Deltek

Deltek Touch for Maconomy®

Touch 3.3 Technical Installation Guide

September 2019

Contents

Overview

The Deltek Touch for Maconomy application is the best way for on-the-go Deltek Maconomy users to not only submit and track time, expenses, and mileage, but also approve time, expenses, vendor invoices, purchase orders, and even draft client invoices. It gives you access to several dialog boxes related to Time Registration and Expenses (both Expense and Mileage) in Maconomy. Even when you are away from the office, immediate mobile device access means Deltek Touch keeps you informed and in control.

> **Note:** Not all functionality is available in all Maconomy versions and in MScript and REST Web services. For more information, see the *Deltek Touch for Maconomy Mscript and REST Web Services Comparison Guide*.

This document provides instructions for the installation and configuration of the Deltek Touch for Maconomy.

> **Note:** The official name of the application is *Deltek Touch for Maconomy*. This document only uses it at first mention. The succeeding instances of the application name display *Deltek Touch*. In addition, the application name in *Apple App Store* and *Google Play* displays *Deltek Touch for Maconomy*.

Supported Mobile Operating Systems

Deltek Touch for Maconomy supports mobile devices that run on the following operating systems:

- Apple iOS 11.0 and higher
- Android 7.0 and higher

> **Note:** Deltek Touch Web application will no longer run in Internet Explorer, the only supported browsers are Safari and Chrome.

Deltek

Downloading Deltek Products using Deltek Software Manager

You can use Deltek Software Manager (DSM) to download complete Deltek products, hot fixes, cumulative updates, and sub-releases. You can access DSM through the Deltek Support Center or use Deltek Software Manager Lite to download Deltek products.

Accessing DSM from within the Deltek Support Center

To access DSM from within the Deltek Support Center:

1. In your Web browser, go to https://deltek.custhelp.com.

2. Enter your Deltek Support Center **Username** and **Password**, and click **Login.**

3. When the Deltek Support Center page displays, click **Product Downloads**.

4. On the Deltek Software Manager screen, click **Launch Deltek Software Manager**.

5. Click **Settings** at the top right of the dialog box to use the Settings dialog box to specify the folder where you want to download Deltek products, and click **OK**.

> **Note:** When you log on for the first time, DSM asks you to select a default folder where Deltek products are to be downloaded.
>
> You can change this folder anytime in the Settings dialog box.

6. In the left pane, expand the Deltek product that you want to download, if it is not already expanded.

7. Select the product type that you want to download.

   Options include:

   - **Complete**
   - **Cumulative Updates**
   - **HotFixes**
   - **Sub-Release**

8. In the table, select the check box that corresponds to the Deltek product that you want to download.

   The right pane displays a message stating that the product has been added to the download queue.

   > **Note:** To view the items in the download queue, click **View Download Queue** at the bottom of the left pane.

9. Click **Download** at the bottom of the left pane to download the product to the folder that you selected.

Accessing DSM Lite

To access Deltek Software Manager Lite:

1. In your Web browser, go to https://dsm.deltek.com/DeltekSoftwareManagerLite.
2. Enter your Deltek Support Center **Username** and **Password**, and click **Logon.**
3. When the Deltek Software Manager Lite page displays, select a product from the drop-down list.
4. Click the product type that you want to download.

> **Note:** The download behavior and download folder may differ depending on the browser and browser settings that you are using.

DSM Documentation and Troubleshooting

- To view the online help for Deltek Software Manager, click here.
- To view a tutorial on how to use Deltek Software Manager, click here.
- To view more information on troubleshooting Deltek Software Manager, click here.

> **Note:** When you click a link, you will be asked to log into DSM if you aren't already logged in.

What is New?

Starting with this release, Touch supports:

- Maconomy 2.4.5
- iOS 13
- Android 10
- Simplified Chinese language
- OneLogin
- Installation of multiple Touch versions on a multitenant Touch server

> **Attention:** For more information, see the Deltek Touch for Maconomy 3.3 Multitenancy Setup Guide.

Starting with this release, Touch no longer supports Touch backend 2.1

Support for OneLogin

Touch now supports OneLogin in iOS and Android as well as in its browser version (using Chrome or Safari). OneLogin is an OpenId Connect (OIDC) authentication provider, which provides a layer of security and access to manage company applications that you are using. Instead of having to remember multiple passwords, URLs, and the applications to which you have access, it lists your apps and provides single sign-on (SSO).

Touch Installer

The following updates are made to the Touch 3.3 Installer:

- Touch Installer for Windows now installs PHP 7.3.8 containing several security updates compared to the previous PHP version.

Configuration.ini

A new string setting called MAPSKEY has been added to allow access to Google Maps API.

Touch Web Service

Locale

Minor changes to support Simplified Chinese language.

Layouts

No changes.

Server Side Settings

- Changes to the **ExternalCredentialsType** setting

Touch App

A new version (3.3) of our Touch iOS and Android apps are now available for download from Apple Store and Google Play, respectively.

The Touch application supports Touch backend version >= 2.2.

> **Note:**
>
> - Starting December 2019, Deltek no longer guarantees that the app can run against Touch backend 2.2.
> - To be able to access all functionality, Deltek recommends that you use Touch backend 3.3.
> - To check if your version is still supported, tap **Settings » About** in the app.

The Touch app supports the following Maconomy versions:

- Maconomy X1 Service Pack 25 (or higher)
- Maconomy 2.1.1 (or higher)
- Maconomy 2.2 (or higher)
- Maconomy 2.3 GA (or higher)
- Maconomy 2.4 GA (or higher)

> **Note:** The app will run in fully compatible mode only if you have Maconomy 2.4.5. On all other Maconomy versions, the app will run in partially compatible mode. To check if your version is still supported, tap **Settings » About** in the app.
>
> - Maconomy X1, 2.0, 2.1 and 2.2 are in sustaining support mode. This means that Deltek no longer delivers enhancements or hot fixes for these versions.
> - Starting with Touch 3.2, Maconomy 2.0 is no longer supported. Although the Touch app is still available for Maconomy 2.0 users, Deltek no longer guarantees that the app can run against Maconomy 2.0. If you are on Maconomy 2.0, Deltek recommends that you do not upgrade the app.
> - Starting December 2019, Deltek no longer guarantees that the app can run against Maconomy X1.

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1. In your Web browser, go to https://dsm.deltek.com/DeltekSoftwareManagerLite.

2. Enter your Deltek Support Center **Username** and **Password**, and click **Logon.**

3. When the Deltek Software Manager Lite page displays, select a product from the drop-down list.

4. Click the product type that you want to download.

> **Note:** The download behavior and download folder may differ depending on the browser and browser settings that you are using.

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> **Note:** When you click a link, you will be asked to log into DSM if you aren't already logged in.

Deltek

Prerequisites

Before you begin the installation of Deltek Touch for Maconomy, it is important to understand the information in this section.

Technical Considerations

The following requirements must be met to run Deltek Touch for Maconomy:

- Deltek Touch can be run only on Maconomy X1 Service Pack 25 (or higher), Maconomy 2.1.1 (or higher), Maconomy 2.2 (or higher), Maconomy 2.3 GA (or higher), and 2.4GA (or higher).

- Deltek Touch cannot be installed on Sun (Solaris) or AIX server platforms. As a workaround, it is possible to install Touch Time on Windows or Red Hat Enterprise Linux (RHEL), and then attach it to a Maconomy server running on Sun or AIX.

- Deltek Touch runs on IIS or Apache for Windows and Apache for RHEL.

Environment	Prerequisites
Windows + IIS	- Deltek Touch requires IIS be installed on a server that runs Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, or Windows Server 2016. - Deltek Touch requires PHP 7.3.8 or higher to be installed on IIS. The Touch Server installer installs the required version of PHP.
Windows + Apache	- You must install Apache on a server that runs Windows Server 2012, Windows Server 2012 R2, or Windows Server 2016. - Deltek Touch requires PHP 7.3.8 or higher to be installed on IIS. The Touch server installer installs the required version of PHP. - For Maconomy 2.1 and later using Apache on Windows, you must use Apache 2.4 for both Deltek Touch and Maconomy. - For Maconomy X1 and 2.0 using Apache on Windows, you must have Deltek Touch installed on Apache 2.4 and Maconomy on Apache 2.2.
Linux + Apache	- Deltek Touch supports RHEL 6.x. - Deltek Touch only supports Apache 2.4 on RHEL 6.x. - Deltek Touch requires PHP to be installed. On RHEL 6.x, Deltek Touch requires PHP 7.0.27 or higher. - Our tests were conducted on the following setup: - RHEL 6.10 + PHP 7.0.27 + Apache 2.4
	- Deltek Touch supports Oracle Linux 7.0. - Deltek Touch only supports Apache 2.4 on Oracle Linux 7.0. - Deltek Touch requires PHP to be installed. On Oracle Linux 7.0, Deltek Touch requires PHP 7.2.18.

- Deltek Touch is based on Maconomy dialogs. Therefore, Maconomy must be set up correctly with regards to functionality and dialog access. Please see section below for further details.

- Deltek Touch for Maconomy setup requires the following add-ons:
    - Maconomy Portal: Daily Time Sheets (110)
    - Time on time (122)
- Deltek Touch for Maconomy supports Single Sign-On (login using domain credentials) using Kerberos on both Apache and IIS Web server.
- Deltek Touch for Maconomy also supports SSO with the Windows Azure Active Directory (WAAD).
- Deltek Touch for Maconomy also supports SSO with OneLogin
- Session cookies must be disabled when using Deltek Touch for Maconomy (in **MaconomyTouch.I**).

> **Note:** In Maconomy 2.0 and later, by default, session cookies are disabled in MaconomyTouch.I.

- Deltek Touch for Maconomy supports applications from Apple App Store and Google Play. If you are using an unsupported version of Maconomy (compatibility mode), you may be able to use the native browser of your device to enter your organization's Deltek Touch for Maconomy URL.

> **Note:** The Deltek Touch for Maconomy URL has the format
> https://<server>/deltektouch/maconomy/time, where <server> refers to the host name of your Touch Server.

Not Supported

Microsoft IIS 10 that comes with Windows Server 2016 has HTTP/2 enabled by default. If this causes problems in Touch, Deltek recommends that you disable HTTP/2 in IIS 10 to avoid any issues.

> **Note:** To disable HTTP/2, complete the following steps:
> 1. Start the registry editor (regedit).
> 2. Go to the following path: HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\HTTP\Parameters
> 3. Under the Parameters folder, add two new DWORD (32-bit) values as follows: **EnableHttp2Tls** and **EnableHttp2Cleartext**.
> 4. Ensure both new values have been set to 0 (disabled).
> 5. Restart your machine.

Compatibility Mode Definitions

Compatibility Mode	Description
Fully Compatible	You must be on Touch Android application, iOS application, Web application, Touch Server, and AP. All features and functions in the application are available to you.

Compatibility Mode	Description
Partially Compatible	At least one of the components (Touch Server and/or API) is an older version. Some features of the application are hidden and not available to you.
Browser Compatible	*This ony applies to system administrators.* At least one of the components (Touch Server and/or API) is an older version. The current application does not work with the Touch Server or API, but you can still use the application through the mobile browser. If you are using the browser version of Deltek Touch, not all functionality will be available and you should expect considerably slower performance of loading of the application when accessing from browser.

Incompatible	There are some combinations of API and Touch Server that make it impossible to even use the browser version to run the application.
	
	In case of incompatibility, Deltek Touch displays two messages. The first one informs you about the incompatibility that it detects. Clicking **OK** on the incompatibility message displays the debug message, which contains additional information about the environment and is meant only for troubleshooting. After you click **OK** on the debug message, you cannot use the native application anymore.
	
	Note: You could also encounter the debug message when using the browser version of Deltek Touch, but this is a very rare situation. It happens if the network communication fails during login because the application is retrieving the Touch Server version from the **configuration.ini** file. If the Touch Server version is not retrieved, the incompatible and debug messages display.
	
	The debug message displays when one of the following scenarios occur:
	
	▪ The minimum Touch Server version defined in Deltek Touch is greater than the version in the Deltek Touch Server. For example:
	  ▪ App Minimum Touch Server Version: 1.0.3.0
	  ▪ Deltek Touch Server: 1.0.2.0
	▪ The maximum Touch Server version defined in Deltek Touch is lower than the version set in Deltek Touch Server. For example:
	  ▪ App Maximum Touch Server Version: 1.3.1.0

Compatibility Mode	Description
	▪ Deltek Touch Server: 1.3.2.0
	▪ If there is no Touch Server version defined on the Deltek Touch Server or Deltek Touch cannot retrieve the current Touch Server version.
	▪ If there is no product version retrieved by the client-side.
	▪ If the product version is not supported by the client-side.
	▪ If the API version is not supported by the client-side

Feature Matrix

Feature	Touch Version	3.3				
	Maconomy Version	X1	2.1	2.2	2.3	2.4
Weekly Time Registration		●	●	●	●	●
Daily Time Registration		●	●	●	●	●
Expense Registration			●	●	●	●
Mileage Registration			●	●	●	●
Approvals (Time, Expense, Purchase Order, Vendor Invoice, Draft Invoice)			●	●	●	●
Requires approval hierarchies						
Rejected Time Flow			●	●	●	●
Approval by Employee Type			●	●	●	●
Possibility to Use Remarks on Favorites			●	●	●	●
Layout Configuration (see Layout Configuration Guide for details)		●	●	●	●	●
Server-Side Configuration Options (see Installation Guide for details)		●	●	●	●	●
Unicode Support			●	●	●	●
Support for RESTful Web Services (from 2.2.4 and 2.3 GA)				●	●	●
Auto-Completion of Domain Name		●	●	●	●	●

Feature	Touch Version	3.3				
	Maconomy Version	X1	2.1	2.2	2.3	2.4
Password Management: Change, Reset, Expired and Blocked Password				⊕	⊕	⊕
Expense Justification				⊕	⊕	⊕
Support for SSO with Microsoft Azure						●
Registering Time in Days				⊕	⊕	⊕
Approving Time in Days				●	●	●
Support for Login to Touch Using Maconomy Credentials in an SSO Environment		●	●	●	●	●
Purchase Order Fields Available in Timesheet and Expense Sheet for Subcontractor					⊕	⊕
Notifications for Rejected Expenses and Mileage				⊕	⊕	⊕
Purchase Orders				⊕	⊕	⊕
Absence Management				⊕	⊕	⊕
Enhanced PIN Security		●	●	●	●	●
Timesheet Tracking Post Submission						⊕
Enhanced Usage Tracking		●	●	●	●	●
Favorites Only on Find Job Screen		●	●	●	●	●
Automatic Receipt Name for Attachment on Expense Sheet		●	●	●	●	●
Absence in Hours						⊕
Enhanced Look and Feel		●	●	●	●	●
Add Tax Code and Tax, Currency to Expense Sheet Line						●
Biometrics Login						●
Block User in Touch						⊕

Feature	Touch Version	3.3				
	Maconomy Version	X1	2.1	2.2	2.3	2.4
Support for Option List Based Fields in REST Layouts				⊕	⊕	⊕
Mandatory Attribute in Layouts				⊕	⊕	⊕
Option to Hide Maconomy Login for SSO Users				●	●	●
Support Information on About Screen		●	●	●	●	●
Support for Option List in Expense Justification				⊕	⊕	⊕
Invoice Allocation Lines for Approval for G/L Accounts						●
Support for Long Text Fields						⊕
Substitute Approval						●
Maconomy 2FA						⊕
Map Feature on the Expense Sheet Line Screen						⊕
Attaching Receipts Using Quick Capture						⊕
OneLogin Support						⊕
Transfer Calculated Distance in Google Maps to Touch						⊕
Chinese Simplified Language						⊕

> **Note:** The ⊕ symbol indicates that a feature is available for Touch installations using the RESTful API only. The ● symbol indicates that the feature is available for both MScript and REST.

Standard Maconomy Functionality Not Available in Deltek Touch

The following Maconomy standard features are not available in Deltek Touch:

- Notifications for rejected purchase orders, vendor invoices, and draft invoices
- Monthly timesheets
- Proxy time registration

Maconomy Configuration

MScript

If Deltek Touch is using the old (MScript-based) web services, make sure that users have access to the following dialogs:

Time

- TimeRegistration
- DailyTimeRegistration
- DailyTimeSheets
- DailyTimeSheetLines
- JobFavorite
- JobFavorites
- TimeSheets

Expense

- ExpenseSheets
- MileageSheets
- DocumentArchives
- DocumentRevisions

Approvals

- ApprovalObjects
- ExpenseSheetLines
- TimeRegistrationDetails
- PurchaseOrders
- ShowVendorInvoices
- InvoiceEditing

RESTful

If Deltek Touch is using the new (RESTful) web services, make sure that users have access to the following dialogs:

Login:

- API_CurrentEmployee
- API_CurrentUserRole

Time:

- TimeRegistration
- DailyTimeRegistration
- JobFavorite

Expense:

- ExpenseSheets
- MileageSheets
- DocumentArchives
- Notes

Absence and Allowance:

- AbsenceCalendarLines
- AbsenceEntryOverview

Purchase orders:

- PurchaseOrders
- DocumentArchives

Approvals

- ApprovalObjects
- ExpenseSheetLines
- TimeRegistrationDetails
- PurchaseOrders
- ShowVendorInvoices
- InvoiceEditing

Recommended System Parameters

Use Daily Time Sheets

If use MScript in weekly or daily mode, or if you use REST in daily mode, make sure that you mark the "Use daily time sheets" system parameter during installation to register time on a day at a time.
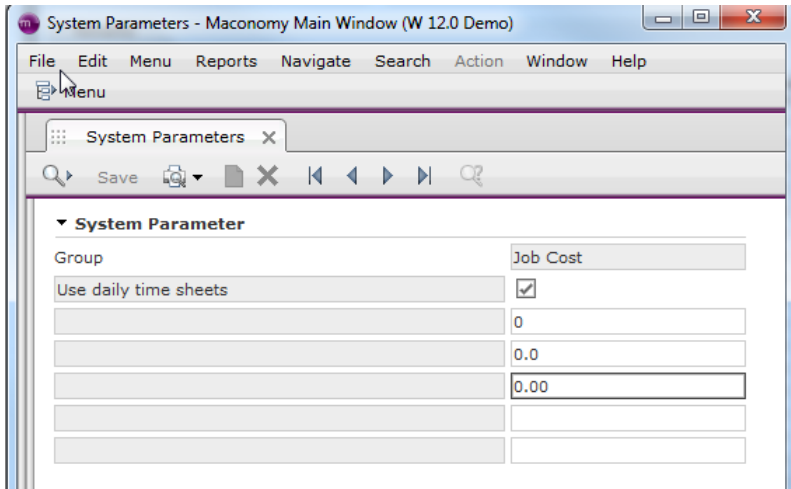
Allow Incomplete Time Registrations

Another recommended system parameter is "Allow Incomplete Time Registrations." This system parameter is not required, but if you select it, the application allows you to add a line with, for example, only a description. This task must be completed before submission.

