

Saltbox B1WebAPI Installation

Guidelines

Vision33 Saltbox Prerequisite Requirements

Introduction

Vision33 has developed the Saltbox product to extend workflow and integration capabilities for SAP B1. This document explains the various environmental dependencies which are needed to be fulfilled before setting up Saltbox in a client on premises environment.

Terminology

- 1. AppServer B1WebAPI is installed on this server.
- 2. **SAP B1 Servers** SAP B1 server
- 3. Database server HANA or SQL Database Server
- 4. Saltbox This is iPaaS (integration Platform as a Service) developed by Vision33

Requirements

Software Prerequisites

Both 32bit and 64 bit DI-API Versions need to be installed on the AppServer where B1 Web API is to be setup on.

If the B1 System is deployed on HANA, a SQL Server needs to be available for B1WebAPI to hold its licensing information, this can be a locally installed version of SQL Express. If the customers B1 Deployment is SQL, the same SQL Server can used to hold this information

SAP B1 User licenses

1. **B1 Indirect User license** (required all the time to run **B1WebAPI**)

The SAP B1 user with <u>b1 indirect user license</u> is required to setup B1WebAPI on **AppServer**. This is a mandatory requirement and needed for the project to move ahead

Internal AppServer to SAP B1 Server Port/Firewall Requirements

Depending upon the SAP B1 version, certain ports must be opened on **SAP B1 servers** to allow access from the **AppServer**. Here is a list of ports which must be opened from **AppServer** to **SAP B1 Servers**.

*The below rules are INBOUND firewall rules and should be completed on the windows firewall of the SAP B1 Servers and Database server. If there are any questions, please reach out to your Vision33 Consultant.

If you are running SAP 9.X:

- 30000/tcp If SAP B1 version = 9.X
- **30010/tcp** if SAP B1 version = 9.X

If you are running SAP 10.x

40000/tcp – If SAP B1 version = 10.X

If you are using SQL as your Database

1433/tcp – In case of MS SQL database

If you are using HANA as your Database

• **30013/tcp** – In case of HANA database

External Ports Whitelisting/ Port Forwarding

Saltbox IP Whitelisting / Port forwarding

To use Saltbox (iPaaS) platform, there is a requirement to open port 443/tcp to the **AppServer** that is hosting the B1WebApi. In some cases, 443/tcp may not be available so we can use 4033/tcp.

When opening the port we require whitelisting the saltbox server IP. The IP you need to whitelist :

- **Saltbox IP:** 34.196.190.164
- Port: 443 or 4033/tcp

Port Forwarding:

You will need to open an INBOUND rule on the windows firewall on the **AppServer** to allow access for the IP and port above.

You will need to open an INBOUND Port forward firewall rule on your corporate firewall to allow access for the IP and Port above to the **AppServer.**

SSL Certificates and DNS Record Entry

Saltbox integration will require a trusted 3rd party SSL Certificate (self-signed are not allowed) to be installed on the **AppServer** and a DNS entry.

1. AppServer

With the AppServer running on-prem, there is a requirement for a **Trusted SSL certificate** to be applied/installed on the **AppServer**

As a recommendation, we suggest you create the following certificate name:

B1webapi.yourcompanysdomainname.com

*If you need help with this please advise your Vision33 consultant.

2. External DNS Entry

An external DNS entry will be required for your certificate name. This entry would point to the public IP of the firewall in which you are completing the whitelisting and port forwarding in the steps above listed in the section called "External Ports whitelisting / Forwarding"

Vision33 is here to help with any questions you may have. So please reach out to your Vision33 project manager if you need assistance with any of the items and they will arrange a call with the appropriate team members.

Installation Instructions:

Installation instructions

- 1. Run the B1WebAPI installer on the SAP Business One server.
- 2. Step through the installer welcome screen, and prerequisites as shown below.



B1WebAPI welcome screen. Press Next to continue.

