Better system management:

Build expertise in managing
your BI environment

Contents

Abstract

Information is essential for business, and CIOs have a critical role to play. IT can facilitate the integration of geographic operations, individually owned processes and disparate information sources – to ensure that consistent, reliable data is available to users everywhere at the speed of business.

This in turn will assist the organization in managing costs, realizing greater operational efficiencies and improving strategy.

Overview

Meeting service commitments to the organization while also responding to changing business requirements are fundamental IT tasks.

Getting that balance right, however, is the challenge: if IT devotes all of its time and resources to meeting service commitments, there is little left over to support strategic initiatives.

As such, cutting the time and effort needed to maintain enterprise applications becomes a strategic gain. With the latest version of IBM Cognos® 8 BI, capabilities provide IT with the information to manage BI systems proactively and efficiently – leaving more time to provide business value.

Specifically, these IBM Cognos system administration capabilities allow IT to address the five areas required to meet and surpass service commitments:

Knowing the BI system
1. Understand usage patterns

2. Understand the BI system environment

3. Understand business expectations

Resolving and preventing issues
4. Determine what thresholds to address

5. Track and evolve over time

The previous IBM Cognos paper, Five Steps to Better System Management, provided an overview of these five fundamental steps.

In this second paper in the series, we take a deeper dive into steps 4 and 5. We discuss how these steps lead to better BI management – by allowing IT to identify and track thresholds, and resolve issues before they affect users, breach service level agreements and lead to support calls.

Business problems

Knowing the BI system

To recap, steps 1 to 3 focus on understanding the BI system: usage patterns, the BI environment and business expectations. Setting metrics and gathering data in these critical areas provide the information baseline for effective system management.

Understanding usage patterns is important for troubleshooting immediate system issues and tuning performance across the components of the BI system. It means knowing the number of users that access a system at any given period of time, where these users are located, how much time they spend using the solution and how they use it.

To understand the overall health of the system environment, IT needs to monitor how BI services are performing – this is indicated through metrics such as dispatcher uptime, how many requests are being handled and number or percentage of failures.

Finally, business expectations set the agenda for what metrics to track, the thresholds to set and how to prioritize follow-up actions. These mandates are defined using formal service level agreements.
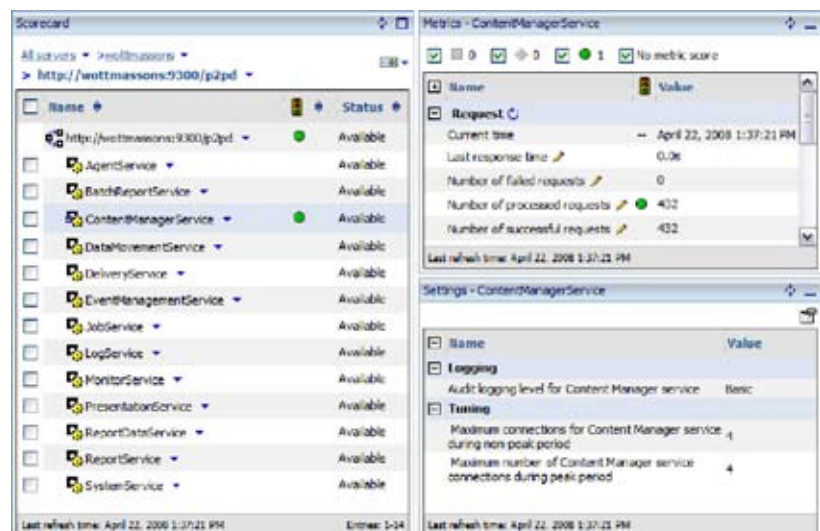
Resolving and preventing issues

Steps 1 to 3 are about gathering system information. However, this is only part of the story: system information is only valuable if it can be applied to improve the BI environment over the long and short term. Here is where steps 4 and 5 come in: determining what thresholds to address, and tracking and evolving metrics over time.

Addressing thresholds

With IBM Cognos 8 BI, IT can access hundreds of metrics and summary views, which provide a snapshot of system health – including the state of the servers, dispatchers and services that make up the system environment.

In this way, administrators can quickly identify potential issues. They can configure metrics thresholds and alerts when a threshold is crossed, ensuring that action is taken before an issue becomes a problem.

- Drag-and-drop BI authoring in the same zero footprint user interface.

- Automatic translation for distributed BI.

