Setup Guide Automation AIS-Cloud and Uplink v 2.1

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1 Introduction

Addovation provides a cloud service integration platform that is located either in a professional hosted environment, located within the borders of Norway or Sweden, Microsoft Azure or in your local in-house environment. All that is required is an Internet Information Server and an SQL Server database (2008+). All communication is done via REST-based interfaces; hence it is perfect for enabling collaboration between IFS and the outside world. No passwords are stored in Addovation Cloud, and all communication through the Cloud is encrypted.

1.1 Technical information

Addovation Cloud can work as self-hosted service or as Windows service. It runs three WCF services – Client service and two Data services.

1.1.1 Client Service

Client service is a WCF REST service, which receives all the mobile clients' requests. It uses HTTP binding with transport-level security (HTTPS communication provides confidentiality and integrity protection for the messages that are transmitted over the wire). It will be available on address "https://server:48081/Addovation.Cloud/ClientService/" by default.

1.1.2 Data Service

Data service is a WCF service, which provides possibility to perform requests to IFS databases. It uses NET TCP binding (socket endpoints) and NET HTTPS binding (websocket endpoints) with both transport and message security configured and duplex communication (duplex contracts are supported) with Uplink service. It will be by default available on address "net.tcp://server:48080/Addovation.Cloud/DataService/" for NET TCP binding and on address "wss://server:48079/Addovation.Cloud/DataServiceWss/" for NET HTTPS binding.

2 Prerequisites

These prerequisites are to make sure that all install packages and libraries are the same version (revision number).

2.1 Cloud Manager & Uplink Manager

For example, the installation package name is "AutomationServer 2.0.0.28106 x86.msi". Check the last digits of the version in the file properties window.

Custom	Details		_		
			Previ	ious Vers	sions
Property	Value			^]
Description —				<u> </u>	
Title	Installation Data	oase			
Subject	AutomationServe	er 2.0.0.2	28106 x86		
Categories					
Tags	Installer				
Comments	This installer data	abase co	ntains the I		
Origin				- 1	
Authors	Addovation				
Revision number	{5AAE34F8-53B	C-4D9E-I	B6EB-ADB		
Content created	3/1/2019 6:03 A	M			
Program name	Windows Installe	r XML T	oolset (3.1		
File				- 1	
Name	Automation Serve	er 2.0.0.2	28106 x86		
tem type	Windows Installe	r Packag	ge		
Folder path	C:\Users\chpr\D)ownload	ls		
Date created	3/1/2019 10:14	AM			
Date modified	3/1/2019 10:16	AM			
Cinn	CACMD			•	
emove Properties	and Personal Info	mation			

Figure 1 - Properties



Run the installation package and check the same digits in the main installation window.



Figure 2 - Start setup wizard

Addovation \checkmark

2.2 AddoResources library

Addo Resource files will be installed in the following location by the installer.

Name	Date modified	Туре	Size
Addovation.Cloud.Apps.AddoResources	2/25/2020 10:39 AM	Application exten	823 KB
Ifs.Cloud.ObjectModel.dll	2/25/2020 10:31 AM	Application exten	79 KB
Ifs.Cloud.Scripting.dll	2/25/2020 10:31 AM	Application exten	52 KB
Ifs.Fnd.Buffer.dll	2/25/2020 10:31 AM	Application exten	28 KB
Ifs.Fnd.Core.dll	2/25/2020 10:31 AM	Application exten	192 KB
🗟 Ifs.Fnd.Data.dll	2/25/2020 10:31 AM	Application exten	136 KB
🚳 itextsharp.dll	2/25/2020 10:31 AM	Application exten	3,908 KB
Newtonsoft.Json.dll	2/25/2020 10:31 AM	Application exten	371 KB

Figure 3 - AddoResources

For example, the library file name is "Addovation.Cloud.Apps.AddoResources.dll". Check the last digits of the version in the file properties window.

Addovation.Clo	oud.Apps.AddoResources.dll Properties	×		
General Security	Details Previous Versions			
Property	Value			
File description Type	Addovation.Cloud.Apps.AddoResources Appli <u>cation ext</u> ension			
File version Product name Product version Copyright Size Date modified Language Original filename	2.1.5 23104 Addovation.Cloud.Apps.AddoResources 2.1.9.23104 Copyright © 2017 819 KB 01/11/2018 11:33 AM Language Neutral Addovation.Cloud.Apps.AddoResources			
Remove Properties and Personal Information				
	OK Cancel Apply			

Figure 4 - Properties

3 Installation

3.1 Uplink Manager

Copy the installation package "AutomationServer 2.0.0.28106 x86.msi" to the server, which is going to be used for the Uplink Manager and run it.

Click "Next" on the Welcome screen.



Figure 5 -Start setup



Review the license agreement and accept it, click "Next".

Please read the following license agreement careful	, Addovatio	n
LICENSE TERMS FOR ADDOVATION SO	OFTWARE	^
These license terms are an agreement between apply to the Addovation Software, and any ac	n Addovation and you. They companying documentation.	
1. ACCEPTANCE		
BY INSTALLING THE SOFTWARE, YOU ACCEPT TH AGREE TO ALL OF THE TERMS OF THIS AGREEME USE, OR COPY THE SOFTWARE	IESE TERMS. IF YOU DO NOT ENT, YOU MUST NOT INSTALL,	
2. INSTALLATION AND USE RIGHTS.		
 You may install and use the software for agr computers. or other unit of measure that are a 	reed named users, or agreed between you and	~
☑ I accept the terms in the License Agreement		

Figure 6 – End user license agreement

Click "Next" on "Environment configuration" screen without entering any configuration settings.

