



# Maximizing Service Quality for ECM Business Users

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# Session Abstract



In this session CENIT is presenting solutions to maximize the service quality for ECM Business Users and contain operational costs to keep the IBM ECM platform up and running. We will discuss customer case studies, how IBM ECM System Monitor and add-ons help our customers to improve the uptime of their ECM applications, reduce ECM related incidents and monitor the end user experience in the Lines of Business.

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# Agenda



- **Service Quality for ECM Business Users**
- **The Solution Approach**
- **Benefits and Customer Use Cases**
- **Tailored Implementation**
- **Next Steps**



## **Service Quality for ECM Business Users**

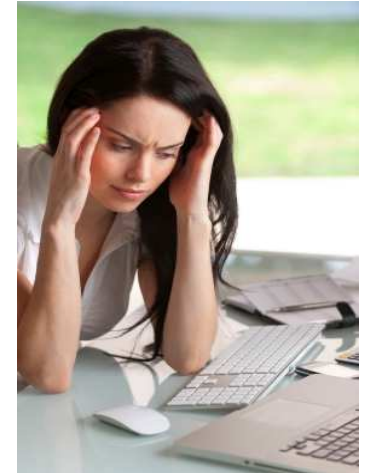
# IBM ECM is essential – Service Quality is crucial



- IBM ECM supports mission-critical business processes
  - Availability is key, downtime is not an option!
  - Management of IT Services instead of IT components (ITIL)
- Cost of operations / TCO of ECM
  - Need to be kept under control
  - ECM specialists need to focus on value-adding activities
  - Delegation of 24x7 routine monitoring to IT Operations
- Reality based on Service Management Studies
  - 73% of problems report enduser, not detected by admins
  - 63% of problems require 4+ hours to isolate root cause
  - Involve multiple specialists to solve one enduser problem

→ it's always the ECM administrators who gets blamed!

→ substantial room for improvement



# Challenges in maintaining the Service Quality



- Availability Management
  - Proactive monitoring of all components and their interaction  
→ functional monitoring!
  - Full coverage of ECM Platform → Single Point of Control
    - IBM ECM & Middleware components
    - 3rd Party & custom-built applications
  
- Performance Monitoring
  - Monitoring of service quality from end user perspective
  - Availability
  - Response Times
  
- Backup & Recovery
  - Protection of ECM platform
  - Data security
  - Data integrity





## The Solution Approach



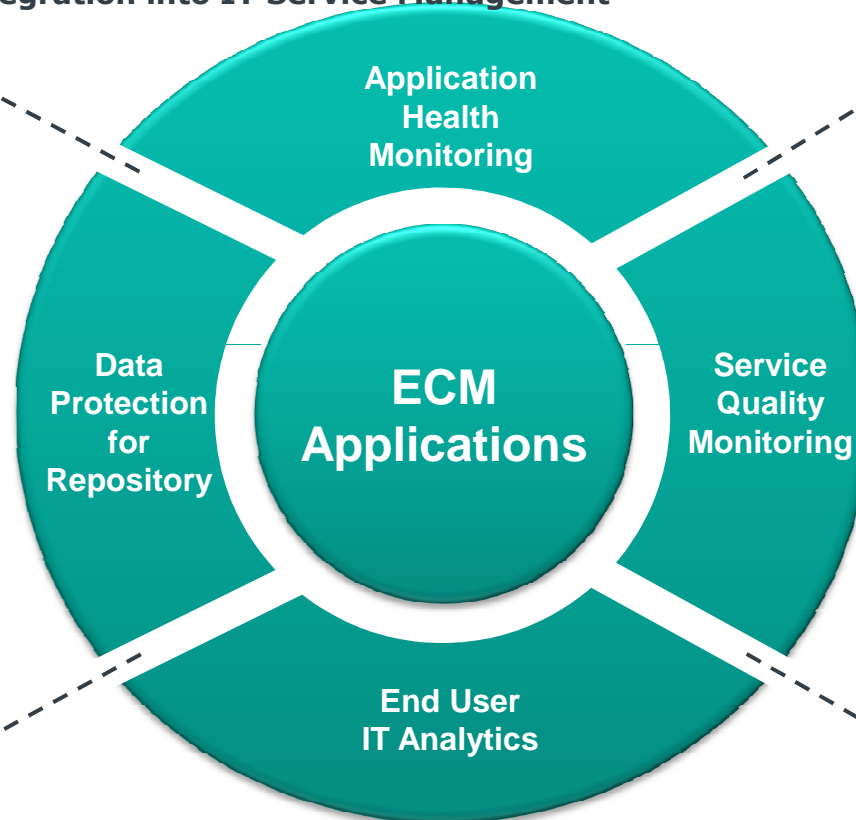
# Managing Service Quality



- ✓ Proactive Monitoring of ECM platform and applications
- ✓ Better Service Delivery → Higher Productivity in LOB
- ✓ Integration into IT Service Management