- IBM Cognos lineage

- Consolidates all the various data sources within the organization so a manager only has one place to go to understand the business.
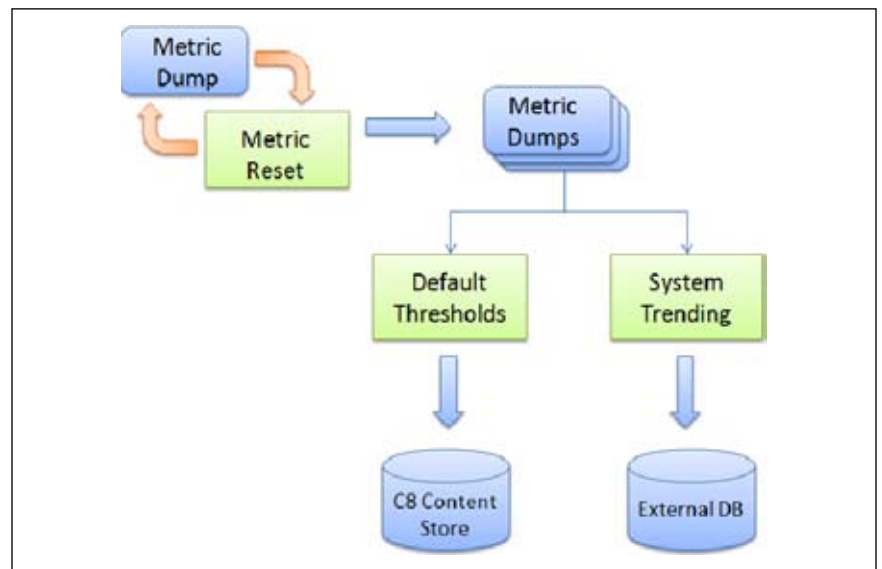

Metrics and summary views allow administrators to quickly identify potential issues.

To fully reap the benefits of thresholds, however, you need to understand what metrics are vital for system management of your BI solution. You also require the right parameters for your environment.

Business drivers

Default thresholds for generic systems are too limiting: they don't take into account the many variables that exist within your organization such as number of users, data volume and amount of content.

With this in mind, the IBM Cognos System Management Methodology helps you optimize your system management. It includes a threshold calculation tool built as an software development kit (SDK) application for capturing information – to help you customize and administer the specific thresholds and parameters of your BI solution.
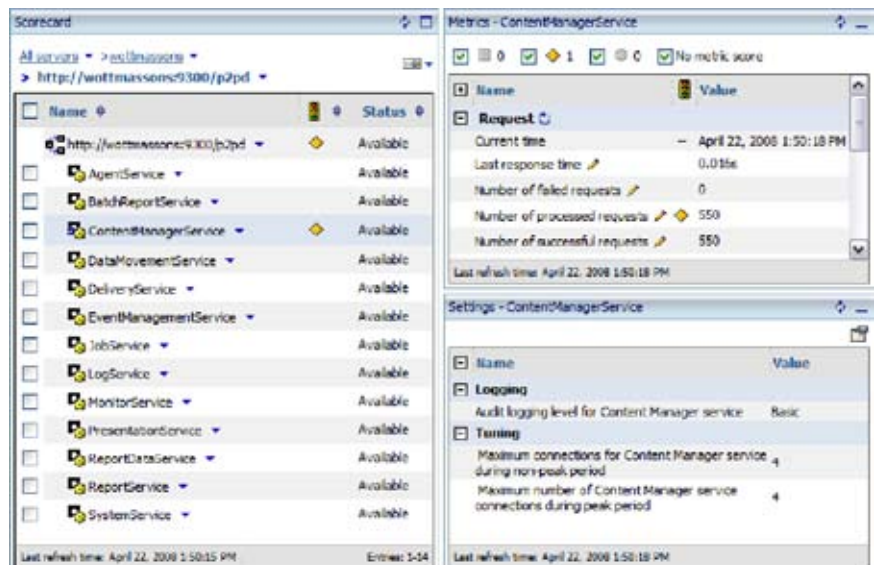

The System Management Methodology provides an SDK tool for capturing system information.

How does it work? The tool consolidates live metric data for a period of time and automatically generates the thresholds for your system.

The threshold ranges are 5 to 10 percent for the most common metrics. You can change these ranges depending on the metrics you want to capture. Once the thresholds are calculated, they are stored in the content store and will appear in the IBM Cognos 8 BI Administration window.

For example, to monitor dispatcher workload, you can set a metric threshold for the number of processed requests per dispatcher. With the SDK application, the threshold can be set to change from green to yellow status if requests increase by 5 percent, and to red status if requests increase by 10 percent over the average metrics captured in your environment.

With thresholds set for your specific environment, administrators can monitor and identify issues before they have a potential business impact.

Potential issues are identified based on thresholds that have been automatically set for your environment.

The solution

> **Build the expertise to manage and scale your system**
> The IBM Cognos System Management Methodology helps you fully leverage the capabilities of IBM Cognos 8 Business Intelligence.
>
> The Methodology includes proven practices, enhanced IBM Cognos Framework Manager models, sample reports and IBM Cognos 8 SDK tools. They give you additional insight into the application and audit data, allow you to extend system administration functionality and help you reduce the amount of time spent maintaining the environment.
>
> How do you start using it? Go to the proven practices site on IBM Cognos Support: support.cognos.com/supported/tti/public.index.html. Click on Support in the top menu bar, then select Proven Practices on the left menu bar. Look in the infrastructure category and download the Methodology materials.

