jProductivity LLC

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Protection!™

Connect

V1.0 Beta

Administrator Guide

http://www.jproductivity.com

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Applicability
This document applies to Protection! Connect v1.0 Beta software.

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Chapter 1

Overview

1.1 About Protection! Connect and its Components

Protection! Connect is a ready-to-go solution that provides ability to integrate Protection! Enterprise with third-party CRM and ERP applications. Protection! Connect consists of the following components:

1. Protection! Connect Core – a J2EE application (`ProtectionConnect.ear`) which listens Protection! Enterprise events and forwards them to all registered Connectors.
2. Connectors - J2EE applications responsible for handling Protection! Connect events and adding/updating corresponding data to particular CRM or ERP system (like adding contacts or opportunities).

1.2 Brief Protection! Connect Workflow

The following is a brief description of Protection! Connect workflow:

1. On create or update an Evaluation license:
   a. Create a new Opportunity.
   b. Create or update corresponding Account and/or Contact if they are missing.
   c. Optionally associate Opportunity with corresponding Campaign.
2. On create or update an Extended Evaluation license:
   a. Create or update Opportunity with increased probability rate.
   b. Create or update corresponding Account and/or Contact if they are missing.
   c. Optionally associate Opportunity with corresponding Campaign.
3. On create or update a Commercial license:
   a. Close Opportunity (if any) and mark it as a WON one.
   b. Create or update corresponding Account and/or Contact if they are missing.
   c. Create an Asset for the license and associate it with corresponding Account and Contact.
   d. Create an order that corresponds issued Commercial license.
4. On create or update Customer:
   a. Create or update corresponding Account and/or Contact if they are missing.

The following Connector implementations are currently available:

1.3 SalesForce Connector Implementation

The following topics outline how to setup and deploy the SalesForce Connector implementation:

1. SalesForceConnect AppExchange Package.
2. SalesForceConnect Deployment.

1.4 Oracle CRM On Demand Connector Implementation

The following topics outline how to setup and deploy the Oracle CRM On Demand Connector implementation:

1. Oracle CRM On Demand Configuration.
2. OracleCRMOnDemandConnect Deployment.

1.5 Microsoft Dynamics CRM Connector Implementation

The following topics outline how to setup and deploy the Microsoft Dynamics CRM Connector implementation:

1. Microsoft Dynamics CRM Configuration.
2. MicrosoftDynamicsCRMConnect Deployment.

1.6 SugarCRM Connector Implementation

The following topics outline how to setup and deploy the SugarCRM Connector implementation:

1. SugarCRM Configuration.
2. SugarCRMConnect Deployment.

1.7 Sage CRM Connector Implementation

The following topics outline how to setup and deploy the Sage CRM Connector implementation:

1. Sage CRM Configuration.
2. SageCRMConnect Deployment.

Chapter 2

Protection! Connect Deployment

2.1 Deployment on GlassFish Application Server

To deploy Protection! Connect:

1. The `server/connect/ProtectionConnect.`properties file can be optionally modified, and then should be copied to the `<GLASS_FISH_HOME>/domains/domain1/config` folder.
2. The `server/connect/ProtectionConnect.ear` enterprise application should be copied to the <`GLASS_FISH_HOME>/domains/domain1/autodeploy` folder.

Note

If several domains are setup then correct domain name must be used instead of `domain1`.

2.2 Protection! Connect Configuration

To configure Protection! Connect the `ProtectionConnect.properties` file should be modified. The following properties are available:

Name	Default Value	Description
connector.count	0	The amount of registered connectors.
connector[0..n].name		Connector implementations. All the registered implementations should be enumerated there. Supported connectors with their names are: • SalesForceConnect – for integration with SalesForce • OracleCRMOnDemandConnect– for integration with Oracle On Demand CRM • MicrosoftDynamicsCRMConnect – for integration with Microsoft Dynamics CRM • SugarCRMConnect –for integration with SugarCRM • SageCRMConnect – for integration with Sage CRM
connector[0]. time_zone		Target CRM's time zone to convert dates to. If not specified then current time zone will be used. Format of this

		value is as follows:
		`GMT[sign][hours:minutes]`
		Where sign is either + or -. Sample values are:
		`GMT-2`
		`GMT+5:30`

log.level	INFO	Logging level. Possible values are: • `ALL` - log all messages. • `FINE` – log debug messages, information messages, warnings and errors. • `INFO` – log information messages, warnings and errors. • `WARNING` – log warnings and errors • `SEVERE` – log errors only. • `OFF` – log no messages.
log.path	../logs/Protection Connect	Path to log files. When related path is specified, absolute folder location depends on particular Application Server. For example, default path would be <GLASS_FISH_HOME>/domains/domain1/logs/ProtectionConnect for GlassFish.

The following are a sample of the `ProtectionConnect.properties` file that allows forwarding events to both SalesForce and Oracle On Demand CRM:

```
connector.count=2
connector[0].name=SalesForceConnect
connector[1].name=OracleCRMOnDemandConnect
connector[1].time_zone=GMT-2
log_level=SEVERE
log.path=../logs/ProtectionConnect
```

Tip

Protection! Connect tracks the changes of `ProtectionConnect.properties` file and is able to apply them at runtime. So neither Application Server nor Protection! Connect application need to be restarted to apply changes in configuration.

2.3 Protection! Enterprise Configuration

Protection! Enterprise must be properly configured to allow forwarding change notifications to Protection! Connect. Note, this ability is turned OFF by default. The Enterprise Server and Enterprise Manager can be configured independently by choosing the *"Edit | Protection! Connect Options | Enterprise Server"* and the *"Edit | Protection! Connect Options | Enterprise Manager"* menu items accordingly.

The "Protection! Connect Options" dialog allows turning Protection! Connect ON, specifying connection and credentials attributes. If certain Application Server is not in the list of predefined servers it is possible to choose *<Other>* type for such server and specify all the attributes as JNDI properties list. Such attributes are specific to particular

Application Server so their descriptions and possible values can be found on the documentation for that Application Server.

Chapter 3

SalesForceConnect AppExchange Package

The SalesForceConnect requires an AppExchange Package to be installed and properly configured. This topic outlines how to install and configure it.

3.1 SalesForceConnect Package Installation

The SalesForceConnect Package must be installed by opening the following URL in the Web browser:

https://login.salesforce.com/?startURL=%2Fpackaging%2FinstallPackage.apexp%3Fp0%3D04t80000000gCKO

and following the SalesForce installation and deployment instructions.

Comment [GL1]: Need to be clarified, because it has many steps and things in SalesForce to complete. Ideally it would be streamlined (Next.. Next) install.

3.2 Customizing Fields and Layouts

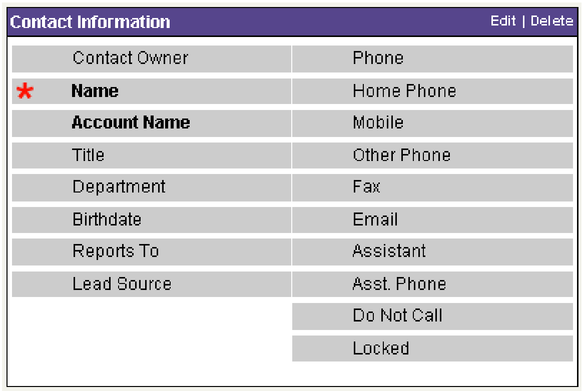
Unfortunately SalesForce does not provide ability to package and deploy changes in the fields' accessibility and layouts. Therefore all the required changes must be done manually using SalesForce Setup interface.

3.2.1 Contacts Fields

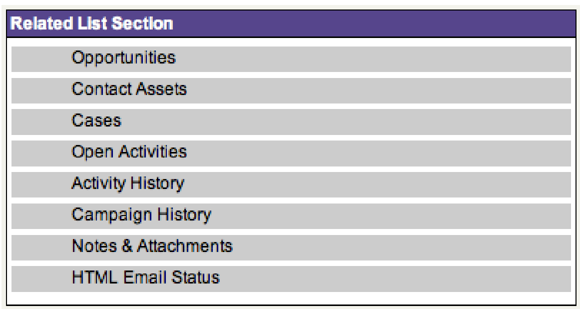
1. Go to *Setup* | *App Setup* | *Customize* | *Contacts* | *Fields* page and select the *"Do Not Call"* field.
2. Click the "*Set Field-Level Security"* button and select *"Visible for all Profiles"*.
3. Click the *"Save"* button to save changes.

3.2.2 Contacts Layout

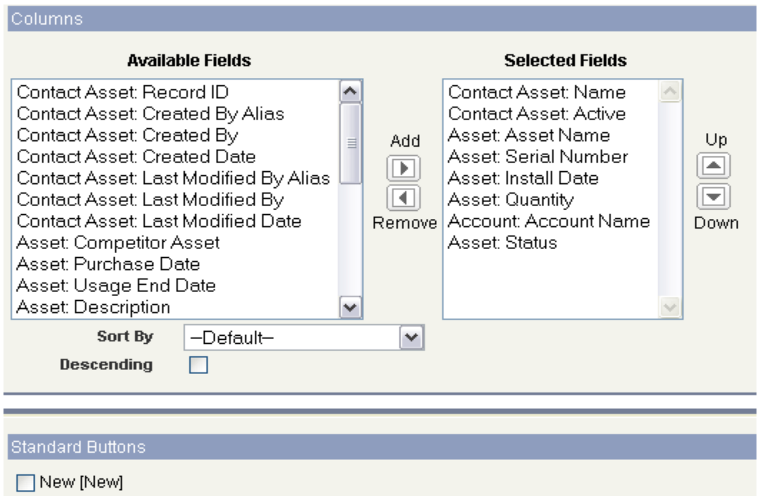
1. Go to *Setup* | *App Setup* | *Customize* | *Contacts* | *Page Layouts* page and select the *"Contact Layout"* for editing.
2. Drag and drop the *"Do Not Call"* and *"Locked"* fields from the *"Contact Fields"* pane to the *"Contact Information"* pane.