A similar system parameter can be enabled for expenses. This supports the workflow for Quick Capture.
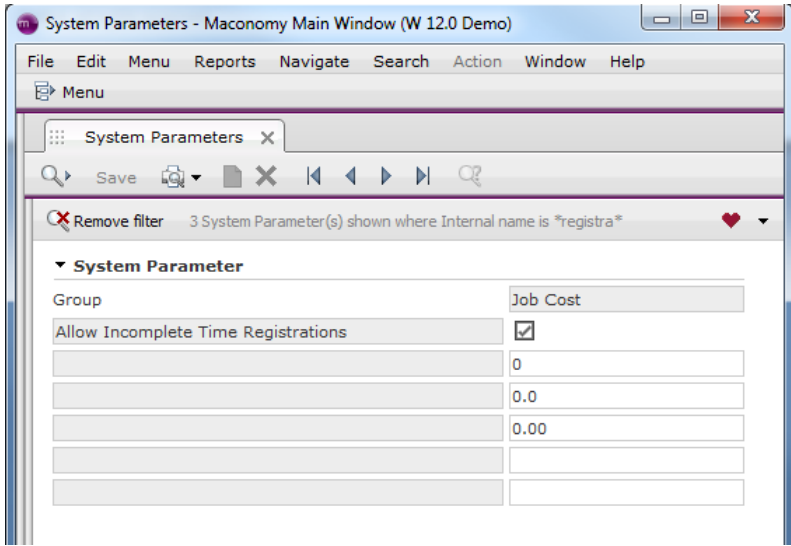
Deltek Touch for Maconomy Infrastructure

The Deltek Touch for Maconomy infrastructure is composed of the application tier, middle tier, and services tier. The Touch Server (middle tier) is used to optimize service delivery and transform data when necessary. The Touch Server only communicates with the product service layer and does not have access to the database.

The Touch Application (client tier) is a hybrid application created using HTML 5 and CSS 3 but with the ability to access the native device capabilities.

Deltek Touch Technology Layers
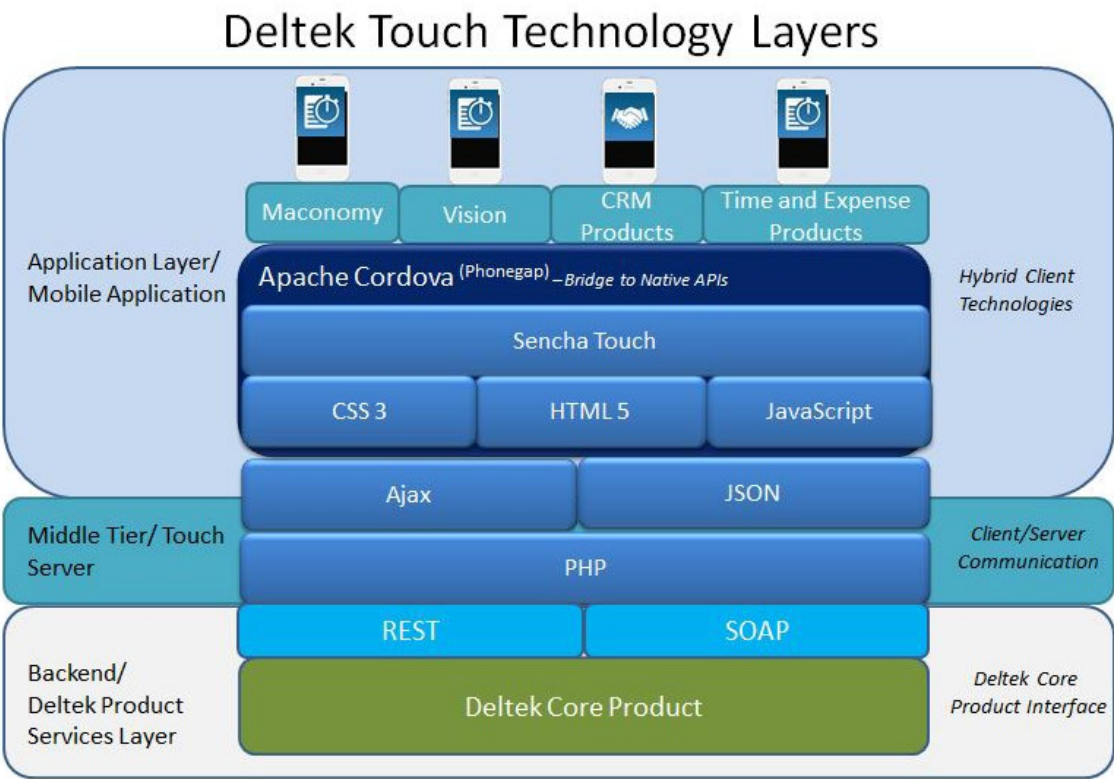
Services Tier

For Deltek Touch for Maconomy, the services tier corresponds to the Maconomy Web services. The interaction between the Maconomy product and Touch Time (client + middle tier) is illustrated below:

Communication Point	Description
1	The Web server must contain the proper Web services for Deltek Touch for Maconomy. The Web service files must be located in the /MaconomyMScript/Standard folder.
2	If this application should be reached from Internet, a port has to be opened in the firewall. Typically, port 80 for HTTP and 443 for HTTPS are used. Both loading of the application and the Ajax communication use this opening in the firewall.
3	When the application loads on the device, all communications with the Maconomy Web server are done via the Touch Server. The link to the Web service is set up in the Touch Server (\maconomyshared\backend\configuration\configuration.ini).
4	This is the JSON service (JSONWrapper). It is made in Maconomy MScript and serves as a bridge between the smartphone and Maconomy server. The setup and environment will be explained in detail later.
5	The MScript service communicates directly with Web Daemons on the Maconomy server. Typically, port 4101-4110 is used, depending on how many databases and installations the server serves. If the Web server is placed in the DMZ zone, this communication could pass through the firewall smoothly.
6	If the Web-server is placed in a DMZ area, port 4101-4110 (depending on the number of applications installed on the server) has to be opened.

Touch 2.0 supports two Web services (MScript and REST) as illustrated below:
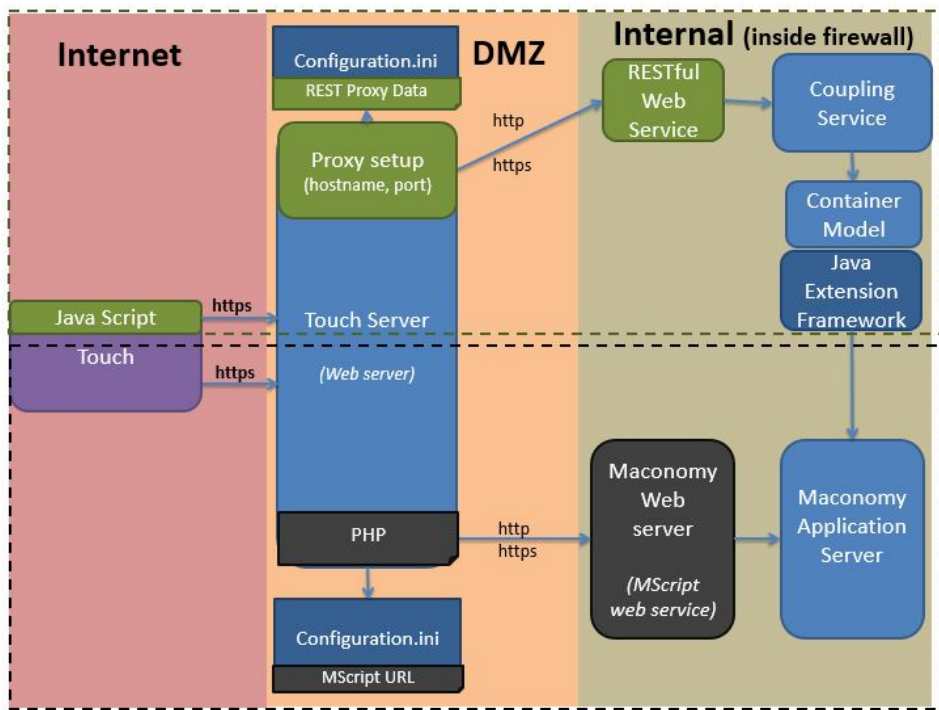
Supported Deployment Scenarios

The Deltek Touch for Maconomy application may be installed on another IIS or Apache server, or as a separate directory on an existing Maconomy IIS or Apache Web server.
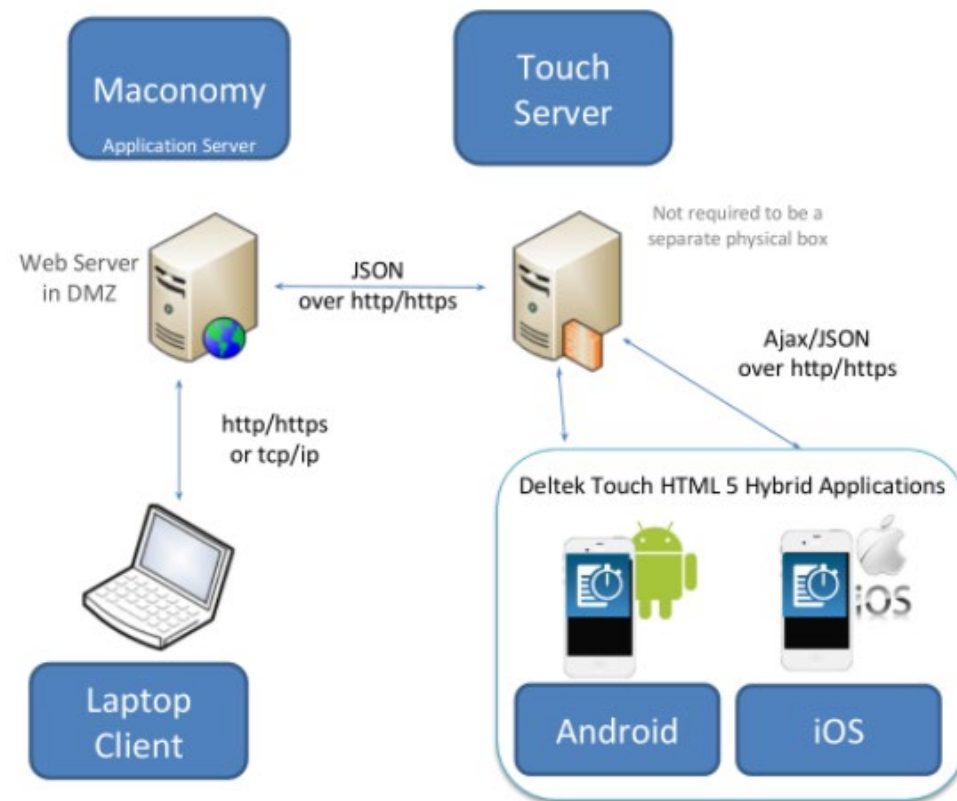
> **Note:** Mobile applications now require HTTP/SSL using a certificate from a recognized certificate authority. Self-signed and SHA-1 encrypted certificates cannot be used.

Deltek Touch for Maconomy Security

Deltek Touch for Maconomy is a front-end application that integrates with Deltek's traditional back office applications, such as Maconomy. Deltek Touch only interacts with the Web services layer of each of these applications, and no direct database interaction is performed. All data interaction is performed in the Web services layer.

User Authentication Models

Deltek Touch does not introduce users and passwords, or define its own models. Instead, it uses the existing product user provisioning, authentication, and authorization models.

Deltek Touch does introduce the PIN concept your convenience in application login. Once you log in to the system successfully, you can store a PIN to simplify subsequent logins. When the PIN feature is used, your credentials are stored on the device in encrypted form. The key to the encryption is your PIN. The

PIN is not stored on the device, and therefore you must memorize it. When the PIN is entered, Deltek Touch tests to see if the credentials are successfully decrypted. If they are, Touch passes the credentials to the backend system for authentication. If the credentials do not decrypt after three attempts, the credentials are removed from the device storage and you must again enter their full credentials. If you do not use a PIN, you must enter your password each time you use the application.

The encryption is performed by the Stanford JavaScript Crypto Library (SJCL). SJCL uses industry-standard AES algorithm at 128, 192, or 256 bits; the SHA256 hash function; the HMAC authentication code; the PBKDF2 password strengthener; and the CCM and OCB authenticated-encryption modes.

> **Attention:** For more information, see http://bitwiseshiftleft.github.io/sjcl/.

You log in to Deltek Touch using your domain credentials (this requires that both Maconomy and Deltek Touch are set up to use Single Sign-On via Kerberos) or using your Maconomy credentials.

Single Sign-On Via Kerberos

The first time you log in to Touch, you enter your network user name, password, and domain. Once successfully authenticated, you must set a PIN. Once you have set your PIN, you can log in using only this PIN. To protect your login credentials in transit, Deltek recommends that the Touch Web Server be configured to use HTTPS (instead of HTTP). The domain credentials are sent from your mobile device to the Maconomy Web server via the Touch Server.

Using HTTPS/TLS encrypts your network traffic, making it very difficult to sniff the credentials as they are passed to the Web server. On the Maconomy Web server, the domain credentials are used only to obtain a Kerberos ticket for the Maconomy service on your behalf. Your domain credentials are not stored on the Web server. As soon as this ticket is obtained, the credentials are deleted.

Single Sign-On Via Azure

The first time you log on to Deltek Touch, you enter your Azure credentials. The Azure user name is entered in Deltek Touch, but the password is entered in the native Windows Azure login screen. Once successfully authenticated, you must nominate a PIN. Once you have set your PIN, you can log on using only this PIN.

Your Azure credentials are not stored on the Touch Server or the Maconomy server. Instead, the token returned by Azure is sent to the Maconomy server to perfrom the Maconomy authentication. To protect the Azure token in transit, Deltek recommends that the Touch Web Server as well as the REST proxy server be configured to use HTTPS (instead of HTTP).

Sign on Using Maconomy Credentials

If Deltek Touch is not set up with Single Sign-On, you log on using your Maconomy credentials (user name and password). When logging on the first time using your Maconomy credentials, you have the option to set a PIN. Once you have set the PIN, you can use it for future logins. You can reset the PIN at any time or you can also switch back to using your Maconomy credentials instead of the PIN.

On the Maconomy Web server, the credentials are used for logging on to the Maconomy system. In a successful login, a token is added to the session and the session ID is sent back to your mobile device. From that point forward, any communication between the mobile device and Maconomy Web server includes the session ID for authentication. This means that the Maconomy credentials are sent from the mobile device to the Maconomy Web server only for the login. The password is not stored and cannot be reverse-engineered on the Maconomy Web server.

Certificates and Protocols

For security reasons and due to the SSL restriction that has been enforced by Apple lately, Deltek Touch will no longer support HTTP links, which include HTTP for the online help URL (see HELPDOCURL in configuration.ini).

All URLs that Deltek Touch uses must be HTTPS. This includes the Touch Server URL, which you enter when you use the application for the first time. It also includes the REST proxy URL.

> **Note:** Deltek recommends that you prepare for this transition beforehand. Otherwise, users will not be able to use Deltek Touch application.

When using Secure Sockets Layer (SSL), you must have a certificate issued by a trusted certificate authority. You must not use self-signed certificates or SHA-1 encrypted certificates. Wild card certificates work if they come from a trusted certificate authority but are not considered a best practice.

For security reasons, Deltek recommends that you disable HTTP on the Touch Server. To do so, remove any configuration for port 80 from the Edit Site Bindings dialog box for IIS and httpd.conf (or any relevant .conf file to manage VirtualHosts) on Apache. In addition, make sure Basic Authentication is disabled on the Authentication page for IIS and AuthType Basic should be commented or not present on the directory directive for Apache.

Deltek Touch does not allow connections to servers who have either TLS 1.0, SSL 3 (or earlier) enabled or any older protocols. Only TLS 1.1 and/or TLS 1.2 may be enabled for connections to be successful.

Users trying to connect to IIS servers running Deltek Touch will get error like "invalid server url" if any of the deprecated protocols are enabled.

To resolve this issue the following must be performed to Touch Server:

1. Deprecated transport layers disabled – TLS 1.0, SSL 3 (or earlier).

2. Supported transport layers enabled (if not already) – TLS 1.1 and/or TLS 1.2.

3. Restart the server.

> **Note:** Here is a support article from Microsoft on how to disable the deprecated transport layers: https://support.microsoft.com/en-us/kb/187498 (How to disable PCT 1.0, SSL 2.0, SSL 3.0, or TLS 1.0 in Internet Information Services).

Security Assessments

Deltek strives to deliver a highly secure applications. Therefore, an independent security assessor, GuidePoint Security, has performed a Mobile Application Security Assessment with the intent of evaluating the security posture of Deltek's Mobile Touch suite of applications. The security baselines for the scope of the audit were the OWASP Top 10 Web Application vulnerabilities and the OWASP Top 10 Mobile vulnerabilities.

