Introduction

The Power of Visual Correlation in Application Monitoring

When you can't see the forest for the trees

A complex application can be dependent on dozens of individual software components. While there are many application monitoring solutions on the market that allow you to dive deeply into a single aspect of your application, what they typically lack is the ability to step back and provide a little perspective so that you can see the big picture.

Correlation is the key to seeing individual alerts in the context of a greater application or common middleware layer. For example, when presented with a long list of alerts: **Are you able to determine which of those alerts will affect your**

application? Can you tell which engines support load-balanced services and which are standalone? Can you tell if your middleware alert is being caused by another component that alerted 30 minutes ago?

RTView Enterprise Monitor® aggregates health and performance data of individual components to interpret the impact on your top-level business applications and middleware platforms so that you can instantly grasp the bigger picture in context.

section 01

Your application's health is the sum of its parts

Correlation is the key to understanding alerts in context

Without cross-correlation, a monitoring application can only present you with a long list of individual, component level alerts. However, support and ops teams need to see how any given alert fits into the bigger picture of application health before they can determine whether this alert represents a minor glitch or a major issue.

For instance, let's say that you get an alert that a message queue has a higher than average number of messages pending in the queue. Is this normal? Which services are going to be affected? How critical is this alert?

Correlation lets you see how individual alerts are related to YOUR applications and platforms and lets you prioritize your response based on the impact to your applications as well as the overall importance of that application.

RTView Enterprise Monitor® understands the relationship between application components and correlates the health of your application or service with that of all of its underlying components.

section 02

Application health at-a-glance

Correlation of aggregated alerts displays impact at application level

As a result, support teams are able to see the overall health state of an application without intimate knowledge of the performance characteristics of underlying middleware systems.

One-click drill-down reveals the health state of underlying components, further enabling root-cause analysis by front-line support teams so that they can escalate to the right teams faster.

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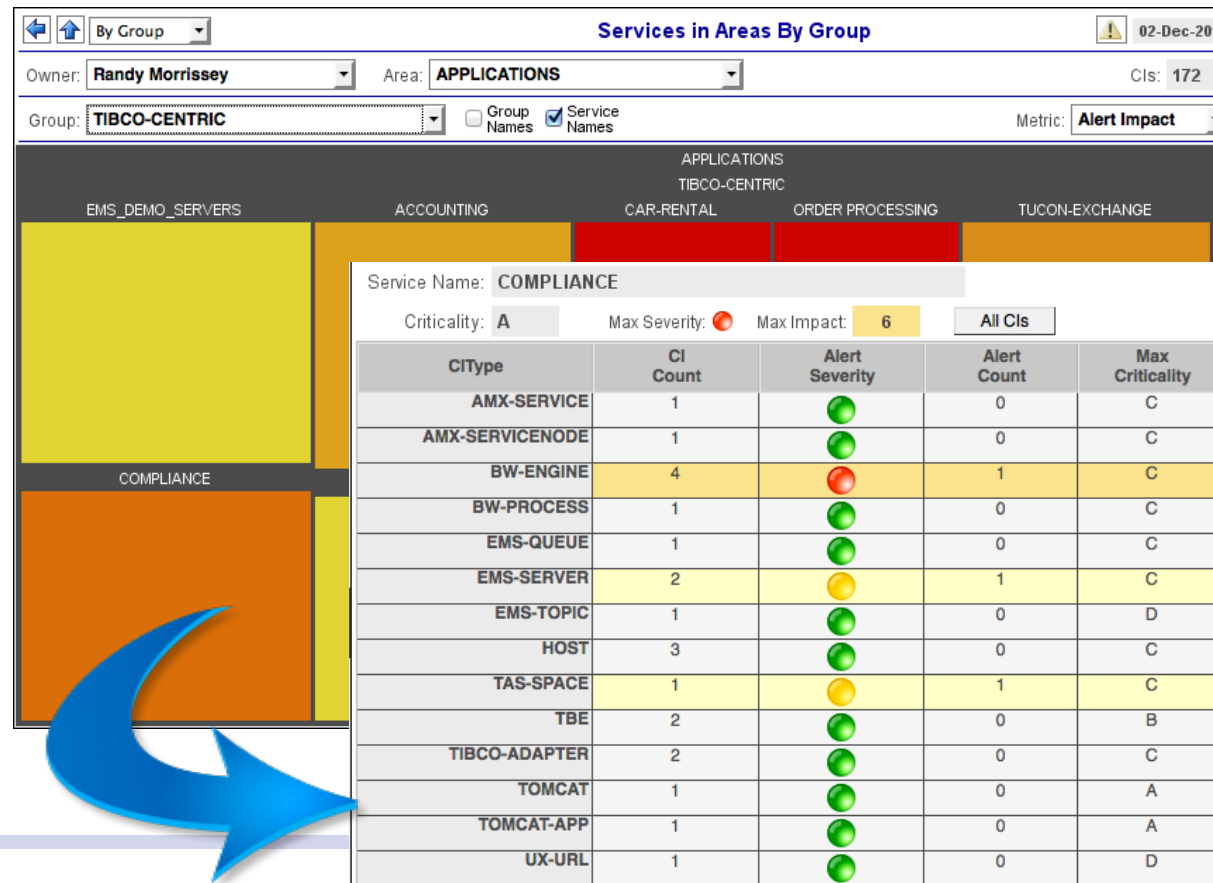
Platform health at-a-glance

