

Checkmk #10 Conference #10

You should monitor your enterprise middleware!

Extending Checkmk to Monitor the TIBCO Stack

Pedro Monteiro
Lynxmind CEO
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Introduction

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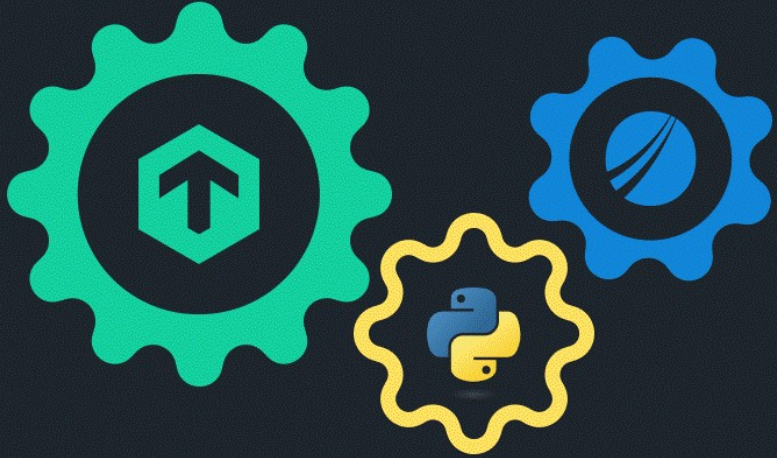
Lynxmind is a leading IT consulting company specializing in Middleware Integration, IT Operations, and Enterprise Cloud strategies.

- ◆ **Middleware Integration:** Ensuring seamless communication between enterprise systems using technologies like TIBCO, Mulesoft, Confluent Kafka, and Java Spring.
- ◆ **IT Operations:** Proactive monitoring and DevOps practices to enhance system visibility and efficiency, in partnership with Checkmk.
- ◆ **Enterprise Cloud:** End-to-end cloud solutions for migration and optimization, with expertise in SAP, AWS, and Azure.

Please visit us at lynxmind.com for more information.



Objectives



Understand the Importance of **Middleware Monitoring**:

- ◆ The role of middleware in ensuring seamless software integration.
- ◆ Why visibility into enterprise middleware is crucial for large companies.

Practical **Solution Implementation**:

- ◆ Using TIBCO Hawk, Tibemsadmin and Python scripts to collect and process data.
- ◆ Integrating TIBCO metrics into Checkmk for effective monitoring.

TIBCO Monitoring in Action

- ◆ Real-world example of how Lynxmind extended Checkmk to monitor TIBCO.
- ◆ Benefits achieved and lessons learned.



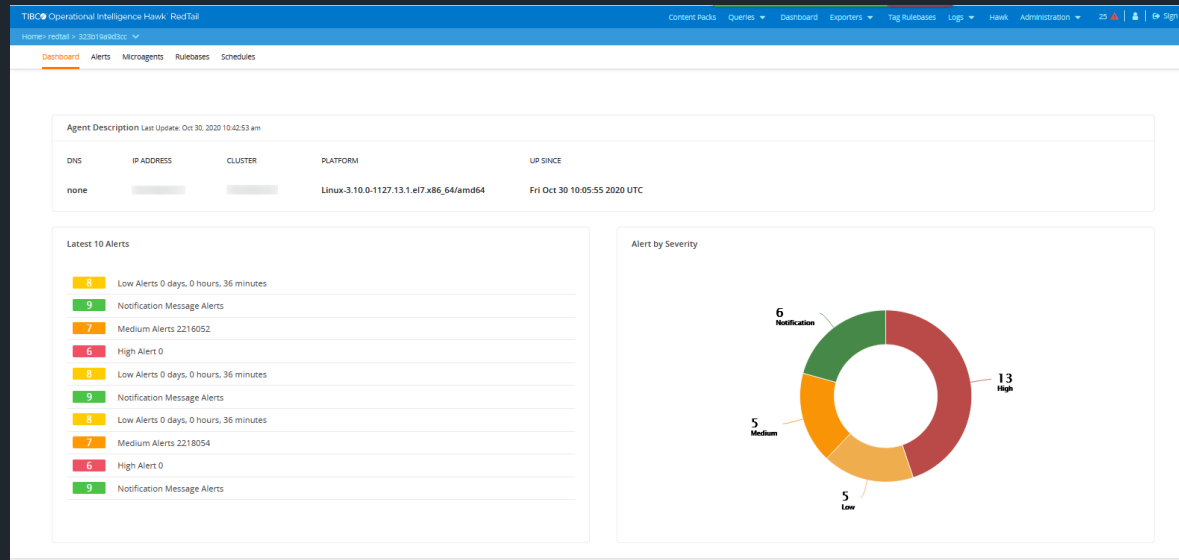
Middleware Monitoring

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- ◆ Middleware acts as an intermediary layer that enables different software applications to communicate and share data.
- ◆ By collecting and analyzing application-level data, middleware monitoring provides insights into how applications interact and perform. This information is critical for understanding user behavior, application usage patterns, and the impact of middleware on overall system performance.

