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	Austco Tacera SmartConnec	tor	

Austco Tacera SmartConnector

Installation & User Guide

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1. Introduction

This document outlines the installation and configuration of the Austco Tacera Smart Connector Extension required to integrate the Austco Tacera Nurse Call system with with EcoStruxure Building Operation. This document assumes that EcoStruxure Building Operations and the Austco Tacera Nurse call system has already been installed and is functional as an independent system.

The following are a list of reference documents:

Document	Description
Smart Connector Installation and Configuration	Complete installation guide for Smart
Guide	Connector Framework that covers in more
	depth – installation and configuration options;
	troubleshooting information on the Smart
	Connector Framework. This manual will be
	downloaded during the installation process.
Austco Tacera Smart Connector Extension	This manual

1.1. Versions

This integration has been tested to work with the below versions of the software specified.

Smart Connector: Version 2.4.10 and newer. EcoStruxure Building Operation: Versions 2.0 and newer Austco Tacera Nurse Call System: Versions TODO and newer.

1.2. Architecture

A Basic overview of the architecture can be seen in the below diagram.



1.3. Prerequisites

In order to install the Austco Tacera Smart Connector Extension, we must first install and license the Smart Connector Framework. There are multiple configuration options as to where the Smart Connector Framework can be installed – for use in this document; the Smart Connector Framework and Extension will be installed on the same machine as the EcoStruxure Enterprise Server and SQL Express. For additional options using SQL or remote servers not containing the Enterprise Server refer to the Smart Connector Installation and Configuration Guide.

The following prerequisites must be performed before you start the installation and configuration of the Smart Connector Framework and Austco Tacera Smart Connector Extension.

- EcoStruxure Building Operation Enterprise Server Installed, Configured and Functional
- Microsoft .NET v4.5 or later must be installed on the Enterprise Server
- Install all Windows updates on the Enterprise Server
- SQL Express is installed on the Enterprise Server (or server for Smart Connector installation Note: if SQL is installed on a remote machine follow the detailed instructions in the Smart Connector Framework Installation and Configuration Guide.pdf
- The specified user must have at least the public and dbcreator user roles in the SQL server

Note: Additional Installation options for installing the Smart Connector Framework can be located in the Smart Connector Installation and Configuration Guide.

1.4. Quick Start Installation Sequence

The following overview provides the steps necessary to install and configure the system. The subsequent chapters will provide detailed information for each step in the process.

- 1. Install, License, and Configure the Smart Connector Framework
- 2. Install, License and Configure the Austco Tacera Smart Connector Extension

2. Smart Connector Framework Installation

The first step in the process is to download Smart Connector Framework software from <u>www.smartconnectorserver.com</u>, once downloaded you will install the Smart Connector Framework software, obtain the machine thumbprint, license the Framework to the machine thumbprint and finally configure the Framework system. Once the Smart Connector Framework has been installed, configured and licensed we can extend the Framework by adding the Austco Tacera Smart Connector Extension.

2.1. Downloading the Smart Connector Framework

The following steps will assist in downloading the Smart Connector Server Framework.

- 1. Go to <u>www.smartconnectorserver.com</u>
- 2. Request credentials to logon to the web site
- 3. Log on to the web site
- 4. From the menu, select Download Center from the menu





- Save the latest Smart Connector version download file
 Note: This document will be using v2.4.10.exe as that was the latest available during the writing of this document, but the latest version should be used.
- 9. Select the Smart Connector Installation and Configuration Guide.pdf
- 10. Save the Smart Connector Installation and Configuration Guide.pdf download file

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2.2. Installing the Smart Connector Framework

To install the Smart Connector Framework, execute the setup file that was just downloaded. Run SmartConnector-2.4.10.exe – You must run this as an *Administrator*.

- Install Smart Connector Framework
- Validate Smart Connector Framework Installation
- <u>Change Default Credentials</u>
- Install Smart Connector Framework Runtime License

2.2.1. Installing Smart Connector Framework

- 1. Locate the downloaded file SmartConnector-2.4.10.exe
- 2. Right click on the file SmartConnector-2.4.10.exe
- 3. Select Run as Administrator

🛃 SmartConnector - InstallSh	ield Wizard 💽
2	Welcome to the InstallShield Wizard for SmartConnector
	The InstallShield(R) Wizard will install SmartConnector on your computer. To continue, click Next.
	WARNING: This program is protected by copyright law and international treaties.
Prove and	< Back Next > Cancel

- 4. Click Next.
- 5. Review and accept the terms to the End User License Agreement

妃 SmartConnector - InstallShield Wizard	×
License Agreement Please read the following license agreement carefully.	と
End User License Agreement (EULA)	^
COMPANIES OF THE SCHNEIDER ELECTRIC GROUP SOFTWARE PACKAGE UNDER LICENSE AGREEMENT	
IMPORTANT - READ BEFORE USING	
This Software License Agreement was last updated on 06-11-2012.	~
I accept the terms in the license agreement I do not accept the terms in the license agreement InstallShield	Print
< <u>B</u> ack <u>N</u> ext > 0	Cancel

6. Click Next.

🛃 SmartConnecto	r - InstallShield Wizard
Setup Type Choose the setu	p type that best suits your needs.
Please select a s	etup type.
Complete	All program features will be installed. (Requires the most disk
Custom	, , , , , , , , , , , , , , , , , , ,
	Choose which program features you want installed and where they will be installed. Recommended for advanced users.
InstallShield	
	< Back Next > Cancel

- 7. Choose the Setup Type you wish to perform. If this is a new installation, *you must choose Complete*.
- 8. Click Next.

