WHITEPAPER

IBM ECM SYSTEM MONITOR

PROACTIVE APPLICATION HEALTH MONITORING FOR YOUR IBM BUSINESS AUTOMATION PLATFORM

Protect customer experience and worker productivity and mitigate risks by automating Content & Workflow application health checks 24/7

cenit

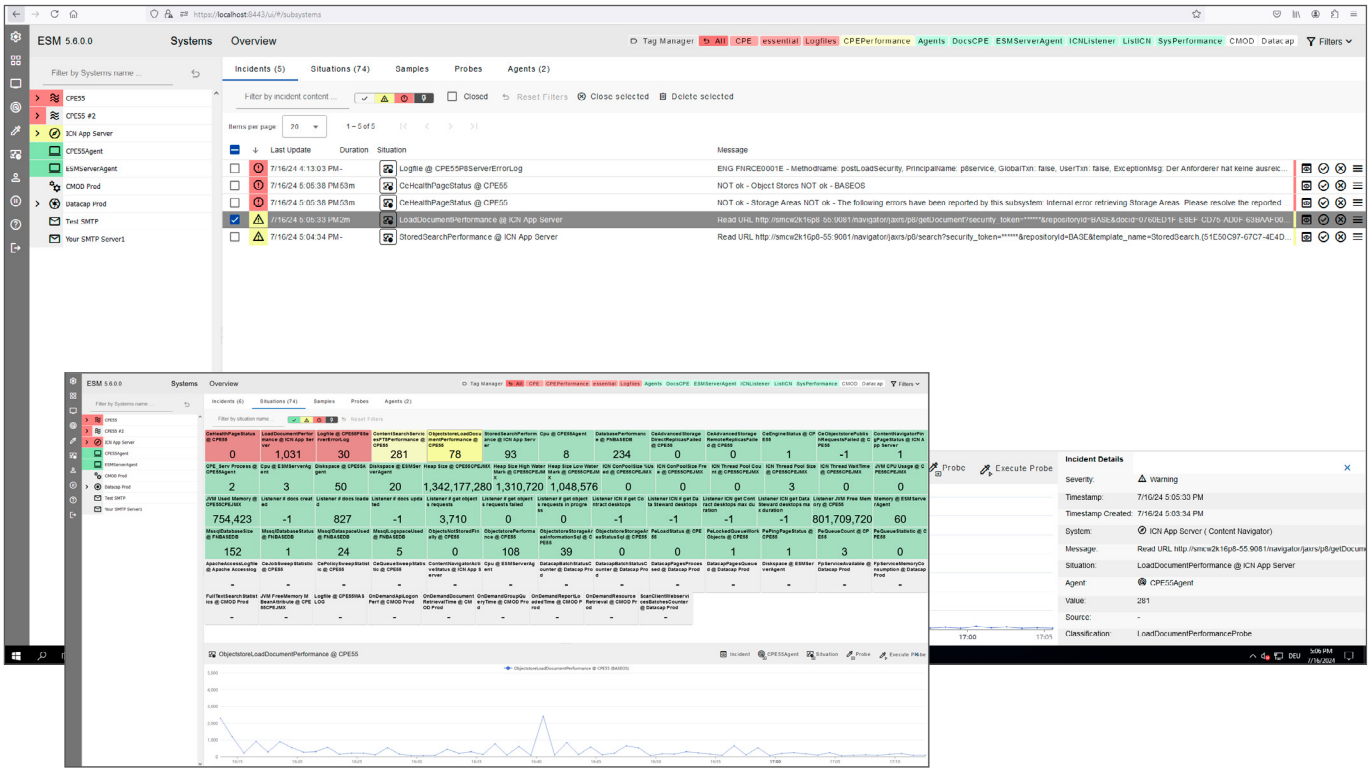
HIGHLIGHTS

- Automate mundane health checks for Content & Workflow application stack
- Proactively detect changes in the behavior of your applications
- Alert IT Operations 24/7 by augmenting your Observability & AIOps solutions
- Reduce impact of outages or performance degradations
- Avoid disruptions and rework in your business
- Free up your specialists for higher value work

