WEB APPLICATION FOR WHOLESALE SYSTEM

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MASTER OF SCIENCE

IN ADVANCED INFORMATION TECHNOLOGY

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AN INDEPENDENT STUDY SUBMITTED TO

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ABSTRACT

A project of "Web Application for Wholesale system" is created for customize wholesale system of B2S company under Central retail Corporation has a policy encourage applying information technology comes to apply with retail business of a company. For serve customer, proceeding business of a company with supplier be close to and effective. By supplier can follow all data has with oneself.

A project separate 2 part is Web Application and Client Application work with database and aim to improve process of creates Wholesale order by internet and can follow and check the position of order all the time by web services for serve a customer. Integrate Web Application and Web services help to facilitate the integration of data across different system, business are adopting XML as the standard format for information exchange over HTTP.

The developers expect that a project "Web Application" for Wholesale system can respond to requirement of user and company.

Keywords: Web Application/Web Application for Wholesale and Web service

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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Business has applied the information technology in procedure of business help to increase efficiency for fast serve, correct and accurate, and reduce the expenses of the organization. During ten last year the worldwide has plan to uses the resource of the organization (Enterprise Resource Planning: ERP) widely. Thailand initial majority by using EDI (Electronics Data Interchange) system, Supply Chain Management and Service Oriented Architecture: SOA

Electronic Data Interchange (EDI) help to share data between business partners in Supply Chain system more than 25 years .EDI can send and receive data in electronic format with Private leased-line. Evolution in use of EDI Technology help to exchange data still is popular while, the new choice to transfer data changes, include the advantage in expenses reduction , and enhance the facility makes us can not look over these thing.

EDI design for transfer data with the safety from the point to the point only and all the time, by the standard format that like to apply is a company can send the data about purchase order and inventory data to business partner in Supply Chain system including data of pay goods with Private leased-line.

However EDI system has weakness that everybody knows in about of the trouble in use. For example, two the organization will to transfer and exchange the data must have format specification of kind all data and whenever , there is the expansion or change the format for expansion list of names store or change data goods list in EDI system must take long time and have the trouble for the designer .

Electronic Data Interchange is the system that not facility for change and limits expansion, at important expenses in investment is expensive.

Conversely, if the company can use web service to fulfill a process Send –receive and share data between business partners, almost will not pay for expenses anything. Except expenses to connect network of the organization to the Internet, for transfer data with internet public network, ability of company can share data to part internet will make a company has the facility more and more. Using XML language which the standard language in modifying data, for business to business interactions and a company can send - , receive data has easy. While, using EDI has limitation for exchange data from the point to the point only. In addition XML language can help advantage share data in Real-Time with the safety.

B2S Company limited under Central Group has a policy encourage applying information technology comes to apply with retail business of a company. for serve fast customer is correct for , proceeding business of a company with supplier be close to and effective. By supplier can follow all data has with oneself.

Development software system for use in doing transactions electronic or E-commerce bring apply with a business of a company by internet and web application technology cooperate linking up communicates WAN and the telephone line. So popular Technology and is accepted with widely with easy to use and fast. be the a company under central retail Corporate Group wants to support for reduce cost and prepare the competition will in the future. Because the idea in system development web application for wholesale system use for create order and receive data by internet via. By integrate web application and web service in the system.

1.2 Objective of the Study

This project aim to improve process of creates Wholesale order by internet and can follow and check the position of order all the time with web services for serve a customer. Integrate Web Application and Web services help to facilitate the integration of data across different system, business are adopting XML as the standard format for information exchange over HTTP.

For business to business integration, applications need to talk to each other on the web interoperability is needed which wholesale web services with application of supplier immediately.
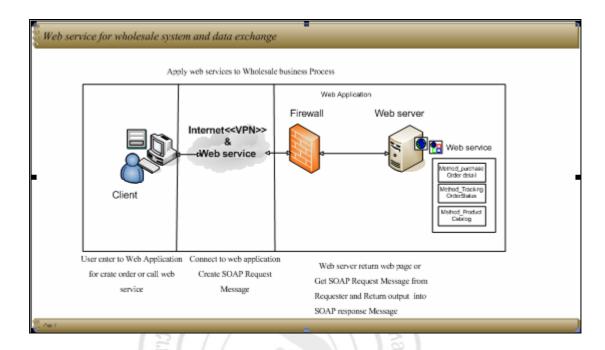
Figure 1.1 Using Web Service Apply to Wholesale System

1.3 Scopes of the Study

This project separate 2 part is Web Application and Client Application web application Client Application which work with database

Web application is part of a customer who is a member or under company has registering in the system Customer already**.** Function is creating or product when login by a customer chooses product that wants to buy and confirm the order, then the system will summarize product total when customer orders complete. Then follow and check the position of order all the time**.** Administrator and officer must login to the system before. Administrator has permit ion for management data within system such as data of product, customer and print report.

Client Application is building program to call web service that set up at web server. Call method to use from one machine to one machine.

1.3.1   Web Application

Have function for E-Commerce

1. Login wholesale system web site for create order

2. Select require product

3. Checkout

4. Check order status

5. Print Report

1.3.2   Clint Application

Web Service Reference includes 3 methods.

1. PurchaseOrderdetail_Method

2. TrackingOrderStatus_Method

3. ProductCatalog_Method

1. PurchaseOrderdetail_ Method

1) Client Application creates SOAP Request Message for call MethodPurchaseOrdertail with send parameter Purchaseorder Number, customer number, Purchase order**.**

2) Web server get SOAP Request Message then call MethodPurchaseOrdertail.

3) Code Program Method PurchaseOrdertail connect database for get data of PurchaseOrdertail by condition of parameter.

4) Web server gets result Method PurchaseOrderdetail pack with SOAP Response Message then return to client.

5) Client get SOAP Response Message then show the result example web page or Form**.**

2. TrackingOrderStatus_Method

1) Client Application create SOAP Request Message for call Method TrackingOrderStatus with send parameter Purchaseorder Number.

2) Web server get SOAP Request Message then call MethodTrackingOrderStatus.

3) Code Program Method TrackingOrderStatus connect database for get data of PurchaseOrdertail by condition of parameter.

4) Web server gets result Method TrackingOrderStatus pack with SOAP Response Message then return to client.

5) Client get SOAP Response Message then show the result example web page or Form.

3. ProductCatalog _Method

1) Client Application creates SOAP Request Message for call Method ProductCatalog with send parameter customer number.

2) Web server get SOAP Request Message then call Method ProductCatalog

3) Code Program Method ProductCatalog connect database for get data of PurchaseOrdertail by condition of parameter.

4) Web server gets result Method ProductCatalog pack with SOAP Response Message then return to client.

5) Client get SOAP Response Message then show the result example web page or Form.

1.4 Expected Benefits

1.4.1   Access real-time information.

1.4.2   Improve Order Process and automatically generated Invoice.

1.4.3   Convenience-Make business-to-business easy.

1.4.4   Reduce cost and time for exchange data and in communication such as cost of fax, paper.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

During ten last year the worldwide has plan to uses the resource of the organization (Enterprise Resource Planning: ERP) widely. Thailand initial majority by using EDI (Electronics Data Interchange) system, Supply Chain Management and Service Oriented Architecture: SOA

Today, in retail business partner and difference application and data format they need technology to integrate information and exchange data for service customer in the real-time what is the way to meet between them. Web Application and Web service technology is a idea to help and improve communicate among the whole they can access the internet via many different way of connection as device and platform.

Introduction Web application

Web applications are becoming more and more popular. This is in part due to the rapid deployment of the tools and technologies for developing them.But mostly because system designers are recognizing the situations where web applications have very significant advantages over traditional applications.

Web Application Architecture

Web Sites

There is a subtle distinction between a web application and a web site. For the purpose of this paper a web application is a web site where user input (navigation through the site and data entry) effects the state of the business (beyond of course access logs and hit counters). In essence a web application uses a web site as the front end to a more typical application.

The architecture for a web site is rather straight forward. It contains three principal components; a web server, a network connection and one or more client browsers. The web server distributes pages of formatted information to clients that request it. The request is made over a network connection and uses the HTTP protocol. Figure 1 shows this relationship. Some web sites require clients to logon, and some allow anonymous access.
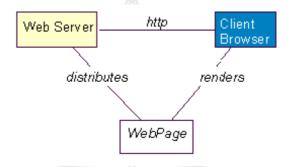
Figure 2.1 Basic Web Application Architecture

The information made available by a web site is typically stored, already formatted, in files. Clients request files by name, and when necessary provide specific path information with the request. These files are termed pages, and represent the content of a web site.

