



Overview

Country or Region: United States

Industry: Broadcast

Customer Profile

Based in Hunt Valley, Maryland, Sinclair Broadcast Group operates 59 television stations in 38 markets, reaching some 23 percent of all U.S. television households.

Business Situation

Sinclair needed to consolidate information from 38 broadcast traffic applications, each with its own database, into a centralized solution with a single database.

Solution

Sinclair is replacing its old traffic systems with OSi-Traffic running on Microsoft® SQL Server™ 2000 Enterprise Edition (64-bit) and the 64-bit version of Microsoft Windows Server™ 2003 Datacenter Edition.

Benefits

- \$600,000 recurring annual benefit
- Better view of the business
- Business intelligence
- Enhanced efficiency for sales reps

Broadcaster Saves \$600,000 a Year by Moving to Centralized Database and Traffic System

“OSi used Microsoft technology to create a business intelligence data warehouse that gives us actionable data ... to identify buying patterns and market forces.”

Delbert R. Parks III, Vice President of Operations and Engineering, Sinclair Television Group, the Television Division of Sinclair Broadcast Group

With 59 television stations, Sinclair Broadcast Group is one of the largest television broadcasting companies in the United States. Seeking greater efficiency and a better view into its business, Sinclair needed a centralized reporting solution to replace a collection of broadcast traffic applications deployed on 34 IBM AS/400 systems at local stations and a mainframe in Memphis, Tennessee. Sinclair is replacing all of its AS/400 systems and traffic and billing applications with Optimal Solutions Inc.'s OSi-Traffic application running on Microsoft® SQL Server™ 2000 Enterprise Edition (64-bit) and the 64-bit version of Microsoft Windows Server™ 2003 Datacenter Edition. Sinclair anticipates recurring annual savings of U.S.\$600,000 through retiring the 34 AS/400 systems and the change in the operating environment. The solution includes a data warehouse.

“[W]e determined that Oracle license costs may be prohibitive for broadcasters in smaller markets, and we also determined that SQL Server Data Transformation Services provided a better ETL solution for our needs.”

Luke Stephens, Vice President of Software Development, Optimal Solutions, Inc.

Situation

Sinclair Broadcast Group is one of the largest and most diversified television broadcasting companies in the United States. The company, which traces its roots back to a single television station in Baltimore, Maryland, owns and operates, programs, or provides sales services to 59 television stations in 38 markets. Sinclair's television group includes 19 FOX, 19 WB, 6 UPN, 8 ABC, 2 CBS, 3 NBC affiliates, and 2 independent stations. Together these stations reach approximately 24 percent of all United States television households.

Television stations earn money by attracting viewers with great programming and selling time slots to companies to air commercials during breaks in the programming. Station managers use a broadcast traffic application to coordinate the availability of time slots and the placement of ads into sold time slots. The broadcast traffic application provides a second-by-second guide that broadcasters use to integrate commercials with programming. Ad placement is governed by multiple business rules—for example, a car manufacturer or beverage company might stipulate that a competitor's ad can't be run within a specified time of its own ad. If these business rules are inadvertently not followed, the advertiser generally doesn't have to pay for the slot, so mistakes sap revenue.

Through its purchase of television stations over the years, Sinclair acquired a collection of different traffic applications running on stand-alone IBM AS/400 midrange systems. “We had four different traffic applications spread across 34 AS/400 systems,” says Delbert R. Parks III, Vice President of Operations and Engineering at Sinclair Television Group, the Television Division of Sinclair Broadcast Group. “We couldn't easily pull together traffic information from across our operations to create a centralized corporate view. Yet we knew that for strategic

reasons we needed an overall corporate view in order to maximize our returns in airtime yield management.”

As Sinclair looked for a better traffic application, it wanted a solution that would provide:

- A centralized solution.
- A better view of business across all stations.
- “Actionable data” to guide strategy.
- Cleaner data free of anomalies such as multiple spellings for the same customer, which made it difficult to roll data together.
- Reduced errors by automated enforcement of business rules guiding ad placement.

Solution

After evaluating competing traffic systems, Sinclair Broadcast Group decided on using OSi-Traffic, an application from Optimal Solutions Inc. OSi created its application using the Microsoft® Visual Studio® .NET 2003 development system and the Microsoft .NET Framework. Sinclair's deployment used the 64-bit version of the Microsoft Windows Server™ 2003 Datacenter Edition operating system and Microsoft SQL Server 2000™ Enterprise Edition (64-bit). Both Windows Server 2003 and SQL Server 2000 are part of Microsoft Windows Server System™ integrated server software.

Sinclair is deploying OSi-Traffic as a centralized solution. The company is more than halfway through converting stations to the new solution and retiring the earlier traffic application and AS/400 at each site. Once stations have been converted, employees access OSi-Traffic through a centralized server farm running Terminal Services, a technology in Windows Server 2003, at Sinclair's corporate headquarters in Hunt Valley, Maryland.

