

GENWARE COMPUTER SYSTEMS Inc



1700 Rte 23N Suite 170

Wayne

New Jersey 07470

PO Box 4447

Wayne

New Jersey 07474 - 4447

Tel (973) 633-6606

Fax (973) 633-6647

www.GenwareCS.com

Drive Business Value through effective Application Management

Applicable to Business Intelligence and Performance Management applications





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1. Application Management

Business Intelligence and Performance Management applications have progressed to the status of Mission Critical. The onus of managing these applications to ensure adoption into the planned workflow cycle requires that Application Management be addressed by all stakeholders. Business Application Owners, Information Technology Application Managers, Administrators, and Security Compliance Auditors all have a vested interest in the management of the Application.

The technologies leveraged to deliver these applications are complex in architecture with a plethora of technologies working together to provide the stable environment required by the user community. Application Management software places the focus on the application and the user community. The Application Management software provides the information necessary to ensure productive workflow usage of the application as well as to supply performance and availability optimization information. Security and Administrative needs are addressed allowing for a cost reduction in the management of the applications.

Genware Computer Systems Inc. provides the Genware Audit Processor™ product for organizations that wish to manage applications that have been deployed in Cognos® environments. This paper discusses the need for effective Application Management used to drive business value and to lower administrative costs.

2. Business Application Owners

The Business Application Owner is typically the person who initially requested that the application be designed to meet specific business needs. In order to justify the implementation, the Business Application Owner would have planned for the integration of the application into the workflow process and calculated its return on investment. However, the value of the application will never be realized without the user community adopting it into the workflow process. In this scenario, the organization, seeing only a minimal return on investment, will question the benefits of the Business Intelligence or Performance Management application. To gain the maximum possible value from the investment, the Business Application Owner must take a proactive stance and partake in Application Management activities. To begin with, the Business Application Owner needs to gain a holistic view of the user experience, which includes the response times and error conditions they experience. User activity must be monitored, and in particular, the ability to identify those users who have accessed certain content and conversely, all content which has been accessed by certain users. Additionally, inventory should be kept on the licenses being utilized by the application community when software licenses are associated to a project. Finally, to satisfy compliance auditing, the Business Application Owner needs the ability to report on security assignments. This information is discussed further under the role of the Security Compliance Auditor, but is identified as an area of interest to the Business Application Owner.





3. Information Technology Application Managers

The Information Technology Application Manager is typically a member of the Information Management team charged with delivering, maintaining, or enhancing the application. This manager is responsible for the production application as well as ensuring that the development and testing cycles are monitored. The information Technology Application Manager has a vested interest in delivering an application that not only meets the specified requirements, but that will be stable within the applications operating environment. The IT Application Manager should conduct Application Management activities throughout the development lifecycle of the application and regularly perform Application Management activities thereafter to ensure the ongoing operation and scalability of the production application.

4. Administrators

Administrators are often found within the Infrastructure or Operations teams especially within larger organizations. For the smaller Information Technology community, Administrators may also be found within the development teams. Either way, the role of the Administrator is to ensure a stable and scalable environment for the mission critical applications. Administrators that are responsible for managing a central infrastructure that incorporates the development and test environments have a further responsibility of ensuring a stable environment for the development and testing teams.

While the administration team has a well-defined role, they are ultimately viewed as the resource that will provide resolutions when an application is not meeting the expected user experience. Applications that are yielding poor performance or returning errors to the user will often result in the Administrator being contacted for further investigation.

Administrators will frequently leverage System Administration tools that are incorporated into the technology platform. The Cognos System Management functionality is extensive and provides information on the current state of the environment. While System Management provides information about the system processes, the Administrator also requires access to application usage information. The Administrator will be faced with the challenge of reviewing vast amounts of system information from Application Servers, Database Servers, Operating systems, and Network systems. Application Management software allows the Administrator to narrow the focus of research and reduce the time spent resolving the issue by providing a correlation between the performance of the Applications and that of the server components.

5. Security Compliance Auditors

The role of Security Compliance Auditor often spans management roles as well as representatives from the compliancy or legal teams. Regulations and Security requirements demand that applications be monitored to track





access to information. The Security Compliance Auditor needs to ensure that application security has been structured to cater to the information restrictions and that this security has been applied to the application content. Additionally, at any point in time, the Security Compliance Auditor must be able to determine which users accessed particular application content or alternatively, be able to identify all content accessed by a specified user or group of users.

6. Application Management during the Development Lifecycle

Change Control and Benchmarking

An area often overlooked for Application Management is that of the system development lifecycle. The Business Application Owner is typically involved in various stages of the application development lifecycle. A key task frequently assigned to the Business Application Owner is that of application testing, which is often conducted in a Test or Quality Assurance environment. In its primary role, testing is performed to ensure that the application provides the defined functionality and yields the desired results. However, by monitoring the test application environment during the test cycles, the Business Application Owner realizes additional benefits. Firstly, the Business Application Owner can validate that the tests assigned to users were in fact properly conducted. Secondly, performance benchmarks can be identified that will provide the production team with anticipated system load and set the level of performance expected by the user community.