<u>i</u> t	B1WebAPI 93.3.0.9 Setup	×
	B1WebAPI 93.3.0.9 Prerequisites Please ensure you have met the prerequisites for succes installation of the B1WebAPI 93.3.0.9 website before co	sful ntinuing
Please review the list	of pre-requisites below to ensure you are ready to install this sof	tware.
Software Requireme	nts 	^
- Microsoft .NET 4.0	Runtime Framework	=
- Microsoft IIS 6, 7.	1*, or 7.5* 32 or 64-bit	
*automated website higher is installed.	setup possible using zed B1WebAPI Installer when IIS 7 and	
Manual IIS Website	Creation	~
Nullsoft Install System v2		ancel

B1WebAPI Prerequisites screen. Press Next to continue.

- 3. **Select the desired components**. For a typical install, all components should be enabled.
 - **B1WebAPI** installs the files that will be used to run the B1WebAPI website.
 - **Configure IIS Website** configures the B1WebAPI website in IIS.
 - Configure B1WebAPI allows for company and database connection details to be configured.

Ŀ	B1WebAPI 93.3.0.9 Setup			
	Choose Components Choose which features of B1WebAPI 93.3.0.9 you want to install.			
Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.				
Select components to insta	II: ✓ B1WebAPI ✓ Configure IISWebsite ✓ Configure B1WebAPI ✓ Configure B1WebAPI			
Space required: 13.6MB				
Nullsoft Install System v2.46	< Back Next > Cancel			

B1WebAPI Choose Components. Select the desired components and press Next to continue.

4. Choose install location. This is the location where B1WebAPI web files will reside.

Warning: Do not change the default directory for the first installation of B1WebAPI. Additional installations are rare, and may be installed in alternate locations after an initial installation has been completed.

je.	B1WebAPI 93.3.0.9 Setup
	Choose Install Location Choose the folder in which to install B1WebAPI 93.3.0.9.
	I 93.3.0.9 in the following folder. To install in a different folder, other folder. Click Install to start the installation.
Destination Folder)\zedIT\zed B1WebAPI Browse
Space required: 13.6MB Space available: 114.2GB	
Nullsoft Install System v2.46	< Back Install Cancel

B1WebAPI Install Location can be selected. Press Install to complete the installation.

5. If the option to **Configure B1WebAPI** was selected, the following configuration screen will be displayed. This step may be skipped, in which case, InterConnect Server Tools may be used later to configure these settings.

To configure B1WebAPI settings, fill in the connection details shown below. For a detailed description of each field, see <u>Technical Reference: InterConnect Server</u> <u>Tools - B1Config</u>.

Ensure to **configure the Attachments Directory** for any Portal installation to ensure full Portal functionality.

🔧 B1WebAPI Cont	fig Editor					– 🗆 X
Config File C:\Pro	gram Files (x86)\z	edIT\zed B1WebAP	1\bin.\b1er	nabler.config		Browse Load
Basic Settings Ad	Ivanced Settings	HANA Settings B	1 Cloud			
B1WebAPI SAP	Settings			B1WebAPI IIS	Settings	
DB Server:	SAP			Host:	http://localhost:403	33
DB Usemame:	sa			Usemame:	admin	
DB Password:	•••••			Password:	•••••	
License Server:	SAP:30000				L	
Business One	e Profiles	Profile Tokens				
Default	up	Name:	Default		B1 User Name:	manager
	down	CompanyDB:	SBODem	noUS	B1 Password:	
	add	DB User Name:	sa		Attachments Dir:	C:\Program Files (x86)\SAP\SAP Busi
	add	DB Password:	•••••]	
		- Hana workflow	v settings –			
	X	Database:			Database Name	e Override
		Activate workflo	ws for Inter	rconnect		
Encrypt Settings]					Save Cancel

B1WebAPI connection configuration screen. Edit connection details for one or more SAP Business One companies. Press Save when complete.

- 6. If the option to **Configure IIS Website** was selected, the following configuration screen will be displayed. Enter all details as described below. For a typical install, press okay. For additional installs, ensure "Name" and "Port" are unique, then press okay.
 - **Generate New Website** will create a new website within IIS for the B1WebAPI. Default settings can be used.
 - **Use Existing Site** will associate the B1WebAPI with that existing IIS website.
 - Virtual Directory settings can be configured to use the root existing virtual directory, or to create a virtual directory within the IIS website. The default is to use the existing virtual directory.