9. Enter the required information for the database server where you will install the database to. (*Note: for this manual example we are using SQL express and a local Windows user*)

Database Server Type:		Database Se	erver Name:	
SQLServer Express	~	localhost	SQLEXPRESS	
Add sample data		Database Na	ame:	
		SmartCo	nnector	
		Authenticatio	on Type:	
		Windows	Implicit	~
a limit of the				
nstallShield				

- i) You can uncheck Add sample data
- ii) Select the Database Server Type: SQLServer Express
- iii) Select the Authentication Type: Windows Implicit

Note: The logged in user must have at least the public and dbcreator user roles in the local SQL server. In this configuration Smart Connector runs under the NT Authority\System account. <u>Appendix B</u>

For additional SQL installation options, refer to the Smart Connector Installation and Configuration Guide previously downloaded

10. Click **Next** to display the final confirmation dialog shown below.

			14
The wizard is ready to begin inst	tallation.		
Click Install to begin the installat	tion.		
If you want to review or change exit the wizard.	e any of your installation set	tings, click Back. Click Can	cel to

11. Click **Install** to complete the installation and create the default database.

12. Click Finish.

cessfully installed exit the wizard.
sller log

2.2.2. Validating Smart Connector Framework Installation

To review the service installation, you should perform the following:

- 1. Open the Windows Services dialog.
- 2. Find the entry for "SmartConnectorService". It should have a Status of "Started" or "Running" and a Startup Type of "Automatic" as shown below.

If Smart Connector and the connected database server are located on the same physical server, we recommend changing that the Startup Type to "Automatic (Delayed Start)".

File Action View	v Help						
🤮 Services (Local)	Services (Local)						
	SmartConnectorService	Name	Description	Statu	Startup Type	Log On As	
	21.2	🔍 Server	Supports file, print, a	Started	Automatic	Local System	
	Stop the service	端 Shell Hardware Detection	Provides notification	Started	Automatic	Local System	
	Mestant the service	🔍 Smart Card	Manages access to s		Manual	Local Service	
		端 Smart Card Removal Policy	Allows the system to		Manual	Local System	
		端 SmartConnectorService		Started	Automatic	Local System	
		🖏 SNMP Trap	Receives trap messa		Manual	Local Service	
		🔍 Software Protection	Enables the downloa		Automatic (Delayed Start)	Network Service	0
		端 SPP Notification Service	Provides Software Li		Manual	Local Service	
		端 SQL Server (SQLEXPRESS)	Provides storage, pr	Started	Automatic	NT Service\MSS	5
		端 SQL Server Agent (SQLEXPRESS)	Executes jobs, monit		Manual	Network Service	
		🔍 SQL Server Browser	Provides SQL Server	Started	Automatic (Delayed Start)	Local Service	
		(Company)				•	
	Extended Standard						_

- 3. Right click the "SmartConnectorService" entry and choose Properties.
- 4. Click the **General Tab**.
- 5. Confirm the Startup Type is **Automatic**.
- 6. Click the **Log On** tab.
- 7. Confirm that the "Local System account" is selected. This may be different depending on the database authentication type you chose earlier.
- 8. Click the Recovery tab.

9. Set First failure: to **Restart the Service**

We recommended that you choose at least one recovery action in the event that the Smart Connector Service experiences a failure. At a minimum, "Restart the Service" should be selected

Coloct the east				
actions.	mputer's respons	se if this serv	rice fails. <u>Help me set up</u>	recovery
First failure:		Restart the	e Service	~
Second failure	e:	Take No /	Action	~
Subsequent f	ailures:	Take No /	Action	~
Reset fail cou	nt after:	0	days	
Restart servic	e after:	1	minutes	
Run program	tions for stops w	ith errors.	Restart Computer Opti	ons
Program:				
			Brows	e
Command	line parameters:			
Append	fail count to en	d of commar	nd line (/fail=%1%)	

10. Select **OK** to save all changes

2.2.3. Changing Default Credentials

By default, Smart Connector will enable Smart Connector Portal on the local machine. Using Smart Connector Portal, you must change the default password to a new password.

- 1. Open a web browser
- 2. Navigate to <u>http://localhost:8082</u>
- 3. At the Login Page, enter the default user credentials of admin and Admin!23.

At this point you will be presented with the Change Password Page as show below.

SmartConnector ×						×
← → C 🗋 localhost:8082/Password	<u>2</u>	7. 1	3	0		≡
Status Configurations - EWS Servers	Setup+ About	Logge	d in a	as admir	i.	
Change Password						
Your password has expired and you must change it before contin	nuing.					
	Current Password*					
	New Password*					
	Confirm New Password					
	Change Password 🏛					
Sehnoidon						-
				_	_	_

- 4. Enter the default password as the Current Password.
- 5. Enter a new password. Portal passwords are required to be at least 6 characters in length and contain a mix of upper case, lower case, numeric, and at least one non-alphanumeric character.
- 6. Confirm the password you entered in step 5.
- 7. Click Change Password.
- 8. Re-authenticate (Login) with your User name and New password.

2.2.4. Installing the Smart Connector Framework Runtime License

Smart Connector Framework requires a license in order to run. After changing the default password, navigating to any page of Smart Connector Portal will return the user to the Install License page where a runtime license must be installed.

