



# HEROES

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Microsoft®  
SQL Server™ 2008



## IT Consulting Firm Eases Move from Crystal Reports to SQL Server Reporting Services

### Overview

**Country or Region:** United States

**Industry:** Professional Services - IT

### Customer Profile

Based in Dallas, Texas Hitachi Consulting, part of Hitachi Ltd., has 1,500 employees worldwide providing consulting and IT solutions to Global 2000 companies.

### Business Situation

The company needed to find an effective methodology for helping to accommodate its customers' requests to migrate reports written in Crystal Reports to the report definition language used by Microsoft® SQL Server® Reporting Services.

### Solution

Hitachi Consulting created its Reporting Center of Excellence and developed automation to convert reports to Reporting Services. The company chose early deployment of SQL Server 2008 to take advantage of new features in Reporting Services.

### Benefits

- Reduced complexity for reporting
- Easier report management with SQL Server 2008
- Support for better decision making
- More effective dashboards

**"With SQL Server 2008 Reporting Services it is easier for a company to accomplish the vital goal of pushing BI to the edge of the organization to support better real-time decision making."**

*Drew Naukam, Vice President, Microsoft Strategic Service Line, Hitachi Consulting*

Customers of Hitachi Consulting, a global organization recognized for delivering proven business and IT solutions to a wide range of industry leaders, asked for assistance in migrating from Crystal Reports to Microsoft® SQL Server® Reporting Services. The customers had originally deployed business intelligence solutions using SQL Server for the relational data store but Crystal Reports for reporting, and wanted to gain the efficiency and savings of a single-vendor integrated solution. In response, Hitachi Consulting, which is deploying SQL Server 2008, created a tool that automates conversion of reports to the Report Definition Language that Reporting Services uses. The company has found that moving to Reporting Services can help reduce complexity, enhance visibility, and lower reporting costs.

“Bringing BI to the edge of the enterprise means equipping high-value, market-facing people with the tools and information they need to drive performance. We’ve found that the Microsoft Application Platform enables us to create the best solutions for achieving this.”

Drew Naukam, Vice President, Microsoft Strategic Service Line, Hitachi Consulting

## Situation

Hitachi Consulting, headquartered in Dallas, Texas, is the global business and IT consulting company of Hitachi Ltd., and a recognized leader in delivering proven business and IT solutions to Global 2000 companies across many industries. Hitachi Consulting has more than 1,500 employees in 17 offices across the United States, Europe, and Asia.

The company’s client base includes 35 percent of the Fortune 100 and 25 percent of the Global 100. Customers from across various industries include Experian, Northrop Grumman, Toyota, Unilever Food Solutions, and Verizon Information Services.

Hitachi Consulting was ranked in the top five consulting firms for the consumer goods industry by Consumer Goods Technology Magazine in 2007, and was one of only 10 consulting firms to be included in Gartner’s Solutions Provider Magic Quadrants for CRM, ERP, Supply Chain, and Business Intelligence & Performance Management in 2006.

In recent years, the company’s Business Intelligence and Performance Management practice has seen a growing demand for integrated solutions for business intelligence (BI) and reporting. Companies that had earlier assembled multi-vendor solutions were seeking to lower licensing, system integration, and ongoing management costs.

Many of Hitachi Consulting’s customers were using the Microsoft® Application Platform, including Microsoft SQL Server® 2005 database software running on the Windows Server® 2003 Enterprise Edition operating system, but had deployed Crystal Reports as a desktop reporting solution. Businesses expressed a desire for a more

cost-effective, managed, and scalable enterprise reporting platform, and Hitachi Consulting knew that SQL Server Reporting Services offered a solution.