In some situations the content of a page is not necessarily stored inside the file. It can be assembled at runtime from information stored in a database (or other information repository) and formatting instructions in a file. Alternatively it can come from the output of a load-able module (CGI or ISAPI). The web server uses a page filter to interpret and execute the scripts in the page. Web sites employing this strategy are called dynamic sites.
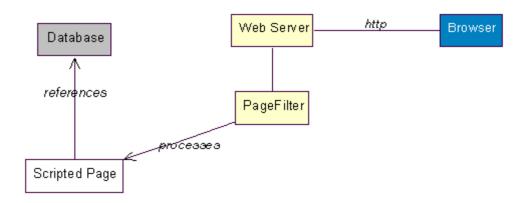
Figure 2.2 Dynamic Web Site Architecture

A user interacts with a web site via a browser. A browser is an application that runs on a client machine. That connects to a server on a network and requests a page of information. Once the page request has been fulfilled the connection terminates. The browser knows how to communicate (via HTTP) to a web server, and how to render formatted information returned by the web server. Most pages of information contain *links* to other pages (possibly on other servers), which the browser user may easily request. Users navigate the web by clicking on links and requesting pages from web server.

Introduction Web Service

Over the past few years, business has interacted using ad hoc approaches which take advantage of the basic Internet infrastructure. Now, however, Web Services are emerging. Technology to provide a systematic and extensible framework for the application–to–application interaction which built on the top of the existing Web protocols and it is also based on the open The Extensible Markup Language (XML) standards.

Web Services combine the best aspects of component–based development and the Web Link component; Web Services represent black–box functionality that can be reused without worrying about how the service is implemented. Unlike current component technologies, Web Service is not accessed via object– model–specific protocols, such as Distributed Component Object Model (DCOM), The Java Remote Method Invocation (RMI), or Internet

Inter-Orb Protocol (IIOP). Instead, Web Service are accessed via ubiquitous Web protocols (ex: HTTP) and data formats.

Web Services are the new breed of Web applications. They are self–contained, self –describing, modular applications that can be published, located, and invoked across to the web. Web Service performs functions, which can be anything from simple request to complicated business processes. Once a Web Service is deployed, other applications (and other Web Service) can discover and invoke the deployed services. Web Service is a term being used to define a set of technologies that exposes business functionality over the Web as a set of automated interfaces.

These automated interfaces allow business to discover and bind to an interface at run − times, supposedly minimizing the amount of static preparation that is needed by other integration technologies. The use of Web Service on the World Wide Web is expanding rapidly as the need for application–to–application communication and interoperability grows. The World Wide Web Consortium (W3C) defines the Web Service definition as follow.

A Web Service is a software sys tem identified by a URI, whose public interfaces and bindings are defined and described using XML. Its definitions can be discovered by other software systems. These systems may them interact with the Web Service in a manner prescribed by its definition, using XML based messages conveyed by internet protocols. A Web Service has special behavioral characteristics listed as follows:

1. XML – based by using XML as the data representation layer for all Web Service Protocols and technologies that are created, these technologies can be interoperable at their core level. As a data transport, XML eliminates any networking, operating system, or platform binding that a protocol has.

2. Loosely coupled a consumer of a Web Service is not tied to that Web Service directly; the Web Service interfaces can change over time without compromising the client's ability to interact with the service. A tightly coupled system implies that client and sever logic are closely tied to one another, implying that if one interface changes, the other must also be updated. Adopting a loosely coupled architecture tends to make software systems more manageable and allows simpler integration among different systems.

3. Coarse grained Object – Oriented technologies such as Java exposes their services through individual methods. An individual method defines an operation to provide any useful capability at a corporate level. Building a java program from scratch requires the creation of several fines – grained methods that are then composed into a coarse-grained service that is consumed by either a client or another services. Business and the interfaces that they expose should be coarse - grained. Web Service technology provides a natural way of defining coarse – grained services that access the right amount of business logic.

4. Ability to be Synchronous or Asynchronous Synchronicity refers to the binding of the client to the execution of the service. In Synchronous invocations, the client blocks and waits for the services to complete its operation before continuing. Asynchronous operations allow client to invoke services and then execute other functions. Asynchronous clients retrieve their result at a later point in time, while synchronous clients receive their result when the service has completed. Asynchronous capability is a key factor in enabling loosely coupled systems.

5. Supports Remote Procedure Calls (RPCS) Web Services allow client to invoke procure functions and methods on remote Object using an XML – based protocol. Remote procedures expose input and output parameters that a Web Service must support. Component development through Enterprise JavaBeans (EJBs) and.NET Components has increasingly become a part of architectures and enterprise deployments over the past couple of years. Both technologies are distributed and accessible services of its own, equivalent to those of a traditional component, or by translating incoming invocations into an invocation of an EJB or a NET component.

6. Supports Document Exchange One of the key advantages of XML is its generic way of representing not only data, but also complex documents. These documents can be simple, such as when representing a current address, or they can be complex, representing an entire book or RFQ. Web Services support the transparent exchange of documents to facilitate business integration.

Web Service Architecture

(W3C Working Group, 2004)The Web Service architecture places into relationship among various components and technologies. It comprises a Web Services "stack" or completely functional implementation. The basic architecture includes Web services technologies capable of:

1. Exchanging messages.

2. Describing Web Services.

3. Publishing and discovering Web Services descriptions.

The basic Web Services architecture defines an interaction between software agents as an exchange of messages among services requesters and service providers. Requesters are software agents that request the execution of service. Providers are software agents that provide a service. Agent can be both service requesters and providers. Providers are responsible for the publishing a description of the service(s) they provide. Requesters must be able to find the description(s) of the service.

The Web Services architecture is based on the interactions between three roles: service provider, service registry and service requester. The interactions involve the publish, find and bind operations. Together, these roles and operations act upon the Web Services artifacts: the Web Service software module and its description. In a typical scenario, a service provider hosts a network - accessible software module an implementation of a Web Service.

The service provider defines a service description for the Web Service and publishes it to a service requester or service registry. The service requester uses a find operation to retrieve the service description locally or from the service registry and uses the service description to bind with the service provider and invoke or interact with the Web Service implementation. Service provider and service requester roles are logical constructs and a service can exhibit characteristics of both, is shown in Figure1.
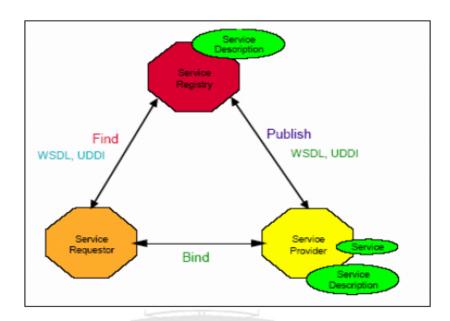
Figure 2.3 Service Oriented Architecture

1. Service provider from a business perspective, this is the owner of the service. From an architectural perspective, this is the platform that hosts access to the service.

2. Service requester from a business perspective, this is the business that requires certain functions to be satisfied. From an architectural perspective, this is the application that is looking for and invoking or initiating an interaction with a service. The service requester role can be played by a browser driven by a person or a program without a user interface, for example Web Service.

3. Service registry this is a searchable registry of service descriptions where Service providers publish their service descriptions. Service requesters find services and obtain binding information (in the service descriptions) for services during development for static binding or during execution for dynamic binding. For statically bound service requesters, the service registry is an optional role in the architecture, because a service provider can send the description directly to service requesters. Likewise, service requesters can obtain a service description from other sources besides a service registry, such as a local file, FTP site, Web site, Advertisement and Discovery of Services (ADS) or Discovery of Web Services (DISCO).

Operations in Web Service Architecture

For an application to take advantage of Web Services, three behaviors must take place: publication of service descriptions, lookup or finding of service descriptions, and binding or invoking of services based on the service description. These behaviors can occur singly or iteratively. In detail, these operations are: [3]

1. **Publish** to be accessible; a service description needs to be published so that the service requester can find it. Where it is published can vary depending upon the requirements of the application (see "Service Publication" for more details).

2. **Find** in the find operation, the service requester retrieves a service description directly or queries the service registry for the type of service required (see "Service Discovery" for more details). The find operation can be involved in the two different lifecycle phases for the service requester: at design time to retrieve the services interface description for program development, and at runtime to retrieve the service's binding and location description for invocation.

3. **Bind** eventually, a service needs to be invoked. In the bind Operation the service requester invokes or initiates an interaction with the service at runtime using the binding details in the service description to locate, contact and invoke the service.

4. **Service** where a Web Service is an interface described by a Service description, its implementation is the service. A service is a software module deployed on network accessible platforms provided by the service provider. It exists to be invoked by or to interact with a service requester. It can also function as a requester, using other Web Services in its implementation.

5. **Service Description** the service description contains the details of the interface and implementation of the service. This includes its data types, operations, binding information and network location. It could also include categorization and other metadata to facilitate discovery and utilization by service requesters. The service description might be published to a service requester or to a service registry.

Web Services Standard

       1. **SOAP** (Simple Object Access Protocol): "SOAP provides the envelope for sending Web Services messages over the Internet. SOAP commonly uses HTTP, but other protocols such as Simple Mail Transfer Protocol (SMTP) may be used. SOAP can be used to exchange complete documents or to call a remote procedure. "s

       2. **UDDI** (Universal Description, Discovery, and Integration): "UDDI provides the definition of a set of services supporting the description and discovery of (1) businesses, organizations, and other Web Services providers, (2) the Web Services they make available, and (3) the technical interfaces which may be used to access those services. The idea is to "discover" organizations and the services that organizations offer, much like using a phone book or dialing information."

