

TECHNOLOGY AUDIT

IBM Cognos Now! Monitor









Cognos, an IBM company




BUTLER GROUP VIEW

ABSTRACT

IBM Cognos Now! Monitor is an operational BI solution that is offered exclusively as an appliance or hosted as Software-as-a-Service (SaaS). IBM Cognos Now! Monitor 4.5 represents an expanded appliance with enhanced new features. It continues to offer real-time capabilities for operational BI, but additionally brings standard data access and traditional BI capabilities in a pre-packaged hardware appliance. IBM Cognos Now! Monitor is targeted at organisations of any size with a specific need to monitor high-volume transactional data and the mid-market, where there is growing demand for less costly and easy to deploy BI solutions. Butler Group believes that the appliance promises to lower the traditional cost and performance barriers associated with enterprise BI rollouts, increasing performance, scalability, and decreasing the Total Cost of Ownership (TCO), which can easily become a big issue for BI.

KEY FINDINGS

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|---|---|
|  Pre-packaged hardware appliance for BI that speeds up deployment. |  Provides remote system management capabilities that help reduce the TCO. |
|  Provides real-time data update features. |  Easy to use with self-service functionality for the business user. |
|  Integrates with Salesforce.com's platform. |  Various pricing and packaging options are available. |
|  Comes with two multi-core CPUs, up to 32 gigabytes of memory, the disk drives, and is pre-wired for network connectivity. |  IBM Cognos Now! Monitor does not include Performance Management software such as planning and scorecarding. |

Key:  Product Strength  Product Weakness  Point of Information

LOOK AHEAD

In future Cognos will continue to grow IBM Cognos Now! appliances – both in breadth of solution coverage and expanding delivery options through appliance types such as software and virtual appliances.

FUNCTIONALITY

Product Analysis

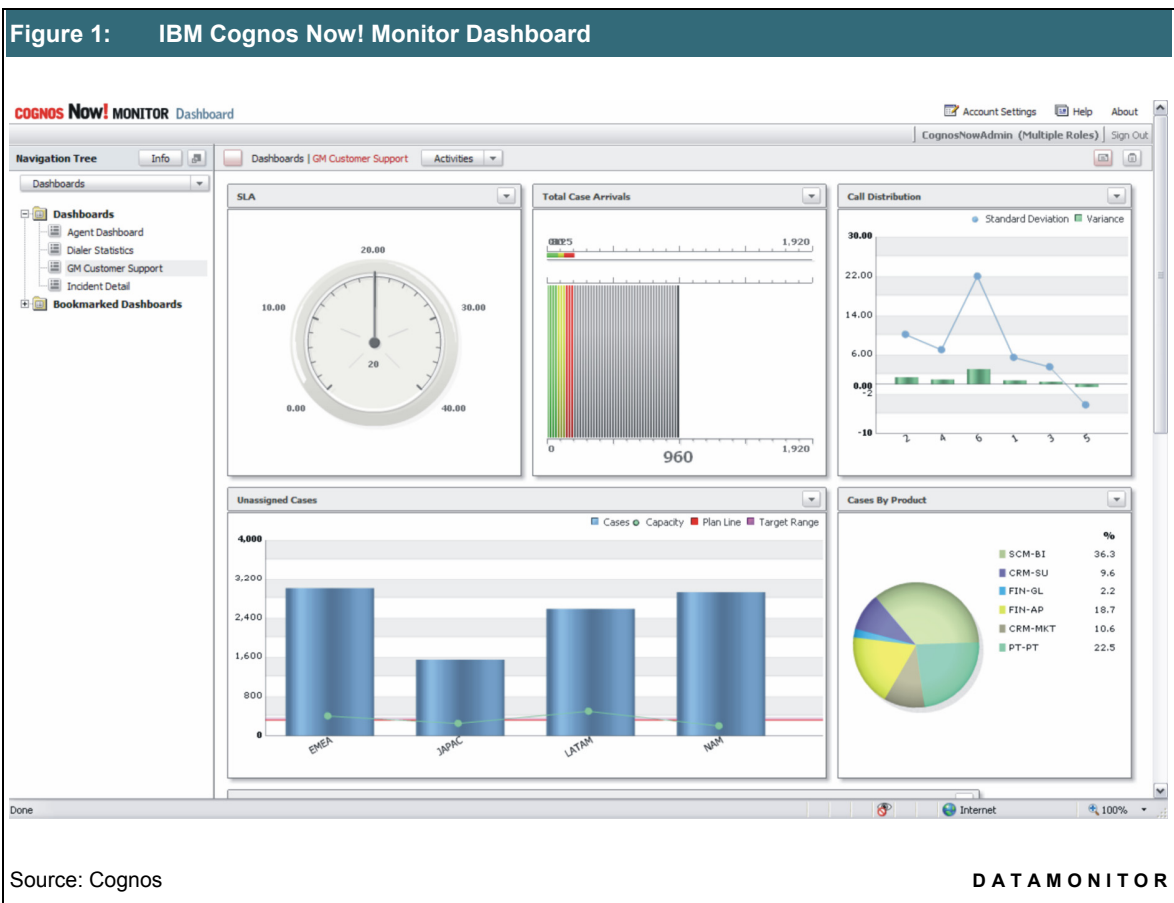
IBM Cognos Now! Monitor is an operational BI solution that is offered exclusively as an appliance or hosted as Software-as-a-Service (SaaS). IBM Cognos Now! Monitor is based on LAVA from Celequest (the company which was acquired by Cognos in January 2007). Butler Group is delighted to see that the principals of ease of use that formed the basis of Celequest’s LAVA have been adhered to in the re-branded product from Cognos. With version 4.5, Cognos has added to its breadth and depth of functionality. IBM Cognos Now! Monitor continues to offer real-time capabilities for operational BI, but also brings standard data access and the more traditional BI capabilities in a pre-packaged appliance. IBM Cognos Now! Monitor is designed to address the growing demand for affordable and easy to deploy BI solutions in mid-sized organisations as well as departmental solutions for Fortune 1000 companies. IBM Cognos Now! Monitor is one of the first of its kind and is likely to set a trend for future BI developments. Table 1 summarises the differences between the appliance models.