3. Select the *"Contact Related Lists"* in the *"View"* combo box.
4. Drag and drop the *"Contact Assets"* from the *"Contact Related Lists"* pane to the



"Related List Selection" pane.
5. Select the *"Contact Assets"* item in the *"Related List Selection"* pane and click the *"Edit Properties"* button.
6. Add to the *"Selected Fields"* list the following fields:
   - *"Contact Asset: Name"*
   - *"Contact Asset: Active"*
   - *"Asset: Name"*
   - *"Asset: Serial Number"*
   - *"Asset: Install Date"*
   - *"Asset: Quantity"*
   - *"Account: Name"*
   - *"Asset: Status"*
7. Uncheck the *"New [New]"* checkbox.
8. Click the *"Save"* button to save changes.

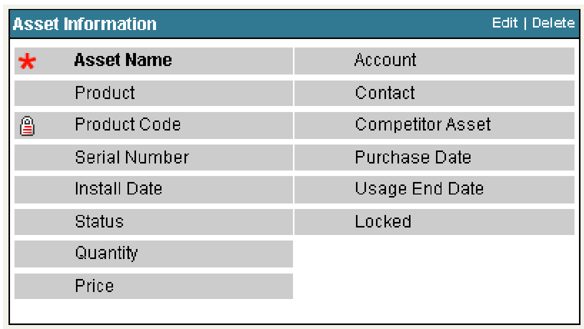


3.2.3 Accounts Layout

1. Go to *Setup* | *App Setup* | *Customize* | *Accounts* | *Page Layouts* and select the *"Account Layout"* for editing.
2. Dag and drop the *"Do Not Call"* and *"Locked"* fields from the *"Contact Fields"* pane to the *"Contact Information"* pane.
3. Select the *"Account Related Lists"* in the *"View"* combo box.
4. Drag and drop the *"Assets"* from the *"Asset Related Lists"* pane to *"Related List Selection"* pane.
5. Click the *"Save"* button to save changes.

3.2.4 Assets Layout

1. Go to *Setup* | *App Setup* | *Customize* | *Contacts* | *Page Layouts* and select the *"Contact Layout"* layout for editing.
2. Drag and drop the *"Locked"* field from the *"Contact Fields"* pane to *"Contact Information"* pane.
3. Click the *"Save"* button to save changes.



3.3 Setting up Products

License and License Action events cannot be processed without corresponding products. Therefore all the products used by Protection! Enterprise must be listed in SalesForce to allow working with them. The easiest way to setup products is exporting them using Enterprise Manager but it is also possible to setup/maintain them manually if desired.

3.3.1 Setting up Products Using Enterprise Manager

All the products can be added to SalesForce by choosing the *File* | *Export* | *Products to Protection! Connect* menu item. During the export process all the products created in SalesForce will be associated with a Price Book specified by the `pricebook.default` property in the `SalesForceConnect.properties` file.

3.3.2 Setting up Products Manually

All the required products should be added using the *"Products"* tab in the SalesForce. For the each product the *"Product Code"* field in SalesForce must correspond to the *"Product ID"* in Protection!.

If the product has several editions all of them should be listed in SalesForce as independent products. Each such product would have *"Product Code"* as a concatenation of *"Product ID"* and *"Product Edition ID"* separated by underscore sign. For example the Demo Calculator product has two editions: Standard and Professional, so there would be two corresponding products in SalesForce - *"DemoCalc_Std"* and *"DemoCalc_Pro"*.

It is recommended to enter default price for the each product to simplify working with Price Books. Each product must be added to the "Standard" Price Book or to the Price Book specified by the `pricebook.default` property in the `SalesForceConnect.properties` file.

3.4 SalesForce User

SalesForceConnect requires a SalesForce user with sufficient permissions:

1. Having ability to access/add/modify the Accounts, Contacts, Opportunities, Assets, Product, Price Books and Contact Assets entities.

2. Belonging to the Profile with turned ON the "Administrative Permission | API Enabled" property.

One of existing users or newly created one may be chosen for SalesForceConnect.

In general, SalesForceConnect requires user's password to be concatenated with a security token. The security token can be generated by SalesForce itself. To get the security token:

1. Login to the SalesForce using the same user.
2. Go to *Setup*| *My Personal Information* | *Reset My Security Token* and click the "Reset Security Token" button.

Note, use of security token may be omitted for the servers belonging to the trusted IP range. It can be setup in *Setup* | *Administrative Setup* | *Security Controls* | *Network Access* page.

Chapter 4

SalesForceConnect Deployment

4.1 Deployment on GlassFish Application Server

To deploy SalesForceConnect:

1. The `server/connect/SalesForce/SalesForceConnect.properties` file can be optionally modified, and then should be copied to the `<GLASS_FISH_HOME>/domains/domain1/config` folder.
2. The `SalesForceConnect.license` license file must be copied to the `<GLASS_FISH_HOME>/domains/domain1/config` folder. If you need a license you may either:
   - Buy a deployment license at: http://www.jproductivity.com/products/protection/buy.htm
   - Request a trial license at: http://www.jproductivity.com/products/protection/ent_trial.htm
3. The `server/connect/SalesForce/SalesForceConnect.ear` enterprise application should be copied to the `<GLASS_FISH_HOME>/domains/domain1/autodeploy` folder.

Note

If several domains are setup then correct domain name must be used instead of `domain1`.

4.2 SalesForceConnect Configuration

To configure SalesForceConnect the `SalesForceConnect.properties` file should be modified. The following properties are available:

Name	Default Value	Description
`username`		SalesForce's user name
`password`		SalesForce's user password usually concatenated with security token.
`opportunity.name`	`{0}_{1}`	Format for composing Opportunity name. Available arguments are: • `{0}` – Product name • `{1}` – Product version
`opportunity.close_days`	`30`	The duration in days of opportunity lifespan
`opportunity.probability_eval`	`20`	Opportunity's Probability (%) for the Evaluation license
`opportunity.probability_exteval`	`40`	Opportunity's Probability (%) for the Extended Evaluation license
`opportunity.stage_eval`	`Prospecting`	Opportunity's Stage for the Evaluation license

opportunity. stage_exteval	Qualification	Opportunity's Stage for the Extended Evaluation license
opportunity. stage_commercial	Closed Won	Opportunity's Stage for the Commercial license. Updated only if an opportunity with the same combination of *product+edition+version* found for the commercial license
pricebook.default	Standard	Default Price Book name
account.type_eval	Prospect	Account type for the Evaluation license when creating a new Account
account. type_commercial	Customer	Account type for the Commercial license when creating a new Account
account.unknown	Unknown	Account name for the customers with no company specified (will be created if it does not exist)
asset.name	{0}_{1}	Format for composing Asset name. Available arguments are: • {0} – Product name • {1} – Product version
asset.status	Purchased	Default Asset status when creating a new one
log.level	INFO	Logging level. Possible values are: • ALL - log all messages. • FINE – log debug messages, information messages, warnings and errors. • INFO – log information messages, warnings and errors. • WARNING – log warnings and errors • SEVERE – log errors only. • OFF – log no messages.
log.path	../logs/Protection Connect	Path to log files. When related path is specified, absolute folder location depends on particular Application Server. For example, default path would be <GLASS_FISH_HOME>/domains/domain1/logs/ProtectionConnect for GlassFish

The following are a sample of the SalesForceConnect.properties file:

```
username=john.doe@acme.com
password=123456

account.unknown=Unknown
account.type_eval=Prospect

account.type_commercial=Customer

opportunity.name={0}_{1}
```

```
opportunity.close_days=30
opportunity.probability_eval=20
opportunity.probability_exteval=40
opportunity.stage_eval=Prospecting
opportunity.stage_exteval=Qualification
opportunity.stage_commercial=Closed Won

asset.name={0}_{1}
asset.status=Purchased

pricebook.default=Standard

log.level=INFO
log.path=../logs/ProtectionConnect
```

Tip

SalesForceConnect tracks the changes of `SalesForceConnect.properties` file and is able to apply them at runtime. So neither Application Server nor SalesForceConnect application need to be restarted to apply changes in configuration.

Chapter 5

Oracle CRM On Demand Configuration

This chapter describes steps need to be done in order to prepare the Oracle CRM On Demand for integration with Protection!.

5.1 Application Customization

Unfortunately the Oracle CRM On Demand does not provide ability to package and deploy changes in Application Customization. Therefore all the required changes must be done manually using the Admin interface.

5.1.1 "Product" Entity Customization

5.1.1.1 Adding Custom Fields

The following fields must be added to the *"Product"* entity by going to the *Admin* | *Application Customization* | *Product* | *Product Field Setup* page:

Display Name	Field Type	Required	Default Value
Product Code	Text (Short)		
Price	Currency	Yes	0

5.1.1.2 Adding Custom Layout

A custom layout must be added by going to *Admin* | *Application Customization* | *Product* | *Product Page Layout* page:

1. Click the Copy link against the *"Product Page Standard Layout"* to make a new layout as a copy of existing one.
2. Go to *"Step 1"* and specify *Product Page Protection! Layout* as *"Layout Name".*
3. Go to *"Step 3"* and add the *"Product Code"* and *"Price"* fields to the *"Key Product Information"* pane.
4. Click the *"Finish"* button to save changes.

To allow viewing/changing custom Product fields the "*Product Page Protection! Layout"* must be specified as default layout for desired role(s). It can be done by going to *Admin* | *User Management & Access Controls* | *Role Management* page:

1. Select required role for editing.
2. Select *"Step 6".*
3. Choose the *"Product Page Protection! Layout"* against Product record type.
4. Click the *"Finish"* button to save changes.

5.1.2 "Contact" Entity Customization

5.1.2.1 Adding Custom Fields

The following fields must be added to the *"Contact"* entity by going to the *Admin* | *Application Customization* | *Contact* | *Contact Field Setup* page:

Display Name	Field Type	Required	Default Value
Locked	Checkbox		

5.1.2.2 Adding Custom Layout

A custom layout must be added by going to *Admin* | *Application Customization* | *Contact* | *Contact Page Layout* page*:*

1. Click the Copy link against the *"Contact Page Standard Layout"* to make a new layout as a copy of existing one.
2. Go to *"Step 1"* and specify *Contact Page Protection! Layout* as *"Layout Name".*
3. Go to *"Step 3"* and add the *"Locked"* field to the *"Contact Detail Information"* pane.
4. Go to *"Step 4"* and add *"Assets"* from the *"Available Information"* pane to the "Displayed Information" pane right after Opportunities.
5. Click the *"Finish"* button to save changes.

