist with problem determination



■ Solution: Proactive system monitoring

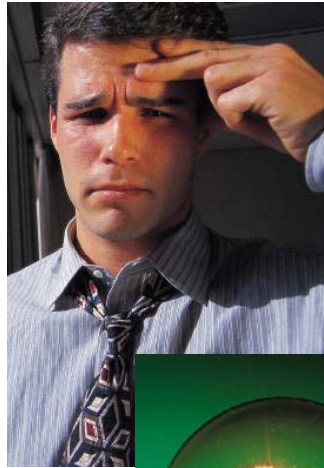
- Set thresholds to warn of potential problems and errors
- View error information without sending maintenance personnel to the store



■ Business value

- Reduce or prevent downtime of store systems without in-store assistance
- Detect problems before the store calls
- Reduce consumer impact of store system outages
- Maintain store associate productivity

Management Platform Integration

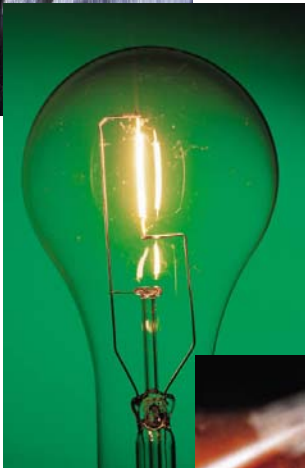


■ Business problem

- Integrating high-value, high-function enterprise management with affordable, retail-optimized store systems management
- Costs of maintaining multiple toolsets

■ Solution: Seamless integration to the datacenter

- Open architecture, standards-based infrastructure helps manage the store with Tivoli or other management tools
- Manage events and monitored statistics at the data center AND in the store



■ Business value

- Extend the value of existing systems management investment to remotely manage the stores
- Minimal re-training
- Out-of-the-box integration enables autonomic store system management

Retail store systems management challenges

“I need an affordable, automated way to update software and device drivers.”

“We need the ability to catch problems quickly and be proactive.”



Software Distribution

“I want to manage the stores with my enterprise datacenter tools.”



