# Understanding Feasibility Reports

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Adapted from Markel, ch. 18

### Purpose of a Feasibility Report

### **To Answer:**

Questions of Possibility – *can it be done?*Questions of Economic Wisdom – *can we afford it?*Questions of Perception – *is it necessary?*

### **Questions of Possibility**

Look at Ch 18, p. 459Add 2 more examples to the rail link

### Questions of Economic Wisdom

Look at Ch 18, p. 459

Add 2 more examples to the rail link

### **Questions of Perception**

Look at Ch 19, p. 459

Add 2 more examples to the rail link

## 7 Easy Steps

- Analyze your \_\_\_\_\_ and \_\_\_\_\_ 1.
- Identify the problem or \_\_\_\_\_ 2.
- 3. Establish \_\_\_\_\_\_ to respond
- Determine your 4.
- Study each option based on the \_\_\_\_\_ 5.
- 6. Draw about each option

7. Formulate \_\_\_\_\_\_ based on your conclusions

### 7 Easy Steps

- 1. Analyze your audience and purpose.
- 2. Identify the problem or opportunity.
- 3. Establish criteria to respond
- 4. Determine your options
- 5. Study each option based on the criteria
- 6. Draw conclusions about each option
- 7. Formulate recommendations based on your conclusions

### Identify the Problem/Opportunity

### Ask:

- What isn't working as well as it should?
- What situation offers a chance to decrease costs or increase revenue?
- In which new technologies should we invest?
- How can we improve our efficiencies?

### Establish Criteria to Respond

Criteria are standards against which you measure your options.

- Minimum specifications the bottom line
- Evaluative criteria –desired goals
- Needs vs. wants
- Might include: cost, efficiency, speed, time to install, current skill of workers vs. new skills, infrastructure, usable life, obsolescence

### Identify the Problem / Opportunity; Distinguish criteria

- 1. The department has grown by over 200 people who rely on a single copier
- The hospital needs new MRI technologies but there are 5 competing brands
- 3. Maintenance employees have to constantly come back to the office to check the computer for troubleshooting steps

### **Determine Your Options**

Brainstorm potential solutions
Measure them against:

Relevancy
Economic wisdom
Feasibility (of course!)

### Study Each Option Based on Criteria

Collect & examine relevant research

- Create a matrix a table that compares elements such as features to price
  - Determine which criteria to examine
  - Decide on a range of values for each criterion
  - Assign values to criteria
  - Evaluate

### **Make Your Conclusions**

Conclusions are built upon:
Organizational needs
Findings from research
Comparisons within industries
Competitor Analyses
Audience Needs

### Form Your Recommendations

Carefully compare your solutions to the criteria, and then choose your recommendations.
"No action" is a permissible recommendation.

### **Example Report**

#### BEST BUY CO, INC. MEMORANDUM

To:

Richard M. Schulze

From: A Student

Subject: Feasibility Study for Implementing Wireless Local Area Networks To Reduce Inventory Control Costs Date: June 23, 2002

#### Background

Our current method of keeping inventory is effective; however, implementing a wireless Local Area Network (LAN) may drastically reduce inventory control costs. As Technical Analyst for Best Buy Co, Inc. I was asked to research the wireless LAN and determine if we could benefit from this technology. The following study will explain how wireless LANs could make inventory control more efficient.

Currently we have a wired LAN to manage our inventory. Several computers are stationed around our warehouses, and as inventory is counted, it is manually recorded in the computers. The computers then send the data to the main server. This process is slow. Implementing a wireless LAN could speed up the process of recording inventory. If a wireless LAN were installed, we could remove the stationary computers and replace them with a handheld device such as a palm pilot. The inventory clerks could carry around the handheld device and record inventory directly to that device. Then they could beam the inventory information directly back to the inventory database, reducing the time it takes to count inventory.

By implementing a wireless LAN, we could cut down on inventory control costs and maintenance. Currently, the wired computers in our warehouse cost between \$2,000-\$3000 dollars per computer. If these computers were replaced with handheld devices, our equipment expense could be reduced to \$300-\$400 dollars per device. The reduction in equipment cost alone is worth considering a wireless LAN.

