Your team has just been hired as the network and security administrators of cyber systems that work in conjunction with the production and delivery of *natural gas infrastructure* for the *Natural Gas Demand Corporation (NGDC)*. NGDC is the nation's only start-to-finish *natural gas* production, transmission, and distribution company. NGDC handles all aspects of this highly valued product from extracting the raw gas resources, processing, transportation, and distribution to residential, commercial, industrial, and electric power consumers. NGDC recently has been hit with what multiple "minor" cyber attacks against their pipeline transmission infrastructure and have not successfully been able to review, update, or patch their systems with appropriate mitigation solutions without having to stop all operations. ████████

██

████████████████████████ NGDC has hired you and your team as subject matter experts help secure this network and has requested that you secure their user supply and marketing portal (distribution) network. These two networks require high availability and should not be taken offline for any reason unless dictated by the Chief Executive Officer – *Ronald Variable*. Unfortunately, there has not been a solid security team at NGDC in about three years and the network architecture drawings and operational technology (OT) topology are largely out of date. Additionally, NGDC is requesting that a new File-Sharing client and IT communications be set up to allow customers and NGDC to be able to interact without utilizing credentials. *The current system is broken and has no authentication measures.* There has been little or no funding provided for this task until you as a team can demonstrate your capabilities to resolve their issues. This means that you and your team must secure these complex IT and OT systems utilizing free or open-source materials and best practices while maintaining full functionality for the company operators and the end users.