**Scenario**

SJSU’s new "CampusHub" portal is modernizing its campus IT infrastructure by migrating their student portal, comprised of a web server and a relational database, to AWS while retaining legacy on-premises faculty authentication systems due to performance, cost, security, and reliability issues. They also have a satellite campus in Boston and need to ensure fast and secure connectivity across locations. Since this application contains sensitive student data, SJSU wants to ensure that this data is secure and not compromised over non-SJSU networks. The IT team needs to design and develop an innovative, hybrid networking solution using AWS services to migrate its application to the cloud. Your solution should enhance student experiences, and solve a pressing campus-related challenges with a demonstration of how the solution works on AWS.

**Technical Requirements**

* Design a hybrid network architecture utilizing appropriate AWS networking services
* Seamless and secure connectivity between on-premises faculty authentication systems and AWS-hosted resources
* Improved performance and reliability for student access
* Enhanced security for public-facing web services and protection of sensitive student data
* Cost-effective and comprehensive logging, monitoring, and management of the hybrid infrastructure
* Implement cross-region functionality and VPN connectivity to authentication server
* Demonstrate scalability and resilience in the network design
* Include a disaster recovery plan leveraging cloud infrastructure
* Examine and predict challenges with traffic flow, transitive routing, and latency

**Deliverables**

By the submission deadline, teams must submit a three page report containing the following

An Architecture diagram of networking solution

Design choice justifications for services and controls used

Brief cost breakdown

When judging begins, each team will have three minutes to demonstrate their proof-of-concept network design running in their AWS environment. Judges will follow the demonstration with Q&A.