

Analysing cross-departmental communication efficiency in a multi-team organisation

Background: Our organisation relies on Slack as the primary platform for task coordination and information sharing. The analysis focused on quantifying communication efficiency between departments, measuring both message volume and response time metrics to identify patterns and potential areas for improvement.

Objective: This project analysed internal communication patterns at our company, examining how effectively our three departments (Data Analytics, Software Engineering, and Cyber Security) communicate with each other, within themselves, and with leadership.

Methodology: The analysis treated message threads systematically: each message (except the first and last in a thread) functioned as both a probe and a reply. First messages were classified as probes only, while last messages were classified as replies only. Response times were calculated using SQL lead window functions to measure time differences between sequential messages. Each user was mapped to their respective department to enable team-based analysis of communication patterns.

Insights:

1. There is a gap in cross-team collaboration

The communication data reveals a striking imbalance: direct team-to-team communication (28 threads) is dramatically overshadowed by intra-team exchanges (300 threads) and team-to-leadership communication (208 threads). This pattern clearly indicates siloed operations with minimal horizontal collaboration between functional teams. Teams appear to operate independently, communicating primarily within their own domains rather than engaging in cross-functional collaboration.

2. Centralized Decision-Making Model

The high volume (208 threads) and exceptionally rapid response times (<5 minutes) in communications with the Leads team strongly suggests a hierarchical decision-making structure. This vertical communication pattern indicates that teams are consistently seeking guidance, approval, or input from leadership rather than making autonomous decisions. The organisation appears to have cultivated a leadership-dependent workflow where authority remains concentrated at the top.

3. Deliberate Security Processes

The Security team's significantly longer response times (638 minutes on average) should not necessarily be viewed as inefficiency. Rather, this pattern likely reflects the methodical, thorough approach inherent to security functions. This extended response time aligns with security best practices, where careful verification, risk assessment, and proper documentation are prioritised over rapid responses that might compromise thoroughness.

This communication pattern analysis provides valuable insight into the organization's operational structure: vertically-oriented with strong leadership oversight, functionally siloed with limited cross-team collaboration, and appropriately deliberate in security operations.

Communication in Webeet