- ✓ Online Backup & granular Recovery of FileNet Content Engine
- ✓ Reducing data losses → avoid reprocessing in LOB
- ✓ Integration into Enterprise Backup & Recovery



- ✓ Monitoring Service Quality of applications from end user perspective
- ✓ Service Level Reporting and long-term Analysis for better decisions



- ✓ Monitoring and Analysis of end user IT infrastructure
- ✓ Higher Service Quality and Cost Efficiency in Service Desk
- ✓ Early detection of security leaks
- ✓ Optimization of HW-/SW-Investments

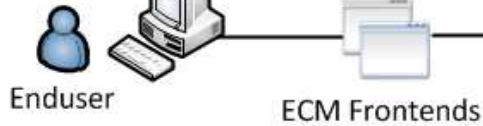


# Holistic management approach

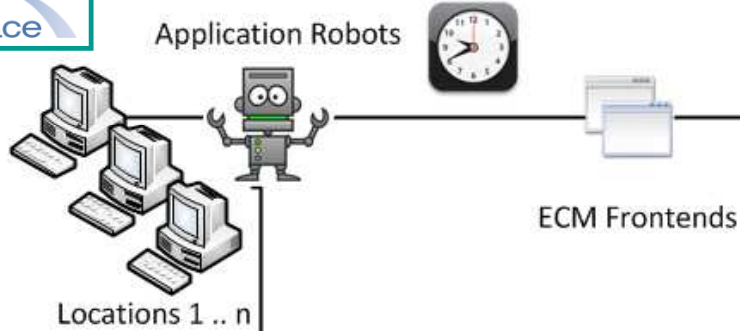
**cenit**



Enduser Infrastructure Monitoring



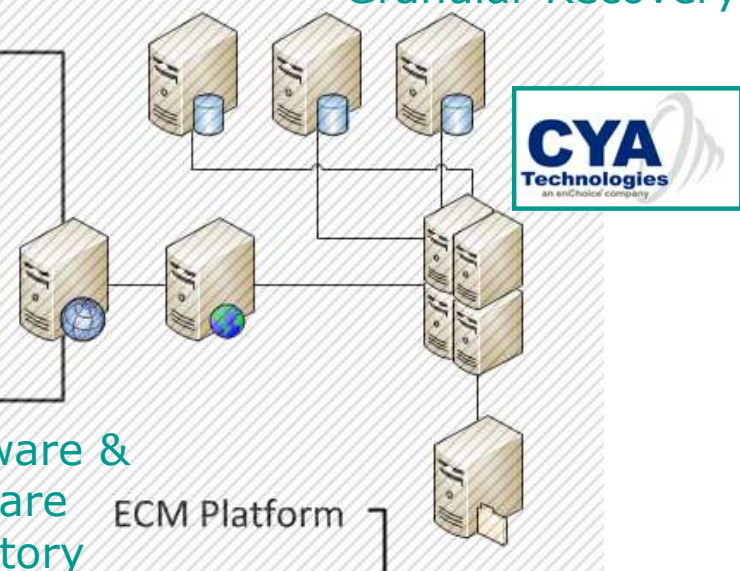
Application Quality Monitoring



Hardware & Software Inventory

ECM Platform

Hot Backup & Granular Recovery



ECM Health Monitoring

Network Tracer

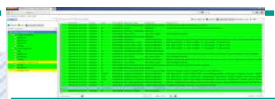


Trace Management Server

Measurement Database

Reporting

IBM ECM System Monitor Server



Single Point of Control ECM SM



## Benefits of CENIT Approach

- Higher Availability of IBM ECM → better delivery of SLA
  - Early notification → Automated Fault Detection and Prevention
  - Accelerated root-cause analysis and problem resolution
  - Stabilization of IBM ECM platform
- Higher LOB satisfaction
  - Better end user experience
  - Less re-processing of cases after data loss or disaster
  - Less downtime for backup & recovery
- Reduction of Operational Costs
  - Higher Productivity by automating routine work
  - Enabling of IT Operations eases burden of ECM Administrators
  - Reduction of Trouble Tickets