> **Attention:** For more information, see https://www.owasp.org/index.php/Top10#OWASP_Top_10_for_2013.

Deltek

Microsoft IIS Web Server Configuration on Windows Server 2008 or Windows Server 2008 R2

Perform this procedure if you are going to install the Deltek Touch for Maconomy application on Windows Server 2008. The Deltek Touch for Maconomy installer checks if Microsoft Internet Information Services (IIS) is already installed before proceeding with the installation. The installation terminates if IIS is not yet installed.

To configure Microsoft IIS Web server on Windows Server 2008 or Windows Server 2008 R2, complete the following steps:

1. Click **Windows » Start » Administrative Tools » Server Manager**.

2. Expand the **Roles** tree on the left pane, and click **Web Server (IIS).**

3. When the Web Server (IIS) screen displays, click **Add Role Services** in the bottom right pane.

4. On the Select Role Services screen, perform the following actions:

    -   Click **Web Server » Application Development**, and select **ISAPI Extensions** and **CGI**.

    -   Click **Web Server » Management Tools**, and select **IIS Management Scripts** and **Tools**.

    -   Click **Web Server » Management Tools » IIS 6 Management Compatibility**, and select **IIS 6 Metabase Compatibility**.

5. Click **Next,** and then click **Install**.

6. Click **Close** when the installation completes.

7. Expand the Web Server (IIS) tree on the left pane, and click Internet Information Services (IIS) Manager.

8. On the Internet Information Services (IIS) Manager screen, expand the IIS computer name icon on the left pane of the Internet Information Services (IIS) Manager window.

9. Right-click the IIS computer name icon, and select **Stop**.

10. Right-click the IIS computer name icon on the left pane of the Internet Information Services (IIS) Manager window, and select **Start**.

11. Close the Services Manager window.

Microsoft IIS Web Server Configuration on Windows Server 2012

Perform this procedure if you are going to install the Deltek Touch for Maconomy application on Windows Server 2012. The Deltek Touch for Maconomy installer checks if Microsoft Internet Information Services (IIS) is already installed before proceeding with the installation. The installation terminates if IIS is not yet installed.

> **Note:** Deltek Touch for Maconomy requires **Anonymous Authentication** and does not support **Basic Authentication**.

To configure Microsoft IIS Web server on Windows 2012 Server, complete the following steps:

1. From the desktop view, display the Charm Bar. To do this, take one of the following actions:

   ▪ Move the cursor to the bottom right corner of the screen, which causes the bar to display on the right.

   ▪ On your keyboard, press the Windows key + **C**.

   > **Attention:** For more information about Charm Bar, see the following link:
   > http://windows.about.com/od/windowsforbeginners/a/Get-To-Know-The-New-Windows-8-Start-Menu.htm.

2. Click **Start » Administrative Tools » Server Manager**.

3. On the left pane, click **IIS**.

4. On the right pane, scroll down to the see the ROLES and FEATURES section.

5. From the **Tasks** drop-down list, select **Add Roles and Features**. The Add Roles and Feature Wizard displays.

6. Click **Next**.

7. Select the **Role-based or feature-based installation** option.

8. On the Select Destination Server page, verify if the **Select a server from the server pool** option is selected. Click **Next**.

9. On the Select server roles page, expand **Web Server (IIS) » Web Server » Application Development**, select **CGI** and **ISAPI** extensions

10. On the Select server roles page, expand **Web Server (IIS) » Web Server » Management Tools**, and then select **IIS Management Scripts** and **Tools**.

11. Click on **Next**. The Select features page displays.

12. Click **Next**, and then click **Install**.

Deltek

Microsoft IIS Web Server Configuration on Windows 2016 Server

Perform this procedure if you are going to install the Deltek Touch for Maconomy application on Windows Server 2016. The Deltek Touch for Maconomy installer checks if Microsoft Internet Information Services (IIS) is already installed before proceeding with the installation. The installation terminates if IIS is not yet installed.

> **Note:** Deltek Touch for Maconomy requires **Anonymous Authentication** and does not support **Basic Authentication**.

To configure Microsoft IIS Web server on Windows 2016 Server, complete the following steps:

1. Click **Start » Windows Administrative Tools » Server Manager**.

2. On the left pane, click **IIS**.

3. On the right pane, scroll down to the see the ROLES and FEATURES section.

4. From the **Tasks** drop-down list, select **Add Roles and Features**. The Add Roles and Feature Wizard displays.

5. Click Next.

6. Select the **Role-based or feature-based installation** option.

7. On the Select Destination Server page, verify if the **Select a server from the server pool option** is selected. Click Next.

8. On the Select server roles page, expand **Web Server (IIS) » Web Server » Application Development**, select the **CGI** and **ISAP**I extensions

9. On the Select server roles page, expand **Web Server (IIS) » Web Server » Management Tools**, and then select *IIS Management Scripts and Tools*.

10. Click on **Next**.

11. On the Select features page, click **Next**, and then click **Install**.

Deltek Touch for Maconomy Installation on Windows Server

Before you proceed, make sure that you downloaded the server component from Deltek Software Manager (DSM). Once the server part is installed, download the application from *Google Play Store* or *Apple App Store* and install it in your device.

> **Attention:** For more information about DSM, see Downloading Deltek Products using Deltek Software Manager in this document.

To install the Deltek Touch application, complete the following steps:

1. Run **DeltekTouchMaconomy33.exe** to launch the installation program.

   > **Note:** Taking into consideration the enhanced security in Windows Server 2008 and 2012, Deltek recommends selecting the **Run as Administrator** option when launching the installation executables even if you (as the logged-on user) has local administrative rights. You can access this option by right-clicking the installation executable file name in Windows Explorer and then clicking **Run as Administrator** on the shortcut menu.

2. On the Welcome to the Deltek Touch Maconomy 3.3 Installation Wizard page, click **Next**.

3. On the License Agreement page, review the license agreement, select the **I accept the terms of the license agreement** option, and click **Next**.

4. On the Select Web Server Type page, select one of the following options, and click **Next**:

   ▪ **Apache Web Server**

   ▪ **IIS**

5. On the Maconomy Product Information page, provide the necessary information, and click **Next**:

   ▪ **Maconomy MScript URL** – Enter the full Maconomy Touch URL (for example, http://eu100242:20003/cgibin/Maconomy/MaconomyTouch.w16de.en_US.exe).

   ▪ **Charset** –*You can only edit this field if you are performing a new install.* Select a character set from the drop-down list.

   > **Note:** The default character set is **ISO-8859-1**. If you are on Maconomy 2.1.1 (or higher) , you need to change the character set manually in configuration.ini from **ISO-8859-1** to **UTF-8**.

   ▪ **Maconomy 2.2.4 or later** – Select this option if your Maconomy core is 2.2.4 or later.

   > **Note:** If this option is not marked, you will not be able to set up Touch to use the RESTful web services. If your Maconomy version is 2.2.4 / 2.3 GA or later, then is very important to mark this option, to be able to set up REST for Touch.

6. On the IIS Website Information page, select or enter the default Web site, and click **Next**.

> **Note:** Select the **Please check the box if the website is configured for SLL** check box to use the HTTPS protocol when transmitting data over the Internet.
>
> If no site displays in the drop-down list, make sure you completed the steps from Microsoft IIS Web Server configuration on Windows Server from the previous section.

If you do not have an IIS site already, starting with Touch 3.0, it is now possible to create a dedicated IIS Site for Deltek Touch, within the Touch installer. Click the **New Site** button if you wish to create a new IIS Site.You will need to supply the following details:

    a. **Site Name** – Name of your new IIS Web Site

    b. **Physical Path** – Local directory for locating your web site

    c. **Binding**

          i. **Type** – HTTP or HTTPS

         ii. **IP Address**

       iii. **Port Number**

       iv. **Host Name**

        v. **SSL Certificate** (visible if type is HTTPS)

7. Take one of the following actions, depending on the selected Web server type in step 4 and the selection you make for the **Maconomy 2.2.4 or later** option in step 5:

Apache Web Server	IIS
If you selected **Apache Web Server** but do not select **Maconomy 2.2.4 or later** in step 5, the Choose Apache Installation Directory page displays. Proceed to step 8.	If you selected **IIS** in step 4 but do not select **Maconomy 2.2.4 or later** in step 5, the Choose Application Install Directory page displays. Proceed to step 11.
If you selected **Apache Web Server** in step 4 and **Maconomy 2.2.4 or later** in step 5, the REST Proxy Data page displays. Provide the necessary information, and click **Next**. ▪ **Host Name** – Enter the host name of the REST endpoint machine (for example, touch.<company name>.com). ▪ **Port Number** – Enter the port number if there is a specific port connecting to REST endpoint. ▪ **Language** – Enter a specific Language to use in Maconomy core (for example, en-US). ▪ **Database** – Enter the short name of the Maconomy core. Proceed to step 9.	If you selected **Apache Web Server** in step 4 and **Maconomy 2.2.4 or later** in step 5, the REST Proxy Data page displays. Provide the necessary information, and click **Next**. ▪ **Host Name** – Enter the host name of the REST endpoint machine (for example, touch.<company name>.com). ▪ **Port Number** – Enter the port number if there is a specific port connecting to REST endpoint. ▪ **Language** – Enter a specific Language to use in Maconomy core (for example, en-US). ▪ **Proxy Pass Client Code** – Enter the first pattern from rewrite rules if applied (for example, in

Apache Web Server	IIS
	resttouch/containers/*, the value is "**resttouch**"). ▪ **Database** – Enter the short name of the Maconomy core. ▪ **IIS Site Name** – Enter the IIS application name on where the rewrite rules are applied (for example, DeltekTouch). If the rewrite rules are set to IIS Site Level (for example, Default Web Site), this field should be blank.. All these fields (except Host Name) will have default values derived from the URL you entered on the Maconomy Product Information page, respectively the data you specified on the IIS website Information page.

8. On the Choose Apache Installation Directory page, verify if the default location for the Apache Web software is correct, and click **Next**. Otherwise, click **Browse** to navigate to the installation folder, and click **Next**. Proceed to step 11.

> **Note:**
>
> ▪ The default folder is C:\Program Files (x86)\Apache on a 64-bit machine or C:\Program Files\Apache on a 32-bit machine.
>
> ▪ If you selected Apache Web Server, the files are installed onto <INSTALL_DIR>\htdocs\DeltekTouch\Maconomy\Time_<MaconomyLanguage>. If multiple instances of Deltek Touch for Maconomy are installed (using the same Maconomy language) on Apache Web server, the folder name will be incremented.
>
> *For example*:
>
> 1st instance -
>
> <INSTALL_DIR>\htdocs\DeltekTouch\Maconomy\Time_<MaconomyLanguage>
>
> 2nd instance -
>
> <INSTALL_DIR>\htdocs\DeltekTouch\Maconomy\Time_<MaconomyLanguage>_1
>
> 3rd instance -
>
> <INSTALL_DIR>\htdocs\DeltekTouch\Maconomy\Time_<MaconomyLanguage>_2
>
> You can rename the "Time_<MaconomyLanguage>_<number>" folder after the install; the updated folder name will reflect on the URL.

9. On the REST Module Setup, select the setup for REST Module and click **Next**:

   ▪ **Use for Time** – Select this option to use RESTful Web service for time registration. If not selected, it uses the MScript Web service.

   ▪ **Use for Expense** – Select this option to use RESTful Web service for expense and mileage registration. If not selected, it uses the MScript Web service.

By default, the two options are not selected

10. On the Maconomy Coupling Service Endpoint page, this only displays when one of the REST Module is selected. Enter the coupling service details and click **Next**.

   ▪ **Hostname** – This is the hostname/IP from the Maconomy Coupling Service. Auto- populated from MScript URL.

   ▪ **Port Number** – This is the port number from the Maconomy Coupling Service.

11. On the Choose Application Install Directory page, verify if the default location for the Deltek Touch software is correct, and click **Next**. Otherwise, click **Browse** to navigate to the installation folder, and click **Next**. Continue with the next page (10).

> **Note:** If you selected IIS, the default folder is C:\Program Files (x86)\Deltek\Touch on 64-bit machine or else C:\Program Files\Deltek\Touch on 32-bit machine. You can run the installer multiple times to install several instances of Deltek Touch for Maconomy. Each instance, however, requires a new virtual directory pointing to a different physical location (Install Directory).

12. On the Pre-Installation Summary page, review the installation details that you provided. The set of information details on the Pre-Installation Summary page varies, depending on the Web server type that you selected in step 4.

   ▪ If you want to change any settings, click **Back**, and make the necessary updates.

   ▪ If you are done, click **Install** to begin the installation.

> **Note:** If there are errors, the DeltekTouchInstall.log file displays. For **Apache Web Server**, the log file is saved in the C:\Program Files\Apache folder. For **IIS**, the log file is saved in the Application Install folder.
>
> You can test the REST Container URL specified on the screen.

13. When the installation is done, on the InstallShield Wizard Complete page, click **Finish**.

> **Note:** If you selected **Apache Web Server**, restart the Apache Windows service for the changes to take effect.
>
> For Apache, the default URL is **https://<server>:<port>/deltektouch/maconomy/time/**, where **<server>** refers to the host name of your Deltek Touch Server and <port> refers to the port number that the Maconomy server uses to listen for requests.
>
> For IIS, the default URL is usually **https://<server>/deltektouch/maconomy/time/**.

Deltek Touch for Maconomy Installation on Linux Server

Perform this procedure if you are going to install the Deltek Touch for Maconomy application on Linux server.

Prerequisite

Before you proceed with the PHP upgrade, make sure that you alter the channel subscription and select the optional repository.

> **Attention:** For more information, see http://snippets.roozbehk.com/post/35750940300/php-mbstring-missing-on-red-hat-enterprise-linux-6.

RHEL 6.0 and 6.5

The recent version is PHP 7.0.27 with Apache 2.4.

For the Apache 2.4 installation, complete the following steps:

> **Note:** If Apache 2.2 is installed, you should stop the original httpd (Apache 2.2) because the configurations would overlap. In addition, you should disable automatic startup of Apache 2.2 if enabled).

1. Download the file **rhscl-httpd24-epel-6-x86_64-1-2.noarch** from the following link:

   https://www.softwarecollections.org/repos/rhscl/httpd24/epel-6-x86_64/noarch/

2. From WinSCP, copy the file from Windows to RHEL **/var/tmp**.

3. In the terminal window, run the following commands:

   a. `rpm –i  rhscl-httpd24-epel-6-x86_64-1-2.noarch.rpm`

   b. `yum install httpd24`

   c. `ps –ef | grep httpd`

   d. `/etc/init.d/httpd24-httpd start`

For the PHP 7.0.27 installation/upgrade, complete the following steps:

> **Note:** At this point, you may get a prompt stating that there are one or more dependencies missing from the system that should also be installed. You perform the installation manually because this is an SCL package and yum cannot install the dependencies automatically.

In the terminal window, run the following commands:

1. `yum list | grep rh-php70*`

2. For new install: `yum install rh-php70-php.x86_64`

   For update: `yum update rh-php70-php.x86_64`

3. `/etc/init.d/httpd24-httpd restart`

If Deltek Touch is still not working, perform the following actions after you complete any of the installation steps above, depending on your RHEL version.

1. Execute the command sudo setsebool -P httpd_can_network_connect on.

2. Launch the Dletek Touch Web site.

Note: Before you perform the installation procedure, make sure that you rename **DeltekTouch folder** found on the specified location for **Apache Web Root** inside **installDeltekTouch.sh** file to **DeltekTouchPrev**. By default, the location is set to **/var/www/html**.

`cd <location specified in Apache Web Root parameter>`

`mv DeltekTouch DeltekTouchPrev`

The file name where the location of the Web root parameter is set is as follows: **/../../Linux/installDeltekTouch.sh**.

To install the application, complete the following steps:

1. Copy **DeltekTouchMaconomyLinux33.tar** and save it to a temporary folder on a Linux machine.

2. Extract the TAR file using **tar -xvf DeltekTouchMaconomyLinux33.tar**. The files are extracted to the Linux sub-directory.

3. Update the following properties in install **DeltekTouch.sh** within the section enclosed in "----------------------------------".

   - APACHE_PORT
   - SVR_NAME
   - CHARSET
   - PHP_INSTALLED
   - APACHE_WEB_ROOT
   - INSTALL_DIRECTORY
   - URLDomain
   - CLIENTURL
   - MACONOMY_224UP

   If the current Maconomy core is 2.2.4 or later, provide details for the following entries:

   - REST_HOST_NAME
   - REST_PORT_NUMBER
   - REST_LANGUAGE
   - REST_DATABASE
   - USERESTFORTIME
   - USERESTFOREXPENSE

4. Run the following command from the terminal to install the software:

```
./installDeltekTouch.sh
```

> **Note:** Make sure you run the command as root user.

5. After the installation, restart the Apache Web server for the changes to take effect.

Deltek Touch for Maconomy Setup

This section contains information on how to set up Deltek Touch for Maconomy, corresponding service pack, hot fix, Web services, and related configuration settings.

Maconomy MScript Web Services

This section is mandatory. It includes the installation of the MScript Web services.

> **Note:** Even if you prefer to use the RESTful Web services, you still need to have the MScript Web services installed.

Validate MScript Web Services

Touch 3.3 can be installed only on Maconomy 2.4.5 (or newer).

> **Note:** If you use an older Maconomy version, you must upgrade to Maconomy 2.4.5, in order to be able to install the Touch 3.3 backend.

For Touch 3.3, there are no FPUs available in DSM.

The MScript Web services for Touch 3.3 are included in the Maconomy 2.4.5 APU.

Once you installed the Maconomy 2.4.5 APU, the MScript Web Services should be installed automatically.

