

Smart Clients for Small E-Business Framework

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A thesis submitted in total fulfilment of the requirements for the degree of
Master Applied Science in Information & Technological Sciences
at the
University of Canberra

July 2005

University of Canberra



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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.

Date:

Acknowledgements

First of all, I express my sincere gratitude and appreciation to my supervisors Professor Dharmendra Sharma and Dr Dat Tran of the University of Canberra for their invaluable advice, teaching and encouragement during the realization of this research.

I would like especially to thank the Department of Education, Science and Training (DEST), the University of Canberra and School of Information and Sciences for providing me the Research Training Scheme Scholarship and an excellent study environment, respectively. It was a great pleasure to study at the ISE School. I would also like to thank Dr Joelle Vandermenbrugge for providing her useful research workshops and seminars.

Furthermore, I offer my heartfelt thanks to Mr Andrew Blanckensee and the Academic Skills Program officers for their supports in many aspects and my thesis writing. I also acknowledge all the help from those who have provided helpful comments and suggestions for the thesis.

Finally, my appreciation goes to my wife Kelly Tran and my family for their love and affection. I could not complete my Masters Degree without their encouragement and support.

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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

OAG	Online Asian Grocery
OAGM	Online Asian Grocery Mobile
OAGW	Online Asian Grocery Web
OS	Operating System
PC	Personal Computer
PCT	Private Communication Technology
PDA	Personal Digital Assistant
PPP	Point-to-Point Protocol
Psion	Potter Scientific Instruments Or Nothing
RAM	Random Access Memory
RAS	Remote Access Service
ROM	Read Only Memory
RSA	Rivest, Shamir and Adleman
SBF	Small Business Framework
SBFM	Small Business Framework Mobile
SBFW	Small Business Framework Web
SMTP	Simple Mail Transfer Protocol
RC	Ron's Code or Rivest Cipher
SLIP	Serial Line Internet Protocol
SSL	Secure Sockets Layer
SSPI	Security Support Provider Interface
TCP/IP	Transmission Control Protocol/Internet Protocol
TLS	Transport Layer Security
VS.NET	Microsoft Visual Studio .NET 2003
Wi-Fi	Wireless Fidelity
WLAN	Wireless LAN

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