

Custom Crafted Management Pack Use Cases

Atlassian Confluence Monitoring on Microsoft SCOM

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Atlassian Confluence Monitoring

As part of a customer project, we developed a **custom Confluence Management Pack for Microsoft System Center Operations Manager (SCOM)**. This tailored solution enables IT operations teams to monitor key performance and health metrics of Confluence environments, ensuring knowledge-sharing platforms remain available and performant.

With this Use Case paper, we want to share our knowledge with the SCOM Community to highlight the possibilities of advanced monitoring on Microsoft SCOM, helping teams get better in their day-to-day tasks.

What is Confluence by Atlassian

Confluence by Atlassian is a collaborative workspace platform designed to help teams create, organize, and share knowledge efficiently. It enables users to produce dynamic, content-rich pages that facilitate project documentation, meeting notes, knowledge bases, and more.

Integrated with Atlassian's suite of tools such as Jira, Confluence supports real-time collaboration, version control, and structured content organization, making it ideal for agile teams and enterprises seeking to streamline communication and documentation workflows.

Why Monitor Atlassian Confluence?

Monitoring Atlassian Confluence is essential because it often serves as a central hub for collaboration, documentation, and knowledge sharing within an organization. Ensuring smooth operation is critical to maintaining productivity, minimizing downtime, and protecting sensitive information.

Key Monitoring Areas

Monitoring Confluence across performance, availability, and security dimensions ensures a reliable, efficient, and secure collaboration platform. This not only minimizes disruptions but also supports compliance and operational transparency in enterprise environments.

Application Performance

- **Page Load Times:** Monitor the speed of loading pages, especially those with macros or large attachments.
- **Search Responsiveness:** Delays in search functionality can impact user efficiency.
- **API Response Times:** Important for integrations with other tools (e.g., Jira).
- **Plugin/Macro Performance:** Identify issues caused by third-party or custom add-ons.

Availability

- **Uptime and Reachability:** Ensure the service is accessible 24/7, especially in global or remote teams.
- **Error Rates:** Track HTTP errors (e.g., 500, 503) to identify backend issues.
- **Service Health Checks:** Monitor background services like indexing, email delivery, and scheduled jobs.
- **Database Connectivity:** Failures or latency in database access can cause major outages.

Security

- **Authentication and Access Logs:** Track failed login attempts, unusual login locations, or SSO issues.
- **Permission Changes:** Monitor admin privilege changes and access to restricted spaces.
- **Vulnerability Management:** Identify outdated or vulnerable plugins and core components.
- **Audit Trails:** Capture and review configuration changes, content deletions, or permission updates.
- **Integration Security:** Monitor the security status of connected services (e.g., Jira, LDAP, identity providers).

Confluence Monitoring – Key Technical Areas for SCOM Admins

This section provides an overview on what are the most important aspects to consider when monitoring Atlassian Confluence from a Microsoft SCOM administrator's perspective.

Application Availability & Performance

- **URL monitoring (HTTP/HTTPS):** Ensures core Confluence pages and APIs are reachable and not returning errors.
- **Synthetic transactions:** Simulates user behavior to detect real-world availability and functionality issues.
- **Response time metrics:** Identifies performance degradation trends before users report issues.

JVM & System Resources

- **Heap memory (used/committed/max):** Monitors memory consumption to prevent out-of-memory crashes.
- **Non-heap memory:** Tracks memory used by class metadata and buffers, which can also cause memory pressure.
- **Garbage collection time and frequency:** High GC activity can indicate memory tuning issues or leaks.
- **JVM-specific CPU usage:** Helps isolate performance issues caused by inefficient Java code or plugins.
- **Overall host CPU consumption:** Ensures the server isn't CPU-starved due to competing processes or load.
- **Thread count (live, peak, daemon):** High thread usage can be a sign of deadlocks or excessive parallelism.
- **Deadlocked threads:** Detects serious concurrency issues that may freeze parts of the application.

