A petroleum oil company needed a video and peripheral matrix switching and extension system that enabled multiple users to access computers and servers from multiple buildings across campus.

**The Challenge**
Several buildings housed high-end monitoring computer systems that needed to be accessed by users in the main office building.

**The Solution**
After a site visit from and consultation with Black Box project engineers and product managers, the DKM FX switching system was proposed. The DKM FX system is comprised of the appropriate hardware for this multiuser application because it enables users to connect and share target computers.

Additionally, since the DKM FX can connect to fiber optic cable and CATx cable at the same time through different ports on the same chassis, the DKM FX is ideal in an extension system that needs to go between buildings on a campus. The DKM FX system supports fiber optic extension, which protects against ground loops and lightning strikes, and can be used between buildings. The main building that housed the Network Operations Center (NOC) used standard CAT6 copper cabling.

The system distributed on this campus was designed by Black Box specifically for this client. Two of the many advantages of the DKM FX system are its flexibility and scalability. The system of switches, cards, transmitters and receivers, and chassis enable unique configurations for each application and client, and the configurations can easily be planned to accommodate the client’s growth.

In this setup, the 80-port DKM FX was installed with a mix and match of 8-port copper and fiber I/O cards. These cards connected to DKM FX transmitters and receivers across campus. Users at the NOC in the main office can now select, view, and control any of the computers across campus. Because of the mission-critical nature of the business (monitoring oil drilling and extraction equipment), it was recommended that the components have failsafe power supplies to ensure system redundancy.

The multiple users of this system can easily log into any user station on campus to access the computers there. From the NOC, users can monitor, view, and control computers, servers, and other computer controlled systems attached to the DKM FX system. Additionally, users can switch among computers and buildings with no delay and regardless of distance.