Table 1: IBM Cognos Now! Packaging Summary		
Appliances		
Features	IBM Cognos Now! Monitor 3500	IBM Cognos Now! Monitor 5500, 7500
Dashboards	Self-service	Self-service
Ad-hoc Query & Reporting	Yes	Q2 2008
Microsoft Office integration – reporting output to Word, PowerPoint and Excel	Yes	Q2 2008
Data Access	Standard data access (relational, flat files, XML, transactional systems)	Additional real-time connectivity agents (JMS, TIBCO, messaging systems)
Streaming Server	Yes	Yes
Analytic Server	Yes	Yes
Workbench (includes remote management)	Yes	Yes
Users	For specific user packages 50, 100, 150	Unlimited
Model Sizes	CN-3500H	CN-5500H CN-7500H

Source: Cognos **DATAMONITOR**

In addition to enhanced dashboards, query and reporting, IBM Cognos Now! Monitor 4.5 appliances have improved remote system management for patches and software updates. This helps reduce the TCO by speeding up overhead procedures. Another enhancement in this release is full language support for French and German. Furthermore, there is a new pricing and packaging model with hardware model sizes that have been renamed CN-3500H, CN-5500H, and CN-7500H. The pricing model differs by appliance and by model size. Additionally IBM Cognos Now! Monitor will have its inaugural release as a software appliance in Q2 2008. Therefore, Butler Group recommends that potential customers clarify the latest models, functionality, and pricing with the vendor.

IBM Cognos Now! Monitor offers self-service and interactive dashboards, basic reporting, and analysis, with functionality that is designed for the business user. In addition, the user-defined thresholds and alerts provide organisations with the means to manage by exception whilst remaining informed and flexible.



IBM Cognos Now! Monitor introduces *ad hoc* query and reporting to its appliance family with its 3500H model and provides enhanced dashboard and analysis capabilities with the ability to output to Microsoft Word, Excel, and PowerPoint. It also benefits from the 64-bit memory-based analytic server that Cognos acquired from Celequest and provides rapid data integration and update functionality. Figure 1 shows a typical IBM Cognos Now! Monitor Dashboard.

IBM Cognos Now! Monitor continues to deliver updated self-service dashboards all pre-packaged in a hardware appliance. With its 64-bit in-memory streaming technology, it provides continuous monitoring for business operations, thereby providing organisations with the capability to be proactive and respond to changing business conditions.

IBM Cognos Now! Monitor integrates with Salesforce.com's on-demand CRM platform. It aggregates Salesforce.com data into interactive reports and dashboards designed for sales and marketing executives. With its Salesforce.com integration, IBM Cognos Now! Monitor addresses an underserved user segment by providing a sales performance solution for better decision making for the sales function.