“We believe that OSi-Traffic and the business rules embedded using SQL Server stored procedures will allow us to dramatically reduce sales adjustments.”

Delbert R. Parks III, Vice President of Operations and Engineering, Sinclair Television Group, the Television Division of Sinclair Broadcast Group

The application includes a “spot engine” that encapsulates business rules to help traffic managers ensure that one advertisement doesn’t conflict with another. Using the SQL Server database, OSi-Traffic creates month-end reports based on all spots that were placed during the month, and generates invoices to send to advertisers.

The OSi-Traffic deployment includes a business intelligence (BI) data warehouse to help Sinclair analyze the centralized data from all of its stations. The multitier BI data warehouse includes:

- **ETL Tier.** Microsoft SQL Server 2000 Data Transformation Services (DTS) is used to perform extract, transform, and load (ETL) processes on traffic data each night. ETL is performed with a single DTS package.
- **Data Warehouse Tier.** DTS loads OSi-Traffic information from the ETL tier into a relational data warehouse. When all stations have converted, the database is expected to be about 400 gigabytes (GB). The SQL Server database includes a set of stored procedures defining business rules that power the spot engine to help avoid ad placement conflicts. The database holds traffic information, history, and the business logic guiding placement of commercials for Sinclair’s 18,000 advertisers.
- **Analytics Tier.** A cube with 26 dimensions is created using Microsoft SQL Server 2000 Analysis Services. Cube dimensions cover a range of key variables, allowing users to drill down according to advertiser, advertising agency, product, brand, length of ad spot, salesperson, pricing of spot, station, and a wealth of other data points.
- **Reporting Tier.** OSi currently uses its own reporting tools for supplying over 200 customizable reports that are accessed by some 1,400 named users and 600

concurrent users made up of sales representatives, traffic managers, station managers, and corporate headquarters managers. OSi plans to upgrade reporting with deployment of SQL Server 2000 Reporting Services in order to take advantage of new functionality.

The data warehouse is hosted on an IBM xSeries 455 16-way Itanium server with 32 GB of RAM. When fully deployed, the data warehouse will include some 950 tables, the largest of which will have 100 million rows. The solution includes some 2,000 stored procedures.

“When we began creating OSi-Traffic, we considered basing our solution on an Oracle database,” says Luke Stephens, Vice President of Software Development at Optimal Solutions Inc. “But we determined that Oracle license costs may be prohibitive for broadcasters in smaller markets, and we also determined that SQL Server Data Transformation Services provided a better ETL solution for our needs.”

The move to OSi-Traffic and SQL Server represents a significant move into the future for Sinclair, and Parks has delivered presentations about the move to industry organizations. “Traffic systems are the heart and soul of television stations,” Parks says. “And this could be the largest traffic conversion in broadcast history.”

Benefits

Deployment of OSi-Traffic on SQL Server 2000 Enterprise Edition (64-bit) and the 64-bit version of Windows Server 2003 Datacenter Edition has provided Sinclair Broadcast Group with a number of benefits, including:

- U.S.\$600,000 recurring annual savings from retiring its 34 AS/400 systems.
- A better view of the business.

“With OSi-Traffic and SQL Server, I can pull a report and say, ‘Show me all the ad revenue for the *American Idol* show that ran last night on all of our 19 FOX stations.’”

Delbert R. Parks III, Vice President of Operations and Engineering, Sinclair Television Group, the Television Division of Sinclair Broadcast Group

- Business intelligence.
- Enhanced efficiency for sales representatives in the field.

\$600,000 Recurring Annual Savings

With retirement of AS/400 systems and the impact printers used to create green-bar printed reports, Sinclair gains significant savings. “Combining the licensing and maintenance fees for the AS/400s and printers with the cost of green-bar printing paper, we anticipate a total recurring annual savings of about \$600,000 a year when fully deployed,” says Parks. “Our motivation for migrating to a new traffic system was to gain a better view into our business, so these annual savings are a nice bonus.”

Better View of the Business

Bringing together data that used to reside on 34 separate computers is giving Sinclair the better view into its business that it long has wanted. OSi-Traffic provides information in real time that couldn’t practically be pulled together before. With the old systems, Sinclair executives would have to send a request for information to each station, where local managers would pull traffic information from the AS/400, import it into the Microsoft Excel® spreadsheet software, and send it to corporate headquarters where responses would be manually brought together. The process was time consuming.

“With OSi-Traffic and SQL Server, we can pull a report and say, ‘Show me all the ad revenue for the *American Idol* show that ran last night on all of our 19 FOX stations,” says Parks.

“Today I can pull that report in an instant. With our old system, we would have had to call 19 stations and ask for the numbers.”

Returning to his example of checking the ad revenue for *American Idol*, Parks also points out the disruptions that such a request used to cause for the local stations.

