# TLS Adoption Research

What We Found After Studying 275B Flows of Real-World East-West and North-South Traffic

What encryption technologies are organizations seeing in their networks, both in north-south and east-west traffic? This document highlights the finding of our research into that question, and the answer is important.

The wide adoption of SSL/TLS underscores the criticality of inspecting encrypted traffic. East-west traffic visibility is needed for multiple reasons: Detection of laterally moving threats (threat actors are adopting the use of encryption in their attacks); compliance with governance standards that mandate data protection; accurate performance measurements; and finally, faster troubleshooting. All of these require inspection of encrypted traffic.
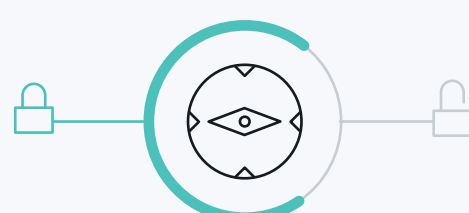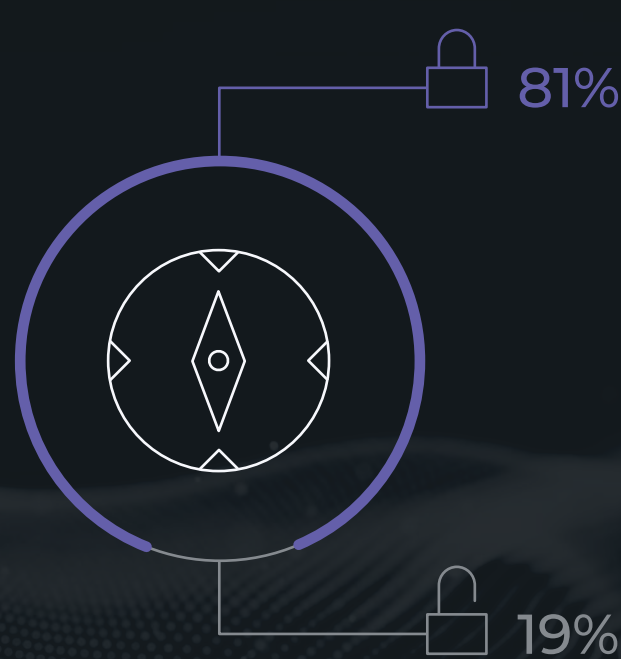
Production Traffic Data
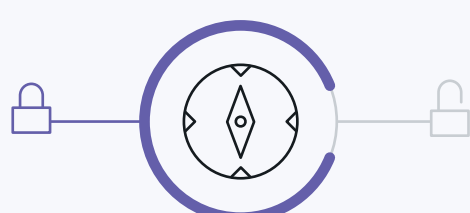
106,061,628,564
North-South Flows

168,681,684,427
East-West Flows

81% of North-South Traffic Is Encrypted

81%

19%

Overwhelming amount of encrypted traffic underscores the importance of decrypting and inspecting this blind spot.
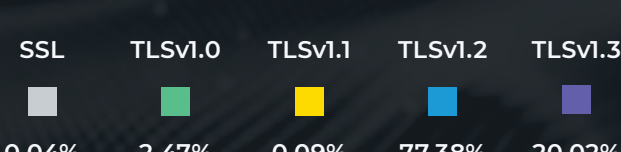
44% of East-West Traffic Is Not Encrypted

Encrypting all feasible east-west traffic is an opportunity for organizations to improve security posture.

56%

44%
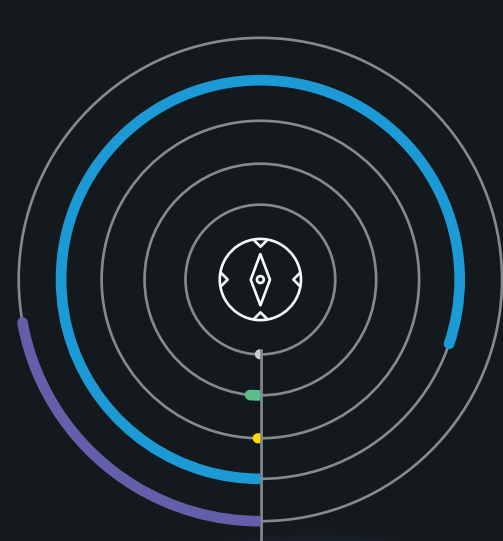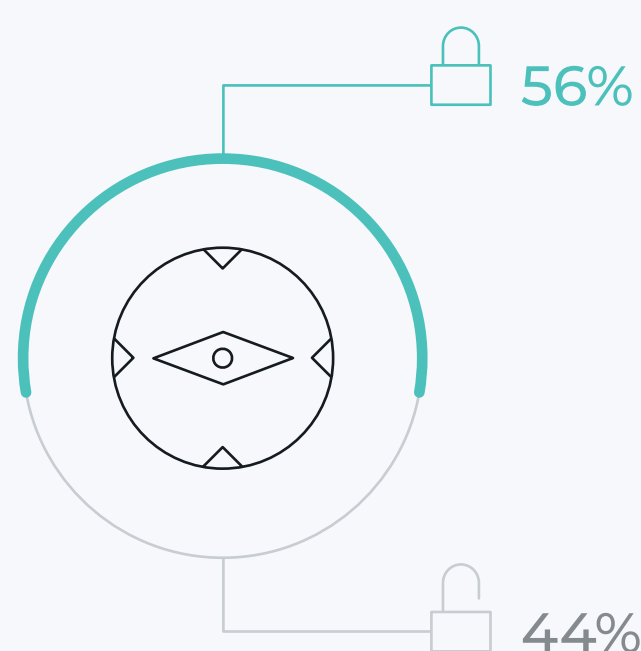
TLS 1.3 Is Off to a Strong Start in North-South Traffic

TLS 1.3 may require some reworking of tool deployment architecture, but allowing this traffic through uninspected poses an increasingly greater risk.

SSL	TLSv1.0	TLSv1.1	TLSv1.2	TLSv1.3
0.04%	2.47%	0.09%	77.38%	20.02%

TLS 1.2 Dominates East-West Traffic

Use of outdated protocols poses an unacceptable risk and must be addressed.

SSL	TLSv1.0	TLSv1.1	TLSv1.2	TLSv1.3
0.13%	8.48%	2.91%	79.28%	9.21%
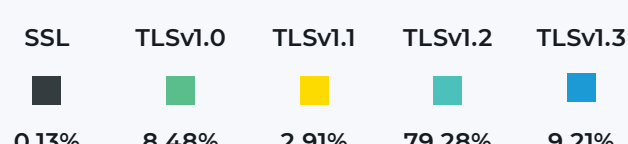
SSL Lives – Securing Likes It's 1999

SSL Encrypted Traffic
0.04%
Total Flows Across Data Set
42,424,651

SSL Encrypted Traffic
0.13%
Total Flows Across Data Set
219,286,189

Read the report for more findings and actionable TLS inspection recommendations.

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