TIBCO Hawk

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◆ **Rulebases** in TIBCO Hawk are sets of rules that define conditions to monitor and actions to take. They enable customized monitoring and automated responses, ensuring efficient and proactive system management.

◆ **TIBCO Hawk** is a powerful tool for real-time monitoring and management of distributed systems. It ensures system health and performance through continuous monitoring, event management, and automation.

Tibemsadmin

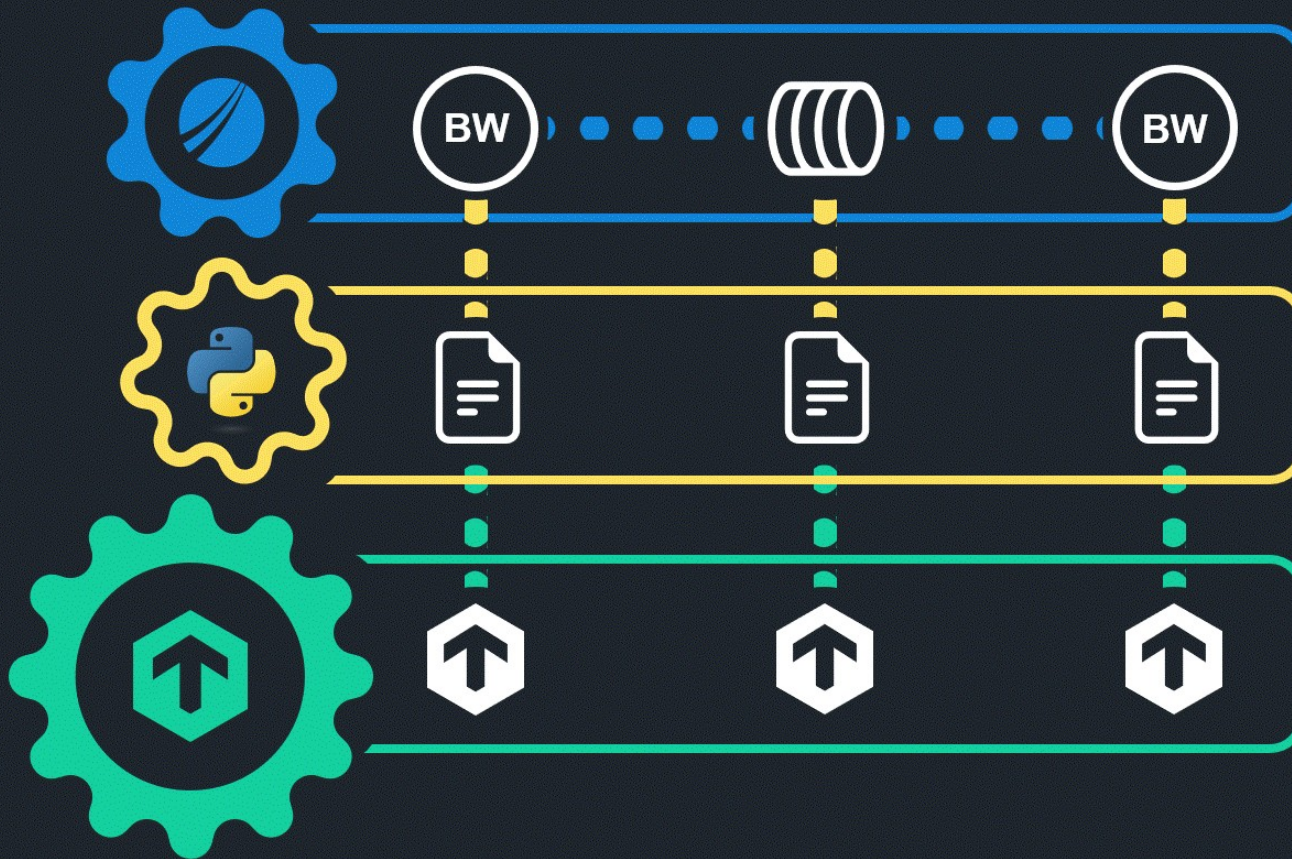
◆ TIBCO Enterprise Message Service (**EMS**) is a robust messaging platform that facilitates communication between distributed applications by sending and receiving messages. It supports the Java Message Service (JMS) standard, ensuring reliable and scalable message delivery.



◆ We utilized a scheduled crontab job to run a Python script at regular intervals. This script leverages **tibemsadmin**, a command-line administration tool for TIBCO EMS, to collect various metrics.