To allow viewing/changing custom Contact fields the "*Contact Page Protection! Layout"* should be specified as default layout for desired role(s). It can be done by going to *Admin* | *User Management & Access Controls* | *Role Management* page:

1. Select required role for editing.
2. Select *"Step 6".*
3. Choose the *"Contact Page Protection! Layout"* against Contact record type.
4. Click the *"Finish"* button to save changes.

5.1.3 "Asset" Entity Customization

5.1.3.1 Adding Custom Fields

The following fields must be added to the *"Asset"* entity by going to the *Admin* | *Application Customization* | *Asset* | *Asset Field Setup* page:

Display Name	Field Type	Required	Default Value
Locked	Checkbox		
Asset Name	Text (Long)		
Usage End Date	Date		

5.1.3.2 Adding Custom Layout

A custom layout must be added by going to *Admin* | *Application Customization* | *Asset* | *Asset Page Layout* page*:*

1. Click the "*Copy"* link against the *"Asset Page Standard Layout"* to make a new layout as a copy of existing one.
2. Go to *"Step 1"* and specify *Asset Page Protection! Layout* as *"Layout Name".*
3. Go to *"Step 3"* and add the *"Name"*, *"Install Date"*, *"Usage End Date"* and *"Locked"* fields to the *"Key Asset Information"* pane.
4. Click the *"Finish"* button to save changes.

To allow viewing/changing custom Asset fields the "*Asset Page Protection! Layout"* should be specified as default layout for desired role(s). It can be done by going to *Admin* | *User Management & Access Controls* | *Role Management* page:

5. Select required role for editing.
6. Select *"Step 6".*
7. Choose the *"Asset Page Protection! Layout"* against Contact record type.
8. Click the *"Finish"* button to save changes.

5.1.4 "Opportunity" Entity Customization

5.1.4.1 Adding Custom Fields

The following fields must be added to the *"Opportunity"* entity by going to the *Admin* | *Application Customization* | *Opportunity* | *Opportunity Field Setup* page:

Display Name	Field Type	Required	Default Value
Opportunity Code	Text (Short)		

5.2 Setting up Products

License and License Action events cannot be processed without corresponding products. Therefore all the products used by Protection! Enterprise must be listed in CRMOD to allow working with them. The easiest way to setup products is exporting them using Enterprise Manager but it is also possible to setup/maintain them manually if desired. It is strongly recommended to enter price for the each product to simplify working with Opportunities.

5.2.1 Setting up Products Using Enterprise Manager

All the products can be added to Oralce CRM on Demand by choosing the *File* | *Export* | *Products to Protection! Connect* menu item.

5.2.2 Setting up Products Manually

All the required products can be added using the *Admin/Content Management/Products* page tab in the CRMOD. For the each product the *"Product Code"* field in CRMOD must correspond to the *"Product ID"* in Protection!.

If the product has several editions all of them should be listed in CRMOD as independent products. Each such product would have *"Product Code"* as a concatenation of *"Product ID"* and *"Product Edition ID"* separated by underscore sign. For example the Demo Calculator product has two editions: Standard and Professional, so there would be two corresponding products in SalesForce - *"DemoCalc_Std"* and *"DemoCalc_Pro"*.

5.3 Oracle CRM On Demand Access Policy

To allow the OracleCRMOnDemandConnect to work properly the following must be established:

1. A CRMOD user with sufficient permissions - access/add/modify the Accounts, Contacts, Opportunities, Assets, Products entities; must be available for OracleCRMOnDemandConnect.

2. The “Web Services On Demand Integration” capability must be enabled for the company’s account. To turn it ON either a Customer Care representative should be contacted or a new Service Request should be placed to the Metalink.

Chapter 6

OracleCRMOnDemandConnect Deployment

6.1 Deployment on GlassFish Application Server

To deploy OracleCRMOnDemandConnect:

1. The `server/connect/OracleCRMOnDemand/OracleCRMOnDemandConnect.properties` file can be optionally modified, and then should be copied to the `<GLASS_FISH_HOME>/domains/domain1/config` folder.
2. The `OracleCRMOnDemandConnect.license` license file must be copied to the `<GLASS_FISH_HOME>/domains/domain1/config` folder. If you need a license you may either:
   - Buy a deployment license at: http://www.jproductivity.com/products/protection/buy.htm
   - Request a trial license at: http://www.jproductivity.com/products/protection/ent_trial.htm
3. The `server/connect/OracleCRMOnDemand/OracleCRMOnDemandConnect.ear` enterprise application should be copied to the `<GLASS_FISH_HOME>/domains/domain1/autodeploy` folder.

Note

If several domains are setup then correct domain name must be used instead of `domain1`.

6.2 OracleCRMOnDemandConnect Configuration

To configure OracleCRMOnDemandConnect the `OracleCRMOnDemandConnect.properties` file should be modified. The following properties are available:

Name	Default Value	Description
`url`	`https://[host]/Services/Integration`	Oracle CRM On Demand URL. The `host` can be obtained by signing in to the Oracle CRM On Demand and copying host part of the address from the address bar of the Web Browser.
`username`		User name
`password`		Password
`opportunity.name`	`{0}_{1}`	Format for composing Opportunity name. Available arguments are: • `{0}` – Product name • `{1}` – Product version
`opportunity.close_days`	`30`	The duration in days of opportunity lifespan

opportunity. probability_eval	20	Opportunity's Probability (%) for the Evaluation license
opportunity. probability_exteval	40	Opportunity's Probability (%) for the Extended Evaluation license
opportunity. stage_eval	Qualified Lead	Opportunity's Stage for the Evaluation license
opportunity. stage_exteval	Building Vision	Opportunity's Stage for the Extended Evaluation license
opportunity. stage_commercial	Closed/Won	Opportunity's Stage for the Commercial license. Updated only if an opportunity with the same combination of *product+edition+version* found for the commercial license
opportunity. status_eval	Pending	Opportunity Status during evaluation
opportunity. stage_commercial	Won	Opportunity's Status for the Commercial license. Updated only if an opportunity with the same combination of *product+edition+version* found for the commercial license
account.unknown	Unknown	Account name for the customers with no company specified (will be created if it does not exist)
account.type_eval	Prospect	Account type for the Evaluation license when creating a new Account
account. type_commercial	Customer	Account type for the Commercial license when creating/updating Accounts
contact.type_eval	Prospect	Account type for the Evaluation license when creating a new Contact
contact. type_commercial	Customer	Account type for the Commercial license when creating/updating Contacts
asset.name	{0}_{1}	Format for composing Asset name. Available arguments are: • {0} – Product name • {1} – Product version
log.level	INFO	Logging level. Possible values are: • ALL - log all messages. • FINE – log debug messages, information messages, warnings and errors. • INFO – log information messages, warnings and errors. • WARNING – log warnings and errors • SEVERE – log errors only. • OFF – log no messages.
log.path	../logs/Protection	Path to log files. When related path is

	Connect	specified, absolute folder location depends on particular Application Server. For example, default path would be `<GLASS_FISH_HOME>/domains/domain1/logs/ProtectionConnect` for GlassFish

The following are a sample of the `OracleCRMOnDemandConnect.properties` file:

```
url=https://secure-ausomxbha.crmondemand.com/Services/Integration
username=john.doe@acme.com
password=123456

account.unknown=Unknown
account.type_eval=Prospect
account.type_commercial=Customer

opportunity.name={0}_{1}
opportunity.close_days=30
opportunity.probability_eval=20
opportunity.probability_exteval=40
opportunity.stage_eval=Qualified Lead
opportunity.stage_exteval=Building Vision
opportunity.stage_commercial=Closed/Won
opportunity.status_eval=Pending
opportunity.status_commercial=Won

contact.type_eval=Prospect
contact.type_commercial=Customer

asset.name={0}_{1}

log.level=INFO
log.path=../logs/ProtectionConnect
```

Tip

OracleCRMOnDemandConnect tracks the changes of `OracleCRMOnDemandConnect.properties` file and is able to apply them at runtime. So neither Application Server nor OracleCRMOnDemandConnect application need to be restarted to apply changes in configuration.

Chapter 7

Microsoft Dynamics CRM Configuration

This chapter describes steps need to be done in order to prepare the Microsoft Dynamics CRM for integration with Protection!

7.1 Application Customization

1. Login to the Microsoft Dynamics CRM as administrator.
2. Go to the *Settings* | *Customization* | *Import customizations* page.
3. Browse and upload the `server/connect/MicrosoftDynamicsCRM/customizations.zip` file
4. Select the all entities and press the *Import Selected Customizations* button.
5. Make Assets list visible by:
   a. Go to the *Settings* | *Customization* | *Customize Entities* page.
   b. Select the *Asset* entity for modification.
   c. Select desired *Areas* to display *Assets* (Sales for example).
   d. Publish *Asset* entity to apply changes.

7.2 Setting up Products

License and License Action events cannot be processed without corresponding products. Therefore all the products used by Protection! Enterprise must be listed in Dynamics CRM to allow working with them. The easiest way to setup products is exporting them using Enterprise Manager but it is also possible to setup/maintain them manually if desired.

7.2.1 Setting up Products Environment

Before setting up product the products environment must be correctly setup:
1. Go to the *Settings* | *Product Catalog* | *Unit Groups* page.
2. Add default unit group (*Default Unit* by default), if not exists, and add a primary unit (*Primary Unit* by default) to this group. If default values were not used update the `MicrosoftDynamicsCRMConnect.properties` file and assign proper values to the `product.unit_group` and the `product.unit` properties.
3. Go to the *Settings* | *Product Catalog* | *Price Lists* page.
4. Add a default price list (*Default* by default). If default value was not used update the `MicrosoftDynamicsCRMConnect.properties` file and assign proper value to the `product.price_list` property.

7.2.2 Setting up Products Using Enterprise Manager

All the products can be added to Dynamics CRM on Demand by choosing the *File* | *Export* | *Products to Protection! Connect* menu item.

