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Azure Silhouette

De escalate SPN permissions



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** How to oversee millions of Azure SPNs permissions?*

** Which should be de escalated?*

1) SPNs are grouped into relevant clusters with unsupervised Machine Learning

2) For each cluster, we collect permissions from the **golden source** (Azure Entra)

3) We calculate a score, the « **outer silhouette** » of each cluster

4) *For each cluster, we collect permissions from the **ground truth** (Azure Log Analytics)*

5) *We calculate a second score, the « **inner silhouette** » of each cluster*

6) We define a metrics distance between silhouette scores

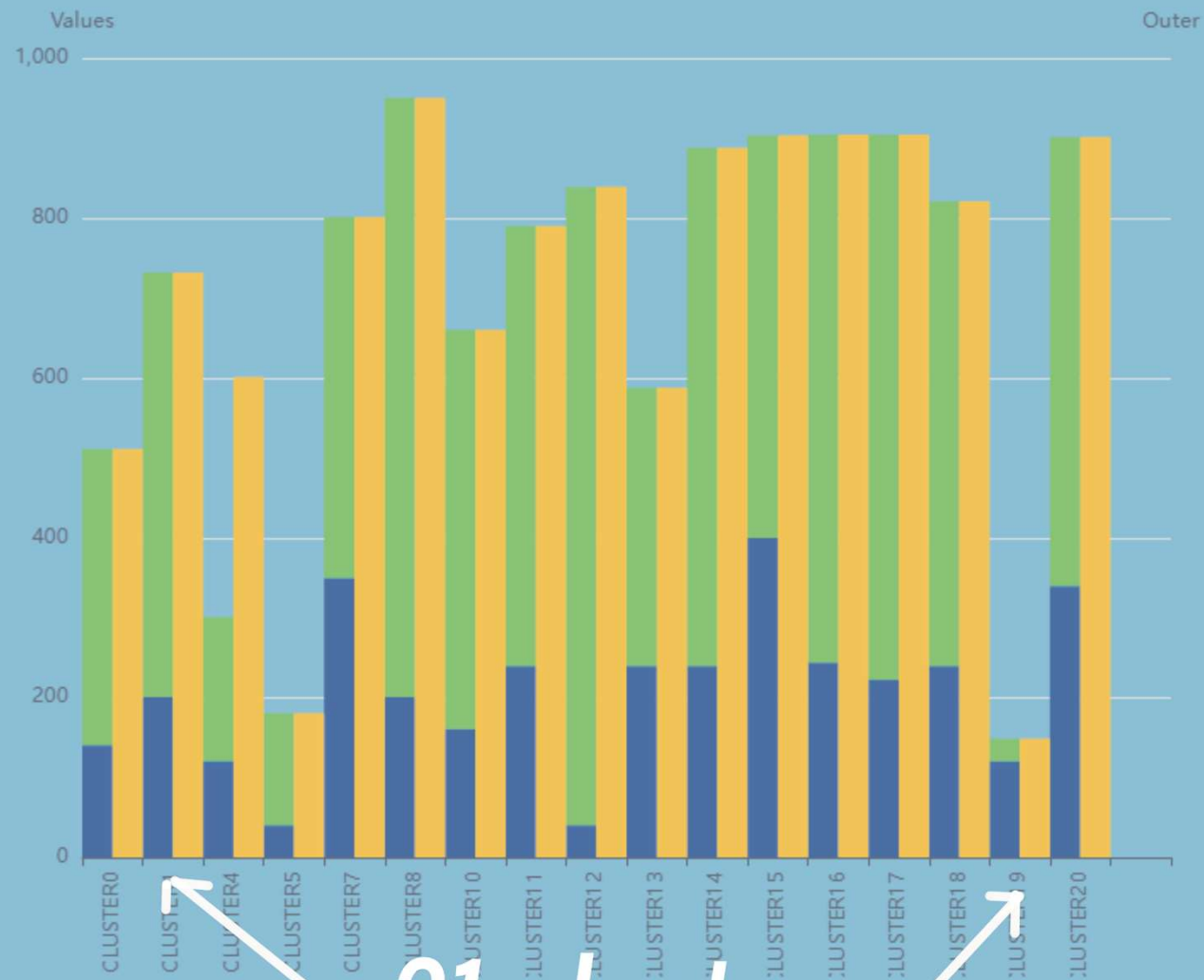
7) for each cluster, the de-escalation effort equals the distance between outer and inner scores