Smart Connector Connected to the Web

If the Windows machine with Smart Connector Framework detects an active internet connection, the Install Smart Connector License page will automatically be displayed. Once authenticated with the License Manager, you only need to enter a License Claim Token to "claim" the runtime license and it will be automatically installed. Alternatively, the user may click "Upload License" to manually upload an already obtained license file. License Claim tokens and license files can be obtained from www.smartconnectorserver.com.

e	O top//tocahost.blt/hosall/cove	– 🗆 × ଜୁଇ କୁ
	Status Configurations - EWS Servers Setup - About	.ogged in as admin -
	Install SmartConnector License	
	smana-connector requires a accente in order operate and no valid accente was tourid. I have a valid license file	
	Click here to upload your license file Upload License	_
	I do not have a License Claim Token	
	Using and browser, available here and deveload your knowne manually. If you require the humborn for this machine it is: 1000CSE000C006AECFFE0000C08AECFFE0000C08AECFFE0000C08CFE0800F20821388FDC170F559C38C1C708 Crice you have obtained your knowne file, follow the steps at "I Have a valid knowne file".	1
	I do have a License Claim Token	
	Authenticate with the locense server below. You can use any of the supported third party credential providers shown or enter your email address and password. After authenticating, enter the "License Claim Token" for this version of SmartConnector. If you do not have a "License Claim Token", you must obtain one from your solution prove Click "Claim License" and your license will be automatically installed.	ier.

Smart Connector Not Connected to the Web

If Smart Connector fails to detect an active internet connection, the Install License page shown below will be displayed.

Directions are provided on how to download a license file from <u>www.smartconnectorserver.com</u>.

Obtain a license when you do not have a Claim Token

If you do not have a claim token then you can download a License for Smart Connector Framework via a file and the Thumbprint of the machine smart Connector Framework has been installed on.

- 1. From the "I do not have a License Claim Token section of the Smart Connector License page"
- 2. Copy the Machine Thumbprint into the Windows clipboard for use later
- 3. Click on the navigate here button in this section, this will connect you to the License Depot web page
- 4. Log on to the License depot web page with your smartconnectorserver.com credentials
- 5. Scroll down until you see the Runtime v2.4 commercial license



- 6. Select the () download button to obtain the License file
- 7. Complete the Download License form

os://www.smartconnectorsever.com/license/createlicen ר 🖉 צ 📾 ל 🛛 🗗 SmartConnector 🖉 Smart	Connector Server ×	
License Depot Extensions Licenses + Forms + Tenant + Do	mload Center FAQ	donald lemenager@schneider-electric.com ↓
Download License		
Schneider Electric SmartConnector v2.3 Commercial License		
Please complete the following information about your SmartConnector Deployment.		
Project Location (Country) *	Category	
United States -	Access Control	
Solution Provider *		
BOC Solution Lab		
Building/Job Name *	Business Segment	
Final AX Test	Healthcare	
SmartConnector Deployment License Purchase Order, Invoice, or Order Confirmation Number *		
1234		
ED03102013200300B4CFMECE04003E003CB3CFB832F22B213BBFDC175F553C33C1C/00 X		
Download License Θ		
Colorador		
Schneider		
Electric		
Copyright w Connector zu la-zu la		



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- 8. Paste in the machine thumbprint from the Windows clipboard (copied earlier)
- 9. Save the downloaded License file
- 10. Return to the Install Smart Connector License page
- 11. Select Upload License
- 12. Smart Connector Framework is now successfully licensed
- 13. The Smart Connector Framework status page will appear

I http://local	host:8082/	ク・ C SmartConnector	× 🖉 SmartConnector Server	- 公 公
X	Status Configurations +	EWS Servers Setup → At	bout	Logged in as admin v
tatus				
lefresh ${\cal S}$				
Processor Th	reads Active Endpoints	Managed Clients Configuration	n Requests EWS Server Requests	
#	Status	Elapsed Time (hh:mm:ss)	Processor Configuration	
1	Waiting For Work			

Confirm Settings

Smart Connector installs the service with some default settings. After changing the password, you should confirm the system settings meet the criteria for how Smart Connector Framework will be used.

- 1. Open any web browser
- 2. Navigate to <u>http://localhost:8082</u>
- 3. Authenticate with the credentials you used in the prior section.
- 4. From the menu, click **Setup -> Service Settings**.

Service Se	ettings		
Refresh C Edit AI G	l		
	Changing the values on this page may cause unpredicatable results including rendering this por Please consult your documentation before making changes here.	tal non-functional.	
Name	Description	Value	
Instance Name	Name of the service	SmartConnector	G
Logging Level	Application wide logging level	Info	* G
Password Age Limit	Maximum number of days before a password must be changed	60	G
Portal Address	Address of the SmartConnector Portal	http://127.0.0.1:8082	ß
Processor Runtime Limit	The maximum allowed time (in seconds) a non-ILongRunningProcessor is given to complete before it is terminated as unresponsive	600	G
Worker Manager Sleep	Time in mSec which the worker manager will sleep while waiting for workers to complete or for new work to be available	5000	G
Worker Thread Count	Number of worker threads which are allocated to execute processes	5	G
	7 fairs present		

To edit any field, you can either click the edit icon (¹²⁷) in that field or click the Edit All button to enable all fields for editing.

The default settings will be acceptable for the initial installation of Smart Connector Framework.