       3. **WSDL** (Web Service Description Language):"Web Services Description Language (WSDL) is a format for describing a Web Services interface. It is a way to describe services and how they should be bound to a specific network addresses."

       4. **XML** (Extensible Markup Language): "The basic structure of XML is the document. This terminology, however, might cause one to think of XML as only a richer, more flexible than HTML. It is richer and more flexible, but it can be so much more as well."

The Web Services Stack

    To perform the three operations of publish, find and bind in an interoperable manner, Figure 2.Shows a conceptual Web Services stack. The upper layers build upon the capabilities provided by the lower layers. The vertical towers represent requirements that must be addressed at every level of the stack. The text on the left represents standard technologies that apply at that layer of the stack.
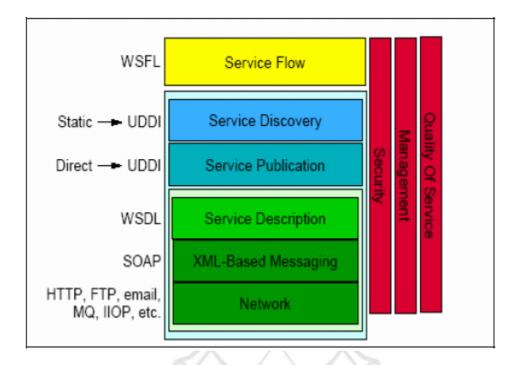
Figure 2.4 Web Services Conceptual Stack.

The foundation of the Web Services stack is the network. Web Services must be network accessible to be invoked by a service requester. Web Services that are publicly available on the Internet use commonly deployed network protocols. Because of its ubiquity, HTTP is the de facto standard of the network protocol for Internet-available Web Services. Other Internet protocols can be supported, including Simple Mail Transfer Protocol (SMTP) and File Transfer Protocol (FTP). Intranet domains can use reliable messaging and call infrastructures like MQSeries ®, Common Object Request Broker Architecture (CORBA), and so on. The section"The Network" describes this layer in more detail.

The next layer, XML-based messaging, represents the use of XML as the basis for the messaging protocol. SOAP is the chosen XML messaging protocol for many reasons:

1. It is the standardized enveloping mechanism for communicating document-centric messages and remote procedure calls using XML.

2. It is simple; it is basically an HTTP POST with an XML envelope as payload.

3. It is preferred over simple HTTP POST of XML because it defines a standard mechanism to incorporate orthogonal extensions to the message using SOAP headers and a standard encoding of operation or function.

4. SOAP messages support the publish, find and bind operations in the Web Services architecture. The section "XML Messaging-Based Distributed Computing" describes this layer in more detail.

The service description layer is actually a stack of description documents. First, WSDL is the de facto standard for XML-based service description. This is the minimum standard service description necessary to support interoperable Web Services. WSDL defines the interface and mechanics of service interaction. Additional description is necessary to specify the business context, qualities of service and service-to-service relationships. The WSDL document can be complemented by other service description documents to describe these higher level aspects of the Web Service. For example, business context is described using UDDI data structures in addition to the WSDL document. Service composition and flow are described in a Web Services Flow Language (WSFL) document. The section "Service Description: From XML Messaging to Web Services" describes this layer in more detail.

Because a Web Service is defined as being network-accessible via SOAP and represented by a service description, the first three layers of this stack are required to provide or use any Web Service. The simplest stack would consist of HTTP for the network layer, the SOAP protocol for the XML messaging layer and WSDL for the service description layer. This is the interoperable base stack that all inter-enterprise, or public, Web Services should support. Web Services, especially intra-enterprise, or private, Web Services, can support other network protocols and distributed computing technologies.
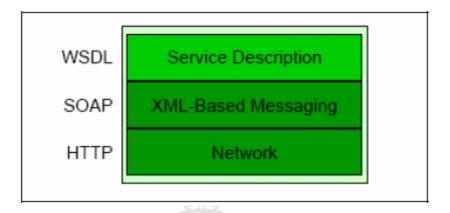
Figure 2.5 Interoperable Base Web Services Stack

SOAP Security

Web Service lies in the difference between end–to–end and single–hop Usage. Business messages typically originate deep inside one enterprise and go deep inside another. Transport security mechanisms such as Secure Sockets Layer are great for securing (for confidentiality) a direct connection from one machine to another but it cannot apply if the message has to travel over more than connection. Therefore, security mechanisms at the SOAP level are required.

SOAP Message Framework

SOAP is lightweight protocols intended for exchanging structure information in a decentralized, distributed environment. It uses XML technologies to define an extensible messaging framework providing a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed to be independent of any particular programming model and other implementation specific semantics SOAP offers interoperability across a wide variety of platforms. It enables interoperability by providing a generalized specification for invoking methods on objects and components that reside on other Web Services.

The SOAP specification describes four major components: formatting conventions for encapsulating data and routing directions in the form of an envelope, a transport or protocols binding, encoding rules, and an RPC mechanism. The envelope defines a convention for describing the contents of a message, which in turn has implications on how it gets processed.

A protocol binding provides a generic mechanism for sending SOAP envelop via a lower–level protocol such as HTTP. Encoding rules provide a convention for mapping various application data type into an XML tag- based representation. Finally, the RPC mechanism provides a way to

Represent remote procedure calls and their return values.

A SOAP message has a simple structure composed of two child elements, one of which contains the header and the other the body. The header contents and body elements are themselves arbitrary XML as show as follows.

```
<SOAP: Envelope
Xmlns: SOAP= "http://schemas.xmlsoap.org/soap.envelope/">
<SOAP: Header>
<! - Content of header goes here- >
</SOAP: Header>
<SOAP: Body>
<! - Content of body goes here- >
</SOAP: Body>
</SOAP: Envelope>
```

In addition to the basic message structure, The SOAP specification defines a mode that dictates how recipients should process SOAP message. The message model also includes actors, which indicate who should process the message. A message can identify actors that indicate a series of intermediaries that process the message parts meant for them and pass on the rest.

The SOAP is a simple and lightweight XML-based mechanism for exchanging structured data between network applications. SOAP consists of three parts: an envelope that defines a framework for describing what is in a message, a set of encoding rules for expressing instances of application-defined data types, and a convention for representing remote procedure calls (RPCs) and responses. SOAP can be used in combination with or re-enveloped by a variety of network protocols such as HTTP, SMTP, FTP, and RMI over IIOP or MQ. While it is important to understand this foundation, most Web Service developers won't have to deal with

this infrastructure directly. Most Web Services will use optimized programming language specific bindings generated from WSDL. This optimization can be especially valuable when a service provider and requester are both executing in similar environments. Figure 4 shows how XML messaging (that is, SOAP).
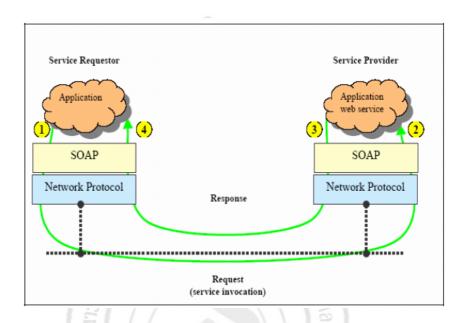
Figure 2.6 XML Messaging Using SOAP

The basic requirements for a network node to play the role of requester or provider in XML messaging-based distributed computing are the ability to build, parse a SOAP message, or both, and the ability to communicate over a network (receive, send messages, or both). Typically, a SOAP server running in a web application server performs these functions. Alternatively, a programming language-specific runtime library can be used to encapsulate these functions within an API. Application integration with SOAP can be achieved by using four basic steps In Figure 4

1. A service requester's application creates a SOAP message. This SOAP message is the request that invokes the Web Service operation provided by the service provider. The XML document in the body of the message can be a SOAP RPC request or a document-centric message as indicated in the service description. The service requester presents this

message together with the network address of the service provider to the SOAP infrastructure (for example, a SOAP client runtime). The SOAP client runtime interacts with an underlying network protocol (for example HTTP) to send the SOAP message out over the network.

2. The network infrastructure delivers the message to the service provider's SOAP runtime (for example a SOAP server). The SOAP server routes the request message to the service provider's Web Service. The SOAP runtime is responsible for converting the XML message into programming language-specific objects if required by the application. This conversion is governed by the encoding schemes found within the message. The Web Service is responsible for processing the request message and formulating a response. The response is also a SOAP message.

3. The response SOAP message is presented to the SOAP runtime with the service requestor as the destination. In the case of synchronous request/response over HTTP, the underlying request/response nature of the networking protocol is used to implement the request/response nature of the messaging. The SOAP runtime sends the SOAP message response to the service requester over the network.

