

Project Startup Report

Project Name: UNNetX: Elevating Connectivity Project

Agency: University of North Dakota

Business Unit/Program Area: University IT

Project Sponsor: Madhavi Marasinghe

Project Manager: Djoana Wisner

Project Description

With the growth in the student population, the number of devices they bring to campus, the increase in research activity, and the increase in costs for hardware and software to maintain a robust network, it was necessary for UND to reevaluate network services. Since part of the network is paid by the student technology fee, it is imperative that the network meets our students' growing needs for increased bandwidth and supports the multiple devices that they bring to UND in a fiscally responsible manner.

Two years ago, UND started to identify possible options for reducing the cost of operation while providing additional services such as 24/7/365 network operation center (NOC), on-site technical field support staff to build relationships with our community and address potential issues proactively and provide stakeholder network performance reports for transparency. Additionally, assessing options to quickly adapt to the changing needs of our community and take advantage of emerging technologies while keeping the cost controlled and predictable was of importance. The decision to transition network services to a managed hosted vendor, Apogee, culminated in a thorough assessment of our needs, cost comparisons, and continuous discussions with stakeholders, including NDUS CTS, over the last two years.

The project is a cross-functional project that involves both internal and external partners. Brainstorming or Storyboard activities will be conducted to plan the project timeline properly.

Business Needs and Problems

To operate within a sustainable budget, UND needs to find a way to meet the requirements and maintain a defined and predictable operating cost each year. A managed hosted network provider offers UND a cost-effective and predictable solution by transitioning from a capital expenditure (CapX) model to an operational expenditure (OpX) model. This means that UND pays a predefined monthly/yearly fee for the network service without worrying about the upfront costs (obtaining CapEx \$), depreciation, or obsolescence of the network equipment. A managed hosted service provides a service that ensures that service level agreements are met regardless of what is needed to provide the service, such as having to purchase additional access points, switches or other related equipment.

The projected total cost of operations over the next 10 years to stay with CTS is \$46M. Apogee's projected cost over the 10 years is \$33M. Transitioning to Apogee provides an opportunity to enhance the network and increase the level of services at a lower cost. With the transition, the total cost of operations over 10 years is reduced by \$13M. The reduction in cost will be in the best interests of our students and taxpayers.

The project will implement the following:

1. Build and migrate residential halls to a new network that will be designed, built, installed, and operated by Apogee. This Apogee service is known as Resnet.
2. Build and migrate all non-residential buildings to a new academic network that will be designed, built, installed, and operated by Apogee.

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Project Start Date	Project End Date	Original Baseline Budget
07/16/2024	07/11/2025	\$ 1,705,384.00

Objectives	
Project Objectives	Measurement Description
Build and migrate residential halls to a new network that Apogee will maintain by the fall 2024 semester with a fixed monthly maintenance cost.	<p>Acceptance sign-off document reviewed and signed by September 2024. The deliverable acceptance document includes the following:</p> <ul style="list-style-type: none"> Updated heat map that shows network coverage in the building after cutover The number of gears (access points and switches) installed in the building <p>Students living in residential halls can log on and use the new network. Monitor the number of incident tickets reporting issues</p> <ul style="list-style-type: none"> Gather pre-cutover average ticket count and compare results after cutover average. Average ticket count must be 5% lower than pre-cutover average
Build and migrate all non-residential buildings to a new academic network that Apogee will maintain by July 2025	<p>Acceptance sign-off document reviewed and signed by July 2025.</p> <ul style="list-style-type: none"> Updated heat map that shows network coverage in the building after cutover The number of gears (access points and switches) installed in the building <p>New core network installed to all academic buildings in scope.</p> <ul style="list-style-type: none"> Gather pre-cutover average ticket count and compare results after cutover average. Average ticket count must be 5% lower than pre-cutover average.
Maintain the network with fixed operating cost.	Monitor and log yearly operating cost and compare cost to baseline cost

Cost/Benefit Analysis	
Project Costs	
Hardware	0
Software/Licenses	0
Consulting – Network Managed Service	1,605,384.00
Training	0
Risk Contingency	100,000.00
Management Reserve	0

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	Sub-Total	1,705,384.00
	Non-Project Costs (Operations)	
	Managed Service Fees	
	Support Fees	
	Sub-Total	
	Total	1,705,384.00
Total Cost of Project		

Key Constraints or Risks
<p>The project has the following constraints:</p> <ul style="list-style-type: none"> • Network residential halls must be transitioned to the new network before the 2024 fall semester begins. • Academic building assessment must be completed by June 30, 2024, to determine if UND is required to find an alternative provider. • The transition of academic buildings must be completed by July 2025. • Identified project resources are available throughout the project lifecycle. • Cost, schedule, scope, and quality are often in conflict during projects. The sponsor elected to prioritize as follows: <ol style="list-style-type: none"> 1. Quality 2. Cost 3. Scope 4. Schedule