Case study: schiphol international hub to become faultless: truth or dare

CASE STUDY QUESTION

Question 1:

How Many Levels Of Complexity Can You Identify In Schiphol's Baggage Conveyor Network?

Answer

There are 3 levels of complexities for Schiphol's baggage conveyor network:

- 21kilometers of transport tracks,
- 6 robotic units, and
- 9,000 storage capacitors, (No extending the system with more surfaces)

Schiphol's involved gigantic baggage conveyor network that includes 21 kilometers of transport tracks, 6 robotic units and 9000 storage capacitors, all behaving as one system. Extending the system with more surfaces is not possible given the land conditions surrounding the airport. The baggage conveyor network goal is to have the right bag must be at the right place at the right time.

Network must perform several key roles that are moving bags from check-in area to the departure gate, move bags from gate to gate, move bags from the arrival gate to the baggage claim and plan and control peripheral hardware and software. System involves a wide variety of sensors, actuators, mechanical devices and computers and this network uses over 3 million lines of source code. Some advance technology used in baggage-handling system includes destination-coded vehicles (DCVs), automatic bar code scanners, radio frequency identification (RFID) tags and high-tech conveyors equipped with sorting machines. Baggage should move from its current location to its destination before travelers do. Further complications shows that all of this must be available and robust that are it must operate 99.99% of times while being able to minimize loss or damage in that 0.001% of time it doesn't.

Question 2:

What are the management, organization and technology components of Schiphol's baggage conveyor network?

Answer

Management;

- Manager sets organization strategy for responding to business challenges. Manager has estimated the budget for renewing the baggage control system is amounting $1.0 billion over a period of about 10 years.

Organization;

1. Hierarchy of authority
    - Management and the employees to be working toward the same vision
    - Different task for employee according to their authority e.g controller, security and maintenance worker
    - Training all employees from the earliest stages of the project, and doing so in the most hands-on way possible.
    - Employees were to be trained about managing a robot to handle the baggage process.
2. Separation of business process/operation
    - When the customers arrived at check in desk their bags are tagged
    - The tags contains the flight information/bar code/FRID that all of the computer in the baggage handling system can read.
    - When computers in the system scan the bar code/detect the RFID, they process the information it contains and determine where to send your bag.
    - After being scanned (at least) once, the system always knows where the bag is at any point, and is able to redirect it based on three parameters: (a) time of its flight; (b) priority: (c) size.
3. Unique business process

Driving a major effort to increase baggage processing capacity on the strength of intelligent routing and optimization.

Technologies;

1. Networking and telecommunication technology

    - 3 million lines of source code
    - Networks; the internet
2. Plan and control peripheral hardware and software

    - wide variety of sensor, actuators, mechanical devices and computer
3. Advanced technology

    - Baggage- handling systems (includes destination-coded vehicles (DCVs))
    - Automatic bar code scanners,
    - Radio-frequency identification automatic (RFID) tags,
    - High- tech conveyors equipped with sorting machines.

Question 3:

What is the problem that Schiphol is trying to solve? Discuss the business impact of this problem?

Answer

The problem they are trying to solve is the increase efficiency in baggage handling in the Schiphol International airport, in Amsterdam, the Netherlands. Mishandled baggage is a $2.5 billion problem for industry every year and this problem may annually affect about 51 million passengers travelling through Schiphol airport alone. With the new system, the manager of Schiphol estimated this system operate 99.9%of times while being able to minimize loss and damage in that 0.01%. This system is extremely expensive, but if implemented successfully it can save 0.1% of $2.5 billion.

Question 4

Think of the data that the network uses. What kinds of management reports can be generated from that data?

Answer

Data Network	Reports
Number of baggage	Total number of business handling every year
Total loss	Profit and loss report
Defect system-minimum loss and damage	Risk management report/ improvement system
Capacity of the baggage	Actual capacity for the baggage
Automatic data scanner	Efficiency of the data scanner

Case study: 一月 17, 2018

IS SOCIAL BUSINESS WORKING OUT?

1. Identify the management, organization, and technology factors responsible for impeding adoption of internal corporate social networks.

Management:

Employees that are used to collaborating and doing business in more traditional ways need an incentive to use social software. Most companies are not providing that incentive: Only 22 percent of social software users believe the technology to be necessary to their jobs.

