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Ticket Team Dashboard Manual

Manual Purpose

This manual explains how to use the Ticket Team Dashboard by walking through two realistic case studies. These examples demonstrate the interactive functionality of the dashboard, specifically the use of the variable filters and time series interaction. The dashboard is designed to help the Global System Support Manager understand and monitor team performance through eight distinct visual blocks, each displaying relevant ticket data.

Case Study 1: Investigating Individual Performance

Objective: To investigate a specific employee's daily performance in the last 30 days. To assist in understanding how the user achieved his specific metrics.

Step 1: Apply filters.

- Set Employee Name to the employee in question. In this case, we use O***** K****
- Set Date to 30.

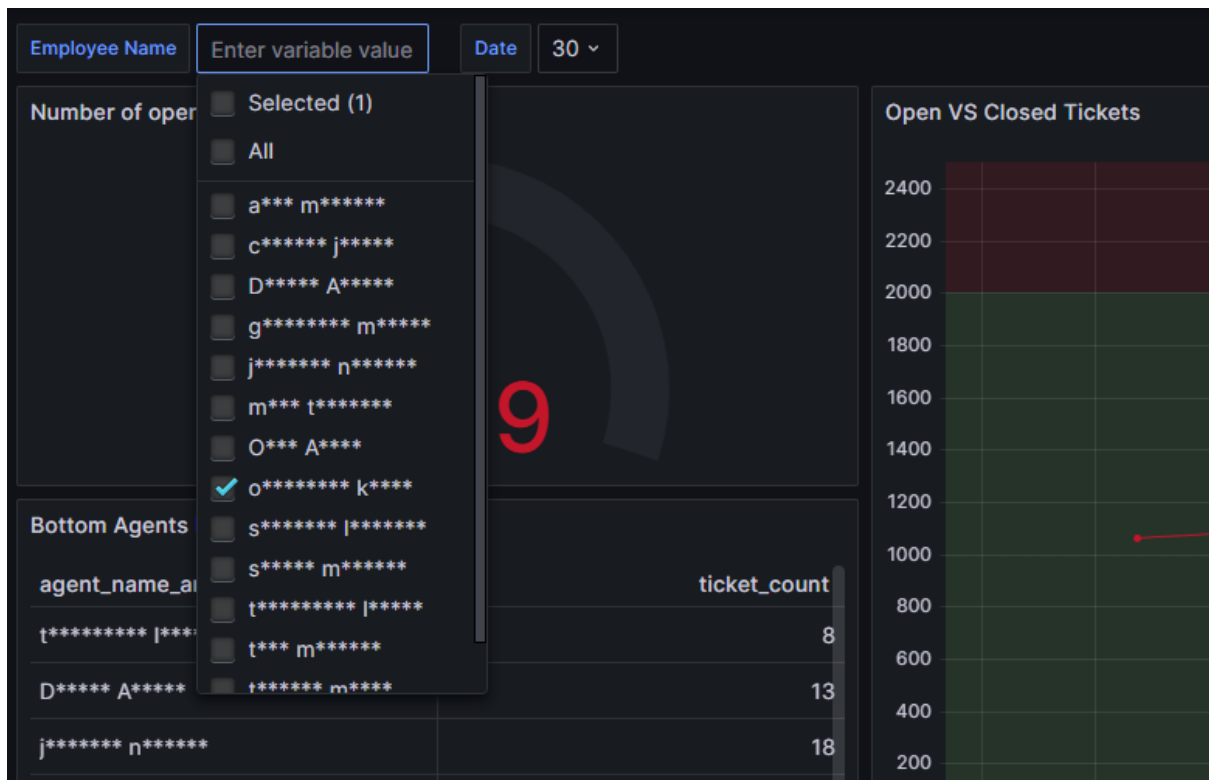


Image 1: Ticket Team Dashboard having date set to 30 and a specific employee chosen

Step 2: Observe closed tickets.

- Clicking on the employee's highest closed ticket count on the middle trend graph captures that 35 tickets were closed on the 3rd of April.
- I can also see the employee has closed 101 tickets in the last 7 days using the Number of Closed tickets last 7 days visual in the top right.
- The employee is the highest ticket closer and the fourth highest ticket closer in the last 7 and 30 days respectively using the two top employee visuals found on the bottom right.

