# SUITETALK: INTEGRATE YOUR APPLICATIONS

**Course Description**

Do you need to handle business operations outside of NetSuite? You can integrate NetSuite in unlimited ways with any external application that supports the industry standard SOAP-based web services protocol. SuiteTalk is the web services communication layer within NetSuite, enabling you to get, add, update and delete records from/to NetSuite.

This five-day course provides integration specialists and developers the knowledge to execute web service operations against NetSuite data. Students work with the NetSuite WSDL, analyze SOAP messages, and execute web service operations using either Java or C#. Through a series of real-life use cases and hands-on exercises, you learn how to extract data from NetSuite using ODBC, JDBC, or ADO.NET, deploy your web service application to other environments, configure security for your web service, use RESTlets for integration, and much more. By the end of this training, you will be able to use the correct set of best practices when developing web service applications that integrate with NetSuite.

**Who Should Attend**

- Integration specialists or software developers who need to integrate NetSuite with external applications.

- Developers working with (or intending to work with) .NET, Java, or other object-oriented languages.

Note: This course is taught in either Java or C#. PHP developers are also welcome to attend this course as SuiteTalk fully supports it.

RESTlets are a form of integration that requires use of SuiteScript. This course covers the use of RESTlets as an alternative form of integration, but not how to create them. To learn how to create RESTlets, and use the SuiteScript API for automation, attend the SuiteScript course.

## Prerequisites

- Software development experience, preferably in an object-oriented language such as Java or C#.

- Course participants should be familiar with NetSuite navigation and features

  - To learn how to navigate NetSuite and perform common tasks, take the Getting Started training available in SuiteAnswers.

- Note that a working knowledge of web services is NOT required.

## Hardware/Software Requirements

- **Implementing course exercises in Java:** Guidance is provided for those using the latest version of Eclipse IDE for Java Developers. Eclipse is supported on Windows, Mac, and Linux platforms. Please see http://www.eclipse.org for details. Eclipse is free. Details on setting up your computer using the latest version of Eclipse IDE for Java Developers are provided before the start of class.

  Note: Other versions of Eclipse and other IDEs may be used if you are knowledgeable regarding Java set up for web services using Apache Axis 1.4.

- **Implementing course exercises in C#:** Guidance is provided for those using the latest version of Microsoft Visual Studio Express or Visual Studio Community Edition. These versions are free. You must have a computer with Microsoft Windows. Details on setting up your computer using

### Key Tasks
How do I:

- Start with the NetSuite WSDL and end up with a functioning web service application?

- Import data from my ecommerce website or other application into NetSuite, in an automated way?

- Export data from NetSuite to report on it or load it into another application, in an automated way?

- Get or set custom fields and custom records through web services?

- Use token-based authentication instead of using usernames and passwords to secure my account?

- Determine when to use a RESTlet and when to use SuiteTalk?

these versions of Visual Studio are provided before the start of class.

Note: Other versions of Visual Studio may be used if you are knowledgeable regarding set up for web services using Web References.

## Course Objectives

This course takes you on a tour of the core web service operations to query, add, update and delete records in NetSuite, as well as best practices surrounding their use. By the end of this course, you will have worked with single and multi-record operations to process standard and custom record data. Other topics of investigation are integration with SuiteScript, authentication concerns, synchronization with external systems and choosing the right operation from a performance perspective.

## Day 1 Agenda

**NetSuite Web Services Architecture:**
Define web services terminology; identify the NetSuite WSDL and XSDs; execute web service operations and analyze the SOAP messages; identify relationships between a SOAP request/response and what one sees in the NetSuite user interface; use the NetSuite Web Services Usage Log.

**Writing and Executing a Web Service Operation:** Generate proxy classes from the NetSuite WSDL in C# or Java; identify relationship between proxy classes and the WSDL; describe the lifecycle in creation of a SOAP request/response; set up a record reference; create and execute a web service operation to return a record from NetSuite.

**Error Handling:** Identify faults, errors, and warnings, along with the differences between them; evaluate and parse status information in the responses of NetSuite web service operations.

**Processing a Successful ReadResponse:**
Inspect class hierarchy in the WSDL and in the generated proxy classes; identify record classes; cast a record to its specific type; pull data out of a ReadResponse object; work with fields having no data; work with List/ Record fields; get related record data; use the SuiteTalk Schema Browser.

## Day 2 Agenda

**Add, Update and Delete Operations:**
Create a custom form for your web service; establish a specific form during a web

service operation; describe how form configuration affects functionality of web service operations; execute add, update, and delete operations; pull data out of a WriteResponse object.

**List Operations:** Get a list of records out of NetSuite in a single operation; create sets of record references; update a set of records in a single operation; get or update records across different record types within a single operation; implement error handling on individual records of a list operation.

## Day 3 Agenda

**Synchronization with External Systems:** Link records in NetSuite to external systems using external ids; use the upsert operation to synchronize a mix of records to be added and updated; use a search operation to extract recent records from NetSuite.

**Working with Sublists:** Get sublist data out of a ReadResponse object; perform updates to a sublist; contrast behavior with replaceAll setting.

Handling Customizations: Create custom fields; create custom records; describe how to access custom fields and records via WSDL and generated proxy classes; implement web service operations to get and set data in custom fields and custom records.

## Day 4 Agenda

Introduction to Search Operations: Create a saved search through the user interface; create a basic search in web services that filters on fields of a target record; create a joined search in web services that filters data from joined records; query using List/Record fields.

Advanced Searches: Execute saved searches from your web service application; set up search columns; set up search joins; parse the results from an advanced search; combine a saved search with dynamic filters; compare and contrast basic & advanced searches.

Search Preferences and Performance: Change search behavior through search preferences; page through search results; inspect performance as it relates to search preferences and types of searches.

## Day 5 Agenda

Authentication and Security: Understand the different ways of securing your integration client; use web services only roles to prevent users from logging into the UI using web services usernames and passwords;

take advantage of integration records to control access to an application; and using tokens instead of sending usernames and passwords on your web service call.

Integration Options: Know the different ways of performing automation in NetSuite; understand what RESTlets are, as well as, how and when to use them compared to SuiteTalk; also, how to use SuiteAnalytics Connect to supplement SuiteTalk.

Important Considerations: Know the different best practices when developing SuiteTalk applications like how to remove hardcoding of internal ids or how to develop with web service governance in mind.

Next Step: Summary of everything that has been discussed and additional information such as how and where to find help.