

# Real Port Scan Detection With Intelligent Network Backup Tool

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**Abstract:** *In the evolving landscape of cybersecurity, modern networks face increasingly sophisticated threats like port scans, packet drops, unauthorized access attempts, and denial-of-service attacks. Traditional mechanisms often fail to detect these in real time or preserve critical data during breaches. This paper introduces a Real-Time Port Scan Detection with Intelligent Network Backup Tool that integrates network traffic monitoring, behavior-based detection, anomaly detection using ML, and automated backups. The system identifies and mitigates port scan threats using advanced analysis and logs all incidents for forensic reporting. A smart backup mechanism ensures data preservation during attacks, minimizing data loss and improving disaster recovery. It provides real-time dashboards and proactive alert systems to support administrators in enhancing cyber resilience.*

**Keywords:** Cybersecurity, Port Scan Detection, Real-Time Monitoring, Intelligent Backup, Anomaly Detection, Intrusion Detection System

