

Information Builders is one of the largest independent software companies in the world. We work with over 12,000 customers to ensure their success by putting interactive and actionable information in the hands of everyone in the extended enterprise: employees, partners, suppliers, and customers.

# WebFOCUS

## Web Services



Web services has emerged as a powerful new model, making enterprises more nimble by providing a flexible application architecture to support constantly changing business requirements while connecting multiple people and systems inside and outside the enterprise. By consuming Web services and publishing reports as Web services, enterprise business intelligence systems can increase the value and velocity of information by making it available to people and systems inside the enterprise and beyond. For the first time, business applications can interact with business intelligence and reporting systems to easily leverage reporting data for long-running analytical requests as well as ad hoc queries.

Information Builders' WebFOCUS enterprise business intelligence suite provides the widest breadth of enterprise business users with the capability to consume Web services information and incorporate it as a data source through the Web service enablement option, as well as be called to present data as a Web service with the WebFOCUS Web Services Adapter. WebFOCUS maximizes integration points for business intelligence systems and provides the performance and flexibility required to incorporate information from multiple Web services and enterprise data sources and deliver real-time reports to anyone in the extended enterprise. This ensures that information published as a Web service is comprehensive, accurate, and satisfies the information latency requirements of the business application consuming it.

Three examples of how WebFOCUS can use Web services include:

- Combining data from internal and external sources to create a unified, insightful report, such as comparing the demographic breakdown of your customer base with actual demographics from the U.S. Census Bureau (available via a Web services adapter) to locate untapped markets for your products
- Making data from disparate internal systems available, reducing programming redundancies and integrating systems more efficiently, such as exposing employee record information in an HR system as a Web service so other systems, such as a homegrown sales analysis system, can easily integrate the HR data instead of duplicating it
- Drilling down from one internal or external source to any other internal or external source to more easily navigate and research, for example, an insurance company can drill down from new auto insurance applicants' information to their stored driving-record data available as a Web service from the Department of Motor Vehicles (DMV)

**“We developed our own enterprise portal using the Microsoft .NET integrated development environment. Through Web services, we can seamlessly call fully formatted WebFOCUS enterprise reports into our portal, creating a powerful and information-rich application using minimal development resources.”**

– Eldon Roush  
Gentiva Health Services

## Producing WebFOCUS Web Services – A Powerful New Application Paradigm for Business Agility

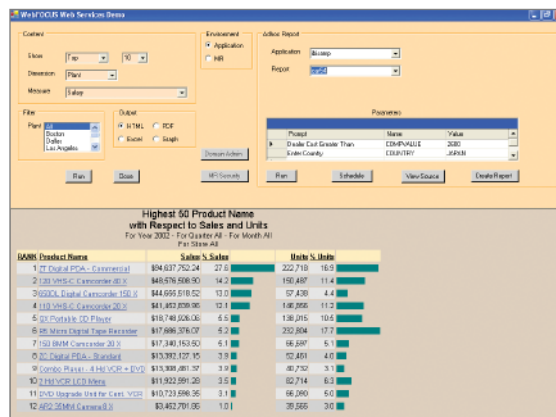
Business intelligence (BI) applications can play a vital role in supporting a Web services strategy, because they make a company more adept by allowing them to more easily connect disparate systems inside and outside the enterprise. BI applications generate information from enterprise systems and deliver it to key decision-makers as useful reports in familiar formats such as charts, Excel spreadsheets, or PDFs. BI applications also accelerate a Web-services strategy by making reports available in XML as a service to applications running in J2EE or .NET environments, saving valuable development time. WebFOCUS' Web services implementation eliminates the communications roadblocks of the past, so that business becomes more dynamic and agile.

Through WebFOCUS' Web service enablement option, reports can be exposed as Web services allowing external applications built with Web services-supported languages, such as VB.NET, C#, and Java, to consume them via standard Simple Object Access Protocol (SOAP). With Web services, powerful WebFOCUS functionality can now seamlessly integrate into applications programmed by general-purpose languages – enabling data manipulation, analysis, and reporting.

WebFOCUS' data access and integration capabilities are unparalleled in the business intelligence market – providing comprehensive, native access to more than 85 data sources, including relational, legacy, multidimensional, ERP, and CRM. With Web services, WebFOCUS can also incorporate information from internal and external custom applications for comprehensive enterprise business intelligence reporting. WebFOCUS reports can incorporate information from any enterprise system and then be published as a Web service.

### Features of the WebFOCUS Web Service Enablement Option

- Full support of all key Web-services standards to ensure interoperability
- User extensible – empowering developers to build new functions that can then be published as new J2EE or .NET calls
- Utility for automatic generation of Web Services Description Language (WSDL) to expedite application development
- Exposed functionality for more efficient Web-services development, including security, report execution, application management, user administration, and delivery and scheduling



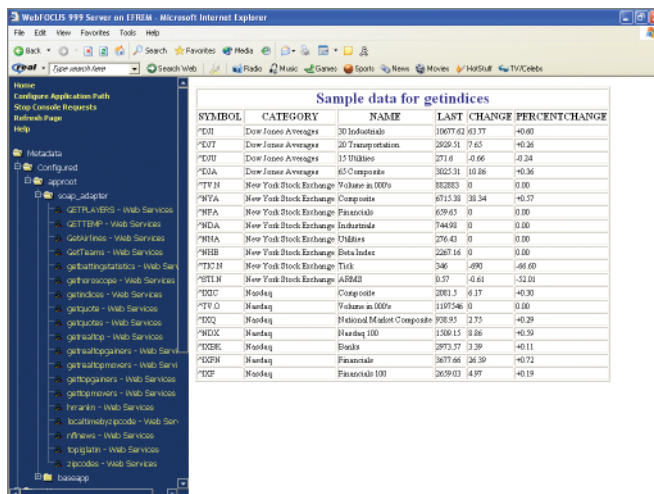
Here, the output of a WebFOCUS report is being run as a Web services operation and displayed from a .NET application. The right side of the screenshot shows a WebFOCUS report being queried from within a .NET application before it is run, in order to determine the parameters needed.