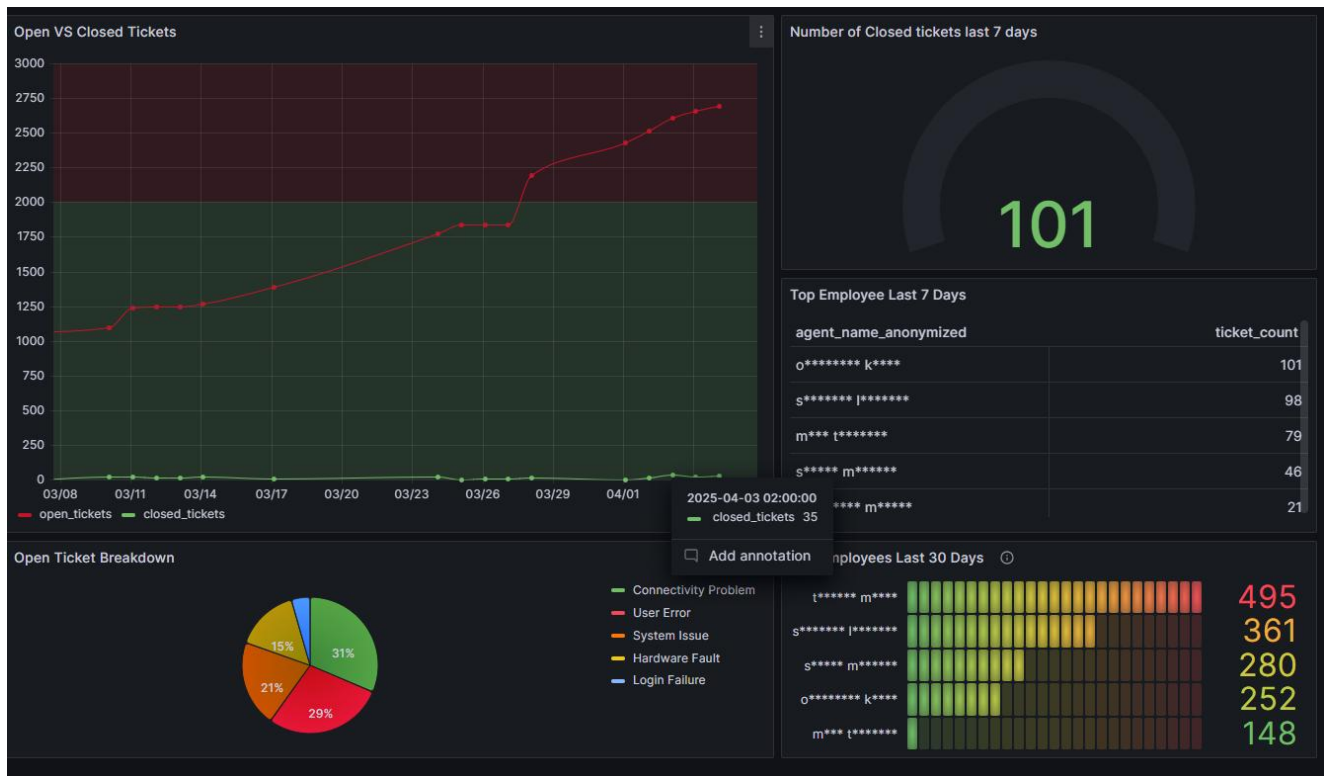


Image 2: Ticket Team Dashboard with figures and selected date highlighted as mentioned above

Step 3: Interpret long-term performance.

- Viewing the time series graph, many irregularities can be seen in large time gaps between points. This signifies that the employee has not closed tickets consistently over the 30-day period. Showing the employees integrity needs to be assessed.

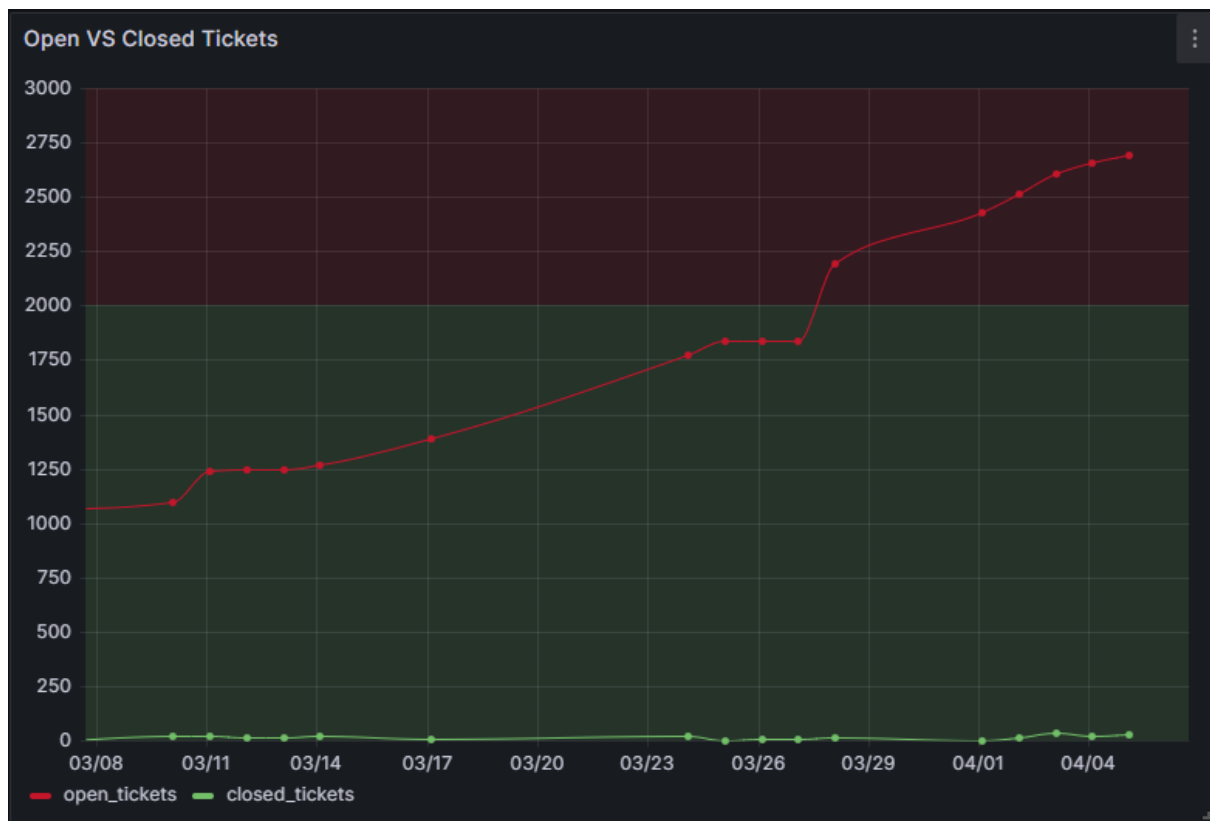


Image 3: Ticket team dashboard emphasising the green circle inconsistency within the 30 day period

Case Study 2: Full Department Overview

Objective: To evaluate overall department performance. Evaluating bottlenecks and ticket breakdown to assist understanding the current state of the department.