Please check the following:

- Maconomy 2.4.5 APU is installed
- MaconomyTouch CGI program is installed
- Touch API 3.3.0.4.20 is installed (in the app go to Settings/About and check the Web Service version)
- Latest dictionaries are installed

> **Note:** If any of the above conditions is not met, please check Appendix E for further suggestions.

Using the RESTful Web Services in Deltek Touch

Enable RESTful Web Services in Maconomy

The RESTful Web services need to be enabled in the Coupling Service. If this is already the case, continue with the Proxy Server setup. Otherwise, perform the instructions discussed in this section.

To enable the RESTful Web services, complete the following steps:

1. Right-click the MConfig executable, select **Run as administrator**, and follow the prompts accepting all default values.
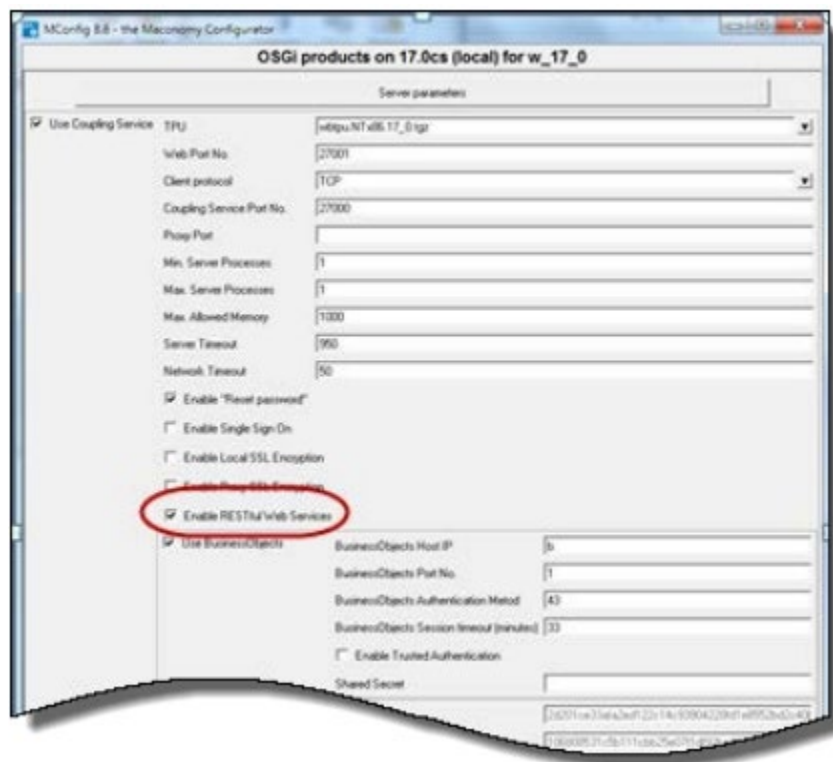2. In the MConfig Main window, double-click the application to open.

3. In the Application Instance window, click **OSGi products**.

4. On the **OSGi Server Selection** screen, select the Coupling Service to update.
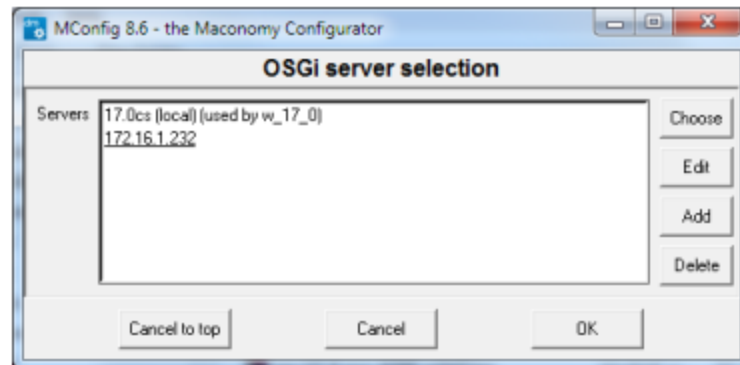
5. Select the **Enable RESTful Web Services** option.

6. Click **OK** to save.

7. When the SSL warning displays, click **OK** to return to the Application Instance window.

8. Click **OK** to accept the changes and return to the main screen.

9. Click **Next**, **Next**, and **Yes** to complete the installation.

Proxy Server Setup

Apache

To enable the proxy server in Apache, complete the following steps:

1. Open the "httpd.conf" file.

2. Add the following line of codes:

   ```
   ProxyRequests Off

   ProxyPreserveHost On
   ```

3. Add the "ProxyPass" for containers and filedrop REST API, for example:

   ```
   ProxyPass  /containers  http://10.1.1.11:1111/containers retry=0

   ProxyPass  /filedrop    http://10.1.1.11:1111/filedrop   retry=0

   ProxyPass  /auth        http://10.1.1.11:1111/filedrop   retry=0
   ```

4. Restart the Apache Server.

IIS

If you use the Touch 2.2 (or higher) Installer to install a new REST Touch or upgrade to REST Touch, most of the steps described below will be done by the Installer:

- Install the Microsoft IIS URL Rewrite 2.0

- Install the Application Request Routing (ARR)

- Set server variable HTTP_X_FORWARDED_PROTO

- Create rewrite rules for container, filedrop and auth

- Update configuration.ini

- Enable preserveHostHeader

The only remaining manual setup step is for switching to using HTTPS.

In case you do not use the Installer, as specified above, respectively if your installation is not successful, you can find below the description of the manual steps needed to be performed by you for setting up the REST proxy on IIS.

Before you set up the proxy server in IIS, you need to install the **Microsoft IIS URL Rewrite 2.0** and install the **Application Request Routing (ARR**).

> **Attention:** For more information on IIS URL Rewrite, see http://www.iis.net/downloads/microsoft/url-rewrite. For more information on installing the ARR plugin, see http://www.microsoft.com/en-us/download/details.aspx?id=39715. In IIS 8.0 and 8.5, you need to install the "Web Platform Installer" before you can install the ARR plugin.

1. Restart IIS Manager.

2. In the "Application Request Routing" configuration window, click **Server Proxy Settings**.

3. Select **Enable proxy**.
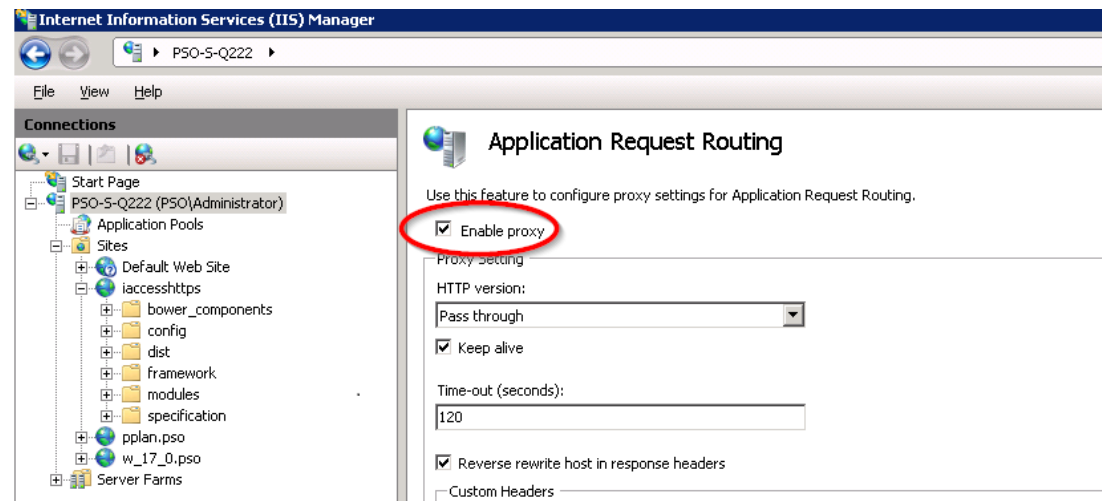
To perform the proxy server setup, complete the following steps:

1. Add the rewrite rules for the proxy in the IIS manager. First click the website where you want to define the rewrite rules.

   Deltek recommends that rules must be added to the local site (for example, DeltekTouch) not to the root site (for example, Default Web Site).
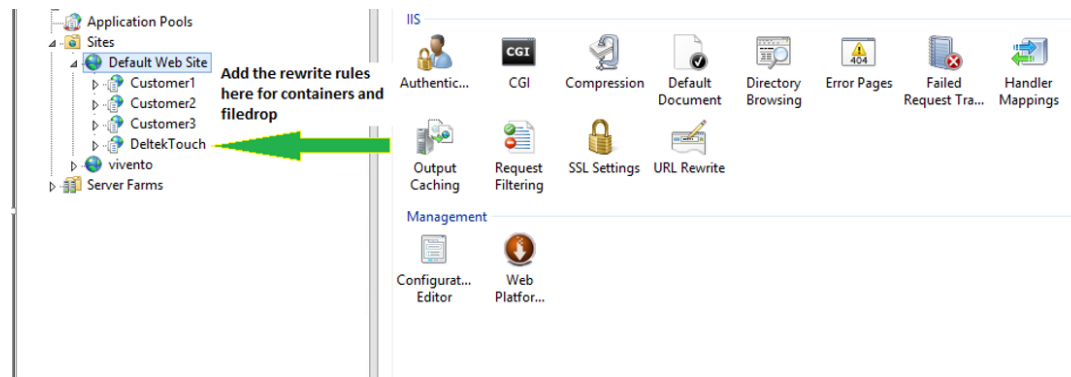
2. Click the applet "**URL Rewrite**."

3. Add the rules for "containers" REST API for specific client. For more information, see the Add Rules to "containers" REST API section.

4. Add the rules for "filedrop" REST API for specific client. For more information, see the Add Rules to Filedrop API section.

5. Add the rules for "auth" REST API for specific client. For more information, see the Add Rules to Auth API section.

6. Restart the IIS Manager.

Set Up HTTPS

To set up HTTPS, complete the following steps:

1. Open the **URL Rewrite** applet.

2. In the **Actions** pane, click **View Server Variables...**.

3. On the Server Variables window, click **Add...** and add the variable **HTTP_X_FORWARDED_PROTO**.

4. In the configuration.ini file, change the **REST_HTTP_PROTOCOL** to **https** and **REST_DOMAIN_NAME** (if not set) to an external URL accessible thru Internet. (for example, touch.deltek.com).

5. Restart the Web server.

Add Rules to the "containers" REST API

The rules can be added on application or site level.

To add rules to the "containers' REST API, complete the following steps:

1. If the rewrite rules are on the IIS application, you must specify both REST_IIS_TOUCH_FOLDER_NAME and REST_PROXY_PASS_CLIENT_CODE

2. If the rewrite rules are on the IIS site, both REST_IIS_TOUCH_FOLDER_NAME and REST_PROXY_PASS_CLIENT_CODE should be empty.

To add the rules to container API, complete the following steps:

3. Open the **URL Rewrite** applet.

4. In the Actions pane, click **Add Rule(s)**.

5. On the Add Rule(s) dialog box, select the **Blank Rule** option in the **Inbound rules** section.
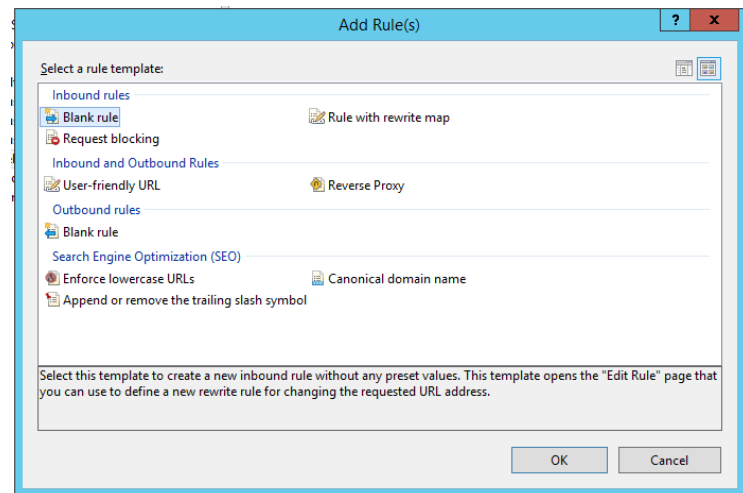
6. Click **OK**.

7. On the Edit Inbound Rules window, enter or select the appropriate values:

- **Name** – Set the rule name (for example, Containers).

- Requested URL – Select the Matches the Pattern option.

- **Using** – Select the **Wildcards** option.

- **Pattern** – Enter the pattern, for example, **proxycode/containers/***.

- **Ignore case** – Select this option.

- **Conditions** – *Do not change anything.*

- **Server Variables** – Add the HTTP_X_FORWARDED_PROTO with an **https** value if the Touch server is setup with https. Otherwise, use **http**. Checked the 'Replace the existing value.'

- **Action**

  - **Action type** – Select the **Rewrite** option.

  - **Action Properties**

    - **Rewrite URL** – Enter the URL for the RESTful API, for example, **http://10.1.1.111:1111/containers/{R:1}**.

    - **Append query string** – Select this option.

    - **Log rewritten URL** – Do not select this option.

  - **Stop processing of subsequent rules** – Do not select this option.

8. On the right pane, click **Apply**.

Add Rules to the Filedrop API

To add the rules to the filedrop API, complete the following steps:

1. Open the **URL Rewrite** applet.

2. In the Actions pane, click **Add Rule(s)**.

3. On the Add Rule(s) dialog box, select the **Blank Rule** option in the **Inbound rules** section.

4. Click **OK**.

5. On the Edit Inbound Rules window, enter or select the appropriate values:

   - **Name** – Set the rule name (for example, Filedrop).

   - **Requested URL** – Select the **Matches the Pattern** option.

   - **Using** – Select the **Wildcards** option.

   - **Pattern** – Enter the pattern, for example, **proxycode/filedrop/***.

   - **Ignore case** – Select this option.

   - **Conditions** – *Do not change anything.*

   - **Server Variables** – Add the HTTP_X_FORWARDED_PROTO with an **https** value if the Touch server is setup with https. Otherwise, use **http**. Checked the 'Replace the existing value.'

   - **Action**

     - **Action type** – Select the **Rewrite** option.

     - **Action Properties**

       - **Rewrite URL** – Enter the URL for the RESTful API, for example, http://10.1.1.111:1111/filedrop/{R:1}.

       - **Append query string** – Select this option.

       - **Log rewritten URL** – Do not select this option.

     - **Stop processing of subsequent rules** – Do not select this option.

6. On the right pane, click **Apply**.

Add Rules to the Auth API

To add the rules to the auth API, complete the following steps:

1. Open the **URL Rewrite** applet.

2. In the Actions pane, click **Add Rule(s)**.

3. On the Add Rule(s) dialog box, select the **Blank Rule** option in the **Inbound rules** section.

4. Click **OK**.

5. On the Edit Inbound Rules window, enter or select the appropriate values:

   - **Name** – Set the rule name (for example, Auth).

   - **Requested URL** – Select the **Matches the Pattern** option.

   - **Using** – Select the **Wildcards** option.

- **Pattern** – Enter the pattern, for example, proxycode/auth/*.

- **Ignore case** – Select this option.

- **Conditions** – Do not change anything.

- **Server Variables** – Add the HTTP_X_FORWARDED_PROTO with an https value if the Touch server is setup with https. Otherwise, use http. Checked the 'Replace the existing value.'

- **Action**

  - **Action type** – Select the **Rewrite** option.

  - **Action Properties**

    - **Rewrite URL** – Enter the URL for the RESTful API, for example, http://10.1.1.111:1111/filedrop/{R:1}.

    - **Append query string** – Select this option.

    - **Log rewritten URL** – Do not select this option.

  - **Stop processing of subsequent rules** – Do not select this option.

6. On the right pane, click **Apply**.

Preserve Host Header

1. Open a console with Administrative privileges, and navigate to the following folder:

   C:\Windows\System32\inetsrv

2. Enable **preserveHostHeader** by running the following command:

   ```
   cd C:\Windows\System32\inetsrv

   appcmd.exe set config -section:system.webServer/proxy
   /preserveHostHeader:"True" /commit:apphost
   ```

3. Restart the Web server.

Update configuration.ini

This procedure allows you to update the configuration.ini file.

To update the configuration.ini file, complete the following steps:

1. Make sure that the [REST_PROXY_DATA] section has the correct information.

   For example:

   ```
   REST_PROXY_DATA]

   REST_HTTP_PROTOCOL="https"

   REST_DOMAIN_NAME="<yourdomain>.com"

   REST_HTTP_PORT=""

   REST_CONTAINER_NAME="containers"

   REST_FILEDROP_NAME="filedrop"

   REST_AUTH_NAME="auth"

   REST_VERSION="v1" REST_DATABASE="m19rs1"
   ```

```
REST_LANGUAGE="en-US"

REST_AUTHENTICATION_TYPE="BASICAUTH "
```

2. Change the settings in the [REST_MODULE_SETUP] section according to your need:

   ▪ Set USERESTFORTIME="true" if you want to use the RESTful Web services for time registration

   ▪ Set USERESTFOREXPENSE="true" if you want to use the RESTful Web services for expense and mileage registration

   ▪ It is mandatory to keep USERESTFORAPPROVALS="false" because Deltek Touch 2.0 does not support RESTful Web services in approvals.

configuration.ini

The configuration.ini is a setting file utilized by Deltek Touch to provide environment information to the Touch application.

```
; ********************************
; Maconomy Touch Configuration File
; ********************************
[SERVER_DATA]
URL="http://10.1.1.1111:11111/cgi-bin/Maconomy/MaconomyTouch.w190p100.en_US.exe/Standard/DeltekTouchWS.ms"
CHARSET="UTF-8"
DYNAMICSCRIPT="false"
DEBUGGERFL="false"
TOUCHSERVERVER="2.0.0.0"
HELPDOCURL="http://clientsite.deltek.com/deltektouchdownloads/docs/DeltekMaconomyTouchTimeUserGuide.pdf"
CLIENTURL="https://clientsite.deltek.com/20_23Rest"

[REST_PROXY_DATA]
REST_HTTP_PROTOCOL="http"
REST_DOMAIN_NAME="localhost"
REST_HTTP_PORT=""
REST_PROXYPASS_CLIENT_CODE="tenantcode"
REST_CONTAINER_NAME="containers"
REST_FILEDROP_NAME="filedrop"
REST_VERSION="v1"
REST_DATABASE="w190p100"
REST_LANGUAGE="en-US"
REST_IIS_TOUCH_FOLDER_NAME=""
REST_AUTHENTICATION_TYPE="BASICAUTH"

[REST_MODULE_SETUP]
USERESTFORTIME="true"
USERESTFOREXPENSE="true"
USERESTFORAPPROVALS="false"
```

Existing Parameters

```
; ********************************

;   Maconomy Touch Configuration File

; ********************************

[SERVER_DATA]

URL=""

CHARSET=""

DYNAMICSCRIPT=""
```

```
DEBUGGERFL=""
TOUCHSERVERVER=""
HELPDOCURL = ""
CLIENTURL=""
```

New Parameters

In **Deltek Touch 3.3**, the following parameter has been added to cover the Google Maps functionality enhancement:

```
[SERVER_DATA]
MAPSKEY=""
```

Description of the New Parameters

[SERVER_DATA]

▪ **MAPSKEY** – This parameter is used for access to Google Maps API and is automatically set by the Touch Installer. The key should be used only for Deltek applications.