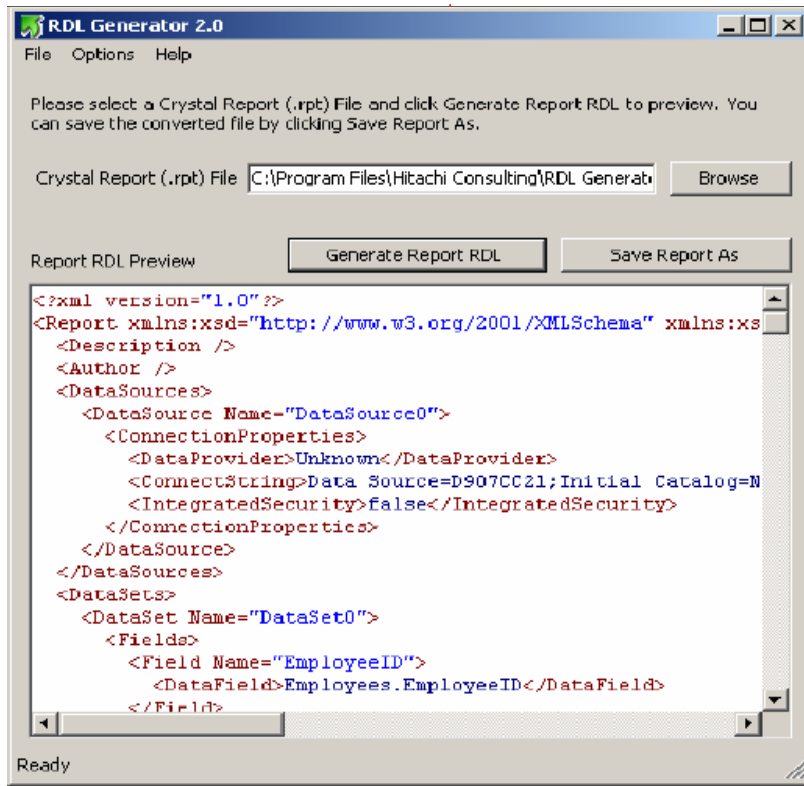
In order to fully realize the benefits of Reporting Services, a company’s current reports would need to be converted to Reporting Services’ XML-based Report Definition Language (RDL). This effort can be time-consuming and costly if performed manually. To accommodate its customers’ requests, Hitachi Consulting needed to find an effective methodology for helping them to gain the benefits of using SQL Server Reporting Services, without requiring them to rewrite what were often several hundred or more legacy reports.

## Solution

Hitachi Consulting’s Microsoft Business Intelligence Practice, which uses the Microsoft Application Platform to drive BI and performance management capabilities to all levels of the enterprise, created a report migration solution, managed in conjunction with Hitachi’s Reporting Center of Excellence.

Using SQL Server Reporting Services is a key element of Hitachi Consulting’s efforts to help companies become more market responsive by extending the traditional suite of BI tools and solutions to what it refers to as the edge of the enterprise.

“Bringing BI to the edge of the enterprise means equipping high-value, market-facing people with the tools and information they need to drive performance,” notes Drew Naukam, Vice President, Microsoft Strategic Service Line, at Hitachi Consulting. “We’ve found that the Microsoft Application Platform enables us to create robust solutions for achieving this. So it is important for us to be able to efficiently



Automation – Hitachi Consulting’s RDL Generator 2.0 simplifies report

help our customers carry out their plans to migrate from other reporting solutions.”

The report migration solution includes the company’s RDL Generator application, which automates the majority of language conversion tasks when translating reports from Crystal Reports to SQL Server Reporting Services. At the same time, Hitachi Consulting is preparing to take advantage of the new Reporting Services functionality included in SQL Server 2008.

The RDL Generator maps the existing properties to the RDL format, and converts the output files. The RDL Generator maps report elements, including:

- Page Header, Page Footer
- Column Headers
- Fields

- Formatting
- SQL Query String
- SQL Fields
- Report Parameters
- Sub-Reports
- Grouping
- Batch Convert/Save

The majority of language conversion tasks to SQL Server Reporting Services can be handled by the RDL Generator. For the final fine-tuning, Hitachi Consulting has developed extensive checklists and processes implemented out of its Reporting Center of Excellence locations in Denver and India, using to match the original report’s function and layout.

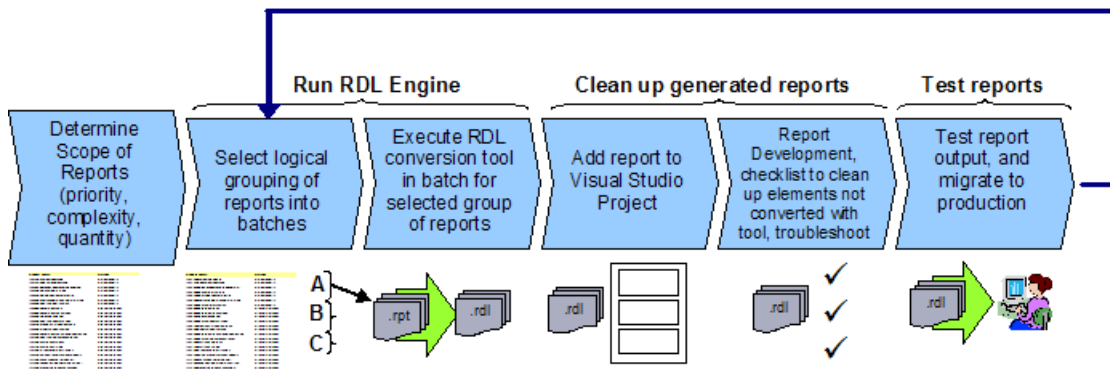
The Reporting Center of Excellence also handles any additional report elements requiring conversion, such as formulas, expression logic, and stored procedures. The additional work matches the existing function and layout. The result is an efficient report conversion process that is transparent to the client and produces reports that have a similar touch and feel to the original reports with which the customers had been accustomed to working.