Step 1: Apply filters.

- Set Employee Name to All.
- Set Date to Last 90 Days.

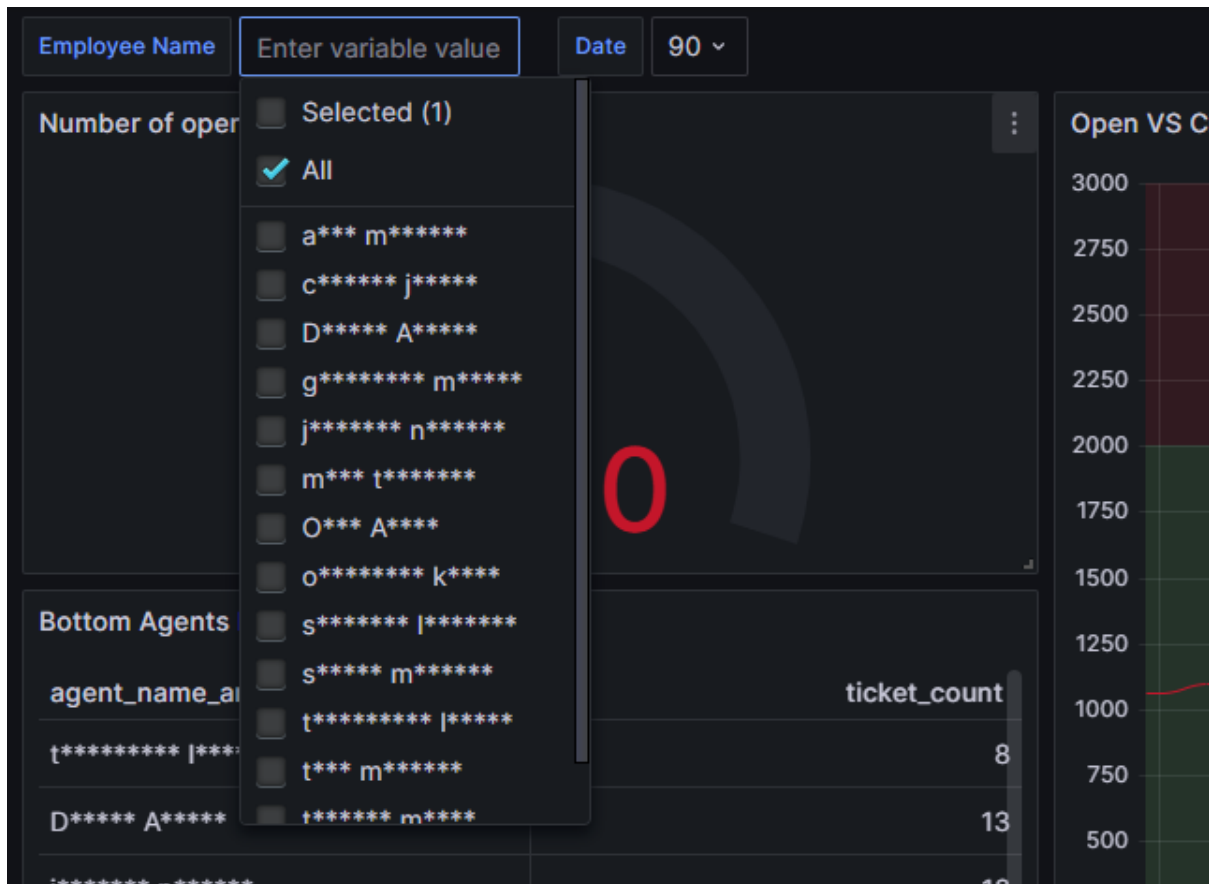


Image 4: Ticket Team Dashboard having Date set to 90 and all employees chosen

Step 2: Review current workload.

- The Number of open tickets shows 2 730, well above the 2,000-ticket threshold.
- The Open vs Closed Tickets trend graph reveals a sharp increase in open tickets, with closed ticket rates relatively flat.



Image 5: Ticket Team Dashboard with 2,730 open tickets and the trend graph

Step 3: Examine team bottlenecks.

- Viewing the bottom agents in the last 7 days. I can see employees closing as few as 8 tickets, which accounts for just over 1 ticket closed a day.
- I can also see, of the 2 730 open tickets, many are still new and been opened with only 237 of them are assigned to employees