## Consuming WebFOCUS Web Services – Next Generation Data Access and Integration

Large enterprises are standardizing on Web services and service-oriented architectures as a means of implementing low-cost, high ROI, standards-based integration. WebFOCUS' data access and integration capabilities, coupled with Web services, can now unlock data through the Internet, including untapped and remote external sources, opening up a world of information for enterprises. The WebFOCUS Web Services Adapter complements WebFOCUS' formidable data integration capabilities by treating any Web service as a regular data source and allowing applications to report off of the Web services data.

By enabling a Web service to be accessed and manipulated as easily as if it were another database, enterprises employing WebFOCUS' Web services now have virtually unlimited access to any information inside and outside the enterprise, including structured and unstructured data, applications, transaction systems, or packaged applications. WebFOCUS' Web services are also an extremely efficient way to incorporate information from partners and customers into reporting applications while isolating internal systems from change.

The WebFOCUS Web Services Adapter enables Web services created and deployed using any Web-services authoring tool to be directly consumed by the WebFOCUS Report Server and manipulated as though it were relational data. Once defined, WebFOCUS enables metadata describing the Web service to be automatically created, catalogued, and made directly accessible for reporting or analytical purposes. WebFOCUS can then integrate both internal and external data sources to create combined reports.



SYMBOL	CATEGORY	NAME	LAST CHANGE	PERCENT CHANGE	
%DJI	Dow Jones Averages	30 Industrials	10677.62	43.77	+0.60
%DJI	Dow Jones Averages	20 Transportation	2659.31	75.65	+0.36
%DJI	Dow Jones Averages	15 Utilities	271.6	-10.66	-0.24
%DJA	Dow Jones Averages	65 Composite	3025.31	10.86	+0.36
%NYA	New York Stock Exchange	Volume in 100s	88283	0	0.00
%NYA	New York Stock Exchange	Composite	8715.38	10.34	+0.57
%NYA	New York Stock Exchange	Financials	659.61	0	0.00
%NYA	New York Stock Exchange	Industrials	7449.0	0	0.00
%NYA	New York Stock Exchange	Utilities	276.41	0	0.00
%NYB	New York Stock Exchange	Data Index	2267.16	0	0.00
%NYC	New York Stock Exchange	Tick	546	-490	-46.69
%NYL	New York Stock Exchange	ARMS	0.57	-0.61	-52.00
%NDX	Nasdaq	Composite	2081.3	6.17	+0.30
%NYQ	Nasdaq	Volume in 100s	1195246	0	0.00
%NDX	Nasdaq	Nasdaq Market Composite	238.93	2.75	+0.29
%NDX	Nasdaq	Nasdaq 100	1500.15	3.86	+0.55
%NDX	Nasdaq	Bonds	2973.77	3.39	+0.11
%NDX	Nasdaq	Financials	3877.66	16.39	+0.72
%NDX	Nasdaq	Financials 100	2659.03	4.97	+0.19

Retrieval of sample data from an external Web service displayed within the WebFOCUS Web Console.

## Find Out More

To find out how our solutions can help your company succeed, talk to an Information Builders representative today. Contact your local Information Builders office, visit us at [www.informationbuilders.com](http://www.informationbuilders.com), or in the U.S. and Canada, call **(800) 969-4636**.

The same Web service may be manipulated in conjunction with the 85 other RDBMSs, DBMSs, and legacy file systems accessible through the WebFOCUS enterprise adapter architecture. Additionally, WebFOCUS can read a Web service as a data source when creating a data warehouse or mart using ETL Manager. Enterprises can conduct ad hoc reporting against these Web services, creating robust reports from the data using nothing more than a Web browser. WebFOCUS' Web services enables enterprises to quickly and efficiently satisfy critical information requirements.

### Features of the WebFOCUS Web Services Adapter

- Create metadata for any Web service via its WSDL file for incorporating into robust enterprise reports
- Generate compelling reporting applications from any Web service with a user-friendly GUI tool
- Drill down on any report to other data available via Web service to make intuitive leaps with information
- Join data from Web services or a real database to a Web service for comprehensive reports
- Output any Web service available data as Excel, Excel PivotTable, PDF, or standard HTML to meet user preferences, enable best possible analysis, and circumvent any re-keying of information
- Geographically map data from a Web service and visualize the spatial component of your business data
- Graphically visualize data available from any Web service for compelling illustrative reports
- Send e-mail alerts containing data from a Web service based on a schedule or event-driven basis to keep people apprised of critical issues while increasing productivity



**Corporate Headquarters** Two Penn Plaza, New York, NY 10121-2898 (212) 736-4433 Fax (212) 967-6406  
[www.informationbuilders.com](http://www.informationbuilders.com) [askinfo@ibi.com](mailto:askinfo@ibi.com)

**Canadian Headquarters** 150 York St., Suite 1000, Toronto, ON M5H 3S5 (416) 364-2760 Fax (416) 364-6552

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**For International Inquiries** +1(212) 736-4433



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