# **Network Traffic Security Analysis Report**

## **Executive Summary**

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**398** instances of TCP connect scans detected originating from 192.100.100.100 targeting internal host 192.168.100.99.

**No other attack types observed** (TCP/UDP/ICMP/ARP packets associated with attacks: 0). Activity concentrated within a single minute (2025-03-20 13:42), indicating a rapid, targeted reconnaissance effort.

Risk Assessment

#### **Critical Risk:**

TCP SYN scan with anomalous window sizes (>1024) – High-severity indicator of network enumeration. Attackers use oversized window sizes to evade legacy detection systems.

### **High Risk:**

**Focused targeting** – Repeated scans against 192.168.100.99 suggest deliberate reconnaissance for potential exploitation.

### **Medium Risk:**

**Lack of port visibility** – Missing source/destination port data limits granular threat analysis. Threat Observations

## **Attack Pattern:**

100% of top threats involve TCP SYN packets with window sizes exceeding 1024. Scans occurred at sub-second intervals (e.g., packets #1, #3, #5 within 0.12 seconds).

#### Attacker Infrastructure:

Single source IP (192.100.100.100) with no observed port data, suggesting potential obfuscation.

## **Target Profile:**

All traffic directed to 192.168.100.99, likely a high-value internal asset.

Recommendations

#### **Immediate Actions:**

**Block 192.100.100.100** at the network firewall and alert on future communication attempts. Update IDS/IPS rules to **flag SYN packets with window sizes >1024** as high-priority events. **Network Hardening**:

Implement **SYN packet rate limiting** to throttle scan attempts.

**Segment 192.168.100.99** into a restricted VLAN to limit lateral movement.

## **Visibility Improvements:**

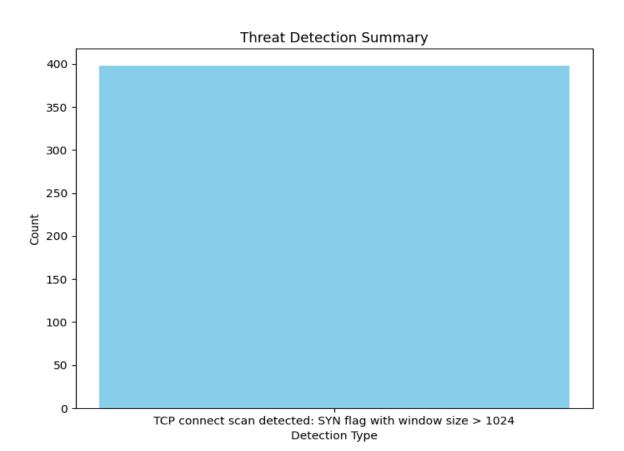
Enable full packet capture for traffic involving critical assets to **log source/destination ports**. Deploy endpoint monitoring on 192.168.100.99 to correlate network scans with host-level activity.

#### **Proactive Measures:**

Conduct a **vulnerability assessment** on 192.168.100.99 to address potential exploit pathways. Validate firewall rules to ensure unnecessary ports/services are not exposed to untrusted networks.

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## Threat Detection Summary



Detection Type	Count
TCP connect scan detected: SYN flag with window size > 1024	398