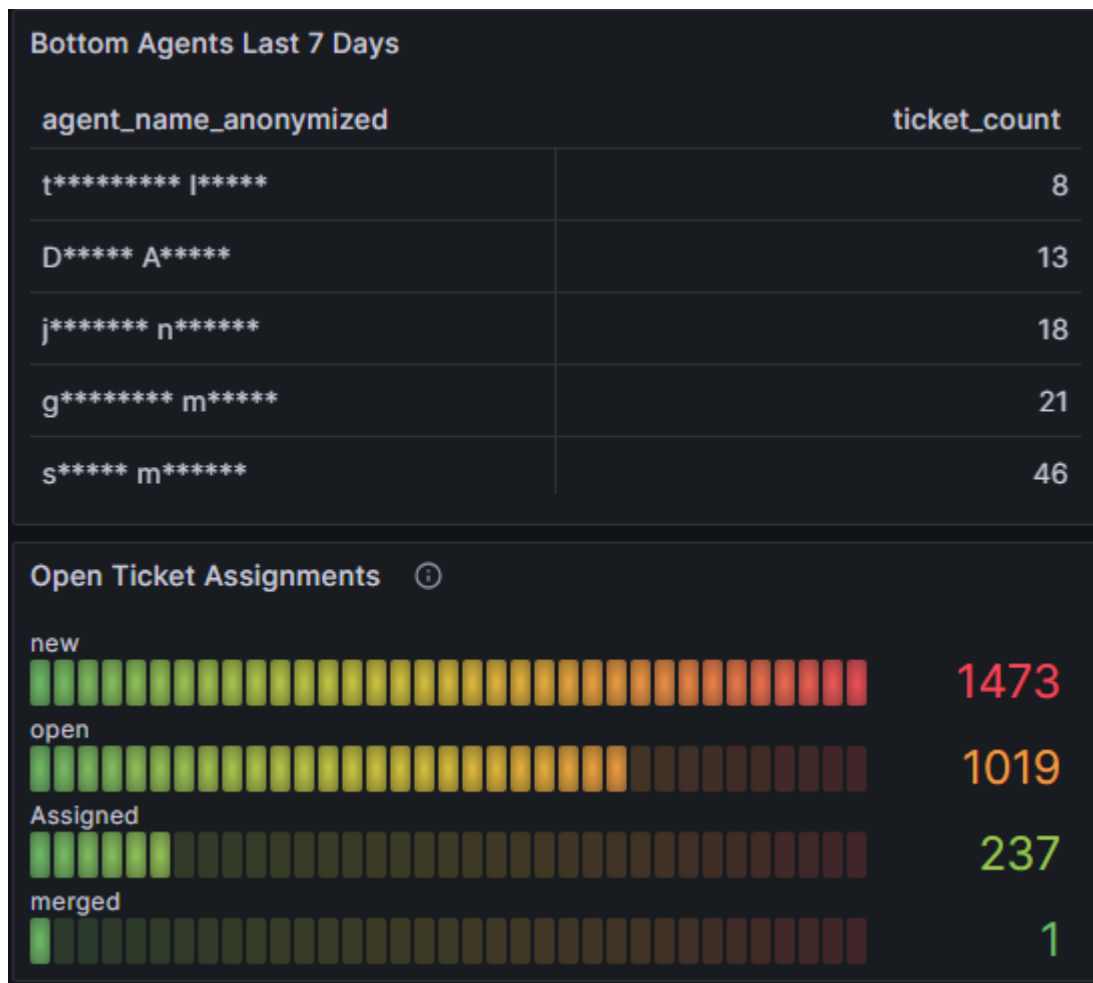


Image 6: Ticket Team Dashboard showing bottlenecks and ticket assignments

Step 4: Assess ticket breakdown.

- Ticket breakdown shows majority of issues are connectivity problems and user error.

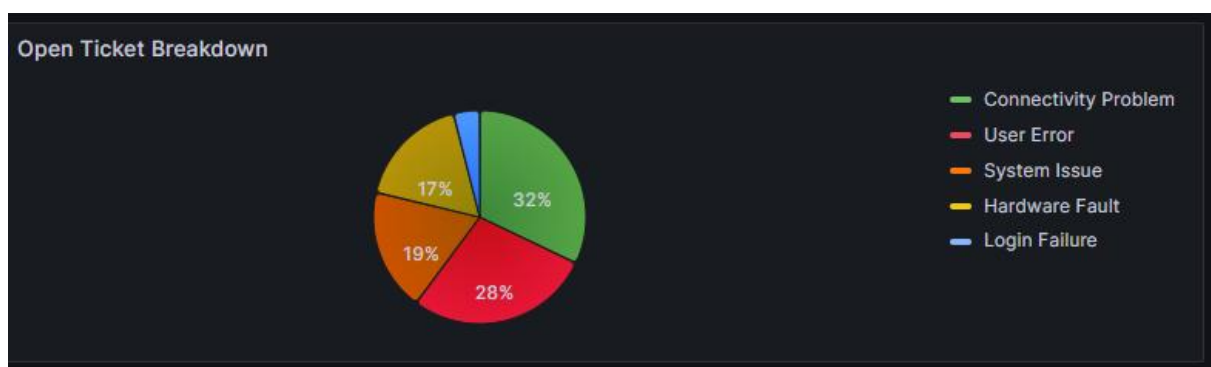


Image 7: Ticket Team Dashboard showing ticket breakdown

Ticket Team Dashboard Design Report

Introduction

This report outlines the design principles, structure, and visualisation choices used to create a performance monitoring dashboard for the support ticket team. The dashboard, built in Grafana, filters by Employee Name and Date, featuring eight visual blocks designed to provide insights from individual to team-level efficiency. Grafana was selected due to my year experience using it, and the limitlessness provided by the application being open source. Due to the confidential data, the report cannot be shared external to the company.