Remote Monitoring



Remote Configuration



Enterprise Integration



Asset Tracking

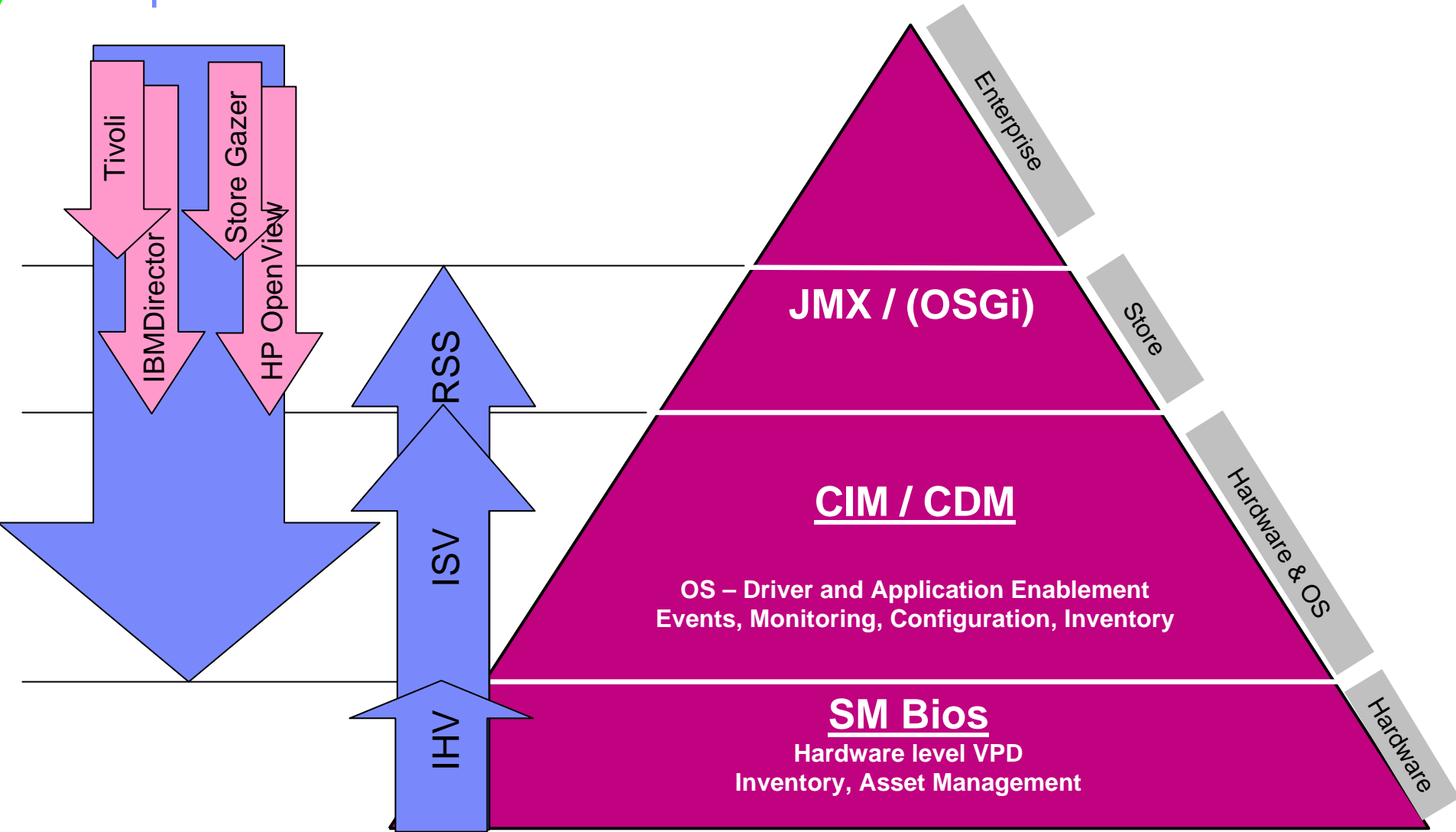
“We need to save time and cost of manual intervention from on-site technicians.”

“We need a way to know which devices are attached to a POS system.”

RSS Device Systems Management

- ❑ Provide the best Enabled offerings:
 - Events, Monitoring, Inventory, Distribution, Configuration,
 - Consistency with existing IT management tools & methods
- ❑ Management at Store Level
 - Enable the store and its elements for both local and enterprise based management
- ❑ Consistent, Standards-Based Infrastructure
 - Pursue new standards for retail devices consistent with existing mgmt. standards – ARTs working through the DMTF
 - Present ONLY established interface standards as enablement
 - Easily allows all management tool vendors to participate
- ❑ Scalable for both LE and SMB
 - The store is a point of control, providing both a local and scalable control point
 - Think of Retail as a group of SMBs that require centralized control
- ❑ Tight Integration w/ IBM Systems Management
 - Work to integrate seamlessly with our own management offerings

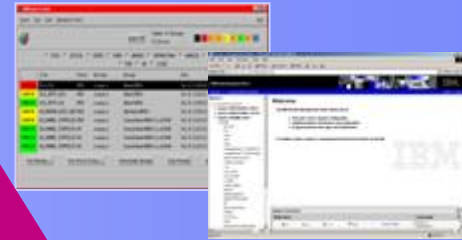
Comprehensive / Flexible **Enablement**



Store Systems Management Solution Components

Management Applications

- Tivoli – TEC, ITM, (TCM)
- RMA Viewer
- IBM Director



Infrastructure

The plumbing for moving information between applications and instrumentation – both within stores and across the enterprise

- RMA



Instrumentation

The Enablement that provides **vital product data** and device information to the Infrastructure, and responds to **configuration changes**