Solution Implementation

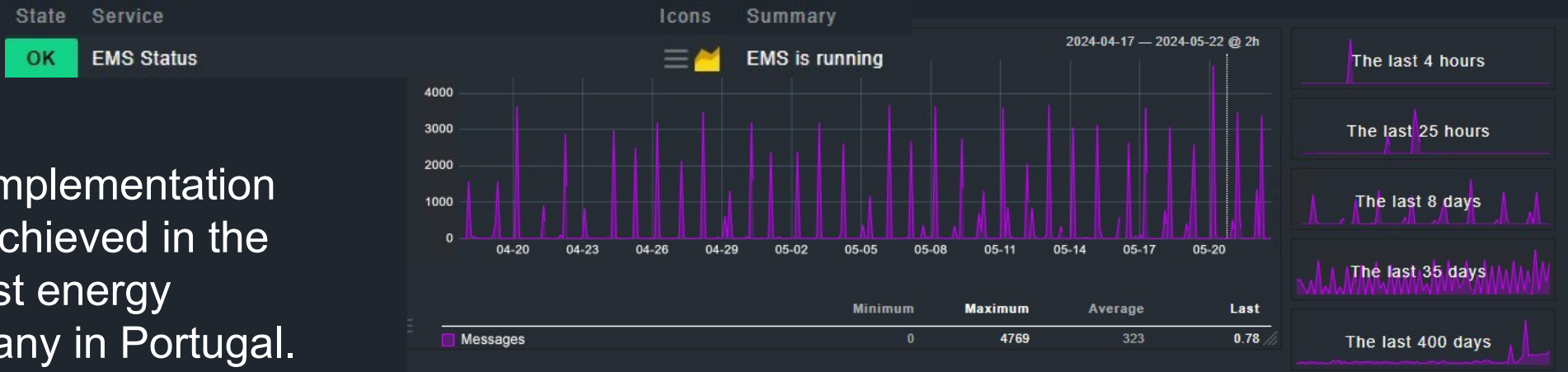
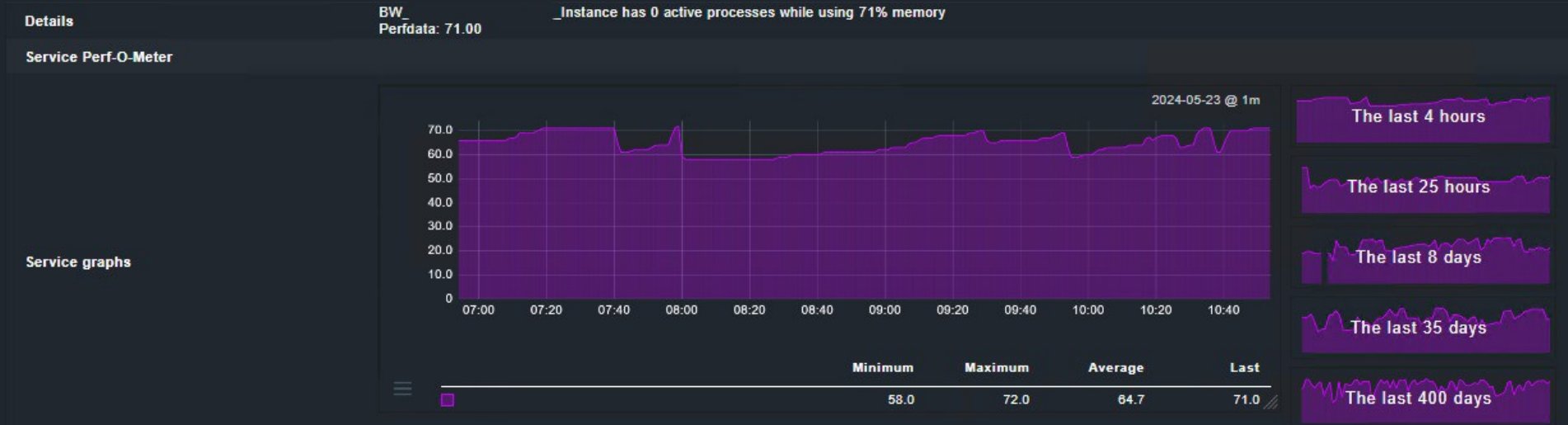


- ◆ After collecting raw metrics, a set of Python scripts refines these files.
- ◆ The refined data is then processed by Checkmk agent, providing legible and actionable information. This integration allows Checkmk to display the metrics effectively, facilitating comprehensive monitoring and analysis of the TIBCO components metrics.



Monitoring in Action

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📍 This implementation was achieved in the biggest energy company in Portugal.

Monitoring in Action

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- ◆ In this section, we showcase how the integration of TIBCO metrics into Checkmk translates into actionable insights through comprehensive dashboards.

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OK	Business Connect Partner_	☰ 📧	Partner has 0 transactions with 0% errors

Benefits Achieved and Lessons Learned

Support issues mitigation

- ◆ This implementation allowed us to identify deadlocks in BW processes when max number of threads was maxed-out by monitoring active processes over time.

Queue management insights

- ◆ We gained valuable insights into how queues stacked during off-hours by visualizing the number of messages per queue, enabling better management and optimization of resources.

Lessons Learned:

- ◆ The project highlighted the importance of flexible monitoring solutions that can adapt to diverse requirements and environments. It also underscored the value of continuous improvement and the potential for integrating new technologies to further optimize monitoring processes.



Thank You

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We appreciate your time and attention.

We hope you found this session informative and insightful.

For any further questions or discussions, please feel free to reach out.

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