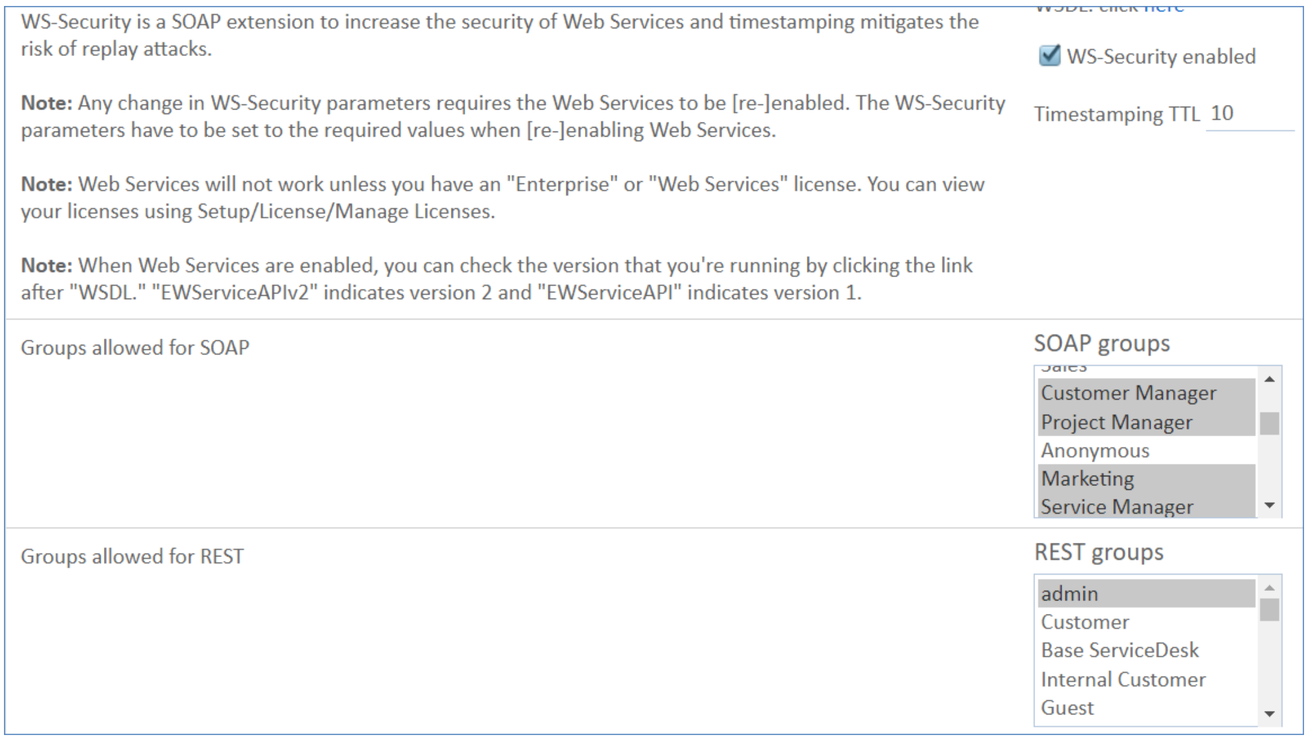
API Security

In **Setup > System > Manage Web Services**, there are some options to configure the security of SOAP and REST Web Services.



WS-Security is a SOAP extension to increase the security of Web Services and timestamping mitigates the risk of replay attacks.

Note: Any change in WS-Security parameters requires the Web Services to be [re-]enabled. The WS-Security parameters have to be set to the required values when [re-]enabling Web Services.

Note: Web Services will not work unless you have an "Enterprise" or "Web Services" license. You can view your licenses using Setup/License/Manage Licenses.

Note: When Web Services are enabled, you can check the version that you're running by clicking the link after "WSDL." "EWServiceAPIv2" indicates version 2 and "EWServiceAPI" indicates version 1.