HutomationServer 2.0.0.28106 x86 Setup	×
Environment configuration	Addovation 🗸
Select configuration: Azure007 Azure013 Azure013_GK Race75 SP2 Race75SP6 Race8sp2-2 (default) Race9Demo Race9Dev	Environment configurations govern access to available databases and ease the task of switching between them. Use the buttons below to add, remove or edit existing environments.
	Add new Delete Modify
	Back Next Cancel

Figure 7 – Environment Confgiuration



Enter a valid license key for AIS Uplink and click "Next".

AutomationServer 2.1.33474.33474 x86 Setup	×
License and custom settings	Addovation 🗸
Enter License key and help Url.	-
License key (enter all characters including any hyphen	s):
f66g6gf4gfg6f46g4f4g6fg64fg4f4g4gfgf4gf4g4f666s	e4ikh6j3h21j4j6hj56j5h66h56
Help URL:	
https://www.addovation.com/solutions/	
Language	
English (English) 🗸	
-	
Bad	K Next Cancel

Figure 8 - License and custome settings

er en	or setup		
Configuration settings	Addovation 🗸		
Set up configuration parameters here be changed later by restarting the ins	to fit your particular installation. If needed, the settings can stallation wizard, using the "Change" option.		
Configuration name	- Use server URL's		
race9dev	IFS Enterprise Explorer		
Use as Default	⊖ SharePoint		
Use single signon			
	IFS version		
	IFSApplications9 V		
	Back Next Cancel		

Figure 9 – Configuration settings



Verify that the chosen license key is not expired and valid for AIS Uplink. Click "Next".

🖟 AutomationServer 2.0.0.32920 x86	i Setup		×
License key validation.	Å	ddova	tion 🗸
The license key entered entitles you ac create a batch installation file or "PL*SC scripts).	cess to the listed module QL″ button to execute da	s. Click the "Get Ba tabase scripts (e.g	atch" button to j. access granting
Addovation			
PDf Building Blocks	1/30/2021	Valid	~
Advanced Mail Merge	1/30/2021	Valid	
Web Order	1/30/2021	Valid	
PDF Agent	1/30/2021	Valid	
Delivery Ticket	1/30/2021	Valid	
Labels and mailings	1/30/2021	Valid	_
AIS Uplink	1/30/2021	Valid	
Outlook Syncronizati	1/30/2021	Valid	_
AIS	1/30/2021	Valid	
Message Tracking	1/30/2021	Valid	
AIS Cloud	1/30/2021	Valid	¥
Get Batch PL*SQL	Back	Next	Cancel

Figure 10License key validation



Choose "Custom" setup to install "Addovation Uplink" only and skip other applications.

🖟 AutomationServer 2.0.0.32904 x86 Setup	_	-	×
Choose Setup Type Choose the setup type that best suits your needs	Addov	/atior	י~ו
Typical Installs all add-ins covered by your license. R	ecommended for r	nost users.	
Custom Allows users to choose which program feature they will be installed. Recommended for adva	es will be installed nced users.	and where	
Complete All program features will be installed. Note the space, and potentially slows down Application	at this requires the startup.	e most disk	
Back	Next	Can	cel

Figure 11 Choose setup type

Addovation 🗸

Disable all other components (if they are not used and installed on that server), except "Addovation Uplink", and click "Next".

🖟 AutomationServer 2.0.0.3 x86	Setup		_		×
Custom Setup Select modules to be installed.		Α	ddova	tion	~
Choose how modules are to b tree below.	e installed on you	ur computer by	clicking the icon	s in the	
Plugin Execut Document Ag Addovation C Addovation U Addovation U Create Docum O365 CRM Sy Create Docum	er ent loud plink king hents nc hent Azure Con	 Core files This feat hard driv 	a ure requires 0KI e.	3 on your	
C:\Program	Files (x86)\Addo	ovation\Automa	tion Server\		
Reset Dis	k Usage	Back	Next	Cano	el

Figure 12 – Custom setup

Click "Install" to start the installation process.



Figure 13 Install



You are done! The Uplink Manager is installed. Click "Finish" to close the window.

AutomationServer 2.0.0.2	8106 x86 Setup	-	D	×
	Completed the Au 2.0.0.28106 x86 S Click the Finish button to e	tomationServ Setup Wizard xit the Setup Wizard	er	
View User Guide (Recon	mended) Back	Finish	Can	cel

Figure 14 -Finish

By default, the Uplink Manager is installed to "C:\Program Files (x86)\Addovation\Automation Server\Uplink Service" folder. Run "Addovation.Uplink.Manager.exe" to configure Uplink Manager.



3.2 Cloud Manager

Copy the installation package "AutomationServer 1.1.6.23104 x86.msi" to the server, which is going to be used for the Cloud Manager and run it.



Figure 15 – Start setup

Click "Next" on the Welcome screen.



Figure 16 License agreement

Review the license agreement and accept it, click "Next".



HautomationServer 2.0.0.28106 x86 Setup	× Addovation 🗸
Select configuration: Azure007 Azure013 Azure013_GK Race75 SP2 Race75SP6 Race8Demo Race8Demo Race9Demo Race9Dev	Environment configurations govern access to available databases and ease the task of switching between them. Use the buttons below to add, remove or edit existing environments.
	Add new Delete Modify Back Next Cancel

Figure 17 Environment confgiuration



Click "Next" on "Environment configuration" screen without entering any configuration settings.

🖟 AutomationServer 2.0.0.32904 x86 Setup	×
License and custom settings	Addovation 🗸
Enter License key and help Url.	
License key (enter all characters including any hyphens):	
Help URL:	
https://www.addovation.com/solutions/	
Language	
English (English)	
Back	Next Cancel

Figure 18 Licese and custom settings

The license key is not a mandatory field for Cloud Manager – you may skip it and click "Next". If the license key field is empty, you may see a window with this warning:

	×
Error occured parsing license key, reason: Invalid length for a Base-64 char array or string.	
Check that the license key is entered correctly, ensure no line shifts or leading/trailing blanks, apostrophes etc. accidentally are included.	
If this is the first time this error occurred, try reenter the license key correctly.	
OK	

Figure 19 Warning

You can safely ignore this warning and click OK.