In **Deltek Touch 3.0**, the following parameters have been added to enhance security:

```
[SERVER_DATA]
REQUIREDEVICEPASSCODE=""
ALLOW_BIOMETRICS=""
```

Description of the New Parameters

[SERVER_DATA]

▪ REQUIREDEVICEPASSCODE: Controls how Touch handles users who don't have a passcode on their device. By default is true, which means that if a user does not have a passcode set on his/her mobile device, then the user will not be able to use Touch. You can change it to false, to make device passcode use optional for Touch, which means that if a user does not have a passcode set on his/her mobile device, the user will still be able to use Touch.

▪ ALLOW_BIOMETRICS: This parameter determines if users are allowed to use biometric authentication (fingerprint or facial recognition) as alternative to PIN. By default is false, meaning biometric authenticatin is not allowed; users will authenticate using PIN. If you set it to true, users will have the option in the app, to choose between authenticating using PIN, fingerprint and facial recognition. Note: This setting will be used when you upgrade to Maconomy 2.4.3.

In *Deltek Touch 2.2*, the following parameters have been added to support the enhanced PIN security.

The new parameters are divided into two sections: **REST_PROXY_DATA** (which contains connection details parameters) and **REST_MODULE_SETUP** (contains parameters responsible for enabling the REST functionality in the time, expense, and approvals modules).

```
[SERVER_DATA]
ANALYTICSKEY=""


[PIN_SETTINGS]
MIN_LENGTH=""
COMPLEXITY=""
UNIQUE_HISTORY=""
```

```
PIN_EXPIRATION=""

REST_PROXY_DATA
```

Description of the New Parameters

[SERVER_DATA]

- **ANALYTICSKEY** – This parameter is used for customer specific statistics based on Google Analytics

[PIN_SETTINGS]

- **MIN_LENGTH** – This parameter represents the minimum PIN length, which is set to 6 by default is 6 and allows 4-12 characters.

- **COMPLEXITY** – This parameter represents the PIN complexity feature. It prevents you from using all the same numbers or a sequence of numbers in your PIN. It is set to true by default.

- **UNIQUE_HISTORY** – This parameter represents the limit PIN reuse. it does not allow you to use the same PIN over and over. By default, it is set to "0," which means you can reuse PIN. It accepts values from 0 to 6.

- **PIN_EXPIRATION** – This parameter represents the limit on how long a PIN is valid before requiring you to change it. By default, it is set to 90 days. It accepts values from 0 (which means no limit) to 90.

In *Deltek Touch 2.0*, the following parameters have been added to support the Maconomy RESTful Web service and multi-tenant setup. These parameters are divided into two sections: **REST_PROXY_DATA** (which contains connection details parameters) and **REST_MODULE_SETUP** (contains parameters responsible for enabling the REST functionality in the time, expense, and approvals modules).

```
[REST_PROXY_DATA]

REST_HTTP_PROTOCOL=""

REST_DOMAIN_NAME=""

REST_HTTP_PORT=""

REST_PROXYPASS_CLIENT_CODE=""

REST_CONTAINER_NAME=""

REST_FILEDROP_NAME=""

REST_VERSION=""

REST_DATABASE=""

REST_LANGUAGE=""

REST_IIS_TOUCH_FOLDER_NAME=""

REST_AUTHENTICATION_TYPE=""


[REST_MODULE_SETUP]

 USERESTFORTIME=""

USERESTFOREXPENSE=""

USERESTFORAPPROVALS=""
```
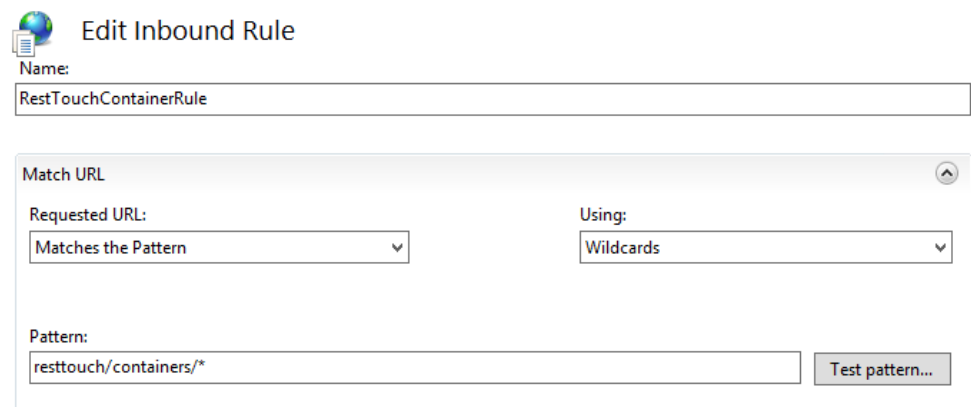
REST_PROXY_DATA

- **REST_HTTP_PROTOCOL** – This parameter is set by the Touch Installer to "https." It represents the protocol (HTTP/HTTPS) used on the REST requests initiated from the Touch client. You can change it in the configuration.ini to "http," if you are in an early phase of the Touch installation and you do not

have an SSL certificate yet. However, you can test Deltek Touch only using the Web application. Before you complete the Deltek Touch installation, you must have this parameter set to "https," else the Touch native apps will not work.

▪ **REST_DOMAIN_NAME** – This is the host name of the Touch Server. It refers to the computer name or the IP address of the Touch Server.

▪ **REST_HTTP_PORT** – This is the associated port number from the host name of the Touch Server. If the REST Web service is running in a secured layer, it should be in 443. Otherwise, leave this field blank or set it to the appropriate value.

▪ **REST_PROXYPASS_CLIENT_CODE**– Enter the first pattern from REST API set in the rewrite rules. For example, in *resttouch*/containers/*, the value on this parameter should be "**resttouch**".

> **Note:** The first pattern from container rule should be the same with filedrop rule (or vice-versa), for example, *resttouch*/filedrop/*.

▪ **REST_CONTAINER_NAME** – Enter containers.

▪ **REST_FILEDROP_NAME** – Enter filedrop.

▪ **REST_AUTH_NAME** – Enter auth.

▪ **REST_VERSION** – Enter v1.

▪ **REST_DATABASE** – This is the database name of the RESTful Web service.

▪ **REST_LANGUAGE** – This is the locale code. Typically, this parameter is the same value as the language being set up for Mscript.

▪ **REST_IIS_TOUCH_FOLDER_NAME** – This is only used if the Deltek Touch is hosted using IIS and the rewrite rules to access the REST API have not been configured in the IIS Site Level (for example, Default Web Site).
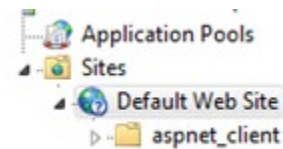

To determine if the rewrite rules have been configured in the root Web site, you need to open the IIS URL Rewrite.
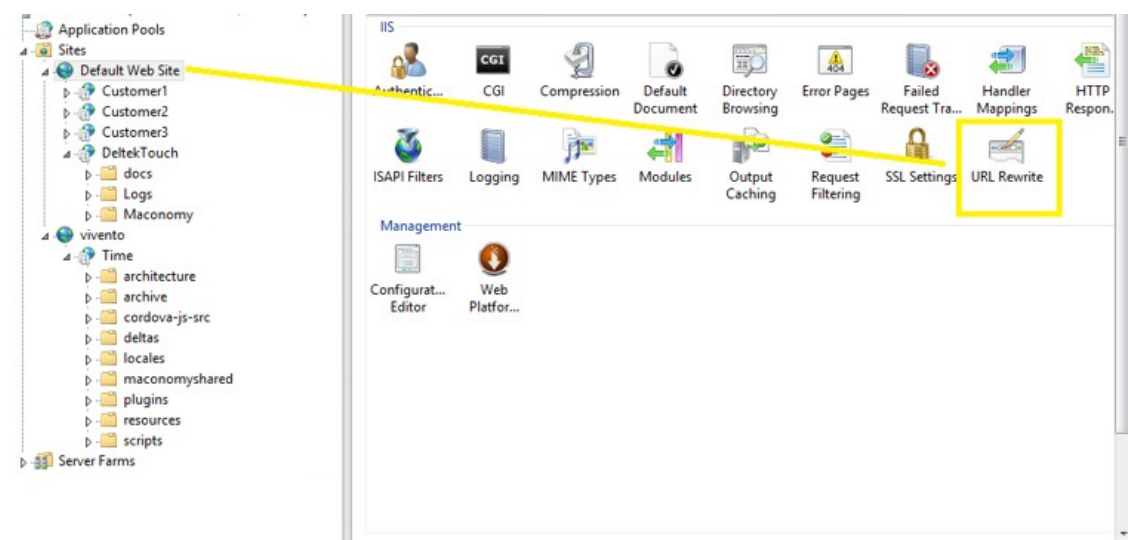
In the event that you need to add the rewrite rules (REST API) on the IIS Site Level, leave this parameter blank.

How to set the value of REST_IIS_TOUCH_FOLDER_NAME?

If the rewrite rules for accessing the REST_API have not been placed in the root Web site, set the value of this parameter using the name of the Web site where the rewrite rules were configured.
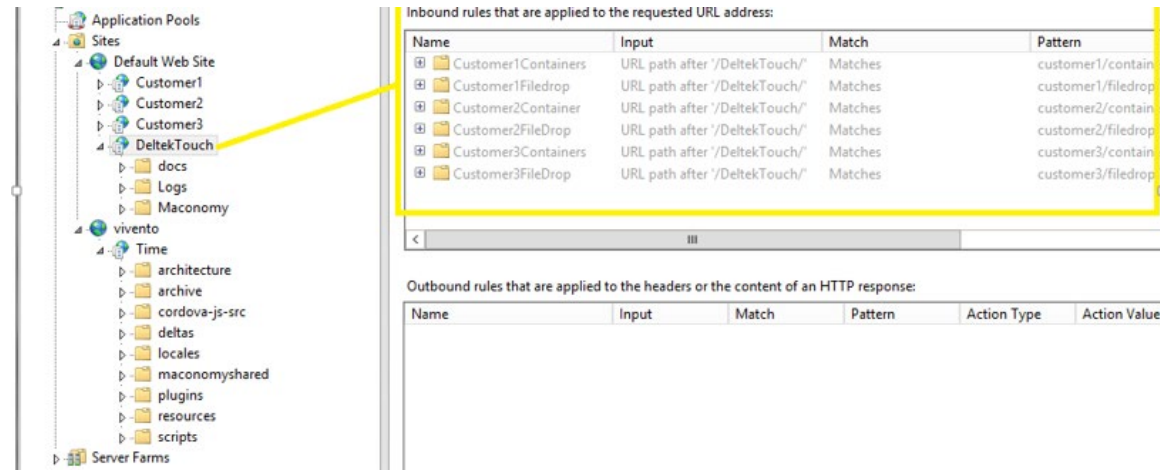
For example, in the screenshot, the rewrite rules are in the Deltek Touch web site. In the **Input** column, the **URL path after '/DeltekTouch/** value displays. In this case, use **DeltekTouch** as the value for the parameter.

- **REST_AUTHENTICATION_TYPE** – The value for this parameter is "BASICAUTH."

REST_MODULE_SETUP

- **USERESTFORTIME** – Valid values are true or false. True means the time registration functionality uses the REST API. False means it uses MScript.

- **USERESTFOREXPENSE** – Valid values are true or false. True means the expense and mileage sheet functionality uses the REST API. False means it uses MScript.

- **USERESTFOREXEPENSE** – Deltek Touch 2.0 must use the false value.

Server Side Configuration Settings

This section is optional. You can modify the following configuration options that are included in the MaconomyMScript\Standard**DeltekTouch.I**.

Key	Valid Options	Default Value	Description
OIDCAuthorizationUrl	URL	Empty	This URL is used to open the native login screen of the OIDC provider (for example, the OneLogin Authentication screen).
VendorInvoiceAllocationLinesToApprove	▪ Job and All ▪ Job ▪ All ▪ None	Job and All	This option determines which tab(s) to display on the **Vendor Invoice** screen.
ShowSubstituteApprovals	True or False	False	This option determines if both the Substitute Approvals and My Approvals tabs display on the **Items for Approval** screen. ▪ If it is set to **true**, both tabs display. ▪ If **false**, only the My Approvals tab displays on the **Items for Approvals** screen. Users who are assigned as substitute approvers cannot approve items.
IncludeSubstituteApprovalsInCounters	True or False	False	This option determines whether the number of pending substitute approvals display in the counters (both on the sliding menu icon and on the **Approvals** sub-menu). ▪ If it is set to **true**, the number of pending substitute approvals display in the counters. ▪ If **false**, the number of pending substitute approvals does not display.
AllowMaconomyLoginWhenUsingExternalCredentials	True or False	False	This option allows you whether to hide Maconomy login from users in an SSO environment for Kerberos, Azure, or OneLogin. To use this functionality, users should have

Key	Valid Options	Default Value	Description
			Maconomy 2.2/2.3/2.4 (or higher) and API 2.3 or higher. ▪ If it is set to **true**, users can use either external credentials or Maconomy credentials to log on. ▪ If **false**, users can only use their external credentials. This setting, however, only works if the **UseExternalCredentials** server setting is set to **true**.
Submit	Daily, Weekly	Weekly	This option specifies whether you register and submit time on a daily or weekly basis.
searchMaxRowcount	0-100	30	This is used to restrict the number of rows that a search returns.
searchtext	Search	Search	This option is NOT used in this release.
debug	True or False	False	*This does not apply to REST.* This options works in Touch 1.x, and MScript Touch 2.0. If you set **debug = true**, it logs some of the error messages occurring when using the MScript Web service.
IncrementalMinutes	Minutes	Empty	This option controls the increment used in the hour picker. If empty, it usse the **Registration Unit** user settings specified on the **Settings** screen of Touch. The **Registration Unit** user setting has priority over the **IncrementalMinutes** server setting. This server setting is usefull to set the default increment for all users, but users have the option to overwrite this in the user setting. For example: if IncrementalMinutes is set to 15, you can enter hours like 1:00, 1:15, 1:30, 1:45 in the application.
IncrementalDays	Real	Empty	This option controls the increment used in the day picker. If empty, it uses the **Registration Unit** user

Key	Valid Options	Default Value	Description
			settings specified on the **Settings** screen of Touch. The **Registration Unit** user setting has priority over the **IncrementalDays** server setting. This server setting is usefull to set the default increment for all users, but users have the option to overwrite this in the user setting. For example: if IncrementalDays is set to 0.15, you can enter days like `0, 0.15, 0.30, 0.45, 0.60` in the application.
ExternalCredentialsType	Kerberos, Azure, or OneLogin	Kerberos	Specifies what kind of external credentials we support in Deltek Touch. Considered only if UseExternalCredentials = true, else the setting is ignored. Specifies which charset should be used for the external login credentials (user name, password, and domain when using Kerberos SSO). If you experience issues with Danish characters in domain password, try changing it to iso-8859-1.
ExternalCredentialsCharset	UTF-8 ISO-8859-1	UTF-8	Specifies which charset should be used for the external login credentials (user name, password, and domain when using Kerberos SSO). If you experience issues with Danish characters in domain password, try changing it to iso-8859-1
AzureNativeClientID	String	Empty	This setting is relevant only for Azure. Represents the ClientID of the Azure native application, to be used by the Deltek Touch native application.
AzureRedirectURI	String	Empty	This setting is relevant only for Azure. Represents the Redirect URI of the Azure native application to be used by the Deltek Touch native application.
AzureResponseType	String	Empty	This setting is relevant only for Azure.