Correlated views ensure the right information is displayed to the right user

Similarly, middleware ops teams can monitor the health of their technology sub-systems at a macro-level and then drill-down further, if necessary.

For instance, teams responsible for managing the TIBCO technology can start at the TIBCO middleware level and then drill-down to individual technology clusters and then again to individual instances to zero in on problems rather than trying to sort through a chronological list of alerts.

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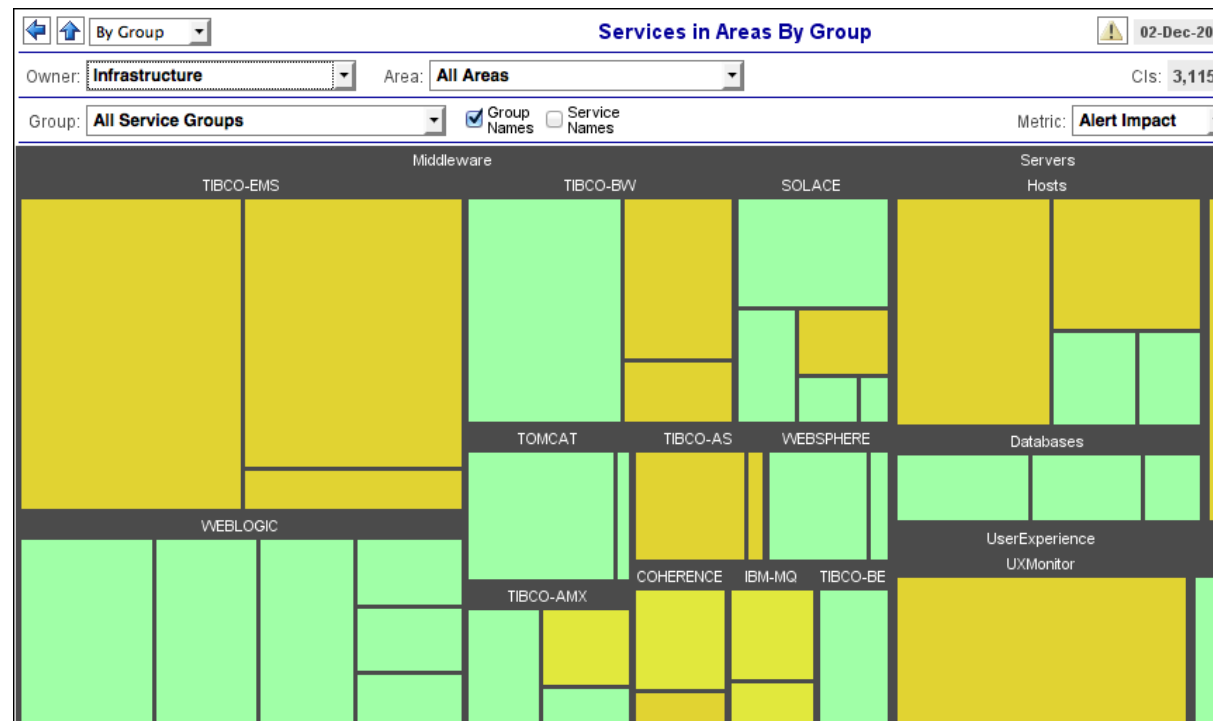
Contextual grouping of like components