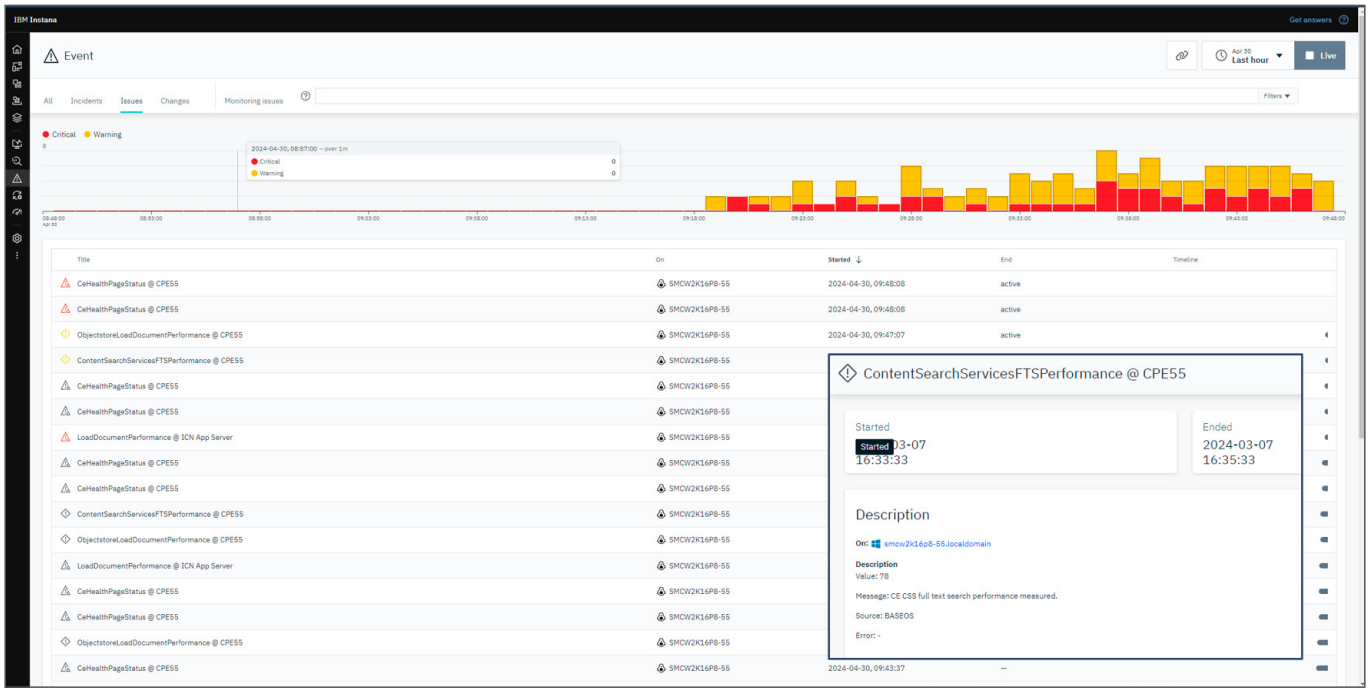
IBM's Content and Workflow applications are business critical, especially when used in customer facing processes. Their availability and performance are crucial for your business outcomes.

To avoid disruptions these Content and Workflow applications need to be monitored as integral part of an organization's enterprise wide IT Service Management. The mandatory daily health checks must be automated to ensure that critical incidents and relevant performance and capacity metrics are detected immediately and handled properly in your established AIOps processes.

IBM Enterprise Content Management System Monitor (ESM) provides your application administrators, IT Operations / AIOps and Service Desk staff a Single Point of Control with full insight into the IBM Business Automation platform. ESM manages your Content and Workflow applications 24/7 by automating daily application-specific health checks, regardless of where your applications run – on-premises, on private cloud, on hybrid cloud, as traditional installation or as container or a mix. And it provides application administrators insight into the underlying middleware and infrastructure of their applications, so they no longer fall victim to incidents caused by these components.



ESM augments overarching observability solutions like IBM Instana and AIOps solutions like IBM Cloud Pak for AIOps, adding Business Automation specific incidents and metrics to the bigger picture 24/7. Whenever an issue impacts the Business Automation applications it won't go unnoticed. Even after standard hours, when the application team is not available, IT Operations would still be able to initiate a response.



This proactive health monitoring helps protecting the productivity of business users and their end customer's experience by reducing Mean Time to Detect (MTTD) and Mean Time to Resolve (MTTR) – as well as Mean Time to "Innocence" in the popular blame games. Your Content & Workflow administrators can focus on higher value work. They do not need to waste their time with mundane routine checks to ensure uptime or chasing incidents that are not caused by their applications.

