

Supergame Technologies	www.supergameasia.com	Capability Description 1.1
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CAPABILITY DESCRIPTION

- FOR DEPLOYING ENTERPRISE APPLICATIONS

INTRODUCTION

The document will go through several aspects like the resources which the company has at hand, resource's skill set, and the relevant experience which will assist the customer in sizing up our capabilities. This can be used as pre RFC or response to RFI, capability sizing/description document.

THE COMPANY AND THE RESOURCES

We are a young company formed after the dotcom bubble (the company was incorporated in 2003) and thus we are neither familiar nor we ever indulged in the accesses of the dotcom boom. In short we started with a solid technical foundation and no frills. Most of our resources are versatile with Java platform, .Net and related technologies and have engineering backgrounds.

As was mentioned earlier, that we are small and nimble, which results in each project receiving good care and bandwidth from the founders and top managers. We are highly motivated and are willing to but in our best to make the customer satisfied and feel good about the relationship.

J2EE SOFTWARE DEVELOPMENT

J2EE is becoming the de-facto standard for building enterprise applications. J2EE is feature rich, but at the same time increasingly sophisticated. We continuously monitor the technology and the developments that are taking place in the J2EE and the related community.

AI has experienced, world class project managers who have driven J2EE Enterprise applications from start to deployment. The project managers have worked across diverse cultures and different time zones. They are familiar with various quality processes like ISO 9000:2001 and CMM.

AI has a proven systematic and holistic approach to the overall process of analyzing, designing, and constructing high-quality J2EE components for maximum reuse potential. The approach includes processes throughout the project to ensure that components meet their business requirements and are quality-assured.

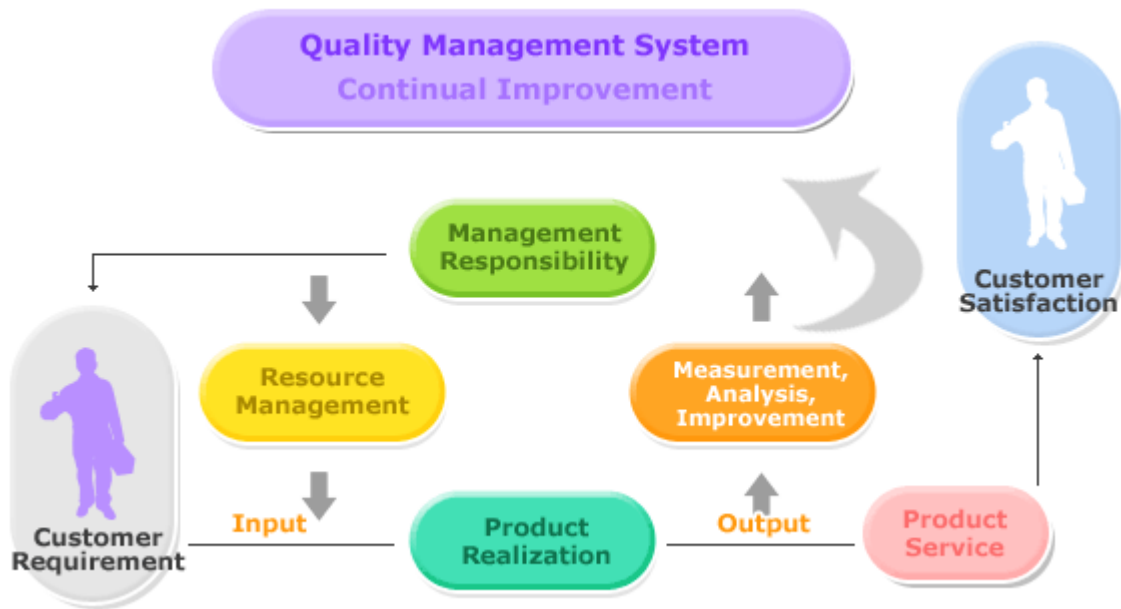


Figure 1: TQM

In order to illustrate measurable benefits within a short time frame, the project is broken down into manageable value-driven milestones. The duration between each milestone will be driven by how quickly the target business objective is prone to change.