- Operating systems
 - IRES, 4690, WEPOS
- Systems Units (SMBIOS)
 - Temperature, Voltage, VPD
- Applications
 - Versions, dependencies, problems
- Peripherals
 - Status, VPD, Events

4690
OS

RMA v1 – The Foundation

Consists of 3 primary components

- General Agent

- In its own JVM as a service on **every device**
- Optionally on all component JVMs on a device
- ALL General Agents are subordinate to the store Master Agent

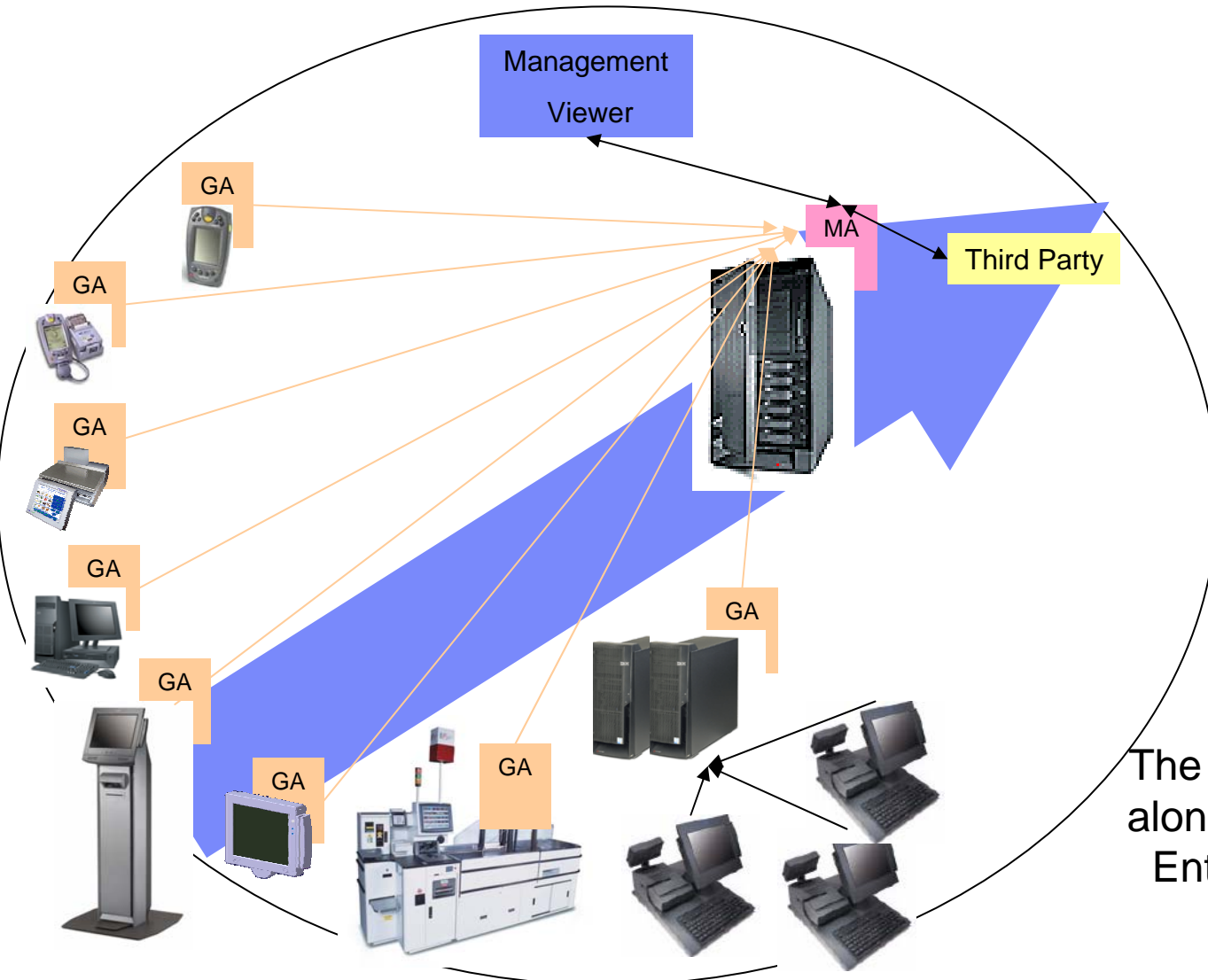
- Master Agent

- Single access point to the store
- Store policy manager
- Management Applications communicate **only** with the Master Agent