CAPABILITIES

IBM ECM System Monitor supports your administrators and IT Operations team with the following capabilities:

Proactive monitoring

- Automated continuous checks of events, performance metrics and capacity metrics of your Business Automation platform
- Synthetic checks of FileNet and ICN user experience – search, document upload and retrieval performance
- Automated alerting in case of incidents
- Automated response to incidents on demand
- Knowledge Base with error cause and corrective actions

Integration with enterprise-wide IT Service Management solutions

- Observability Solutions, e.g. Instana or Grafana
- AI-infused IT Operations solutions, e.g. Cloud Pak for AIOps
- Incident Management solutions, e.g. ServiceNow
- Messaging Channels for ChatOps, e.g. Slack or MS Teams
- Analytics tools, e.g. Tableau

Support of Hybrid Deployments

- Monitoring of Content and Workflow applications deployed on-premises, on private cloud or hybrid cloud
- Monitoring of systems deployed as traditional VMs or as containers
- Deployment of ESM Server and Agent as traditional VM or as container

Broad coverage of IBM Content and Workflow applications

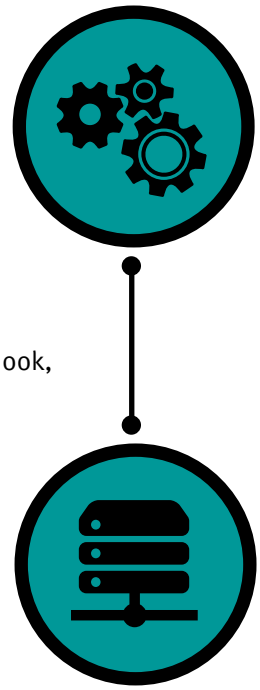
- FileNet Content Manager and Image Manager
- Content Manager OnDemand
- Content Manager 8
- Business Automation Workflow and Case Manager
- Datacap
- Content Collectors and Enterprise Records
- Operational Decision Manager
- Business Automation Logfiles
- Business Automation Listeners (System Dashboard) – real-time monitoring of health parameters and counters
- Corresponding versions in IBM Cloud Pak for Business Automation – traditional and containers
- Underlying middleware and infrastructure – from Business Automation application's perspective
  - Application Server
  - Web Server and Web Pages
  - Databases
  - Spectrum Protect (TSM)
  - Systems and Storage

As part of the IBM Business Automation portfolio ESM provides unsurpassed integration and currency with the IBM Business Automation solutions. Conjoint custom and 3rd party applications can be monitored on demand, e.g. import tools.

DEPLOYMENT SERVICES

CENIT, IBM and selected IBM partners offer a turnkey implementation, which is tailored to your Business Automation environment and can include other systems working with this platform. Our consultants support the following implementation activities:

- Analysis and Design
  - Best Practices
  - Client-specific requirements beyond Best Practices, e.g. monitoring of 3rd party applications or homegrown applications
- Installation of Management Server(s) and Agents in production and non-production environments – either as traditional installation or as container
- Configuration
  - Monitoring & Logfile Management
  - Management Consoles
  - Event forwarding to central Observability, AIOps, and Service Management tools via webhook, logfile or SMTP
- Roll-Out into production and non-production environments
- ½-day Administrator Training for application administrators
- Documentation and backup of the ESM configuration
- Fine tuning: After Go Live review of the events detected and adjustment of thresholds and filtering, so that you get as many events as necessary but as few as possible
- Project Management



Only a comprehensive implementation including proper training and fine tuning will get you the full value. Do not accept less!

ESM FEATURES AND BENEFITS

Monitoring IBM Business Automation environments with IBM ECM System Monitor provides many advantages:

- Comprehensive, proactive monitoring of entire Business Automation platform improves visibility and transparency to pinpoint problems and root causes faster – improving availability and end user experience, reducing Mean Time to Detect (MTTD) and Mean Time to Resolve (MTTR)

- Management of Business Automation components and their infrastructure in one Single Point of Control makes administrator's life easier – application administrators gain insight into the underlying middleware and infrastructure such as application servers or databases which are not under their direct control, helps them keeping alerts from becoming problems and avoiding blame games

- Understanding of end user experience – synthetic user checks provide application administrators with insight into their user's experience

- Better and more cost-efficient fulfillment of Service Level Agreements drives better productivity of workers and higher end customer satisfaction!
- Support of your journey to cloud by monitoring Content and Workflow applications on-premises, on private cloud, and on hybrid cloud, traditional and containerized in one solution
- Integration of IT Operations and Service Desk for central operation of IBM Business Automation 24/7 to leverage observability and AI capabilities of central solutions – better support of Site Reliability Engineering initiatives, IT compliance and auditing requirements
- Automation of routine health checks by application administrators frees up scarce resources, accelerating business transformation and reducing operational costs
- Reduction of trouble tickets – cost savings in Service Desk

Thanks to ESM the application specialists can focus on the further development and optimization of the Business Automation platform instead of wasting their time with mundane routine work in the daily administration and monitoring. All the same they – and IT Operations – can be sure that they will be alerted immediately in case of an error or incident. Avoiding one single incident can pay for the entire solution.

