

# Course Plan

**Title of Training Program:** Biztalk Server 2013/2016    **Duration:** 5 Days

## Training Program Details:

### Objectives of Training Program

Product Appreciation and its application in Enterprise solution space with hands-On exposure. This program provides implementation and solution-level information on BizTalk Server .The program enables participants to learn and develop applications using Microsoft BizTalk Server.

### Training Aids Required<sup>1</sup>

#### Hardware Requirements :

Participant's as well as Trainer's Machine are required to have :

- Pentium IV 2.0 GHz or Higher System / Dual Core
- CD ROM Drive – Recommended DVD ROM Drive
- 4GB RAM or Higher
- 60 GB HDD Minimum
- SVGA Color Monitor

Trainer's Machine is required to have a Video Projector in addition to the above.

#### Software Requirements :

Participant's as well as Trainer's Machine are required to have :

- Windows Server 2012 R2 / Windows 8.1 / Windows 10
- IIS 8.0 / 7.5
- Microsoft Office 2010
- .NET 4.6
- Visual Studio 2015 Ultimate
- SQL Server 2014 Enterprise SP1/ SQL Server 2016
- Microsoft BizTalk Server 2016 with Redistribution File (Trainer will Provide)
- Biztalk Adapter Pack 2.0 (Trainer will Provide)
- ESB Toolkit 2.1 (Trainer will Provide)
- Microsoft XML 4.0 (Trainer will Provide)
- SQLXML 4.0 with Service Pack 1(Trainer will Provide)

### Pre-requisites for attending Training Program

Familiarity with the Visual Studio.NET IDE  
Developing Applications using Visual Basic .NET or C# .NET  
Understanding of XML Documents and XML Schemas

### Methodology<sup>3</sup>

**The workshop will be 100% Hands-On with each participant having access to system during the session**

## Course Plan

Outline of Training Program <sup>4</sup>		
Name of Topic	Duration	
	Hours	Minutes
<p><b>Day 1</b></p> <ul style="list-style-type: none"> <li>➤ <b>Introduction to EAI and B2B</b> <ul style="list-style-type: none"> <li>• The EAI Business Scenario</li> <li>• Integrating with existing Systems</li> <li>• Managing Interoperability within a system</li> <li>• The B2B Business Scenario</li> <li>• Communicating with External Systems</li> <li>• Technology solutions available to integrate</li> <li>• Role of XML and Web Services in SOA</li> <li>• BizTalk and SOA</li> </ul> </li> <li>➤ <b>Understanding BizTalk Framework</b> <ul style="list-style-type: none"> <li>• BizTalk Framework Architecture</li> <li>• BizTalk Server 2016 &amp; Visual Studio 2013</li> <li>• Understanding various BizTalk Development Tools</li> <li>• The BizTalk Project System</li> <li>• BizTalk Application concept</li> </ul> </li> <li>➤ <b>Creating BizTalk Schemas</b> <ul style="list-style-type: none"> <li>• Working with the Schema Tree and XSD View</li> <li>• Adding / Editing Nodes</li> <li>• Managing Node Properties</li> <li>• Working with Schema Commands</li> <li>• Generating and Validating Instances</li> <li>• Property Promotion and creation of Property Schema</li> <li>• Creation of Envelope Schema</li> <li>• Importing Schemas</li> <li>• Flat file Schema</li> </ul> </li> <li>➤ <b>Creating BizTalk Maps</b> <ul style="list-style-type: none"> <li>• Source and Destination Schemas</li> <li>• Using the BizTalk Schema Generator</li> <li>• Schema Tree Views</li> <li>• Map Zone View</li> <li>• Creating Links</li> <li>• Understanding Functoids</li> <li>• Functoid Categories</li> </ul> </li> <li>➤ <b>Content Based Routing</b></li> <li>➤ <b>Working with Different Functoids</b></li> </ul>		
<p><b>Day 2</b></p>		

## Course Plan

<ul style="list-style-type: none"><li>➤ <b>Creating Orchestration Design</b><ul style="list-style-type: none"><li>• <b>Orchestration Concepts</b></li><li>• <b>Understanding the Orchestration Engine</b></li><li>• <b>Understanding XLANG/s and BPEL</b></li><li>• <b>Understanding Orchestration Shapes</b></li><li>• <b>Using Various Shapes</b></li><li>• <b>Working with Messages in Orchestration</b></li><li>• <b>Orchestration Flow</b></li><li>• <b>Calling .Net Component (DLL)</b></li><li>• <b>Error Handling</b></li></ul></li> <li>➤ <b>Health and Activity Tracking Thru BTS Admin Console</b><ul style="list-style-type: none"><li>• <b>Tracking Message Activity</b></li><li>• <b>Using the Service Pane</b></li><li>• <b>Observing the status of Orchestration</b></li><li>• <b>Following path and status of execution</b></li><li>• <b>Debugging an Orchestration using HAT</b></li><li>• <b>Changes in HAT</b></li></ul></li> <li>➤ <b>Pipeline Designer (working with Flat Files)</b><ul style="list-style-type: none"><li>• <b>Pipelines, Stages and Components</b></li><li>• <b>Message Processing with Pipelines</b></li><li>• <b>Types of Pipelines and Pipeline Components</b></li><li>• <b>Pipeline Templates</b></li><li>• <b>Flat-FileWizard</b></li></ul></li></ul>		
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<b>Day 3</b>		
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## Course Plan