<u>i</u>	IIS Website Setup Utility				
 IIS Location Generate 	New Website				
Name B1	/ebAPI IP Address				
Port 403	B 🗘 Domain Name				
⊖ Use Exis	○ Use Existing Site Default Web Site ✓				
Virtual Direc	ary				
Ose Exist	ing Virtual Directory O Generate New Virtual Direc	tory			
	· · · · · · · · · · · · · · · · · · ·				
Canc	ОК				

IIS website

configuration screen can be used instead of manually setting up the website within IIS. Press OK when the IIS website is set up.

7. Complete the installation of B1WebAPI.

ė	B1WebAPI 93.3.0.9 Setup
	Completing the B1WebAPI 93.3.0.9 Setup Wizard
	B1WebAPI 93.3.0.9 has been installed on your computer.
	Click Finish to close this wizard.
	✓ Open B1WebAPI site in web browser ✓ Show Readme
	< Back Finish Cancel

Complete the B1WebAPI installation by pressing Finish.

8. At this point, the B1WebAPI is installed.

Post installation settings

In IIS, find the Application Pool associated with the website, go to advanced settings and change the settings below to values in the screenshot.

	Identity	NetworkServ	ice	
L	· · · ·			
	Idle Time-out Action	Terminate		
	Load User Profile	False		
ſ	Maximum Worker Processes	2		
	Ping Enabled	True		
	Ping Maximum Response Time	90		
	Ping Period (seconds)	30		
	Shutdown Time Limit (seconds)	90		
	Startup Time Limit (seconds)	90		
	Process Orphaning			
	Enabled	False		
	Executable			
	Executable Parameters			
	Rapid-Fail Protection			
	"Service Unavailable" Response	Httpl evel		

	Snutdown Executable Paramete	r	
~	Recycling		
	Disable Overlapped Recycle	False	
	Disable Recycling for Configurat	t False	
>	Generate Recycle Event Log Entr		
	Private Memory Limit (KB)	500000	
	Regular Time interval (minates)	1740	
	Request Limit	0	
>	Specific Times	TimeSpan[] Array	
	Virtual Memory Limit (KB)	0	
			~

Identity: Should be Network Service (low priority) Helps in capturing log files. This is done for consistency

Maximum Worker Process: Set this to 2 (Critical) as we cache the connection details this needs to recycle to free memory. If this goes in recycle as the calls are invoked it can crash the app pool, THIS SHOULD NEVER BE SET TO 1!!!

Private Memory Limit: Set this to 500000 (Critical) as part of the cleanup process IIS will recycle once it reaches its threshold. With the additional worker process this should keep the application running smoothly.

This should continue to be monitored to see the usage of the Worker Processes (Task Manager) and increase if required. 500000 is the baseline we use.

Installation Instructions – Interconnect Server Tools

- 1. Run the InterConnect Server Tools installer on the SAP Business One server.
- 2. Step through the installer welcome screen as shown below.



InterConnect Server Tools welcome screen. Press Next to continue.

3. Select the previously installed B1WebAPI location. This will allow InterConnect Server Tools to access profile information associated with the B1WebAPI.

Ŀ	InterConnect Server Tools Setup
	Location of existing B1WebAPI B1WebAPI is required. Please provide the location of your B1WebAPI installed on this system.
	WebAPI Install Directory
C:\Program Files () Browse	<86)\zedIT\zed B1WebAPI
Drowse	
Nullsoft Install System	v2.46
	< Back Next > Cancel

B1WebAPI location. Select the B1WebAPI already installed and press Next to continue.

4. **Choose install location**. This is the location where InterConnect Server Tools application files will reside.

Ŀ	InterConnect Server Tools Setup		
	Choose Install Location Choose the folder in which to install InterConnect Server Tools.		
Setup will install InterConnect Server Tools in the following folder. To install in a different folder, click Browse and select another folder. Click Install to start the installation.			
Destination Folder	x86)\zedIT\zedSuite Server Tools Browse		
Space required: 36.7MB Space available: 114.2GB Nullsoft Install System v2.46			
	< Back Install Cancel		

InterConnect Server Tools install Location can be selected. Press Install to complete the installation.

ċ	InterConnect Server Tools Setup			
	Choose Install Location Choose the folder in which to install InterConnect Server Tools.			
Created uninstaller: C:\Program Files (x86)\zedIT\zedSuite Server Tools\Uninstall.exe				
Show details				
Nullsoft Install System v	2,46 			

Installation should complete after a few seconds.