4. The response message is received by the networking infrastructure on the service requester's node. The message is routed through the SOAP infrastructure; potentially converting.

Development software system for use in doing transactions electronic or E-commerce bring apply with a business of a company by internet and web application technology cooperate linking up communicates WAN and the telephone line. So popular Technology and is accepted with widely with easy to use and fast. be the a company under central retail Corporate Group wants to support for reduce cost and prepare the competition will in the future. Because the idea in system development web application for wholesale system use for create order and receive data by internet via. by integrate web application and web service in the system.

CHAPTER 3

FEASIBILITY STUDY

3.1 Introduction

Today, in retail business partner and difference application and data format they need technology to integrate information and exchange data for service customer in the real-time what is the way to meet between them. Web Application and Web service technology is a idea to help and improve communicate among the whole they can access the internet via many different way of connection as device and platform.

3.1.1 Overview

The **Central Group of Companies** is a family-owned conglomerate holding company in Thailand that is involved in retailing, real estate, hotels and restaurants. Among its subsidiaries is **Central Pattana** (SET: CPN), which is the largest developer and operator of shopping centers in Thailand and the **Central Retail Corporation**, Thailand's biggest retail conglomerate. Its chief rival is The Mall Group, which owns Siam Paragon and The Emporium and several suburban shopping centers.

Central Retail Corporation applied the information technology to help in retail business more than 10 years and the first retail business of the country use Point of sale system (POS) for customer serve fast correct and accurate, besides, Central Retail Corporation (CRC) applied the information technology in other process such register product system, Purchase system, control inventory system, that important, Supply chain Management system. Which have to exchange data between supplier and company, subsidiary company and company in Supply Chain system for suppliers can follow with oneself,

3.1.2   Other Central Retail companies

1. Power Buy – An electronics retailer with more than 40 stores.

2. Office Depot – The office-supply giant's stores in Thailand have been operated by Central since 1996.

3. B2S – A chain that sells stationery, books, magazines, school and office supplies, music CDs and movie DVDs.

4. Supersports – A sporting-goods store.

5. Homeworks – A building supplies and home-improvement retailer.

6. Tops Supermarket–operated by Central. It has nearly 90 stores.

7. Zen – An supmarket department store, it opened in 1990 as one of the anchors of the World Trade Center in Pathum Wan district, Bangkok. Now named CentralWorld, the shopping center has undergone its major renovation, you can now visit the new Zen store tastefully designed.

8. BigC – A chain of hypermarkets

9. Watson's – The Thailand outlets of the Hong Kong-based Hutchison Whampoa drugstore chain are run by Central.

10. Marks & Spencer – Central is a franchisee of the British retail chain, with M&S located within Central Department Stores and two freestanding stores in Thailand.

B2S – A chain that sells stationery, books, magazines, school and office supplies, music CDs and movie DVDs, Copy and Mail Center, Customer Service. Now B2S has 100 number of store cover in Thailand. Now the warehouse of B2S company unless role to the keep and distribute goods. one role is the alms serves to sell wholesale goods to a company is under and in the future expand for sell wholesale to general customer. By now goods order has work step as follows

Because of, now business has high competition rather. while the work in the system originally of a company still has no information technology lead comes in to use , then make the system has no the efficiency as expected thus then wants to develop new system by build Web Application and use the Technology web service come to apply for increase efficiency for

sending and exchange data by the internet more and more .for increase the channel business and data serve in time with the present , by have the objective will for support way business growth in the future including offer the convenience in goods order of customer

Development software system for use in doing transactions electronic or E-commerce bring apply with a business of a company by internet and web application technology cooperate linking up communicates WAN and the telephone line. So popular Technology and is accepted with widely with easy to use and fast. be the a company under central retail Corporate Group wants to support for reduce cost and prepare the competition will in the future. Because the idea in system development ระบบ web application for wholesale system use for create order and receive data by internet via. by integrate web application and web service in the system

3.2 Problem Statement

Today, Warehouse of B2S Company has wholesale System for sale product to subsidiary in CRC group such as TOPS super market and general customer In the future.

3.2.1   Currently process of order product

1. Send list of product (quotation) to Customer by Mail or FAX And Customer sends Purchase Order by Mail or Fax.

2. After, receive the list has ordered goods already an officer checks product and prepare to deliver a customer.

3. create Invoice with excel form and send invoice copy at show a product list, quality and all amount price attach with goods that send to customer.

3.2.2   From process of order B2S Company we found this problem

1. Waste time and cost send and receive Purchase Order from customer.

2. Risk will to transport late.

3. data storing don't be the system access information for execute difficult.

3.3 Related Research and Projects

There have been several projects relate to this area including the Wholesale&Retail 1.0 Program

Wholesale&Retail 1.0 Program was develop by Soutionbizsoft in this system design for sell construction materials, small database application and waste time in key list of product was the application this following function

Purchase

Return goods

Sell

Billing

Wholesale system and Web service will use a web service to access database server. To develop such a system we will use interview to collect user requirement and apply UML to model our system .Once our system model is finalized we will user ER modeling techniques and tools to design .the user interface will be design to facility usability and to be attractive. This project will be difference from previous project in the following area:

Main function

Purchase

Invoice

Report

3.4 Requirement Specifications for the New System

From initial evaluation of this project our implementation will aim to satisfy the following scope

User can create, edit, find data related to Invoice activities

The user interface is Application client site and web application can be use in IE least version 6.00.This system will be test on flowing platforms:

3.4.1 System Requirement

Equipment and Software Required an Application requires the environment shown in the following.

1. Microsoft Windows XP.

2. Microsoft Visual Studio 2005.

3. SQL Server 2005(standard, Developer, or Enterprise edition)

4. Simple Mail Transfer Protocol (SMTP).

5. Valid Windows accounts and SQL Server login accounts for any users who will be working.

6. Microsoft Windows Internet Information Services (IIS) with the Simple Mail Transfer Protocol (SMTP) services.

7. Modem Connection.

8. Net Frame Work

9. Crystal Report version 9.0

10. Satisfactory speed performance will be based on ringing the server and clients in a 100 Mbps LAN environment

3.4.2 Concluding Thoughts

From a database developer's perspective, choosing between a MySQL and SQL Server DBMS is a matter of the scale of the database application. For enterprise-level applications, SQL Server wins hands down. It has advanced set of SQL features, superior replication, clustering, and security and management tools.

For lower-tier database applications, MySQL can offer the core functionality you require at a very low cost. Some might argue that the latest offering from MySQL has made the open source database system enterprise "worthy", but this remains to be seen. The advanced functionalities implemented are yet to stabilize and be rationalized across the database engine. What's more, Microsoft has upped the ante with even more advanced features of its own. It's up to MySQL to rise up to the challenge, but at this point in time MySQL is nowhere near the competitive enterprise field of the more established SQL Server 2005.

3.5 Implementations Techniques

AS can be seen from scope above, this project will utilize several client Application, Web service and database technologies. Our implementation will use Microsoft

Cause is existing resource in organization. In particular, the following tools and techniques will be use in this project

3.5.1 SQL Server 2005 - Database Engine

Microsoft SQL Server 2005 provides native XML Web services through the SQL Server 2005 Database Engine by using the following open standards:

1. Hypertext Transfer Protocol (HTTP).

2. As the core protocol behind the World Wide Web, HTTP provides a platform-neutral Web-based exchange of data.

3. SOAP defines how to use XML and HTTP to access services, objects, and servers regardless of the operating system.

4. Web services Definition Language (WSDL) is an XML document format that can be used to describe Web-based services.

When use Native XML Web services in SQL Server 2005, can send SOAP messaging requests to an instance of SQL Server 2005 over HTTP to run the following:

1. Transact-SQL batch statements, with or without parameters.

2. Stored procedures extended stored procedures, and scalar-valued user-defined functions.

Setting the Server to Listen for Native XML Web services Requests, server computer that is running SQL Server 2005 to help it listen and service HTTP-based requests in a secure manner.

3. Service Broker, a new technology for building database-intensive distributed applications that are secure, reliable, and scalable.