We have combined several technologies to provide innovative solutions and applications, because we are in an age where multidiscipline expertise is required to bring innovative solutions. An example of this is our offering of Smart Card drop in module. SCDIM can be integrated rapidly with web based applications to smart card enable them. Another example is voice enabling XML services which can be custom made or generated from existing website using our “Web Workflow Technology”.

Supergame has several pre built tools and models which are generic enough to be useful in variety of ways. An example of such tool is the XML-Java reflector. This tool helps in generating objects from schemas and vice-versa which results in rapid development.

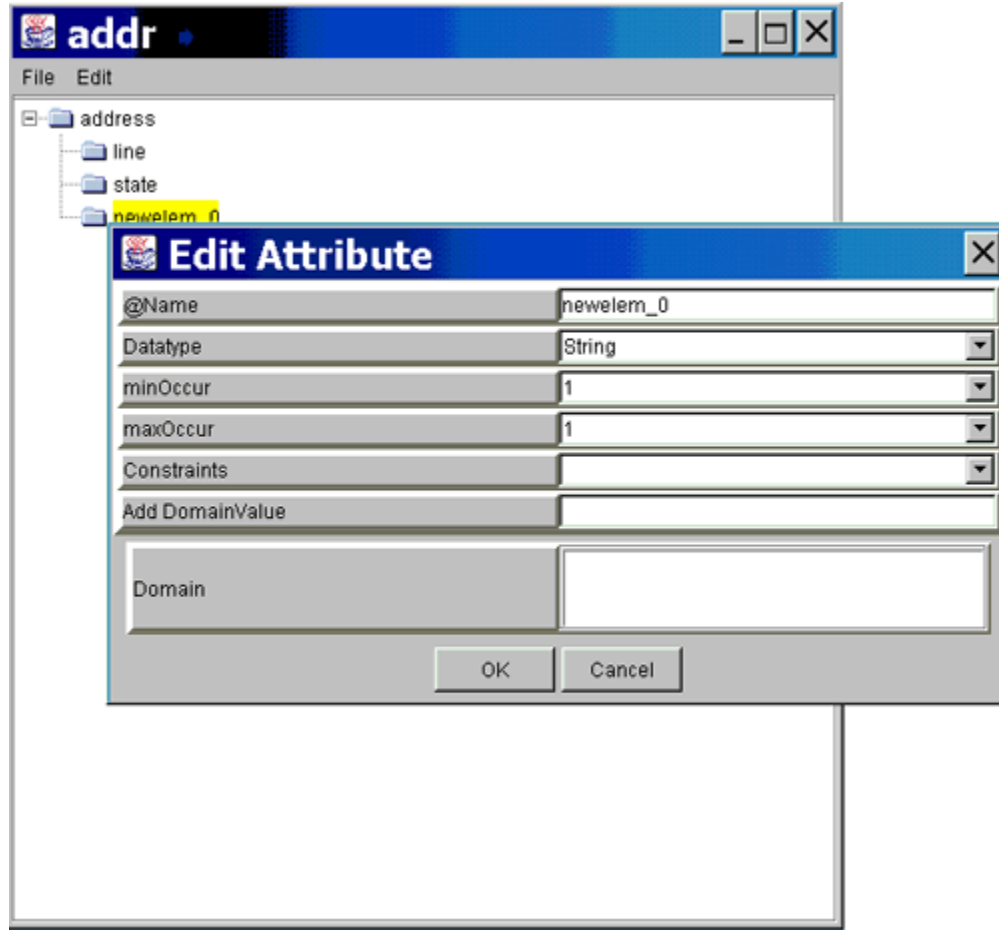


Figure 2: XML Reflector Screen Shot

We have experience of deploying EJBs on WebSphere, WebLogic. Jsp/Servlet on Tomcat/Enhydra. With backends on Oracle/MySQL/interbase/Postgres/Sybase.

We have experience in writing online applications using J2EE technologies. APPENDIX A. We have created highly scalable, clustered and fault tolerant client/servers solutions. e.g. VC++ download clients talking to java server as in The Game Server Platform. APPENDIX B.