SUMMARY

Protect the productivity of your business users, maximize your end customer experience, and contain the costs of running your Business Automation platform – no matter where and how the systems are deployed. Get ESM implemented now!

FOR MORE INFORMATION

To learn more about IBM ECM System Monitor, please contact us today at info@cenit.com!

CENIT AG / CENIT North America
Email: **info@cenit.com**

Please check our **YouTube channel** for videos of an ESM presentation and live demo.

TRADEMARK NOTICE

CONTENT & WORKFLOW MONITORING CAPABILITIES – EXAMPLES

DATACAP

Taskmaster, Web & Rulerunner
- Datacap Status
- Datacap Database Status and Thresholds
- Fingerprint Service availability and memory consumption
- # of processed pages per minute (performance)
- # of queued pages (not yet processed pages)
- Scan Client batch counter filtered by task name and status (e.g. upload, pending)
- Batch counter filtered by job name, start time, job status (e.g. aborted, long running)
- Datacap Log Entries (Log files and Windows Eventlog)

Listener Metrics, e.g.
- Batches created / grabbed / released
- Querys Application Service
- Running RuleRunnerService
- TaskmasterLogin
- Clients APT
- Clients connected / disconnected

FILENET

FileNet CPE
- Health & Ping Pages
- Object Store Performance
- Doc Upload & Retrieval Performance (synth. check)
- Long-running Queries
- Publishing Queue Entries
- Advanced Storage
- Sweep Framework
- Sweep Jobs & Policies
- Process Queues
- CEBIT
- Listener Metrics
- # of logged on users
- Ingestion metrics, e.g. # of new documents added

Content Search Services
- # of CSS index requests of an Object Store
- Docs not indexed/with errors
- Full-text Search Performance (synth. check)
- CBR Queue Monitoring & Statistics
- CSS Statistics, e.g. # Docs in Queues or Queue Sizes, # Docs added, ...

BAW & ICN

Case Manager
- Case Manager Status & P8 components connected
- Case status for all or a list of defined cases
- Solution status & task status

Business Process Manager
- Process Status Count
- Snapshot Count
- Exposed Items

Content Navigator & Sync Server
- Status & Ping Pages
- ICN Health API Check (Active Status)
- Search Performance (synth. check)
- Document Retrieval Performance (synth. check)
- Listener Metrics
- ICN Database Health & Statistics

CONTENT COLLECTOR & IER

Content Collectors
- Listener Metrics
- ICC Entries Event & Audit Log
- # of files in directory

Content Collector for Mail
- Status & Availability
- Log files
- # of objects not indexed yet
- # of objects indexed, but not moved final location
- # of archived mail objects
- # of instances of mail objects

Content Collector for SAP
- ICC4SAP Archive Status
- ICC4SAP Process
- ICC4SAP Server Status

Content Collector for SAP
- ICC4SAP Archive Status
- ICC4SAP Process
- ICC4SAP Server Status

Enterprise Records
- Reporting of Sweep failures on CPE
- Federation Services Exporter Logfile on CPE

IBM CONTENT MANAGER ON DEMAND MONITORING CAPABILITIES – EXAMPLES

LIBRARY SERVER

CMOD Archives
- Database Status, Usage and Details (Statistics, Logspace, Rollback Segments, etc.)
- Services & Processes
- System Logging Entries - SL2 table

Logon Status & Performance

Document Retrieval Time

Group Add Count & Size

Group Query Status & Time

Report Loaded Status & Time

Resource Retrieval Time

CMOD Full Text Search (FTS)
- Status Server
- FTS Statistics

CMOD Syslog

Knowledge Base for SL2-related log entries

TSM – functional monitoring and statistics

OBJECT SERVER & TASKS

CMOD System & User Error

CMOD Web Applications
- Application Status (WEBi, Admin GUI)
- JMX Monitoring (JVM parameters like HeapSize, Connections, Threads, etc)

