Smart Clients for Small E-Business Framework

Phu-Nhan Nguyen

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Summary of Thesis

Businesses with less than 20 employees are regarded as small businesses. The four main types of small business structures are mostly Sole Trader, Partnership, Trust, and Company. E-commerce is the transformation of key commerce processes through the use of the Internet. E-commerce consists of the buying, selling, marketing and servicing of products and services over the Internet. The benefits of E-commerce are reduction in costs, convenient communication and performance of the business process. Several models for E-commerce are Business to Business (B2B), Business to Customer (B2C), Business to Employee (B2E), Business to Government (B2G), and Customer to Customer (C2C).

This thesis considers the small typical business structures in Australia to build a framework for small business. Small Business Framework (SBF) is developed to provide a framework to design and implement Web applications for Smart Clients and applications for E-commerce and M-commerce models which are mainly B2B and B2C. The SBF’s components are database, email, electronic payment, products, orders, and login. The technology requirements to operate the SBF are Personal Digital Assistants (PDA), Unicode, Web Server, Visual Studio .NET 2003 (VS .NET) and provision of services through Internet. In order to test and evaluate SBF, an Online Asian Grocery Mobile (OAGM) application has been developed for B2C using MS Visual Studio .NET 2003 (VS.NET). Results showed that the SBF is a good framework for small businesses and the OAGM is a successful application prototype since OAGM provides good accessibility, saves time, and is effective.
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List of Figures

Figure 1: B2C Data Flow ................................................................. 10
Figure 2: SBF Business Requirement .................................................. 11
Figure 3: Small Business Framework .................................................. 13
Figure 4: Database Framework .......................................................... 14
Figure 5: Email Framework ............................................................... 14
Figure 6: Electronic Payment Framework .............................................. 15
Figure 7: Firewall Component ............................................................ 16
Figure 8: The Operation of SSL/TLS .................................................... 19
Figure 9: SBF Technology Requirement ............................................... 21
Figure 10: PSION Organiser ............................................................... 22
Figure 11: Newton MessagePad .......................................................... 23
Figure 12: The Architecture of PALM OS [22] ....................................... 26
Figure 13: Cobalt Architecture [22] ...................................................... 26
Figure 14: Symbian OS Architecture [13] .............................................. 28
Figure 15: The Architecture of Windows CE .NET and Windows Mobile 2003 ...... 28
Figure 16: Unicode for SBF Architecture .............................................. 35
Figure 17: Table of Vietnamese symbols .............................................. 36
Figure 18: SBF system requirement ...................................................... 37
Figure 19: SBF Use Case ................................................................. 40
Figure 20: ADO.NET Framework (DataSet Object) .................................. 47
Figure 21: ADO.NET Framework (Command Object) ................................ 47
Figure 22: SQL DB Service ................................................................. 49
Figure 23: SQL DB Dataset Service .................................................... 50
Figure 24: ODBC Architecture [27] .................................................... 50
Figure 25: OLEDB Architecture [26] ................................................... 51
Figure 26: MyODBC Architecture [28] ................................................ 52
Figure 27: The Basic Architecture of a MySQL ADO.NET Provider [28] .......... 52
Figure 28: Oracle .NET Data Access .................................................... 53
Figure 29: Checking MasterCard account ................................................................. 55
Figure 30: Login Object .......................................................................................... 56
Figure 31: Email Checking ..................................................................................... 57
Figure 32: User and Password Checking .................................................................. 57
Figure 33: strRegenerateUserID ........................................................................... 58
Figure 34: Credit Card Checking ............................................................................ 58
Figure 34: Credit Card Checking (continued) .......................................................... 59
Figure 36: Expiry Date Checking ............................................................................ 60
Figure 37: Creating Visa Account ........................................................................... 61
Figure 38: Adjusting Credit Account ....................................................................... 61
Figure 39: Changing Credit Account ....................................................................... 62
Figure 41: Integration of SBF with VS.NET ............................................................ 64
Figure 42: SBF Declaration .................................................................................... 64
Figure 43: Manager Use Case ................................................................................ 65
Figure 44: Customer Use Case .............................................................................. 65
Figure 45: Asian Grocery Rich Picture .................................................................... 67
Figure 46: Online Asian Grocery Mobile Structure ............................................... 68
Figure 47: Online Asian Grocery Mobile ER-Diagram ............................................ 69
Figure 48: Index Screens: English and Vietnamese Unicode .................................... 70
Figure 49: Login screens: English and Vietnamese Unicode ..................................... 70
Figure 50: Login screens 1 ..................................................................................... 71
Figure 51: Login Validation Screens 1 .................................................................... 71
Figure 52: Registration Screens ............................................................................ 72
Figure 53: Registration Validation Screens ............................................................. 72
Figure 54: Product Selection Screens ..................................................................... 73
Figure 55: Product Details Screens ........................................................................ 73
Figure 56: View Orders Screens ............................................................................ 74
Figure 57: E-Payment Screens .............................................................................. 74
Figure 58: E-Payment Validation Screens 1 ............................................................. 75
Figure 59: E-Payment Validation Screens 2 ............................................................. 75
Figure 60: Index and Login Screens ....................................................................... 76
Figure 61: Output Login Screens ............................................................................ 76
Figure 62: Output Login Screens 2 ....................................................................... 77
Figure 63: Welcome and Select Product Screens 2 ................................................. 77
List of Tables