Dashboard Structure and Flow

The dashboard follows a horizontal flow: left side visualises issues and open tickets (Negatives), the middle shows detailed breakdowns on overall performance (Problem solving) and the right side focuses on closed tickets (Positives). The layout adheres to visual scanning patterns (left to right, top to bottom), with critical information positioned in the upper-left, following best practice from Tableau's 10 Best Practices for Building Effective Dashboards (2025).

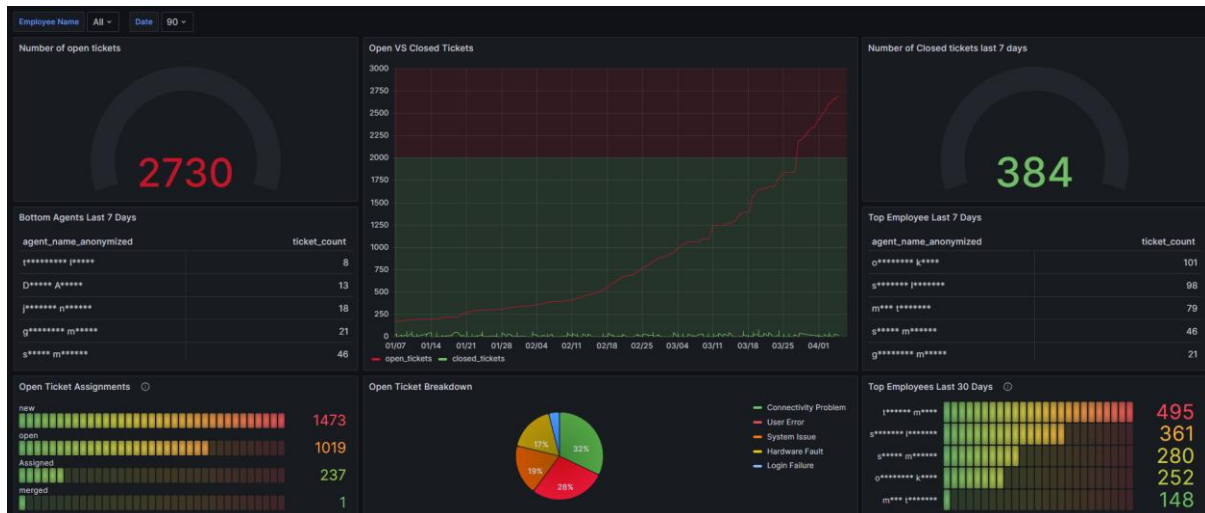


Image 1: Ticket Team Dashboard demonstrating the horizontal flow reflecting Tableau's best practices

Design Principles and Theoretical Framework

The visual design draws from Gestalt principles (Zight, 2019), which can boost clarity, user experience and overall usability, using principles like:

- **Proximity and Continuity**: Open ticket metrics are grouped on the left, closed ticket metrics on the right, making related elements easier to interpret.
- **Similarity**: Colour coded bars and labels maintain consistency (In this case, red for open and green for closed).
- **Closure**: Dual bar charts (top vs bottom agents) provide performance range visibility.
- **Figure-Ground**: The main performance metric being the trend graph not only the largest visual but being central visual allows key data to stand out against all the background data.

Human-Computer Interaction (HCI) best practices were integrated from Dougherty et al. (2025), who emphasize system-user alignment, interactivity, and information coding. Their model reinforces that visual dashboards must speak the user's language, use intuitive icons/legends, and avoid unnecessary cognitive effort. These principles were applied by using the department specific key words in the breakdown such as assigned, open, user issues, connectivity problem, etc, use easy to read visuals like pie, bar and trend graphs and make the open and close ticket visuals large.

Filter and Customisation Functionality

The two global filters, 'Employee Name' and 'Date', enhance user engagement and adaptability. These are “short-term surface customisations” as described by Alsayahani et al. (2025), enabling rapid dashboard exploration.

- Employee Name Filter allows selection of one, multiple, or all employees. It updates the time series chart and the “Closed Tickets – Last 7 Days” visual.
- Date Filter (today, last 7, 30, 90 days) represented by 1,7,30 and 90, only effect the time series data. With all other visuals having set time frames as specified by the manager.

The filters promote personalised insights without modifying core functionality. Reducing information overload while allowing for deeper exploration, as recommended in Alsayahani et al. (2025), who found customisation enhances usability and task efficiency when meaningfully applied.