☑ WS-Security enabled

Timestamping TTL 10

Groups allowed for SOAP

SOAP groups: Sales, Customer Manager, Project Manager, Anonymous, Marketing, Service Manager

Groups allowed for REST

REST groups: admin, Customer, Base ServiceDesk, Internal Customer, Guest

WS-Security

The "WS-Security enabled" checkbox turns on WS-Security for the SOAP messaging. For more information, see https://en.wikipedia.org/wiki/WS-Security.

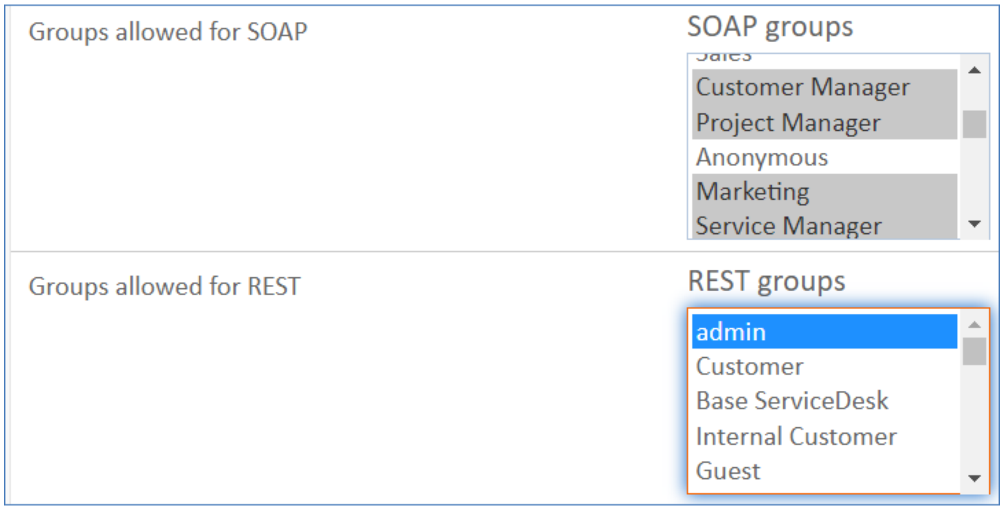
Timestamping

The Timestamping TTL field allows you to set timeout value in seconds from the time the sessionID is created for SOAP messaging. The system will timeout if an API is not invoked in the defined time period. This prevents the possibility of replay attacks.

Timestamping requires WS-Security to be enabled.

Group Permissions

Below the enabling web services section, you can select the groups that are permitted to use the SOAP and REST interfaces. If a user does not belong to a group that is selected in these drop-down lists, they will be restricted with a 403 access error, even if they have create/edit/delete permissions on the affected records.



Groups allowed for SOAP

SOAP groups

Sales
Customer Manager
Project Manager
Anonymous
Marketing
Service Manager

Groups allowed for REST

REST groups

admin
Customer
Base ServiceDesk
Internal Customer
Guest

IP Address Restrictions

Four global variables allow you to define a set of IP addresses for SOAP and REST blacklisting/whitelisting:

- Security: REST IP Blacklist
- Security: REST IP Whitelist
- Security: SOAP IP Blacklist
- Security: SOAP IP Whitelist

IP addresses should be comma separated, and address ranges should be indicated with a dash.

Example

10.168.6.102, 10.169.7.132-10.169.7.150

REST Authentication

The REST client application must log in using valid credentials for a knowledgebase. Agiloft verifies these credentials and if valid creates an HTTP session that the client can use in subsequent calls.

Every REST call should contain the user’s credentials in the form `login={login}&password={password}.`

Passing Credentials in the Parameter Body with POST

If you are in a production system and do not wish to expose user credentials as plain text, you can avoid passing the login or password in REST calls by using POST instead of GET to pass the parameters in the request body. POST requests support the `/ewws/EWRead, /ewws/EWSelect, /ewws/EWCreate, /ewws/EWUpdate, /ewws/EWDelete` methods. For more information on constructing a REST request via POST, see URL Conventions.