5. **Complete the installation** of InterConnect Server Tools:

ie Inte	erConnect Server Tools Setup
	Completing the InterConnect Server Tools Setup Wizard
	InterConnect Server Tools has been installed on your computer.
	Click Finish to close this wizard.
•	
Ċ	
	< Back Finish Cancel

Complete InterConnect Server Tools installation by pressing Finish.

6. At this point, InterConnect Server Tools is installed and a license may be requested.

Applying Licenses

1. **Start Server Tools in Admin mode** on the server where B1WebAPI was installed (typically the SAP Business One server).

Using Windows Start menu, go to Start > All Programs > zedIT Solutions > B1WebAPI > InterConnect Server Tools. Right-click on the menu option and select *run as Administrator...*



Run Server Tools as Admin from the start menu.

2. **Open the license window** by pressing the licenses button (marker 1 below).

🔧 InterConnect Server Tools 📃 🗖 🗙	
InterConnect Server Tools	
INSTALL LOCATION	
B1WebAPI Config File: ogram Files (x86)\zedIT\zed B1WebAPI\bin\b1enabler.config	
MANAGE	
B1 CONFIG METADATA LICENSES	
www.vision33.com	Open the License scree

using the Licenses button (1).

3. A notice will be displayed if no licenses are applied, which will be the case for new installations. If this notice is not displayed, that means a license has been applied to at least one product.

Press OK to proceed.

No Portal information found in selected company! Apply a product	x
license to complete configuration.	
ОК	

displayed for new installs and systems without licenses applied.

4. **Press the Create License Request button** (marker 1 below) if licenses have not yet been applied or if the existing licenses must be updated. Available licenses will

be displayed on the License Administration screen. See Requesting a Portal License for more detail.

٩,	License Ac	dministration				X
Allocation						
Company Default	~	Develo	opment/Production	Production	¥	
Active Users	Per-user License Modules	Us	sed	Available		
Г	Per-application Modules	Licensed Version	Meta Available	Meta Installed	Used	Available
			1			
ОК			Create License I	Request	Import Li	cense File

Press the Create License Request button (1) to open the license request form.

5. **Fill in the contact information** and press the generate button (marker 1 below) to create and save a license request file.

	License Request	x
Company Informa	ion	
Company Name:	Acme Widgets	
Contact Name:	John Smith	
Contact e-mail:	john@acme.com	
Contact Phone:	555-1212	
Partner Informatio	1	ň.
Partner Name:	B1 Sellers 'R Us	
Contact Name:	Sue Consultant	
Contact e-mail:	sue@b1sellers.com	
Contact Phone:	555-4321	
Generate	Close	

the Generate button (1) to create a license request file.

and press

Browse For Folder	x	
 ▷ Jest Drive (A:) ▲ Local Disk (C:) ▷ Joinetpub ▷ MSSQL □ PerfLogs 		
 Program Files Program Files (x86) SBO 9.1 PL04 (Base) temp Users Windows 		
License Request G	Pick a folder to save the license	Э
The license request file was successful	fully saved to the selected folder	
ile.	ок When t	the

license file is saved, press OK to continue.

ع	•	License Request	:	X
	Company Informat	ion		
	Company Name:	Acme Widgets		
	Contact Name:	John Smith		
	Contact e-mail:	john@acme.com		
	Contact Phone:	555-1212		
	Partner Information	1		
	Partner Name:	B1 Sellers 'R Us		
	Contact Name:	Sue Consultant		
	Contact e-mail:	sue@b1sellers.com		
	Contact Phone:	555-4321		
	Generate			Close
_			<u> </u>	

form.

- 6. Send the license request file to Support (<u>support@vision33.com</u>) and include the following details:
 - License File, including customer and partner details.
 - **Products to be licensed**.
 - Version to be licensed.

Support will endeavor to create a license within one business day.