The appliance delivery model of IBM Cognos Now! Monitor, works well with the remote management capabilities that are included in the package at no extra charge. The intention is to minimise involvement from IT for deployment, management, and maintenance procedures. Also included in the package is rapid data integration functionality with data retrieved from multiple sources with an in-memory analytic server and streaming server that is explained in more detail in the next section.

Another notable point about IBM Cognos Now! Monitor is its price – Butler Group believes the starting price of US\$50,000 for IBM Cognos Now! Monitor, to be very competitive and well suited for its target markets.

Product Operation

IBM Cognos Now! Monitor is comprised of four components:

- **Self-service interactive dashboards:** Provide the user with critical business information. The user interface is designed for ease of use and customisation of metrics, alerts, and drilling down to detailed data by the business with minimal IT involvement.
- **Workbench:** This is the administrative tool which provides set up functionality for data integration, data models, and end-user dashboards to present current information, historical data, or aggregated views.
- **Streaming server:** This is a patent-pending technology that includes a 64-bit streaming data store that allows continuous data integration to take place. It also provides engines for multi-dimensional analysis, dynamic modelling, business-rules execution, and exception and alert reporting. The IBM Cognos Now! Monitor Streaming Server is scalable, and its memory-based design means that it can take typical transactional information and integrate it with contextual data to form dynamic business views that are automatically updated as new transactions are processed. The patent-pending streaming data flow engine maintains and caches "temporal data sets" for time series analysis. Fast-changing data, such as moving averages and other statistical computations, are collected into views against which time-based business models and rules are applied. The Streaming Server also includes connectivity agents for accessing enterprise data sources, data integration capabilities, a streaming data store that stores aggregate and detailed data for analytical processing, and a business rules and alerting engine used to detect and notify exceptions relating to key events or trends in operational data.

- **Analytic server:** This is a patent-pending technology that includes a 64-bit analytic data store that provides predictable query response for BI users. It also provides engines for ad-hoc query, professional reporting, multi-dimensional analysis, dynamic modelling, business-rules execution, and exception and alert reporting. The analytic server also includes connectivity for accessing enterprise data sources and data integration capabilities to create different views of the information for reporting. The analytical data store stores detailed and aggregate data for reporting and analytical processing and provides hierarchical views thereby eliminating the requirement for a persistent data warehouse to be designed and built. In addition, the analytic server provides a business rules and alerting engine used to detect and notify users when significant thresholds have been met that require business attention.

The connectivity agents link the Streaming Server and the Analytic Server to various enterprise data sources and can be broken down into:

- File and database agents that support reading of flat files, CSV files, XML documents, and most relational databases. These agents can be configured to read incremental data based on timestamps or other criteria.
- Message-oriented agents on 5500H and 7500H models that receive or have messages/events pushed to the Streaming Server from message oriented middleware. Supported formats include Java Messaging Service (JMS), TIBCO, and MQ series.
- Enterprise application agents enable access to enterprise application data such as PeopleSoft, Siebel, JD Edwards, other Oracle applications, and others.

IBM Cognos Now! Monitor data integration capabilities include joining disparate sources, scrubbing (string, numeric functions), a number of aggregation and statistical functions, conditional processing and case processing. In IBM Cognos Now! Monitor, as new data streams through the Streaming Server it is continuously integrated and used to incrementally update all views and cubes, without additional latency.

The analytical engine within both the Streaming and Analytic Servers store aggregate and detailed data for analytical processing. It also supports full transaction level recovery and can persist data to a relational database. This enables the accumulation of data sets that can be used for historical and trend analysis.

The business rules engine is used for detection and notification of exceptions relating to key events or trends in operational data. Business rules can be configured to continuously monitor data and generate alerts to notify dashboard users of exception conditions. Business rules can be simple if-then conditions or very complex chained rules. The rules engine also supports temporal rules. For example: alert only if a rule holds true for a period of time. An embedded report can be included in the alert to provide detailed contextual information to the end user. Alerts can also be used to initiate tasks or workflow for further analysis or issue resolution. Workflows can be initiated in external Business Process Management tools (BPM) or operational applications using a Service Oriented Architecture or Web Services interface.

The dashboard and reporting application is browser-based and provides functionality for creation and management of aggregated metrics or calculations and reports that the end-users wish to view.