Database Connectivity & Health

- **Active JDBC connections:** Indicates how many DB connections are in use and helps spot saturation risks.
- **Idle JDBC connections:** Ensures the connection pool is being managed efficiently.
- **Connection wait times:** Long wait times suggest a bottleneck in DB access or connection pooling.
- **Last index date/time:** A stale index can result in incomplete search results and degraded UX.
- **Queued indexing jobs:** Helps detect backlogs that may delay content visibility or updates.
- **Database availability:** Confirms Confluence can reach and query its backend DB without issues.

Confluence Application Services

- **Scheduled job execution:** Identifies delays or failures in critical background jobs like indexing or email.
- **Job queue length and execution duration:** Indicates whether background tasks are keeping up or falling behind.
- **Critical add-ons status:** Plugin failures can break key user workflows or admin capabilities.
- **Errors in plugin logs:** Surfaces issues caused by incompatible or malfunctioning plugins.
- **Outbound mail queue length:** Large queues may mean users aren't receiving notifications timely.
- **Email delivery success/failure:** Identifies issues with outbound email configuration or delivery failures.

Logs and Event Monitoring

- **Log file scanning:** Captures error signatures and early warnings directly from the application logs.
- **Audit logs (admin changes, access attempts):** Monitors for unauthorized access or misconfigurations.

Disk and File System Monitoring

- **Disk space in app/data/backup directories:** Prevents service disruptions due to full storage.
- **File descriptor usage:** On Unix-based systems, running out of file handles can crash the app.
- **Temp directory usage:** Ensures temp files don't grow uncontrollably and impact performance.

Integration & External Dependencies

- **LDAP/SSO connectivity:** Validates that authentication and user sync integrations are functioning.
- **SMTP server availability:** Ensures Confluence can send critical notifications and password resets.
- **AppLink health (Jira, Bitbucket, etc.):** Checks the connectivity and functionality of linked Atlassian tools.
- **Cloud or proxy connectivity:** Identifies issues with CDN/proxy access if Confluence is deployed behind one.

User Session Metrics

- **Active user sessions:** Measures current load and usage patterns on the platform.
- **Session duration trends:** Helps detect unusual patterns that may indicate performance or security issues.
- **Login failure rates:** High failure rates could indicate user issues, lockouts, or possible brute-force attempts.

Atlassian Confluence Monitoring Use Cases

Monitoring Atlassian Confluence can significantly improve system reliability, user satisfaction, and operational efficiency. Here are **four real-world use cases** that illustrate how monitoring Confluence helps **save time, money, and nerves**.

Avoiding Downtime During Critical Work Periods

Use Case

A multinational company uses Confluence for cross-team documentation, product roadmaps, and project management. During quarterly planning, thousands of users access it daily.

How Monitoring Helps

- Real-time uptime monitoring alerts IT if Confluence becomes slow or unresponsive.
- Automatic incident notifications enable quick investigation and resolution.

Benefits

- Prevents **delays in planning** or product launches.
- Saves **hours of lost productivity** across teams.
- Reduces **support ticket volume** from frustrated users.

Detecting Performance Degradation Before Users Complain

Use Case

An internal IT team notices reports of "sluggish" Confluence performance, but complaints only trickle in after days of user frustration.

How Monitoring Helps

- Track key metrics like page load time, search latency, and plugin performance.
- Use historical trends to flag gradual degradation before it affects users.

Benefits

- Proactively fixes issues, reducing the **number of support escalations**.
- Save **employee time** spent trying to use slow systems.
- Maintain a positive user experience, lowering **team frustration**.

Preventing Outages Due to Plugin or Integration Failures

Use Case

Confluence is integrated with Jira, Git, and a custom SSO system. After a new plugin is installed, a memory leak causes crashes over the weekend.

How Monitoring Helps

- Tracks CPU, memory usage, and plugin behavior.
- Sends alerts on unusual resource usage or error spikes.