### Benefits

Hitachi Consulting has been able to help fulfill its customers requests to advance their platforms and reduce complexity for reporting. Moving to SQL Server 2008 promises to help Hitachi Consulting’s customers enjoy easier report management, support for better decision making, more effective dashboards, and reduced reporting costs.

### Reduced Complexity for Reporting

The Hitachi Consulting Reporting Center of Excellence has helped its customers to reduce the complexity of integrating



Process – Hitachi Consulting’s report conversion process.

“Migrating to Reporting Services makes it easier for organizations to take advantage of the rest of the Microsoft Application Platform.”

Dave McGlone, Vice President, Reporting Center of Excellence, Hitachi Consulting

reporting with the rest of their BI infrastructure.

“Our customers typically are already running their relational data warehouse and multidimensional cubes using SQL Server 2005,” says Naukam. “They want to use Reporting Services too. With our Reporting Center of Excellence, we’re providing them with an efficient path for getting there.”

The move to Reporting Services reduces complexity when creating portals to extend the reach of reporting.

“Migrating to Reporting Services makes it easier for organizations to take advantage of the rest of the Microsoft Application Platform,” says Dave McGlone, Vice President, Reporting Center of Excellence, at Hitachi Consulting. “With Reporting Services you can easily create a centralized site for accessing information, building it with Microsoft Office SharePoint® Server 2007. This provides a way of extending the value of reporting to whoever needs it throughout the organization.”

Looking ahead, Paul Turley, Architect with Hitachi Consulting, is eager for the company’s customers to begin using SQL Server 2008 Reporting Services for a number of reasons, including easier report creation.

“The design experience is much simpler with SQL Server 2008 Reporting Services than it was in earlier versions,” Turley says. “The Microsoft SQL Server team has balanced the needs of advanced report designers with the needs of the less technically savvy end users by providing different design interfaces without sacrificing a lot of capability. Novice users can easily begin generating their own reports, yet advanced users can access even more powerful tools to create solutions.”

**Easier Report Management with SQL Server 2008**

Organizations find it easier to manage reporting when reporting is tightly integrated with the rest of the BI infrastructure. “Customers come to us with what they intended as a best of breed deployment and say, ‘Here’s the stack, can you help us,’” says Naukam. “Our response

“...with Reporting Services Gauges you get a design environment that allows you to create a dashboard with gauges that look just like the ones on the dashboard in your car.”

Paul Turley, Architect, Hitachi Consulting

to those situations may be, ‘This won’t necessarily produce the results you are expecting.’ We often show them that reporting is easier to manage when they aren’t dependent upon integrating third-party solutions.”

Pointing to training and scheduling, McGlone adds: “It is far easier to manage reporting when you can take advantage of your organization’s existing skill sets. Otherwise you are having to train and schedule resources that have specialized skills for using another application.”

Naukam notes that report management is easier when end users are able to create their own reports instead of drafting a formal new report request for the IT group.

Hitachi Consulting sees report creation becoming even better with SQL Server 2008, as Report Designer has been updated and is now a stand-alone application that can be run separately from the Business Intelligence Development Studio in which such work was performed with the earlier version of the product.

“With SQL Server 2008 Reporting Services, the new stand-alone Report Designer enables non-technical end users to create impressive solutions by doing the same sort of simple drag and drops and right clicks that they’re used to doing in Microsoft Office applications such as Excel®,” says Turley. “Users work with a ribbon interface and very common menu options. This enables information workers to more easily craft complex, professional reports.”