Users should use good security practices to define the expiration time for user Passwords. The EWS Portal address can also be modified here from the default port used 8082.

5. Review and/or change values as desired. Unless otherwise noted, changes made here will take effect without a service restart.

Instance Name	Appears in the browser tab and can be useful to distinguish which Smart Connector instance you are looking at if you are connecting to multiple deployed instances from a single browser.
Logging Level	Maximum level Smart Connector will log. Possible values are
	None Error Status Info Debug Trace All This setting is used in
	conjunction with Logging Filters to control how much information
	is cantured in the log files
	The maximum much an of days hofere a Douted words account will
Password Age Limit	expire.
Portal Address	Address of Smart Connector Portal. For security concerns, the
	default value will be 127.0.0.1 which means the portal can only be
	accessed from the local machine. If broader access is required,
	this value can be modified by using the "+ syntax" e.g.
	http://+:8082. This will allow access to any IP or DNS which
	resolves to the local machine. If you plan to secure the endpoint
	with a certificate, then the protocol shown here should be
	changed to https to match. Entering an empty value will disable
	the portal. Use caution! Consult the <u>Security Considerations</u> for
	suggestions on how best to configure this.
Processor Runtime	The maximum amount of time a Processor Configuration is given
Limit	to complete before it is deemed to be unresponsive and is
	terminated. Unless otherwise instructed this value should not
	need to be modified.
Worker Manager Sleep	The amount of time that the Worker Manager will idle before
	determining if there are Processors that need to be invoked.
	Unless otherwise instructed this value should not need to be
	modified.
Worker Thread	Count – The number of concurrent Processors that can be
	executed. This number may be increased but is largely dependent
	on the host machine's number of logical processors. To determine
	the number of logical processors, open a command prompt and
	enter the command: WMIC CPU Get
	DeviceID, NumberOfCores, NumberOfLogicalProcessors. While you
	can set this value greater than the number of logical processors, it
	represents the number of concurrent workers that can run
	without potential operating system queuing. You will need to
	restart the Smart Connector Service for this change to take effect.

6. After you have made the necessary changes, click Save to save them to the database.

3. Austco Tacera Smart Connector Extension Installation

The steps below will walk you through how to obtain, license, and configured the Austco Tacera Smart Connector Extension

3.1. Obtaining the Austco Tacera Smart Connector Extension

Because this extension was not developed for broad distribution, this extension is not publically available. Please email TODO@schneider-electric.com to obtain the files required for this Smart Connector Extension.

3.2. Installing the Austco Tacera Smart Connector Extension

Because this extension was not developed for broad distribution, this extension is not publically available. Please email TODO@schneider-electric.com to obtain the files required for this Smart Connector Extension.

- 1. Extract the files from the zip file to a temporary directory
- 2. Right click on each file and select Properties
- 3. Verify the file is not blocked see screen shot below;
- a. If the file is blocked, select Unblock

eneral Sect	urity Details Previous Versions	
	Newtonsoft.Json.Bson.dll	
Type of file:	Application extension (.dll)	
Opens with:	Unknown application Change	
Location:	C:\Program Files (x86)\Schneider Electric\Sma	artCon
Size:	88.0 KB (90,112 bytes)	
Size on disk:	88.0 KB (90,112 bytes)	
Created:	Wednesday, March 22, 2017, 11:01:20 AM	
Modified:	Today, April 17, 2018, 18 minutes ago	
Accessed:	Wednesday, March 22, 2017, 11:01:20 AM	
Attributes:	Read-only Hidden Advance	ed
Security:	This file came from another computer and might be blocked to help protect this computer.	*

- 4. Copy the files to the installed directory for Smart Connector Framework (e.g. C:\Program Files (x86)\Schneider Electric\SmartConnector)
- 5. You have successfully installed the Austco Tacera Smart Connector Extension

3.3. Licensing the Austco Tacera Smart Connector Extension

Because this extension was not developed for broad distribution, this license is not publically available. Please email <u>TODO@schneider-electric.com</u> for a license for this extension.

Once you have obtained the license file, follow the below steps to add this license to your Smart Connector installation.

- 1. Go to the smartconnector portal
- 2. Select setup -> License
- 3. Select Add+
- 4. Select *Austco Tacera Extension* license file that was obtained through TODO@schneiderelectric.com
- 5. Select **Open**

Conserve Add Download Assembly Name Assembly Version Features Licensed To Expiration Date EbolotEdgeConnector.Extension.dll No custom features jeff. bowman@schneider- electric.com 02/13/2019 10:59 AM 	Status	Configurations -	EWS Servers Setup -	About		Logged in as adm
Easth 27 Thumbprint 6 Add (*) Download (*) Assembly Name Assembly Version Features Licensed To Expiration Date Image: Service exe Assembly Version No custom features jeff.bowman@schneider- electric.com Never expires. Image: Mongoose Service exe 2.4.* No custom features jeff.bowman@schneider- electric.com 02/13/2019 10:59 AM	nses					
EbolotEdgeConnector Extension.dll No custom features jeff.bowman@schneider- electric.com Never expires. Image: Description of the second	Assemi	t G Add @ Down	Assembly Version	Features	Licensed To	Expiration Date
Mongoose.Service.exe 2.4.* No custom features jeff.bowman@schneider- electric.com	EbolotE	dgeConnector Extensio	n.dll	No custom features	jeff.bowman@schneider- electric.com	Never expires
	Mongoo	ise Service exe	2.4.*	No custom features	jeff.bowman@schneider- electric.com	02/13/2019 10:59 AM

6. You have successfully licensed the Austco Tacera Smart Connector Extension.

3.4. Configuring the Austco Tacera Smart Connector Extension

The Austco Tacera Smart Connector extension consists of only a singlep rocessors, this processor will create the custom EWS Server that EcoStruxure Building Operation connects to as well as keeps that EWS server up to date with all the Events that are being streamed from the Austo Tacera Nurse Call system.