It is recommended to specify default price for the each product. To do it:
1. Go to *Settings* | *Product Catalog* | *Producs* page.
2. Open each Product for editing.

3. Open *Default* price list and enter a valid *Amount* value.

7.2.3 Setting up Products Manually

All the required products can be added using the *Settings* | *Product Catalog* | *Products* page. For the each product the *"Product Code"* field in the Dynamics CRM must correspond to the *"Product ID"* in Protection!.

If the product has several editions all of them should be listed in Dynamics CRM as independent products. Each such product would have *"Product Code"* as a concatenation of *"Product ID"* and *"Product Edition ID"* separated by underscore sign. For example the Demo Calculator product has two editions: Standard and Professional, so there would be two corresponding products in Dynamics CRM - *"DemoCalc_Std"* and *"DemoCalc_Pro"*.

Chapter 8

MicrosoftDynamicsCRMConnect Deployment

8.1 Deployment on GlassFish Application Server

To deploy MicrosoftDynamicsCRMConnect:

4. The `server/connect/MicrosoftDynamicsCRM/MicrosoftDynamicsCRMConnect.properties` file can be optionally modified, and then should be copied to the `<GLASS_FISH_HOME>/domains/domain1/config` folder.
5. The `MicrosoftDynamicsCRMConnect.license` license file must be copied to the `<GLASS_FISH_HOME>/domains/domain1/config` folder. If you need a license you may either:
   - Buy a deployment license at: http://www.jproductivity.com/products/protection/buy.htm
   - Request a trial license at: http://www.jproductivity.com/products/protection/ent_trial.htm
6. The `server/connect/ MicrosoftDynamicsCRM/MicrosoftDynamicsCRMConnect.ear` enterprise application should be copied to the `<GLASS_FISH_HOME>/domains/domain1/autodeploy` folder.

Note

If several domains are setup then correct domain name must be used instead of `domain1`.

8.2 MicrosoftDynamicsCRMConnect Configuration

To configure MicrosoftDynamicsCRMConnect the `MicrosoftDynamicsCRMConnect.properties` file should be modified. The following properties are available:

Name	Default Value	Description
`application.authentication`	`basic`	MS Dynamics CRM authentification type. Acceptable values are: • `basic` – for on-premise CRM authentication using Windows Active Directory. • `passport` – for on-line authentication using Windows Live ID (aka Passport).
`user.login`		Live ID or Active Directory account for `passport` and `basic` authentication

		respectively.
user.password		Account's password.
passport.url	https://dev.login.live.com/wstlogin.srf	Live ID service URL
passport.end_point_url	crm.dynamics.com	Dynamics CRM URL
discovery.url	https://dev.crm.dynamics.com/MSCrmServices/2007/Passport/CrmDiscoveryService.asmx	Discovery service URL. Possible values are: • CRM Online: https://dev.crm.dynamics.com/MSCrmServices/2007/Passport/CrmDiscoveryService.asmx • CRM on-premise: http://{host[:port]}/MSCrmServices/2007/AD/CrmDiscoveryService.asmx
discovery.organization		Organization name
product.unit_group	Default Unit	Default Product's Unit Group
product.unit	Primary Unit	Product's Primary Unit Group
product.price_list	Default	Default Product's Price List
product.currency	USD	Default currency code
account.unknown	Unknown	Account name for the customers without company (will be created if doesn't exist)
account.type_eval	8	Account type for the evaluation license when creating a new Account. 8 stands for Prospect
account.type_commercial	3	Account type for the commercial license when creating a new Account. 3 stands for Customer
opportunity.name	{0}_{1}	Opportunity's Name where: {0} – Product Name {1} – Product Version
opportunity.close_days	30	The amount of days from today for the opportunity's Close Date
opportunity.probability_eval	20	Opportunity's Probability (%) for the evaluation license
opportunity.probability_exteval	40	Opportunity's Probability (%) for the extended evaluation license
subject.parent	Products	Optional default parent (root) Subject for the Products. Used

		during the Products import
asset.name	{0}_{1}	Asset's Name where: {0} – Product Name {1} – Product Version
invoice.name	{0}_{1}	Invoice name where: {0} – Product Name {1} – Product Version
invoice.create	true	true/false Whether to create an invoice for the commercial license.
invoice.paid	true	true/false Whether to apply Invoice Paid status to the new invoice.
log.level	INFO	Logging level. Possible values are: • ALL - log all messages. • FINE – log debug messages, information messages, warnings and errors. • INFO – log information messages, warnings and errors. • WARNING – log warnings and errors • SEVERE – log errors only. • OFF – log no messages.
log.path	../logs/ProtectionConnect	Path to log files. When related path is specified, absolute folder location depends on particular Application Server. For example, default path would be <GLASS_FISH_HOME>/domains/domain1/logs/ProtectionConnect for GlassFish

The following are a sample of the MicrosoftDynamicsCRMConnect.properties file:

```
application.authentication =passport
passport.url=https://dev.login.live.com/wstlogin.srf
passport.end_point_url=crm.dynamics.com
user.login=
user.password=

discovery.url=https://dev.crm.dynamics.com/MSCrmServices/2007/Passport/Crm
DiscoveryService.asmx
discovery.organization=

product.unit_group=Default Unit
product.unit=Primary Unit
product.price_list=Default
```

```
product.currency=USD

account.unknown=Unknown
#Relationship Type: Prospect
account.type_eval=8
#Relationship Type: Customer
account.type_commercial=3

opportunity.name={0}_{1}
opportunity.close_days=30
opportunity.probability_eval=20
opportunity.probability_exteval=40

asset.name={0}_{1}

invoice.name={0}_{1}
invoice.create=true
invoice.paid=true

log.level=INFO
log.path=../logs/ProtectionConnect
```

Tip

MicrosoftDynamicsCRMConnect tracks the changes of `MicrosoftDynamicsCRMConnect.properties` file and is able to apply them at runtime. So neither Application Server nor MicrosoftDynamicsCRMConnect application need to be restarted to apply changes in configuration.

Chapter 9

SugarCRM Configuration

This chapter describes steps need to be done in order to prepare the SugarCRM for integration with Protection!

9.1 Application Customization

1. Login to the SugarCRM as administrator.
2. Go to the *Admin* | *Module Loader* page.
3. Browse and upload the `server/connect/SugarCRM/SugarCRMCustomizations.zip` file.
4. When module is uploaded and shown in the below list press the "*Install"* button to install the module. Follow the instructions.

9.2 Setting up Products

License and License Action events cannot be processed without corresponding products. Therefore all the products used by Protection! Enterprise must be listed in the SugarCRM to allow working with them. The easiest way to setup products is exporting them using Enterprise Manager but it is also possible to setup/maintain them manually if desired.

9.2.1 Setting up Products Using Enterprise Manager

All the products can be added to SugarCRM by choosing the *File* | *Export* | *Products to Protection! Connect* menu item.

It is recommended to specify list price for the each product as it is used during creation of Opportunities and Assets. To do it:

1. Go to the *Admin* | *Product Catalog* page.
2. Open each Product for editing.
3. Specify value for the "List Price" field.
4. Optionally specify values for the *"Cost"* and *"Discount Price"* fields.

9.2.2 Setting up Products Manually

All the required products can be added using the *Admin* | *Product Catalog* page. For the each product the *"Product Code"* field in the SugarCRM must correspond to the *"Product ID"* in Protection!.

If the product has several editions all of them should be listed in SugarCRM as independent products. Each such product would have *"Product Code"* as a concatenation of *"Product ID"* and *"Product Edition ID"* separated by underscore sign. For example the Demo Calculator product has two editions: Standard and Professional, so there would be two corresponding products in SugarCRM - *"DemoCalc_Std"* and *"DemoCalc_Pro"*.

It is recommended to specify the *"List Price"* value as it is used during creation of Opportunities and Assets. The values for the *"Cost"* and *"Discount Price"* fields would be optionally specified too.

Chapter 10

SugarCRMConnect Deployment

10.1 Deployment on GlassFish Application Server

To deploy SugarCRMConnect:

1. The `server/connect/SugarCRM/SugarCRMConnect.properties` file can be optionally modified, and then should be copied to the `<GLASS_FISH_HOME>/domains/domain1/config` folder.
2. The `SugarCRMConnect.license` license file must be copied to the `<GLASS_FISH_HOME>/domains/domain1/config` folder. If you need a license you may either:
   - Buy a deployment license at: http://www.jproductivity.com/products/protection/buy.htm
   - Request a trial license at: http://www.jproductivity.com/products/protection/ent_trial.htm
3. The `server/connect/SugarCRM/SugarCRMConnect.ear` enterprise application should be copied to the `<GLASS_FISH_HOME>/domains/domain1/autodeploy` folder.

Note

If several domains are setup then correct domain name must be used instead of `domain1`.

