Contents

[6.2] Risky Shift Phenomena

1. Operational Definition: A tendency for a security team to make riskier decisions as a group than the individual members would have made alone. This manifests as a measurable increase in the acceptance of riskier actions (e.g., delaying a critical patch, approving a borderline firewall rule) during group deliberations compared to individual pre-deliberation stances.

2. Main Metric & Algorithm:

- **Metric:** Risky Shift Coefficient (RSC). Formula: `Average(Individual Risk Score) - Final Group Risk Score`. A positive RSC indicates a shift towards greater risk-taking.
- **Pseudocode:**

  python

  ```
  def calculate_risky_shift(individual_scores, group_score):
      """
      individual_scores: List of pre-meeting risk scores (1-10) from N team members for a sp
      group_score: Final risk score (1-10) agreed upon by the group for that decision.
      """
      avg_individual_score = sum(individual_scores) / len(individual_scores)
      risky_shift_coefficient = avg_individual_score - group_score
      return risky_shift_coefficient
  ```

- **Alert Threshold:** `RSC > 1.5` (A consistent shift of more than 1.5 points on a 10-point scale across multiple decisions indicates a significant pattern).

3. Digital Data Sources (Algorithm Input):

- **Ticketing Systems (Jira, ServiceNow):** Tickets for changes (e.g., CHG tickets for patching, firewall rules). Fields: `created_by`, `created_date`, `risk_assessment_score` (pre-meeting individual input), `final_risk_score`, `approvers`.
- **Collaboration Platforms (Slack, Teams API):** Metadata from channels dedicated to risk discussions (e.g., `#security-risk-board`). Data: `thread_id`, `participants`, `message_count` (to identify deliberation intensity).

4. Human-to-Human Audit Protocol: Conduct a facilitated workshop presenting 3-5 recent historical security decisions. First, have each participant privately and anonymously score the risk they would have assigned (1-10). Then, facilitate a discussion on what the final score was and why. Compare the average anonymous score to the historical final score to calculate the RSC in a controlled setting.

5. Recommended Mitigation Actions:

- **Technical/Digital Mitigation:** Implement a "pre-meeting sentiment" feature in the risk management platform where individuals must submit their risk score before a group review meeting is scheduled.

- **Human/Organizational Mitigation:** Train meeting facilitators on the risky shift phenomenon and techniques to mitigate it, such as inviting a designated "devil's advocate" or using anonymous polling tools at the start of discussions.
- **Process Mitigation:** Integrate a mandatory step in the risk acceptance workflow that requires documenting significant deviations (`RSC > 1.5`) from the average pre-meeting individual risk score, including a justification.