Click "Next" on the "License key validation" window.

AutomationServer 2.0.0.28106 x86 Setup X				
License key validation.				
The license key entered entitles you access to the listed modules. Click the "Get Batch" button to create a batch installation file or "PL*SQL" button to execute database scripts (e.g. access granting scripts).				
Addovation Demo License				
A valid license key has not been entered. To run this application you need a license key. You can still try the application, using demo data. To acquire a valid license key, or a time limited evaluation key to use real data, please contact Addovation AS.				
Get Batch PL*SQL <u>B</u> ack <u>N</u> ext Cancel				

Figure 20 - License key validation



Choose "Custom" setup to install "Addovation Cloud" only and skip other applications.

🖟 AutomationServer 2.0.0.32904 x86 Setup		_		×
Choose Setup Type Choose the setup type that best suits your needs	Addo	ova	tion	~
Typical Installs all add-ins covered by your license. R	ecommended f	or most	users.	
Custom Allows users to choose which program feature they will be installed. Recommended for adva	es will be instal nced users.	led and	where	
Complete All program features will be installed. Note the space, and potentially slows down Application	at this requires a startup.	the mo	ost disk	
Back	Next		Canc	el

Figure 21 Setup Type

Addovation V

Disable all other components (if they are not used and installed on that server), except "Addovation Cloud", and click "Next".

🙀 AutomationServer 2.0.0.3 x86 Se	tup		_		×
Custom Setup Select modules to be installed.		4	Addov	atio	on 🗸
Choose how modules are to be in tree below.	stalled on yo	ur computer	by clicking the	icons in t	ne
Plugin Executer	d	^ Core	files		
Addovation Uplin Addovation Uplin Create Documen Create Documen O365 CRM Sync	k g ts	This f hard	eature requires drive.	OKB on y	/our
Create Documen	t Azure Con	~			
C:\Program Files (x86)\Addovation\Automation Server\					
Reset Disk U	sage	Back	Next	(Cancel

Figure 22 Custom Setup

Click "Install" to start the installation process.



Figure 23 - Install



While installing the application, you may see this warning again:



Figure 24 Warning

Don't pay attention to it, just skip it by clicking "OK".

You are done! The Cloud Manager is installed. Click "Finish" to close the window.

AutomationServer 2.0.0.28106 x86 Setup			-		×
	Completed th 2.0.0.28106 Click the Finish butt	ne Automati x86 Setup \ ton to exit the Se	ionServ Wizard tup Wizard	er i.	
View User Guide (Recon	imended) 8	adk Fin	sh	Canc	el

Figure 25 - Finish

By default, the Cloud Manager is installed to "C:\Program Files (x86)\Addovation\Automation Server\Cloud Service" folder. Run "Addovation.Cloud.Manager.exe" to configure Cloud Manager.

Addovation V

3.3 AddoResources library

The AddoResources library together with the referenced libraries should be registered in the Cloud Manager application. Choose "File / Manage Resources" in the menu as shown below.

Addovation C	Cloud Manager v2.1.7326.1	12956					_ □	×
File WinSe	ervice							
Create E	EventLog	tart		Start All	Stop A	II Restart All		
Manage	e Certificates	number	Status	Self	-hoste	Tracking	Create instance	
Manage	e Resources		Stopped	✓		V	Persova instance	=//
Open Cu	ustomers folder		Stopped	\checkmark		\checkmark	Remove Instance	-
Exit							Configuration	
		_					Refresh	
							Clear event log	
Level	Date/Time	:	Source	Event IE)	Category		

Figure 26 – Cloud Manager resources

Right click on the left-hand panel and choose "Add Customer" in popup menu to register a new Customer in the system.



Figure 27 – Customer resources



Enter customer's name and click "OK".

Configure customer	-	×
Mandatory field OK Cancel		

Figure 28 – Configure customer

Right click in the middle panel and choose "Add System ID" to register a new System ID for the chosen Customer.



Figure 29 – System IDs



Enter the preferred System ID and click "OK". The certificate field may be configured later to assign System ID with the corresponding SSL certificate.

Configure System ID	- □ ×
Mandatory field	
Certificate:	
Select certificate	
Install	Select
ОК	Cancel

Figure 30 – Configure system ID

Right click in the right-hand panel and choose "Add Resource" to register the AddoResources libraries for the chosen System ID.

Manage customers Resources		-	×
User			
▶ Addovation	▶ race8.addovation.com	Add Resource Edit Resource Configure Resource Delete Resource Save Permission Set	
Customer/SystemId/Version: Addovation/race8.	addovation.com/null		

Figure 31 – Manage customer resources



Enter the version number of AddoResources library (this version number is provided by Addovation). Click "Add file" and choose all the files related to the AddoResources library. Click "OK" to finish installing new AddoResources library.

Configure resource	_ □ ×					
Mandatory field						
Files uploaded:						
Addovation.Cloud.Apps.A	ddoResources.dll					
Its.End.Core.dll						
lfs.Fnd.Data.dll	lfs.Fnd.Data.dll					
lfs.Fnd.Buffer.dll						
lfs.Fnd.AccessProvider.dll						
lfs.Cloud.ObjectModel.dll						
lfs.Cloud.Scripting.dll						
Newtonsoft.Json.dll						
itextsharp.dll						
Add file	Add folder					
ОК	Cancel					

Figure 32 – Configure resources

4 Configuration

This is a two-part configuration: for Uplink Manager and for Cloud Manager.

4.1 Uplink Manager configuration

Open Uplink Manager application. Click on "Create instance" button to add new uplink service.

