A Review of the Role of Network Segmentation in Improving Cybersecurity and Preventing Data Breaches

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Abstract: *One critical aspect of Cybersecurity strategies is that of network segmentation, which demarcates a network into segments and controls the traffic flow, thus limiting cyber threats. Network segmentation may be an especially important part of an operational technology environment for companies facing catastrophic repercussions from breaches. It boosts security, performance, and management and also achieves regulatory compliance. But then again, problems might pop up during its implementation, more so in legacy OT environments with limited resources. Despite such drawbacks, segmentation is an essential tool for the OT network engineer. It provides a better defense in cyber efforts and continuity of critical operations*

Keywords: Risk Mitigation, Network Performance, Regulatory Compliance, Critical Operations, Legacy Systems