- RMA Viewer

- WAS based application
- Interacts with the Master Agent to manage all of the General Agents in a store.

Customer Solutions Choice (RMA V1)

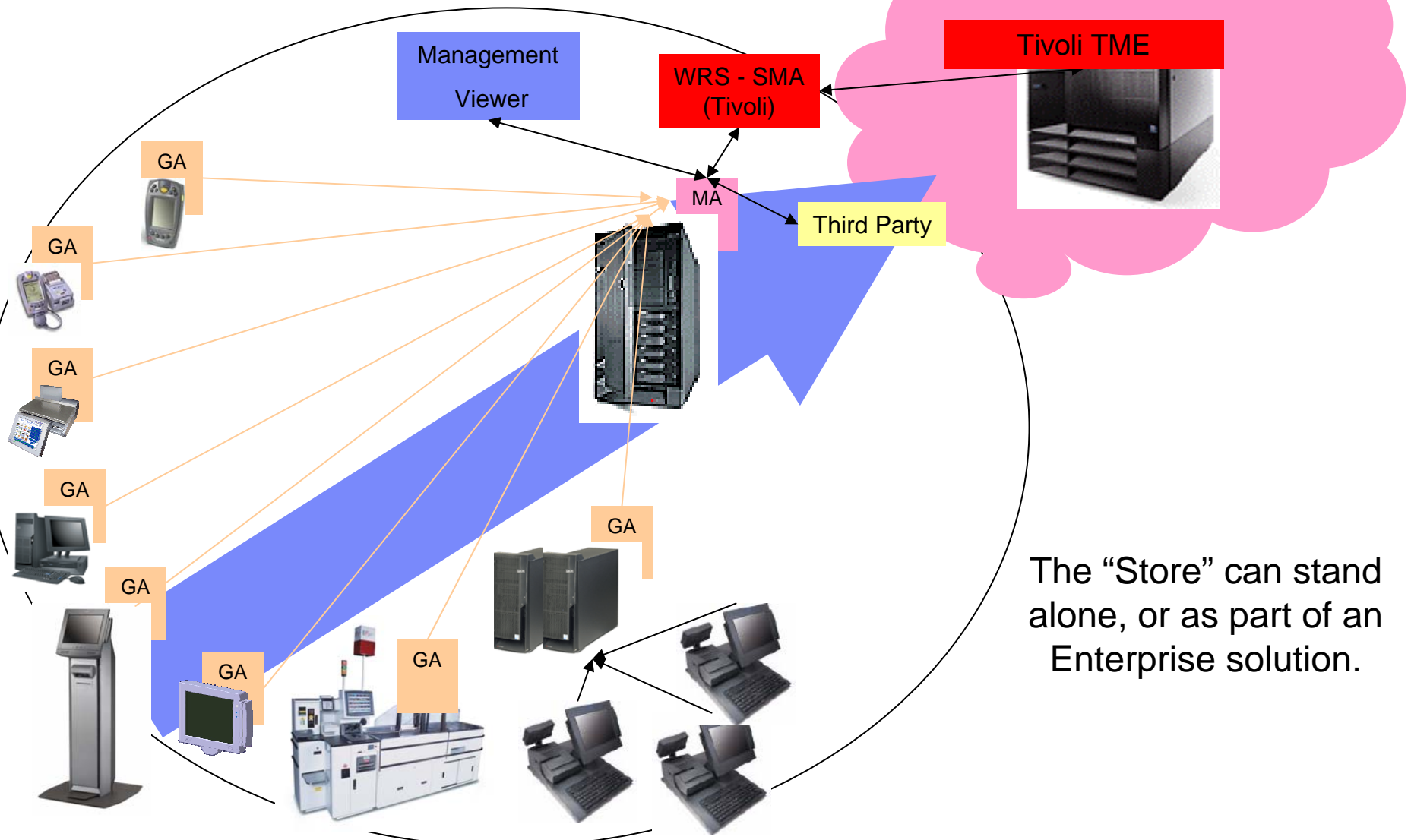


The "Store" can stand alone, or as part of an Enterprise solution.

Integrating the store with the Enterprise

- WRS – WebSphere Remote Server
- Bundling of Software Group Middleware for the store
 - WAS
 - DB2
 - MQ
 - Tivoli Components
 - SMA – Systems Management Accelerators
 - TEC
 - ITM
 - TCM (4Q06)
 - RMA Master Agent integration code

Customer Solutions Choice (RMA V1)



The "Store" can stand alone, or as part of an Enterprise solution.

There was more work to be done...

RMA V2 Requirements/Challenges

- **Enhancements to address security concerns**

 - Secure Transport (RMI) between RMA and it's applications

 - Secure any internally stored access information

- **Management Platform needs**

 - The Viewer is not as functional as it needs to be – it's not a management platform

 - Better integration with non RSS IBM management tools

 - More integration with third parties (HP, CA, BMC,...)

 - Rework of the Viewer GUI

 - Manage Multiple stores at the same time

 - Better integration with IBM management tools

 - More integration with third parties (HP, CA, BMC,...)

 - Drop our dependency on WAS

 - Integrate better with STG products

 - Increase functionality

 - Get RSS out of the Management application business (not our space)

RMA v2 – The Solution

Consists of 3 primary components

- General Agent

- In its own JVM as a service on **every device**
- Optionally on all component JVMs on a device
- ALL General Agents are subordinate to the store Master Agent

- Master Agent

- Single access point to the store
- Store policy manager
- Management Applications communicate **only** with the Master Agent

