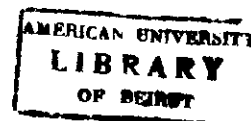


AMERICAN UNIVERSITY OF BEIRUT
English 206
Final Exam
Summer 2003 – 2004



Part 1

Name: _____

Time Allowed: 2½ Hours

Instructor: _____

PASSAGE A:

RFID Flies High With Airplane Makers

1. Boeing Co. and Airbus S.A.S, the world's largest airplane makers, plan to require more than 2,000 of their suppliers to begin tagging aircraft and engine parts with radio-frequency identification technology by this time next year.
2. Speaking at an industry conference in Atlanta last week, executives from the rival companies said cooperating on requirements for those suppliers was the only way to ensure they can cut costly errors and delays from their manufacturing processes. The RFID tags, which emit high-frequency signals that remote readers can detect, are being tested by companies from Wal-Mart Stores Inc. to Johnson Controls Inc. to track goods and parts more efficiently.
3. "We really need to stand up and change some processes to make our industry competitive," said Airbus VP Pierre Steffen at the conference. Seventy percent of the purchase orders that Airbus receives from its customers contain incorrect pricing data and part numbers. If parts on Airbus planes contained RFID tags, they could be scanned to generate accurate replacement orders. Using RFID to track parts could save Airbus \$400 million a year, Steffen said.
4. Tagging airplane parts will provide Boeing customers with more reliable information than what mechanics enter manually and prevent unapproved parts from finding their way into finished products, a problem that costs Boeing customers \$100 million a year in Federal Aviation Administration fines and replacement time, says Kenneth Porad, a manager for RFID at Boeing. Bob Parker, an analyst at consulting firm AMR Research, says airline mechanics can spend 70% of their time locating parts.
5. Industry standards already are taking shape. The Air Transport Association, an industry trade group, recently added an RFID standard to its specifications for the

aviation parts industry. The FAA by year's end plans to certify some RFID tags for plane parts.

6. Will suppliers absorb the cost of the new requirements? Rick Finale, VP of engineering and business development for Gables Engineering, which supplies Boeing with electronic navigation and communications systems, says that if the cost is manageable--say, \$2 to install and program each tag --he plans to comply.
7. Boeing and Airbus will need suppliers' buy-in, since they plan to incorporate RFID tagging into the manufacturing processes for their next-generation aircraft. Boeing's 7E7 Dreamliner, a midrange jet, is due in 2008. Airbus plans to deliver its first A380 superjumbo by late '07. Both companies say they'll issue their requirements in a year, then phase in tagging by suppliers over six months.
8. Meanwhile, airlines are running ground and air tests on the technology. Boeing has worked with customers FedEx Corp. and Delta Air Lines Inc. on pilot-test deployments, while Airbus has completed an in-flight test with an unspecified German carrier and has begun using RFID to track its maintenance tools. FedEx last week said a three-month test of labeling 40 parts with 13.56-MHz tags went without a hitch. Next month, Boeing and FedEx will begin a test with higher-frequency 915-MHz tags. The increased frequency lets the tags be read from farther away.
9. Next month, Delta plans to begin an effort with Boeing in which 30 engine parts on six to eight 757s will be tagged. An inventory-tracking trial also is on tap. Delta is using RFID in other areas as well; in May, it completed its second test of RFID tags on baggage moving between Atlanta and Jacksonville, Fla.

Source: (2004, June 14). RFID flies high with airplane makers.
InformationWeek, N.P.

PASSAGE B:

Delta Turns to RFID to Cut Costs

1. Delta Air Lines Inc. is turning to cutting-edge technology in an effort to stem the financial losses that are threatening to plunge the airline into bankruptcy. Under its latest initiative, unveiled Thursday, the carrier plans to automate many of its baggage-tracking functions by 2007 using radio-frequency ID tags.
2. Misrouted baggage costs Delta about \$ 100 million per year, but airline officials say they believe RFID technology could cut those costs significantly. "We'll be able to provide a much more proactive response" to lost baggage, a Delta

spokesman says. As a result, Delta could save money by reducing the need to hire expensive couriers to deliver delayed bags to customers.