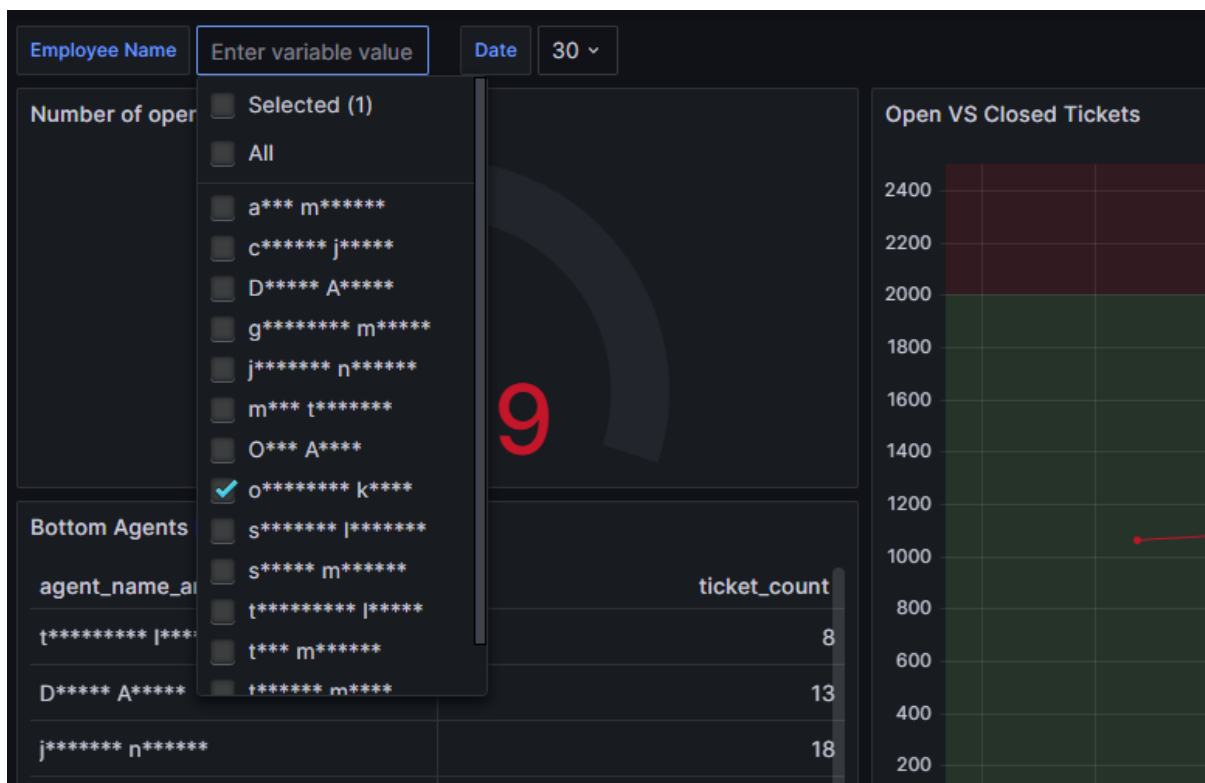


Image 2: Ticket Team Dashboard having filters date set to 30 and a specific employee chosen

Visualisation Choices and Justifications

Visual Block	Graph Type	Justification
Open vs Closed Tickets	Time series line graph	Ideal for trend detection, allows drill-down by day, aligns with Just & Schubert (2025) on time-based comparisons. Best visual when incorporating time and comparing two variables.
Open Tickets Breakdown	Pie chart	Appropriate with limited categories, ideal for showing proportional cause. Less cognitive loads and more visually appealing than a bar chart.
Open Ticket Assignments	Bar chart	Used for categorical breakdown (New, Open, Assigned and Merged), supports comparative workload analysis. Sideways bar graph instead of a pie chart or normal bar graph to emphasis distribution and focus on numbers and not percentages.
Top/Bottom Agents	Tables	Clear rankings of performance, good for peer comparison and quick identification of best and worst. Lack of bar chart or other options allow focusing on full names for identification.
Open and closed tickets figures	Numerical counters	Provide quick snapshots, suitable for executive-level review. Clearly visible on wallboard or monitors. Simple and effective compared to overly complex graphs
Top employees last 30 days	Bar chart	Focus on distribution as naturally will have greater differences between employees. Compared to a table which would not be able to emphasis the differences between closed tickets.

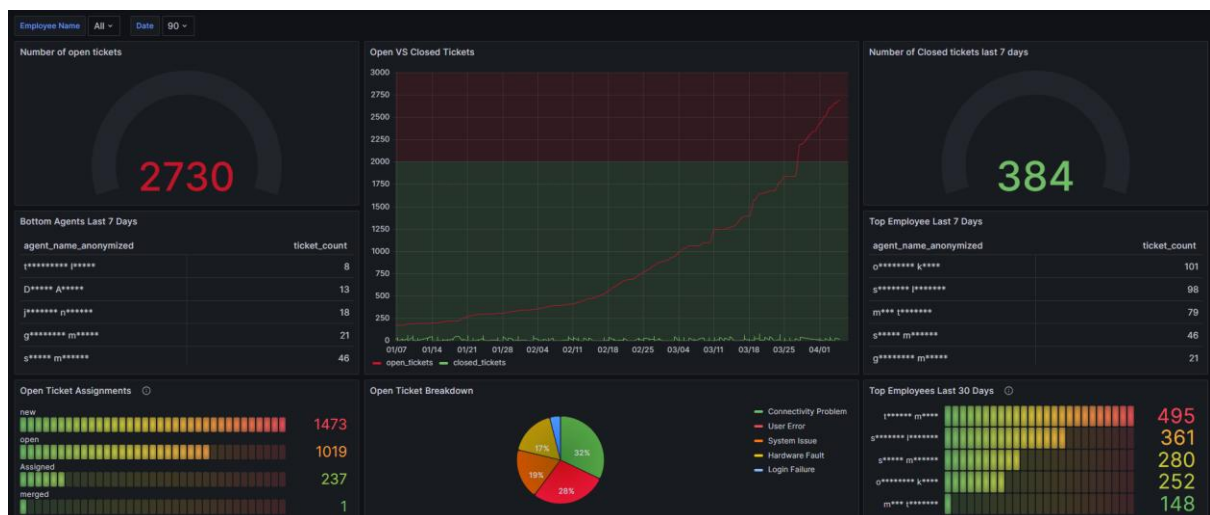


Image 3: Ticket Team Dashboard showing all visuals to support table above

Each graph was selected to meet specific user needs: immediate summary, deeper analysis, and comparisons. This approach aligns with the best practice of limiting unnecessary visuals and colours to reduce cognitive friction (Tableau, 2025).