## **The Solution: IBM ECM System Monitor**

## **IBM ECM System Monitor – Improve Availability & Lower TCO of IBM ECM**

- Proactive, functional Monitoring
  - IBM ECM components
  - Middleware, e.g. database & app servers
  - Input & Output Management
  - Custom monitoring for add-on applications (3rd party & custom-built)
- Single Point of Control
  - Monitoring and Logfile Management
  - Knowledge Base
  - Tasks Automation
    - Response to events, e.g. restart
    - Analysis, e.g. for capacity planning
  - Reporting
- Holistic ECM Service Management
  - Picture perfect view and alerting
  - IT Service Management integration
    - Event forwarding (IT Operations)
    - Trouble Ticket opening (Service Desk)

# IBM ECM System Monitor manages



- FileNet Image Manager
- FileNet Content Manager
- FileNet Content Search Services
- IBM Content Engine Bulk Import (CEBI)
- FileNet Business Process Manager
- IBM Case Manager
- IBM Content Manager 8
- IBM Content Manager OnDemand & FTS
- IBM Content Navigator
- IBM Content Collector for Mail / Files
- IBM Content Collector for SAP
- IBM eDiscovery Manager
- IBM Enterprise Records
- IBM Datacap
- Middleware & Infrastructure
  - Databases: DB2, Oracle, MS SQL-Server
  - Application Servers: WAS, WebLogic, JBoss, Tomcat
  - Web Servers
  - LDAP Connection
  - IBM Tivoli Storage Manager
  - JMX / SNMP / WMI
  - UNIX, Linux & Windows Systeme
  - VMWare & VMWare ESX Host
  - EMC Centera
- Input & Output Management (Best Practices from projects)
- 3rd Party & custom applications on demand

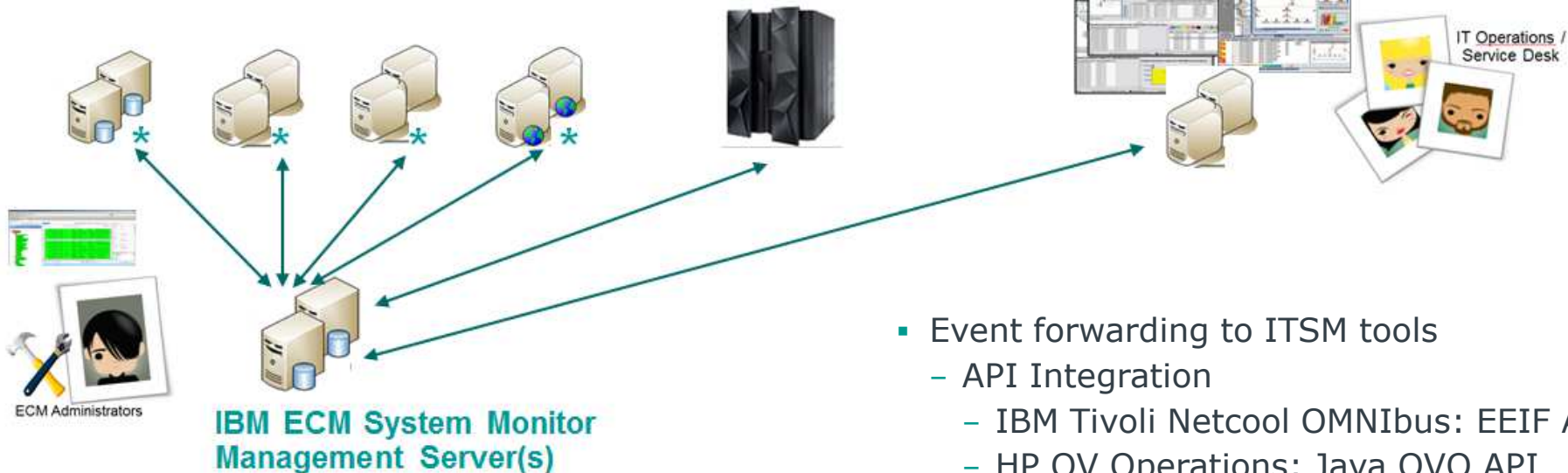


# IBM ECM System Monitor Architecture

\*Agents on managed systems, e.g. FileNet Engines, CM8 LS & RM, CMOD Archive & Web, 3rd Party, ...