4. Service Broker provides

5. Facilities for storing message queues in SQL Server databases.

6. New Transact-SQL statements that applications can use to send and receive messages. Each message is part of a dialog: a reliable, persistent communication channel between two participants. (Microsoft Corporation, 2005)

3.6 Deliverables

3.6.1 CD Constraining Source Code

3.6.2 User Manual for End User

3.7 Implementation Plan

|	ⓘ	Task Name	Duration	Start	Finish
1		⊟ scope	**6 days?**	**Fri 20/7/07**	**Fri 27/7/07**
2		Determine project scope	2 days	Fri 20/7/07	Mon 23/7/07
3		Dfine preliminary recources	1 day?	Tue 24/7/07	Tue 24/7/07
4		Scope complete	3 days	Wed 25/7/07	Fri 27/7/07
5		⊟ **Analysis Software Requirement**	**16 days?**	**Mon 30/7/07**	**Mon 20/8/07**
6		conduct needs analysis	5 days?	Mon 30/7/07	Fri 3/8/07
7		Review software specification	4 days?	Mon 6/8/07	Thu 9/8/07
8		Analysis complete	7 days?	Fri 10/8/07	Mon 20/8/07
9		⊟ **Design**	**62 days?**	**Tue 21/8/07**	**Wed 14/11/07**
10		Review preliminary software specifications	2 days?	Tue 21/8/07	Wed 22/8/07
11		Develop funtional specifications	7 days?	Thu 23/8/07	Fri 31/8/07
12		Review funtional specifications	9 days?	Mon 3/9/07	Thu 13/9/07
13		Design complete	44 days?	Fri 14/9/07	Wed 14/11/07
14		⊟ **Development**	**54 days?**	**Thu 15/11/07**	**Tue 29/1/08**
15		Review functional specifications	10 days?	Thu 15/11/07	Wed 28/11/07
16		Develop code-Client Application	15 days?	Thu 29/11/07	Wed 19/12/07
17		Developer testing	7 days?	Thu 20/12/07	Fri 28/12/07
18		Develop code-webmethod	15 days?	Mon 31/12/07	Fri 18/1/08
19		Development complete	7 days?	Mon 21/1/08	Tue 29/1/08
20		⊟ **Testing**	**10 days**	**Wed 30/1/08**	**Tue 12/2/08**
21		Develop unit testing plans using Client Application	5 days	Wed 30/1/08	Tue 5/2/08
22		Develop unit testing plans using Web Application	5 days	Wed 6/2/08	Tue 12/2/08
23		⊟ **Training**	**3 days**	**Wed 13/2/08**	**Fri 15/2/08**
24		Develop training specification for end user	3 days	Wed 13/2/08	Fri 15/2/08
25		⊟ **Documentation**	**5 days**	**Mon 18/2/08**	**Fri 22/2/08**
26		Develop Manual Document	5 days	Mon 18/2/08	Fri 22/2/08
27		⊟ **Post Implementation Review**	**3 days**	**Mon 25/2/08**	**Wed 27/2/08**
28		Distibute to team	3 days	Mon 25/2/08	Wed 27/2/08
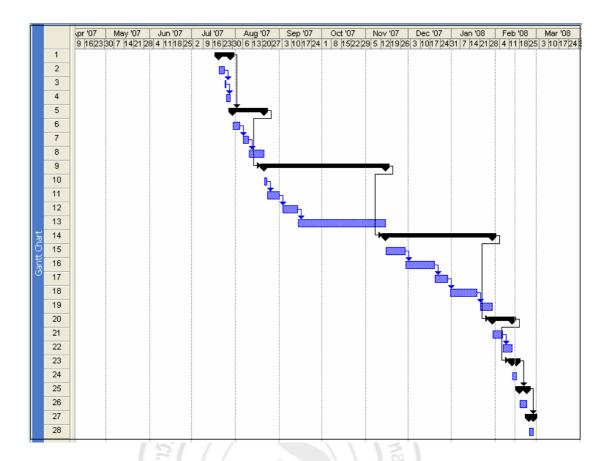
Figure 3.1 The Implement Plan

3.7.1 Training phase

1. Training specification for end user

End User

1) Officer of warehouse

2) Officer of Purchase Buyer Company

CHAPTER 4

ANALYSIS AND DESIGN

4.1 Introduction

B2S Company limited under Central Group has a policy encourage applying information technology comes to apply with retail business of a company. for serve fast customer is correct for , proceeding business of a company with supplier be close to and effective. By supplier can follow all data has with oneself.

4.2 Analysis of the Existing System

Now the warehouse of B2S company unless role to the keep and distribute goods. One role is the alms serves to sell wholesale goods to a company is under and in the future expand for sell wholesale to general customer. By now goods order has work step as follows.

The project specialized in process wholesale of warehouse in case of buyer order to seller then seller send invoice to buyer by manual

In such a case, when warehouse of B2S company generate Invoice and will be return Invoice to buyer.
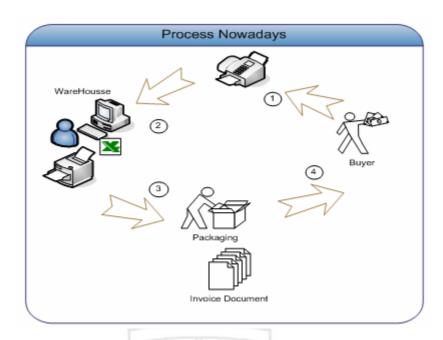
Figure 4.1 The Process in Existing System

   Step1 Officer of warehouse gets purchase order by FAX or Mail.

   Step2 Officer of warehouse generates Invoice and key in paper form then send invoice number to Buyer by FAX.

   Step3 Officer of warehouse send invoice document with goods to Buyer.

   Step4 Buyer get invoice document calls to warehouse for confirm status.

4.3 User Requirement Analysts

   Today, increasing of transaction for Purchase Order then the requirement of system need MIS help the process Organizations wanted to use MIS capabilities to reach their process.

   Faster and more efficiently by shortening the time it take to receive and sending the document Number refer to next process business can lower their time and telephone cost and gain competitive advantage.

   A problem of work system originally can bring to analyses the requirement of the system by divide to follow group of user**.**

4.3.1   The requirement of the executive and an officer

    1. Use information technology for apply business effective work.

    2. Safety for the collects data.

    3. Support the work in the format Multi user.

    4. Can adjust all data has quickly.

    5. Can send-receive data with customer.

4.3.2   The requirement of a customer

    1. Can order all the time.

    2. Can review detail product before order.

    3. Can follow and check the position of order all the time.

Thus can analyses new system will that develop to go up separate 2 part is web application Client Application which work with database

Web application is part of a customer who is a member or under company has registering in the system Customer already. Function is creating or product when login by a customer chooses product that wants to buy and confirm the order, then the system will summarize product total when customer orders complete. Then follow and check the position of order all the time. Administrator and officer must login to the system before. Administrator has permit ion for management data within system such as data of product, customer and print report.

Client Application is building program to call web service that set up at web server.
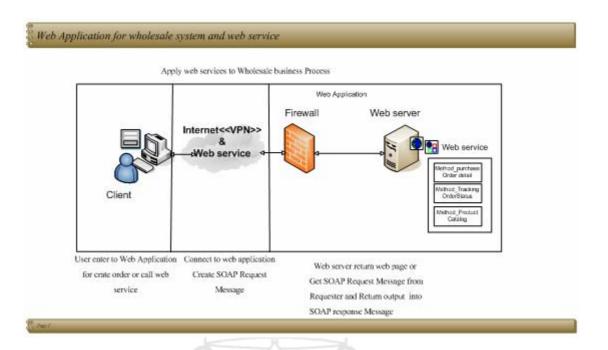
Figure 4.2 Web Application for Wholesale System and Web Service

    4.3.3   Using the wholesale system scenario and web service:

        This project separate 2 part is Web Application and Web service

        1. Web Application

            1) Login wholesale system web site for create order

                1.1) Select require product

                1.2) Checkout

            2) Check order status

            3) Report

        2. Web services

        Web Service Reference includes 3 methods.

            1. PurchaseOrderdetail Method

            2. TrackingOrderStatus Method

            3. ProductCatalog Method

PurchaseOrderdetail Method

1. Client Application create SOAP Request Message for call Method PurchaseOrdertail with send parameter Purchaseorder Number, customer number, Purchaseorder

2. Web server get SOAP Request Message then call Method PurchaseOrdertail

3. Code Program Method PurchaseOrdertailr connect database for get data of PurchaseOrdertail by condition of parameter

4. Web server get result Method PurchaseOrderdetail pack with SOAP Response Message then return to client

5. Client get SOAP Response Message then show the result example web page or Form

TrackingOrderStatus Method

1. Client Application creates SOAP Request Message for call Method TrackingOrderStatus with send parameter Purchaseorder Number.

2. Web server get SOAP Request Message then call Method TrackingOrderStatus.

3. Code Program Method TrackingOrderStatus connect database for get data of PurchaseOrdertail by condition of parameter.

4. Web server gets result MethodTrackingOrderStatus pack with SOAP Response Message then return to client.

5. Client get SOAP Response Message then show the result example web page or Form**.**

ProductCatalog Method

1. Client Application creates SOAP Request Message for call Method ProductCatalog with send parameter customer number.

2. Web server get SOAP Request Message then call Method ProductCatalog.

3. Code Program Method ProductCatalog connect database for get data of PurchaseOrdertail by condition of parameter.

4. Web server gets result Method ProductCatalog pack with SOAP Response Message then return to client.

5. Client get SOAP Response Message then show the result example web page or Form.

4.4 New System Design

In development get requirement from user direct and study process of existing process for understand system and requirement of user and design database in format ER Model and study process call service of web service so design process of system client Application and web services by consider give the system has what function by use case diagram and develop process of client application follow define function design .after develop complete will be testing of system of client application and develop web service following design function

4.4.1   Use case diagram of work process
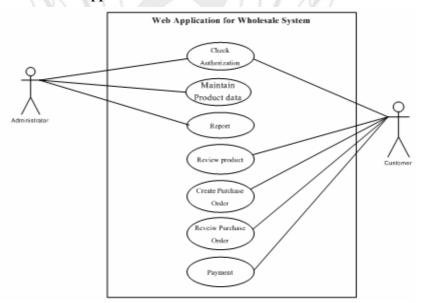
Use case diagram

1. Web Application

Figure 4.3 Use Case Diagram Client Application of Admin

1) Administrator

1. Check Authorization: get username and password user for check. permission and define permission in access system. By username and password check with data database if valid can use system.