Key	Valid Options	Default Value	Description
			Indicates which Azure login method is used.
			By default, it is empty, which means the Web service tries to calculate this based on the information it gets from Maconomy. You should explicitly set this,only if the default functionality fails, in which case the possible values are "code" and "token":
			▪ If the value is "code," Maconomy uses the AzureOpenID login method.
			▪ If the value is "token," Maconomy uses the AzureAD login method.
AzureTenantID	String	Empty	This setting is relevant only for Azure.
			It represents the ID of the Azure tenant.
			By default, it is empty, which means the Web service tries to calculate this based on the information it gets from Maconomy. You should explicitly set this,only if the default functionality fails.
AzureWebClientID	String	Empty	This setting is relevant only for Azure.
			It represents the ID of the Azure application used for the Touch Web application
			By default, it is empty, which means the Web service tries to calculate this based on the information it gets from Maconomy. You should explicitly set this,only if the default functionality fails.
AzureServerID	String	Empty	This setting is relevant only for Azure.
			It represents the ID of the Azure application used for the Maconomy server.
			By default, it is empty, which means the Web service tries to calculate this based on the information it gets from Maconomy. You should explicitly set

Key	Valid Options	Default Value	Description
			this,only if the default functionality fails.
ShowMissingTimesh eetsDue	True or False	True	*This does not apply to REST.* This option controls the status of missing (not created before the current date) daily timesheets. If **true**, the status is **Due**, else the status is **New**.
WeekStart	0 (Sunday), 1(Monday), 2(Tuesday) 3(Wednesday) 4(Thursday) 5(Friday) 6(Saturday)	1	This option controls which day displays as the first day in the Calendar. It can be overwritten by the "Week Start" user setting. The server setting is only the default value for the user setting.
MandatoryRejection Remark	True or False	True	This option is available only in Maconomy 2.1.1 and higher. This option controls if you have to specify a rejection comment when rejecting a time sheet. ▪ If **true**, you must specify a rejection comment, else you cannot reject. ▪ If **false**, the rejection comment is optional.
CustomSbmitTimesh eetAction	String	Empty string	*This does not apply to REST.* The name of the custom action used for submitting time sheets, if any
ShowOnlyPOLinesT oApprove	True or False	True	This option is available only in Maconomy 2.1.1 and higher. When approving purchase order lines, you see the entire purchase order. This setting controls which of the lines you want to see when approving PO lines ▪ If true (default), it only displays PO lines you can approve. ▪ If false, it displays all PO lines in the given PO, including the lines you can approve.

Key	Valid Options	Default Value	Description
ShowOnlyInvoiceAllocationLinesToApprove	True or False	True	This option is available only in Maconomy 2.1.1 and higher. When approving invoice allocation lines, you see the vendor invoice and its allocation. This setting controls which of the lines you want to see when approving invoice allocation lines. ▪ If true (default), it only displays invoice allocation lines you can approve. ▪ If false, it only displays all invoice allocation lines for the given vendor invoice, including the lines you can approve.
NotificationRecalculationInterval	Integer	1800	This option is available only in Maconomy 2.1.1 and higher. This setting controls the frequency (in seconds) of recalculating the `notification (approval and rejected time)` counters in the background. ▪ For disabling the background recalculation, use -1. ▪ Setting under 5 min (300 sec) may lead to performance penalties on the Maconomy server.
CopyRemarkFromTimeSheetLineToFavorite	True or False	False	This option is available only in Maconomy 2.0 and higher. This setting controls if the **Remark** field should be copied from the time sheet line to the favorite when creating a new favorite based on a time sheet line If true, the **Remark** field value is copied from the timesheet line into the favorite (which is creaed from the time sheet line) If false, the **Remark** field value is NOT copied from the timesheet line into the favorite (which is creaed from the time sheet line)

Key	Valid Options	Default Value	Description
ExpenseAttachment Type	string	"header and line"	This option is available only in Maconomy 2.0 and higher. This setting controls where can you attach receipts to expenses. It can have one of the following values: ▪ **"none"** = This value indicates that it is not possible to attach receipts to expenses at all. ▪ **"header"** = This value indicates that it is possible to attach receipts only to the expense sheet header. ▪ **"line"** = This value indicates that it is possible to attach receipts only to the expense sheet line. ▪ **"header and line"** = This value indicates that it is possible to attach receipts to both the expense sheet header and line. ▪ "**header in quick capture, line in expense**" = This value indicates that it is possible to attach receipts using Quick Capture on the **Expense Sheet** screen and, subsequently, attach the receipt from the **Expense Sheet** screen to the **Expense Sheet Line** screen.
ShowJobsWithEmpl oyeeControl	True or False	False	This option is available only in Maconomy 2.0 and higher. It allows you to see the employee's jobs (based on Employee Control) on the **Find Job** screen when creating a time sheet line using a job ▪ If true, the **All** tab displays the **Recently used projects** and **My Jo**b list (jobs the user has access to via Employee Control) ▪ If false, the **All** tab displays the **Recently used projects only** list.
ShowZeroHourJobsI nSummary	True or False	True	This option is available in all supported Maconomy versions.

Key	Valid Options	Default Value	Description
			It controls the **Summary** screen, Job tab content. ▪ If true (default), the timesheet summary will show all job/task/activity combinations, used in the selected weekly time sheet ▪ If false, the timesheet summary will show only job/task/activity combinations, used in the selected weekly time sheet, which are having hours registered
AllowNegativeHoursInTimeSheets	True or False	False	This option is available in all supported Maconomy versions. Determines if you are allowed to enter negative hours on time sheet lines in **Timesheet** and **Timesheet Line** screens ▪ If true, you are allowed to enter both positive and negative hours on timesheet lines ▪ If false (default), you are allowed to enter only positive hours on timesheet lines
AllowNegativeDaysInTimeSheets	True or False	False	This option is available to all supported Maconomy versions. Determines if you are allowed to enter negative days on timesheet lines on the **Timesheet** and **Timesheet Line** screens ▪ If this is set to true, you are allowed to enter both positive and negative days on timesheet lines. ▪ If false (default), you are allowed to enter only positive days on timesheet lines.
ShowExpense	True or False	True	This option is available only to Maconomy 2.0 and higher. To disable expense functionality for all users, set **ShowExpense** to **false**.

Key	Valid Options	Default Value	Description
ShowMileage	True or False	True	This option is available only to Maconomy 2.0 and higher. To disable mileage functionality for all users, set **ShowMileage** to **false**.
MaxAttachmentFileSize	Integer	1000	Determines the maximum file size (in KB) of the pictures attached to expense sheets in Deltek Touch. ▪ If set to **0**, it generates the smallest file size possible, but the quality might be low. This is recommended only if you experience performance penalties when attaching documents. ▪ If set to non-zero value, the functionality is unchanged; it generates the highest quality possible for the given maximum file size.
ShowPurchaseOrder	Boolean	True	It controls whether users should be able to see the purchase order functionality in Deltek Touch. ▪ If you do not want any users to see purchase orders in Deltek Touch, set this setting to **false**. ▪ If you set it to **true**, all users having access to the Maconomy PurchaseOrders window can view purchase orders in Deltek Touch. Users still have the option to individually hide the purchase orders by changing the **Show Purchase Orders** user setting in the Deltek Touch.
ShowAbsence	Boolean	true	It controls whether users should be able to see the absence request functionality in Deltek Touch. ▪ If you do not want any users to view absence request s in Deltek Touch, set this setting to **false**. ▪ If you set it to **true**, all users having access to the Maconomy AbsenceCalendarLines window can view absence requests in

Key	Valid Options	Default Value	Description
			Deltek Touch. Users still have the option to individually hide the allowance requests by changing the **Show Absence** user setting in the Deltek Touch.
ShowAllowance	Boolean	true	It controls whether users should be able to see the allowance request functionality in Deltek Touch. ▪ If you do not want any users to view allowance request s in Deltek Touch, set this setting to **false**. ▪ If you set it to **true**, all users having access to the Maconomy AbsenceEntryOverview window can view allowance requests in Deltek Touch. Users still have the option to individually hide the allowance requests by changing the **Show Allowance** user setting in the Deltek Touch.
ShowOnlyFavoritesInJobSearch	Boolean	false	It determines the content of the job search (Find Job) screen, invoked from the **Time, Expense** and **Mileage Sheet Line** screens. ▪ If **true**, the job search (Find Job) screen shows only favorites. When creating a time, expense or mileage sheet line, you can only select a favorite, not a job. ▪ If **false**, the job search (Find Job) screen shows jobs and favorites (All and Favorites tabs). When creating a time, expense or mileage sheet line, you can select a favorite or a job.
ShowDefaultExpenseReceiptName	Boolean	false	It allows you to see and use a default expense receipt name, when taking a picture to attach to an expense sheet, both in quick capture and expense sheets flow. ▪ If **true**, a default receipt name will be shown. You might accept it or replace it.

Key	Valid Options	Default Value	Description
			▪ If **false**, there is no default receipt name, you must enter the receipt name yourself

Note: Before you change any of these settings, Deltek recommends that you make a copy of the DeltekTouch.I file in the MaconomyMScript\Standard folder and place it in the MaconomyMScript\Custom folder. Then, change the file in the Custom folder instead of the original file. To apply your changes, you need to log on again to Touch; there is no need to restart anything else.

Attention: For more information about customization, see *Deltek Touch for Maconomy Layout Configuration Guide*.

Touch with Azure Setup

History of Azure setups supported by Maconomy and Touch

▪ Maconomy 2.4 LA 1 and Touch 2.1 supports only the Azure OAuth setup.

▪ Maconomy 2.4 LA 2 and Touch 2.1 supports only the Azure OAuth setup.

▪ Maconomy 2.4 LA 2 and Touch 2.2 supports both the Azure OAuth and Azure OpenID setup.

Note: Touch 3.0 only supports the Azure OpenID setup. Therefore, to be able to use Azure in Touch 3.0 (or later), you must have Maconomy 2.4 LA 2 (or later).

Azure Setup for Maconomy

For your reference, the following is a comparison of the previous and new protocol setups in Azure.

Azure OAuth (Previous Setup) *No longer supported in Touch 3.0*	Azure OpenID (New Setup) *Supported in Touch 3.0*
Requires three applications to be set up in Azure: ▪ **Maconomy** – Azure Web application for Maconomy Server ▪ **Touchapp** – Azure native application for the Touch native application	Requires two applications to be set up in Azure: ▪ **Maconomy** – Azure Web application for Maconomy Server, Maconomy clients, and Touch Web application ▪ **Touchapp** – Azure native application for the Touch native application

Azure OAuth (Previous Setup)	Azure OpenID (New Setup)
No longer supported in Touch 3.0	*Supported in Touch 3.0*
• **Maconomy Client** – Azure Web application for Touch Web application and Maconomy clients **Note**: The Touch apps gets an access token from Azure which is sent to Maconomy to authenticate the user.	**Note**: The Touch app gets an authentication code from Azure which is sent to Maconomy to authenticate the user.

MConfig Setup for Azure

For your reference, the following is a comparison of the previous and new protocol setups in MConfig.

MConfig Azure OAuth (Previous Setup)	MConfig Azure OpenID (New Setup)
• Domain Login Method: Azure AD	• Domain Login Method: Azure OpenID
• Azure Tenant ID	• Azure Tenant ID
• Azure Client ID	• Azure Client ID
• Azure Server ID	• Azure Client Secret

If Maconomy is set up with Azure OpenID and you prefer your Deltek Touch installation to use Azure, you need to complete additional setup.

> **Attention:** It is a prequsite that Azure is set up for Maconomy as described in the Maconomy documentation. Prior to enabling the Azure setup in Deltek Touch, Deltek recommends to test Azure in Workspace Client. For more information, see the *Deltek Maconomy Azure SSO Guide*.

Register an Azure Native Application for Touch Native Application

This can be done using the new Azure Portal (https://portal.azure.com),

To register an application for Touch, using the *new Azure Portal*, complete the following steps:

1. Open the Azure Active Directory (AAD) in the Azure management portal.

2. Click the App registrations tab.

3. On the App registrations tab, click **New application registration**

4. Enter **Maconomy Touch** as name, select **Native Client Application** as type, and enter `https://deltekmaconomyclient` for the **REDIRECT URI**.

   > **Note:** This will be the AzureRedirectURI.

5. Under the **properties** section of the newly created application, find the read-only field labeled **Application ID** and note its value. This is the **Touch Client ID**.

> **Note:** This will be the AzureNativeClientID.

6. Set the permissions on the application to give access to the Maconomy Server Azure application, using **All settings » Required Permissions**.

Deltek

permissions to other applications

ce147c97-f4b3-4cb1-918b-fae064df647b	Delegated Permissions: 0
Maconomy Server	Delegated Permissions: 1
	☑ Access Maconomy Server
Windows Azure Active Directory	
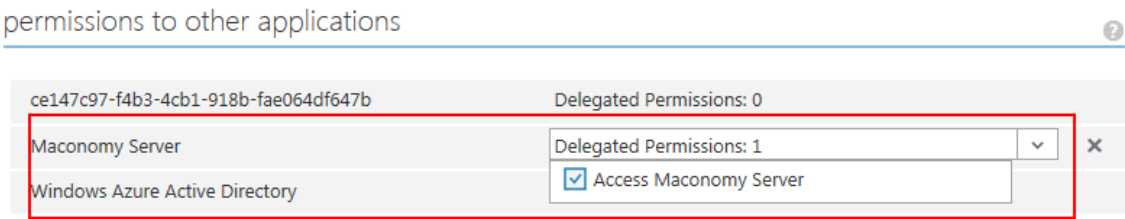
Update the Maconomy Azure Application to Support the Deltek Touch Web and Native Applications

The Deltek Touch Web application uses the same Azure application as the Workspace Client. If you follow the Maconomy documentation for Azure, this Azure Web app is called Maconomy.
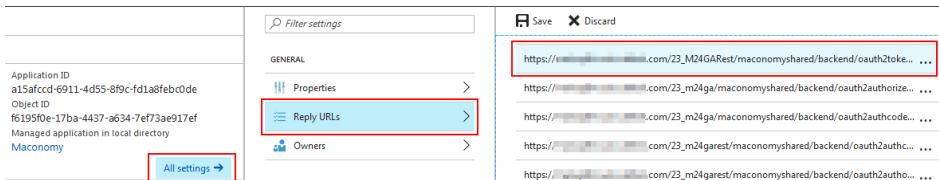
To make sure that Deltek Touch can use the Maconomy Azure application, add the Touch URL to the Reply URL on the Azure application.

To add the Touch URL to the Reply URL, complete the following steps:

1. Open AAD in the Azure management portal.

2. Click the App regisrations tab.

3. On the App registrations tab, find the Maconomy application.

	Devices		MS	Maconomy Server	Web app / API	7088f87b-ce84-44fd-bb5a-c8045...
	App registrations		MT	Maconomy Touch	Native	c707bc35-3435-4776-838f-93c51...
	Application proxy		MA	Maconomy	Web app / API	a15afccd-6911-4d55-8f9c-fd1a8f...

4. Click **All Settings** » **Reply URLs**.

5. Add the Touch URL (for example, https://<yourdomain>.com/23_M24GARest/maconomyshared/backend/oauth2tokenreturn.php) to the Reply URL.
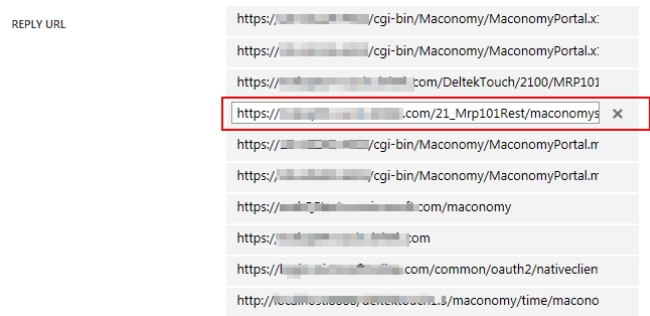
Depending whether your Maconomy system is set up with AzureAD or AzureOpenID domain login method, the Reply URLs to be set on the **Maconomy** Azure application (corresponding to the Maconomy server) differ as follows:

- https://login.microsoftonline.com/common/oauth2/nativeclient - This is needed for the Maconomy Workspace Client and Coupling Service, in general. It should be part of the Maconomy setup.

- .../maconomyshared/backend/oauth2authorizereturn.php (for example, https://<yourdomain>.com/22_M20SP1/maconomyshared/backend/oauth2authorizereturn.php,) - This is for Azure OpenID, for the Touch Web application.

- …/maconomyshared/backend/oauth2authcodereturn.php. - This is for the Azure OpenID, for Touch native application.

Turn On Azure Login in the Web Service

The following changes are needed in the custom DeltekTouch.l file:

1. Set **UseExternalCredentials** to **true**. By default, it is set to **false**.

2. Set **ExternalCredentialsType: #K"Azure"**. By default, it is empty.

3. Set **AzureNativeClientID** to the Touch Client ID (step 5 of the **Register an Azure Native Application for Touch Native Application** procedure). For example, `AzureNativeClientID:#K"347bbd9d-15da-4564-b58f-1dfcadc7e2bf"`. By default, it is empty.

4. Set **AzureRedirectURI** to the REDIRECT URI (step 4 of the **Register an Azure Native Application for Touch Native Application** procedure). For example, `AzureRedirectURI:#Khttps://deltekmaconomyclient`. By default, it is empty.

5. If Maconomy is set up to use AzureOpenID, you can specify the new server settings: **AzureResponseType, AzureWebClientID**, **AzureServerID**, **AzureTenantID.** By default these are empty, meaning the Web service tries to calculate these based on the information it gets from Maconomy. You should explicitly set this only if the default functionality fails. For **AzureResponseType,** the only value allowed is "code".

Touch with OneLogin Setup

Register an OneLogin Application for Touch Native Application

To make sure that Deltek Touch can use the Maconomy OneLogin application, add the Touch URL to the **Redirect URI's** field in the OneLogin application:

To add the Touch URL to the Redirect URI, complete the following steps:

1. Open the OneLogin management portal.

2. Tap the Apps tab.

3. On the Apps tab, find the Maconomy application.

4. Tap **Configuration**.

5. In the **Redirect URI's** field, add the Touch URL (using the format <yourTouchURL>**/maconomyshared/backend/oauth2authcodereturn.php**). For example, https://mactouchcph2.deltek.com/DeltekMaconomyTouchTime/maconomyshared/backend/oauth2authcodereturn.php.

Turn On OneLogin in the Web Service

The following changes are needed in the custom DeltekTouch.I file:

1. Set **UseExternalCredentials** to **true** to use non-Maconomy credentials in Touch. By default, it is set to **false**.

2. Set **ExternalCredentialsType: #K"OneLogin"**. By default, it is empty.

> **Attention:** For more information on the OneLogin setup, see the Deltek Maconomy System Administrator Guide.

