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| Message Notification System Guide |
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# Introduction

This solution uses a SSIS Package to send various types of messages to JMMB customers.

# Installation

## Prerequisites

This system has been designed to run on the Windows platform and has been tested on Windows Server 2003. It utilizes SQL Server 2008 R2 Integration Services and will not work on lower versions of Integration Services. An installation SQL Server 2008 R2 Database Server is also required for successful implementation.

## Installation Steps

The files required for installation are delivered in a folder named *JMMB\_CustomerNotification*. Installing the system has two parts:

1. Creating the Database
2. Installing the SSIS package

## Creating the Database

1. Identify a MSSQL instance (install one if necessary) to host the system support/configuration database.
2. There is a file called **JMMB\_CustomerNotification\_1.0.0.0.sql** in the *JMMB\_CustomerNotification* folder. Run it against the MSSQL instance that was identified in step 1 above. *Note: It will by default, create a database called JMMB\_CustomerNotification. If a database is already there by that name, the script may be changed to create another database otherwise the existing database will have to be manually deleted or renamed.*

## Installing the SSIS Package

1. Copy the *JMMB\_CustomerNotification* directory to C:\ or some other suitable directory.
2. Open both package (JMMBCustomerNotificationPackage.dtsx and JMMBBulkCustomerFileUpdatePackage.dtsx) and change the connections settings for connection **SSISConfiguration** in the **Connection Manager** to point to the **JMMB\_CustomerNotification** database. This will allow it to pick up the rest of the configuration for each package.
3. The **JMMB\_CustomerNotification** database has the **SSIS Configurations** table. This table contains the configuration values for anything in the package that would need to be configured in a new environment. Below is a table of the configuration values, the package they belong to and their purpose. Please change the **Value** column to match your environment.

|  |  |  |  |
| --- | --- | --- | --- |
| Package | Configuration | Description | Example |
| JMMBBulkCustomerFileUpdatePackage | \Package.Connections[CustomerDB].Properties[ConnectionString] | Connection String to the database with the CLIENT table containing all the customers information | Data Source=.;Initial Catalog=JMMB\_CustomerNotification;Integrated Security=True;Application Name=SSIS-JMMBCustomerFileUpdatePackage-{9B5AE74D-0478-47E3-B4EA-4D6D70B15696}LocalHost.JMMB\_CustomerNotification; |
| JMMBBulkCustomerFileUpdatePackage | \Package.Connections[JMMBCustomerNotificationPackage.dtsx].Properties[ConnectionString] | Path to the JMMBCustomerNotificationPackage.dtsx Package | C:\SSIS\_BithdayNotification\JMMBCustomerNotificationPackage.dtsx |
| JMMBBulkCustomerFileUpdatePackage | \Package.Connections[NotificationDB].Properties[ConnectionString] | Connection String to the JMMB\_CustomerNotification database | Data Source=.;Initial Catalog=JMMB\_CustomerNotification;Integrated Security=True;Application Name=SSIS-JMMBBulkCustomerFileUpdatePackage-{C31436C9-D856-460B-BCEF-B7FF04B1AABA}LocalHost.JMMB\_CustomerNotification; |
| JMMBBulkCustomerFileUpdatePackage | \Package.Variables[User::MissingInformationFolder].Properties[Value] | Folder path to store logs of the customers with missing information, must end with backslash | C:\customerfiles\missinginfo\ |
| JMMBCustomerNotificationPackage | \Package.Connections[LocalHost.JMMB\_Notification].Properties[ConnectionString] | Connection String to the JMMB\_CustomerNotification database | Data Source=.;Initial Catalog=JMMB\_CustomerNotification;Integrated Security=True;Persist Security Info=False;Application Name=SSIS-JMMBCustomerNotificationPackage-{3501384A-658D-48EF-A080-3A45CF3BDEF0}LocalHost.JMMB\_Notification; |
| JMMBCustomerNotificationPackage | \Package.Connections[SMSService].Properties[ConnectionString] | Url of the SMS Web Service | http://localhost/AlertService.svc |
| JMMBCustomerNotificationPackage | \Package.Variables[User::ArchivePath].Properties[Value] | Folder path to store processed files, must end with backslash | c:\customerfiles\archive\ |
| JMMBCustomerNotificationPackage | \Package.Variables[User::JMMBEmailAddress].Properties[Value] | Email address to send emails as | DoNotReply@JMMB.com |
| JMMBCustomerNotificationPackage | \Package.Variables[User::SMTPServer].Properties[Value] | SMTP Server Url | mail.server.com |
| JMMBCustomerNotificationPackage | \Package.Variables[User::TemplateEndDelimiter].Properties[Value] | Ending text delimter that will wrap tokens, like Coloum1 | \_} |
| JMMBCustomerNotificationPackage | \Package.Variables[User::TemplateStartingDelimiter].Properties[Value] | Starting text delimter that will wrap tokens, like Coloum1 | {\_ |
| JMMBCustomerNotificationPackage | \Package.Variables[User::WSDLFileLocation].Properties[Value] | SMS Service WSDL File Path | C:\SMSService.wsdl |

# Using The Packages

Under normal execution the **JMMBBulkCustomerFileUpdatePackage** package will be the only package that needs direct execution, it in turn will execute **JMMBCustomerNotificationPackage** package. The **JMMBBulkCustomerFileUpdatePackage** has two purposes:

* Update the Customer files with the latest contact information.
* Log which customers have necessary information missing (e.g. missing telephone numbers while requiring Text channel).

It then executes the **JMMBCustomerNotificationPackage** which:

* Send the notifications based on the template for each notification type and channel.
* Archives the processed files.