10.2 SugarCRMConnect Configuration

To configure SugarCRMConnect the `SugarCRMConnect.properties` file should be modified. The following properties are available:

Name	Default Value	Description
`url`		SugarCRM online URL.
`username`		SugarCRM account.
`password`		SugarCRM account's password.
`product_cat.tax_class`	`Taxable`	Default Product's Tax Class. Used by Products import process. See available items in the *Admin*| *Dropdown Editor* | *tax_class_dom* dropdown.
`product_cat.pricing_formula`	`Fixed`	Default Product's Pricing Formula. Used by Products import process. See available items in the *Admin*| *Dropdown Editor* | *pricing_formula_dom* dropdown.
`product_cat.availability`	`Available`	Default Product's Availability flag. Used by Products import process. See

		available items in the *Admin* | *Dropdown Editor* | product_template_status_dom dropdown.
product_cat. support_term	+1 year	Default Product's Support Term. See available items in the *Admin* | *Dropdown Editor* | *support_term_dom* dropdown
account.unknown	Unknown	Account name for the customers without company (will be created if doesn't exist).
account.type_eval	Prospect	Account type for the evaluation license when creating a new Account. See available items in the *Admin* | *Dropdown Editor* | *account_type_dom* dropdown.
account. type_commercial	Customer	Account type for the commercial license when creating a new Account. See available items in the *Admin* | *Dropdown Editor* | *account_type_dom* dropdown.
opportunity. close_days	30	The amount of days from today for the opportunity's Close Date
opportunity. probability_eval	20	Opportunity's Probability (%) for the evaluation license
opportunity. probability_exteval	40	Opportunity's Probability (%) for the extended evaluation license
opportunity. stage_eval	Prospecting	Opportunity's Satage for the evaluation license. See available items in the *Admin* | *Dropdown Editor* | *opportunity_type_dom* dropdown.
opportunity. stage_exteval	Qualification	Opportunity's Satage for the extended evaluation license. See available items in the *Admin* | *Dropdown Editor* | *opportunity_type_dom* dropdown.
opportunity. stage_commercial	Closed Won	Opportunity's Stage for the related commercial license. See available items in the *Admin* | *Dropdown Editor* | *opportunity_type_dom* dropdown.
opportunity.name	{0}_{1}	Format for composing Opportunity's Name. Variables are: • {0} – Product Name • {1} – Product Version
product.status	Ship	Default Product's Status. See available items in the *Admin* | *Dropdown Editor* | *product_status_dom* dropdown.
product. associate_contact	true	Specifies whether a new Product should be associated with a Contact during issuing of commercial license.
log.level	INFO	Logging level. Possible values are: • ALL - log all messages. • FINE – log debug messages,

		information messages, warnings and errors. • `INFO` – log information messages, warnings and errors. • `WARNING` – log warnings and errors • `SEVERE` – log errors only. • `OFF` – log no messages.
`log.path`	`../logs/ProtectionConnect`	Path to log files. When related path is specified, absolute folder location depends on particular Application Server. For example, default path would be <GLASS_FISH_HOME>/domains/domain1/logs/ProtectionConnect for GlassFish

The following are a sample of the `SugarCRMConnect.properties` file:

```
url=http://eval.sugarondemand.com/john_doe/soap.php
username=admin
password=123456

product_cat.tax_class=Taxable
product_cat.pricing_formula=Fixed
product_cat.availability=Available
product_cat.support_term=+1 year

account.unknown=Unknown
account.type_eval=Prospect
account.type_commercial=Customer

opportunity.close_days=30
opportunity.probability_eval=20
opportunity.probability_exteval=40
opportunity.stage_eval=Prospecting
opportunity.stage_exteval=Qualification
opportunity.stage_commercial=Closed Won
opportunity.name={0}_{1}

product.status=Ship

log.level=ALL
log.path=../logs/ProtectionConnect
```

Tip

SugarCRMConnect tracks the changes of `SugarCRMConnect.properties` file and is able to apply them at runtime. So neither Application Server nor SugarCRMConnect application need to be restarted to apply changes in configuration.

Chapter 11

Sage CRM Configuration

This chapter describes steps need to be done in order to prepare the Sage CRM for integration with Protection!

11.1 Sage CRM User

SageCRMConnect requires a Sage CRM user with sufficient privileges:
1. User must belong to the "Unrestricted Profile".
2. User must have "System Admin" Administration level.
3. User's "Allow Web Services Access" permission is set to *True*.

11.2 Web Services Enabling

In the application go to *Administration/System/Web Services* page and set the next fields to Yes:
- "Enable web services"
- "Force webservice log on"

Note

Check your local Sage CRM installation or contact support for hosted Sage CRM to ensure that all types of entities are exposed through the Web Services. At least in case of hosted Sage CRM, Campaigns, Waves and Wave Items are missing by default for some reason.

11.3 Application Customization

Unfortunately the Sage CRM does not provide ability to package and deploy changes done in Application Customization. Therefore all the required changes must be done manually using the Web interface. To do it - go to the *Administration/Customization* page and select required entity to customize.

11.3.1 Product Family Customizing

The following new fields must be added by pressing the "*New*" button, entering field attributes and pressing the "*Save*" button to commit changes.

Entry Type	Column Name	Caption	Max Length	Description
Text	prfa_code	Code	30	Stores Protection!'s Product ID

Default list should be updated to include the "*Code*" field. It can be done by:
1. Select the "*Lists*" tab.
2. Start editing the *ProductFamilyGrid* list by pressing the "*Customize*" button.

3. In the *"Properties"* pane at the right choose the *"Code"* field, specify some attributes if needed and press the *"Add"* button to add this field to the list.
4. In the *"Desktop HTML List Contents"* panel put the *"Code"* field to the proper position.
5. Press the *"Save"* button to commit changes.

Default Screen should be updated to include the *"Code"* field. It can be done by:
1. Select the *"Screens"* tab.
2. Start editing of *Product Family Summary* screen by pressing the *"Customize"* button.
3. In the *"Properties"* pane at the right choose the *"Code"* field, specify some attributes if needed and press the *"Add"* button to add this field to the list.
4. In the *"Desktop HTML Screen Contents"* panel put the *"Code"* field to the proper position.
5. Press the *"Save"* button to commit changes.

11.3.2 Wave Item Customizing

The following new fields must be added by pressing the *"New"* button, entering field attributes and pressing the *"Save"* button to commit changes.

Entry Type	Column Name	Caption	Max Length	Description
Text	wait_code	Code	30	Stores the code used to join particular Campaign (through Wave Item) to Opportunity.

Default Screen should be updated to include the *"Code"* field. It can be done by:
1. Select the *"Screens"* tab.
2. Start editing of *Wave Item Detail Box* screen by pressing the *"Customize"* button.
3. In the *"Properties"* pane at the right choose the *"Code"* field, specify some attributes if needed and press the *"Add"* button to add this field to the list.
4. In the *"Desktop HTML Screen Contents"* panel put the *"Code"* field to the proper position.
5. Press the *"Save"* button to commit changes.

11.3.3 Person Customizing

The following new fields must be added by pressing the *"New"* button, entering field attributes and pressing the *"Save"* button to commit changes.

Entry Type	Column Name	Caption	Max Length	Description
Integer	pers_external_id	External id	20	Stores the Protection! Customer ID. This field is hidden.
Checkbox	pers_locked	Locked		Allows to protection record from being updated by Protection! Connect.

Default Entry Screen should be updated to include the *"Locked"* field. It can be done by:
1. Select the *"Screens"* tab.
2. Start editing of *Person Entry Screen* by pressing the *"Customize"* button.

3. In the *"Properties"* pane at the right choose the *"Locked"* field, specify some attributes if needed and press the *"Add"* button to add this field to the list.
4. In the *"Desktop HTML Screen Contents"* panel put the *"Locked"* field to the proper position.
5. Press the *"Save"* button to commit changes.

11.3.4 Opportunity Customizing

The following new fields must be added by pressing the "*New"* button, entering field attributes and pressing the "*Save"* button to commit changes.

Entry Type	Column Name	Caption	Max Length	Description
Text	oppo_code	Code	10	This field stores the Opportunity code based on the Product[+Edition]+Version. It is hidden and used only by Protection! Connect.
Integer	oppo_external_id	External id	20	This field stores the Protection! License ID. It is hidden and used only by Protection! Connect.

11.4 Setting up Products

License and License Action events cannot be processed without corresponding products. Therefore all the products used by Protection! Enterprise must be listed in the Sage CRM to allow working with them. The easiest way to setup products is exporting them using Enterprise Manager but it is also possible to setup/maintain them manually if desired.

11.4.1 Setting up Products Using Enterprise Manager

All the products can be added to Sage CRM by choosing the *File* | *Export* | *Products to Protection! Connect* menu item.

It is recommended to specify list price for the each product. To do it:
1. Go to the *Administration/Data Management/Products* page.
2. Open each Product for editing.
3. Specify value for the "$" field.

11.4.2 Setting up Products Manually

All the required products can be added using the *Administration/Data Management/Products* page. For the each product the *"Product Code"* field in the Sage CRM must correspond to the *"Product ID"* in Protection!.

If the product has several editions all of them should be listed in Sage CRM as independent products. Each such product would have *"Product Code"* as a concatenation of *"Product ID"* and *"Product Edition ID"* separated by underscore sign. For example the Demo Calculator product has two editions: Standard and Professional, so there would be two corresponding products in Sage CRM - *"DemoCalc_Std"* and *"DemoCalc_Pro"*.

It is recommended to specify the *"$"* (price) value as it is used during creation of Opportunities.

Chapter 12

SageCRMConnect Deployment

12.1 Deployment on GlassFish Application Server

To deploy SageCRMConnect:

1. The `server/connect/SageCRM/SageCRMConnect.properties` file can be optionally modified, and then should be copied to the `<GLASS_FISH_HOME>/domains/domain1/config` folder.
2. The `SageCRMConnect.license` license file must be copied to the `<GLASS_FISH_HOME>/domains/domain1/config` folder. If you need a license you may either:
   - Buy a deployment license at: http://www.jproductivity.com/products/protection/buy.htm
   - Request a trial license at: http://www.jproductivity.com/products/protection/ent_trial.htm
3. The `server/connect/SageCRM/SageCRMConnect.ear` enterprise application should be copied to the `<GLASS_FISH_HOME>/domains/domain1/autodeploy` folder.

Note

If several domains are setup then correct domain name must be used instead of `domain1`.