_	50	5 个	ψ =				Porta	l License F	Request f	or Acm	e Widgets -	Message (HTML)			?	A -		×
FILE	MESS	AGE	INSERT	OPTIC	INS I	FORMAT T		REVIEW			2							
Attach (File	Item (usiness Card ~ Include	Calendar S	ignature *	Table Tables		Online Pictures	÷	SmartArt crations	Chart	Screenshot	Bookmark	✓ WordArt -	Drop Cap ~ Date & Time Object Text			2	^
	To <u>.</u>	S	upport@visio	n33.com														
<u>=</u>	<u>C</u> c																	
	Subject	P	Portal License	Request	for Acme	Widgets												
	Attache	d	zedSuite.I	ic (1 KB)														
Pleas		sneed	hed license		oyee Po	rtal with	10 Expe	ense Use	er license	es and	8 Sales Us	er licenses, and	Customer Porta	al with Order Pad.				
B1 Se	ks, Consultan I <i>lers 'R U</i> s mentatio	5	am															

Send an email to support with the license file, products and version.

7. Unzip, then **install the license file** provided by Support. This file will typically be the same as your server name. Press the <u>Import License File</u> button and select the license file sent by support.

Warning: Installing a license will remove all previously assigned application licenses. Named user licenses will be maintained but application licenses will need to be re-applied. This may trigger metadata updates, which will force B1 users to log out and log back in.

عر			License A	dministration				X
ļ	Allocation							
	Company	Default	~	Dev	velopment/Production	Production	¥	
	Active	Users	Per-user License Modules		Used	Available		
			Per-application Modules	Licensed Version	Meta Available	Meta Installed	Used Ava	ailable
				Election relation	The de Arvaliable		obcd Ave	
							1	
[OK				Create Licens	e Request	Import License	File
_ L	UN				Cicate Econo	e nequest	Import Econac	

Import (1) the license file provided by support.

4	Ор	en 📃	x
🔄 💿 👻 🋧 🔳 Deskto	р	✓ ♂ Search Desktop	,
Organize 🔻 New folder	r	⊾= ₩= ▼ [])
	Administrator	This PC	
i Downloads	Libraries	Network	
 Image: This PC Image: Desktop Image: Documents 	zedSuite	SAP.lic LIC File 7.48 KB	
 Downloads Music Pictures Videos Local Disk (C:) 	LIC File 1011 bytes	1	
File na	me:	 ✓ License Files (*.lic) ✓ Open Cancel 	·]]

Select the file (1) and press the Open button (2).

8. Assign the desired licenses to each company using the Used check-box.

Warning: Hana metadata installation can take much longer than SQL. Due to the in-memory nature of Hana databases, metadata can take several minutes to install for each Portal, even up to an hour or so.

Allow the system to proceed even if it looks like it's "not responding". For new installs, you can check on the progress in Hana Administration Console by selecting a count of the UDT tables from CUFD.

Select the profile (marker 1 below), then assign application licenses (marker 2 below). If prompted, confirm metadata installation prompts to install version-specific metadata.

Note that metadata installation will force all B1 users to log out and log back in, so **ensure this is scheduled ahead of time** to avoid B1 disruptions.

Company Default Active Users	Per-user License Modules		lopment/Production Jsed	Production	~	
Active Users	Per-user License Modules	U	Jsed	Available		
	Per-application Modules	Licensed Version	Meta Available	Meta Installed	Used	Available
	Per-application Modules B1Employee Portal - 1 Company	Licensed Version 91.4	Meta Available 91.4	Meta Installed	Used	
					-	
	B1 Employee Portal - 1 Company	91.4	91.4	N/A	-	99
	 B1Employee Portal - 1 Company B1 Vendor Portal - 1 Company 	91.4 91.4	91.4 91.4	N/A N/A	-	99
	B1 Employee Portal - 1 Company B1 Vendor Portal - 1 Company Interconnect - 1 Company	91.4 91.4 91.4 91.4 91.4	91.4 91.4 91.4	N/A N/A N/A		99 99 99

Select the profile (1) and enable product licenses (2).

Once the Application license is installed, a user may be configured in B1, then assigned licenses in the named user license section.

