SELF-SERVICE AND CUSTOMER INTERACTION MANAGEMENT SOLUTIONS

NORTH AMERICA MARKET OPPORTUNITIES AND REQUIREMENTS

VOLUME 1: RETAIL IN-STORE
VOLUME 2: HOSPITALITY
VOLUME 3: HEALTH CARE SERVICES

SEPTEMBER 2008
VDC Market Brief: Self-Service and Customer Interaction Management (CIM) Solution Opportunities and Requirements

The decision to invest in self-service solutions to support customer, employee, or supplier interaction and management is complicated. Beyond the typical technical, physical, performance and pricing specifications and beyond the source and supplier qualification, there are cultural and brand impact issues to consider.

Where, how, when and for whom to rollout Self-Service/Customer Interaction Management (CIM) solutions may have as much immediate impact on a company’s brand equity as it does the company’s shareholder equity. Defining which applications to roll out, and in which order, can have significant and lasting impacts not only on how well the solution is received, but how well the company deploying a solution is perceived.

The leading suppliers and implementers of self-service kiosks have studied these issues for more than a decade. And, the best have integrated the lessons learned – and the feedback of their customers – into their road maps. Rollouts should account for human factors and include branding analysis alongside MTBF and MTTR statistics for key components and subsystems.

The best CIOs and the suppliers they select approach self-service and CIM solution development from the stakeholder perspective. The solutions are optimized to balance: ease of use, maximum cost reductions, create service enhancements, revenue generation, and loyalty building simultaneously. This is certainly no simple task and requires ample market intelligence.

The VDC proposed market intelligence program will answer questions about the current and emerging requirements and opportunities for self-service/CIM solutions in the health care, hospitality, and larger retail markets in North America, including:

- How do leading companies in each of these three markets view self-service/CIM solutions?
- Are these solutions key parts of their IT strategy and budget?
- What is the basic profile of the most and least successful implementations to-date?
- How is ‘success’ defined?
- Who are the leading developers and suppliers of self-service/CIM solutions in each target vertical market?
- What are the emerging requirements and preferences for self-service/CIM solutions going forward?

Enterprises that want to develop and manage self-service/CIM solutions are challenged with the need to better understand interactive processes, technologies to support these solutions, and stakeholder relationships. VDC will leverage its extensive experience, networks, understanding, and wealth of data pertaining to these topics and issues. VDC’s Self-Service and CIM program is a critical tool for any firm that wants to develop or deploy these solutions.

Please ask us about a free Research Note on the recent developments in Self-Service/CIM market.
RESEARCH SCOPE

VDC’s Self-Service and Customer Interaction Management Solutions research will provide:

- In-depth analysis of the North America market opportunity for customer interaction management, with detailed market definitions and segmentations for each of the three vertical markets under study, including: market segments, applications, installation environments, and populations supported
- Market penetration scenarios, estimates and forecasts for self-service and CIM solutions in three key markets
- Enterprise users' technical and commercial requirements and preferences, including investment drivers and key value propositions, applications, technical requirements and preferences
- Selection criteria for solution OEMs and systems integrators
- Analysis of the structure of the self-service and CIM solutions supplier community, including leading and emerging supplier market share, position, direction and profiles
- Discussion of key issues, forces and trends creating demand for, or presenting barriers to, deployment of self-service and CIM solutions, including current economic conditions and changes in vertical market business model requirements

RESEARCH SCHEDULE

<table>
<thead>
<tr>
<th>STUDY PUBLICATION DATE</th>
<th>SUPPLIER SHARE</th>
<th>ACTUAL MARKET SIZE</th>
<th>ESTIMATED MARKET SIZE</th>
<th>FORECAST MARKET SIZE</th>
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<td>March 2009</td>
<td>2007</td>
<td>2007</td>
<td>2008</td>
<td>2009-2013</td>
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Preliminary updates ............................................................................................................. Currently Available
Interim findings ..................................................................................................................... Currently Available
Final Deliverable .................................................................................................................... April 2009
Executive presentation .......................................................................................................... At sponsor’s discretion and schedule

For More Information Contact:

<table>
<thead>
<tr>
<th>Research Analysts</th>
<th>Account Representatives</th>
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<tbody>
<tr>
<td>Tom Wimmer</td>
<td><a href="mailto:twimmer@vdcresearch.com">twimmer@vdcresearch.com</a></td>
</tr>
<tr>
<td>Rory Gardner</td>
<td><a href="mailto:rgardner@vdcresearch.com">rgardner@vdcresearch.com</a></td>
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</table>
RESEARCH CONTENTS