#### **Support for Better Decision Making**

Hitachi Consulting provides thought leadership and deep expertise in assisting companies with the architecture, design, and deployment of a Microsoft BI

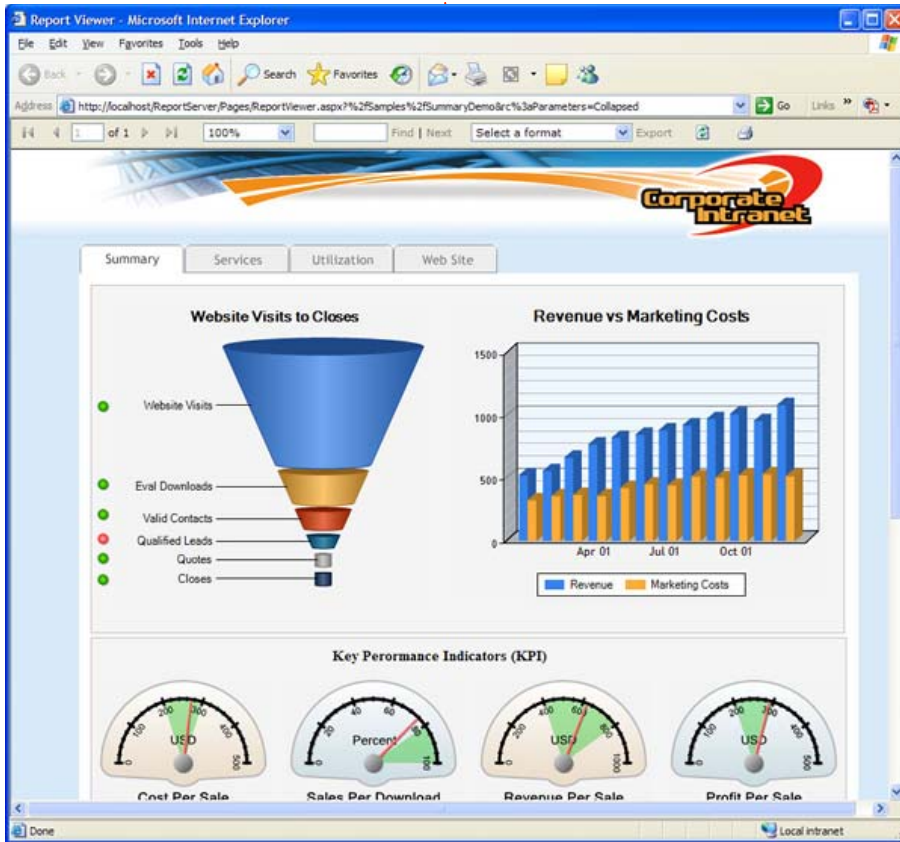
infrastructure that transforms corporate data into high-value information that is readily available at the point of need. The company’s dedication to extending BI to the edge of an organization enhances visibility, which in turn supports better decision making.

“Business Intelligence is a huge focus area for Hitachi Consulting,” says Naukam. “Our BI practice is growing quickly because we are helping our customers gain greater visibility into their operations. Reporting and vision go hand in hand. You need to be able to explore and report against your own internal data to precisely see what is happening with the company and its place in the market. Companies are able to achieve that visibility with Reporting Services and the rest of the Microsoft Application Platform.”

The company values the Microsoft commitment to continually improving the technological foundation for generating and presenting business intelligence.

“We are a market-responsive company, which means we need to be on the cutting edge of BI technology, continually keeping up with the solutions our customers are asking for,” says McGlone. “We are helping our customers increase their profitability by maximizing the value of the business intelligence they generate. We know that Microsoft is continually investing in BI technology. We are ready and eager to help our customers benefit from whatever new products emerge from this research effort—including SQL Server 2008.”

Hitachi Consulting sees SQL Server 2008 as a great tool in extending BI throughout an organization. “Our efforts to extend BI to the edge of an organization address the question of: How do you equip nontraditional roles within a business with



Visualization – SQL Server 2008 Reporting Services includes advanced visualization technology.

BI and performance management tools and capabilities?" says Naukam. "With SQL Server 2008 Reporting Services it is easier for a company to accomplish the vital goal of pushing BI to the edge of the organization to support better real-time decision making."

#### **More Effective Dashboards with SQL Server 2008**

SQL Server 2008 introduces two new features that Hitachi Consulting is using to create more effective dashboard reporting applications for its customers: The Tablix data region within the SQL Server 2008 Reporting Services RDL, which combines the best features of the table and matrix data regions to give report authors greater

flexibility; and the inclusion of advanced visualization technology.