Deltek Touch with Single Sign-On Setup

If Touch is using SSO, unicode characters are not allowed in the domain user name and/or password

If Maconomy is set up with Kerberos SSO and you prefer Touch to use SSO, you need to perform the following tasks:

1. In DeltekTouch.I, set **useExternalCredentials=true**. By default, it is set to **false**.

2. Copy KerberosSSOClientLib folder and KerberosSSOClient.jar file from the related TPU to cgi-bin/Maconomy.

3. Make sure that Java is installed on the Maconomy Web server, since during Single Sign-On, Deltek Touch executes Java code on the Maconomy Web server. This Java should be the same as the Java embedded in your Maconomy product (delivered as part of TPU); otherwise, there is a risk that newer Java versions are not certified for the Kerberos SSO used by Maconomy.

4. Make sure there are is only one Java version installed on the machine

5. Add the Java path to environment variables on the machine.

6. In some cases you need to run some applications as administrator (for example, MaconomyMscript.exe, Run as Administrator).

7. Deltek Touch uses the Kerberos Java client for getting the Kerberos ticket while other Maconomy clients (Workspace Client, Java Client, Portal) are using the native API for the same purpose. Therefore, even if SSO works properly in other Maconomy clients (Workspace Client, Java Client, Portal), there is no guaranty that it works in Deltek Touch as well. You may need additional steps for making the Touch SSO work.

   One possible difference is that, for Deltek Touch, the TSG request sent by the Maconomy Web server to the domain controller uses UDP instead of TCP. Since UDP is not as reliable as TCP, in case of bigger requests, this could lead to segmented packages, which may be dropped by the network. This leads to a situation when the request just hangs, the domain controller does not send back a response to the Maconomy Web server, and thereby causing an unsuccessful domain (SSO) login in Deltek Touch. If this is your case, you need to force the usage of TCP by creating a custom Kerberos configuration file (krb5.local.conf), as a copy of the standard Kerberos configuration file (krb5.conf) with one additional line: **udp_preference_limit = 1**.

> **Note:** For example:
> - **C:\maconomy\webserver\w_15_0.sp2\MaconomyMScript\Custom\DeltekTouch.l** (useExternalCredentials=true)
> - Copy KerberosSSOClientLib folder and KerberosSSOClient.jar from **C:\maconomy\tpu.NTx86.15_0.p2b6.dir\bin** to **C:\maconomy\webserver\w_15_0.sp2\cgi-bin\Maconomy**
> - Install Java 7
> - Add **C:\Program Files (x86)\Java\jre6\bin** to Path in Environment Variables

8. In some cases, the MaconomyTouch CGI program does not recognize the correct Java path. This can be enforced by setting the Java path explicitly in the CGI setup file. For example, change MaconomyTouch.test1.en_US.I as follows:

   // Scriptmode definitions Environment=Path=C:\Program Files (x86)\Java\jre\win32\x86\bin"

Debug Deltek Touch Single Sing-On

If you need to debug Deltek Touch Single Sign-On (SSO), complete the following steps:

1. Make sure that SSO works in Java client and Portal.

2. Check the Web server error logs (for example, C:\Program Files (x86)\Apache Software Foundation\Apache2.2\logs\error.txt).

Deltek Touch with Load Balancing

One of the questions raised, especially in a hosted (cloud) environments, is whether Deltek Touch supports load balancing. The answer is that it depends on your architecture and the purpose of the load balancing.

The Touch Server supports load balancing. You can set up multiple Touch Servers behind a load balancer (for example, ELB or ALB). This allows you to route the requests from the Deltek Touch clients running on various mobile devices through multiple Touch Servers.

The Touch Servers forward the requests to a Maconomy Web server. Deltek Touch, however does not support load balancing on this level in the sense that you cannot apply a load balancer using several Maconomy Web servers. The reason is that Deltek Touch does not support sticky sessions in the MScript Web service nor cookies in Deltek Touch.

For each user, the MScript Web service uses a session, which is a physical file located on the Maconomy Web server. All requests from a user must reach the Maconomy Web server hosting the session file that corresponds to the user's session. Therefore, in case you have a load balancer in front of the Maconomy Web servers (for example, for security reasons), you need to make sure all requests coming from the Touch Servers are routed to the same (one) Maconomy Web server. In case you have a setup wherein you use, for example, ELB/ALB for dynamic IP addresses, but you have one Maconomy Web server, this is supported if you disable the session IP validation (in the CGI setup .I file, set SessionIPCheck = 0).

Appendix A: Localization

Starting with Touch 1.2.3, you can translate Deltek Touch for Maconomy to other languages. Everything in Deltek Touch for Maconomy is translated using the dictionaries in Maconomy core product.

By default, Deltek Touch for Maconomy 2.4.5 and higher come in the following languages:

- English
- Danish
- Dutch
- Chinese (Simplified)
- French
- German
- Italian
- Norwegian
- Portuguese
- Spanish
- Swedish

Deltek Touch for Maconomy 2.1 and higher come in the following languages:

- English
- Danish
- Dutch
- French
- German
- Italian
- Norwegian
- Portuguese
- Spanish
- Swedish

Deltek Touch for Maconomy X1 and 2.0 come in the following languages:

- English
- Danish
- Dutch
- French
- German
- Norwegian
- Spanish
- Swedish

When you install FPU 1.2.3 - 2.1, you get the translations automatically through the standard dictionaries installed on the Maconomy server. After this, you need to set "(Re)install CGI programs" to "Install unconditionally", in MConfig if you want to apply the dictionaries to the Web server, and thereby making the translations available in Deltek Touch for Maconomy.

When you install Touch FPU 2.2 or later, it no longer contains Maconomy dictionaries. You need to install the latest translations FPU to get the dictionaries.

If you need Deltek Touch for Maconomy in a different language, you need to create your own dictionary and apply it.

> **For example:** You would like to translate Deltek Touch for Maconomy to French. Assuming that you already have a French dictionary, you need to add the Touch translations to it:
>
> 1. In **Translations.<shortname>.DK** search for "{Touch}". This actions gives you the list of terms to be translated.
>
> 2. You must translate all strings postfixed with {Touch} and add the translations to your French dictionary. For example:
>
>   Yes{Touch} Oui

Deltek

Appenix B: Touch Server URL in Email

Logging on for the first time no longer requires users to enter the complete URL of the Touch Server. You now send them an email message containing a link that either directs them to the appropriate app store (if Deltek Touch is not yet installed) or populates the **Touch Server URL** field with their company URL.

ProductApplication.php

The Touch Server has been updated with the ProdcuctApplication.php file that performs the linking and passes the **Touch Server URL** value to the application or redirects you to the appropriate app store.

Link for Customers

The link that you send to users is a hyperlink. When users click the hyperlink, the following scenarios occur:

1. If Deltek Touch is not installed, it takes them to the appropriate app store to download the application.

    a. Users then download the application from the app store.

    b. They click the link again (and proceed to step 2).

2. If the application is installed, it populates the **Touch Server URL** field with their company URL.

3. They tap the **Connect** button to connect to the Touch Server.

How to Create the Link to Email Users

Each application may have specific steps required to create a hyperlink. This section describes the steps that apply to Microsoft Outlook. For other applications, see the documentation on creating a hyperlink.

1. Use the following format for the hyperlink:

    **https://<yourdomain
    >/deltektouch/maconomy/time/maconomyshared/backend/maconomytimeurl.php**

2. Replace **<yourdomain>** with the company's domain information. The domain must be externally accessible to devices on the Internet. The following part of the hyperlink, however, is fixed:

    deltektouch/maconomy/time/maconomyshared/backend/maconomytimeurl.php

    If Deltek Touch is being hosted in a multitenant environment, you need to append a set of strings to the link you will be sending to users. Typically, it is the Web site directory name (for example, deltektouch). For example, in the URL below, you should append "deltektouch":

    **https://<yourdomain>/deltektouch/maconomy/time/maconomyshared/backend/maconomyt
    imeurl.php?custcd=deltektouch**

3. Create the instructional text in the email message where you will embed the link.

4. Highlight the word "here," right-click, and select **Hyperlink** from the menu (alternatively, click the Insert tab, and click the **Hyperlink** button).

5. Paste the hyperlink into the **Address** field of the dialog box, and click **OK**.

> **For example:** Click here to initialize your Touch application with the proper URL to access the Touch Server. If you have not installed the application, clicking the link will take you to the appropriate app store to install the application. Once you've installed the application, clicking the link will properly initialize the URL in your application. Should you not be able to click the link, you can copy and paste the following into your default device browser:
>
> https://yourdomain.com/deltektouch/maconomy/time/maconomyshared/backend/maconomytimeurl.php

When users receive the email, click the link, and the application is installed, the following screen displays.
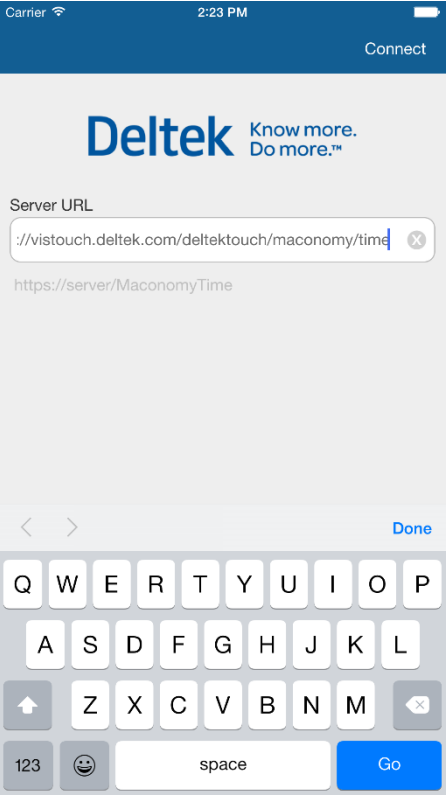
Appendix C: Logging Capability

If you want to gather some statistics about your Deltek Touch users and their usage pattern, enable logging on the Maconomy MScript based Web service.

> **Note:** Enabling logging always cause some performance overhead. If you use, however, the options recommended in this section, this overhead becomes unnoticeable.

How to Enable Logging?

To turn on logging, you need to change the setup file for the MaconomyTouch CGI program.

To change the change the setup file, complete the following steps:

1. In the Maconomy Web server, locate the **/cgi-bin/Maconomy** folder.
2. Find the CGI program used by Deltek Touch by checking the URL in the configuration.ini file on the Touch Server. In most cases, the CGI program should be **MaconomyTouch.*.exe**.
3. Find the setup file for the CGI program. If the CGI program is **MaconomyTouch.*.exe**, then the setup file is **MaconomyTouch.*.l**.
4. Add the Log parameter.

Where is the Log File?

By default, the log file can be found in the same place as your CGI program and its setup file, which is in the **/cgi-bin/Maconomy** folder.

The file name is the same as the CGI program name: **MaconomyTouch.*.log**. You can open the log file in any text editor.

How to Determine Who are Using Deltek Touch?

If you want to know who are using Deltek Touch and how often they use it, the recommended setting is as follows:

`Log = login`

As a result, the log file includes all Deltek Touch logins and the corresponding user names.

Example

```
[2015-11-25 11:48:28.171] [PID = 00018576] ) [/Standard/DeltekTouchWS.ms]
[I286yaavF1] [3135] [192.168.43.102] [Administrator]
maconomy::login("Administrator") (7 elapsed msec.
```

```
[2015-11-25 11:49:15.749] [PID = 00002744] ) [/Standard/DeltekTouchWS.ms]
[MNW33zWfr4] [32138] [192.168.43.102] [Administrator]
maconomy::login("Administrator") (10 elapsed msec.
```

```
[2015-11-25 11:54:59.823] [PID = 00018476] ) [/Standard/DeltekTouchWS.ms]
[JDN9ASvjG2] [20598] [192.168.43.102] [Anders Hansen] maconomy::login("Anders
Hansen") (19 elapsed msec.
```

- If you want the total number or none-unique logins, count the lines. You could conduct more elaborated analysis, by example, in Excel.

- If you want the total number or none-unique logins, count the lines. You could conduct more elaborated analysis, by example, in Excel.

- If you use Maconomy 2.2.6, 2.3.2 and 2.4 GA or later, then this logging capabilitiy will allow you to track also users signing in using SSO, not only the users logging in to Touch with Maconomy credentials.

How to Determine Which Deltek Touch Functionality is Used?

This does not apply to RESTful Web services.

If you want to know which Deltek Touch functionality is used, the recommended setting is as follows:

```
Log = query
```

This setting logs all requests coming from the Deltek Touch application.

Example

[2015-11-25 12:10:29.293] [PID = 00020192] [/Standard/DeltekTouchWS.ms] [192.168.43.102] Incoming query values:

```
{

values:{

},

files:{

},

status:{ ok:true, message:""

},

method:"POST",

rawPost:"{"inpObj":{"username":"Administrator","password":"123456","ope
ration":"login","clean":false,"calfocus":false,"impersonate":false,"mac
charset":"UTF-8","lang":"W","locale":"en_US"}}",

raw:"{"inpObj":{"username":"Administrator","password":"123456","operati
on":"login","clean":false,"calfocus":false,"impersonate":false,"macchar
set":"UTF-8","lang":"W","locale":"en_US"}}"

}
```

[2015-11-25 12:11:19.098] [PID = 00018644] [/Standard/DeltekTouchWS.ms] [K1MW26xr68] [192.168.43.102] Incoming query values:

```
{

values:{

},

files:{

},
```

```
status:{ ok:true, message:""

},

method:"POST",

rawPost:"{"inpObj":{"theDate":"2015.11.25","startDate":"2015.11.23","en
dDate":"2015.11.29","operation":"submittimesheet","clean":false,"calfoc
us":false,"impersonate":false,"maccharset":"UTF-
8","lang":"W","locale":"en_US","sessionid":"K1MW26xr68"}}",
```

```
Appendix C: Logging Capability

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```

```
raw:"{"inpObj":{"theDate":"2015.11.25","startDate":"2015.11.23","endDat
e":"2015.11.29","operation":"submittimesheet","clean":false,"calfocus":
false,"impersonate":false,"maccharset":"UTF-
8","lang":"W","locale":"en_US","sessionid":"K1MW26xr68"}}&sessionid=K1M
W26xr68"