The **JMMBCustomerNotificationPackage** package uses the **Notifications** table to determine which notifications should be sent and the template they should use. Both packages take into consideration an exception list (the **Exceptions** table) that represent customers desire not to receive notification on a particular channel (or not at all).

## Setting up notifications

Notifications are setup via the **Notifications** table. The user specifies the name of the notification, the customer file paths (**CustomerIdFilePath** is optional), the templates and the subject for email templates. Each notification has two file paths. The **CustomerIdFilePath** has the ID of the customers that should be notified with the expectation that the database will have the latest contact information. If **CustomerIdFilePath** fileis not supplied then the **CustomerContactFilePath** file must be supplied with the telephone number/email address that should be notified. An email subject is also needed for notifications that will send emails.

## Exception List

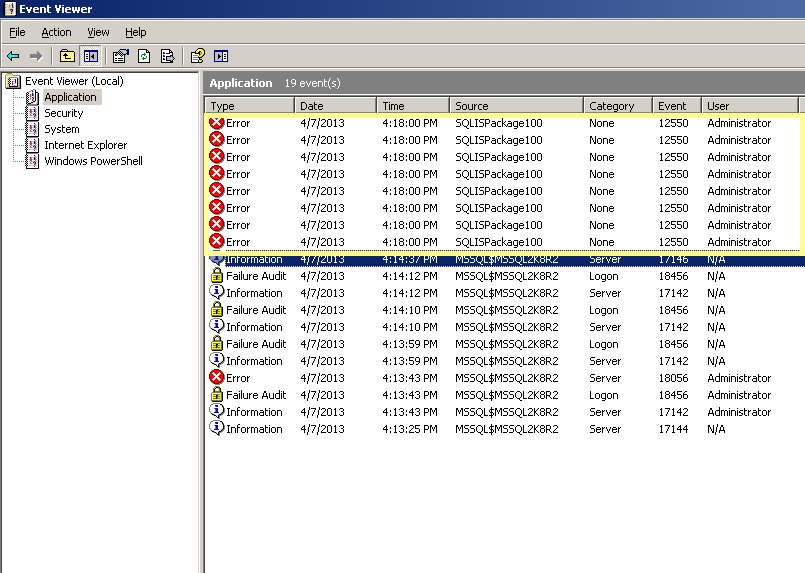
The user can specify that a certain customer should not receive notification on a certain channel and that certain email address or telephone numbers should not receive notifications. Users can specify either the customer number or contact information that will be ignored (telephone number or email). If the customer number is supplied then the channel from which they are exempt from must be supplied, possible values are:

* Email – Do not send email
* Text – Do not send text
* Both – Do not send any notification

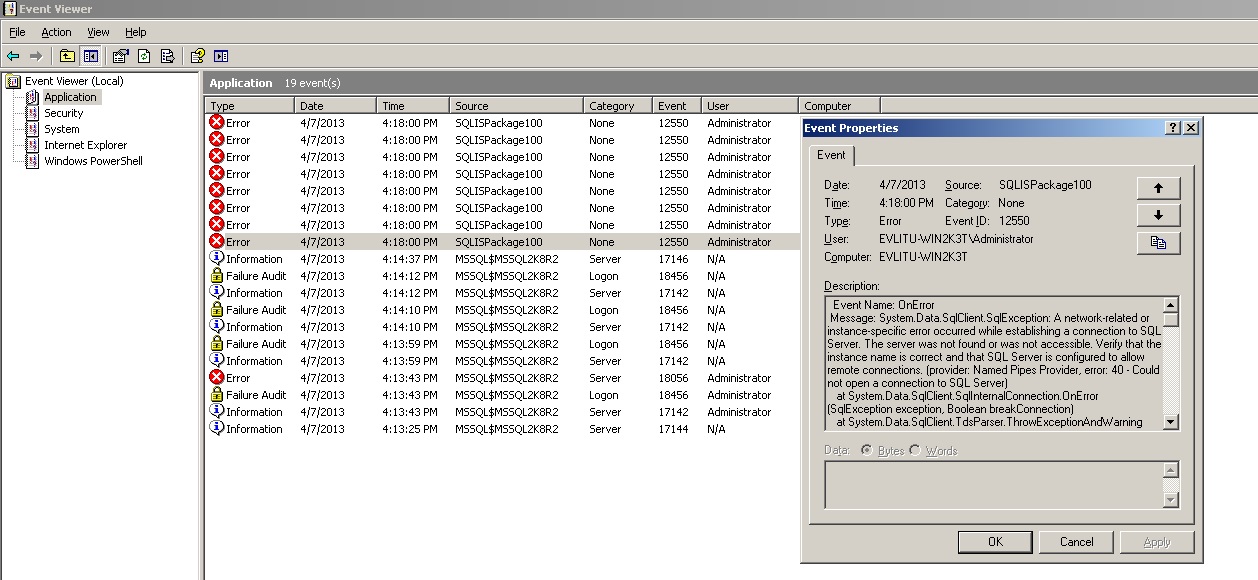
If the telephone number or email is supplied, then it is always exempted from notification.

# Troubleshooting

## Event Log

When errors happen in the package, it is logged to the event. The source is SQLISPackage100.

It normally logs more than one event because the failure is recorded at various failure points. In the image below, the package had a problem connecting to the database as seen in the Description: section of the event.



## Common Problems

If errors occur here are some things you can check before escalating it:

* Ensure that the user running the package has read/write permission to the folders, wsdl file and **JMMBCustomerNotificationPackage** package file.
* Ensure that the csv files are not being use by another program.
* If the wsdl file is changed then the **JMMBCustomerNotificationPackage** package will have to be updated.