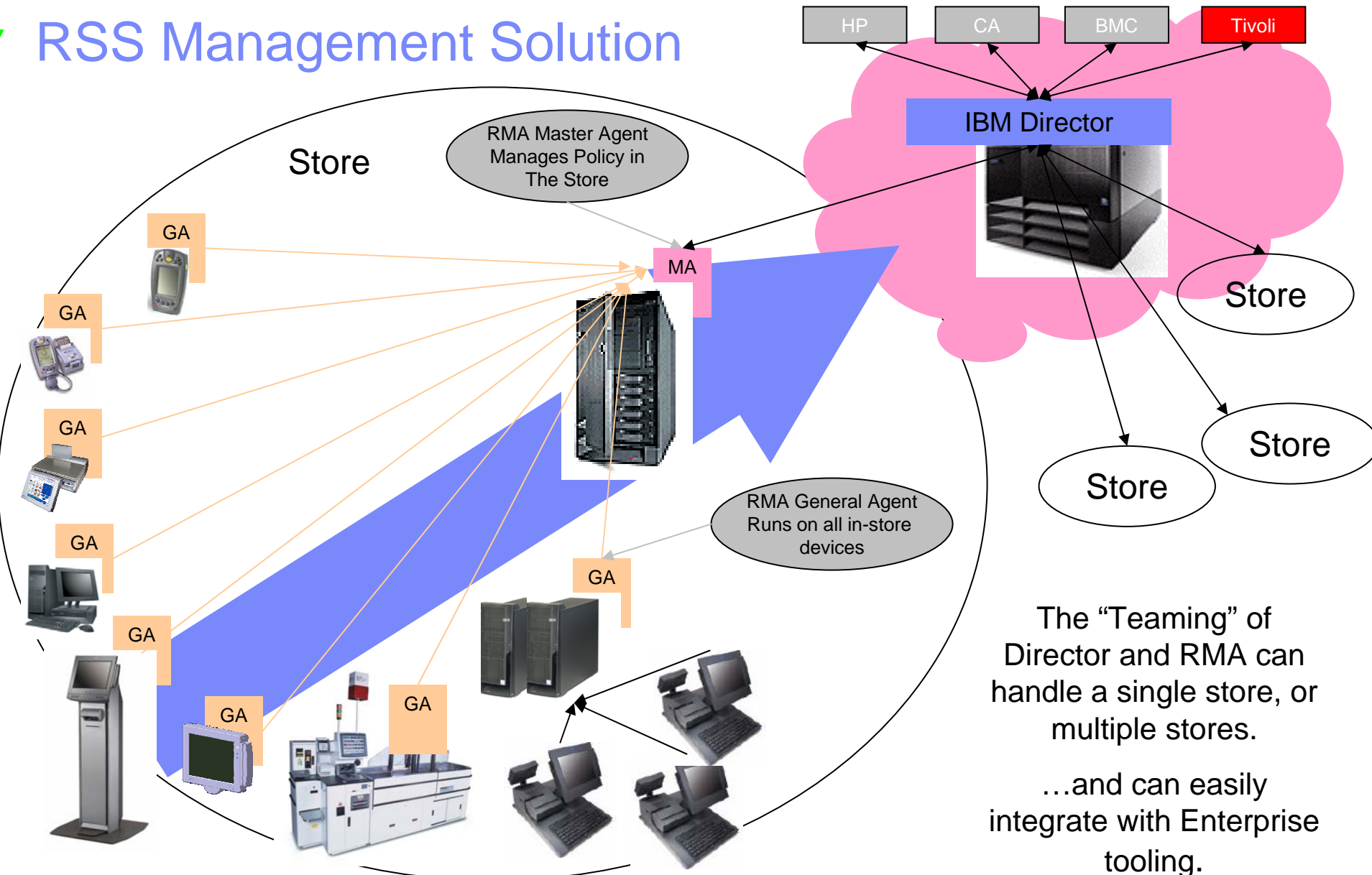
- ❖ **RMA Retail Extensions for IBM Director**

- Replaces the RMA Viewer

RMA Retail Extensions for IBM Director

- Extensions for IBM Director to allow management of retail outlets using RMA
- Retail Devices are now unique – fully integrated components of Director
 - Unique Icons & tasks for:
 - 4690 & IRES Controllers and Terminals
 - AnyPlace Kiosks
 - Mobile Tablets for Retail
 - Self Checkout Boss and Lane
 - JMX Devices
 - Stores
- Supplies real management tools, built for the Retail space for the first time
- Retail is now a full member of the STG management Strategy
 - Manage Retail devices along side xSeries devices
 - With the same tools on the same console
- Interacts with the Master Agent to manage all of the General Agents in a store.
- Allows for the management of large number of stores from a single location / tool.
- Allows upward integration with Enterprise level tools
 - CA
 - HP
 - Tivoli
 - BMC
- Powerful functions:
 - Inventory
 - Enterprise Software Distribution
 - Automated Event Action Plans
 - Powerful Device/Attribute Monitoring
 - Distributed Policy Management
 - Device State
- A robust platform, on which more can be built...

RSS Management Solution



The "Teaming" of Director and RMA can handle a single store, or multiple stores.

...and can easily integrate with Enterprise tooling.

Systems Management helps improve operational efficiency

Systems Management is knowing what **IT systems*** you have, what they are doing, and controlling them so that they perform as expected.

It involves:

- Seeing the types and versions of various systems and devices
- Making sure they are up and running properly
- Identifying and fixing problems
- Making updates and changes



**Any hardware and/or software combination that provides business value.*