Hitachi Consulting foresees great customer benefits from building dashboard applications using the enhancements to SQL Server 2008 Reporting Services.

"If you think about the history of BI, the tools to access the data have been costly and difficult to use," says Naukam. "BI as a discipline has been complex, and this complexity has limited how companies have deployed BI and performance management capabilities. We believe in simplifying all the elements of a BI solution so that you get more value out of it, and so you can deliver that value more broadly—to the edge of the enterprise. If you inherently believe in BI, then you ought to inherently believe in delivering BI for the masses."

Turley sees Tablix as a significant tool for designing a range of reporting solutions, including dashboards. "Prior to Tablix, report designers had to think about visualizing data in a more structured way," says Turley. "At the very beginning of the report design process you had to choose what path you were going to take in representing data, yet anyone who has done report design knows that reports are usually designed in a very evolutionary process."

The evolution comes as the report designer gives the client the report they requested, and the client thinks of new ways they would like to be able to see the data.

"It used to be that when this happened you had to write off the first report as a prototype and start all over again," says Turley. "The Tablix feature in SQL Server 2008 gives you the flexibility to accommodate change. It's hard for me to

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imagine a design change that I really couldn't pull off using Tablix.”

Hitachi Consulting is enthused to use the advanced visualization technology within Reporting Services. “We're very excited to have native visualization technology in Reporting Services 2008,” says Turley. “For example, with Reporting Services Gauges you get a design environment that allows you to create a dashboard with gauges that look just like the ones on the dashboard in your car.”

While some knowledge workers will prefer a more conventional spreadsheet for their information, Hitachi Consulting sees value in also providing interfaces that are easy to monitor at a glance.

“I've joked with a lot of clients about dashboard design, but I think that there are some big benefits to creating visual displays that the user can immediately resonate with,” says Turley. “CEOs have to stay on top of a broad spectrum of data, and if they sit down in front of a display that matches the dashboard of the car they drove to work in, maybe that makes it all a bit easier.”

One of the challenges of BI is in how best to convey key concepts to people who are very busy, and trying to stay on top of an array of information, Turley notes.

“It could be as simple as ‘OK, the red light is bad, I better click here and see what is happening’ or someone looking at a fuel tank gauge and thinking, ‘we're getting too close to empty,’” says Turley. “Good dashboard design isn't about distilling complicated information down into a smiley face, it's about putting something in front of the user, up and down the organization, that they can understand and

relate with, while having drill-down depth just a click away.”

#### **Reduced Reporting Costs**

Customers migrating from third-party reporting applications to Reporting Services can reduce licensing and system integration costs because Reporting Services is part of SQL Server, and doesn't cost extra to license. Similarly, it saves system integration costs because it is already built upon SQL Server.

“Companies can see significant cost savings and improved reporting capabilities by migrating to SQL Server Reporting Services and taking advantage of the rest of the Microsoft Application Platform,” says Naukam. “With our Reporting Center for Excellence, Hitachi Consulting can make it easier for customers to gain those benefits. We think SQL Server 2008 is a significant step toward making the Microsoft Application Platform even more cost effective, more valuable, and more innovative for our customers.”

In summary, Hitachi Consulting is using SQL Server 2008 to help its customers bring BI to the edge of the enterprise.

## For More Information

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## Windows Server 2008, SQL Server 2008, and Visual Studio 2008

Windows Server 2008, SQL Server 2008, and Visual Studio 2008 provide a secure and trusted foundation for creating and running your most demanding applications. Combined, the products offer advanced security technology, developer support for the latest platforms, improved management and Web tools, flexible virtualization technology to optimize your infrastructure, and access to relevant information throughout your organization.

For more information about Windows Server 2008, go to: [www.microsoft.com/windowsserver2008](http://www.microsoft.com/windowsserver2008)

For more information about SQL Server 2008, go to: [www.microsoft.com/sql/2008/default.aspx](http://www.microsoft.com/sql/2008/default.aspx)

For more information about Visual Studio 2008, go to: [www.microsoft.com/vstudio](http://www.microsoft.com/vstudio)

### Software and Services

- Microsoft Servers
  - Windows Server 2003 Enterprise Edition
  - Microsoft SQL Server 2008 Enterprise Edition
- Microsoft Office
  - Microsoft Office SharePoint Server 2007

### ■ Technologies

- Microsoft SQL Server 2008 Reporting Services

### Hardware

- AMD-based and Intel-based server computers

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