THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF ENGINEERING TECHNOLOGY
MASTER OF TECHNOLOGY IN INDUSTRIAL ENGINEERING – LEVEL 7
FINAL EXAMINATION – 2006/2007
MEX 7123 – ENGINEERING MANAGEMENT INFORMATION
SYSTEMS & DECISION MAKING

DATE : *26 March 2007*

TIME : *0930 hrs – 1230 hrs*

DURATION: *Three (03) hours*

Answer five (05) questions. Question one (01) is compulsory.

Q1.Case:

Motorola, Inc.: Enterprise Collaboration and Knowledge Sharing via an Intranet

Mike Muegel, manager for Motorola's new intranet-based enterprise collaboration system, says, " We're creating a global, companywide information knowledge environment. We are creating a combination of a corporate library, a corporate Yahoo!., and a corporate Alta Vista. We'll use the system both companywide and at a project and collaboration level."

Client/server groupware systems are generally available only to selected departments and workgroups. By contrast, Motorola's intranet covers about 65,000 PCs. The intranet manages a storehouse of documents, but it also manages threaded discussions, E-mail, and even lists of relevant Web URLs. It works and feels like the Internet, enabling a person in one business unit to find and use work previously done in another unit in a different location.

And the cost? Initial per-seat acquisition costs are about the same, but administering these browser-based systems is significantly less expensive, according to IT managers we contacted. "These are Internet dollars. It's cheap," laughs Muegel. The extreme expense in administering clients and training users is no longer necessary.

The main reason that enterprises can easily and inexpensively deploy Web-enabled knowledge management is that they leverage existing intranets, Muegel says. "We won't have any trouble with ROI studies. The studies will probably cost more than the system." That was hardly the case before.

"Most client/server functions were on the client side," says Jeetu Patel, vice president of research for DocuLabs, a research and advisory firm specializing in document management and Internet-related technologies. "Every time there was an upgrade, you

had to go out to thousands of desktops and do a Physical upgrade of the client software." Because clinet/server clients were proprietary and typically didn't use standard interfaces such as the familiar Web browser, extensive training also was a large expense.

Motorola uses Open Text Livelink intranet groupware. Compass, as Motorola calls its intranet, begins with traditional document storage and retrieval. But it goes far beyond that to small-group collaboration and companywide knowledge sharing.

"We're a big company, so we're developing virtual communities where people can discuss and publish information with their peers, no matter where they are, "Muegel says. Sharing ideas, after all, can lead to improved products and services.

For example, a non technical workgroup manager can use the Compass intranet for a specific project and customize access to project documents. Besides storing and managing documents such as design documents for a new product, folders can contain ongoing and historical threaded discussions, group calendars, task lists, and E-mail messages.

Group members can tap the resources of similar projects performed by other workgroups in other locations. They do that with two of Compass's tools: a companywide information directory patterned after Yahoo! and a companywide search engine.

"People can move vertically and horizontally through a subject area and find more information," says Muegel. "For instance, if they're software developers, they can tunnel down and find more information about, say, CASE tools. This library should give people access to whatever makes sense."

In addition, software agents can scour the Compass intranet for relevant information. Workgroup members can join companywide threaded · discussions relevant to their missions. Also, the Compass team is recruiting internal knowledge champions who are passionate about their subject area. They help organize information and foster threaded discussion about those subjects. Says Muegel, "We simply couldn't do that before."

Case Study Questions.

a.   How does the Compass intranet support enterprise collaboration at Motorola?

b.   How does Compass support knowledge management?

c.   What are the business benefits of intranet-based collaboration compared to client /server groupware systems?

(40 Marks) ·

Q2.   What are key management challenges involved in building , operating and maintaining of information systems, today?   *(15 Marks)*

Q3   a.   How can the Competitive Forces Model be used to identify strategies at the industry level.

        b.   Explain briefly the reasons as to why strategic IS are difficult to build?

                                                                        (15 Marks)

Q4.   What are the advantages of using the Internet as the infrastructure for electronic commerce and electronic business?   *(15 Marks)*

Q5.   What are the trends in telecommunication applications and network services that are used for electronic commerce and electronic business?
                                                                        (15 Marks)

Q6.   What are the business benefits of using artificial intelligence technology for knowledge management?
                                                                        (15 Marks)

Q7.   How can organizations measure business benefits of Information Systems and what models should be used to measure business values?
                                                                        (15 Marks)

Q8.   Describe in your own words the following terms;
        -   Anti-virus Software
        -   Home page
        -   URL
        -   Transaction Processing System
        -   Two types of Firewalls
                i.   Hardware
                ii. Software
        -   Intranet
        -   Globalisation
        -   Web Browser

                                                                        (15 Marks)

END