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Example

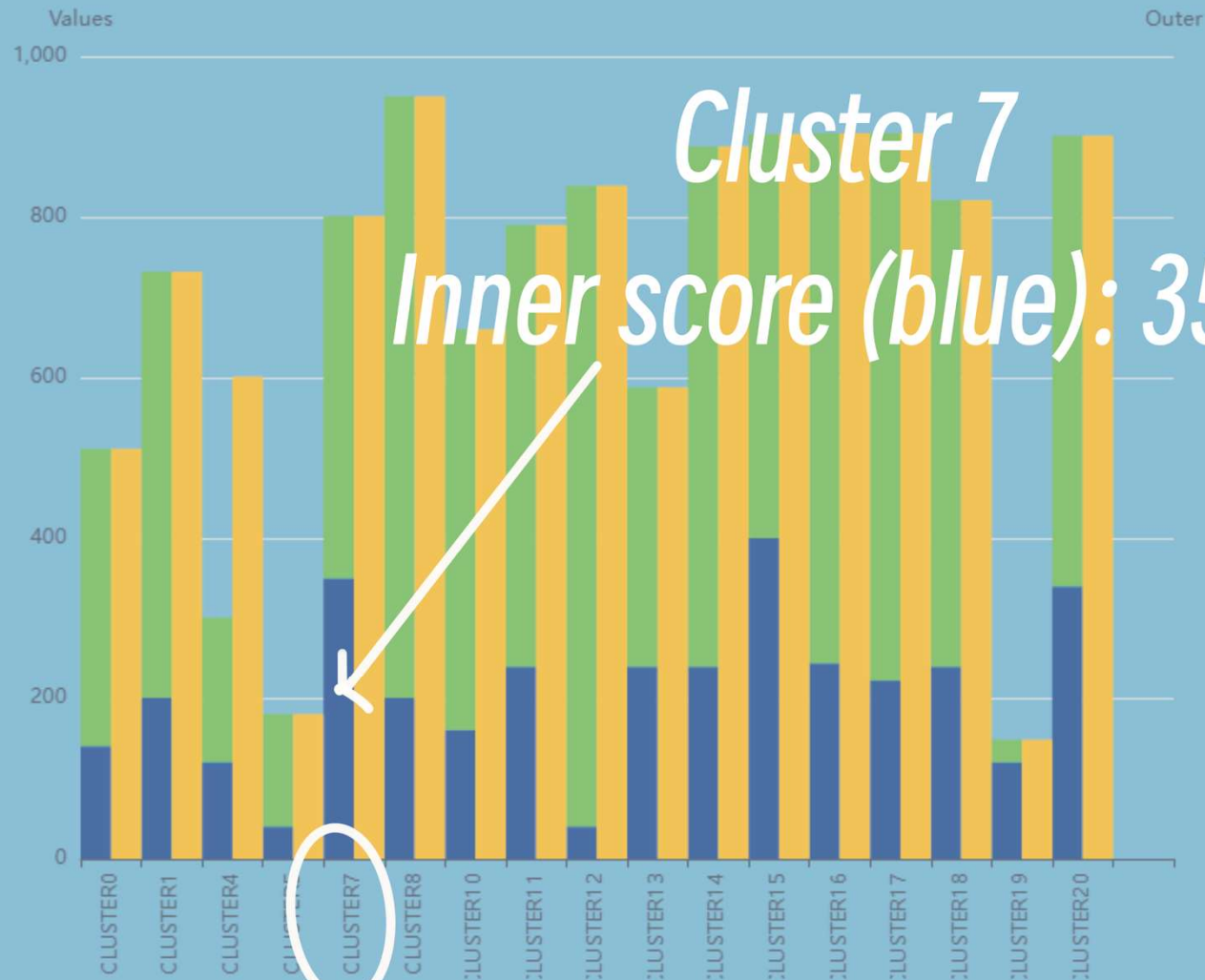


Per cluster SPN deescalation silhouette



21 clusters

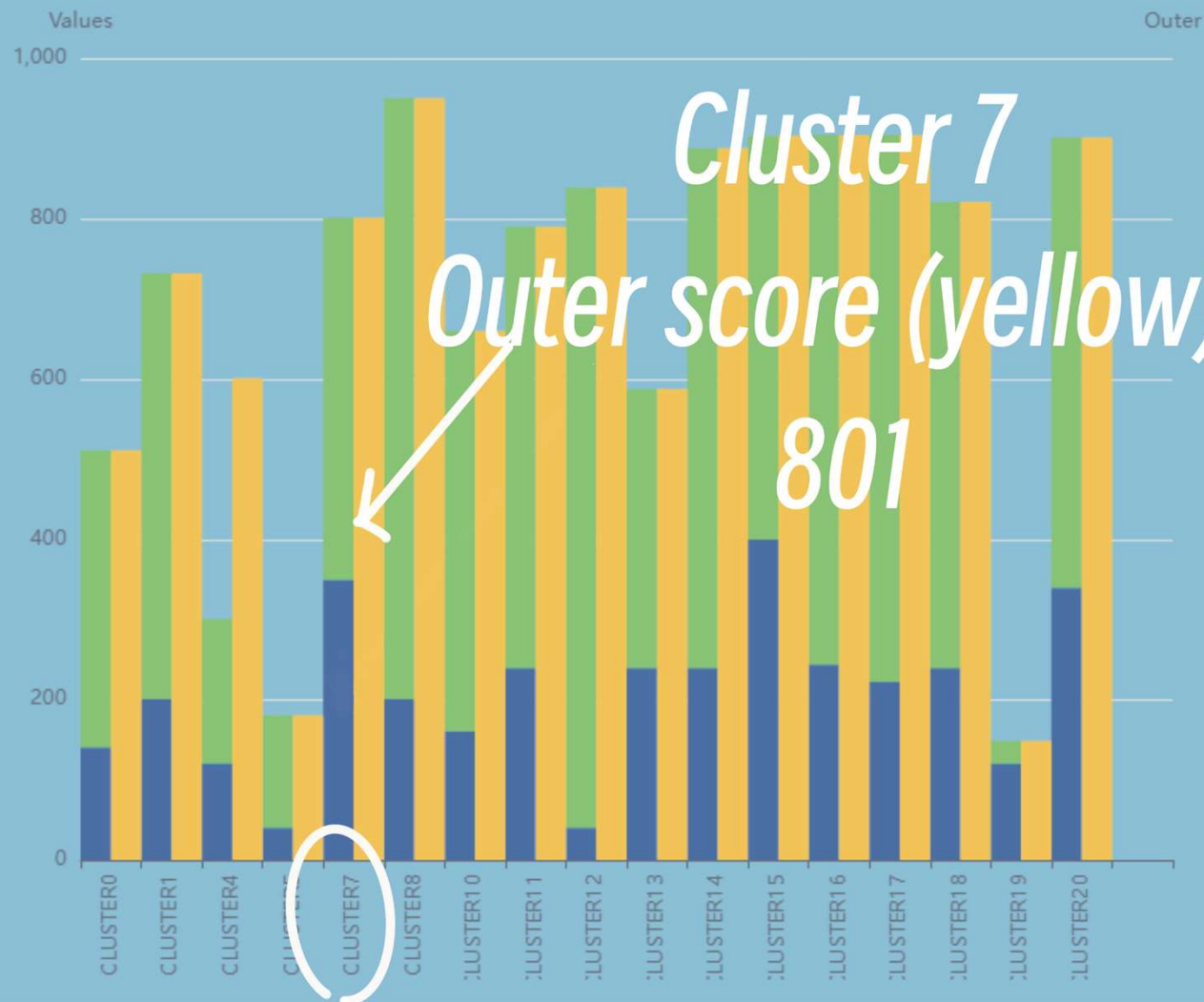