WAS Log files
- Web Application Server Status Log file
- Web Application Server Error Log file

Spectrum Protect (TSM)
- Functional monitors
- Logfile events

CMOD Tasks
- Status OnDemand Services / Processes
- Start and Stop OnDemand Services / Processes

LISTENER & ICN

Listener metrics
- Queue duration
- Cache retrieves / Cache stores
- Activity
- Login duration
- Retrieve duration

Listener events
- Retrieves
- User cache stores / User cache retrieves
- Logins / Logoffs
- Queries
- Stores

Content Navigator & Sync Server
- Status & Ping Pages
- ICN Health API Check (Active Status)
- Search Performance (synth. check)
- Document Retrieval Performance (synth. check)
- Listener Metrics
- ICN DB Health & Statistics

IBM CONTENT MANAGER 8 MONITORING CAPABILITIES – EXAMPLES

LIBRARY SERVER

Availability and status
Database –
Status, Usage & Details
Connectivity -
Resource Manager Heartbeat
CM8 Document Routing
- Workpackages per process
- Workpackages per worklist
- Worknode Load Percentage

CM8 Event Monitor Backlog
Custom query for counting specific matches
Library Server Monitor Service
Listener Metrics
Log files
- icmserver.log
- ICMSTSYSADMEVENTS
- (Database table)
- ICMSTITEMEVENTS (Database table)

RESOURCE MANAGER

Database – Status, Usage & Details
Volume Space – 7 Device Managers
- Filling level
- Online Status
- Cross-check

WebSphere AS
- RM Service Status
- RM App Status (icmrm&snoop)
- http Status
- JMX Monitoring

Services & Processes
- RM File Systems
- Migrator, Replicator, Purger and Stager for each CM8 instance

Log files
- Migrator, Replicator, Purger and Stager Logs

SPECTRUM PROTECT (TSM)

TSM – logs, functional monitors and statistics
TSM Accounting
- Number of Archive Storage / Retrieve Transactions of a Session
- Number of Backup Storage / Retrieve Transactions of a Session
- Volume of Archive Files and Backup Files sent from Client to Server
- Volume requested (in KB) for archived objects and by stored objects
- Volume (in KB) of session transferred between Client and Server
- Completion Time and Idle Wait Time of a Session in seconds
- Active Communication Time and Wait Time for Media of a Session
- Client Session Type (1-4 for normal session, 5 for scheduled session)
- Number of ‘space-managed’ Storage / Retrieve Transactions of a Session
- ‘Space-managed’ Volume (in KB) sent from Client to Server
- Volume (in KB) requested by ‘space-managed’ objects

PLATFORM SUPPORT FOR ESM SERVER AND AGENT

ESM MANAGEMENT SERVER

Windows Server – 2019, 2022

RHEL (x86_64) – 8.6, 9.0 – 9.4

SLES (x86_64) – 15 SP5

AIX – 7.3 TL1

Docker Container

ESM AGENT

Windows Server – 2012 R2, 2016 SR4, 2019, 2022

RHEL (x86_64) – 7.8, 8.6, 9.0 – 9.4

RHEL (s390x) – 7.8, 8.6, 9.0

SLES (x86_64, s390x) – 12 SP5, 15 SP4, 15 SP5

Ubuntu (s390x) – 20.04, 22.04

AIX – 7.2 TL5, 7.3 TL1

Docker Container

ABOUT CENIT

CENIT empowers sustainable digitalization. With a broad solutions and services portfolio, CENIT enables clients to optimize their horizontal and vertical business processes. Our solutions are based on innovative technologies in: product lifecycle management, the digital factory and enterprise information management. With interdisciplinary knowledge of the processes involved and their considerable expertise in the field, CENIT consultants provide customers with end-to-end advice to ensure that solutions are implemented with an understanding of the entire value chain.

With a holistic approach and based on trusted partnerships, CENIT takes responsibility for solutions on behalf of our clients. From the initial consultation to the introduction of innovative IT solutions, right through to ensuring a cost-effective operation. The CENIT team adapts to each client, taking a practical approach, which enables measurable operational optimizations. CENIT has been helping prestigious customers in key industries to gain competitive advantages for over 30 years.

CENIT has nearly 900 employees worldwide who work with customers from: automotive, aerospace, industrial equipment, tool and mold manufacturing, financial services, and trade and consumer products industries.

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