Addovation Up	link Manager v2.1.7326.12	959			_
File WinServ	vice				
Start	Stop Resta	rt			
Title	System	ID	Status	Self-hoste	Create instance
					Remove instance
					Configuration
					Refresh
					Clear event log
Level	Date/Time	Source	Event	ID Category	

Figure 33 – Uplink manager



Enter the Instance name, System ID, IFS database URL and choose IFS database version for the new uplink service.

Create cloud instance	_ □ ×
Mandatory field	
Enter instance name	
System ID:	
race10.addovation.com	
Database URL:	IFS version:
https://azure013.addovation.com:48080	APPS10 -
Data Service Connection type:	
NetTcp	•
Host name:	
localhost	
Port number:	
48080	
Address:	Copy to Clipboard
net.tcp://localhost:48080/Addovation.Cloud/D	ataService/
Integration User for ADFS Login Username: Enter Username for Integratio	
Password:	
Enter Password for Integration	
✓ Self-hosted service	
Start Automatically	
OK Cancel	

Figure 34 – Create cloud



Configure the connection settings in Data Service section: Connection type, Host name, Port number, Address, or leave it as it is. Click "OK" to create the uplink instance.

Addovation U	plink Manager v2.1.7	326.12959				-	• >
File WinSe	rvice						
Create E	ventLog	Restart					
Manage	Certificates	rstem ID	Status	Se	elf-hoste	Create insta	nce
Exit						Remove insta	nce
						Configurati	on
						Refresh	
						Clear event l	og
Level	Date/Time	Source		Event ID	Category		

Figure 35 – Manage Certificates

The communication between Uplink and Cloud is encrypted by SSL certificate. Select "File / Manage Certificates" in main menu of the application to create a new SSL certificate for further communication.

Click "Generate new" button to add a new certificate for a particular System ID.

Certificates assotiated w	ith System Ids			_ □ ×
System ID	Certificate	Valid from	Valid to	Generate new
				Select existing
				Remove
				Configuration
				Show in folder





Enter the same System ID and any Certificate subject to identify it, click "OK". After the certificate is generated and assigned to the System ID, it will appear in the list of the certificates used by the application.

Certificate for System ID -		×
System ID: Enter unique System ID		
Certificate subject:		7
Enter subject's name		
Start of the validity period:		
1/12/2018	ť	14
End of the validity period:		
1/12/2019	ť	14
OK Cancel		

Figure 37 – Create Certificate

This certificate must be copied and registered on the server, which is used for hosting Cloud Manager. Click "Show in folder" button to go to the certificate file and copy this file to the Cloud Manager server.

tificates assotiated with Sy	stem Ids			_ □
ystem ID	Certificate	Valid from	Valid to	Generate new
ace8.addovation.com	race8	1/12/2018	1/12/2019	Select existing
				Remove
				Configuration
				Show in folder

Figure 38 - Certificates



📙 🛃 📕 🖛 Cert	tificates				_	×
File Home	Share	View				~ 🕐
$\leftarrow \rightarrow \checkmark \uparrow$	« SYST	EM (C:) > ProgramData > Addovation > Cer	rtificates	✓ Ö Search (Certificates	Q
🕹 Quick access		Name	Date modified	Туре	Size	
Dealstein		CloudCertificates.xml	01/12/2018 2:03 PM	XML File	1 KB	
	*	🔄 race8.addovation.com.cer	01/12/2018 2:03 PM	Security Certificate	1 KB	
Downloads	×.					
🖆 Documents	*					
Pictures	*					
i OneDrive						
💻 This PC						
💣 Network						
2 items 1 item sele	cted 78	2 bytes				

Figure 39 – Created certificates

4.2 Cloud Manager configuration

Open Cloud Manager application. Click on "Create instance" button to add a new cloud service.

Addovation Clo	oud Manager v2.1.	7326.12956				- • ×:
File WinSer	vice					
Start	Stop	Restart		Start All Stop A	II Restart All	
Title		Port number	Status	Self-hoste	Tracking	Create instance
						Remove instance
						Configuration
						Refresh
						Clear event log
Level	Date/Time		Source	Event ID	Category	

Figure 40 Cloud configuration



Enter the Instance name of new cloud service and Host name (DNS or IP) of the server.

Click "Generate Self-Signed Certificate" or enter SSL Certificate Thumbprint to identify the SSL certificate which will be used to secure client requests to the cloud. Click "OK" to create the cloud instance.