2. Maintain Product data

2.1 Insert New Product: get data of purchase order, new product item list and new customer record in system.

2.2   Update Data of product: update price of product, update customer.

2.3   Delete Product out of stock: delete product when invalid.

3. Report print or review report and send to Finance Module**.**

2) Client/Customer

1. Review Product: review detail of product.

2. Create Purchase Order: get purchase order and store in table for prepare generate invoice.

3. Review Purchase Order: Purchase Order detail.

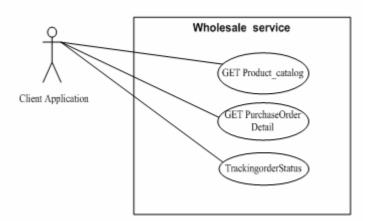4. Payment: checkout and confirm to payable by payment term.

2. Web service

Figure 4.4 Use Case Diagram Web Services

1) **GET PurchaseOrderdetail Method**: code program in web method PurchaseOrderdetail Method connect database for find purchase number by requester request and return output of request

2) **GET Product_Catalog Method**: code program in web method Product_Catalog Method connect database for send Product data by requester request and return output of request.

3) **TrackingorderStatus Method**: code program in web method TrackingorderStatus connect database for checking order status by requester request and return output of request.

4.4.2   Dataflow Diagram
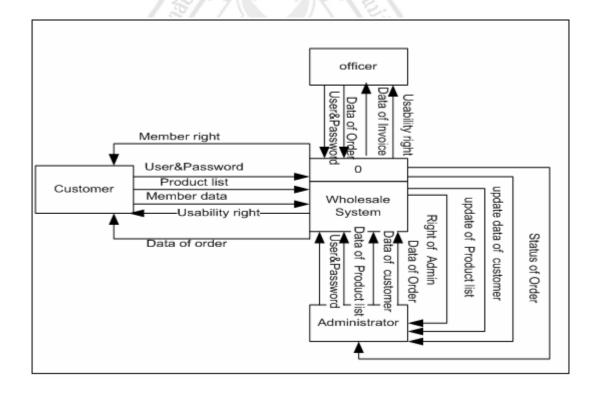
Context diagram

Wholesale System

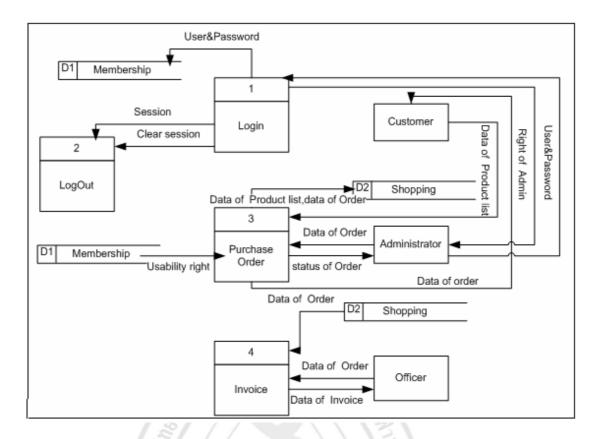**Figure 4.5** Dataflow Diagram (Context diagram)
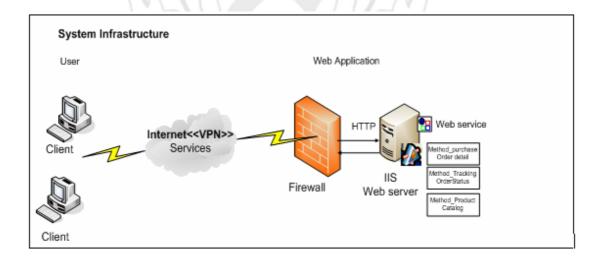
Figure 4.6 Dataflow Diagram (Level 0 DFD)

Figure 4.7 Web Services Infrastructure

1. Infrastructure in Wholesale system process:

User Zone: user creates connection and connects to the system with web server that locates on internet

Internet zone: web server and web service that locate with in the company and connect with external web server by internet specific port through firewall for security

Internal Zone in the Wholesale System (client Application):

Warehouse is Database Server locate within Local Area Network (LAN) for Communication with web server, security system managed security domains and accountability.

In addition, the security infrastructure will have to provide not only secure transport, but also higher-level access control mechanisms web service pose a uniqe

Challenge to the design of a distributed security system. At the high level the security system performs the access control, accountability, system integrity

4.4.3 ER Diagram

Get data from Feasibility Study analysis and requirement of use data. For define entity and design database with ER Mode for simulation relation of data all system. For easy to understand
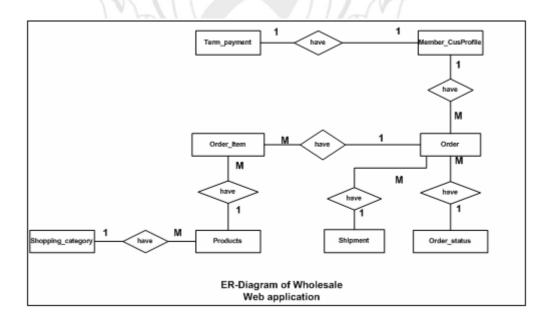

ER-Diagram of Wholesale Web application

Figure 4.8 ER-Diagram

4.4.4 Data Dictionary

Table 4.1 Mermber_CusProfile

Field	Type	Zise	Description
M_UserName	nvarchar	256	Username of user
M_FirstName	nvarchar	50	Name
M_LastName	nvarchar	50	Last Name
M_TelNo	nvarchar	20	Telephone Number
M_MobileNo	nvarchar	20	Mobile phone
M_Address	nvarchar	MAX	Address
M_Province	nvarchar	50	Province
M_City	nvarchar	50	City
M_Zipcode	nvarchar	50	Zipcode

Table 4.2 Shopping Product

Field	Type	Zise	Description
S_ProductID	nchar	10	Product Code
S_ProductName	nvarchar	50	Product Name
S_CategoryID	nchar	10	Category Code
S_PromotionID	nchar	10	Promotion code
S_Spec	nvarchar	MAX	Product specification
S_Desc	nvarchar	MAX	Product Description
S_Price	decimal	(18,2)	Price
S_ImagePath	nvarchar	MAX	Picture Directory
S_AddedDate	datetime	-	Date of insert product

Table 4.3 Shopping_Category

Field	Type	Zise	Description
S_CategoryID	nchar	10	Category Code
S_Categoryname	nvarchar	50	Category Name

Table 4.4 Shopping_OrderStatus

Field	Type	Zise	Description
S_OrderStatusID	int	-	Status code
S_LastUpDate	Datetime	-	Last update status
S_Status	nvarchar	50	Status Name

Table 4.5 Shopping_OrderItem

Field	Type	Zise	Description
S_OrderItemID	int		Detail of order code
S_OrderID	int		Order Code
S_ProductID	nchar	10	Product Code
S_PriceItem	decimal	(18,2)	Price per unit
S_Quantity	smallint		Quantity
S_total	decimal	(18,2)	Amount

Table 4.6 Shopping _Order

Field	Type	Zise	Description
S_OrderID	int	-	Order code
S_OrderDate	datetime	-	Order date
S_UserName	nvarchar	256	User Code
S_PaymentMethod	nvarchar	50	Payment Method
S_SubTotal	decimal	(18,2)	payment total
S_Tax	decimal	(18,2)	Tax
S_ShippingPayment	decimal	(18,2)	Shipping Payment
S_TotalPay	decimal	(18,2)	payment total
S_OrderStatusID	int		Order Status
S_ShippingID	int		Order Shipping

Table 4.7 Shopping_Cushipment

Field	Type	Zise	Description
S_ShippingID	int	-	Shipping Code
S_ShippingFirstName	nvarchar	50	Receiver Name
S_ShippingLastName	nvarchar	50	Receiver Last Name
S_ShippingPhone	nvarchar	50	Telephone No.
S_ShippingAddress	nvarchar	50	Address
S_ShippingProvince	nvarchar	50	Province
S_ShippingCity	nvarchar	50	City
S_ShippingZipcode	nvarchar	50	Zip code