3. Tiny RFID tags deliver radio signals to reader devices that, in tandem with specialized software, generate data that helps businesses better manage everything from logistics and inventory to customer service. Delta will use a form of the technology known as passive RFID, in which the tag bounces back a signal generated from the reader, as opposed to generating its own signal. Passive RFID tags are smaller and less expensive than active tags because they don't require an on-board battery.
4. Delta officials say the passive tags currently cost about 25 cents each but will drop to about 5 cents apiece by the time the airline is fully ready to implement the project, which could initially cost up to \$25 million to set up. The company has yet to choose a vendor.
5. Under Delta's plan, the tags will be embedded in the familiar luggage labels that airlines use to identify a bag's origin and destination. The labels will be scanned at various points in the check-in, loading, and unloading process, giving supervisors the ability to quickly find the location of any given piece of luggage. Delta's luggage labels currently contain bar-code information, but the airline says bar-code technology isn't as accurate or flexible as RFID. In recently completed tests at Delta stations at airports in Jacksonville, Fla., and Atlanta, an RFID system's accuracy rate was in excess of 95%, and, the spokesman says, "That's much better than we get with bar codes."
6. Like other airlines, Delta has been weighed down by a combination of high fuel costs and low fares. In the first quarter, the company posted a loss of \$383 million. It lost \$773 million in 2003. Delta is currently in debt-restructuring talks with creditors and hasn't ruled out a bankruptcy filing.
7. With little control over fuel prices and market conditions, the company has turned to technology in an effort to shave costs wherever it can. Among other things, it's increasing its use of interactive kiosks that speed passengers through the check-in process. The airline is also testing RFID technology to better manage parts inventories.

Source: (2004, July 1). Delta turns to RFID to cut costs.
InformationWeek, N.A.



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Part 2

Name: _____

Time Allowed: 2½ Hours

Instructor: _____

1. You are the Program Manager for Airline Technology Department, Inc. at MEA. Your department has recently sent a team of engineers to the Global Aviation Forum in Atlanta, USA, where international airline agencies met to study the implementation and testing of RFID technology in the aviation industry. Write a proposal to the General Manager of Material Services at Beirut International Airport, Mr. Saleh Haidar, promoting the adoption of RFID technology by MEA for airplane parts inventory and baggage tracking. Use the relevant ideas in passages A and B to write your proposal. Use your discretion to supplement your proposal with any needed details from your general knowledge.

Write your report on page 2 (60 points)

2. You are the Customer Services Manager at Southern Airlines Headquarters at the Beirut International Airport. You have received the following letter of complaint from Ms. Maya Ramona, a dissatisfied customer.
Write Ms. Ramona a tactful letter, declining her request. (40 points)

HiTech, Inc.
Verdun Street
Beirut, Lebanon
July 28, 2004

Southern Airlines Headquarters
Beirut International Airport
Beirut, Lebanon

Dear Sir or Madam!

I am a frequent traveler on Southern Airlines. On a recent business flight from Beirut to Rome, your company misplaced my luggage.

I was disappointed to reach Rome Airport and not find my suitcase, which contained, among other valuable things, the business suit that I was supposed to wear for a very important conference I was attending that night.

When I finally received my lost suitcase three days later, I noticed, to my great consternation, that it was mishandled. The handle of my suitcase was ripped off; there were horrible stretch marks on the leather and ugly dents in different places. In short, I demand that your company pay me for the price of the new suit I had to buy (300\$), and for the new suitcase to replace the one your airport personnel damaged. So all in all, you owe me 500\$.

I hope we can solve this problem in a mutually agreeable way. Please respond by August 20, 2004. If I have no response by then, I will look for help from a third party, such as a consumer rights organization or an attorney.

Sincerely,



Maya Ramona
Executive Manager