Scalability is provided with three appliance model sizes with increasing levels of performance and capacity. The largest appliance for IBM Cognos Now! Monitor can support as many users as the environment can physically handle. According to Cognos, if messaging sources are used, over 2000 messages per second can be streamed through the in-memory database while servicing end-user interface requests.

The appliance comes with two multi-core CPUs, up to 32 gigabytes of memory and includes the disk drives, and RAM. It is pre-wired for network infrastructures. Appliances can be configured in a disaster recovery mode to provide a backup server in case the primary server fails. Each individual appliance has many inherent fault tolerant features including dual-redundant power supplies, multiple Ethernet ports for diverse routing and quad hard drives leveraging a RAID 5 configuration.

Product Emphasis

IBM Cognos Now! Monitor provides operational BI that is pre-packaged in a hardware appliance or hosted through the SaaS model. IBM Cognos Now! Monitor is aimed at both the mid-market to deliver a BI capability to business users rapidly with minimum involvement from IT and at departments in organisations of any size looking for an operational BI solution to continuously monitor operational processes with always up-to-date information delivered through self-service dashboards. Furthermore, once deployed, limited IT involvement is expected to maintain the solution due to the self-service nature of the application.

Butler Group is pleased to see that IBM Cognos Now! Monitor is on offer starting from US\$50,000, thereby lowering one of the major barriers to traditional BI for the mid-market: the price tag.

DEPLOYMENT

The hardware appliance is pre-installed and pre-configured with the required software and can be plugged into a network relatively quickly. Cognos estimates that proof of concepts can be implemented in a few days and initial implementations can be completed in a couple of weeks. Butler Group recommends that the services of a business analyst are secured for the deployment, to help with business requirements. Also recommended is a database administrator with SQL skills.

Deployment risks are minimised thanks to the appliance delivery model. The only dependency is connectivity to data sources and those data sources must be accessed, managed, and maintained to meet the business goals.

The average time for implementations is expected to be of the order of two to three weeks. The appliance is implemented whole, but it can be rolled out on a department-by-department basis, or for specific use cases. IBM Cognos Now! Monitor 4.5 sits in the network room and offers remote management capabilities to allow patches and updates of software to be applied remotely and automatically. Scheduled updates can be carried out too but would require someone on-site to administer them.

Cognos provides Classroom-Based Training (CBT) for dashboard users (business users). Training is also provided for Workbench, the configuration tool in Cognos Now!. Training is provided for business analysts in a classroom setting or on-site. Some knowledge of SQL is required for Workbench training.

Ongoing technical support is provided through the remote management capabilities for patches and upgrades. The standard Cognos technical support channels are available for all other technical issues.

Legacy integration with IBM Cognos Now! Monitor 4.5 is possible as the appliance provides integration to multiple data sources from flat files, relational data sources such as Oracle, and messaging sources via JMS.

IBM Cognos Now! Monitor pricing is based on appliance model size and maintains different price points for the CN-3500H, CN-5500H, and CN-7500H models. CN-3500H offers 50, 100 and 150 user packages, whereas CN-5500H and CN-7500H are priced for unlimited users (as many as the model size can support).

PRODUCT STRATEGY

IBM Cognos Now! Monitor is targeted at:

- Line of Business (LOB) or departments within larger enterprises greater than US\$1billion in revenue that are not served well by a centralised, IT-driven enterprise BI solution.
- Mid-sized companies with greater than US\$50million and less than US\$1billion in annual revenues with minimal IT resources and an initiative are imperative to get started.

IBM Cognos Now! Monitor is aimed at companies of any size with specific need for operational BI to monitor high volume transactional data to make rapid, intra-day, or real-time decisions. The typical profile of a customer is a company with specific pain points (typically beyond HR and Finance departments) that tend to be industry-specific e.g. call centre for services, trading for financial services, inventory logistics for manufacturing or retail etc. IBM Cognos Now! Monitor is also suitable for those organisations that have real-time BI requirements such as Business Activity Monitoring (BAM). Additionally, Butler Group believes that IBM Cognos Now! Monitor provides the mid-market with an attractive entry-point BI solution.

IBM Cognos Now! Monitor is sold direct and through partners. The key business partnerships and alliances that support this product include: Sky Solutions, Revere Group, ISA, JCB Partners, CBH, and NewComp.

The key technology partnerships and alliances that support this product include Adobe, Amdocs, BEA, IBM, and Salesforce.com. The first four are OEM/resellers of IBM Cognos Now! Monitor for business activity monitoring. In addition, Cognos has built a hosted service that integrates with Salesforce on AppExchange that will leverage IBM Cognos Now! Monitor.