Benefits

- Prevent **unscheduled outages** and emergency weekend firefighting.
- Avoid costly **downtime and incident recovery costs**.
- **Reduce stress for IT** and operations teams.

Optimizing Resource Allocation and Licensing

Use Case

A company is scaling and unsure if its Confluence instance needs more memory, a bigger server, or a higher-tier license.

How Monitoring Helps

- Tracks usage patterns, peak traffic, and API load.
- Helps IT make data-driven decisions about scaling and licensing.

Benefits

- Avoid **overpaying** for unnecessary resources.
- Preventing **under-provisioning** leading to outages.
- **Save money** while ensuring high performance.

We hope this Atlassian Confluence Monitoring Use Case paper inspires you to extend your monitoring on Microsoft SCOM. Feel free to reach out for help building your next custom Management Pack.

NiCE Services and Training for Microsoft SCOM

NiCE Services & Training for Microsoft System Center Operations Manager (SCOM) offers specialized expertise in enhancing IT monitoring through the development of custom Management Packs tailored to an organization's unique infrastructure and business needs.

By leveraging NiCE's deep knowledge of SCOM, their services empower IT teams to extend native monitoring capabilities, enabling precise, scalable, and efficient oversight of complex environments. The custom management packs crafted by NiCE address specific applications, devices, and services not covered by default SCOM templates, ensuring comprehensive visibility and proactive issue detection.

In addition to bespoke management pack creation, NiCE provides targeted training to equip IT professionals with the skills to maintain, customize, and optimize SCOM environments independently. This combination of tailored solutions and knowledge transfer significantly improves operational reliability, reduces downtime, and maximizes the return on investment in Microsoft SCOM deployments.

For more information please visit <https://www.nice.de/nice-services-for-microsoft-system-center/>.

About NiCE

NiCE Services for Microsoft System Center encompass consulting services tailored to System Center Operations Manager, Configurations Manager, and Service Manager. Our offerings include SCOM Health Assessments, advice and provisioning for third-party SCOM tools, as well as SCOM-centric monitoring solutions for business elements such as applications, databases, operating systems, services, and custom applications.

NiCE Management Packs for SCOM and **Azure Monitor SCOM Managed Instance** (SCOM MI) are available for AIX, Azure AD Connect, Entra ID, Citrix VAD & ADC, Custom Applications, HCL Domino, IBM Db2, IBM HMC & VIOS, IBM Power HA, Linux on Power Systems, Log Files, MariaDB, Microsoft 365, Microsoft Teams, Microsoft SharePoint, Microsoft Exchange, Microsoft OneDrive, Mongo DB, NetApp ONTAP, Oracle, Veritas Clusters, VMware, VMware Horizon, and zLinux.

Our commitment

1. Ongoing development, incl. latest version support
2. Top required metrics come out-of-the-box
3. Integrated source knowledge to solve issues faster
4. Custom development & coaching
5. Highly responsive support team
6. Easy onboarding & renewals
7. Largest set of Microsoft SCOM Management Packs

About Microsoft System Center Operations Manager (SCOM)

Microsoft SCOM is a powerful IT management solution designed to help organizations monitor, troubleshoot, and ensure the health of their IT infrastructure. SCOM provides comprehensive infrastructure monitoring, offering insights into the performance, availability, and security of applications and workloads across on-premises, cloud, and hybrid environments. With its robust set of features, SCOM enables IT professionals to proactively identify and address potential issues before they impact the business, improving overall operational efficiency and reducing downtime. By leveraging SCOM, businesses can achieve greater control over their IT environment, ensuring a seamless user experience and enhancing the reliability of their services.

Take advantage of all the benefits of advanced monitoring using NiCE Management Packs for Microsoft System Center Operations Manager. Contact us at solutions@nice.de (EMEA, APAC), or solutions@nice.us.com (US, LATAM) for a quick demo, and a free 30 days trial.

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