

# Pinnacle Data Integration Services



### **Report Contents**

### Data Integration Problems

An outline of two issues we have encountered in the past.

### What do we want out of a Data Integration Solution?

What are the important aspects that need to be considered when looking at acquiring a Data Integration Tool?

How does Connectelligence stack up against these *requirements?* 

- Connectelligence: Common Technologies
- Connectelligence: Universality
- Connectelligence: *Ready, Connect, GO!!*

### Data Integration: Example 1—Disparate Financial Systems

We came across a company that had multiple plants; each plant was using remote access software to connect to a single ERP system at the head office.

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PROJECT MANAGE

The customer wanted to break out each plant into its own ERP system while maintaining consolidated financial records at the corporate site. Transactions with financial impact needed to be identified in the plant ERP systems and pushed up to the head office ERP system in real-time to reflect the corporate financial picture.



### Data Integration: Example 2—Customer Critical Data



This example has been made generic to protect the identify of the company.

Company A is responsible for taking critical life-saving data from its customers during the process of creating a new account. Company A uses a remote system to create the new account. This information must then be forwarded in the right format to the relevant remote data repository.

The process of collecting this information from the system remotely hosted by Company B is cumbersome and manual. The information needs to be consolidated and sorted according to specific business rules. Once the data is grouped appropriately, data files can be manually created and sent to the data repositories.

Company A wants to improve the efficiency of this process so that the customer specific data can be delivered to its destination within minutes of new account being created.

### What's in a Tool?

At some point, we need to consider which tool we will use to help us bridge our Data Integration (DI) challenges. What do we need to look for?

Objective	Key Characteristics	IT Benefit	Business Benefit	
Easy to deploy	Technologies are already used in the existing infrastructure.	Systems support infrastructure already exists to support DI Tool. No new expense or knowledge required. Proprietary knowledge management is minimized. Support base for DI Tool is wide.	DI Tool Implementation is quick and widely supported.	
Easy to support / utilize	Programmers do not need to learn new scripting or programming languages resulting in a minimal net new knowledge gap. Training requirement is minimal.	IT is better able to adjust to the ebb and flow of the business data integration requirement in that the required skill-set is utilized universally and consistently exercised. The business reduces the need for consultant programmers on-site as most programmers can easily adapt to the programming need.	Reduced implementation cost as internal support for the tool is easily created.	
Fast delivery	A solution can be delivered in days rather than weeks or months.	Developers do not need to reinvent code to create new solutions. They can utilize the existing framework or graphical data integration tools to facilitate the objective. All of this can be accomplished while meeting the development requirements for self-monitoring and logging.	Business becomes more agile. With a speedy response to new data integration requests, the business is able to streamline its operations and improve its competitive positioning with minimal resource utilization and cost.	
Flexible	If business requirements change, the solution changes easily and quickly with them.	The ability to surgically modify a DI solution without negative impact contributes to IT's mandate to efficiently respond to the business requirement.		
Universal Connectivity	An integration solution should not be hampered by an inability to connect to a data target.	IT does not need to worry about how to source or push data. The Connectelligence technology adaptors can be used to connect to virtually all data targets.	N/A	

## **Connectelligence: Common Technologies**

#### SQL Server 2008

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Connectelligence metadata is housed in the Connectelligence Database. This database is a SQL Server Database.

#### Windows Distributed Services

Connectelligence utilizes Windows distributed services to enable its SOA foundation. The Connectelligence Software Suite delivers an Enterprise Service Bus that leverages the SOA framework to provide consistent messaging and data transitioning throughout the Enterprise.

#### Visual Studio 2010

Programmers find they do not need to learn new programming languages or scripting techniques to create an integration solution. Many of the solutions can actually be created and deployed without writing a line of code, but when further customization is required, Visual Studio 2010 is included in the licensing to allow programmers to customize their solutions in a familiar environment

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Visual Studio

SQL Server 2008

Icon representing

Connectelligence deployed

Windows Distributed Services

Easy To Deploy

IT spends less time deciding how Connectelligence will fit in the existing Infrastructure, making them ready to respond to business requirements sooner.



### Seamless Systems Integration

IT is able to easily use their support systems to protect Connectelligence from outages. IT will utilize its support network to ensure Connectelligence meets the availability constraints of the company's Service Level Agreements.



**Specialized Knowledge Minimized** 

Results in less time training staff. Reduced need for specialized knowledge and resource management. Greater availability to meet solution needs in-house.