Company Default		v	Dev	velopment/Production	Production	~	
Active Users		Per-user License Modules		Used	Available		
Sophie Klogg		B1 Employee Portal - Expense User (Per	User)				99
	I	B1 Employee Portal - Sales User (Per Use	er)			98	
		Dan andra Kan Madular	Lineard Vestin	Mada A	Mate Testelle d	Used	A
		Per-application Modules	Licensed Version	Meta Available	Meta Installed	Used	Available
	•	B1 Employee Portal - 1 Company	91.4	91.4	N/A	\checkmark	98
	•	B1 Employee Portal - 1 Company B1 Vendor Portal - 1 Company	91.4 91.4	91.4 91.4	N/A N/A		98
	•	B1 Employee Portal - 1 Company B1 Vendor Portal - 1 Company Interconnect - 1 Company	91.4 91.4 91.4	91.4 91.4 91.4 91.4	N/A N/A N/A		98 99 99
	•	B1 Employee Portal - 1 Company B1 Vendor Portal - 1 Company Interconnect - 1 Company B1 Customer Portal	91.4 91.4	91.4 91.4 91.4 91.4 91.4	N/A N/A N/A N/A		98 99 99 99
	•	B1 Employee Portal - 1 Company B1 Vendor Portal - 1 Company Interconnect - 1 Company	91.4 91.4 91.4	91.4 91.4 91.4 91.4	N/A N/A N/A		98 99 99

Shown here, Employee Portal, Customer Portal and Customer Portal Order Pad are licensed for version 91.4 with installed meta-data.

NB For B1WebAPI Only, "Interconnext – 1 Company" should be ticked for the relevant databases required for licensing.

Trouble Shooting

Issue: Attachments not working

Troubleshooting steps:

Verify the setup of the Server Tools is done correctly

- 1) Attachment Directory for B1 (and has appropriate permissions)
- 2) Temp Folder
 - a. Ensure Network Service has "write" permissions to this folder
- Ensure the B1 Server (Where attachment directory is located) and the server hosting the B1WebAPI are located on the same domain or has the ability to write to the B1 Server.

Issue: SqlServerSpatial110.dll -- The specified module could not be found seen in log files

Overview

Users receive the following error when using innovations software The type initializer for 'ExtentPlaceholderCreator' threw an exception. ---> System.Reflection.TargetInvocationException: Exception has been thrown by the target of an invocation. ---> System.DllNotFoundException: Unable to load DLL 'SqlServerSpatial110.dll': The specified module could not be found.

Resolution

If a user encounters the issue must modify the <app>.config file. <app> à refers to the executable name of the application.

Add the following to the end of the file, just before the closing configuration element "</configuration>"

```
<runtime>
```

```
<assemblyBinding xmIns="urn:schemas-microsoft-com:asm.v1">
<dependentAssembly>
<assemblyIdentity name="Microsoft.SqlServer.Types"
publicKeyToken="89845dcd8080cc91" />
<bindingRedirect oldVersion="1.0.0.0-11.0.0.0" newVersion="10.0.0.0" />
</dependentAssembly>
</assemblyBinding>
</runtime>
```

Issue: B1WebAPI returning -105 - Unable to initialize OBServerDLL.dll

Note research online points to incorrect settings for the license server values in the DI API connection

Solution: This error was generated by a permission issue.

During the installation the B1WebAPI application pool uses the NetworkService Identity

_		Advance	ed Settings	X
	⊿	(General)		^
		.NET CLR Version	v4.0	
		Enable 32-Bit Applications	True	
		Managed Pipeline Mode	Classic	
		Name	B1WebAPI	
		Queue Length	1000	=
		Start Mode	OnDemand	
4	4	CPU		
		Limit (percent)	0	
		Limit Action	NoAction	
		Limit Interval (minutes)	5	
		Processor Affinity Enabled	False	
		Processor Affinity Mask	4294967295	
		Processor Affinity Mask (64-bit o	4294967295	
4	4	Process Model		
0	Þ	Generate Process Model Event L		
		Identity	NetworkService	
		Idle Time-out (minutes)	20	
		Idle Time-out Action	Terminate	

In this case there appears to have been a conflict between the domain controller and the local machine. To work around this issue, we set the identity field to "LocalService" and this allowed the application to work properly.

Issue: Exception GetCompany():-4009 - Failed to connect SLD, make sure SLD server is correct and available

This error indicates a B1/Network/Environment Issue. Historically the following resolve issues like this

- Verify that the License Server configured is correct
- Ensure both the 32 and 64bit DI API's are installed and are the correct versions (Sometimes reinstalling can resolve)
- Ensure firewall allows communication over ports 30000,30010,40000
- Performing a server reboot to allow the DI API to reinitialize