The following steps are the common steps that must be followed for each of the four processors when configuring them.

1. Log into the **Smart Connector Portal**. If Smart Connector is installed on the same machine use localhost:8082

2. Select Configurations -> Processor.

Smart(Connector ×	X.		
\Rightarrow C (localhost:8082/status			☆
	Status Configuratio	ns 🗕 EWS Servers	Setup → About	Logged in as admin -
Statu	S Processor Endpoint			
Refresh 🗘	l.			
Processor	Threads Active Endpoir	nts Configuration Re	equests EWS Server Requests	
#	Status	Elapsed Time (hh:mm:ss)	Processor Configuration	
1	Waiting For Work			
2	Waiting For Work			
3	Waiting For Work			
4	Waiting For Work			
5	Waiting For Work			
			5 items present	

3. From the Processor Configurations Page, press Add New + Button.

SmartConnec	tor ×					-
- C 🛈 loca	alhost:8082/processorConfigura	itions			r	۲ : ۲
1	Status Configurations - E	WS Servers	Setup v About		Logged in as admin +	
Proces	sor Configurat	ions				
Refresh 🧭 Add	Name	Execution Count	Last Execution Time (hh:mm:ss)	Total Execution Time (hh:mm:ss)	Description	
00 i	Long Running Processo	и О	00:00:00	00:00:00	Sample processor which will start and idle until commanded to stop.	
001	Null Processor	0	00:00:00	00:00:00	Sample processor that does nothing but sleep for a fixed duration.	
			2 items present			
Schno	ider					
Copyright © Schneide	rElectric 2013-2017					
		SmartConnector SmartConnector C C D localhost3082/processorConfigurations Status Configurations E Processor Configuration Name C C C Copyright Sonneider Electric 2013-2017	Image: Signard Connector X Image: Configurations Image: Configurations Image: Configurations Image: Configurations <	Image: Single Connector X Image: Single Connector Status Configurations - EWS Servers Setup - About Image: Single Configurations Ews Configurations Execution Last Execution Time (htt:::::::::::::::::::::::::::::::::::	Image: Status Configurations Status Configurations EWS Servers Setup + About	Image: Status Configurations EWS Servers Setup About Logged in as admin. Configurations EWS Servers Setup About Logged in as admin. Concension Configurations EWS Servers Setup About Logged in as admin. Concension Configurations EWS Servers Setup About Logged in as admin. Concension Configurations EWS Servers Setup About Logged in as admin. Concension Configurations Execution Time Total Execution Time Description Concension Configurations Execution Control (th::::::::::::::::::::::::::::::::::::

- 4. From the Add Processor Configuration Page, Select the AustcoTacera.Extension Assembly
- 5. Select the **Next** Button.
- 6. Choose the AustcoTacera.Extension.AlarmUpdateProcessor class and press the Next Button.
- 7. Give a Name and a Description for this configuration and Press the **Finish** Button.
- 8. On the **Process Configuration** Page, Click on the **Details** Tab.
- 9. The below steps detail the settings that need to be configured for the Alarm Update Processor.

and All	Collapse All	
De	tails	
	Ignore SsI Certificate Errors *	
	True	*
-	Austco Tacera Settings	
_	Smart Connector Ews Server	

• Ingore Ssl Certificate Errors: When set to true, the processor will ignore SSL certificate errors when trying to communicate with the Austco Tacera API. **Default:** False. *Note: This should only be set to true when you are testing the system, in a fully configured system, the certificate used by the Austco Tacera system should be valid.*

• Austco Tacera Settings: These are the settings that are specific to allowing communication between Smart Connector and Austco Tacera to be successful.

Endpoint	
https://10.169.86.11:9443/ws	
Арі Кеу	
~ Encrypted ~	

- Endpoint: The Austco Tacera web service endpoint. Default: <u>https://localhost:9443/ws</u>.
- Api Key: The API Key required to access the Austco Tacera web service. **Default:** empty. *Note: This API is obtained from Austco.*
- Authorized Features: The features being required by Smart Connector. Whether or not these permissions are granted are based on what permissions the API Key are allowed.
 Default: One permission called Ws Alarm Subscribe. This permission allows the Austco Tacera API session to be streamed alarms.

NOTE: If both alarms and signal events are required, then you will need to add a feature for both WS Alarm Subscribe, and WS Signal Event Subscribe.

- I courte mune	
Ws Alarm Subscribe	
Ouotas -	
Item	
Item 1	
Item Feature Name *	

- Feature Name: The feature that is being required.
- Quotas: TODO: I am not sure what this means! But from what I have seen, this can be left empty.

• Smart Conector EWS Server: These settings are used to configure the Smart Connector EWS Server that will be used to serve these Alarm events to EBO.