VERTICAL MARKET COVERAGE*
* Each vertical market report contains market-specific versions of common quantitative and qualitative analysis frameworks

- Retail In-store
- Health Care
- Hospitality

SCOPE AND METHODOLOGY

- Research coverage (products, industries/applications, geographic regions)
- Data collection tools
- Analysis models
- Telephone and Web survey methods

INDUSTRY STRUCTURE OVERVIEW

- Technical value chain
- Sales and support channels
- Industry associations and standards
- Key regulatory issues
- Mergers and acquisitions

APPLICATIONS

* VDC examines how these applications are used by enterprises to manage their relationships and by customers, employees and partners who interact with the self-service solution(s).

- Customer Management
  - Check-in/out
  - Market research
  - Payment
  - Promotions, marketing, rewards
  - Receipts
  - Returns
  - Transaction, order, account status
  - Warranty support
- Supplier Management
  - Labeling/product info
  - Inventory
  - Shipping/receiving
  - Purchasing/ordering
  - Price checking
- Employee Management
  - Benefits management
  - Recruiting
  - Regulatory compliance
  - Scheduling
  - Training

ENTERPRISE REQUIREMENTS ANALYSIS

- Demographics
  - Industry macroeconomic indicators
  - Public/NGO industry analysis summary
  - VDC survey respondents
- Enterprise drivers of Self-Service/CIM evaluation, investment, adoption
  - Cost reduction
  - Revenue growth
  - Service enhancement
  - Issue/error abatement
- Technology usage trends
  - Traditional retail POS/CRM technology installed base, satisfaction
  - Emerging self-service technology receptivity and investigation plans
  - Technology replacement/ upgrade cycles
  - Financial model requirements – TCO, ROI
- Current and planned equipment expenditures
  - Budget levels
  - Investment decision criteria
  - Target applications, installation environments, applications and populations
  - Technical and performance solution selection criteria
- Supplier evaluation
  - Related technologies: current suppliers of related technologies and satisfaction with
  - Self-Service/ CIM solutions: evaluated and current suppliers satisfaction levels
  - Preferred sources for self-service and CIM information, solutions, support

MARKET ESTIMATES AND FORECASTS

- Base Year/Forecast Period:
  - 2007 Unit and Revenue Shipment Actuals
  - 2008 Estimates
  - 2009-2013 Forecast
- Market estimate and forecast cross-sections within each vertical market
Key assumptions driving penetration and scaling in each vertical market segment – and for large, fast growing and otherwise exceptional cross-sections (Please note: This will be a qualitative analysis. Market estimates and forecasts for these segmentations will be limited.)

- Segments within verticals
- Primary application clusters
- Installation environments
- Products and technologies
- Purchasing sources and channels

PRODUCT TECHNOLOGIES AND TRENDS
- Mobile devices
- Bar code scanners (tethered and integrated)
- RFID subsystems
- Kiosks/self-service solutions
- POS terminals/workstations
- Self-checkout stations
- Payment/transaction terminals
- POS receipt printers

STAKEHOLDER GROUP COVERAGE
- Enterprise users within each vertical market and key segment where available and applicable
- Customer groups targeted for support with self-service/CIM solutions
  - Consumer customers
  - Business customers
  - Government customers
- Employee groups targeted for support with self-service/CIM solutions
  - Salaried
  - Hourly/part-time
  - Contractors/consultants/temps
- Enterprise partner groups targeted for support with self-service/CIM solutions
  - Suppliers
  - Channels
  - Government/regulators/agencies

COMPETITIVE ANALYSIS
- Self-Service/CIM solution branded supplier shipment and share analysis – this may include solution OEMs and integrators with branded solutions

Supplier-identified key success factors for the markets under study
- Verticals, and select segments
- Applications
- Product, technology and solution segments

Supplier profiles
- Corporate overview
- Financial snapshot
- Primary and target offerings
- Primary and target verticals, segments
- Key partnerships with suppliers and channels
- Strategies and outlook

SELF-SERVICE/CIM CHANNEL
- Current channels supporting self-service/CIM solutions
  - Self-service/CIM focused channels
  - Retail automation channels
  - CRM channels
  - Other channels
- Core capabilities
  - Self-direction demand creation
  - Joint marketing support
  - Consultative, conceptual selling
  - Customization/configuration development
  - Installation/integration
  - Logistics support
  - Post-installation technical support
  - Other
- Primary requirements
  - Market development funds
  - Leads
  - Technical support
  - Financing
  - Logistics/supply chain management
  - Other

KEY SUCCESS REQUIREMENTS
Including, but not limited to:
- Product types, features, and performance
- Industry and application markets to target
- Channels of distribution
- Promotion
- Other requirements to maximize booking growth
PROCESS AND METHODOLOGY

VDC creates reliable and accurate market research by using a structured approach, analytic tools, and proven analysis methods reinforced with primary research and information from secondary sources where appropriate.