Accessibility and Mobile Responsiveness

Grafana's platform allows dashboards to be shared across platforms, including usable wallboards in Discord/ Teams or company main source of communication, Element. Limited by internal use only. The integration promotes:

- Time-sensitive team updates on the go.
- Vertical viewing on mobile screens, consistent with Tableau's recommendation to "stack content vertically for phones".
- Retaining core interactivity across devices, such as filter selections and tooltip drilldowns.

These accessibility features enhance the dashboard's reach and real-time operational relevance, as emphasized in Sorour & Atkins (2024), who stress that usability must consider device compatibility and audience workflows. This means the manager can view performance at work on a wallboard, at home on his laptop or at a Golf on his phone.

Design for Accountability and Monitoring

The dashboard includes a 2000 open ticket threshold line on the Open Tickets time series chart. This visual boundary supports operational accountability, aligning with Just & Schubert's (2025) findings that visual thresholds foster proactive decision-making and SLA compliance. This line is able to set targets which can be incorporated into KPI's for the manager and his team.

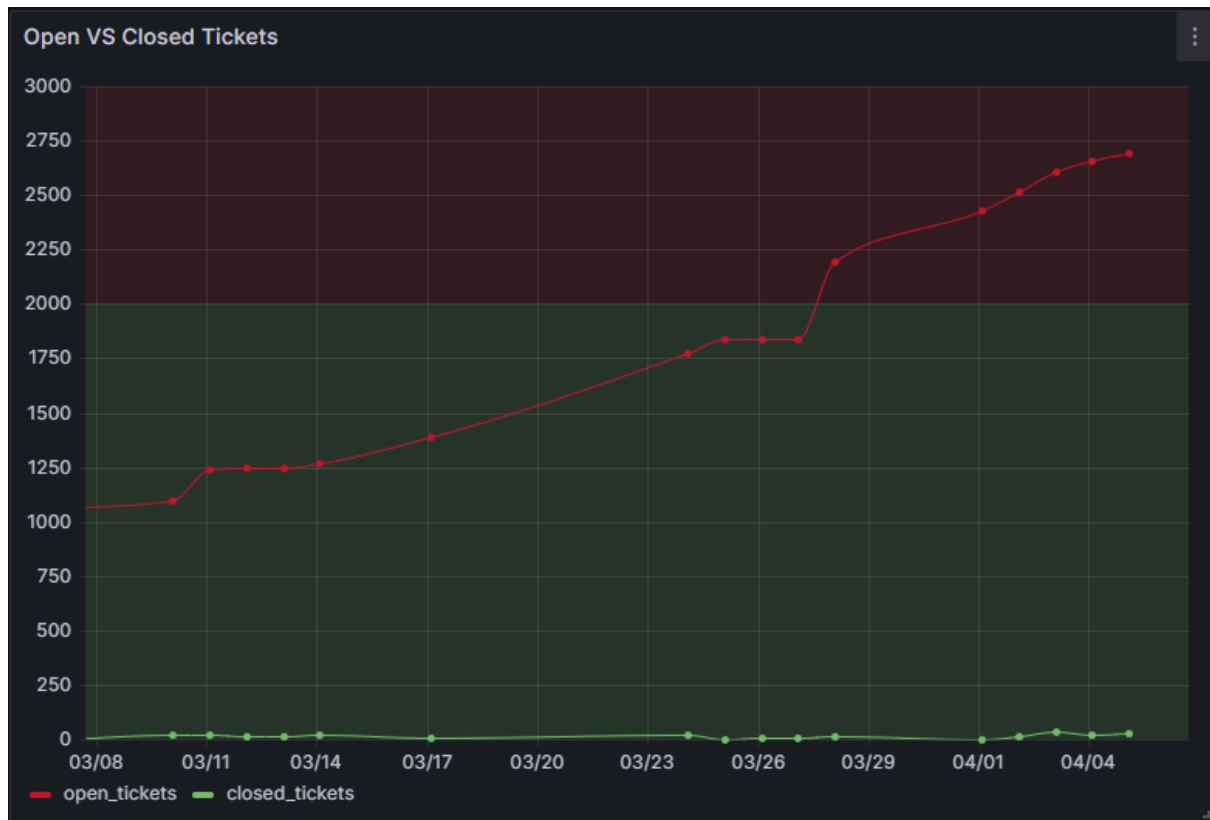


Image 3: Ticket Team Dashboard with the 2000 open ticket threshold line

Conclusion and Reflections

This final dashboard version incorporates both theoretical and practical improvements over the Unit 9 prototype. Visual grouping, meaningful filtering, mobile compatibility, and carefully chosen graph types all contribute to an intuitive and powerful monitoring Dashboard. The use of academic principles from HCI, dashboard design, and visual customisation supports both usability and business objectives.

Future iterations may extend personalisation from the manager or introduce predictive alerts which is a feature in Grafana, but the current structure is well-suited for internal deployment and real-time review in operational support environments.