Server Name *	
AustcoTaceraServer	
Server Address *	
http://localhost:51339/EcoStruxure/DataExchange	
Realm *	
Default	
Username	
~ Encrypted ~	
Password	

- Server Name: The name of the EWS Server in Smart Connector. **Default:** "AustcoTaceraServer". This can typically be left as it's default value.
- Server Address: The EWS endpoint that will be used to access this EWS server. **Default:** <u>http://localhost:51339/EcoStruxure/DataExchange</u>. This can typically be left as it's default value.
- Realm: The authentication realm for this EWS server. **Default:** "Default". This can typically be left as it's default value.
- Username: The initial username of the user that can access the data in this EWS Server. **Default:** "admin".
- Password: The password for the user above. Default: "Admin!23"
- Default Call Point Types: This property can contain a list of strings. Because there is no discovery mechanism, this property is used to automatically create Alarms for the specified alarm types, when an alarm of any type occurs on a call point. **Default:** An empty list.

3.5. Configure scheduled execution of Processors

The following procedures will create schedules that will be used to control the execution of each processor. These schedules will then be attached to each processor.

3.5.1. Configure a 5 Minute schedule

- 1. Select Setup -> Configuration Schedules.
- 2. From the Configuration Schedules page, select Add New +
- 3. Enter 'Every 5 Minutes' in the **Description** field
- 4. Select the current date and time from the Start Date field
- 5. Select **Time Interval** from the **Type** field
- 6. Enter '5' in the Interval Gap field
- 7. Select Minutes from the Interval Gap Units field
- 8. Select Save to save the Schedule

3.5.2. Assign a Schedule to the Processors.

The following process should be done for the **Alarm Update Processor**. Do not assign a schedule for the Setup processor, but do step '6' for it.

- 1. Select Configurations -> Processor.
- 2. Select **Edit** for one of thre
- 3. Select the Schedule tab
- 4. Select the Every 5 Minutes schedule from the Schedule field
- 5. Select the Control tab
- 6. In the Runs On Start field select True
- 7. In the Runs On Schedule field select True
- 8. Select **Save** to save the changes to the Processor Configuration



		Edit			
		C	© í	ă 🗖	
essor	Details	Control	History	Schedule	
chedule	;				
Every 5	Minutes				*

Processor E	Details	Control	History	Schedule
Runs On Start				
True				- C
Manually Starta	ble			
True				- 0
Runs On Sched	ule			
True				- 0
Manually Stopp	able			
True				- D

3.5.3. Force the Setup Processor to Run First Time

- 1. Select Configuration -> Processor
- 2. Locate the Setup Processor
- 3. Hit the **play** button:
- 4. The execution count will increase and the total execution time will increment



Proc

4. EcoStruxure Building Operation EcoStruxure Web Service Interface

4.1. Create Austco Tacera EWS Interface in EBO

In order to create the EWS Interface for Austco Tacera in Building Operation, you will need to know the configuration of the EWS Endpoint, IP address (or Localhost) and the communication port number. In this example we will use the default settings

🚝 Create Object: EcoStruxure Web Service

Choosing the Type and Naming the Object

- 1. Select the Enterprise Server Server 1
- 2. Right click
- 3. Select New
- 4. Select Interface
- 5. Select Web Service
- 6. Select EcoStruxure Web Service
- Provide a Name and Description for the EWS Interface Example: Austco Interface
- 8. Select Next
- 9. Enter the EWS Server name or IP address (LocalHost)
- 10. Select HTTP
- 11. Enter the Port Number
- 12. Enter the EWS Path
- 13. Enter the *EWS User* defined from the Austco Tacera Smart Connector Extension (default admin)

the stand the second se	N	lame	Austco Int	erface				
Modous interface SmartDriver Inter EoStructure Script Web Service Script Web S Sonap Web S BACnet Interface NET Interface LoniVorks Interfa	face P. Meb Service ervice e	ath Vescription	/Server 1					
Create Object: EcoSt	truxure Web Service				Previous	Next	Creat	te Ca ?
to relative and to the second								
EWS Server loca	alhost							
EWS Server loca Protocol HT	alhost TP v EWS Con	nmunication	Port 51,:	39				
EWS Server loca Protocol HT EWS Path Eco	alhost TP v EWS Con Struxure/DataExchan	nmunication ge	Port 51,	39				
EWS Server loca Protocol HT EWS Path Eco Authentication for Se	alhost TP × EWS Con Struxure/DataExchan	nmunication ge	Port 51,	39				
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EWS Server loc. Protocol HT EWS Path Eco Authentication for Se User name New password Confirm password	alhost TP v EWS Cor Struxure/DataExchan ervice Call admin	nmunication	Port 51,	39				

? X

- 14. Enter the *Password* for the EWS User defined in the Austco Tacera Smart Connector Extension (default Admin!23)
- 15. Select Create

Note: Another way to complete this interface creation is to select Create after entering the Name and Description in the first dialog, then going to the newly created interface on the System tree and selecting Properties to complete the remaining fields (see next page)

From the System Tree (sample screen shot to the right)

- Select the EWS Interface just created
- Select Properties Tab
- Verify that the User and Password match the setting in Austco Tacera Smart Connector Extension
- Verify the Service URL matches the setting in the Austco Tacera Smart Connector Extension
- Set the Alarm Polling Interval to 60 seconds
- Click Save

To verify communication is working properly check the following:

- The version field of the EWS Interface properties page will populate with a value 1.2.
- Wait 60 seconds and verify the interface does not go offline