“With the old system, when we called those 19 FOX stations to check on revenue for *American Idol*, we would have been calling or sending e-mail to 19 general sales managers, which is a fairly high sales position in our company,” Parks says. “They would have to stop what they were doing, go back to the old traffic system, and run a report. They might have to print 100 pages just to get one number, write the number down, and e-mail it back. Our folks would have to roll it all up and put it in an Excel spreadsheet or some other presentation format. All of this takes time. And we have our general sales managers chasing after numbers, instead of concentrating on generating new sales.”

Centralizing all information in a single SQL Server database is helping Sinclair clean its data, including removing anomalies such as multiple entry identifications for the same company—something that previously made it extremely difficult to get an overall view of the business.

“With our 38 separate databases, we had a big problem with anomalies,” says Parks. “Take something as seemingly simple as wanting to know how much Ford spent advertising with us last week. We couldn’t really do this before because in our decentralized databases Ford Motor Company was listed in a number of ways including Ford, Ford Motors, Ford Motor Company, FOMOCO, or by the names of the local Ford dealers. Centralizing on OSi-Traffic and SQL Server has brought order to all of this. We only have a few people here at corporate who actually enter customer information into the database. And out in the field, people choose a customer from a drop-down list box. That’s how we keep our data pure.”

Business Intelligence

In addition to providing a better view into the business, Sinclair is using its BI data

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warehouse to generate what Parks terms “actionable data” to guide the company’s strategies for maximizing returns for its airtime sales and for identifying and swiftly responding to new opportunities in the market.

“OSi used Microsoft technology to create a business intelligence data warehouse that gives us actionable data,” says Parks. “Having real-time data helps us to identify buying patterns and market forces. All of this helps us better meet the needs of our clients while maximizing our yields. Our database contains some 10,000 advertising agencies and some 18,000 advertisers. There is a wealth of information in our database, but it takes business intelligence reporting to discover what trends and patterns are really hidden inside the data there.”

The real-time reporting helps Sinclair fine-tune pricing to maximize yields. “We can run a report right now that shows that our ad sales for the show *Desperate Housewives* are sold out months in advance,” Parks says. “You might think that is great, but you also need to consider whether the pricing was too low. OSi-Traffic helps us to better manage our yields.”

Enhanced Efficiency for Sales Reps

Sinclair sales representatives are benefiting from real-time data and from the ability to use a laptop in the field to directly plug into the OSi-Traffic spot engine, which uses SQL Server stored procedures to apply business rules to transactions. Previously sales representatives didn’t have up-to-the-minute availability information when selling advertising slots. Orders would be written up on a paper form and then keyed into the traffic system by someone else.

“Our people in the field know exactly what is available to our customers,” says Parks. “This makes them more efficient, because they can

identify additional opportunities for our customers. And because they are entering their own data, we no longer encounter the errors that came from someone trying to decipher if a scrawled figure was a 7 or a 9 when keyboarding the written order forms from the field.”

The sales representatives also benefit from the SQL Server stored procedures that help ensure that business rules are applied so one ad doesn’t conflict with another and so all other customer criteria is met. This could significantly reduce the need to make sales adjustments.

“Sales adjustments are always a concern in the broadcast industry,” Parks says. “We believe that OSi-Traffic and the business rules embedded using SQL Server stored procedures will allow us to dramatically reduce sales adjustments.”

For More Information

For more information about Microsoft products and services, call the Microsoft Sales Information Center at (800) 426-9400. In Canada, call the Microsoft Canada Information Centre at (877) 568-2495. Customers who are deaf or hard-of-hearing can reach Microsoft text telephone (TTY/TDD) services at (800) 892-5234 in the United States or (905) 568-9641 in Canada. Outside the 50 United States and Canada, please contact your local Microsoft subsidiary. To access information using the World Wide Web, go to: www.microsoft.com

For more information about Optimal Solutions products and services, call (816) 434-4008 or visit the Web site at: www.osi-corp.com

For more information about Sinclair Broadcast Group products and services, call (410) 568-1500 or visit the Web site at: www.sbgi.net

Microsoft Windows Server System

Microsoft Windows Server System integrated server infrastructure software is designed to support end-to-end solutions built on Windows Server 2003. It creates an infrastructure based on integrated innovation, Microsoft's holistic approach to building products and solutions that are intrinsically designed to work together and interact seamlessly with other data and applications across your IT environment. This helps you reduce the costs of ongoing operations, deliver a more secure and reliable IT infrastructure, and drive valuable new capabilities for the future growth of your business.

For more information about Windows Server System, go to: www.microsoft.com/windowserversystem

Software and Services

- Microsoft Windows Server System
 - Microsoft Windows Server 2003 Datacenter Edition (64-bit)
 - Microsoft SQL Server 2000 Enterprise Edition (64-bit)
- Microsoft Visual Studio .NET 2003

Technologies

- Microsoft SQL Server 2000 Analysis Services
- Terminal Services

Hardware

- IBM xSeries 455 16-way Itanium server with 32 GB of RAM

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