Remote monitoring of CM8 & CMOD on z/OS

IT Service Management



- Dedicated SM Management Server
- Local or remote SM Database
- SM Agents on managed ECM systems
- z/OS components monitored remotely
- Databases optionally monitored remotely (limited functionality, no SM agent required)

- Event forwarding to ITSM tools
  - API Integration
    - IBM Tivoli Netcool OMNIBus: EEIF API
    - HP OV Operations: Java OVO API
  - In general:
    - Logfile
    - SNMP
    - Command Line
    - JDBC, e.g. IBM Tivoli Monitoring UA
- Event reception from z/OS tools (e.g. Tivoli OMEGAMON)
  - SNMP Traps
  - Commands
  - Logfile on distributed system

# IBM ECM System Monitor – proactive monitoring of ECM health status

- Without SM – black box ECM
  - Only basic monitoring
  - No ECM specific health information
- With SM – insight
  - ECM specific health information
  - End-to-end monitoring of ECM-based IT Services





## IBM ECM System Monitor vs. ESM? Buy vs. Build?

- SM provides IBM ECM specific application health monitoring
  - Not available through standard ESM tools
  - Development requires deepest IBM ECM skills and high efforts
  - Permanent changes in ECM backend require permanent scripting
- SM does not replace the Enterprise Systems Management tools
  - Value-adding solution targeting IBM ECM 2nd Level Support
  - Providing IBM ECM related events to central ESM tool – ESM remains the central event console for operators and Service Desk staff
- SM is a solution compatible with current and previous IBM ECM releases
  - Standard software
  - Broad platform coverage
  - Using IBM ECM internal API and tools
  - Integration of homegrown scripts possible (monitors and tasks)
  - Compatibility guaranteed through Maintenance

→ IBM ECM System Monitor leverages ESM tools and protects investments

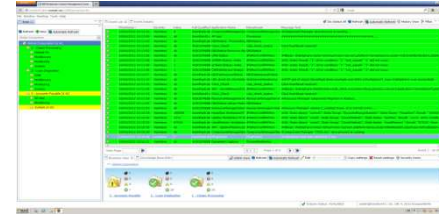
# Some impressions



How does it look like to manage IBM ECM?

Videos of an ECM SM live demo can be found in the CENIT YouTube channel at

- <http://www.youtube.com/watch?v=suEGr9X6J7c&feature=c4-overview&list=UUuy4t-TQYeUjHfij2DBSbAw>
- <http://www.youtube.com/watch?v=eSkRtICbMDI&feature=c4-overview&list=UUuy4t-TQYeUjHfij2DBSbAw>





## **The Solution: Complementary solutions to IBM ECM System Monitor**

# Monitoring end user experience



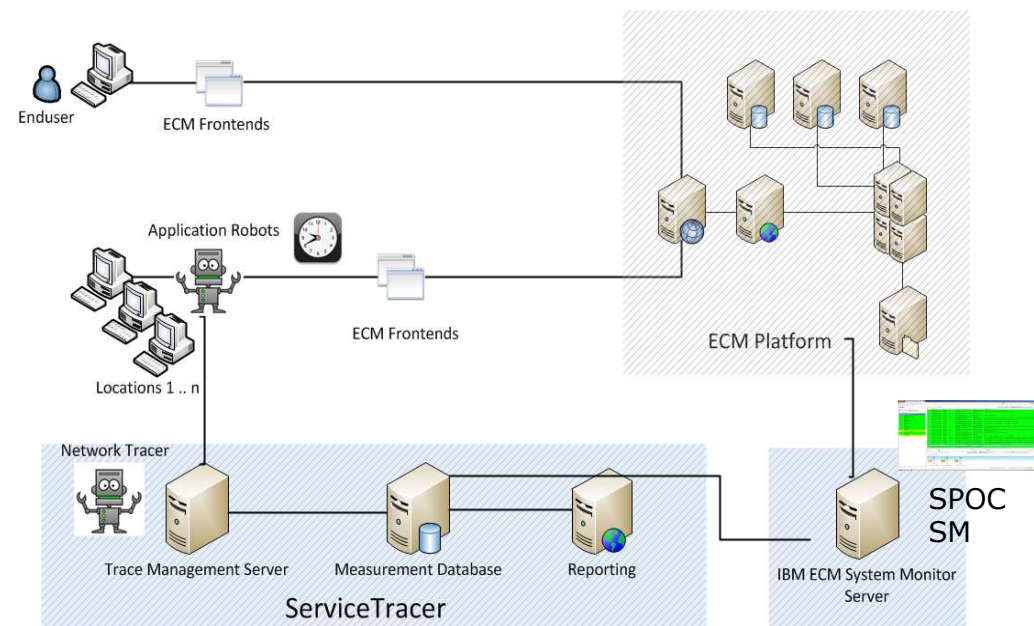
- Availability → Can end user access the ECM system?
  - From different locations?
  - From different frontends?
- Performance – What is the service quality from an end user perspective?
  - End user response times
  - Network performance
- Load & Regression Testing → Supports SW Lifecycle Management
  - Performance Testing prior to new roll-outs or changes (!) – like a human
  - Definition of Service Levels – what can I deliver?
  - Combination with tools like JMeter etc.
- Fail-over Testing – Automation of GUI interactions
- Integration in SM – one Single Point of Control for ECM Administrators