METHODOLOGY

The rigor of VDC’s research methodology yields a large supply of raw data, which we translate into information and knowledge to create significant value for our clients. Targeted information (i.e., revenues, shipments, growth) is gathered for each community.

This market research report will include a number of unique analysis methods:

- **Market Segmentation and Definition**: How potential market opportunities, target customers and competing solutions are defined is critical to building: (1) accurate estimates, (2) realistic shipment forecasts, (3) meaningful supplier position and share, and (4) detailed customer requirements.

- **Market Estimates and Forecasts**: Built using supplier shipment and user budget analysis, recent installations, and future purchasing plans. Other key inputs include supplier forecasts of future growth rates, historical data, and economic outlook data.

- **Data Verification**: Via primary and secondary research within the same target communities and companies. Verification includes conducting supplemental interviews with multiple personnel at target firms, crosschecking with target firm channels and partners, requesting estimates from competing firms, and reviewing historical performance.

- **Supplier Share and Position**: Analyses are derived directly from structured, in-depth interviews of leading and emerging suppliers of retail solutions, with specific emphasis placed on historical, current, and projected shipments.

- **Customer Requirements and Preferences**: Focused on user priorities driving consideration of self-service and CIM solutions. Topics include a broad range of product and supplier selection criteria. This includes recent historical and current data, and future preferences for various technologies, feature sets, suppliers, and sources of supply.

STRUCTURED APPROACH AND TOOLS

- **Segmentation and Models**: Detailed accounts of the vertical markets, market segments, customer class communities, applications, products/technologies and channels that comprise the self-service and CIM solutions opportunities.

- **Technical/Solution Value Chain**: Defining the hardware, software, services that constitute the self-service and CIM solutions value-chain, including typical relationships among and between various levels in the technical value chain.

- **Industry Structure/Commercial Value Chain**: Analysis of the relationships between component and subsystem suppliers, solution developers, their channel partners and enterprise customers that participate in the self-service and CIM solutions market.

- **Survey Tools**: Includes in-depth telephone interviews and Web-based research.

- **Survey Target Databases**: Includes VDC proprietary sources, research program sponsors, and industry-specific third parties (trade publications, Web sites, conferences, etc.).
VDC has extensive experience conducting original, qualitative and quantitative primary research into the markets for retail automation, distributed transaction processing, and related technologies. Our research shows that the specification, evaluation, and investment decisions for technologies such as Self-Service/CIM are being made by a broader group of professionals. In many cases, the different perspectives of these individuals result in varied priorities related to technology investment. We target all relevant communities of influencers and provide representative sample to capture, present and reconcile different inputs for our clients.

<table>
<thead>
<tr>
<th>Phone or On-Site Interviews</th>
<th>Target Communities</th>
<th>Projected Target Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 &amp; 2 Enterprises in the Retail Vertical Market</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Tier 1 &amp; 2 Enterprises in the Hospitality Vertical Market</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Tier 1 &amp; 2 Enterprises in the Health Care Services Vertical Market</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Suppliers of Self-Service/CIM Components, Subsystems and Integrated Solutions</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Integrators and Value-Added Resellers of Self-Service/CIM Solutions</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Dealer/ distributors of Self-Service/CIM Technologies</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Web/E-mail Surveys</td>
<td>Enterprise Customers, employees, and partners</td>
<td>N &gt; 200</td>
</tr>
<tr>
<td>Channel Groups (OEMs, System Integrators and VARs)</td>
<td>N &gt; 100</td>
<td></td>
</tr>
</tbody>
</table>

**SECONDARY RESEARCH**

- **Proprietary Databases**: Review of VDC proprietary databases covering the markets for self-service and CIM solutions and related transaction and customer relationship management technologies.
- **Financial Reports**: Analysis of self-service and CIM technology supplier financial reports (e.g., 10Ks, 10Qs, annual reports, etc.) from public and private financial databases.
- **Internet Searches**: Combing company Web sites to gather information on self-service and CIM technology supplier and reseller corporate background information, core offering specifications, target market case studies, technical and commercial partnerships.
- **Trade Press Research**: Examination of periodicals such as Business Solutions Magazine, Retail Systems, Integrated Solutions Magazine, Retail Consumer Experience, Retail Merchandiser, Vertical Market Reseller, Modern Materials Handling, and Retail Wire.
- **Other Sources**: Industry associations, standards bodies, independent consultancies, academic institutions, government agencies, and consortia.
RESEARCH TEAM

