**CYB-650 Nook Inc.**

**Mission, Vision, and Values:**

At Nook Inc., our primary mission is leveraging technology to improve the economy and everyone's lives. This means we strive to bring the most excellent software engineers, computer scientists, and researchers together to improve the future of transportation.

**Mission:**

Nook Inc. wants to develop applications and software that will make it safe and easy for people and goods to travel to and from their destinations.

**Vision:**

Our vision is to be the world leader for software and application development to improve how goods and people travel within the global economy.

**Our Values:**

* Excellence – reflected in distinction, effectiveness, efficiency, enthusiasm, passion, and quality.
* Inclusivity – reflected in diversity, equality, fairness, impartiality, and respect.
* Integrity – reflected in accountability, ethical behavior, honesty, and reliability.
* Leadership – reflected in courage, honor, professionalism, transparency, and vision.

**Nook Inc.**: **Your role**

Nook Inc. has hired you as their new Chief Information Officer/Chief Information Security Officer (CIO/CISO). Nook Inc. is a software application development company. Over the last three years, the company has been conducting research and development on software development to revolutionize the transportation industry. The company is in the final stage of research and development of autonomous vehicle technology software.

Nook Inc. is a publicly-traded company listed on the NASDAQ stock exchange. Nook Inc.'s corporate leadership is thinking of expanding globally and opening corporate headquarters in countries that have large automakers. Nook's CFO recommends that the organization conduct a slow expansion and that the first corporate office outside the United States be located in Munich, Germany. Nook chose this location to place them in proximity with Bavarian Motor Works (BMW), a company that Nook plans to partner with to license their autonomous vehicle technology software. Nook Inc.'s main corporate headquarters is in Detroit, MI, near the American Big Three automaker.

Over the last two years, Nook Inc. has been the victim of several incidents involving the unauthorized disclosure of corporate information. The organization has also been the victim of several cybersecurity incidents. Many of these incidents involved social engineering attacks in the form of phishing and spear-phishing attacks. Your employment is part of a comprehensive approach by the organizations' leadership to improve its overall security and cybersecurity.

**Leadership Objectives:**

Nook Inc. is planning on doing a significant upgrade to the organization's enterprise network and information systems to ensure the security of the organization's intellectual property. Nook Inc.'s North American Headquarters has over 500 employees and has a partnership with several college research technology labs. The organization also has a relaxed corporate culture where the corporate office only has office space for the senior executives, Human Resource staff, and financial staff. Many of Nook's computer scientists, software engineers, and program managers work remotely. Nook Inc. has embraced the remote work culture and is working on outsourcing all IT and information systems to a leading cloud services provider.

**Nook Information Systems Requirements:**

The enterprise solution for Nook Inc. needs to have the capabilities to support and provide artificial intelligence (AI), machine learning (ML), internet of things (IoT), and data analytics both on-premises and remote to developers. Nook's chief experience officer and chief innovation officer would like to leverage data feeds from different U.S. government agencies. Some of the agencies of interest are the National Oceanic and Atmospheric Administration (NOA), the Department of Transportation (US DOT), and the National Highway Traffic Safety Administration (NHTSA), as well as other state and local government traffic data ranges from traffic cameras to vehicle-to-vehicle (V2) communication technology.

The developer's network needs to be segmented from the corporate network and information systems. Both the corporate and developers networks needs to have data loss prevention capabilities.