Evolving metrics over time

Metrics can provide insight into changing usage patterns and the technology environment through time. Once IT identifies the metrics and sets thresholds, the next consideration is to make system metrics work for the organization over the long term.
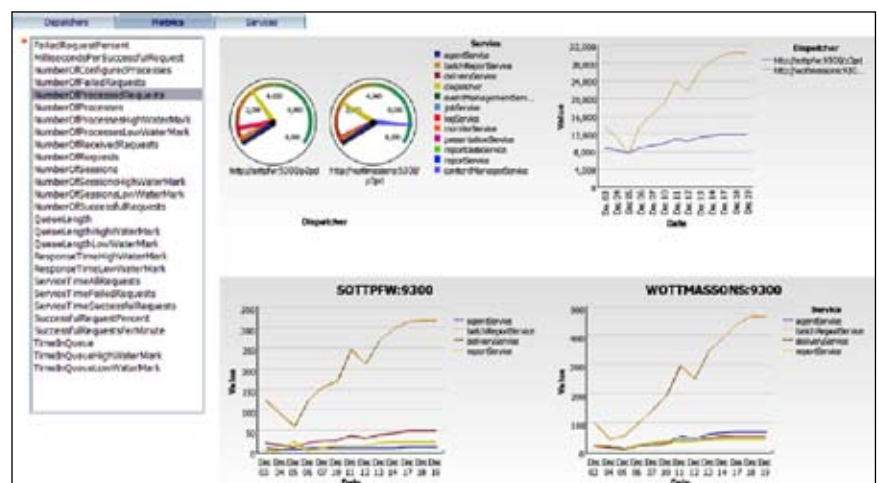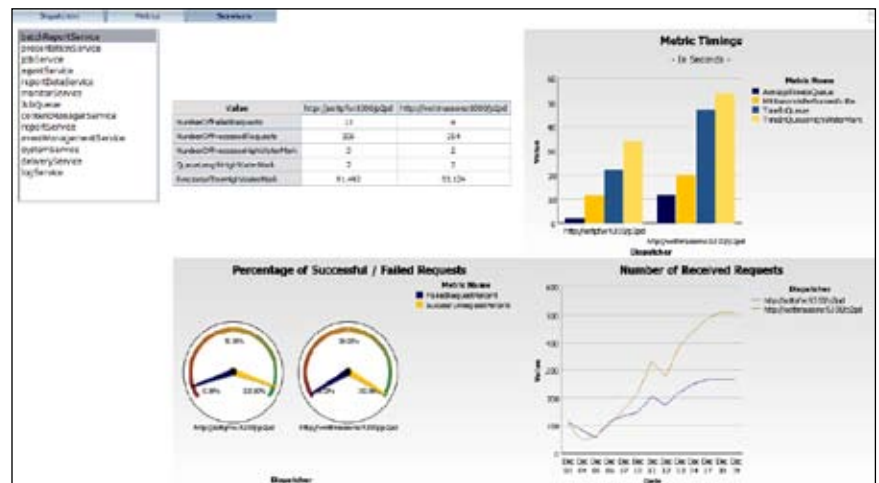
This step requires BI reporting on system information and trends. That means using dashboards, scorecards, reports, analysis and alerts to deliver the right information to drive better decisions within the IT department.

In the previous example, you established a threshold for requests processed per dispatcher. While this will help you resolve potential spikes in requests before they impact solution performance, you can also track this metric over time.

By understanding the longer term trends with metrics such as processed requests per dispatcher, you can better understand and tune your configuration based on changing solution characteristics.

The System Management Methodology provides an IBM Cognos Framework Manager model and sample reports to help you quickly build a dashboard for the IBM Cognos 8 BI environment. The live metrics information lets you audit and monitor your environment in the near and long term.

With this information, administrators can tune the solution and adapt metrics and thresholds to maintain, meet and improve service standards.

Build the right dashboard for your environment using the System Management Methodology.

Conclusion

Summary

To effectively manage their BI platform, IT managers have to understand elements such as usage patterns and user expectations. They also need to monitor metrics, set thresholds and analyze key aspects of the system environment.

With IBM Cognos 8 BI and a System Management Methodology, administrators gain new facilities, resources and tools to fully optimize their BI system. They allow task-oriented system monitoring, proactive administration through detailed system metrics and the ability to track results and trends over the long and short term.

These system management capabilities and proven practices allow IT to deliver on its fundamental tasks: meeting service commitments and responding to new business needs.

In this way, greater efficiency in system administration becomes a strategic gain – providing essential added value for IT departments and the organization at large.

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About IBM Cognos BI and Performance Management

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