Per cluster SPN deescalation silhouette



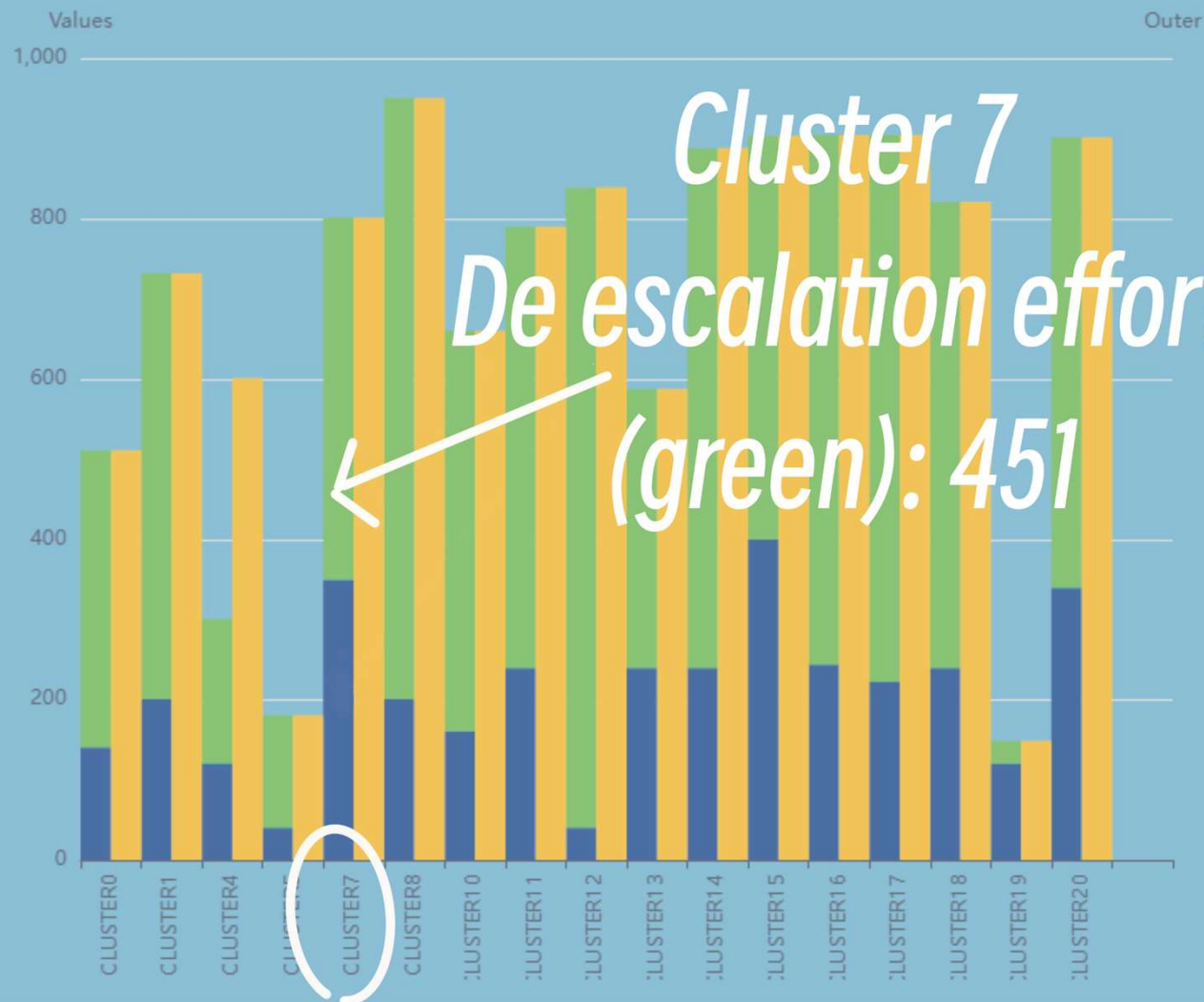
Cluster 7

Inner score (blue): 350

Per cluster SPN deescalation silhouette



