

A Comparison of Node-building using .Net vs. BizTalk

I. Purpose

This draft document is developed in response to an inquiry from the 10/23/2002 Node Knowledge Sharing conference call for a comparison of Node-building using .NET vs. BizTalk. It intends to serve as a screening tool for the states to get a high-level overview of the difference between the two technologies and determine the potential applicability of the appropriate technologies for their Node projects. Please note that there are a few important factors to consider when selecting the proper technologies for your state. They include:

- State's long term vision for Node applications
- State's IT resources and budget
- Availability of software development and support for the selected technologies
- Integration with the organization's existing software and hardware architecture

- Requirements to integrate multiple program areas into state Node(s)
- Scope of Data Exchange
- Scalability of the Node

II. Information Used in this Report

enfoTech assisted the states of Delaware and New Hampshire in implementing Node 1.0 projects. For the Delaware Node project, the state elected to use .NET. For the New Hampshire Node, the state elected to use BizTalk. In this report, we use the following information to help our analysis:

- Technology expertise and understanding of Microsoft .NET and the BizTalk technologies
- Implementation experiences obtained from both the DE and NH Node projects

III. Analysis Results

The following table outlines the differences in .NET and BizTalk technologies for Node applications.

	PROS	CONS
.NET	<ul style="list-style-type: none"> • .NET Framework is free from Microsoft • Reasonable cost of initial development software such as Visual Studio .NET • Provides tools for rapid development of Web services • Supports multiple developing languages (C#, VB .NET, etc.) • Easily integrated with existing .NET components • Simple xcopy style deployment • SQL Server is not required (BizTalk requires SQL Server software) 	<ul style="list-style-type: none"> • No default data mapping tools • When business processes change, the program needs to be recoded and recompiled • Requires more development effort to achieve the enterprise-wide integration capabilities that are otherwise available directly from BizTalk • Requires more development effort to implement asynchronous processes and transactions • Might become cumbersome when the scope of Node applications is expanded to multiple program areas



	PROS	CONS
BizTalk	<ul style="list-style-type: none"> • Provides integration tools to reduce the development time and cost of an “enterprise-wide” Node (i.e., integration process is much simple) • Ease and flexibility to visually configure or change the Node workflow and processes with Orchestration Services • Scalable server architecture for the Node implementation • Support for Node protocol standards such as XML and SOAP • Supports security services such as encryption, digital signatures, and PKI • Provides tools for management and monitoring of Node processes • Automates the coordination of the Trading Partner’s processes • Supports Node Document Tracking • Automatic log management that can be integrated with Node development • Provides a set of tools to build, transform, manage, track, and analyze Node documents 	<ul style="list-style-type: none"> • Higher initial software cost for BizTalk Server • Higher initial implementation effort when a Node is designed for simple applications • Requires supporting software such as Microsoft SQL Server and Microsoft Visio • Lacks built-in support for the W3C XSD (XML Schema Definition) standard. Development effort is required to use the W3C standard using BizTalk Editor to import and export XSD files. • Node Business processes designed by Orchestration Designer need to be recompiled when the interfaces of COM+ components change. This will also require more development and maintenance effort. • Orchestration Designer can not directly call the Web service. Therefore more development effort is required to create the proxy object to call the Web service.

IV. Conclusion

Factors favoring the .Net Node-building option include:

- √ The higher initial software cost of BizTalk is a main concern.
- √ Strong .NET development expertise is available.
- √ The integration of multiple program areas is not an immediate concern.
- √ The integration of multiple program areas is not an overall concern.

However, if conditions change in the future, BizTalk can be readily added to the .NET environment.

Factors favoring the BizTalk Node-building option include:

- √ The higher initial software cost of BizTalk is not a concern.
- √ BizTalk is already being used.
- √ The integration of multiple program areas is an immediate concern.
- √ The integration of multiple program areas is an overall concern.

The above factors lend themselves toward .BizTalk as the choice to implement the Node project.

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