12.2 SageCRMConnect Configuration

To configure SageCRMConnect the `SageCRMConnect.properties` file should be modified. The following properties are available:

Name	Default Value	Description
`url`	`https://northamerica.sagecrm.com/{accountId}/eware.dll/WebServices/SOAP`	SageCRM hosting URL where *accounteId* is an unique account id, generated by SageCRM for each account. To find *accountId* using the application go to the *Main Menu/System Help/Account Update/Web Service Connection String* and copy account Id value from the URL (between `.com/` and `/eware.dll`).
`user.email`		SageCRM user's email
`user.password`		SageCRM user's password

product. uom_family	Default	Default Product's Unit of Measure's Family
product.uom	Default	Default Product's Unit of Measure'
product. pricing_list	Default	Default Product's Pricing List
company. unknown	Unknown	Company name for the Persons with no company specified (will be created if it doesn't exist in CRM)
company. type_eval	Prospect	Company type for the evaluation license applied during creation of a new company
company. type_commercial	Customer	Company type for the commercial license applied during creation/update of a company
company. email_type	Business	Company email type applied during creation of a new company
company. phone_type	Business	Company phone type applied during creation of a new company
company. account_manager		Company's Account Manager. Use the user email for this property. If not specified the user from `user.email` property is used.
person. email_type	Business	Person email type applied during creation of a new Person
person. phone_type	Business	Person phone type applied during creation of a new Person
person. account_manager		Person's Account Manager. Use the user email for this property. If not specified the user from `user.email` property is used.
opportunity. stage_eval	Lead	Opportunity's Stage for the evaluation license
opportunity. stage_exteval	Qualified	Opportunity's Stage for the extended evaluation license
opportunity. type	License	Opportunity's type
opportunity. name	{0}_{1}	Opportunity's Name where: `{0}` – Product Name `{1}` – Product Version
opportunity. certainty_eval	20	Opportunity's Certainty (%) for the evaluation license
opportunity. certainty_exteval	40	Opportunity's Certainty (%) for the extended evaluation license
opportunity. close_days	30	The amount of days from today till the opportunity's close date
opportunity.		The "*Opportunity Assigned To"*

assigned_to		value. Use the user email for this property. If not specified the user in `user.email` property is used.
opportunity. associate_person	true	Whether to associate a new Opportunity with a Person who acquired the license. Possible values are `true` or `false`.
currency.default	$	Default Currency symbol
log.level	INFO	Logging level. Possible values are: • `ALL` - log all messages. • `FINE` – log debug messages, information messages, warnings and errors. • `INFO` – log information messages, warnings and errors. • `WARNING` – log warnings and errors • `SEVERE` – log errors only. • `OFF` – log no messages.
log.path	../logs/ ProtectionConnect	Path to log files. When related path is specified, absolute folder location depends on particular Application Server. For example, default path would be <GLASS_FISH_HOME>/domains/domain1/logs/ProtectionConnect for GlassFish

The following are a sample of the `SageCRMConnect.properties` file:

```
url=https://northamerica.sagecrm.com/acme/eware.dll/WebServices/SOAP
user.email=john.doe@acme.com
user.password=123456
product.uom_family=Default
product.uom=Default
product.pricing_list=Default
company.unknown=Unknown
company.type_eval=Prospect
company.type_commercial=Customer
company.email_type=Business
company.phone_type=Business
company.account_manager=
person.email_type=Business
person.phone_type=Business
person.account_manager=
opportunity.stage_eval=Lead
opportunity.stage_exteval=Qualified
opportunity.type=License
opportunity.name={0}_{1}
opportunity.certainty_eval=20
opportunity.certainty_exteval=40
opportunity.close_days=30
```

```
opportunity.assigned_to=
opportunity.associate_person=true
currency.default=$
log.level=INFO
log.path=../logs/ProtectionConnect
```

Tip

SageCRMConnect tracks the changes of `SageCRMConnect.properties` file and is able to apply them at runtime. So neither Application Server nor SageCRMConnect application need to be restarted to apply changes in configuration.

Chapter 13

Known Issues and Limitations

This chapter describes known problems and associated workarounds for the Protection! Connect v1.0 software. If a summary statement does not specify a particular platform, the problem applies to all platforms.

1. Invalid Content-Type:text/html Exception

Some of CRM Web Services implementations may return textual errors instead of valid SOAP responses. Such results cannot be processed in current implementations and no actual error messages are shown and logged. The following approaches can be used to see actual responses:

a. Use some HTTP monitor application like Fiddler (http://www.fiddlertool.com) to see and analyze all the HTTP traffic. You may need to instruct Connector implementation to connect to the CRM through the Fiddler acting as a Web Proxy. To do so the following system properties must be set up:
   ```
   http.proxyHost=127.0.0.1
   http.proxyPort=8888
   ```

b. Enable HTTP traffic dump for all the JAX-WS based Connector implementations (Oracle CRM On Demand, SalesForce and Microsoft Dynamics CRM). It can be done by setting up the following system property:
   ```
   com.sun.xml.ws.transport.http.client.HttpTransportPipe.dump=true
   ```

2. Only one Product(Assets) can be associated with a Contact – *(SugarCRM)*

Due to some obstacles in the SugarCRM API the SugarCRMConnect cannot associate more than one Contact with a particular Product (Asset). As result of such behavior any other Contacts, which request and/or activate licenses, will not be associated with corresponding Product; they will be associated with corresponding Account only.

3. Opportunity workflow's de-synchronization– *(Sage CRM)*

Workflow associated with Opportunity doesn't update its state when Opportunity's state has been changed via Web Services. Therefore Workflow Actions available to the user are wrongly based on the Workflow's internal state and don't correspond actual state of the Opportunity. There's no good workaround for this problem; the only suggestion is avoiding use of Workflow Actions that look improper.

Appendix A

SalesForceConnect Workflow

This topic outlines SalesForceConnect workflow and provides description of the custom entities and fields were introduced.

a.1 SalesForceConnect Package Custom Fields

The SalesForceConnect Package installs the following custom fields:

Entity	Field	Description
`Contacts`	`External Id`	Protection! Customer Id. It is used by SalesForceConnect to find an existing Contact (Customer) in SalesForce for updating. Should not be accessible to and edited by the user.
	`Locked`	A checkbox field to lock the Contact to prevent it be updated by SalesForceConnect
`Assets`	`External Id`	Protection! License Id. Is used by SalesForceConnect to find an existing Asset in SalesForce for updating. Should not be accessible and edited by the user.
	`Locked`	A checkbox field to lock the Asset to prevent it be updated by SalesForceConnect
`Opportunities`	`External Id`	Protection! License Id. Is used by SalesForceConnect to find an existing Opportunity in SalesForce for updating. Should not be accessible and edited by the user.
	`Opportunity Code`	Unique Opportunity's Code. It is composed as “Product Code” + “Product Version”. This field is hidden and must not be changed by the users anyway.
`Campaign`	`Campaign Code`	Code that uniquely identifies a campaign

a.2 SalesForceConnect Package Custom Entities

The SalesForceConnect Package installs the following custom entities:

Entity	Field	Description
`Contact Assets`	Describes the reference between Contact and Asset	
	`Contact`	A Contact reference
	`Asset`	An Asset reference
	`Name`	The reference name. By default it is the Asset's

		name
	Active	Checked if the License is Got and not Deactivated

a.3 SalesForceConnect Workflow

SalesForceConnect handles “Added” and “Updated” events for the Customer, License and License Action entities by executing the following corresponding workflows:

a.3.1 Customer Added/Updated

If Contact exists and if Contact 's Lock field is unchecked it will be updated with data from Protection! Customer. If not exists, a new Contact will be created. The existence of the Contact is checked by searching Customer Id in Contact's External Id field and then, if not found, by Contact's Email. The Contact's Account will be created, if not exists, basing on Protection! Customer's Company and Customer's address.

a.3.2 License Added/Updated

Is applicable only for commercial licenses. Commercial licenses are stored in Asset entity. The product of the license must exist in SalesForce application.
At first the license is searched by License Id in Asset's External Id field. If not found, searched by the combination of License Number(Serial Number) and Product. If License(Asset) found and Lock field is false(unchecked) the Asset's Quantity, Price(if product's price entered), Serial Number and ExpireDate fields are updated.

a.3.3 License Action Added/Updated

a.3.3.1 Evaluation License

Evaluation licenses are stored in the Opportunity entity. The product of the license must exist in SalesForce application.

Evaluation License processing by steps:

1. Find Contact by Protection! Customer Id, then, if not found, by Email. Create a new one if not found. Find Account by Protection! Customer Company. Create a new one if not found using Customer Company and Address data. Set Account's Type to account.type_eval from SalesForceConnect.properties file. If Company field is empty find/create default(unknown) Account (see unknown_account in SalesForceConnect.properties file).
2. Find License's Product by “Product ID” or if applicable by concatenation of “Product ID” and “Product Edition ID”. Continue if found. Stop, if not.
3. Find Standard Pricebook, specified in SalesForceConnect.properties file, and relation between Product and Pricebook. If not found the Opportunity will be created without reference to the Product.
4. Check whether the Opportunity has been already created searching it by Protection! License Id. If not found, search it by the combination of the Contact's Account and Opportunity's Name
5. If the Opportunity not found it will be created.

- Name – consists of the combination of Product Name and Product Version Number based on the opportunity.name format specified in the SalesForceConnect.properties file
- Account – if Protection! Customer Company is not empty the Opportunity will refer to the Contact's Account, otherwise will remain empty
- Close Date – calculated based on License Action Date + opportunity_close_days form SalesForceConnect.properties file
- Stage Name – for evaluation license – opportunity_stage_eval, for extended evaluation one – opportunity_stage_exteval from SalesForceConnect.properties file
- Probability - for evaluation license – opportunity_probability_eval, for extended evaluation one – opportunity_probability_exteval from SalesForceConnect.properties file
- Description – License description
- Opportunity Code – hidden field containing the combination of Product Code + Product Edition + Product Version. Is used to find the Opportunity to close it when related Asset is created.

6. If the Opportunity exists and License is extended evaluation:
   - Stage Name – will be changed to opportunity_stage_exteval from SalesForceConnect.properties file
   - Probability - will be changed to opportunity_probability_exteval from SalesForceConnect.properties file
   - Close Date – calculated based on Licese Action Date + opportunity.close_days form SalesForceConnect.properties file
7. Join Contact with Opportunity, if not joint yet
8. Join Opportunity with Pricebook, if not joint yet
9. Associate Opportunity (through Campaign Influence reference) with a Campaign if its code or name is provided in the License Action and corresponding campaign is found in the Campaigns List by either the campaign's code or name.

a.3.3.2 Commercial License

Commercial licenses are stored in the Asset entity. The product of the license must exist in SalesForce application.