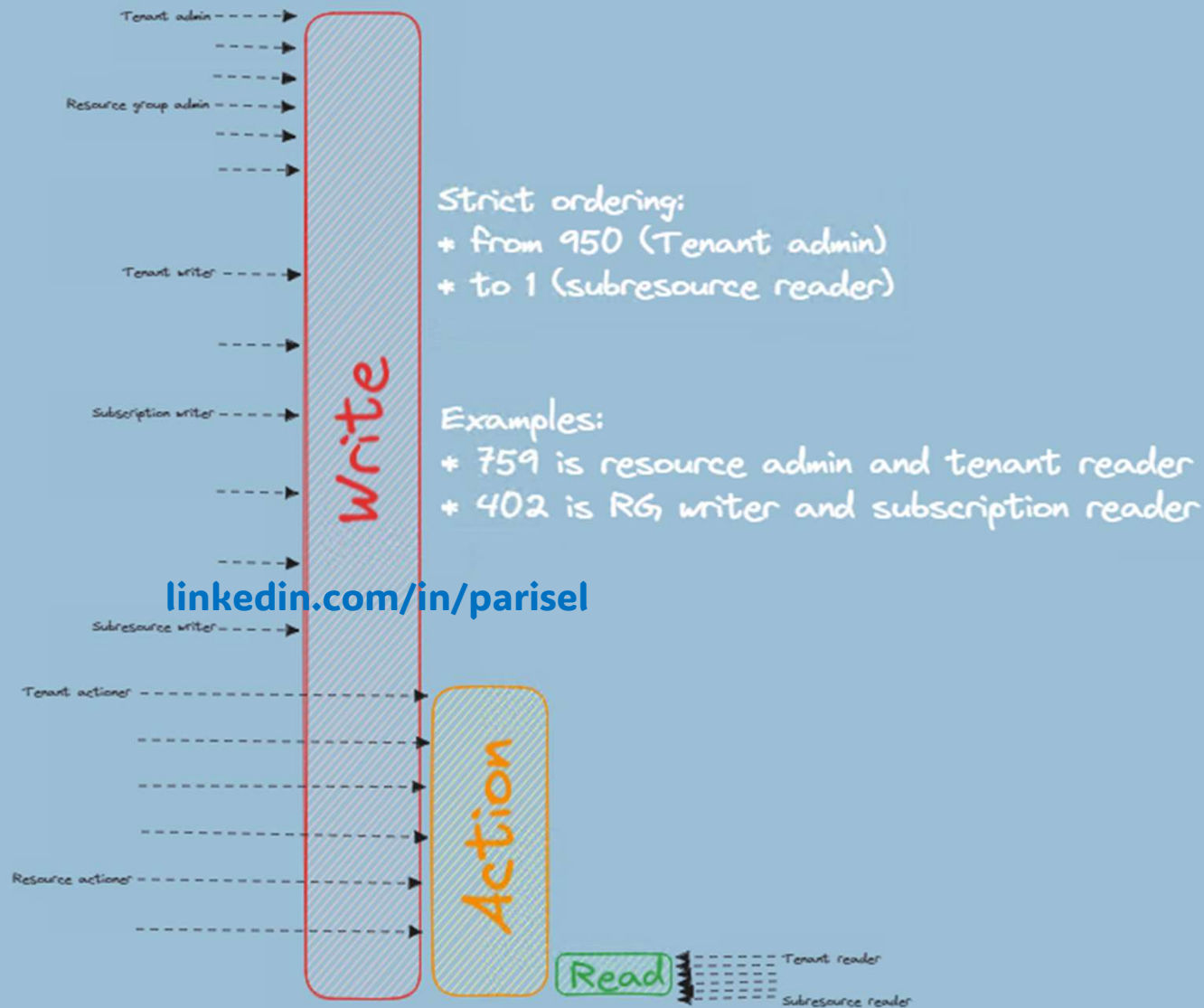
Per cluster SPN deescalation silhouette



The distance metrics lets you:

- * find quick wins (SPNs clusters)*
- * optimize effort according to risk*

Permissions hierarchy in the silhouette metrics



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Get it for free:

<https://github.com/labyrinthinesecurity/silhouette>