The team has experience in following areas:

Client Technologies:

VC++, Java applets, Jsp, Javascripts, XML, PHP, Perl, XML/XSL, WAP/WML, VoiceXML, Tellme, XQL, Tapestry, Java Web Start, .NET.

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Server Technologies:

Core Java, J2EE, Servlets, Struts framework, Velocity, Torque, Tomcat, Apache, RMI, EJB 1.2 (development and deployment on WebSphere 3.5.3), WebLogic5.1, Apache, Tomcat, ASP, JSP, JDBC Servlets, Enhydra Application Web Server, Site Server Commerce Edition, Oracle Web Application Server, LDAP version 3, MQSeries (IBM version 5.2), Clustering.

Databases:

MySQL, Oracle, Postgres, Sybase, Informix, Hibernate

Schema design, SQL, PL/SQL, Oracle loader, Import Export utilities, Query Optimization tools and techniques.

Build:

JBuilder, Eclipse IDE, Ant, CVS,

Operating Systems

Linux Admin, Unix Admin, Win 2k/NT Server Admin.

Scripting

Perl, shell, tcl/tk, lex/yacc.

PAYMENT TERMS

These are the general payment terms which we follow:

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Hourly Rates		
	Project Manager	USD 25
	Senior Engineer/Coder	USD 16
	Engineer/Coder	USD 12
	Tester/system Administrator	USD 8
Monthly Rates		
	Project Manager	USD 3600
	Senior Engineer/Coder	USD 2250
	Engineer/Coder	USD 1700
	Tester/system Administrator	USD 1200

We charge 25% of the project cost as advance.

CONTACT AND NEXT STEPS

Regarding further clarification following people can be contacted:

Agneya

Email: info@supergameasia.com

APPENDIX A

The development team has worked on the following pilots and demonstrations:

1. Framework for XML-based application integration and distributed transactions over the internet.

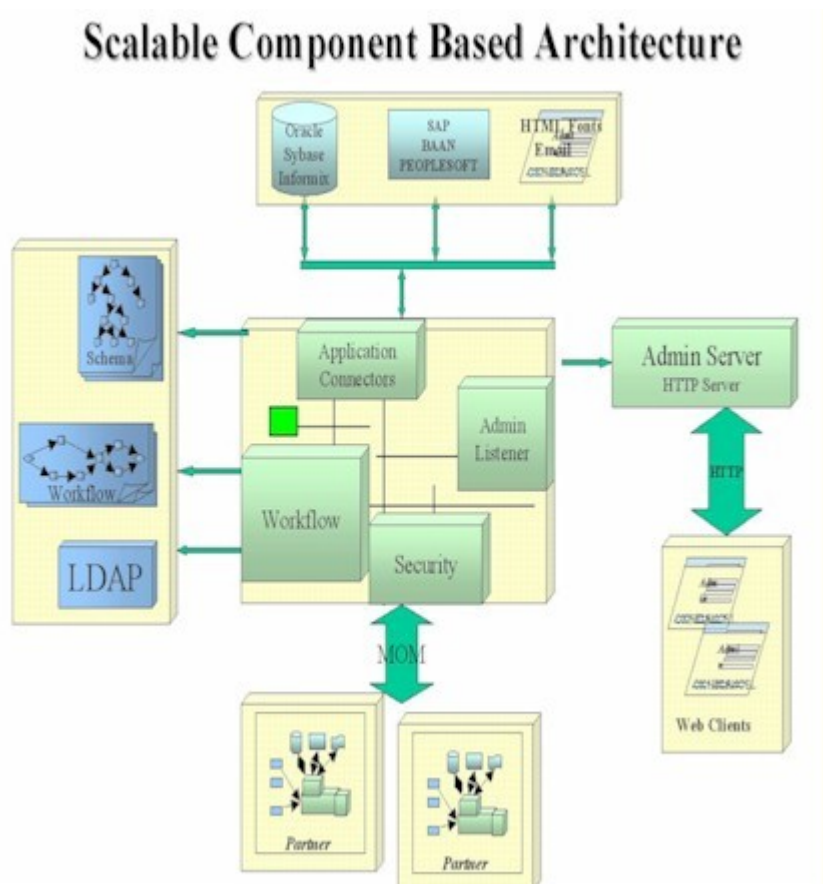


Figure 3: Web Workflow Screen Shot

- easy, consistent way to create transactions from existing website(s) and applications
- XML-connectors to databases, directory servers, email servers and custom applications
- generic XML-to-XML schema-level transformation language
- architecture based on messaging and workflow processing

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2. Hosted services to demonstrate price comparison, virtual shopping mall and catalog services based on this infrastructure.

