

**Venture Development Corporation  
Automatic Identification and  
Data Collection Practice**



## ***Market Research Proposal***

# ***NEAR FIELD COMMUNICATION (NFC): EMERGING MARKET ANALYSIS***

## ***MULTI-CLIENT RESEARCH REPORT***

**SEPTEMBER 2007**



**VENTURE DEVELOPMENT CORPORATION**  
TECHNOLOGY MARKET RESEARCHERS AND STRATEGISTS SINCE 1971  
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***Near Field Communication (NFC): Emerging Market Analysis  
Is NFC the future of fast, secure, wireless transaction processing?***

Near Field Communications (NFC) may be one of those rare, once in a decade, technologies that revolutionizes how business is conducted. It is a short-range wireless connectivity method enabling fast, secure, high-bandwidth data communication between two or more devices very close together. Already, NFC solutions span a wide spectrum of implementations – from benign to mission critical. Solutions utilizing NFC include proximity cards used in building access control, key fobs at gas pumps and ‘smart’ charge cards.

The ‘newest’ iteration of NFC may be the most powerful and disruptive yet. Jointly developed by NXP (Philips) and Sony, it uses magnetic field induction to establish a peer-to-peer (P2P) data exchange network. Once an NFC connection is configured, Bluetooth or Wi-Fi can be used for longer range communication or transferring larger amounts of data. This latest NFC approach is radically different than previous solutions because it focuses on enabling cell phones to host NFC-enabled transactions across a virtually unlimited range of applications.

VDC’s *NFC: Emerging Market Analysis* will provide developers, integrators and users with actionable market intelligence to help support their product, market and channel development decisions including:

- Current NFC solution developments and deployments, in-depth analysis of global market opportunity for NFC, detailed definition and segmentation of the potential applications for NFC;
- Conservative market penetration models, adoption rates, estimates and forecasts for NFC in a wide range of applications;
- Technical and commercial requirements analysis from OEMs, integrators and end users considering NFC as a part of their solution(s);
- Industry structure and competitive analysis of NFC component and device suppliers, including market share, position, direction and profiles; and
- Discussion of key challenges, mandates, standards, forces and trends driving market demand for and resistance to NFC.

**RESEARCH SCHEDULE**

PROJECT LAUNCH	FINAL REPORT SHIP	STANDARD PUBLICATION FEE
December 2007	April 2008	\$5,950

**CONTACT INFORMATION**

<i>For More Information Contact:</i>	
Research Analysts	Account Representatives
Andrew Nathanson   andrewn@vdc-corp.com   x: 125 Louis Bianchin   lbianchin@vdc-corp.com   x: 130	Tim Shea   tims@vdc-corp.com   x: 119 Tim Callahan   timc@vdc-corp.com   x:113

## SCHEDULE

STUDY PUBLICATION DATE	ACTUAL MARKET SIZE	SUPPLIER SHARE	FORECAST MARKET SIZE
April 2008	2006	2007	2008-2012

### RESEARCH SCHEDULE

Preliminary Update .....	February 2008
Interim findings .....	March 2008
Final Report .....	April 2008
Executive presentation .....	At sponsor’s discretion and schedule

## RESEARCH CONTENTS

### GLOBAL MARKET OVERVIEW AND OUTLOOK

- **Scope and methodology:** data collection tools, analysis models, telephone and Web surveys, etc.
- **Market overview and industry structure:** NFC technical value chain, sales and support channels, users, industry associations, industry standards, key regulatory issues.
- **Market penetration, estimate and forecast model:** NFC adoption and growth rates and forecasted opportunity.
- **Product descriptions and trends:** products, components, devices, etc.
- **Application descriptions and trends:** value propositions, performance requirements, results.
- **Global market trends for NFC components and devices:** current and future adoptions, usage, etc.
- **End-user analysis:** installations and uses, investment drivers and plans, product and supplier selection criteria, etc.
- **Competitive analysis and position:** product/market/channel development strategies and plans, market position and direction.
- **Distribution channel analysis:** definition(s) of channel types, value-add, margin targets, support capabilities and requirements.
- **Key success requirements:** key product requirements and technical features, near-term market opportunities, long-term market opportunities, industry development scenarios, and others requirements for maximizing near-term revenue growth.