Commercial License processing by steps:

1. Find Contact by Protection! Customer Id, then, if not found, by Email. Create a new one if not found. Find Account by Protection! Customer Company. Create a new one if not found using Customer Company and Address data. If Company field is empty find/create default(unknown) Account (see unknown_account in SalesForceConnect.properties file).
2. Find License's Product by "Product ID" or if applicable by concatenation of "Product ID" and "Product Edition ID". Continue if found. Stop, if not.
3. Find Standard Pricebook, specified in SalesForceConnect.properties file, and relation between Product and Pricebook. If not found the Asset will be created without Product's price.
4. Close the Opportunity for the License' Product if exist. Stage Name will be set to opportunity_stage_commercial from SalesForceConnect.properties file
5. Check whether the Asset has been already created searching it by Protection! License Id. If not found, search it by the combination of the Serial Number and Product.
6. If the Asset not found it will be created.
   - Name – consists of the combination of Product Name and Product Version Number based on the asset.name format specified in the SalesForceConnect.properties file

- Price – the multiplication of the Product's price and License's number of copies
- Quantity – the License's number of copies
- Install Date – for the License Action type Activation the License Action's date
- Purchase Date - the License Action's date
- Serial Number - the License's number
- Usage End Date - the License's expiration date
- Status – asset_status from SalesForceConnect.properties file
- Description - the License's description

7. Join Contact with Asset if not joint yet via ContactAssets entity. If License Action's type is Get or Activation the join is Active, Deactivation – inactive
8. If Contact's Account's type is Prospect it will be changed to account_type_commercial form SalesForceConnect.properties file

Appendix B

OracleCRMOnDemandConnect Workflow

b.1 OracleCRMOnDemandConnect Custom Fields

The OracleCRMOnDemandConnect uses the following custom fields:

Entity	Field	Description
Contacts	Locked	A checkbox field to lock the Contact to prevent it be updated by OracleCRMOnDemandConnect
Asset	Locked	A checkbox field to lock the Asset to prevent it be updated by OracleCRMOnDemandConnect
	Asset Name	Name of the Asset
	Usage End Date	Usage end date of the Asset; usually corresponds License Expiration Date
Opportunities	Opportunity Code	Unique Opportunity's Code. It is composed as "Product Code" + "Product Version". This field is hidden and must not be changed by the users anyway.
Product	Product Code	Protection! Product's ID.
	Price	Product's unit price

b.2 OracleCRMOnDemandConnect Workflow

OracleCRMOnDemandConnect handles "Added" and "Updated" events for the Customer, License and License Action entities by executing the following corresponding workflows:

b.2.1 Customer Added/Updated

If Contact exists and if Contact 's Lock field is unchecked it will be updated with data from Protection! Customer. If not exists, a new Contact will be created. The existence of the Contact is checked by searching Customer Id in Contact's ExternalSystemId field and then, if not found, by Contact's Email. The Contact's Account will be created, if not exists, basing on Protection! Customer's Company and Customer's address.

b.2.2 License Updated

Is applicable only for commercial licenses. Commercial licenses are stored in Asset entity. The product of the license must exist in Oracle CRM On Demand application.
At first the license is searched by License Id in Asset's ExternalSystemId field. If not found, searched by the combination of License Number(Serial#), Product and Account.

If License(Asset) found and Lock field is false(unchecked) the Asset's Quantity, Price, Serial#, Install Date, Usage End Date and Description fields are updated.

b.2.3 License Action Added/Updated

b.2.3.1 Evaluation License

Evaluation licenses are stored in the Opportunity entity. The product of the license must exist in Oracle CRM On Demand application.
Evaluation License processing by steps:

1. Find Contact by Protection! Customer's Id, then, if not found, by Email. Create a new one if not found. Set Contact's Type to contact.type_eval from OracleCRMOnDemand.properties file. Find Account by Protection! Customer's Company. Create a new one if not found using Customer's Company and Address data. Set Account's Type to account.type_eval from OracleCRMOnDemand.properties file. If Company field is empty find/create default(unknown) Account (see account.unknown in OracleCRMOnDemand.properties file). Contact must belong to an Account.
2. Find License's Product by Product Id, and, if applicable, plus by Edition Id. Continue if found. Stop, if not.
3. Check whether the Opportunity has been already created searching it by Protection! License's Id. If not found, searching it by the combination of the Contact's Account and Opportunity's Name
4. If the Opportunity not found it will be created.
   - Name - consists of the combination of Product Name and version number from opportunity.name in SalesForceConnect.properties file.
   - Account – Contact's Account
   - Close Date – calculated based on License Action Date + opportunity.close_days form OracleCRMOnDemand.properties file
   - Sales Stage – for evaluation license – opportunity.stage_eval, for extended evaluation one – opportunity.stage_exteval from OracleCRMOnDemand.properties file
   - Status – opportunity.status_eval from OracleCRMOnDemand.properties file
   - Probability - for evaluation license – opportunity.probability_eval, for extended evaluation one – opportunity.probability_exteval from OracleCRMOnDemand.properties file
   - Revenue – Product's price
   - Description – formatted License information
   - Opportunity Code – hidden field containing the combination of Product Code + Product Edition + Product Version. Is used to find the Opportunity to close it when related Asset is created.
5. If the Opportunity exists and License types is extended evaluation:
   - Sales Stage – opportunity.stage_exteval from OracleCRMOnDemand.properties file
   - Probability – opportunity.probability_exteval from OracleCRMOnDemand.properties file
   - Close Date – calculated based on License Action Date + opportunity.close_days form OracleCRMOnDemand.properties file
6. Join Contact with Opportunity, if not joint yet
7. Join Opportunity with Product, if not joint yet
8. Associate Opportunity with a Campaign if its code or name is provided in the License Action and corresponding campaign is found in the Campaigns List by either the campaign’s code or name.

b.2.3.2 Commercial License

Commercial licenses are stored in the Asset entity. The product of the license must exist in SalesForce application.

Commercial License processing by steps:

1. Find Contact by Protection! Customer Id, then, if not found, by Email. Create a new one if not found. Set Contact's Type to contact.type_commercial from OracleCRMOnDemand.properties file. Find Account by Protection! Customer Company. Create a new one if not found using Customer Company and Address data. Set Account's Type to account.type_commercial from OracleCRMOnDemand.properties file. If Company field is empty find/create default(unknown) Account (see account.unknown in OracleCRMOnDemand.properties file).
2. Find License's Product by Product Id, and, if applicable, plus by Edition Id. Continue if found. Stop, if not.
3. Close the Opportunity for the License' Product if exist. Sales Stage will be set to opportunity.stage_commercial and Status to opportunity.status_commercial from OracleCRMOnDemand.properties file
4. Check whether the Asset has been already created searching it by Protection! License Id. If not found, search it by the combination of the Serial#, Account and Product.
5. If the Asset not found it will be created.
   - Name – consists of the combination of Product Name and version number from asset.name in SalesForceConnect.properties file
   - Account – Contact's Account
   - Product – License's Product
   - Purchase Price – the multiplication of the Product's price and License's Number of copies
   - Quantity – License's number of copies
   - Install Date – for License Action type Activation the License Action's date
   - Purchase Date - License's Issue date
   - Ship Date - License Action's Date
   - Serial# - License's number
   - Usage End Date - License's Expiration date
   - Description - formatted License information
6. Join Contact with Asset, if not joint yet

Appendix C

MicrosoftDynamicsCRMConnect Workflow

c.1 MicrosoftDynamicsCRMConnect Custom Fields

The MicrosoftDynamicsCRMConnect installs the following custom fields:

Entity	Field	Description
Contacts	new_locked	A checkbox filed to lock the Contact to prevent to be updated by ProtectionConnect!
	new_contact_opportunity	Linked Opportunities. N:N relationship to Opportunities
Opportunities	new_externalId	Protection! License Id. Is used by ProtectionConnect! to find an existing Opportunity(License) in the CRM for updating. Should not be accessible and edited by user. It is a hidden field
	new_opportunityCode	Hidden field. Unique Opportunity's Code. Composed as “Product Code” + “Product Version”
Invoices	new_externalId	Protection! License Id. It is used by ProtectionConnect! to find an existing Invoice(License) in the CRM for updating. Should not be accessible and edited by the user. It is a hidden field

c.2 MicrosoftDynamicsCRMConnect Custom Entities

The MicrosoftDynamicsCRMConnect installs the following custom entities:

Entity	Field	Description
New_asset (Assets)	new_assetid	Record Id
	new_description	Description
	new_externalid	Protection! License Id. Is used by ProtectionConnect! to find an existing Asset(License) in SugarCRM for updating. Should not be accessible and edited by user. Is hidden field
	new_installdate	Install date
	new_locked	A checkbox filed to lock the Asset to prevent to be updated by ProtectionConnect!

	new_name	Asset's name
	new_price	Product's price
	new_purchasedate	Purchase Date
	new_quantity	Quantity
	new_serialno	License serial #
	new_usageenddate	Usage End Date
	new_asset_contact	Asset's Contacts. N:N relationship to Contacts
	new_accountid	Reference to an Account
	new_opportunityid	Reference to a related (if applicable) Opportunity
	new_pricelevelid	Reference to a PriceList
	new_productid	Reference to a Product
	new_unitid	Reference to a Unit

c.3 MicrosoftDynamicsCRMConnect Workflow

MicrosoftDynamicsCRMConnect handles "Added" and "Updated" events for the Customer, License and License Action entities by executing the following corresponding workflows:

c.3.1 Customer Added/Updated

If Contact exists and if Contact is not Locked it will be updated with data from Protection! Customer. If not exists, a new Contact will be created. The existence of the Contact is checked by searching Customer Id in Contact's ExternalId field and then, if not found, by Contact's Email. The Contact's Account will be created, if not exists, basing on Protection! Customer's Company and Customer's address.

c.3.2 License Updated

Is applicable only for commercial licenses. Commercial licenses are stored in Asset entity. The product of the license must exist in Microsoft Dynamics CRM application.
At first the license is searched by License Id in Asset's ExternalId field. If not found, searched by the combination of License Number(Serial#) and Product. If License(Asset) found and is not Locked the Asset's Quantity, Price, Serial#, Install Date, Usage End Date and Description fields are updated.

c.3.3 License Action Added/Updated

c.3.3.1 Evaluation License

Evaluation licenses are stored in the Opportunity entity. The product of the license must exist in Microsoft Dynamics CRM application.
Evaluation License processing by steps:

1. Find Contact by Protection! Customer's Id, then, if not found, by Email. Create a new one if not found. Find Account by Protection! Customer's Company. Create a new one if not found using Customer's Company and Address data. Set Account's Type to account.type_eval from MicrosoftDynamicsCRMConnect.properties file. If Company field is empty find/create default(unknown) Account (see account.unknown in MicrosoftDynamicsCRMConnect.properties file). Contact must belong to an Account.