# Functions of servicetrace - 1



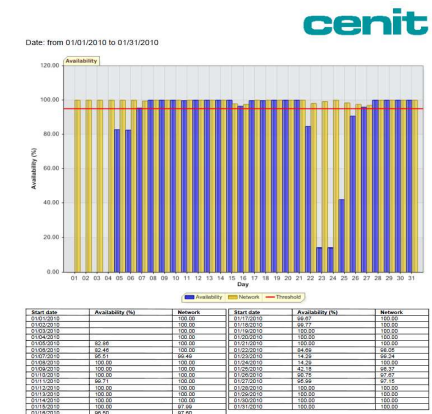
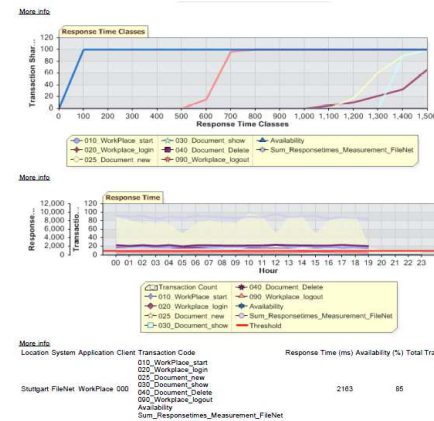
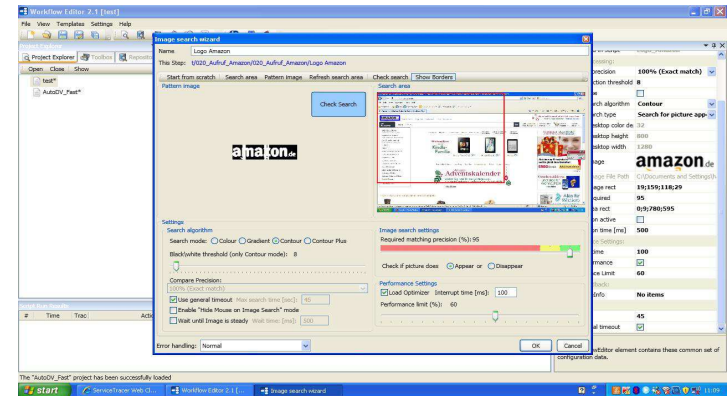
- ServiceTracer Client (STC) for distributed performance measurement
  - Quality measurement for different frontends and typical user workflows
  - Benchmarking for reference PC clients
  - MultiTracer technology → for regression and load testing
- NetworkTracer network performance measurement
  - Network time – using
    - Ping
    - TCP Ping
    - FTP Request
    - http/https Requests
    - SMTP/POP3/IMAP Requests
    - TCP Portcheck
  - Error Tracing in case of problems → simplify root-cause analysis
  - Synthetic quality monitoring for locations without STCs (correlation)
- Integration in IBM ECM System Monitor



# Functions of servicetrace – 2



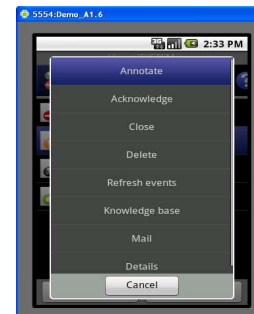
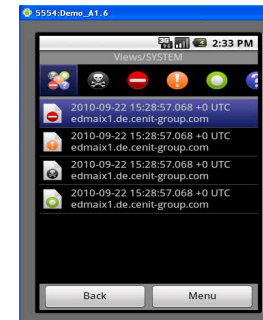
- Workflow Editor allows easy configuration and administration
  - Configuration GUI instead of scripting
    - new measurements in only few hours
  - Image pattern recognition for platform independent measurement, e.g. Citrix
  - STC Protector ensures high robustness in case of errors
- Automated Service Level Reports
  - Automated creation of monthly, weekly and daily reports in a Web Portal or per email (PDF)
  - Individual design of reports with drill-down
  - Multi-client reporting and multi-location reporting



# Cenit ValuePack for SM (Add-on)



- ECM Configuration Collector
  - Configuration discovery of ECM systems managed with FSM (HW/SW)
  - Reporting to analyze inventory data → e.g. for planning of changes or opening of IBM PMRs
  - Provision of inventory data to external Incident Management and CMDB tools
- MobileGUI
  - Access to SM Management Console from mobile devices (Java-enabled devices)
  - Access to
    - Event Console with Business View
    - Knowledge Base
- Benefits
  - Autodiscovery improves productivity of ECM administrators
  - Faster troubleshooting and better planning of changes
  - Remote action using mobile devices enables ECM administrators on stand-by duty to immediately respond to problems