Access Permissions

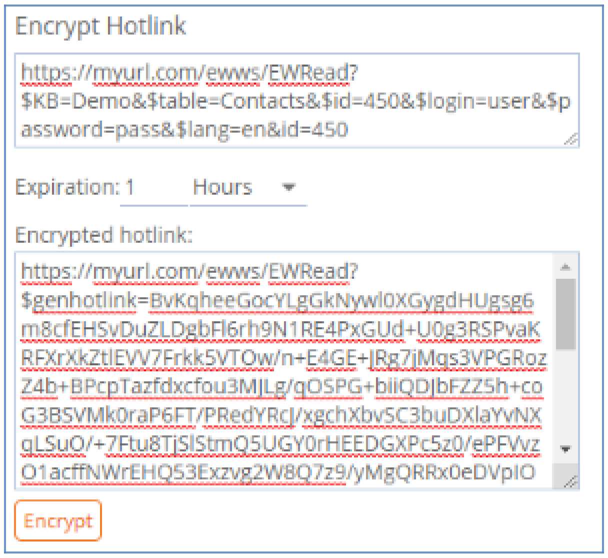
Call permissions are based on the authorized user's permissions in the Agiloft KB, so it will return only the data that the API user has access to. Please note that in addition to the user's group permissions, it is necessary to grant REST access to the group via **Setup** > **System** > **Manage Web Services** > **Groups allowed for REST.** Any operation that the user doesn't have access to will be rejected.

Encryption

SOAP and REST calls can be encrypted by system admins. For example, consider a call to read data from a contract record: http://\{localhost}/ewws/EWRead?$kb=KBNAME&$table=contract

Omit the variables likely to change, such as the ID value, from the string.

1. Go to **Setup > Access > Automatic Login Hotlinks**.
2. Enter the string constructed above into the input box, select an expiration time, and click Encrypt.



Encrypt Hotlink

```
https://myurl.com/ewws/EWRead?
$KB=Demo&$table=Contacts&$id=450&$login=user&$p
assword=pass&$lang=en&id=450
```

Expiration: 1 Hours

Encrypted hotlink:

```
https://myurl.com/ewws/EWRead?
$genhotlink=BvKqheeGocYLgGkNywl0XGygdHUgsg6
m8cfEHSvDuZLDgbFl6rh9N1RE4PxGUd+U0g3RSPvaK
RFXrXkZtlEVV7Frkk5VTOw/n+E4GE+JRg7jMqs3VPGRoz
Z4b+BPcpTazfdxcfou3MJLg/qOSPG+biiQDJbFZZ5h+co
G3BSVMk0raP6FT/PRedYRcJ/xgchXbvSC3buDXlaYvNX
qLSuO/+7Ftu8TjSlStmQ5UGY0rHEEDGXPc5z0/ePFVvz
O1acffNWrEHQ53Exzvg2W8Q7z9/yMgQRRx0eDVpIO
```

3. The encrypted URL can be used in the same way as the standard URL, and parameters can be added to it in the standard way.

Example

{encrypted URL}&$lang=en&id=450

The system trusts the encrypted URL, so no password is required.

Statefulness

Though stateless in appearance Agiloft Web Services are stateful by nature. A certain set of information can be shared as a "session" between multiple calls and there is usually no good reason to re-create it on every call.

A typical integration scenario obeys the pattern of "login, do multiple calls, logout".

The statefulness is supported via a widely used pattern of obtaining a session token first via the EWLogin method and explicitly passing it with each subsequent call performed.

Once the session is finished it is advisable to destroy the session with a call to EWLogout to ensure proper freeing of server resources.

For more information, see https://nordicapis.com/defining-stateful-vs-stateless-web-services/.

Failed Logins

The SOAP API handles a series of failed logins in the same fashion as the GUI, i.e. it will produce an error if the account becomes blocked due to multiple unsuccessful login attempts.

SSL Support

The Agiloft SOAP API relies on the underlying application server and front-end web server (if present) for SSL support.