

Middleware Requirements for Supply Chain Integration

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RFID World 2004

Peter Winer
Big Chief Partners, Inc
April 22, 2004



What is RFID Middleware?

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What is RFID Middleware?

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“The bulk of the return on investment for RFID tagging will come from intelligent use of the generated data. But the question is, how will companies capture clean data they can use? The answer is a new kind of software called RFID middleware. It manages the flow of data between tag readers and enterprise applications and is responsible for the quality, and therefore usability, of the information.”

Source: Forrester Research

Today's Panelists

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Anurag Mendhekar, CEO, Blue Vector Systems

Pam Carpenter, Director, Industry Alliances, webMethods, Inc.

Michael J. Liard, Senior AIDC/RFID Analyst, Venture Development Corporation

Peter Winer, Partner, Big Chief Partners, Inc.

Middleware Functions

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- Reader control, configuration and monitoring
- Receiving reader events
- Library of adapters for popular readers

Middleware Functions

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- Filtering, smoothing and aggregating
- Persistent storage
- Enhancing and translating
- Business rules, process management

Middleware Functions

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- Routing and integration
- Which data is passed to which recipient
- Library of adapters to popular SCM and ERP software

Middleware Functions

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- Security and authentication
- Network management

EPC Global (Auto ID Center) Initiatives

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- EPC tag standard and numbering system
- Object Naming Service (ONS)
- EPC Information Service (EPC-IS)
- EPC Discovery Service
- Savant
- Physical Markup Language (PML)

Middleware Players

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- Reader manufacturers
- Network device vendors
- RFID Middleware pure plays
- Messaging Infrastructure vendors
- Database Management Systems
- Application Server vendors
- Supply Chain Management

RFID Middleware – Pure Plays

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- Agile Readers as required by Wal-Mart
- Matrics Visibility Manager
- SAMSys Reader Concentrator
- iMotion Edgeware from Globe Ranger
- RFID Router from Blue Vector Systems
- Senseware from Oat Systems
- RFTagAware from ConnecTerra
- RF Middleware from DataBrokers

RFID Middleware – Opportunistic Plays

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- Sun ONE Integration Server
- TIBCO Message Bus
- Oracle 11i
- IBM WebSphere and NetView
- SAP Auto-ID Infrastructure
- Microsoft RFID Council
- Many SCM Vendors

The View from Cisco

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- By 2009 the predominant traffic on Cisco networks will be ePC related
- By 2014 reader populations may approach 300 million
- It is important to preserve bandwidth by making decisions as close to the edge as possible
- Savant is an ePC Router

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Blue Vector Systems

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- Anurag Mendhekar will describe infrastructure technology and products from Blue Vector Systems.
- <http://www.bluevectorsystems.com>

- Pam Carpenter will describe a specific customer engagement, highlighting the unique benefits of webMethods products.
- <http://www.webmethods.com>

Venture Development Corp.

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- Mike Liard will describe the research and analysis services from VDC and share some recent research on RFID Middleware.
- <http://www.vdc-corp.com>

Competing Products and Standards

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- Item Numbering Systems: GTIN, NDC, IPv6, GUID
- Device Management: SNMP, OpenView, NetView
- Message Routing: Message Bus
- EPC Tags: ISO Tags

Questions

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