CHAPTER 5

SYSTEM FUNCTIONALITY

5.1 Introduction

The project designed to make Invoice number fast and exchange data between difference applications, easy and improve productivity. In short, the solution can help complete save time and money. Ideally, purchase process of wholesale should occur in "real time." This system is intended to be drive using web services via internet-based, shared services. Businesses will increase their use of Web services as software that many computer experts believe will usher in a new era of secure but simple interconnections among computer systems at different company
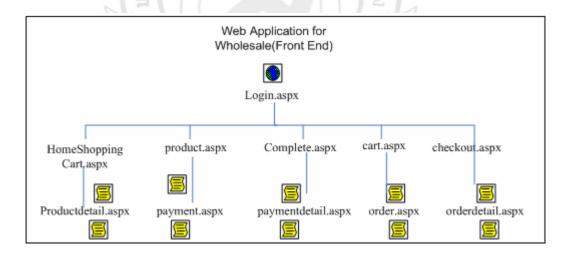
Sitemap of Web Application for Wholesale System
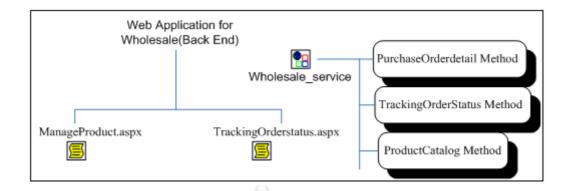

Figure 5.1 Sitemap – Front End

Figure 5.2 Sitemap – Back End and Web Service

Scoping System Functionality:

Web Application

1. Authentication Process.

2. Log in The process of Create Order access to a system.

3. Create Order Process.

    1) The tracking order status process.

    2) Report for support user.

4. Payment Process.

Webpage Layout

The main reason of design web page layout is the common way based on simple, easy to understand. On top of page layout to show the main structure with in the page

Step1: Login: open login page and enter username/password.

Figure 5.3 Web Page Design – Login Page

Step2: Select product and Create Order by Category.

Figure 5.4 Page Product by Category

Step 3: Enter Quality Requires in Box Then Press ใส่รถเข็น **button or**

press กลับไปยังรายการสินค้า **to maim menu.**

Figure 5.5 Page Product Detail

Step 4: Review Order in Cart and Want to Buy Continues Press

เลือกซื้อสินค้าต่อ **or** ชำระเงิน **for Checkout.**

Figure 5.6 Page Review Order

Step5: Checkout

Require Shipment Information Press ถัดไป Next Page.

Figure 5.7 Page Shipments Information

Require Payment Information Press ถัดไป Next Page or Press ก่อนหน้า
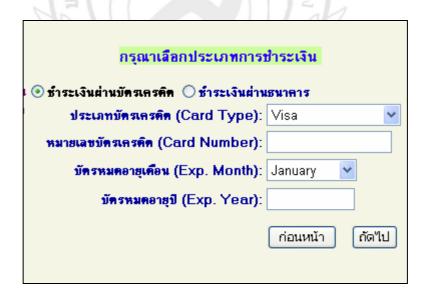Edit Information Previous Page.

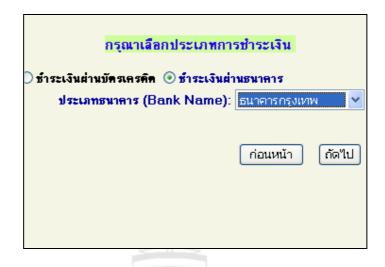**Figure 5.8** Page Payment Information

Figure 5.8 Page Payment Information (Cont.)

Press [ถัดไป] for Confirm Order Then Press [ยืนยันการสั่งซื้อ] for Record Information to Database.

Figure 5.9 Page Confirm Order

Then Show Page When End Order Process Click Link Go to Main Menu**.**

Figure 5.10 Page End Order Process

Step 6: Check Order Status

Figure 5.11 Check Order Status

Web Service

Web Application Wholesale System and Web Service Reference Includes 3 methods.

Figure 5.12 Web Service Wholesale

PurchaseOrderdetail Method: Return Detail of purchase Order. This method accepts the following input parameters.

Table 5.1 PurchaseOrderdetail Method

Name	Description	Require	Example
Member_code	Customer code	Yes or No	0001
PO_number	Purchase Order Detail	Yes	P001
DD	Day of date for searching information by periods of time. User can specify only number between 1 and31.	Yes	10
MM	Month of date for searching information by periods of time. User can specify only number between 1 and12	Yes	2
YYYY	Year of date for searching information by period of time.	Yes	2007

TrackingOrderStatus Method: Return status of order. This method accepts the following input parameters.

Table 5.2 TrackingOrderStatus Method

Name	Description	Require	Example
PO_number	Purchaseorder Number	Yes	P001

ProductCatalog Method: Return current product list for member. This method accepts the following input parameters.

Table 5.3   ProductCatalog Method

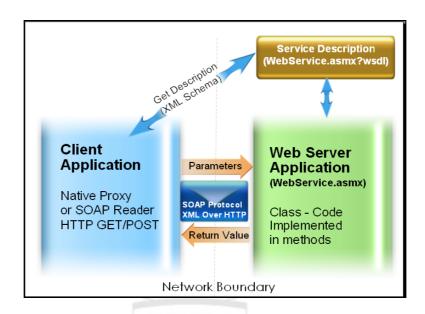| Name	Description	Require	Example
Customer Code	The customer code	Yes	0001

5.2 System Architecture

Functionality

The mission of the Web services to provide a Remote Procedure Call (RPC) interface for client applications to call class methods or web method on the server side (web server). SOAP is an important part of process it's the protocol that's responsible for routing the RPC message form the client to the server and returning the result back to the client application. SOAP is based on XML and follows a relatively simple design that's easy to implement. SOAP's simple protocol has contributed to its widespread support on just about any platform and development environment. (Rick Strahl, 2001).

The three major components behind the web services process:

1. The Web services on the Web Server side.

2. The client application calling the Web services via a Web Reference.

3. A WSDL Web services description that describes the functionality of the Web services.

Figure 5.13 Web Services Use WSDL Files to Get Description of the Web Services the Proxy Calls the Web Services Using the SOAP Protocol Passing Parameters and Returning a Return Value for the Remote Method Call.

5.3 Test Plan

Testing is the process of program or system does what is supposed to do. Testing of each and every unit/module is done as soon the development part is completed. In Test Phase, section the pilot testing performance.

Unit testing-Programmed Testing

5.3.1 Test web page-Review the content, layout, screen design, user interface, format and input field

1. Login page

2. Product page

3. Order page

4. Maintain Product page

5. Tracking Order status page

6. Checkout page

5.3.2 Test Web services and Web Method: Testing of the code in each module for client application call web service.

5.3.3 Webservice_Wholesale

1. Method ProductCatalog ()

2. Method:PurchaseOrderdetail()

3. Method:TrackingOrderStatus()

5.4 Test Results

Testing of the code in each module for client application call web service

Table 5.4 Test Results

Module	Result	comment
Web service_ProductCatalog()	pass	invoke the web service test and result in
Webservice_PurchaseOrderdetail()	pass	XML format .Client application call
Webservice_TrackingOrderStatus()	pass	web service show data on windows form

CHAPTER 6

SUMMARY AND SUGGESTIONS

From the evolution of internet and web technology effect to develop application platform and cause of open source, cross-platform applications concept that help drive the right business efficiencies, customer connections, and value-added services to advance the speed of innovation and enable business partner to make the decisions that drive business success and best return on investment then this is cause of convergence technology that reason to play changing the property of developer. The core challenge for this study can be produced web application and web service to serve automated notification claim number process. The ability of web service can be integrated and interoperability between software applications to reduce both developments time and overall costs. For this study cited indicate that takes advantage of web services to approved exchange data of wholesale service which the aim to provide design and management with approachable manner and efficient, dependable claim service process.

6.1 Project Summary

Web application for wholesale system aim to improve process of creates Wholesale order by internet and exchange data with web services. Use web application and web service for serve a customer.

Web services help to facilitate the integration of data across different system, business are adopting XML as the standard format for information exchange over HTTP For business to business integration, applications need to talk to each other on the web interoperability is needed which wholesale web services with application of supplier immediately.
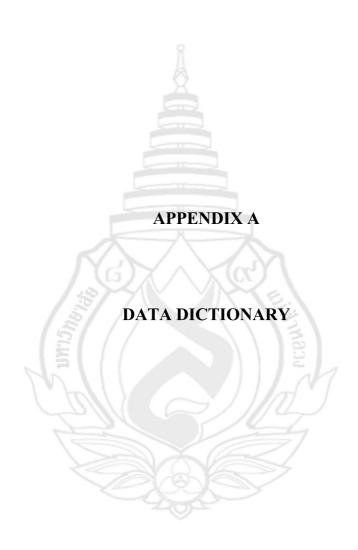
6.2 Problems Encountered and Solutions

Web services developer should be have convergence in computing system and business environment such as network communication and security, web server and configuration, information and database system not only skill of coding because an application on web services concept that related with everything in computing system when you configured or changing network or something may be effect to application and information the developer should be to analyze the problem and solve to right way base on convergence computing system.