Table 1: The Evolution of PDAs [12] ................................................................. 24
Table 2: OS Comparisons [15, 22, 23] ............................................................. 31
Table 3: Character Ranges of Unicode ............................................................. 34
Table 4: Register Use Case .............................................................................. 41
Table 5: Login Use Case ................................................................................... 42
Table 6: Change Password Use Case ................................................................. 42
Table 7: Manipulate Database Use Case ........................................................... 43
Table 8: Send Email Use Case ......................................................................... 43
Table 9: Update Information Use Case ............................................................. 44
Table 10: E-Payment Use Case ....................................................................... 45
Table 11: Credit card features ......................................................................... 54
List of Abbreviations

ACN  Australian Company Number
ADO.NET  ActiveX Data Objects Dot Net
ASP.NET  Active Server Pages Dot Net
B2B  Business To Business
B2C  Business To Customer
B2E  Business To Employee
B2G  Business To Government
CAPI  Cryptographic API
C2C  Customer To Customer
CDK  Conduit Developer Kit
CPM  Cryptographic Provider Management
CPU  Central Processing Unit
DB  Database
DES  Data Encryption Standard
DH  Diffie-Hellman algorithm
DSA  Department Security Administrator
E-Commerce  Electronic commerce
EPO  Electronic Payment Object
IIS  Internet Information Services
IPSEC  IP Security
ISO  International Organization for Standardization
LAN  Local Area Network
MDAC  Microsoft Data Access Components
MME  Microsoft Mobile Explorer
NAT  Network Address Translators
NDIS  Network Device Interface Specification
NIC  Network Interface Card
ODP.NET  Oracle Data Provider for .NET
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
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<tbody>
<tr>
<td>OAG</td>
<td>Online Asian Grocery</td>
</tr>
<tr>
<td>OAGM</td>
<td>Online Asian Grocery Mobile</td>
</tr>
<tr>
<td>OAGW</td>
<td>Online Asian Grocery Web</td>
</tr>
<tr>
<td>OS</td>
<td>Operating System</td>
</tr>
<tr>
<td>PC</td>
<td>Personal Computer</td>
</tr>
<tr>
<td>PCT</td>
<td>Private Communication Technology</td>
</tr>
<tr>
<td>PDA</td>
<td>Personal Digital Assistant</td>
</tr>
<tr>
<td>PPP</td>
<td>Point-to-Point Protocol</td>
</tr>
<tr>
<td>Psion</td>
<td>Potter Scientific Instruments Or Nothing</td>
</tr>
<tr>
<td>RAM</td>
<td>Random Access Memory</td>
</tr>
<tr>
<td>RAS</td>
<td>Remote Access Service</td>
</tr>
<tr>
<td>ROM</td>
<td>Read Only Memory</td>
</tr>
<tr>
<td>RSA</td>
<td>Rivest, Shamir and Adleman</td>
</tr>
<tr>
<td>SBF</td>
<td>Small Business Framework</td>
</tr>
<tr>
<td>SBFM</td>
<td>Small Business Framework Mobile</td>
</tr>
<tr>
<td>SBFW</td>
<td>Small Business Framework Web</td>
</tr>
<tr>
<td>SMTP</td>
<td>Simple Mail Transfer Protocol</td>
</tr>
<tr>
<td>RC</td>
<td>Ron's Code or Rivest Cipher</td>
</tr>
<tr>
<td>SLIP</td>
<td>Serial Line Internet Protocol</td>
</tr>
<tr>
<td>SSL</td>
<td>Secure Sockets Layer</td>
</tr>
<tr>
<td>SSPI</td>
<td>Security Support Provider Interface</td>
</tr>
<tr>
<td>TCP/IP</td>
<td>Transmission Control Protocol/Internet Protocol</td>
</tr>
<tr>
<td>TLS</td>
<td>Transport Layer Security</td>
</tr>
<tr>
<td>VS.NET</td>
<td>Microsoft Visual Studio .NET 2003</td>
</tr>
<tr>
<td>Wi-Fi</td>
<td>Wireless Fidelity</td>
</tr>
<tr>
<td>WLAN</td>
<td>Wireless LAN</td>
</tr>
</tbody>
</table>
## Contents

Summary of Thesis
Certificate of Authorship of Thesis
Acknowledgements
List of Figures
List of Tables
List of Abbreviations

Contents

Chapter 1: Introduction

1.1 Aims and Objectives

1.1.1 Aims

1.1.2 Objectives

1.2 Thesis Argument

1.3 Limitations of the study

1.4 Structure of this thesis

Chapter 2: Small Business Model

2.1 Small Businesses

2.1.1 Defining a Small Business

2.1.2 Business Structures

2.1.2.1 Sole Trader

2.1.2.2 Partnership

2.1.2.3 Trust

2.1.2.4 Company

2.2 Electronic Commerce (E-Commerce) Model

2.2.1 B2B Model

2.2.2 B2C Model

2.3 Business Requirements for Small Business Framework

2.4 Conclusion

Chapter 3: Small Business Framework

3.1 Small Business Framework

3.1.1 Database Framework