Mandatory field	
Enter instance name	
-lost name:	
localhost	
Data Service over Net Tcp	
Port number:	
48080	
Address:	Copy to Clipboard
net.tcp://localhost:48080/Add	ovation.Cloud/DataService/
Data Service over Https	
Port number:	
48079	
Address:	Copy to Clipboard
https://localhost:48079/Addov	vation.Cloud/DataServiceWss/
Client Service	
Port number:	
48081	
Address:	Copy to Clipboard
https://localhost:48081/Addov	ation Cloud/ClientService/
	vation.cloud/ clientservice/
● HTTPS ○ HTTP	valion.cloud, clientservice,
HTTPS OHTTP	Generate Self-Signed Certificate
HTTPS O HTTP Mandatory field umbprint:	Generate Self-Signed Certificate
HTTPS HTTP Mandatory field umbprint: Self-bosted service	Generate Self-Signed Certificate
HTTPS HTTP Mandatory field umbprint: Self-hosted service Start Automatically	Generate Self-Signed Certificate
HTTPS HTTP Mandatory field umbprint: Self-hosted service Start Automatically	Generate Self-Signed Certificate
HTTPS HTTP Mandatory field umbprint: Self-hosted service Start Automatically Log to MessageTracking	Generate Self-Signed Certificate
HTTPS HTTP Mandatory field umbprint: Self-hosted service Start Automatically Log to MessageTracking MessageTracking ConnectionStri	Generate Self-Signed Certificate
HTTPS HTTP Mandatory field umbprint: Self-hosted service Start Automatically Log to MessageTracking lessageTracking ConnectionStri Mobile Action Database	Generate Self-Signed Certificate
HTTPS HTTP Mandatory field umbprint: Self-hosted service Start Automatically Log to MessageTracking lessageTracking ConnectionStri Mobile Action Database Server :	Generate Self-Signed Certificate ng: Database Name :
HTTPS HTTP Mandatory field umbprint: Self-hosted service Start Automatically Log to MessageTracking tessageTracking ConnectionStri Mobile Action Database Server : Server Name	Generate Self-Signed Certificate ng: Database Name : Database Name
HTTPS HTTP Mandatory field umbprint: Self-hosted service Start Automatically Log to MessageTracking lessageTracking ConnectionStri Mobile Action Database Server : Server Name User Name	Generate Self-Signed Certificate ng: Database Name : Database Name Password :
HTTPS HTTP Mandatory field umbprint: Self-hosted service Start Automatically Log to MessageTracking MessageTracking ConnectionStri Server : Server : Server Name User Name User Name	Generate Self-Signed Certificate ng: Database Name : Database Name Password : Password
HTTPS HTTP Mandatory field umbprint: Self-hosted service Start Automatically Log to MessageTracking Log to MessageTracking Server : Server : Server Name User Name User Name Connection String:	Generate Self-Signed Certificate ng: Database Name : Database Name Password : Password Copy to Clipboard
HTTPS HTTP Mandatory field umbprint: Self-hosted service Start Automatically Log to MessageTracking AssageTracking ConnectionStri Mobile Action Database Server : Server Name User Name User Name Connecion String: Data Source=Server;Initial Cata	Generate Self-Signed Certificate ng: Database Name : Database Name Password : Password Copy to Clipboard slog=DatabaseName;User ID=User;Pa
HTTPS HTTP Mandatory field umbprint: Self-hosted service Start Automatically Log to MessageTracking lessageTracking ConnectionStri Mobile Action Database Server : Server Name User Name User Name Connecion String: Data Source=Server;Initial Cata Database Backup Path :	Generate Self-Signed Certificate ng: Database Name : Database Name Password : Password Copy to Clipboard ilog=DatabaseName;User ID=User;Pa
HTTPS HTTP Mandatory field umbprint: Self-hosted service Start Automatically Log to MessageTracking Log to MessageTracking SessageTracking ConnectionStri Mobile Action Database Server : Server Name User Name User Name Data Source=Server;Initial Cata Database Backup Path : Enter database backup path	Generate Self-Signed Certificate ng: Database Name : Database Name Password : Password Copy to Clipboard alog=DatabaseName;User ID=User;Pa
HTTPS O HTTP Mandatory field umbprint: Self-hosted service Start Automatically Log to MessageTracking lessageTracking ConnectionStri Log to MessageTracking Server : Server Name User Name User Name Connecion String: Data Source=Server;Initial Cata Database Backup Path : Enter database backup path Disable automatic backup	Generate Self-Signed Certificate ng: Database Name : Database Name Password : Password Copy to Clipboard ilog=DatabaseName;User ID=User;Pa
HTTPS HTTP Mandatory field umbprint: Self-hosted service Start Automatically Log to MessageTracking Log to MessageTracking Log to MessageTracking Server : Server Name Jser Name Jser Name User Name Connecion String: Data Source=Server;Initial Cata Database Backup Path : Enter database backup path Disable automatic backup	Generate Self-Signed Certificate ng: Database Name : Database Name Password : Password Copy to Clipboard alog=DatabaseName;User ID=User;Pa

Figure 41 – Create cloud instance



Database Backup Path :	
Enter database backup path	
Disable automatic backup	
ОК	Cancel

Figure 42 - Disable automatic backup

To avoid unnecessary complications, 'Disable Automatic Backup' option is provided users to skip the backup when user doesn't want backups to be executed automatically on Mobile Action database update.

If the option is unchecked , backup will be executed to the place where the user has defined or targeting the default folder (C:\Addovation\Backups).

The communication between Uplink and Cloud is encrypted by SSL certificate. Select "File / Manage Certificates" in main menu of the application to register the existing SSL certificate which was copied from Uplink server.

Addovation Cloud Manager v2	1.7326.12956				_ 🗆 ×
File WinService					
Create EventLog	tart		Start All Stop A	II Restart All	
Manage Certificates Manage Resources	number	Status	Self-hoste	Tracking	Create instance
Open Customers folder					Remove instance
Exit					Configuration
					Refresh
					Clear event log
Level Date/Time	Sou	rce	Event ID	Category	

Figure 43 – Manage certificates



Click "Select existing" button.

Certificates assotiated w	_			
System ID	Certificate	Valid from	Valid to	Select existing
				Remove
				Configuration
				/
				.:

Figure 44 – Select existing



Find, choose, and select the copied SSL certificate (it is copied from Uplink server).

Now you can manage each version of AddoResources for each System ID of the particular Customer. Select "File / Manage Resources" in main menu of the application.

Addovation C	loud Manager v2.1.7326.	12956				_
File WinSe	ervice					
Create E	ventLog	tart		Start All Stop A	II Restart All	
Manage	Certificates	number	Status	Self-hoste	Tracking	Create instance
Manage	Resources		Stopped	\checkmark	,	
Open Cu	ustomers folder		Stopped	\checkmark	\checkmark	Kemove instance
Exit		1				Configuration
						Refresh
						Clear event log
Level	Date/Time		Source	Event ID	Category	
						i.

Figure 45 - Manage Resources



Choose the Customer and select the item with the particular System ID. Do right mouse button click on it and choose "Edit System ID".