## **The Benefits and Customer Use Cases**



# Benefits of IBM ECM System Monitor



- Higher Availability of IBM ECM → better delivery of SLA
  - Automated Fault-Detection and Fault-Prevention
  - Accelerated root-cause analysis and problem resolution
  - Stabilization of IBM ECM platform
  - Simplified Communication with IBM Support / Partner Support
  
- Reduction of Operational Costs for IBM ECM
  - Higher Management Productivity by automating routine work
  - Enabling of Operations / Service Desk to support IBM ECM  
→ eases burden of 2nd Level Support
  - Reduction of Trouble Tickets in Service Desk
  
- Support of IT Service Management
  - Standardized Solution leveraging investments into IT Service Management solutions
  - Foundation for Service Level Reporting
  - Better support of IT compliance and auditing requirements



**IT SERVICE  
MANAGEMENT  
& COMPLIANCE**

# Benefits of Performance Monitoring



- Full insight into ECM platform's health status
  - Backend ECM platform information provided by SM
  - End user information provided by ServiceTracer
- Proactive monitoring from end user's perspective
  - Response time and availability
  - 24x7 enterprise-wide
  - Hidden, parallel measurement for load testing & regression testing
- Fast and effortless testing of applications on GUI level
  - Load tests and regression tests
  - Fail-over tests
- Automated Management Reporting
  - KPI for IT
  - Service Level Reports for Lines-of-Business
- Very low training and administration efforts → can be used and managed by IBM ECM & SM administrators , no APM expertise required!
- Monitoring can be extended to any application, e.g. portals, SAP, Notes, Outlook, ...

} IBM ECM System Monitor  
as Single Point of Control



# ECM System Monitor – Picture Perfect View



**Event List**

Timestamp	Severity	Value	Full Qualified	Application Name	Datastream	Message Text
10/04/2012 10:12:10	Harmless	0	lswinfnp8.de	ComponentManagerQui	ComponentManagerQui	#Component Manager Java process is running ...
10/04/2012 10:12:09	Harmless	ok	lswinfsm45.c	AP App	Processes	*****
10/04/2012 10:12:06	Harmless	ok	lswinfnp8.de	DB2Status - ProcessEng	DB2Status	
10/04/2012 10:12:03	Harmless	ok	W2K3CM8DB	CALA_Check	cala_check_status	CALA heartbeat received
10/04/2012 10:12:02	Harmless	ok	W2K3CM8DB	DB2Status Resource Ma	DB2Status	
10/04/2012 10:11:58	Harmless	ok	W2K3CM8DB	CM8-Status	JPSMonConfMXMon	#MBean: WebSphere:name=icrmr,process=server1,platform=dynamicproxy,node=w2k3cm8db2Node01,J2EEEna
10/04/2012 10:11:58	Harmless	1	W2K3CM8DB	ICMRM-Status: state	JPSMonConfMXMon	#OK: state: Result: "1"; Error condition: "1" "not_equals" "1" did not occur.
10/04/2012 10:11:58	Harmless	1	W2K3CM8DB	eClient-Status: state	JPSMonConfMXMon	#OK: state: Result: "1"; Error condition: "1" "not_equals" "1" did not occur.
10/04/2012 10:11:58	Harmless	1	W2K3CM8DB	CMWebService-Status:	JPSMonConfMXMon	#OK: state: Result: "1"; Error condition: "1" "not_equals" "1" did not occur.
10/04/2012 10:11:57	Harmless	ok	lswinfnp8.de	DB2TablespaceStatus -	DB2TablespaceStatus	
10/04/2012 10:11:54	Harmless	ok	lswinfnp8.de	URL check AE /Workplac	WebServerMonitoring	#HTTP get of object (lswinfnp8.demo.example.com:9081//WorkplaceXT, type WebSphere) was successfully
10/04/2012 10:11:39	Harmless	ok	lswinfnp8.de	CALA_Check	cala_check_status	CALA heartbeat received
10/04/2012 10:11:38	Harmless	ok	lswinfnp8.de	JMX - ServletRequestCo	JPSMonConfMXMon	#MBean: WebSphere:WebModule=web_client_war,name=faces,process=server1,application=workplaceXT,platf
10/04/2012 10:11:34	Harmless	ok	lswinfsm45.c	CALA_Check	cala_check_status	CALA heartbeat received
10/04/2012 10:11:08	Harmless	ok	W2K3CM8DB	ResourceManagerServic	ResourceManagerServic	#Resource Manager component Migrator is started...
10/04/2012 10:11:06	Harmless	ok	W2K3CM8DB	DB2Status Library Mana	DB2Status	
10/04/2012 10:11:03	Harmless	ok	W2K3CM8DB	ResourceManagerVolum	ResourceManagerVolum	#Resource Manager volume C_nolabel (Type: 0) is not full (14%) ...
10/04/2012 10:10:58	Harmless	196608	lswinfnp8.de	HeapSize WorkplaceXT	JPSMonConfMXMon	#OK: Stats object: "current"; Stats Group: "BoundedRangeStatistic"; Stats Name: "HeapSize"; Result: "196608"
10/04/2012 10:10:58	Harmless	1272	lswinfnp8.de	Uptime Workplace XT In	JPSMonConfMXMon	#OK: Stats object: "count"; Stats Group: "CountStatistic"; Stats Name: "UpTime"; Result: "1272"; Error conditio
10/04/2012 10:10:58	Harmless	87919	lswinfnp8.de	UsedMemory Workplac	JPSMonConfMXMon	#OK: Stats object: "count"; Stats Group: "CountStatistic"; Stats Name: "UsedMemory"; Result: "87919"; Error co
10/04/2012 10:10:58	Harmless	ok	lswinfnp8.de	JMX - Uptime/Memory/H	JPSMonConfMXMon	
10/04/2012 10:10:40	Harmless	ok	lswinfnp8.de	ComponentManagerSta	ComponentManagerSta	#Component Manager "CP01.ALL" Java process is running
10/04/2012 10:10:38	Harmless	7	lswinfnp8.de	PingPeriod	PingPeriod	#Calculation type MAX detected: 7 ms
10/04/2012 10:10:31	Harmless	ok	W2K3CM8DB	Document Capture	ProcessInstances	