Today, many high-performance applications and services distribute workload across clusters of servers or nodes for both performance and failover purposes

To achieve maximum performance, you want to ensure that this workload is being load-balanced evenly across the cluster but this can be difficult if you can only check one instance at a time and don't have a detailed understanding of which instances are supporting which applications and services. Commonly distributed and clustered technologies include Oracle WebLogic, Oracle Coherence, TIBCO ActiveMatrix and TIBCO ActiveSpaces.

Because RTView Enterprise Monitor® understands how components are clustered, it can display aggregate health metrics in a uniquely contextual way using correlation

section 03

Correlating health of load-balanced components

See the health of your cluster as a whole

RTView understands which components are clustered and belong to which applications

By representing the health state of a cluster of related nodes as an aggregate whole, it is easier to visualize where further drill-down is required rather than having to look at the health state of each server, one-at-a-time.

Side-by-side visualization makes it easy to see when things are out-of-sync

When dealing with load-balanced applications, it is important to be able to visualize each instance in relation to each other.

Servers and nodes are often clustered together for the purpose of load-balancing and failover. However, if the the workload is not evenly distributed across all members of a cluster, it can result in the performance degradation of the cluster as a whole.

This sort of imbalance can be easily overlooked if you can only view performance metrics for one server at a time. Through the use of correlation, RTView knows which instances are related in support of a common service and can automatically display nodes as a cluster of side-by-side performance metrics so that you can easily spot inconsistencies like this.

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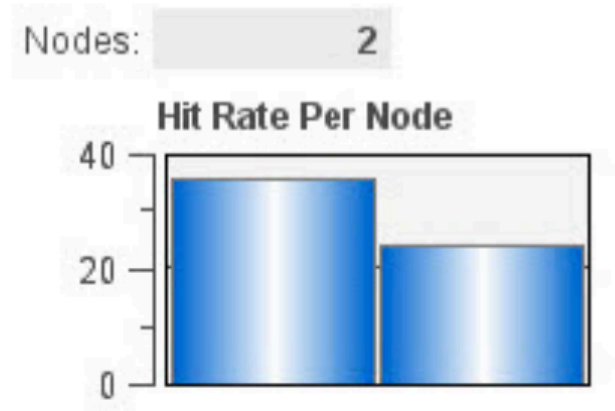
Understanding the impact of one component on another

Cross-correlation is also valuable in visualizing how the performance of one component may be affecting other components that make up your applications and middleware platforms across the enterprise

It is not uncommon to find that a process may be underperforming due to outside influences.

For example, if a rogue process sharing the same physical (or virtual) host as your business process starts to dominate the resources on that particular host, then it is going to affect the performance of everything running on that host.