Manage customers Resources					-	×
User						
						Ŧ
Addovation	⊳ ra	ace7.addovatio	on.com	1.0.0		
	⊳ ra	ace75sp2.addo	ovation.com	2.1.0		
	⊳ ra	ace75sp6.addo	ovation.com			
	⊳ ra	ace8.addovatio	on.com			
	⊳ ra	ace9.addovat	Add System ID			
			Edit System ID			
			Delete System ID			
			Force Refresh			
		L	Force Stop			
Customer/SystemId/Version: Addovation/race8.	addovat	tion.com/2.1.0)			

Figure 46 – Edit System ID

In the opened "Configure System ID" window the SLL certificate must be assigned to that System ID.

Configure System ID	–
System ID:	
race8.addovation.com	
Certificate:	
Install	Select
ОК	Cancel

Figure 47 – Configure system ID

Click "Select" button and choose the item with the corresponding certificate, which was registered in the Cloud Manager before (in the Manage Certificates section).



Certificates Store			-	×
Certificate	Valid from	Valid to		
CN=race8	1/12/2018	1/12/2019		
	OK Cancel			

Figure 48 – Certificate store

Click "OK". The chosen certificate is assigned to the selected System ID.

Select the item with the particular AddoResources version number. Do right mouse button click on it and choose "Configure Resource".

Manage customers Resources		-	□ ×
User Image: Control of the second	 race7.addovation.com race75sp2.addovation.com race75sp6.addovation.com race8.addovation.com race9.addovation.com 	1.0.0 2.1.0 Add Resource Edit Resource Configure Resource Delete Resource Save Permission Set	Ţ
Customer/SystemId/Version: Addovation/race8.a	ddovation.com/2.1.0		

Figure 49 – Customer resources



The opened window allows to customize configuration for each version of AddoResources used for the selected System ID. The configurations are grouped into several sections for each Addovation mobile product.

Enter or change the settings. Enter any connection strings if required and click "Save Configuration".



							_	~
Co	nfigure Resourc	es v2.	1.0			-		×
	AddForms settings							
	Annual Annua	igs	AddEorma					-
	Use GetBinan/ for FileData						\mathbb{Z}	
		y tor F	lleData					
	AddoResources settings							
	AddoResources	App \	/ersion	2.1.1				
	AddoResources	Produ	ict Version	2.1.10.0				
	ADFS settings							
	Adfs Url	adfs.	example.con	n				
	Client ID	0000	0000-0000-00	000-0000-00000	0000000			
	Deserves Hel			. /				
	Resource Un	aurs.	example.con	n/resource				
	Return Url	http:	//return					
	Use Adfs							
	Approval setting	16						
	Application title	. [Approval					
		. [
	Currency forma	t	0.00					-
	Group by do	cumer	nt class					
	Use approval	curre	nt steps					
	Use posting	propos	al .					
	✓ Use purchase	e orde	authorizatio	n				
	Configuration							
	✓ Hide remem	ber m	e and do not	save password				
	Select theme	Ad	dovation	-				
	DocBox settings	-						
	✓ Add/Remove	e Favo	rites					
	App Center Sce	cret						
	Application title	2	DocBox					
	Show Docum	nent R	efresh Buttor	ı				
	✓ Show Favorit	es						
	✓ Show My Do	cume	nts					
	✓ Show My Wo	orkOrd	ers					
	✓ Show Search	Docu	ments					
	✓ Show Service	Cont	ract					
	Generic settings							
	The maximum	204	48					
		nt stre	aming					
		int stre	anning					
	MobileAction se	ettings						
	Application title	2	Mobile Acti	ion				
	Run Service	Mode						
	Theme XML De	finit						
	ServiceManager	nent s	ettings					
	Application title	2	Service	Management				
	DB connection	string	Data So	urce=*****;Init	tial Catalog=DBAddoAppConfig;User ID=	******;P	ass	
								-
	TimeTracker+ se	ttings						
	Application title	2	Time Track	er+				
	Are to be exe	cuted	by the user					
	✓ Belongs to the user's Maintenance Organization							
	Having status ranging from (incl.) Released up to Work Done							
	✓ Hide the abil	ity to	select Organ	ization Code				
	✓ Hide the abil	ity to	Set In\Out Ty	pe Corrections				
	Planned Start date having value Started							
	Show Corrections							
	Show Projects							
	Show Wage	Codes						
	Show Work 0	Orders						
	The timeout to	reset t	he Employee	Numb 10				
			Save (Configuration	Cancel			

Figure 50 – Configure resources



The Cloud Manager will ask if the cloud service should be restarted to apply the chosen configuration.



Figure 51 – Restart cloud manger

Click "Yes", if the Cloud service is already started or if you are not planning to restart it manually.

4.3 Start Services

It's possible to run the Cloud Service and the Uplink Service by two ways:

- via Self-hosted application
- via Windows Service

4.3.1 via Self-hosted service

Self-hosted application is a console application, which works in the interactive mode and shows the current user all trace info about the service: when it's started, when it fails, exception and warning messages, connected endpoints, etc.