#### Conclusions

After comparing the wired and wireless LANs based on four criterions, I believe Best Buy Co., Inc should replace the wired LAN in all of its current warehouses with a wireless LAN. A new network would cut inventory control costs and make the process more efficient. The wireless Local Area Network is more expensive to purchase, but would pay for itself by increasing mobility, productivity, and allowing the company to expand more easily. When considering a wireless LAN compared to a wired LAN, there are four main criteria to evaluate:

- Installation Cost
- Ease of Maintenance
- Range of Mobility
- Ease of Expansion.

#### **Relevance of Criterion**

Before making any comparisons between a wired or wireless LAN, each criterion is explained in relevance to inventory control costs. The criteria was chosen based on Best Buy Co, Inc.'s need for efficiency, mobility, and interoperability from an inventory network.

#### Installation Cost

Because this company owns several warehouses, installation cost should be kept to a minimum. The installation cost includes overall price of the system, and installation fees charged by the hardware vendors.

#### Ease of Maintenance

Currently out technical support maintains our networks. Any new systems should require the same, or less amount of maintenance. Best Buy Co, Inc. would like to have the same amount of reliability from its network while keeping maintenance

#### Range of Mobility

The wired network we currently use limits our range of mobility. If a new system was implemented, we would like to see a larger range of mobility. Mobility increases productivity, thus, decreasing inventory control costs. We would like more mobility from the actually hardware, allowing us to move a network from warehouse-to-warehouse as needed. Also, we want our inventory clerks to be more mobile in the inventory control process.

#### Ease of Expansion

Cost of equipment is important when opening a new warehouse. However, with our wired LANs it is difficult to move equipment in between warehouses. We would like to have a network that eases the process of expansion.

#### **Comparisons between the wired and wireless LAN**

Comparisons are now made, based on the four criteria, between the wired and wireless LANs. Recommendations based on these comparisons are discussed in the next section.

#### The Wired Local Area Network (LAN)

The wired LAN is cheaper to purchase than the wireless LAN. Currently, per warehouse we have one main server, several routers, and numerous computers placed throughout the inventory. The whole system is maintained through our technical support. Our inventory clerks are limited to their range of mobility when counting inventory. They must record the inventory on paper, transfer it to a computer, and the computer updates the inventory database. With a wired LAN, expansion is a three-day process. Expansion is also limited to new or relatively new warehouses so that the network can be wired together.

#### The Wireless Local Area Network (LAN)

The wireless LAN is more costly than the wired LAN, but the prices are dropping. An advantage to the wireless network is that in-house technicians can install it as long as it is done correctly. A wireless LAN is maintained by technical support, just like the wired LAN. However, the wireless LAN would require a technician proficient in wireless technologies. The wireless network would be cheaper to maintain because the cost of replacing wires is no longer an issue. The range of mobility of the wireless LAN far exceeds the wired LAN. The opportunity to cut costs and increase productivity by allowing more mobility is a great benefit of the wireless LAN. Because of a new standard for wireless LANs developed by the IEEE, interoperability between vendors' products is assured. The wireless LAN network can be taken apart and set up in 8 hours. This would allow Best Buy Co, Inc. the ease to expand its warehouses into older, more historic buildings.

#### Table 1. Comparison Between Wired and Wireless LANs

Categories	Installation Cost	Ease of Maintenanc e	Range of Mobility	Ease of Expansion	Total
Wireless LAN	9	8	6	7	30
Wired LAN	8	8	10	9	35

 Table 1. Comparison Between Wired and Wireless LANs

Conclusions and Recommendations Based on the need to reduce inventory control costs, accompanied with the criteria discussed in this report, I recommend that:

1. Best Buy Co, Inc. replace our current wired LANs in inventory warehouses with wireless LANs or

2. Purchase the wireless LAN system when a new inventory warehouse is opened.

### Elements of Your Report

- 1. Memorandum Format
- 2. Background/introduction
- 3. Conclusion
- 4. Criteria
- 5. Comparisons
- 6. Recommendations/summary
- 7. Annotated Bibliography submitted separately