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stem Tree 🔹 🖣 🗙	Austco Interface ×				
7 1	List View	Properties			
🔀 Server 1	Basic	References			
System	Authentication				
P ARU	User name	admin			
Austco Interface BACnet Interface	Password				
Device1	Confirm password	•••••			
Energy	Service Configuration				
Fake Air Handler 1 Fake Air Handler 2	Service URI	http://localhost:51339/EcoStruxure/DataExchange			
🕨 🦰 Lighting	Eachla Communication	[Feedland and and and and and and and and and			
RestEndpointObjects	Enable Communication	Enabled			
Shortcuts	Server EWS Version	1.2 🔹			
Smart Connector	Value Polling				
SOAP Web Service 2	Value Polling	Enabled •			
Þ 🔁 VAV	, terres (e.m.) g				
🕴 🧮 Webservice Restful POST US City Wi	Value Poll Interval (s)	60			
Alarm Triggered Notification	Alarm Polling				
▶ 💊 AV1	Alarm Polling	Enabled •			
CycleValue	, addin on only				
Script Program	Alarm Poll Interval (s)	60			
Script Web Service 2	Filter Priority From	0			
Simple Math Operator	Filter Drinsity To	1 000			
Temperature	Filter Priority to	1,000			
A Temperature Out of Ranne Alarm	Error Handling				

4.2. Host Austco Tacera Objects in EBO

Host the EWS objects that are available from the Austco Tacera EWS Server, by performing the following procedure. The EcoStruxure Building Operation system will discover all objects available from said server and create an object in the EcoStruxure Building Operation database that can be used for programming, scheduling, or binding to graphics.

The following steps can be used to Host an EWS Interface

- Open the Enterprise Server
- Open the System folder
- Open the Hardware folder
- Open the EcoStruxure Web Services
- Open the Austco Tacera EWS Interface
- Right click on the Austco Tacera Server object
- Select Host EWS Objects
- Select the EWS Interface created in section 4.1
- A dialog may appear "Hosting EWS Objects"

Host EWS Objects	

- Upon completion of the Hosting process, close the System folder
- Open the Austco Tacera EWS Interface created in section 4.1



- The Austco Tacera objects will all be hosted
- Note: the option to host will not appear if objects are already hosted

You can now use these objects as any other Building Operations object to bind to a program or a graphic.

You may also delete any object from the Austco Tacera EWS Interface and do not have to worry, it will not delete the object from Austco Tacera, deleting the object just removes it from EcoStruxure Building Operations.

5. Troubleshooting

5.1. Smart Connector Log File

Smart Connector includes integrated logging into log files where both Smart Connector extensions and the Smart Connector framework can log any messages that may be useful. These log files can be found generally in the directory *C:\\ProgramData\SmartConector\Logs* on the machine where Smart Connector is installed.

In general, if you are having problems with Smart Connector or the Austco Tacera Smart Connector extension, it may be necessary to increase the logging level, or enable additional logging filters.

• To adjust the logging level, visit the **Service Settings** page and edit the *Logging Level setting*. Service Settings

Refresh 🗘 🛛 Edit Al 🕼						
Changing the values on this page may cause unpredicatable results including rendering this portal non-functional. Please consult your documentation before making changes here.						
Name	Description	Value				
Instance Name	Name of the service	SmartConnector	Ø			
Logging Level	Application wide logging level	Trace	* 6			
Password Age Limit	Maximum number of days before a password must be changed	60	ß			
Portal Address	Address of the SmartConnector Portal	http://127.0.0.1.8082	ß			
Processor Runtime Limit	The maximum allowed time (in seconds) a non-ILongRunningProcessor is given to complete before it is terminated as unresponsive	600	ß			
Worker Manager Sleep	Time in mSec which the worker manager will sleep while waiting for workers to complete or for new work to be available	5000	ß			
Worker Thread Count	Number of worker threads which are allocated to execute processes	5	ß			

• To adjust the logging filters, visit the Logging Filters page. The logging filters most likely to pertain to this solution is *Processor* and *Ews Consume*.

Logging Filters

Refresh Ø	Edit All 🖸 Add Category 🕂 🛛 All \Theta None 🛇		
	Category	Include in Logs	
	Api	False	• 🖾
	Csp Client	False	• 🗵
	Database	False	• 🗵
	Ews Consume	True	• 6
	Ews Serve	False	• 🖾
	Licensing	False	• 🗵
	Other	False	• 🖾
Ê	Portal	False	• 🖾
Ē	Processor	True	• 8
	Reader	False	• 🖾
	Rest Serve	False	• 🛛

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5.2. Framework Licensing Error

If you navigate to the Smart Connector portal and see a page similar to the below screenshot. This means that either you have not yet got a license for your Smart Connector framework, or your current license is no longer valid.

G	O http://localboot.1052/http://localboo	- 🗆 X ଜନ୍ମ 🕮 🙂
	Status Configurations - EVIS Servers Solup - About La	ogged in as admin -
	Install SmartConnector License	
	8	
	smarts-connector requeres a lacense in order operate and no valid license was tound. I have a valid license file	
1	Click here to upload your license file Upload Lease 0	٦
	Using any browser, navigate here and download your license manually. If you require the thumborint for this machine it is: 21005056862000C656462676785040624800037920355540840464F9C04E0657028152006606467462E84606500962802F8802722521388FDC175F558C38C1C766 • Once you have obtained your license file, billow the steps at "I have a valid license file".	
1	I do have a License Claim Token	-
	Authenticate with the license server below. You can use any of the supported third party credential providers shown or enter your email address and password. After authenticating, enter the "License Claim Token" for this version of SmartDonnector. If you do not have a "License Claim Token", you must obtain one from your solution provid Click "Claim License" and your license will be automatically installed.	er.