- wireless carriers
- community portals
- voice portals

The transaction engine ran as a hosted service where each of these merchants had accounts and their own exclusive and shared transactions. Customers had access to the service through any device (web, mobile phone, PDA, Voice phone).

3. Response-enabled alerts and 2-way SMS (ATT)

- These alerts have all the information associated with them to complete the response transaction with a single click. Ex. An SMS about your spouse's birthday has associated data for 'buying' flowers from 1800flowers.com, and the user just has to say 'yes/no' to trigger the transaction at the remote site.

4. Buy-enabled advertisements for Wireless

- The advertisements had a return path to complete the buy transactions associated with the product. Information is picked up from the user profile/wallet whenever possible and the user is prompted for extra information.

5. Interactive Transactions over Instant Messenger (Yahoo)

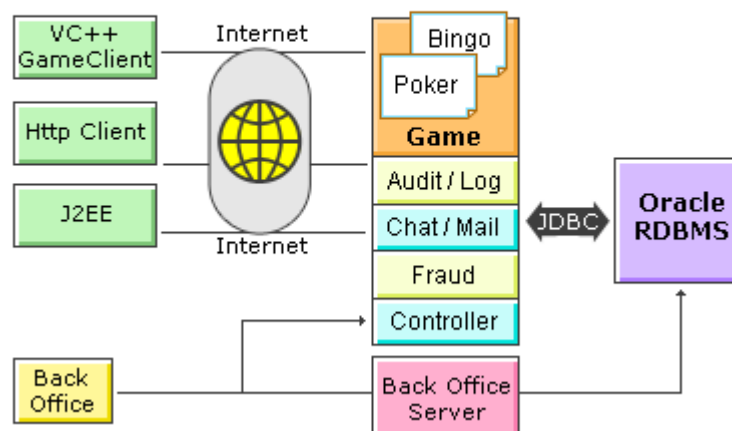
- We demonstrated intelligent, interactive transactions over an instant messenger. Users chat with a 'transaction buddy' on the messenger and deliver it commands which trigger transactions in the back-end.

APPENDIX B

The Unified Game Server Framework consists of three components

1. The Client Server Protocol
 2. The Game Engine
 3. Back Office
- ❖ The Client Server Protocol uses asynchronous IO to reduce network traffic and make the system highly scalable, available and responsive. The messages are encoded using industry grade encryption and compressed making the client-server communication secure. The Server uses the Acceptor, Reactor and Handler pattern for asynchronous IO.
 - ❖ The Game Engine executes the game logic. It's flexible and layered architecture allows easy addition of new game logic. The core engine handles basic messages like 'join', 'sit', 'observe', 'move', 'chat'. These can be extended to provide complex game functionality. The logging, chatting and auditing are common services implemented in the Game Engine. The Game Engine is clustered for high performance and fault tolerance.
 - ❖ The Back Office links to the Server directly or through the RDBMS. Game Server's operation and configuration can be controlled through it. It also provides several reports and audit logs.

Unified Game Server Architecture



As of now the Poker and Bingo are implemented using this framework. In future we plan to add more Casino and other fun games.

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Software and technologies used:

- ❖ Java 1.4 (especially the java.nio package for asynchronous IO).
- ❖ Log4j for easy logging and debugging.
- ❖ Game engine which supports clustering using RMI.
- ❖ Oracle database
- ❖ Struts based back office with PL/SQL reports.
- ❖ VC++ downloadable client which currently supports Poker Games and Tournaments.

Benchmarking

The system supported 5000 concurrent poker players on an Intel P4 Linux server (with Oracle RDBMS on a similar machine).