# IT 2035C Network Infrastructure Management

## Design Scenario 1: ElectroMyCycle

Team number and names of team members: Samuel Hazlett, Beka Martin

You are a network consultant who has been asked to attend an initial meeting with the management team of ElectroMyCycle, LLC. ElectroMyCycle manufactures motorcycles and its new electric motorcycle was just picked up by a large retail chain. ElectroMyCycle is upgrading its manufacturing capacity and hiring new employees. They are looking to hire a network consultant to oversee the upgrade of their internal network.

Recently, ElectroMyCycle employees have started saying, “The Internet is slow.” They are also experiencing problems sending email, accessing web-based applications, and printing. In the past, when the company was small, it did not have these problems. The operations manager outsourced computer services to a local business called Network Rogues, which installed new workstations and servers as needed, provided desktop support, and managed the switches, router, and firewall. ElectroMyCycle is now considering bringing a computer service in-house and is wondering how its network should evolve as it increases production of its electric motorcycle.

Review the Business Goals and Constraints in Review document before completing this assignment.

1. What research will you do *before* your initial meeting with the executive management team?

* Identifying tools to assess network speed and bandwidth
* Understanding ElectroMyCycle’s existing setup both hardware and software
* Find strategies to expand the network for increasing production
* Apply security policies that would be relevant for ElectroMyCycle

1. What general problems does ElectroMyCycle seem to be experiencing?

* Congested network
* Slow performance
* DNS issue due to email and web-based applications
* Printers having connectivity problems
* Poor IT Infrastructure

1. Which network design phase was ignored when Network Rogues updated the pre-existing network? Explain why ignoring this phase resulted in the problems the employees were experiencing.

Insufficient server capacity, Network segmentation is poor causing the flow of data to be impaired. Finally, security vulnerabilities existing due to the firewall insufficient.

1. Select four major stakeholders who will be impacted by a redesign of ElectroMyCycle’s network. For each stakeholder, answer the questions:
2. What is important to the stakeholder? How does this project impact this stakeholder?
3. How could the stakeholder contribute to or block the project?
4. What strategy for engaging the stakeholder?

Note: A stakeholder is a person or group that has an interest or concern in something, especially a business.

Stakeholder 1: Employees of ElectroMyCycle

Project importance: The employees need reliable internet access in order to complete their tasks at work. If they don’t have such it will disrupt their work like it is doing now.

Contribute or block project:

They provide feedback on the network performance. The employees are the ones experiencing a lot of the issues so as things are fixed, they can let us know what the exact problems are that keep reoccurring.

Engagement strategy:

Communication is key here. We can communicate to them how our changes/redesign will improve their work. We could create a helpdesk or some sort of feedback channel where they can report issues directly to us.

Stakeholder 2: Operations Manager

Project importance:

The operations manager's goal is to maintain smooth business operations. They want their employees to be able to do their jobs properly and in a timely manner. A redesign could be very helpful in providing better communication, smooth operations, and enhance productivity. However, downtime and/or unexpected costs could be some major concerns.

Contribute or block project:

They have the authority to block certain changes we want to make. If it costs too much or is too disruptive to the business flow they could veto the whole design.

Engagement strategy:

We want to provide clear cost-benefit analysis. Showing the operations manager how an upgraded network will improve the company as a whole can be beneficial. Especially if they are unsure of costs and downtime. Regular updates and phased implementation plans can help ease concerns about disruptions as well.

Stakeholder 3: Network Rogues (local business/current computer service provider)

Project importance:

Network Rogues may care about their reputation and being involved in this change. If ElectroMyCycle is not satisfied with their services, it could have a negative impact on their business. If ElectroMyCycle brings in a service in-house they could lose a client. This would affect their revenue.

Contribute or block project:

They could do both, depending on their feelings about the whole situation. With their current knowledge of the existing network, they could assist with the changes. However, if they feel threatened by the loss of business, they may not be cooperative. This could cause difficulty in transitioning away from their services.

Engagement strategy:

We want to maintain an open and professional relationship when communicating with them. We need to request detailed documentation of the current network setup to give us the best shot. If it is beneficial, we could consider negotiating a short-term consulting role to help ensure a smooth transition. If the company decides to fully transition away, we w\*-ill need to ensure that ElectroMyCycle has all the necessary details to avoid any disruptions.

Stakeholder 4: Large Retail Chain

Project importance:

They need reliable supply chain management to help their business run smoothly as well. If ElectroMyCycle improves their network design, it could enhance them as well. It would reduce delays, enhance order processing, and overall strengthen the business-to-business relationship. Delays could cause some issues with their ordering process.

Contribute or block project:

The chain could provide feedback on order processing inefficiencies and recommend solutions that would align with their systems. However, if they keep experiencing disruptions they may reconsider their partnership with the company.

Engagement strategy:

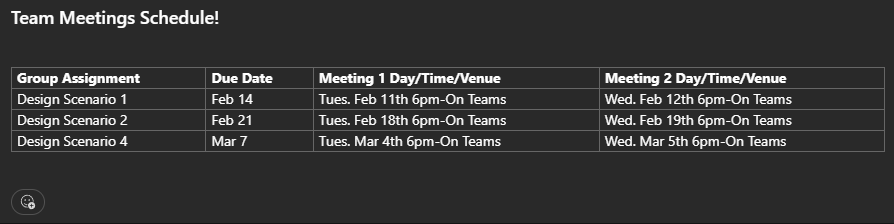
Keeping them as involved as we can in the process is key. We want them to know that the technical difficulties may be frustrating, but in the end, it will be beneficial for the end product. They will be assured that the network upgrade is designed to improve efficiency and support increased production.

1. What questions will you ask when meeting with the client? Why will you pose those questions—what makes them important?
   1. List two questions you will pose to the executive management team.
      1. Question 1: What budget and timeline constraints do we need to consider for this network upgrade?

* The cost and timeline expectations are critical to make this project a success. A clear budget and timeline will ensure the best possible outcome. To know what the range is for the budget we can work on more of the details of what the company needs.
  + 1. Question 2: What are some of your long-term business goals, and how do you see ongoing IT infrastructure support?
* Allows us to understand the scale they are projecting the company to grow at so we can design a network that already has the scale that they are intending on having in the future.
  1. List two questions you will pose to the operations management team.
     1. Question 1: What specific network-related issues are currently affecting daily operations?
* This helps us know the priorities and what to focus on during the project. Knowing the most pressing points allows us to tangle them first, helping ensure workflow to improve as quickly as possible. So, then we can work on expanding the network itself after fixing most of the network related issues.
  + 1. Question 2: What are some of the major changes upcoming in production that will require IT resources?
* The reasoning behind this depends on the more details of what specifics such as how many new employees and what those employees need, especially since different roles require different end point devices.

Note: What answers do you need to do your job more effectively that can be answered by the executive manager and the operations manager?

6. Insert a screenshot of the meeting schedule posted on the team’s channel in MS Teams.



NOTE: Ensure the submission document is a team effort and not a mix of individuals completing a portion; check for spelling and typographical errors. Inactive members are noted on the document and in Canvas.