<ul style="list-style-type: none"> <li>➤ <b>Accessing WCF Services</b> <ul style="list-style-type: none"> <li>• Developing WCF Services</li> <li>• Consuming WCF Services in Orchestration</li> <li>• Importing and Exporting Bindings</li> <li>• Enabling WCF Services for BizTalk on Windows Server</li> <li>• Publishing an Orchestration as a WCF Service</li> <li>• Using BizTalk WCF Publishing Wizard</li> <li>• Working with WCF-BasicHttp</li> <li>• WCF Error Handling (Resume &amp; Suspend)</li> <li>• Testing published WCF services</li> <li>• Deploying a published WCF service</li> </ul> </li>   <li>➤ <b>Correlation</b> <ul style="list-style-type: none"> <li>• Creating Correlating Schemas</li> <li>• Creating Correlation Sets</li> <li>• Initializing correlation sets</li> <li>• Following correlation sets</li> <li>• Convoys – Sequential &amp; Parallel</li> <li>• Zombie Message and Instance</li> <li>• Tracking instances based on correlation in HAT</li> </ul> </li>   <li>➤ <b>Aggregation Orchestration Convoys</b> <ul style="list-style-type: none"> <li>• Parallel</li> <li>• Sequential</li> </ul> </li> </ul>		
<b>Day 4</b>		
<ul style="list-style-type: none"> <li>➤ <b>Custom Pipeline Component</b> <ul style="list-style-type: none"> <li>• Unzip Component</li> <li>• Excel Unzip Component</li> </ul> </li>   <li>➤ <b>Custom Map using XSLT</b></li>   <li>➤ <b>SQL Integration</b> <ul style="list-style-type: none"> <li>• Using WCF SQL Adapter</li> <li>• Using WCF SQL Adapter (SQLBinding) <ul style="list-style-type: none"> <li>➤ Inbound , OutBound , Polling etc</li> </ul> </li> </ul> </li>   <li>➤ <b>Rest Support</b> <ul style="list-style-type: none"> <li>• JSON Encoder / Decoder</li> <li>• Calling a REST Service (GET,POST)</li> </ul> </li>   <li>➤ <b>Biztalk Administration</b> <ul style="list-style-type: none"> <li>• Tracking Messages</li> <li>• Trouble Shootings</li> <li>• Tracking errors</li> </ul> </li> </ul>		
<b>Day 5</b>		

## Course Plan

<ul style="list-style-type: none"> <li>➤ <b>Biztalk Error Handling</b> <ul style="list-style-type: none"> <li>• <b>Routing Failed Messages</b></li> <li>• <b>Orchestration Error</b></li> <li>• <b>Delivery Notification</b></li> </ul> </li>   <li>➤ <b>Business Rules Composer</b> <ul style="list-style-type: none"> <li>• <b>Understanding the Business Rules Framework</b></li> <li>• <b>Business Rules Vocabularies</b></li> <li>• <b>Business Rules Policies</b></li> <li>• <b>Integrating Business Rules with Orchestration</b></li> </ul> </li>   <li>➤ <b>Business Activity Monitoring (BAM)</b> <ul style="list-style-type: none"> <li>• <b>Overview</b></li> <li>• <b>BAM Fundamentals &amp; Architecture</b></li> <li>• <b>Tracking Profile Editor</b></li> <li>• <b>Creating Activities, Views, Milestones, Deployment (Definition File)</b></li> <li>• <b>BAM Portal</b></li> <li>• <b>Testing</b></li> </ul> </li> </ul>		
<ul style="list-style-type: none"> <li>➤ <b>Encryption and Signing</b> <ul style="list-style-type: none"> <li>• <b>Sending Signed messages (Using Certificate)</b></li> <li>• <b>Receiving Singed message and decrypting the message (Using Certificate)</b></li> </ul> </li>   <li>➤ <b>Deployment</b> <ul style="list-style-type: none"> <li>• <b>Generating MSI File</b></li> <li>• <b>Deploying Biztalk Application on Server</b></li> <li>• <b>Importing and Exporting Bindings</b></li> </ul> </li>   <li>➤ <b>Performance Tips</b></li> </ul>		