2. Find License's Product by Product Id, and, if applicable, plus by Edition Id. Continue if found. Stop, if not.
3. Find default currency specified in product.currency property. Stop if not found.
4. Check whether the Opportunity has been already created searching it by Protection! License's Id. If not found, searching it by the combination of the Customer Id and Opportunity's Code (product code + product edition + product version)
5. If the Opportunity not found it will be created.
   - Name - consists of the combination of Product Name and version number from pattern int opportunity.name property in MicrosoftDynamicsCRMConnect.properties file.
   - Potential Customer – either Contact if the Protection! Customer has no company or Account if has
   - Currency – Default currency from product.currency property
   - Price List – default Price List from product.price_list property, if found
   - Est. Close Date – calculated based on License Action Date + opportunity.close_days property
   - Probability - for evaluation license – opportunity.probability_eval, for extended evaluation one – opportunity.probability_exteval properties
   - Est. Revenue – calculated by MS Dynamics CRM if Product is specified
   - Description – formatted License information
   - Opportunity Code – hidden field containing the combination of Product Code + Product Edition + Product Version. Is used to find the Opportunity to close it when related Asset is created.
6. If the Opportunity exists, not closed and License types is extended evaluation:
   - Probability – the value from opportunity.probability_exteval property
   - Close Date – calculated based on License Action Date + opportunity.close_days form property's value
7. Join Contact with Opportunity, if not joint yet
8. Join Opportunity with Product, if default Price List found and not joint yet.
9. Associate Opportunity with a Campaign if its code or name is provided in the License Action and corresponding campaign is found in the Campaigns List by either the campaign's code or name.

c.3.3.2 Commercial License

Commercial licenses are stored in the Asset entity. The product of the license must exist in MS Dynamics CRM application.

Commercial License processing by steps:

1. Find Contact by Protection! Customer Id, then, if not found, by Email. Create a new one if not found. Find Account by Protection! Customer Company. Create a new one if not found using Customer Company and Address data. Set Account's Type to account.type_commercial property's value. If Company field is empty find/create default(unknown) Account (see account.unknown in MicrosoftDynamicsCRMConnect.properties file).
2. Find License's Product by Product Id, and, if applicable, plus by Edition Id. Continue if found. Stop, if not.
3. Find default currency specified in product.currency property. Stop if not found.
4. Close related Opportunity with status Won for the License' Product if exist.
5. Check whether the Asset has been already created searching it by Protection! License Id. If not found, search it by the combination of the Serial#, Account and Product.
6. If the Asset not found it will be created.
   - Name – consists of the combination of Product Name and version number from asset.name in MicrosoftDynamicsCRMConnect.properties file

- Account – Contact's Account
- Product – License's Product
- Opportunity – related Opportunity if exist
- Price List – default Price List specified in product.price_list property
- Unit – default Unit specified in product.unit property
- Currency - Default currency from product.currency property
- Price – the multiplication of the Product's price and License's Number of copies
- Quantity – License's number of copies
- Install Date – for License Action type Activation the License Action's date
- Purchase Date - License's Issue date
- Serial# - License's number
- Usage End Date - License's Expiration date
- Description - formatted License information

7. Join Contact with Asset, if not joint yet
8. If invoice.create=true perform next steps:
   - Find Invoice by Protection! License Id.
   - If found and Active (not Paid, Canceled or Closed) update Description Associated with related Opportunity (if found) if not associated yet.
   - If not found create a new Invoice:
     - Name – consists of the combination of Product Name and version number from invoice.name
     - Customer - Contact's Account
     - Price List – default Price List specified in product.price_list property
     - Currency - Default currency from product.currency property
     - Description - formatted License information
     - Opportunity – related Opportunity if found
   - Join Product with Invoice, if not joint yet and Invoice is Active
   - If invoice.paid=true apply Invoice Paid to the new invoice
   - Join Contact with Invoice, if not joint yet

Appendix D

SugarCRMConnect Workflow

d.1 SugarCRMConnect Custom Fields

The SugarCRMConnect installs the following custom fields:

Entity	Field	Description
Product Catalog	code_c	Protection! Product's Id .
Contacts	locked_c	A checkbox field to lock the Contact to prevent it to be updated by ProtectionConnect!.
	external_id_c	Protection! Customer ID. Is used by ProtectionConnect! to find an existing Contact (Customer) in SugarCRM for updating. Should not be accessible and edited by user.
Opportunities	external_id_c	Protection! License ID. It is used by ProtectionConnect! to find an existing Opportunity(License) in SugarCRM for updating. Should not be accessible and edited by user. It is hidden field.
	code_c	Unique Opportunity's Code composed as *"Product Code"* + *"Product Version".* It is hidden field.
	product_catalog_c	A reference to the Product Catalog.
Products	external_id_c	Protection! License ID. It is used by ProtectionConnect! to find an existing Product(License) in SugarCRM for updating. Should not be accessible and edited by user. It is hidden field.
	locked_c	A checkbox field to lock the Product to prevent it to be updated by ProtectionConnect!.
	usage_end_date_c	Protection! license expiration date.
Campaign	code_c	Code that uniquely identifies a campaign

d.2 SugarCRMConnect Workflow

SugarCRMConnect handles "Added" and "Updated" events for the Customer, License and License Action entities by executing the following corresponding workflows:

d.2.1 Customer Added/Updated

If Contact exists and if Contact is not Locked it will be updated with data from Protection! Customer. If not exists, a new Contact will be created. The existence of the Contact is checked by searching Customer Id in Contact's external_id_c field and then, if not found, by Contact's Email. The Contact's Account will be created, if not exists, basing on Protection! Customer's Company and Customer's address.

d.2.2 License Added/Updated

Is applicable only for commercial licenses. Commercial licenses are stored in Products entity. The product of the license must exist in SugarCRM application.
At first the license is searched by License Id in Product's external_id_c field. If not found, searched by the combination of License Number (Serial#) and Product Name. If License(Product) found and is not Locked the Product's Quantity, Cost, Serial#, Install Date, Usage End Date and Description fields are updated.

d.2.3 License Action Added/Updated

d.2.3.1 Evaluation License

Evaluation licenses are stored in the Opportunits entity. The product of the license must exist in SugarCRM application.
Evaluation License processing by steps:

1. Find Contact by Protection! Customer's Id, then, if not found, by Email. Create a new one if not found. Find Account by Protection! Customer's Company. Create a new one if not found using Customer's Company and Address data. Set Account's Type to account.type_eval from SugarCRMConnect.properties file. If Company field is empty find/create default(unknown) Account (see account.unknown in SugarCRMConnect.properties file). Contact must belong to an Account.
2. Find License's Product (Product Catalog) by Product Id, and, if applicable, plus by Edition Id. Continue if found. Stop, if not.
3. Check whether the Opportunity has been already created searching it by Protection! License's Id. If not found, searching it by the combination of the Account Id and Opportunity's Code (product code [+ product edition] + product version)
4. If the Opportunity not found it will be created.
   - Name - consists of the combination of Product Name and version number from pattern int opportunity.name property in SugarCRMConnect.properties file.
   - Account Name – Contact's Account
   - Product Catalog - License's Product
   - Expected Close Date – calculated based on License Action Date + opportunity.close_days property
   - Probability - for evaluation license – opportunity.probability_eval, for extended evaluation one – opportunity.probability_exteval properties
   - Amount – Product's List Price
   - Description – formatted License information
   - Sales Stage - for evaluation license – opportunity.stage_eval, for extended evaluation one – opportunity.stage _exteval properties
   - Opportunity Code – hidden field containing the combination of Product Code [+ Product Edition] + Product Version. Is used to find the Opportunity to close it when related Asset is created.
5. If the Opportunity exists, not closed and License types is extended evaluation:
   - Probability – the value from opportunity.probability_exteval property
   - Close Date – calculated based on License Action Date + opportunity.close_days form property's value
   - Sales Stage - opportunity.stage_exteval properties
6. Join Contact with Opportunity, if not joint yet

7. Associate Opportunity with a Campaign if its code or name is provided in the License Action and corresponding campaign is found in the Campaigns List by either the campaign's code or name.

d.2.3.2 Commercial License

Commercial licenses are stored in the Products entity. The product of the license must exist in SugarCRM application.
Commercial License processing by steps:

1. Find Contact by Protection! Customer Id, then, if not found, by Email. Create a new one if not found. Find Account by Protection! Customer Company. Create a new one if not found using Customer Company and Address data. Set Account's Type to account.type_commercial property's value. If Company field is empty find/create default(unknown) Account (see account.unknown in SugarCRMConnect.properties file).
2. Find License's Product (Product Catalog) by Product Id, and, if applicable, plus by Edition Id. Continue if found. Stop, if not.
3. Close related Opportunity with status Closed Won (opportunity.stage_commercial property) if exist.
4. Check whether the Product has been already created searching it by Protection! License Id. If not found, search it by the combination of the Serial# and Product Catalog.
5. If the Product not found it will be created.
    - Name – Product Catalog's Name
    - Account Name – Contact's Account if it's not an Unknown Account
    - Contact Name – Contact if Contact's Account is an Unknown Account
    - Cost – the multiplication of the Product Catalog's List Price and License's Number of copies
    - List Price - a copy of Product Catalog's List Price
    - Unit Price - a copy of Product Catalog's Discount Price
    - Quantity – License's number of copies
    - Purchased - License's Issue date
    - Serial# - License's number
    - Usage End Date - License's Expiration date
    - Description - formatted License information
    - Status – the value from product.status property
    - Tax Class - a copy of Product Catalog's Tax Price
    - Category – Product Catalog's Category
    - Support Term – Product Catalog's Support Term

Feedback

As part of the continuing effort to improve our product, we welcome your comments, suggestions and general feedback regarding the product.

If you have questions about Protection! Connect and/or Protection! Enterprise please feel free to contact us for further information at protection@jproductivity.com, or visit our web site at: http://www.jproductivity.com.

If you discover any issues or defects in Protection! please send a detailed description to protection@jproductivity.com.