References

- Tableau. 10 Best Practices for Building Effective Dashboards. Available from: <https://www.tableau.com/learn/whitepapers/10-best-practices-building-effective-dashboards> [Accessed 6 April 2025]
- Zight (2019) Learn How to Use Gestalt Principle in Design and Elevate your Design Available from: [Learn How to Use Gestalt Principle in Design and Elevate your Design](#) [Accessed 6 April 2025]
- Dougherty, K. et al. (2025). User-Centered Design of an Electronic Dashboard for Monitoring Facility-Level Basic Emergency Obstetric Care Readiness in Amhara, Ethiopia: Mixed Methods Study. Available from: [JMIR Human Factors - User-Centered Design of an Electronic Dashboard for Monitoring Facility-Level Basic Emergency Obstetric Care Readiness in Amhara, Ethiopia: Mixed Methods Study](#) [Accessed 7 April 2025]
- Alsayahani, H. et al. (2025). The Effects of Customisation on the Usability of Visual Analytics Dashboards: the Good, the Bad, and the Ugly. Available from: [The Effects of Customisation on the Usability of Visual Analytics Dashboards: the Good, the Bad, and the Ugly | Proceedings of the 30th International Conference on Intelligent User Interfaces](#) [Accessed 7 April 2025]
- Just, M. & Schubert, P. (2025). A Dashboard for the Visualisation of Collaboration. Available from: [A Dashboard for the Visualisation of Areas of Collaboration Analytics - ScienceDirect](#) [Accessed 8 April 2025]
- Sorour, A. & Atkins, A. (2024). Developing BI Scorecards for Assessing Higher Education Quality Dashboards Using Human-Computer Interaction Concept: A Case Study. Available from: [Developing BI Scorecards for Assessing Higher Education Quality Dashboards Using Human-Computer Interaction Concept: A Case Study | Cloud Computing and Data Science](#) [Accessed 6 April 2025]

Executive Summary

This dashboard was developed to support the live monitoring of the performance and breakdown of the support ticket team within a fast-paced service environment. Where real-time visual analytics help streamline operational awareness and enable rapid resolution of problems like open tickets getting too high, underperforming employees and what is causing tickets to be opened. Dashboards such as this one form a central pillar in modern data-driven workplaces, providing instant visibility into a department that could seem like a black box from the outside.

In line with Toreini et al. (2022), who emphasise the importance of attentional design in Business intelligent (BI) systems, the dashboard design intentionally simplifies cognitive load to managers, balancing overview with drill down potential for striving employees and curious managers. The Grafana-based solution is fully interactive and can integrate with mobiles and designed to operate seamlessly across platforms, like Teams groups.

Benefit and impact

The dashboard delivers high value decision making support in three critical ways:

- Operational Oversight

With visuals like KPI counters in the top left and right, time series plots in the middle and categorical breakdowns like the rankings and open ticket breakdown, the dashboard enables team leaders to monitor performance trends across multiple timeframes from daily to 90 days. In doing so, it reflects best practices in performance monitoring dashboards outlined by Gonçalves et al. (2023), where targeted KPIs drive targeted improvements and operational alignment.

- Customization for User Context

The inclusion of two filters, 'Employee Name' and 'Date', offer managers more control over what they want to see. Alsayahani et al. (2025) found that such surface level customization significantly improves usability and perceived system effectiveness. Managers can isolate individual employee performance, identify anomalies, or assess overall health at a glance, empowering more data driven problem solving.

- Accessible Visual Language

Applying the Gestalt (Zight, 2019) visual grouping theory, the dashboard arranges open ticket metrics on the left, time trends in the middle, and top performers on the right, facilitating best practices for easy cognitive load on the manager. The attention aware design echoes principles from Toreini et al. (2022), helping users better manage cognitive strain by visually guiding their focus toward urgent issues, like when ticket thresholds are breached or when the open or closed tickets are not what the manager was expecting.

Together, these design decisions reduce the time-to-decision in fast paced environments and improve the efficiency of information processing, which is critical in managerial roles. The graphical summary of “Open vs Closed Tickets” with the 2000 ticket threshold line, for example, provides immediate visual cues for proactive action. Alongside the breakdown, the manager can see what is going wrong with the units in the field.

Future Vision

The dashboard is built with scalability and integration in mind. In future versions, several enhancements could further elevate its decision support capabilities:

- Predictive analytics can be introduced to anticipate workload spikes, like Mondays, or identify agents who underperform regularly
- Alert systems may notify managers when performance KPIs (e.g., ticket closures per agent) fall below acceptable thresholds or total open tickets are above the KPI set of 2000.
- Additionally, with continued developments in eye-tracking technologies (Toreini et al., 2022), future dashboards might integrate attentional feedback mechanisms, enhancing focus for overwhelmed users.

References

Toreini, P., Langner, M., Maedche, A., Morana, S. & Vogel, T. (2022) Designing attentive information dashboards. Journal of the Association for Information Systems. Available at: <https://aisel.aisnet.org/jais/vol23/iss2/4> [Accessed 7 April 2025]

Gonçalves, CT., Gonçalves, MJA & Campante MI. (2023) Developing Integrated Performance Dashboards Visualisations Using Power BI as a Platform. MDPI. Available at: [Developing Integrated Performance Dashboards Visualisations Using Power BI as a Platform](#) [Accessed 7 April 2025]

Alsayahani, H., Alhamadi, M., Harper, S & Vigo M (2025) The Effects of Customisation on the Usability of Visual Analytics Dashboards: the Good, the Bad, and the Ugly. Available at: [The Effects of Customisation on the Usability of Visual Analytics Dashboards: the Good, the Bad, and the Ugly | Proceedings of the 30th International Conference on Intelligent User Interfaces](#) [Accessed 8 April 2025]

Zight (2019) Learn How to Use Gestalt Principle in Design and Elevate your Design Available from: [Learn How to Use Gestalt Principle in Design and Elevate your Design](#) [Accessed 27 March 2025]