Organization:

Companies that have tried to deploy internal social networks have found that employees are used to doing business in a certain way and overcoming the organizational inertia can prove difficult. Enterprise social networking systems were not at the core of how most of the surveyed companies collaborate. About half of the survey respondents said that internal social networks had “very little impact” on employee retention, the speed of decision making, or the reduction of meetings.

Technology:

Ease of use and increased job efficiency are more important than peer pressure in driving adoption of social networking technologies. A majority of IT professionals consider their own internal social networks to be merely average or below average and the biggest reason they cite is low adoption rates on the part of employees. Content on the networks needs to be relevant, up-to-date, and easy to access; users need to be able to connect to people that

have the information they need, and that would otherwise be out of reach or difficult to reach.

2. Compare the experiences for implementing internal social networks of the two organizations. Why was one more successful than the other? What role did management play in this process?

NASA's Goddard Space Flight Center used a custom-built enterprise social network called Spacebook to help small teams collaborate without e-mailing larger groups. User profiles, group workspaces like file sharing, wikis, discussion forums, and groups were included in the platform. Spacebook failed because it didn't focus enough on people and didn't take the organization's culture and politics into consideration. No one knew how Spacebook would help them do their jobs.

The Red Robin hamburger restaurant chain took a viral approach to drive adoption of its social networking system that uses Microsoft Yammer software. The company's CIO sees a movement away from e-mail and collaboration portals such as SharePoint toward social networking and texting. He wants to let people create conversations, perform status updates, upload and share files, and set up workgroups for small project teams.

3. Should all companies implement internal enterprise social networks? Why or why not?

Yes , I think so .If used correctly, companies that implement internal enterprise social networks can have terrific results such as cutting expenses or closing underperforming businesses. If not properly done there could be numerous problems such as security breaches and basically just the waste of company resources and time.

Modernization of NTUC Income (pages 105-106)

Q1. What were the problems faced by Income in this case? How were the problems resolved by the new digital system?

Q1.

Income had problems with how they process their insurance because it is very tedious and paper-based. List of problems faced by Income:

- The way they do business costs them time, because it takes them more days to finish a certain request for insurance.
- The money because they need to upgrade HP 3000 mainframe that frequently breaks. Usually hardware failure caused six days of complete downtime.
- The space because all the forms were out into cartons and can occupy 3 warehouse.

The problem's were resolved in June 2003 when they switched to Java based eBao LifeSystem from eBao Technology. The software comprimise three subsystems these are the Policy Administration, Sales Management and Supplementary Resources which fulfilled many of the company's requirements, from customer orientated design to barcode technology capabilities, and the ability to support changes in business processes.

Q2. What types of information systems and business processes were used by Income before migrating to the fully digital system?

Q2.

Income used HP 3000 as mainframe and they also used COBOL programs in early 1980s. COBOL programs were also used which also encountered technical failures. At

the same time, COBOL programs were very slow in developing new products for the company resulting to lost sale opportunities.

Q3. Describe the Information systems and IT infrastructure at Income after migrating to the fully digital system?

Q3.

According to James Kang, CIO of Income, the Java based eBao LifeSystem from eBaoTechnology is:

- customer-centric design, seamless integration with imaging and barcode technology
- production definition modules that support new products, new channels & changes in business process
- applications resided on two or more communication lines, all of which were "loaded balanced" - Minimizing downtime occurrence

Q4. What benefits did Income reap from the new system?

Q4.

The benefits of Income reap from the new system are:

- Saving lots of time for restoration of previous day data.
- Moving to a paperless environment
- Faster accessing the systems anytime, anywhere
- Having opportunities of cross-selling by a singlar view of every customer - accorss products & channels

Q5. How well is Income prepared for the future? Are the problems described in the case likely to be repeated? Case contributed by Neerja Sethi and Vijay Sethi, Nanyang Technological Universit

Q5.

I think the Income seems to be well prepared for the future now. They have extensive systems felxibility now and they launch an new products directly via eBao system. Maybe this will help them to be still more competitive in the future. I think if they will constantly improve there systems and they will adopt to new technology I think problems like this will never be repeated again.