SOA Development Environments

Centralized Development environments are subject to strains that differ from those of the Production environment. When managing the Development environment, the Administrator must leverage a combination of Application Management information and System Management information to quickly address spikes in the environment. Following the deployment of a new application, the development environment is often overloaded with multiple versions of developers' content. In an effort to streamline this environment, the Administrator can share Application Management content with the IT Application Manager to ensure reducing maintainability of the application. Automation routines can be developed that leverage this information to archive unused content.

7. Extending Application Management to System and Database Management

Application Management has grown from being a routine task conducted only by the Infrastructure team to being a strategic task addressed by key stakeholders of the applications. Applications today are mission critical in nature and are assessed for their business service quality.

Managing applications involves an understanding of the overall application infrastructure as well as the application usage and how it facilitates the workflow process. Many of the applications today run on a SOA (Service Oriented Architecture), which is in essence a shared environment with applications impacting each other while leveraging





shared infrastructure components. When troubleshooting or determining systems impacts in the past, Infrastructure teams would start at the infrastructure layers and work back towards the application. Today, this approach has been reversed, and the application is the driving force to support the SOA environments.

System Management technology focuses at the core infrastructure of the application server and components. Cognos includes System Management functionality with a large number of metrics that provide the Administrator with information about the Application Server and the infrastructure available to the Application Server. This technology shows metrics based on the application processes and reveals how the infrastructure handles application requests.

Database Management technology is integral to applications that are heavily data driven. Business Intelligence and Performance Management applications fall into this category. Database Management software in this context differs from the actual database management system, with the latter being the technology used to create data stores with data structured to suite the end application. Database management technology provides information relating to how the data stores are being leveraged by their applications. This technology will typically highlight where indexes are required, where a structure may benefit from aggregate tables, or where other database functionality will drive faster query responses.

The three cornerstones of Application Management, System Management, and Database Management have a direct impact on each other, and as such, an overlap may be found among the technologies that are used to manage these environments. Administrators can leverage Application Management software to provide context to the question being asked and narrow the focus when viewing System and Database Management information. Business impact is showcased by the Application Management software while the System and Database Management software can be used to isolate the tactical problem.

8. Genware Audit Processor™

Genware Computer Systems, founded in 1989, has worked with organizations of all sizes to implement applications that provide operational and strategic advantage. Genware Computer Systems recognized the need for Application Management software that would allow customers leveraging Cognos technologies to effectively manage their applications to ensure that they provide maximum business value.

The Genware Audit Processor™ provides a top-down approach to Application Management providing information catering to all the key stakeholders in an application centric view of IT in the following areas: Application Usage, Performance Optimization, Security and Compliance, Server Utilization, and Administration and License Management.





As a Powered by Cognos application, the user gains access to all information leveraging Cognos functionality. The solution includes approximately 140 reports, 4 key-area dashboards, and 4 portals showcasing over 50 metrics.

The Genware Audit Processor includes the Genware Metrics for Application Management™, which is placed on portals that are based on key stakeholder roles. These metrics are highlighted to steer the user towards areas requiring attention and provide a proactive approach to Application Management.

Four key-area dashboards are included to showcase information trending and over 140 detail reports are available. Many of these reports are accessed directly from the dashboards or the metrics to enable fast access to key information.



The following image provides a cropped view of the Application Manager Portal. Note that each red metric includes a link to get to a report with supporting details. For example, a click on the metric value of “1” for Models that have an increase in runtime month over month by more than 20% shows detailed information for that model.





Reactive Filters:		Proactive filters:	
Time Period:	Monthly	Time Period:	Weekly
Percent Threshold:	20%	Percent Threshold:	10%
Days Threshold:	30 days	Days Threshold:	7 days

Reactive Items*		Proactive Items*	
Average Runtime Increased > 20% For The Past Month		Average Runtime Increased > 10% For The Past Week	
Dispatchers:	0	Dispatchers:	1
Models:	1	Models:	1
Reports:	2	Reports:	4
Report Views:	0	Report Views:	0
Queries:	2	Queries:	0
Jobs:	0	Jobs:	0
Users:	0	Users:	1
Errors Increased > 20% In The Past Month		Errors Increased > 10% In The Past Week	
Models:	0	Models:	0
Reports:	0	Reports:	0
Report Views:	0	Report Views:	0
Queries:	0	Queries:	0
Jobs:	0	Jobs:	1
Agents:	0	Agents:	0
Users:	0	Users:	1
Unused In 30 Days		Usage Declines > 10% In The Past Week	
Models:	0	Models:	0
Reports:	66	Reports:	0
Queries and Analyses:	4	Queries and Analyses:	0
Agents:	0	Agents:	0
Jobs:	0	Jobs:	0

9. For additional information

Genware Computer Systems can be contacted directly as follows:

Tel: (973) 633-6606
 Email: Service@GenwareCS.com

Senior Application Architects are available to discuss Application Management in more detail and to schedule demonstrations of the Genware Audit Processor™.





10. About this Document

This publication was produced by Genware Computer Systems™.

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