Wide Support Base

The Microsoft development suite is widely supported and understood. As the proprietary elements in Connectelligence are few (and are themselves based on Microsoft technology), support is readily available for technical staff.



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# **Connectelligence: Universal Connectivity**

### Workflow

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Enforce process and control data acquisition on edge devices to prevent bad data

#### Email

Leverage email forms to collect data. Connect to mailboxes to access the data.

#### **Database Connectivity**

Connect to UNIX, AS400, Oracle, Microsoft and other databases with ease.

#### **Data Files**

Watch for and extract batch based data from data files such as plain txt or XML.

#### **Time Watcher**

Empower your solution to execute business processes at defined intervals.

#### **HTTP Service**

Integrate tightly with portal or web based applications and data sources.

#### **Folder Structures**

Watch for and utilize data extracts saved to a folder on your LAN, WAN or in the cloud.



#### Event Log

Watch for specific events or condition. Use it to trigger an action or process.

#### **Microsoft Dynamics AX**

Utilize tightly integrated connectors to move data in and out of Dynamics AX.

#### Custom

Use built in objects to custom create your own adaptors quickly and effectively.

### Connectelligence: Ready, Connect, GO!!



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Missing

- Microsoft **VB**.Net Objects Built into the product is years of experience tied into a library of integration enabling objects. - Missing Li

#### Cut down development time even further by designing, testing,

Designer

executing and automating your end-to-end integration solution using the Designer graphical user interface.

Faster Solutions = Greater Agility

80% DONE!! Much of the solution is built before you start. Just Connect and Go!

**Big Brother** Big Brother is a built-in and robust monitoring system that monitors the health of your distributed services, alerting you when thresholds are breached.

T ML Error ReportingTransaction: (863091 Records) Missingl inkTableWatcherService.RunCustor 363028 2011-03-15 08: 0 Pop 63029 2011-03-15 ingl inkTableWatcherService RunCustor d: 953,ErrorReporter,Mar 15 2011 A7.ErrorReporter,1,3/15/2011 8:57:12 AM,TableWatcher, N ERROR \*\*,-1,Error Reporter Started,Service Initialize to: david@pinnaclepm.ca ...SENT Verbose Logging Connectelligence provides your IT staff with detailed logging for all of your services. Identify and eliminate integration and process Service Manager, Missing Link Service errors by tracking how your r(String str. NumberStr FormatInfo info, Boolean 11:35:20 AM,System.FormatException,,Void services are used. em.Globaliz, Input string was not in ringToNumber/String str. NumberStyles options er, NumberFormatInfo info, Boolean parseDecimal Number.ParseInt32(String s, NumberStyles style

> Default Visual Basic **Technology Adaptors** Developers do not need to Visual Basic worry about Visual Basic connecting to data targets. Instead universal Visual Basic connectivity is provided Visual Basic through Connectelligence Technology Adaptors. Visual Basic Visual Basic Visual Basic à Time Watcher Visual Basic

> > Web Page Watcher

Visual Basic

# Assessing Connectelligence

	Objective	Key Characteristics		CONNECTELLIGENCE
PROJECT MANAGEMEN	Easy to deploy	Technologies are already used in the existing infrastructure.	Ł	Utilizes commonly used technologies: Windows SQL Server 2008, Visual Studio 2010, Windows Distributed Services, SOA and ESB.
	Easy to support / utilize	Programmers do not need to learn new scripting or programming languages resulting in a minimal net new knowledge gap. Training requirement is minimal	Ł	Commonly used technologies allows for Connectelligence to fit into the corporate infrastructure seamlessly while IT staff and programmers are able to embrace the tool with little additional training.
	Fast delivery	A solution can be delivered in days rather than weeks or months.	Ł	The built-in object library built from years of complex data integration experience combined with the Connectelligence Designer, Big Brother Monitoring, a wealth of technology adaptors and verbose logging provides your development staff with 80% of the solution even before they start. The resulting solutions can respond easily to changes in business processes and requirements.
	Flexible	As business requirements change, the solution changes easily and quickly with them.	Ł	Connectelligence leverages Windows Distribute Services within the SOA framework to make solution components reusable and responsive to new business requirements without impact to existing solutions.
	Universal Connectivity	An integration solution should not be hampered by an inability to connect to a data target.	Ł	Connectelligence includes a myriad of technology adaptors that provide developers and Business Analysts with the freedom and flexibility to connect to most data targets.