If you have not yet got a license for your Smart Connector framework:

Follow the instructions in the section Installing the Smart Connector Framework Runtime License

If you have already got a license for your Smart Connector framework:

The Smart Connector framework license is bound to a machine thumbprint. This machine thumbprint is a key generated from multiple hardware components of your machine, including the current network adapter that was being used when the license was generated. If you have switched to a different network adapter (e.g. going from a hard-wired connect to a WIFI connection), then it is very likely this machine thumbprint has changed. Please follow the section <u>Installing the Smart Connector Framework Runtime License</u> using your new thumbprint.

5.3. Smart Connector Extension Licensing Error

If your Austco Tacera Smart Connector extension processors are not running, please verify that they contain a valid license by:

- 1. Navigate to the processors configuration page.
- 2. Click on the 'Validate' button
- 3. If the error displayed is "License not found." You will need to obtain a license for the extension.

If you have not yet got a license for your Austco Tacera Smart Connector extension

Follow the instructions in the section Licensing the Austco Tacera Smart Connector Extension

If you have already got a license for your Austco Tacera Smart Connector extension

The Austco Tacera Smart Connector extension license is bound to a machine thumbprint. This machine thumbprint is a key generated from multiple hardware components of your machine, including the current network adapter that was being used when the license was generated. If you have switched to a different network adapter (e.g. going from a hard-wired connection to a WIFI connection), then it is very

29 | P a g e Austco Tacera Smart Connector Extension Install and Configuration Guide version 1.0 likely this machine thumbprint has changed. Please follow the section <u>Licensing the Austco Tacera Smart</u> <u>Connector Extension</u> using your new thumbprint.

5.4. SQL Authentication Errors

If Smart Connector cannot connect to its database, then the framework will fail to start. If you notice that the Smart Connector Server is not starting, or starting and instantly stopping, please review the Smart Connector logs for messages pertaining to SQL Authentication. If this is the case, you may need to make sure that your SQL Credentials are valid before starting the Smart Connector service.

5.5. Austco Tacera Communication Errors

If the Austco Tacera Smart Connector extension is unable to make a valid connection to the Austco Tacera web service, the Smart Connector log will display that this has occurred. If you are having problems where it seems you may not be getting the data that you expect, or no data at all. Please check the Smart Connector log for information about what may be going on.

5.6. EWS Communication Errors

If EBO is unable to make a connection to the EWS server created by the Austco Tacera Smart Connector extension. First check the Smart Connector logs for any information, such as authentication or other errors. If no errors are shown in the log, check the following.

- The IP address/ hostname configured in EBO is valid for connecting to the EWS Server in Smart Connector
- The port configured in the EWS Server in Smart Connector is the same port in EBO
- The endpoint configured in the EWS Server in Smart Connector (everything after the port number e.g. <u>http://localhost:51337/EcoStruxure/DataExchange</u>) is the same as the endpoint in EBO.
- Firewall rules allow this connection to occur.

6. Appendix A - SQL User Roles Definition

The Windows user installing the Smart Connector Framework software must have 'dbcreator' and 'public' roles within SQL in order for Smart Connector Framework to install correctly. During the installation process of Smart Connector Framework the database tables' necessary for configuring the system will be created.



Note: If the logged in Windows User did not have the proper SQL user roles during the installation process, the DB tables will not be created. You will need to *uninstall* then *reinstall* Smart Connector Framework to create the tables, once the Windows User has proper SQL roles defined. An attempt to perform an installation selecting "Modify" or "Repair" will not create the default DB for Smart Connector Framework.

7. Appendix B – Hierarchy of points

EcoStruxure Building Operation will be able to host the following types of objects from the Austco Tacera Database. Each type of object will have a Name of the object, a description of the object, an indication whether the value is able to be read or written and finally a comment column indicating the values expected values that the object might contain.

Users can also host the Alarm Items for the object which enables the user to customize the view of the alarm in EcoStruxure Building Operation.

7.1. Folder Structure

The folder strucuture of the Austco Tacera EWS Server, will follow that of the hierarchy of the Austo Tacera system exactly. For example, If there is a call-point called Nurse Call at the location of MyHospital.12th Floor.Room 101). Then in Ecostruxure Building Operation you would see the following:



Within this you will see the following structure:

Туре	Name (In Sample)	Description	Read/Write
Container Item	My Hospital	Top Level of Austco	N/A
		Tacera Site	
Container Item	12 th Floor	Floor/ Area level	N/A
		Folder	
Container Item	Room 101	Room Level Folder	N/A
Alarm Item	Nurse Call	Alarm Item for the	N/A
		call point. Used to	
		customized the view	
		of the alarm in EBO.	
Value Item	Nurse Call Activation	When set to true	Read/Write
		activates the 'Nurse	
		Call' call point	
Value Item	Nurse Call Cancellation	When set to true,	Read/Write
		cancels the 'Nurse	
		Call' call point	

For every call point in the Austco Tacera system that has been activated and received by the Austo Tacera Smart Connector extension, you will see the same structure as above. There will always be an Alarm Item, an Activation variable, and a Cancellation variable.