If you can only look at one technology at a time, it will take you a long time to track down a problem like this as you trace the problem from your business process to its supporting engine, node, host and to other hosts running on that same machine.
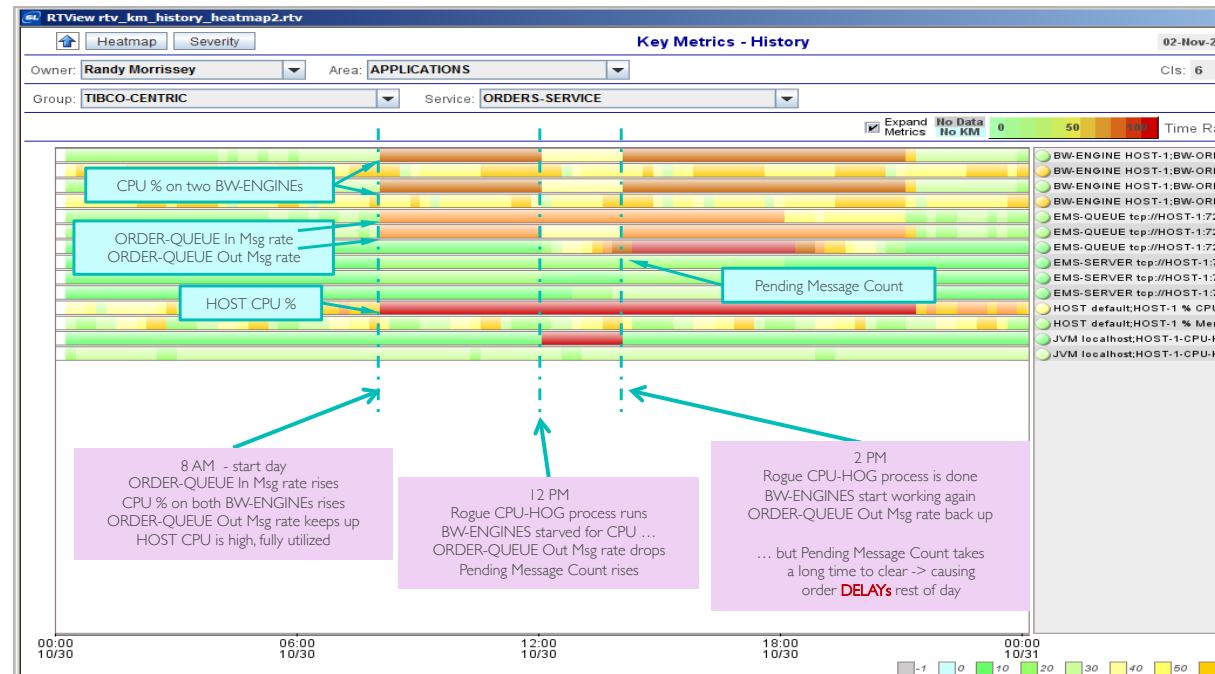
section 04

Correlating application environment variables

Time-based performance graphs of correlated key performance metrics

RTView Enterprise Monitor® simplifies troubleshooting of related components

By allowing you to correlate all the key metrics of an application, you can view historical performance side-by-side and visually spot performance anomalies that seem to occur around the same time – thereby suggesting a causal relationship so you can zero in on likely suspects faster than before.

section 04

Visual correlation is unique to the RTView Enterprise Monitor platform

Service Model Integration

With just a few input parameters, RTView is able to map out all the dependent components of an application and present visual metrics in context - eliminating alert overload, aiding drill-down navigation and heightening comprehension of component relationships.

Historical Context

RTView stores and displays historical performance metrics, allowing you to view performance over time and relative to other components. Historical data provides context on whether behavior is a growing trend, a spike or a normal pattern of activity and allows troubleshooting after-the-fact. Viewing health metrics of related components over a period of time also draws out hidden performance relationships that may or may not be causal.

Pre-built Dashboards

RTView gets you up and running fast with a series of professionally pre-built dashboards, shared across applications and technology platforms, so that you can start monitoring applications faster without a lot of complex coding required for each and every visualization.

section 05

Correlation is the key to contextual monitoring

Start with the big picture before drilling down into the details

Too many application monitoring systems today focus on deep-dive silos that fail to give you a contextual view of your entire application.

Whether you are just starting your End-to-End monitoring journey or you have already invested in deep-dive diagnostic tools for application performance, RTView Enterprise Monitor gives your application and middleware support teams the context necessary to understand the big picture as quickly as possible so that you know when and where a deeper-dive is necessary.

For more information on RTView Enterprise Monitor® and how we can give you a correlated view of your application environment health and performance:

Visit us at www.sl.com
Or call us at +1 800 548-6881

section 06