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APPENDIX A

DATA DICTIONARY

APPENDIX A

Data Dictionary

	Field	Type	Zise	Description
Table Mermber_CusProfile	M_UserName	nvarchar	256	Username of user
	M_FirstName	nvarchar	50	Name
	M_LastName	nvarchar	50	LastName
	M_TelNo	nvarchar	20	Telephone Number
	M_MobileNo	nvarchar	20	Mobilephone
	M_Address	nvarchar	MAX	Address
	M_Province	nvarchar	50	Province
	M_City	nvarchar	50	City
	M_Zipcode	nvarchar	50	Zipcode
Table Shopping Product	Field	Type	Zise	Description
	S_ProductID	nchar	10	Product Code
	S_ProductName	nvarchar	50	Product Name
	S_CategoryID	nchar	10	Category Code
	S_PromotionID	nchar	10	Promotion code
	S_Spec	nvarchar	MAX	Product specification
	S_Desc	nvarchar	MAX	Product Description
	S_Price	decimal	(18,2)	Price
	S_ImagePath	nvarchar	MAX	Picture Directory
	S_AddedDate	datetime		Date of insert product
Table Shopping_Category				
	Field	Type	Zise	Description
	S_CategoryID	nchar	10	Category Code
	S_Categoryname	nvarchar	50	Category Name
Table shopping_OrderStatus				
	Field	Type	Zise	Description
	S_OrderStatusID	int		Status code
	S_LastUpDate	Datetime		Last update status
	S_Status	nvarchar	50	Status Name

Data Dictionary (Cont.)

	Field	Type	Zise	Description
Table Shopping_OrderItem				
	Field	Type	Zise	Description
	S_OrderItemID	int		Detail of order code
	S_OrderID	int		Order Code
	Field	Type	Zise	Description
	S_Quantity	smallint		Quantity
	S_total	decimal	(18,2)	Amount
Table Shopping_Order				
	Field	Type	Zise	Description
	S_OrderID	int		Order code
	S_OrderDate	datetime		Order date
	S_UserName	nvarchar	256	User Code
	S_PaymentMethod	nvarchar	50	PaymentMethod
	S_SubTotal	decimal	(18,2)	payment total
	S_Tax	decimal	(18,2)	Tax
	S_ShippingPayment	decimal	(18,2)	ShippingPayment
	S_TotalPay	decimal	(18,2)	payment total
	S_OrderStatusID	int		Order Status
	S_ShippingID	int		Order Shipping
TableShopping_Cushipment				
	Field	Type	Zise	Description
	S_ShippingID	int		Shipping Code
	S_ShippingFirstName	nvarchar	50	Receiver Name
	S_ShippingLastName	nvarchar	50	Receiver LastName
	S_ShippingPhone	nvarchar	50	TelePhone No.
	S_ShippingAddress	nvarchar	50	Address
	S_ShippingProvince	nvarchar	50	Province
	S_ShippingCity	nvarchar	50	City
	S_ShippingZipcode	nvarchar	50	Zipcode

APPENDIX B

PUTTING SERVICE TO USE

APPENDIX B

Add Web Reference in Visual Studio

We can do Add Reference go to assembly .right click the project then Add Web Reference follow screen.
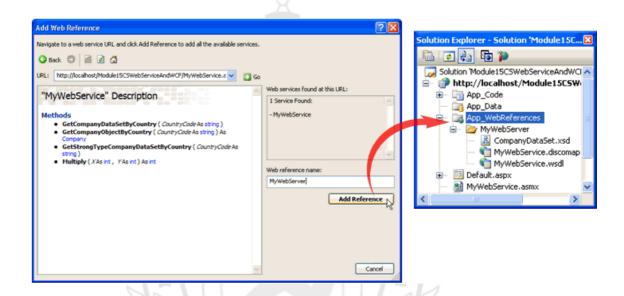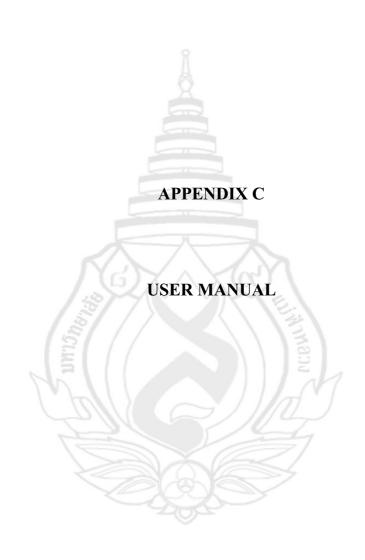

Figure B.1 Create Proxy with Add Reference

Figure B.1 we can put URL of WSDL in Box then press button enter for call WSDL file if get data correct from WDSL we can define web service name in right box that represent namespace of web service that we call in client slide after that click Add reference for Visual Studio 2005 create proxy in folder.

After that when we get proxy then we can call usable immediately. We can get data come to display in form or control component such as Textbox, Label, Detail View, and Grid View.

Example Behind code

VB

Imports System.Data

Partial Class Client

Inherits System.Web.UI.Page

Protected Sub Page_Load(ByVal sender As Object, _

ByVal e As System.EventArgs) Handles Me.Load

Dim proxy As New MyWebServer.MyWebService()

Dim ds As DataSet = proxy.GetCompanyDataSetByCountry("USA")

GridView1.DataSource = ds

GridView1.DataBind ()

End Sub

End Class

C#

```
using System;
using System.Data;
Public partial class Client: System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        MyWebServer.MyWebService proxy = new
        MyWebServer.MyWebService ();
        DataSet ds = proxy.GetCompanyDataSetByCountry ("USA");
        GridView1.DataSource = ds;
        GridView1.DataBind ();
    }
}
```

APPENDIX C

USER MANUAL

APPENDIX C

C.1 System Requirement

For connect Web application

- Microsoft Windows 2000 ,XP or Higher

- Memory 256 MB least

- Network Interface Card 10/100 Mbps least

- Internet Explorer Browser (IE) least version 6.00

- Simple Mail Transfer Protocol (SMTP).

- Modem Connection.

For call service to Client application

- Simple Mail Transfer Protocol (SMTP).

- SQL Server 2005(standard, Developer, or Enterprise edition)

C.2 User Manual for End User

2.1   process of system

Step1: Login: Enter username/password

Figure C.1 Web Page Design – Login Page

Step2: **When Login Complete Web Application Show Default Page**

1. Select product order by category

2. click for look at product detail and go to step 3

Figure C.2 Page Product by Category

Step 3: Enter quality requires in box then press **button or press**

to maim menu.

Figure C.3 Page Product Detail

Step 4: Review Order in cart and want to buy continues press

|เลือกซื้อสินค้าต่อ| Or press |ชำระเงิน| for checkout.

        can edit quality of order when click "แก้ไข" and delete order item when click

"ลบ".

Figure C.4 Page Review Order

Step5: Checkout

        1. Require shipment information

        2. press |ถัดไป| next page

Figure C.5 Page Shipments Information

Require payment information press [ถัดไป] next page or press [ก่อนหน้า] edit information previous page.

1. Select option type of payment
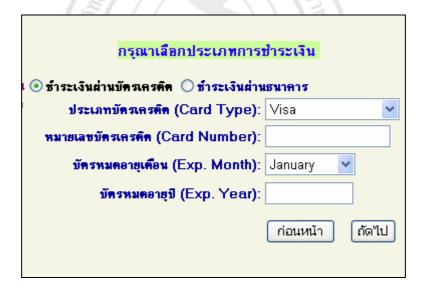
Figure C.6 Page Payment Information

2. Press ![ถัดไป] for confirm order then press ![ยืนยันการสั่งซื้อ] for record information to database.

Figure C.7 Page Confirm Order

3. When end Order process click link go to main

menu

Figure C.8 Page End Order Process

Step 6: Check Order status

Figure C.9 Check Order Status

C.3. Call service to client application

Add Web Reference in Visual Studio

We can do Add Reference go to assembly .right click the project then Add Web
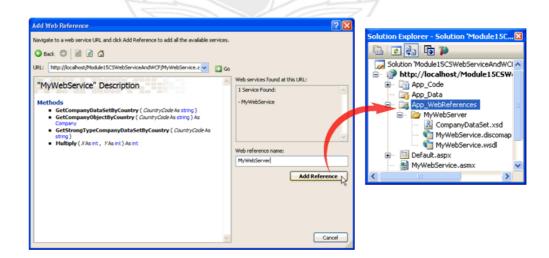
Reference follow screen

Figure C.10 Create Proxy with Add Reference

Figure C.10 we can put URL of WSDL in Box then press button enter for call WSDL file if get data correct from WDSL we can define web service name in right box that represent namespace of web service that we call in client slide after that click Add reference for Visual Studio 2005 create proxy in folder

After that when we get proxy then we can call usable immediately. We can get data come to display in form or control component such as Textbox, Label, Detail View, and Grid View

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