## PRODUCT COVERAGE

(INCLUDING BUT NOT LIMITED TO):

- NFC enabling technology components
  - ICs (*readers, tags*)
  - Readers/Interrogators (*mobile, stationary*)
  - Transponders (*smartcards, tickets, tags, labels, embedded transponders, etc.*)
  - Software (*system platforms, middleware, etc.*)
  - Services (*integration/installation, maintenance, technical support, consulting/design, etc.*)
- NFC-enabled devices
  - Mobile (*cell phones/smart phones, PDAs, handheld computers, mobile payment terminals, etc.*)
  - Stationary (*kiosks, ATMs, industrial PCs, payment terminals, self checkout stations, etc.*)
  - Embedded Readers (*portals/gateways, vehicles, vending machines, furniture/walls, displays, etc.*)

## APPLICATION COVERAGE

(INCLUDING BUT NOT LIMITED TO):

- Tracking (*asset, personnel; location, condition*)
- Contactless payment: multiple retail segments (*hospitality, pharmaceutical, petrol*)
- File transfer (*contact information, product/service specifications, multimedia, etc.*)
- Ticketing (*events, citations, services*)
- Security/access control (*campus, building, equipment/ station, vehicle, etc.*)
- Others

## NFC SUPPLIER ANALYSIS

(INCLUDING BUT NOT LIMITED TO):

- Product and service offerings
- Current and planned deployments and trials
- Technology and distribution partners
- Current position and strategic direction

## END-USER ANALYSIS

(INCLUDING BUT NOT LIMITED TO):

- Respondent demographics
  - Primary line of business
  - Organization size
  - NFC awareness and adoption plan
- Current and future NFC users
  - Vertical market and segment
  - Applications and installation environments
  - Host platforms and related technologies
  - Adoption drivers and barriers
  - Product selection criteria
  - Supplier selection criteria
  - Current and future use and installed base of NFC solutions
  - Current and future use of mobile devices, stationary devices, and embedded readers
  - User viewpoint of primary issues, forces and trends influencing the NFC industry
  - Distribution channels used
  - Current and future investment plans

## VERTICAL COVERAGE

(INCLUDING BUT NOT LIMITED TO):

- Identification of verticals and industries most likely to adopt and deploy NFC solutions
- Analysis of industry specific product developments or requirements for NFC solutions.

## GEOGRAPHICAL COVERAGE

(INCLUDING BUT NOT LIMITED TO):

- Americas (*United States, Canada, and Latin America*)
- EMEA (*Western, Eastern, and Central Europe, Middle East and Africa*)
- Asia-Pacific (*Primary Asia, Southeast Asia and South Pacific*)

## PROCESS AND METHODOLOGY

VDC relies heavily on our own primary research, reinforced with information from secondary sources where appropriate. For this research study, VDC will use the following methodology:

### INFRASTRUCTURE AND TOOLS

- Market segmentation and definitions for NFC enabling technologies, adopter organizations, applications.
- NFC technical value chain incorporating definitions of devices, components, systems, etc.
- Industry structure/commercial value-chain highlighting supplier position, direction and relationships.
- Telephone survey tools to drive in-depth telephone interviews with key contacts in all stakeholder communities – see ‘Primary Research’ table below.
- Survey target databases including VDC proprietary sources, research program sponsors, and industry-specific third parties (trade publications, Web sites, conferences, etc.).
- Market opportunity screening framework analyzing the most attractive and challenging applications, vertical markets and product segments.

### PRIMARY RESEARCH

	Target Communities	Approximate Sample Size
<b>Phone or On-Site Interviews</b>	Suppliers: ICs	Approx. 10
	Suppliers: readers/interrogators	Approx. 10
	Suppliers: transponders	Approx. 15
	Suppliers: software and services	Approx. 15
	OEMs: mobile devices	Approx. 10
	OEMs: stationary devices	Approx. 10
	OEMs: embedded readers	Approx. 10
	Enterprise end users	Approx. 25
<b>Web/E-mail Surveys</b>	Enterprise end users	Target sample N> 100

### SECONDARY RESEARCH

- Review of VDC proprietary databases covering the global markets for NFC and related solutions.
- Analysis of NFC supplier financial reports from public and private financial databases.
- Internet searches to gather information on NFC supplier corporate background information, core offering specifications, target market case studies, technical and commercial partnerships.
- Trade press research from sources such as *Business Solutions Magazine*, *ESE Magazine*, etc.
- Reference of proceedings and notes from a number of other sources – industry associations, standards bodies, independent consultancies, academic institutions, government agencies, and consortia.