🔟 local — 🗌	×
[16:36:20.8642862] Assembly not loaded: Addovation - race7.addovation.com - 1.0.0	^
<pre>[16:36:20.8647948] Assembly not found: 'D:\Work\Addovation\Office Automation\Mobile Solutions\cloud\Runtime\Customers\ dovation\race75sp2.addovation.com\1.0.0\Addovation.Cloud.Apps.AddoResources.dll' [16:36:20.8657924] Assembly not loaded: Addovation - race75sp2.addovation.com - 1.0.0</pre>	Ad
[16:36:21.3826818] Assembly loaded: Addovation - race75sp2.addovation.com - 1.0.25	
<pre>[16:36:21.3840917] Assembly not found: 'D:\Work\Addovation\Office Automation\Mobile Solutions\cloud\Runtime\Customers\ dovation\race75sp6.addovation.com\1.0.0\Addovation.Cloud.Apps.AddoResources.dll' [16:36:21.3847276] Assembly not loaded: Addovation - race75sp6.addovation.com - 1.0.0</pre>	Ad
[16:36:21.5528635] Assembly loaded: Addovation - race75sp6.addovation.com - 1.0.25	
<pre>[16:36:21.5538581] Assembly not found: 'D:\Work\Addovation\Office Automation\Mobile Solutions\cloud\Runtime\Customers\ dovation\race8.addovation.com\1.0.0\Addovation.Cloud.Apps.AddoResources.dll' [16:36:21.5541243] Assembly not loaded: Addovation - race8.addovation.com - 1.0.0</pre>	,Ad
[16:36:21.7216981] Assembly loaded: Addovation - race8.addovation.com - 1.0.25	
[16:36:23.5737958] DataService over net.tcp:// has been started: net.tcp://localhost:48080/Addovation.Cloud/DataService/	
[16:36:27.4436570] DataService over https:// has been started: https://localhost:48079/Addovation.Cloud/DataServiceWss/	
<pre>[16:36:27.5754405] ClientService has been started: https://localhost:48081/Addovation.Cloud/ClientService/</pre>	
	v

Figure 52 – Service status



To make the service instance start via Self-hosted application, you should go the service instance configuration window (in Cloud Manager or in Uplink Manager) and check the "Self-hosted service" box. Select the service instance item in the list and click "Start" button.

Create cloud instance		-		×
Instance name:				
local				
Host name:				
localhost				
Data Service over Net Tcp Port number:				
48080				
Address:	Copy to	Clipb	oard	
net.tcp://localhost:48080/Addovation.Clou	d/DataServ	ice/		
Data Service over Https Port number: 48079				
Address:	Copy to	Clipt	oard	
https://localhost:48079/Addovation.Cloud/	/DataServic	eWss,	/	
Client Service Port number: 48081				
Address:	Copy to	Clipb	oard	
https://localhost:48081/Addovation.Cloud/	/ClientServi	ice/		
HTTPS OHTTP				
SSL Certificate Thumbprint: Generate ef28c20802bcf1e70e1d331dd6eaeb5b3c82d4	Self-Signed b2	d Cert	ificate	/
✓ Self-hosted service				
Log to MessageTracking				
MessageTracking ConnectionString:				
OK Cano	el			

Figure 53 – Self hosted service

Addovation \checkmark

4.3.2 via Windows Service

Hosting the service as Windows Service, the user will not be able to see any trace info in the interactive mode. However, the services will start automatically after rebooting the server machine.

🤹 Services					- 🗆	Х
<u>F</u> ile <u>A</u> ction <u>V</u> iew	<u>H</u> elp					
	à 📑 🛛 📰 🕨 🔳 II IÞ					
🧟 Services (Local)	Services (Local)					
	Addovation.Cloud.Service	Name	Description	Status	Startup Type	^
		ActiveX Installer (AxInstSV)	Provides User Account Control validation for th		Manual	
	Stop the service	Addovation.Cloud.Service	Host service for Addovation Cloud WCF services	Running	Automatic	
	Restart the service	🔍 Adobe Acrobat Update Service	Adobe Acrobat Updater keeps your Adobe soft	Running	Automatic	
		🍓 Adobe Flash Player Update Service	This service keeps your Adobe Flash Player inst		Manual	
	Description:	🌼 Adobe Genuine Software Integrity	Adobe Genuine Software Integrity Service	Running	Automatic	
	WCE services	🍓 AllJoyn Router Service	Routes AllJoyn messages for the local AllJoyn cl		Manual (Trigge	er Sta
		🏟 App Readiness	Gets apps ready for use the first time a user sign		Manual	
		🍓 Apple Mobile Device Service	Provides the interface to Apple mobile devices.	Running	Automatic	
		Application Host Helper Service	Provides administrative services for IIS, for exa	Running	Automatic	
		Application Identity	Determines and verifies the identity of an applic		Manual (Trigge	er Sta
		Application Information	Facilitates the running of interactive application	Running	Manual (Trigge	er Sta
		Application Layer Gateway Service	Provides support for 3rd party protocol plug-in		Manual	
		Application Management	Processes installation, removal, and enumeratio		Manual	
		AppX Deployment Service (AppXSV	Provides infrastructure support for deploying St		Manual	
		Araxis Snapshot Service	Uses System Restore to take a periodic hard driv		Manual	
		ASP.NET State Service	Provides support for out-of-process session sta		Manual	
		AssignedAccessManager Service	AssignedAccessManager Local Server		Manual	
		🗛 Auto Time Zone Updater	Automatically sets the system time zone.		Disabled	
		Background Intelligent Transfer Ser	Transfers files in the background using idle net	Running	Automatic (De	laye
		Background Tasks Infrastructure Se	Windows infrastructure service that controls wh	Running	Automatic	
		😪 Base Filtering Engine	The Base Filtering Engine (BFE) is a service that	Running	Automatic	×
		٤				>
	Extended Standard					

Figure 54 - Services



To make the service instance start via Windows Service, you should go the service instance configuration window (in Cloud Manager or in Uplink Manager) and uncheck the "Self-hosted service" box.

Create cloud instance			-		×
Instance name:					
local					
Host name:					
localhost					
Data Service over Net Tcp Port number:					
48080					_
Address:		Copy to	o Clipł	board	
net.tcp://localhost:48080/Addo	ovation.Clou	d/DataSer	vice/		
Data Service over Https Port number: 48079					
Address:		Copy to	o Clipł	board	
https://localhost:48079/Addov	ation.Cloud/	/DataServi	ceWss	/	
Client Service Port number:					
Address:	[Copy to	o Clipk	ooard	
https://localhost:48081/Addov	ation.Cloud/	/ClientServ	/ice/		
HTTPS OHTTP	-		-		
SSL Certificate Thumbprint: ef28c20802bcf1e70e1d331dd6ea	Generate eb5b3c82d4	Self-Signe b2	d Cert	ificate	
✓ Self-hosted service					
Log to MessageTracking					
MessageTracking ConnectionStrin	ng:				
ОК	Canc	el			

Figure 55 – Uncheck self hosted service



Choose "WinService / Install" in main menu of the application and then click "WinService / Start" to run all service instances via single Windows Service control.

