

Technical Implementation Challenges: The technical implementation faces several critical concerns that require immediate attention. Furthermore, the absence of unified documentation standards and coding practices creates challenges in maintaining code quality and ensuring smooth knowledge transfer between development teams. The existing architecture lacks robust horizontal scaling capabilities and doesn't adequately address the increasing demand loads. Additionally, the infrastructure doesn't incorporate modern containerization and microservices principles effectively, making it difficult to scale individual components independently. Moreover, the system lacks real-time monitoring and adjustment mechanisms for power consumption, preventing dynamic optimization of energy usage based on actual workload demands. This limitation becomes particularly evident during peak usage periods, where system performance degradation is noticeable.