

## **Summary of the article “Network Design Proposal”**

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### **Summary:**

This article means to explain and show why and how a specific network is to be designed and developed to serve the Maryland state public education system. It's composed of five main topics:

- **Feasibility Study**

This part explains what the article is about, why is it that this network needs to be designed, how it's being paid for, what should it cover (the scope), its objectives, who is going to use it and it states some assumptions that are being made about the project.

- **Network Needs Analysis**

This topic of the article covers the entire analysis being made about this network-to-be, i. e., it's a whole study on how this network should be implanted and operate. It covers Data Types, Data Sources, Number of Users, Load Variation Estimates and the Storage, Transmission Speed, Reliability and Security Requirements.

- **High-Level Network Design**

This part illustrates the topology and schematics of the entire network with several diagrams.

- **Detailed Design Documentation**

This topic covers the entirety of the hardware and software needed to implement this network. It's very thorough, including the price, availability, performance and maintainability of each product.

- **Cost-Benefit Analysis**

This last part is composed of three tables. The first one states the total cost of each product and shows a big picture perspective of the total cost of the whole project. The second one tries to estimate a profit based on some benefits this network would generate, such as “Increased productivity” and “Ease of record keeping”, in order to show how much it would benefit the system to achieve this. The last table relates the cost and benefit tables, explicitly showing that the benefits offered by the network surpass its cost by a 0.37 ratio.

### **Article's Strengths:**

- **Cost-Benefit Analysis:**

Even though the Benefits table may be a little suspicious (see weaknesses), the entire cost-benefit analysis was well thought out, since it thoroughly estimates the costs on both ends and results in an effective comparison of total cost and profit.

- **Topology Diagrams:**

The high-level network design section was very thorough and well done since it decided to illustrate the entire network using only topology diagrams instead of trying to use sentences to describe it. This is a good place to use images instead of text, since a single image gives you a perspective about a topology that several well-written paragraphs couldn't explain.

- **Products Research:**

Even though this list of products should have compared similar products of different brands in order to clearly state the best option for each category, it ended up doing a good job in describing the price and performance of every product needed for the network.

**Article's Weaknesses:**

- **Benefit Analysis:**

Absolutely no data or method of investigation is provided as to explain how they are estimating that this network will provide them with 25 thousand dollars a year in "increased productivity" or any of the other benefits. This demonstrates how poorly planned this table was and may even show that this data is based only on a guess and not on research and scientific observations.

- **Typos:**

The article clearly hasn't been well revised, since we can see some typos already in the first page, e. g., "NETWORK NEEDS ANAYLSIS". This one is particularly disturbing since any spell checking method would have caught it.