The purchase price includes the IBM Cognos Now! Monitor software appliance, the hardware server, and three years hardware support. The software appliance is sold as a perpetual software license with support renewed annually. The related support program is called Select which includes access to software upgrades, the Cognos online knowledge assets, and unlimited assisted support via phone or over the Web. Assisted support is available 5 days per week (Monday – Friday), 10 hours per day (8:00 AM – 6:00 PM EST) excluding holidays. A Rapid Response option may be purchased as an add on to the Select support for unlimited 24x7 support with a higher Service Level Agreement for issue response for both software and on-site hardware troubleshooting. The Rapid Response option is available to US and Canadian customers only.

The product release strategy for this solution is to address specific customer needs with specific appliances as outlined above. In future Cognos will continue to grow the IBM Cognos Now! Monitor appliance footprint with quick and easy BI and PM solutions that provide customers room to grow either through expanding their IBM Cognos Now! Monitor implementation or integrating with Cognos' other solutions such as Cognos 8 BI and Cognos 8 Planning. In addition, Cognos' stated intention is to deliver different styles of appliances including software and virtual appliances as well as expanding its SaaS offering.

COMPANY PROFILE

Cognos, an IBM Company, is the world leader in BI and performance management solutions. It provides world-class enterprise planning and BI software and services to help companies plan, understand, and manage financial and operational performance. Cognos brings together technology, analytical applications, best practices, and a broad network of partners to give customers a complete performance system. The Cognos performance system is an open and adaptive solution that leverages an organisation's ERP, packaged applications, and database investments. It gives customers the ability to answer the questions – How are we doing? Why are we on or off track? What should we do about it? – and enables them to understand and monitor current performance while planning future business strategies.

Cognos serves more than 23,000 customers in more than 135 countries, and its top 100 enterprise customers consistently outperform market indexes. Cognos performance management solutions and services are also available from more than 3,000 worldwide partners and resellers. Cognos was acquired by IBM in January 2008. For more information, visit <http://www.ibm.com/software/data/> and <http://www.cognos.com>. Butler Group views the acquisition positively – one that will bring a mostly complimentary set of products together.

Table 2 highlights Cognos' historical financial data, prior to the acquisition by IBM.

Table 2: Financial Details			
Year ending	2007	2006	2005
Revenue (US\$ Million)	979,264	877,500	825,531
Change on Previous Year (%)	11.6	6.3	21
Total Net Income/(Loss) (US\$ Million)	115,697	108,576	121,474
Source: Cognos			DATAMONITOR

SUMMARY

IBM Cognos Now! Monitor 4.5 extends the reach of operational BI into both the mid-market and to more users within Fortune 1000 organisations. IBM Cognos Now! Monitor brings together data integration, data analysis, reporting tools, and self-service dashboarding to allow business users to manage by exception or to gain better and real-time insight into operations. The users interact with the solution through a series of self-service charts, graphs, and reports presented in a customised and easy-to-use Web-based dashboard.

Butler Group believes that IBM Cognos Now! Monitor benefits from several strong features: the pre-packaged hardware appliance, the ease of use and self-service functionality, and a good pricing model. These features make the product very competitive and we strongly recommend a closer examination.

Table 3: Contact Details	
<p>Cognos ULC, an Alberta unlimited liability corporation 3755 Riverside Drive P.O. Box 9707 Station T, Ottawa Ontario, Canada K1G 4K9 Tel: +1 (613) 738 1440 Fax: +1 (613) 738 0002 www.cognos.com</p>	<p>Cognos Limited Westerly Point Market Street Bracknell, Berkshire RG12 1QB UK Tel: +44 (0)1344 486668 Fax: +44 (0)1344 485124 www.cognos.com/uk/</p>
Source: Cognos	DATAMONITOR

Headquarters

Europa House,
 184 Ferensway,
 Hull, East Yorkshire,
 HU1 3UT, UK
 Tel: +44 (0)1482 586149
 Fax: +44 (0)1482 323577

Butler Direct Pty Ltd.

Level 46, Citigroup Building,
 2 Park Street, Sydney,
 NSW, 2000,
 Australia
 Tel: + 61 (02) 8705 6960
 Fax: + 61 (02) 8705 6961

Butler Group

245 Fifth Avenue,
 4th Floor, New York,
 NY 10016,
 USA
 Tel: +1 212 652 5302
 Fax: +1 212 202 4684

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