Addovation	Cloud Manager v1.4	.9.0				>	×
File Wins	Service						
	Install	Restart		Start All Stop A	II Restart All		
Title	Charle	Port number	Status	Self-hoste	Tracking	Create instance	/
loca	Stop		Stopped			Remove instance	
						Configuration	
						Refresh	
						Clear event log	
Level	Date/Time	Sour	ce	Event ID	Category		
							-
							.::

Figure 56 - Install

5 ADFS

With ADFS login integrated into Service Management and Mobile Action you can now login via ADFS or Azure AD instead of an IFS user. Because ADFS tokens are not supported in IFS this works by creating an integration user and running impersonation on top of it. It also supports Multi-Factor Authentication.

The user will first login via the app and after entering the cloud and system id the user will be taken to a secure Microsoft webpage where the user will enter username and password. The webpage requires an SSL certificate to make the connection secure which means that the user either need a local certificate installed on the device or the company can use a global certificate. The ADFS server will check the credentials towards Active Directory and the ADFS server then sends a token to the user if the credentials are correct. This token also allows users to login to the app later without having to login again (depends on configuration in ADFS server). The token contains several claims but the one we are interested in is the UPN value which looks like <u>user@company.com</u>. We use it to login to IFS so make sure it matches the Directory ID.

5.1 ADFS values

The values which are needed to configure ADFS for the mobile application:

Adfs Url: the Url that will connect to the ADFS server or Azure. The value will normally be the name of the server plus an endpoint that points to the authorization method. So it might be <u>https://your-adfsserver-here/adfs/ouath2</u>. Keep in mind that there are more variations.

Client ID: This is the identifier that allows ADFS to identify the app that is being used. It is a GUID that is created in the ADFS server via PowerShell or Azure.

Resource Url: This is an endpoint that controls how the user can login and what values will be passed to the ADFS token. This can be a relaying party trust, a generic resource if you are on Azure or any other value that can handle how a user can login.

Return Url: This is a value that is created in ADFS or Azure that can be anything as long as it is in http format. It is just a value to tell ADFS or Azure that the connection is secure.

6 IFS configuration

First, we create an integration user in IFS.

User - Integration User				
Identity:	INT_USER			
User Name:	Integration User			
Directory ID:	INT_USER			
Language:	en 🗸			
E-mail:				
Database ID:	INT_USER			

Figure 57 – Integration user

We then create a user in IFS that we will login with a directory id that matches the username in AD or Azure.

User logon name:		
rs	@skydashboard.no	~
User logon name (pre-Windows 2000)):	
SKYDASHBOARD	rs	

Figure 58 – Logon Details

User - MinADFSuser		
Identity:	CROL_USER	
User Name:	MinADFSuser	
Directory ID:	RS@SKYDASHBOARD.NO	
Language:	nl 🗸 🗸	
E-mail:		
Database ID:	CROL_USER	

Figure 59 – ADFS user



6.1 Cloud configuration

Go to "File / Manage Resources" in main menu and do "Configure Resource" for the particular version of AddoResources.



Figure 60 – Configure resources



Enter the values inside "ADFS settings" section and check the "Use Adfs" box to enable ADFS login.

Configure Resources v2.1.0	_ □ ×
AddForms settings	
Application title AddForms	
Use GetBinary for FileData	
AddoResources settings AddoResources App Version 2.1.0 AddoResources Product Version 2.1.9.0	
ADFS settings Adfs Url adfs.example.com Client ID 00000000-0000-0000- Resource Url adfs.example.com/resourc Return Url http://return Use Adfs Use Adfs	
Approval settings Application title Approval Currency format 0.00	-
Group by document class	

Figure 61 – ADFS settings

Addovation \checkmark

6.2 Uplink configuration

The integration user credentials must be entered inside uplink instance configuration window.

Create cloud instance	- C ×
Instance name:	
race8	
System ID:	
race8.addovation.com	
Database URI ·	IFS version:
http://race8demo:58080	APPS8 •
Dete Constan	
Connection type:	
NetTcp	•
Host name:	
localhost	
Port number:	
48080	
Address:	Copy to Clipboard
net.tcp://localhost:48080/Addovation.Clou	ud/DataService/
Integration User for ADFS Login Username: Enter Username for Integratio Password: Enter Password for Integratio	
Later abbreater integrate	
✓ Self-hosted service	
OK Can	cel

Figure 62 – Create cloud instance

The credentials will be encrypted after saving.



6.3 Authentication

When you enter the Cloud Url and the System ID and if the corresponding AddoResources library is configured to use ADFS, the Username and Password fields are hidden.

SERV		AGEMENT
test		0
race9.addovation.com		
	Clear ADFS info	
	Try me Lo	gin

Figure 63 - Authentication

Clicking on "Login" button will redirect you to ADFS login screen. Enter the Username and Password for your AD user.

ADFS Login
Sign in with your organizational account
someone@example.com
Password
Sign in

Figure 64 – ADFS Login

Clicking on "Clear ADFS info" button will clear the cached ADFS token, and you will have to pass the ADFS authentication once again in order to enter the application.

7 Upgrade

7.1 Upgrading old versions to Automation Server 2.1. 33715 or higher.

While performing an upgrade, environments and license key should be added again, due to the fact that previously configured environments won't be available during and after the upgrade.