- **Tomas S. Wimmer**, Research Director

  Tom has more than 15 years experience directing market research studies and helping his clients to develop market-driven business plans that deliver measurable improvements in sales and create shareholder value. His project-related experience is diverse, including countless market and technology assessments, product and channel development initiatives, competitive analyses, branding studies and due diligence support for M&A activity.

  Prior to joining VDC, Tom directed the market research function for Zebra technologies, a global supplier of barcode printers, card printers and RFID solutions. During his eleven year tenure, the company grew revenues from $192M to $868M by expanding its product portfolio, channels of distribution and geographic footprint. Tom’s research provided decision support for many of these investments.

  At VDC, Tom works closely with clients, analysts, consultants, and senior management to design, execute, manage, and deliver proprietary research and syndicated programs, covering ongoing market developments impacting numerous bar code, RFID and transaction automation technologies.

  Tom is a graduate of The University of Illinois at Chicago (BA, Psychology), Benedictine University (MS, Management & Organizational Behavior) and recently completed the Kellogg Management Institute at the Kellogg School of Management at Northwestern University.

- **Rory Gardner**, Research Analyst

  Rory recently completed VDC’s second edition of *Kiosks for Self-Service and Interactive Applications: Technical and Vertical Market Analysis*. Prior to joining VDC as a full-time associate, Rory spent nearly two years providing key support for VDC’s Mobile and Wireless and AIDC/RIFD practices including supplier and end-user interviews, survey creation and database building.

  Rory graduated from Babson College with a BS in Business Management with concentrations in Marketing and Entrepreneurship.

- **Christopher J. Rezendes**, Executive Vice President

  Chris has 17 years experience in industrial technology market research and consulting. He has more than 12 years experience in senior management and leadership positions at a number of IT systems and professional services organizations.

  Chris has advised many of the largest and most respected companies in industrial and information technology industries worldwide. He has also worked with many of the most successful private equity and venture capital firms in the Americas and Europe. His work with the financial services community includes proprietary engagements with most of the leading investment banking firms in the world.

  Chris is a graduate of Harvard University.
### ORDER FORM

#### SELF-SERVICE AND CUSTOMER INTERACTION MANAGEMENT SOLUTIONS:
**NORTH AMERICA MARKET OPPORTUNITIES AND REQUIREMENTS**

<table>
<thead>
<tr>
<th></th>
<th>STANDARD PUBLICATION FEE</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>Volume 1: Retail In-Store</td>
<td>PDF and Excel Files By E-mail</td>
<td>$7,140</td>
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<tr>
<td>Volume 2: Health Care</td>
<td>PDF and Excel Files By E-mail</td>
<td>$7,140</td>
</tr>
<tr>
<td>Volume 3: Hospitality</td>
<td>PDF and Excel Files By E-mail</td>
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<tr>
<td>Any two volumes</td>
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<tr>
<td>Complete Report, all three volumes</td>
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<td>$16,065</td>
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<tr>
<td>Enterprise License</td>
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<td>25% of total fees</td>
</tr>
</tbody>
</table>

Subtotal

MA Companies add 5% tax

**TOTAL**

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I want to order *Self-Service and Customer Interaction Management Solutions: North America Market Opportunities and Requirements*. I have read the Contractual Provisions of this proposal, which can be found [here](#) and agree to its terms.

Authorized Signature: ________________________________

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| Name: _________________________________ | ❑ Check Enclosed Amount: _________________ |
| Title: _________________________________ | ❑ Purchase Order Enclosed PO Number: _________________ |
| Company: _______________________________ | ❑ VISA ❑ Master Card ❑ American Express |
| Street: ________________________________ | Account Number: ___________________________ |
| City: __________________ State: ________ | Expiration Date: __________________________ |
| Zip: __________________ Country: __________ | Name on Card: ____________________________ |
| E-mail: ______________________________ | ❑ Bill my company without a purchase order, but with my consent. |
| Telephone: ______________ Fax: __________ | Signature: ______________________________ |

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**New Accounts:** Orders must be pre-paid.

**Foreign Orders:** Payable in U.S. Dollars drawn on a U.S. bank, wire transfer, or by credit card.