## ANALYSIS METHODS

- Market adoption/penetration scenarios, estimates and forecasts are built using user budgets, recent installations, future purchasing plans and supplier shipment analysis. Key inputs include customer penetration forecasts, market adoption analysis, supplier forecasts of revenues, units and prices and economic outlook data.
- Data is verified via primary and secondary research by conducting supplementary interviews, crosschecking target firms' channels and key accounts, requesting estimates from competitors in the industry, crosschecking direct secondary sources, and reviewing historical performance.
- Supplier share and position analyses are derived directly from structured, in-depth interviews of leading and emerging NFC component and device suppliers. Our analysts use client-approved interview questionnaires to poll suppliers on a broad range of topics, including recent historical, current year and projected shipments.
- Customer requirements and preferences are focused on product and supplier selection criteria. Client-approved telephone questionnaires and Web survey tools are used to poll current and prospective buyers of NFC components and devices to understand recent historical, current and future preferences for various technologies, feature sets, vendors, and sources of supply. This data assists in the development of technology penetration scenarios, manufacturer position and direction, and channel effectiveness.

## RESEARCH TEAM

- **Andrew Nathanson**, Director of VDC's AIDC/RFID Practice.

Drew has more than 15 years experience in industrial enterprise program management, general management, strategy consulting and business development. At VDC, Drew is responsible for the firm's multimillion dollar AIDC and RFID technology practices. In this capacity, Drew works closely with VDC clients, analysts, consultants, and senior management to design, execute, manage, and deliver proprietary research and syndicated programs.

Drew is a graduate of Clark University (BS, biology and chemistry) and Northeastern University (MBA, concentration in high-tech).

- **Louis Bianchin**, Senior analyst in VDC's AIDC/RFID Practice.

Louis has nearly 25 years experience as a developer and evaluator of RFID systems and a host of related wireless and IT related technologies. That experience includes implementations in health care services, pharmaceutical, financial services and high-tech manufacturing environments.

Louis is responsible for VDC's syndicated research programs in RFID and related wireless technologies. He is a key contributor to the management and execution of both the RFID Business Planning Service and the AIDC Global Industry Business Planning Service.

Louis is a graduate of the University of Montreal, Canada. He also holds a Master's Degree in Electronic Commerce from Boston University.

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

Chris has 16 years experience in industrial technology market research and consulting. He has more than 11 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.



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## ORDER FORM

NEAR FIELD COMMUNICATION (NFC): EMERGING MARKET ANALYSIS	STANDARD PUBLICATION FEE	TOTAL
<b>NFC Emerging Market Analysis</b> PDF File By E-mail	\$5,950	
<b>CD-ROM Printable PDF File*</b> Includes site license to post study on your company's network	\$1,000	
<i>*Available only to purchasers of the PDF File By E-mail</i>	<b>Subtotal</b>	
	<b>MA Companies add 5% tax</b>	
	<b>TOTAL</b>	

I want to order *Near Field Communication (NFC): Emerging Market Analysis*. I have read the Contractual Provisions (which can be found [here](#)) of this proposal and agree to its terms.

Authorized Signature: \_\_\_\_\_

Name: _____ Title: _____ Company: _____ Street: _____ City: _____ State _____ Zip: _____ Country: _____ E-mail: _____ Telephone: _____ Fax: _____	<input type="checkbox"/> Check Enclosed    Amount: _____ <input type="checkbox"/> Purchase Order Enclosed    PO Number: _____ <input type="checkbox"/> VISA <input type="checkbox"/> Master Card <input type="checkbox"/> American Express Account Number: _____ Expiration Date: _____ Name on Card: _____ <input type="checkbox"/> Bill my company without a purchase order, but with my consent. Signature: _____
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