**Business View**

- Accounts Payable: 3 (Warning)
- Loan Origination: 2 (Warning)
- Claims Processing: 1 (Warning)

**servicetrace**

Event 1 - 30 of 97

Oct 4, 2012 Europe/Berlin

# Large Insurance Company (USA)



## Challenge

- Very large ECM systems in multiple LOB
- Mission-critical applications with 24x7 image access required → SLA delivery is mandatory
- User perceptions of an unstable environment

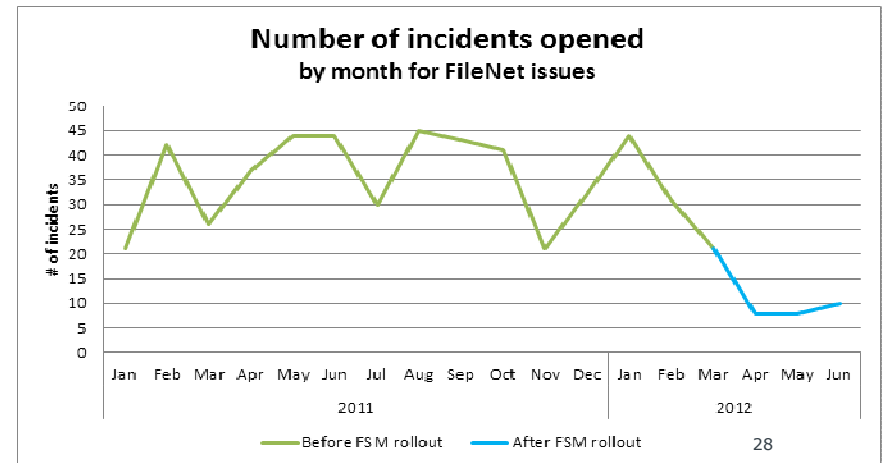
## Solution

- **IBM ECM System Monitor** manages:
  - FileNet P8 & ICC & IS environments
  - Autonomy and TriTek applications
  - WAS, MSSQL, Windows, Linux
  - 200+ servers !
- Integration into BMC
- Integration of End-to-End Performance Data provided by **ServiceTracer**
- In production since 2009

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## Benefits

- Response time for issues improved due to automated alerts
- Reduced number of incidents by 55%
- Increased uptime to 99,99%
- Insight into end user perspective
- Corporate audit and SOX compliance
- Higher productivity of Administrators
- Reduced custom monitoring scripts



# KLP Insurance (Norway)



## Challenge

- Shared ECM platform for multiple business processes → mission-critical for all 800 employees
- SLA fulfillment mandatory
- Manual administration too expensive

## Solution

- IBM ECM System Monitor manages:
  - FileNet P8 BPM & Email Manager
  - Homegrown applications based on WAS
  - WAS, Tomcat, Oracle, Windows
  - 30+ servers in Production, DR and UAT
- In production since January 2011