}
```

Although this is more technical, if you search for the term "operation," you can see what the user is trying to do.

If you want to see how many time sheets have been submitted, search for "operation":"submittimesheet".

Appendix D: Google Analytics

If you want to gather some statistics about your Deltek Touch users and their usage pattern, another solution besides the logging is to use Google Analytics.

Prerequisites:

- You (as the customer) need to have a Google Analytics account
- You (as the customer) need to make sure your end-users are accepting the Usage Tracking in the Deltek Touch application:
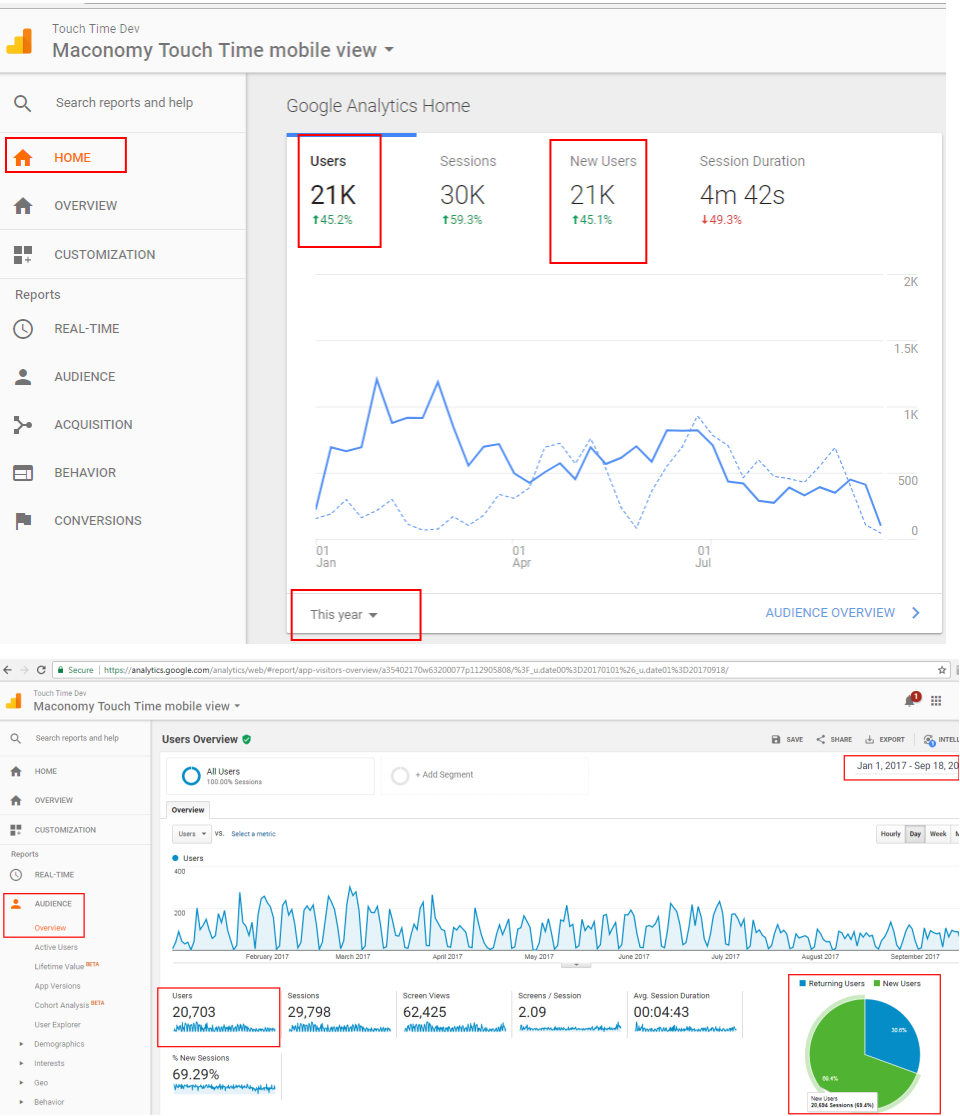
Usage Statistics Tracking

If you do not want usage tracking enabled in the software/application, toggle the toggle switch below to off. Usage tracking can be enabled/disabled at any time from within the application settings.

Usage tracking enabled   ON

I accept these terms
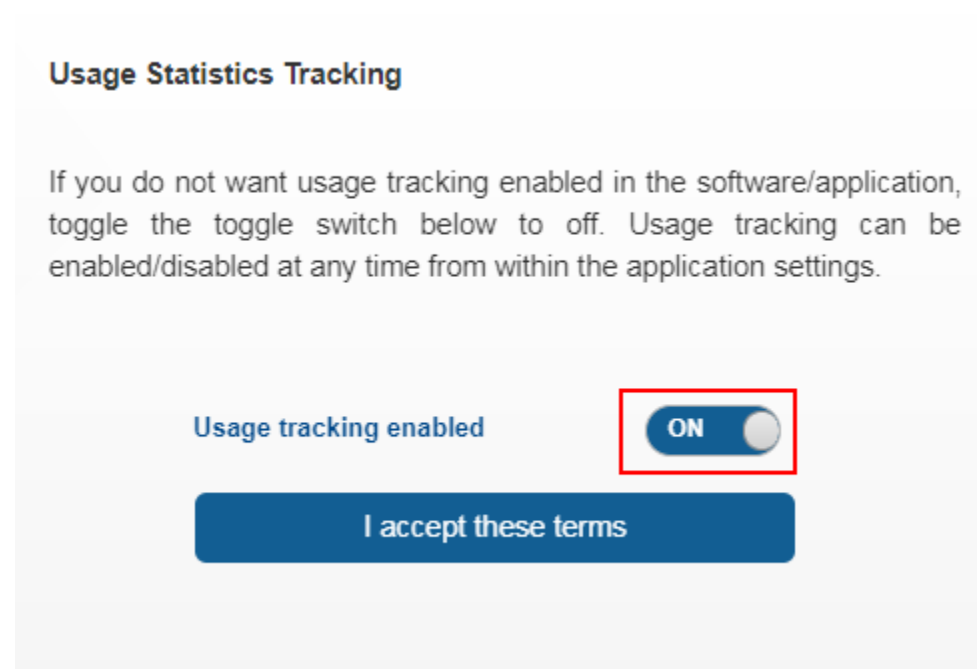
- The Touch URL, for which you would like to get statistics, needs to be linked to your Google Analytics account. On the Touch Server, change the configuration.ini and set ANALYTICSKEY

    For example: ANALYTICSKEY="*UA-704595989-5*"

You can now log on to your Google Account (https://analytics.google.com/analytics/web/).

Using the built-in reports provided by Google Analytics, you can easily track the number of users, respectively new users, in a given period.

You can also track which screens (functionality) are used:

For more advanced settings (like version numbers and login types), you should create your own custom reports. For this purpose, you need to add six custom dimensions, which must be in the order described below:

1. *Touch App Version*: the native/web app version (e.g. 2.3.0)
2. *Touch Server Version*: see below
3. *Web Service Version*: see below
4. *Web Service Type*: "REST" or "MScript"
5. *Maconomy Version*: see below
6. *Touch Login Type*: "Maconomy" or "Azure" or "Kerberos"

You can then include the custom dimensions in your custom reports:

Appendix E: Old MScript Web Service Installation

On newer Maconomy versions (2.4.3 and higher), the MScript Web service is included in the Maconomy APU.

On older Maconomy versions (2.4.2 and lower), the MScipt Web service was installed, primarily, as a Maconomy hot fix (FPU). This process is described below.

MConfig

Deltek recommends that you use the latest MConfig version, which you can downloaded from DSM, under the release corresponding to your Maconomy version. Your MConfig version must be at least **8.17**.

Maconomy Service Pack

- If you are using Maconomy X1 Service Pack 24 or lower, you must upgrade to Service Pack 25 or later, which you can download from DSM.

  > **Note:** If you are using Maconomy X1 Service Pack 25, you do not have to do anything in this step.

- If you are using Maconomy 2.1 (GA) or lower, you must upgrade to 2.1.1 or higher, which you can download from DSM.

  > **Note:** If you are using Maconomy 2.1.1 or higher, you do not have to do anything in this step.

- If you are using Maconomy 2.2 LA, you must upgrade to 2.2 GA or higher, which you can download from DSM.

  > **Note:** If you are using Maconomy 2.2 (GA) or higher, you do not have to do anything in this step.

Maconomy Hot Fix

For older Maconomy versions, the Maconomy Web services for Touch 3.3 is NOT available.
For these Maconomy versions we recommend that you install the latest available FPU (in case it is not already installed), as follows:

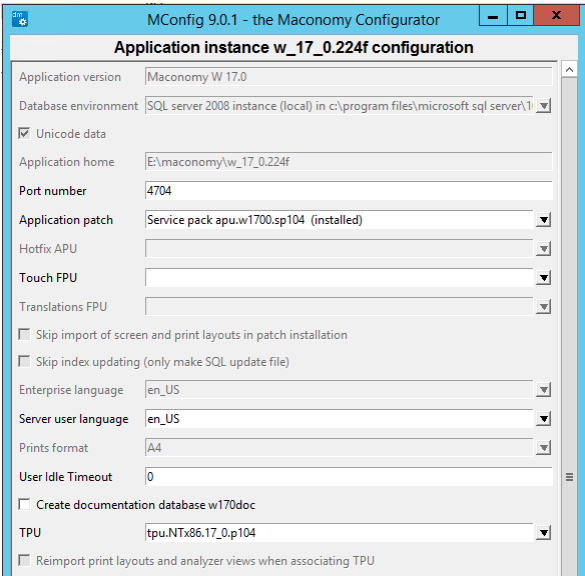| Maconomy	Touch Web Service
X1 Service Packs 25, 26, 27, 28 and 29	fpu.w1200.touchapi_2_3_0_0.zip
2.0 Service Packs 3, 4, 5, 6, 7, 8, and 9	fpu.w1500.touchapi_2_3_0_0.zip
2.1.1, 2.1.2, 2.1.3, 2.1.4, 2.1.5, 2.1.6, 2.1.7	fpu.w1600.touchapi_2_3_0_0.zip

2.1.8	fpu.w1600.touchapi_3_0_0_0.zip
2.2, 2.2.1, 2.2.3, 2.2.4, 2.2.5	fpu.w1700.touchapi_2_3_0_0.zip
2.2.6	fpu.w1700.touchapi_3_0_0_0.zip
2.3 GA, 2.3.1, 2.3.2, 2.3.3	fpu.w1900.touchapi_2_3_0_0.zip
2.4 GA, 2.4.1, 2.4.2	fpu.w2000.touchapi_2_3_0_0.zip
2.4.3, 2.4.4, 2.4.5	**APU**

You need to install the Hot Fix containing the latest Maconomy Web services for Touch.

> **Note:** The hot fix contains only the files needed for Touch Time, and no dictionaries.

The hot fix will no longer be installed the same way as an application patch.

To install the hot fix, in **MConfig** (8.17 or later), please select the hot fix in the Touch FPU field, instead of the Application patch field, as illustrated. It is recommended that you select and install the translations FPU at the same time as the Touch FPU.


Install MScript Web Services

If the Maconomy system has already had Touch installed, **when installing the FPU, you are prompted to apply it to the Web server. ClickYes.** This action installs the Touch Web service on the Maconomy Web server, so you do NOT need to do it manually.

If you do not get this message, you need to apply the Web service using **MConfig** on the Maconomy Web server manually:

1. On the **Web** product, select the **MScript** option.

2. From the **(Re)install Deltek Touch framework** drop-down list, select the **Install unconditionally** option.
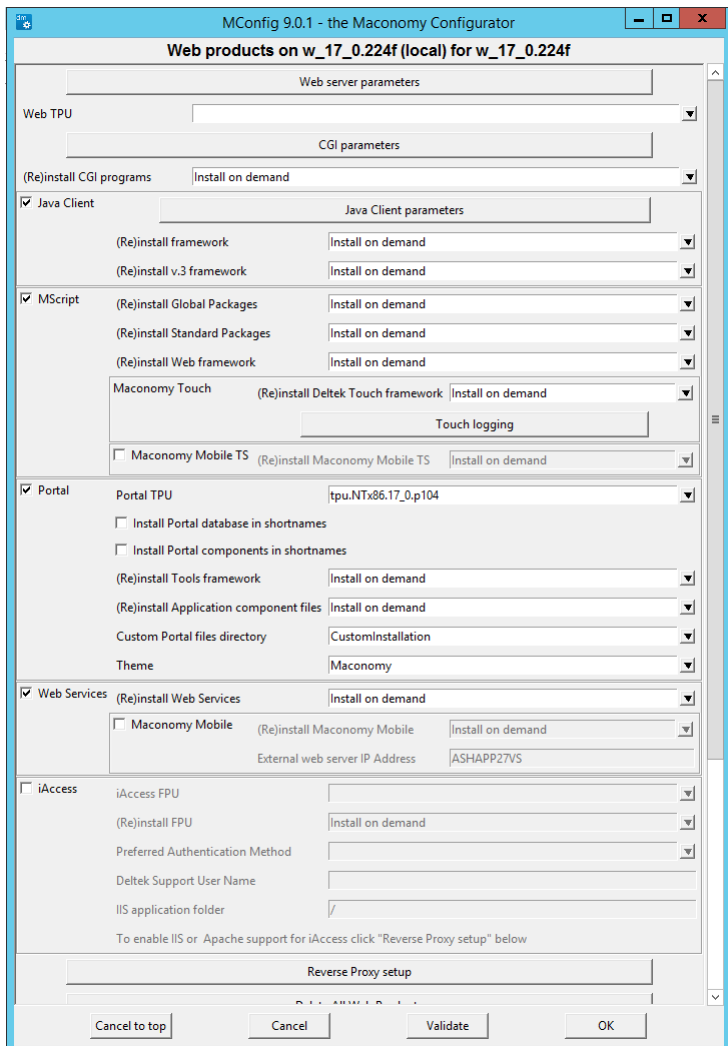
> **Note:** Check if the Web services are customized and notify the relevant parties to update the customizations manually. The Web service is customized if there is a Custom or Solution folder in MaconomyMScript folder on the Web server. If these folders contain files (for example, **DeltekTouh.l**), the person who created the file must be notified to update it manually based on the changes to the file with the same name in the Standard folder.

Install MaconomyTouch CGI Program

Starting with 1.4, Touch will use MaconomyTouch CGI program, instead of MaconomyMScript. Switching to MaconomyTouch CGI is necessary for security reasons because it enforces a default timeout of one hour.

Check your Maconomy Web server if it has already had MaconomyTouch.*.exe and MaconomyTouch.*.l (in …/cgi-bin/Maconomy).

▪   If so, the MaconomyTouch CGI program is already installed.

- Otherwise, you can install MaconomyTouch like any CGI program using **MConfig**. From the **(Re)install CGI programs** drop-down list, select the **Install unconditionally** option.

In using Deltek Touch for Maconomy, make sure that session cookies are disabled. You can set it in the related MaconomyTouch.I file using the following parameters:

SessionCookies=0

> **Note:** This only applies to Maconomy X1. In 2.0 and higher, it is done automatically.

Update configuration.ini

Make sure that configuration.ini is using the **MaconomyTouch** CGI program, instead of MaconomyMScript, in **URL**.

The configuration.ini structure has been changed. It contains only the URL (instead of URL, MSCRIPTNAME and LANGUAGE). Make sure that the URL is containing the full path (for example, URL='http://myhost:20003/cgi-bin/Maconomy/MaconomyTouch.w16de.en_US.exe/Standard/DeltekTouchWS.ms').

Install Dictionaries

This section is optional. It is only needed if you want to localize Deltek Touch.

For translating Touch to Danish, Swedish, Norwegian or Dutch, you have to install the dictionaries using **MConfig**. On the Application page, select the latest translations FPU available for your Maconomy version in the **Translation FPU** field under the **Touch FPU** field.

> **Note:** Dictionaries are no longer included in the Touch FPU, but instead they are in a separate translations FPU.

To install additional dictionaries, select the languages you want to install from the **Language** drop-down list.
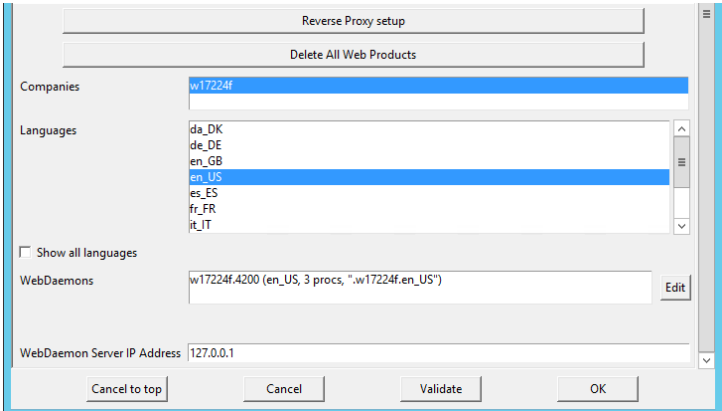
Maconomy RESTful Web Services

This section is optional. It is only needed if you want to use the RESTful Web services in Deltek Touch.

One of the major changes in Touch 2.2 is that it allows you to use the Maconomy RESTful Web services in certain functional areas.

Functional Area	RESTful Web Services	MScript Web Services
Time Registration	X	X
Expense Registration	X	X
Mileage Registration	X	X
Approvals	-	X
Purchase Orders	X	-
Absence and Allowance	X	-

The main prerequisite for using RESTful Web services is **Maconomy 2.2.4 / 2.3 GA / 2.4 GA** or later.

If you meet this prerequisite:

- **For new installations**: Deltek highly recommends that you use RESTful Web services, wherever possible because of the new functionality is available only on this Web service The Deltek Touch Installer also recommends that you the use of RESTful Web services.

  > **Attention:** For more information, see the *Deltek Touch for Maconomy MScript and RESTful Web Services Comparison Guide*.

- **For upgrades**: Deltek recommends that you use RESTful Web services. If the customer prefers to stay on MScript Touch, you can turn of the RESTful Web services after the upgrade. There are other important aspects that you should be taking into account when deciding which web service you would like to use.

> **Attention:** For more information, see the *Deltek Touch for Maconomy Upgrade Guide*.

Appendix F: If You Need Assistance

If you need assistance installing, implementing, or using Deltek Touch for Maconomy, Deltek makes a wealth of information and expertise readily available to you.

Customer Services

For over 30 years, Deltek has maintained close relationships with client firms, helping with their problems, listening to their needs, and getting to know their individual business environments. A full range of customer services has grown out of this close contact, including the following:

- Extensive self-support options through the Deltek Support Center.
- Phone and email support from Customer Care analysts
- Technical services
- Consulting services
- Custom programming
- Classroom, on-site, and Web-based training

> **Attention:** Find out more about these and other services from the Deltek Support Center.

Deltek Support Center

The Deltek Support Center is a support Web site for Deltek customers who purchase an Ongoing Support Plan (OSP).

The following are some of the many options that the Deltek Support Center provides:

- Search for product documentation, such as release notes, install guides, technical information, online help topics, and white papers
- Ask questions, exchange ideas, and share knowledge with other Deltek customers through the Deltek Support Center Community
- Access Cloud-specific documents and forums
- Download the latest versions of your Deltek products
- Search Deltek's knowledge base
- Submit a support case and check on its progress
- Transfer requested files to a Customer Care analyst
- Subscribe to Deltek communications about your products and services
- Receive alerts of new Deltek releases and hot fixes
- Initiate a Chat to submit a question to a Customer Care analyst online

> **Attention:** For more information regarding Deltek Support Center, refer to the online help available from the Web site.

Access Deltek Support Center

To access the Deltek Support Center:

1. Go to https://deltek.custhelp.com.
2. Enter your Deltek Support Center **Username** and **Password**.
3. Click **Login**.

> **Note:** If you forget your username or password, you can click the **Need Help?** button on the login screen for help.

Additional Documentation

The following table lists the Deltek documentation available for this release. Except where noted, all the user guides and quick reference guides listed in this table are available for download from the Deltek Support Center.

Document Name	Description
Deltek Touch for Maconomy User Guide	This document contains detailed information and instructions on how to use various features of the application.
Deltek Touch for Maconomy Release Notes	This document contains a summary of the technical considerations, major features, and known issues of the application.
Deltek Touch for Maconomy Upgrade Guide	*This document is only intended for Technical Consultants.* It describes necessary steps to upgrade to the latest Touch system.
Deltek FPU Release Notes for Maconomy Touch	*These documents are only intended for Technical Consultants.* The document names vary depending on the supported Maconomy version. Each document contains a summary of the pre-installation information, enhancements, and API changes to Touch for each supported Maconomy version. It is part of the Deltek Touch for Maconomy product information suite and should only distributed internally within the Maconomy organization and to partners.
Deltek Touch for Maconomy Layout Customization Guide	*This document is only intended for Technical Consultants.* It describes tasks necessary for the customization of layouts of the Deltek Touch for Maconomy application.
Deltek Touch for Maconomy MScript and REST Web Services Comparison Guide	This document describes the differences between MScript and Representational State Transfer (REST) Web services to help technical consultants prepare for implementing Deltek Touch for new users or migrate their current Touch installation to REST.

About Deltek

Better software means better projects. Deltek is the leading global provider of enterprise software and information solutions for project-based businesses. More than 23,000 organizations and millions of users in over 80 countries around the world rely on Deltek for superior levels of project intelligence, management and collaboration. Our industry-focused expertise powers project success by helping firms achieve performance that maximizes productivity and revenue. www.deltek.com

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