## Benefits

- One Single Point of Control for all ECM components, including KLP web apps
- Proactive prevention of outages
- Reduced manual efforts in application health monitoring

“System Monitor identified 6 big issues in the 1<sup>st</sup> year, so it already paid off”

## Challenge

- Shared DMS platform on z/OS for 300+ banks → highly mission-critical platform for 66000 users
- Optimize management of DMS and add-on components from costs and service delivery perspective

## Solution

- IBM ECM System Monitor manages:
  - IBM CM8 with DB2, WAS and TSM
  - 3 z/OS Mainframe and 10+ UNIX servers in three environments
- Integration into LeuTek ZIS
- In production since March 2013

## Benefits

- One Single Point of Control for all ECM components including TSM
- Proactive operation of DMS platform ensures Service Levels
- Faster identification of root-causes accelerates problem resolution
- Reduced manual efforts in application health monitoring

“The execution of the project – both in the sales and implementation phase – was highly professional. The scope – and more – was delivered as promised.

We really enjoyed this project with CENIT. “



## Tailored Implementation

## Tailored implementation for customer's needs

- Kickoff Workshop
- Analysis and conception
  - Best Practices
  - Customer-specific requirements
- Installation in Test environment
  - SM Management Server
  - SM Management Agents
- Configuration in Test environment
  - Monitoring IBM ECM components
  - Monitoring 3rd Party components
  - Monitoring Homegrown Applications
  - Event forwarding to ITSM tools
  - Event reception from ITSM tools
- Testing & Approval
- Installation and Roll-out into Production and other environments
- Testing & Approval
- Administrator Workshop for SM administrators
- Documentation
- After 3-4 weeks: Fine tuning!
  - Adjusting monitor thresholds
  - Filtering logfile entries
- Optional Extension of SM
  - ServiceTracer for End-to-End Performance Monitoring
  - Nexthink for End User Infrastructure Monitoring
  - CYA for Hot Backup & Recovery
  - CENIT ValuePack

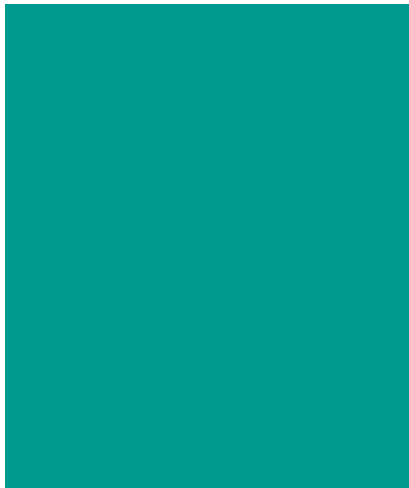


# Criteria for successful implementation



## An implementation is more than an installation!

- Implementation based on **Best Practices and customer-specific requirements** – monitoring the service quality for ECM users is more than monitoring the core ECM engines!
- **Training** for your ECM administrators – enablement to use, configure and maintain IBM ECM System Monitor is mandatory!
- **Fine tuning** – tweaking of monitoring thresholds and logfile filtering to get as many events as necessary and as little as possible → crucial to ECM administrator's and ITO's acceptance
- Ongoing operations: CENIT C.A.R.E. providing preventive maintenance and review events



## Next Steps

# Special Offer Content 2014



## ECM Health Check Bundle #1

- Monitoring availability and response times from end user perspective
  - Checking ECM service quality in IT Operations 24x7
  - Support testing in roll-out of new ECM applications and changes
- Includes:
  - Basic Package ServiceTracer for ECM (1 robot, additional robots on demand)
  - Exemplary Implementation and Training
- Price: \$23,500 plus T&E\*  
\*valid until September 30, 2014

## ECM Health Check Bundle #2

- Monitoring availability and response times from end user perspective
- Automated inventory of ECM systems (requires ECM System Monitor)
- Includes:
  - Basic Package ServiceTracer for ECM (1 robot, additional robots on demand)
  - CENIT ValuePack for ECM System Monitor (for up to 25 ECM SM Agents)
  - Exemplary Implementation and Training
- Price: \$33,500 plus T&E\*  
\*valid until September 30, 2014

## Next Steps

- Analysis of your ECM environment and requirements
  - Platforms and Applications – what needs to be managed?
    - Availability of ECM platform
    - Availability and performance from end user perspective
  - How many systems shall be monitored?
  - Integration into IT Service Management
- Definition of a solution scenario by CENIT
  - Management disciplines & tools
  - Implementation Method
  - Costs for Software and Services
- Presentation of solution



**Thank you!**

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