
White Paper Automation AIS-Cloud and Uplink v2.1



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1 Introduction

Addovation Cloud runs three WCF services – Client service and two Data services.

1.1 Requirement if running Addovation cloud

The cloud solution requires that TCP-connections is allowed on port 8080 on full duplex towards:

- cloud.addovation.com
 - IP: 217.65.228.51
- testcloud.addovation.com
 - IP: 217.65.228.50

1.2 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.

1.3 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.

1.4 Cloud

Addovation Cloud can work as self-hosted service or as Windows service.

1.5 Addovation Uplink

Addovation Uplink is a WCF service installed on the client side. The uplink service initiates connection to the Cloud service, so no ports on client side need to be opened. Uplink service has access to the configured database through IFS DataAccess Provider (provided by IFS) that ensures that all business logic is being preserved.

The communication is being illustrated in the following picture:

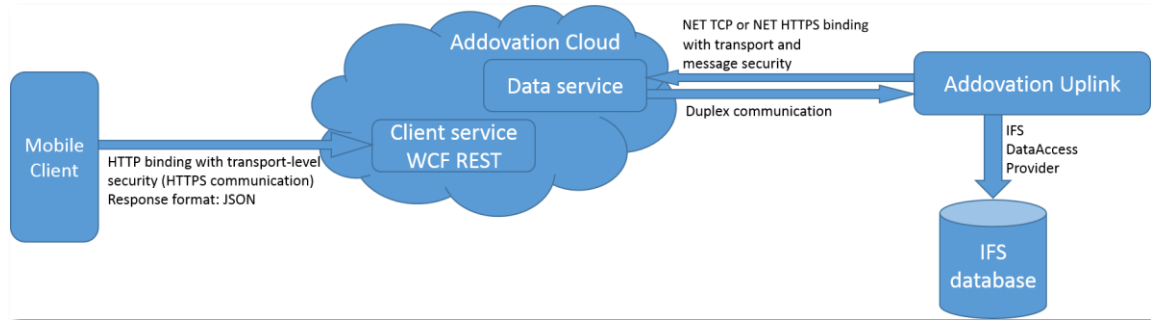


Figure 1 - Cloud/Uplink Communication Structure

Every instance of the Uplink service has to provide certificate generated for the specific Customer/SystemID. **Duplex** connection will be established only if correct certificate is provided.

Mobile clients are to request the public key of generated certificate from the Addovation Cloud. This key is used to encrypt all the messages to send to the Cloud service.

NOTE that in the case of using proxy, the Data service should use WebSocket connection type. **The proxy server should have SSL termination switched off. This needs to be handled via the customer proxy configuration (these settings vary between different proxy software).**

Important! The cloud uplink uses local Internet Explorer proxy configuration so it's possible that the following setting needs to be enabled and configured:

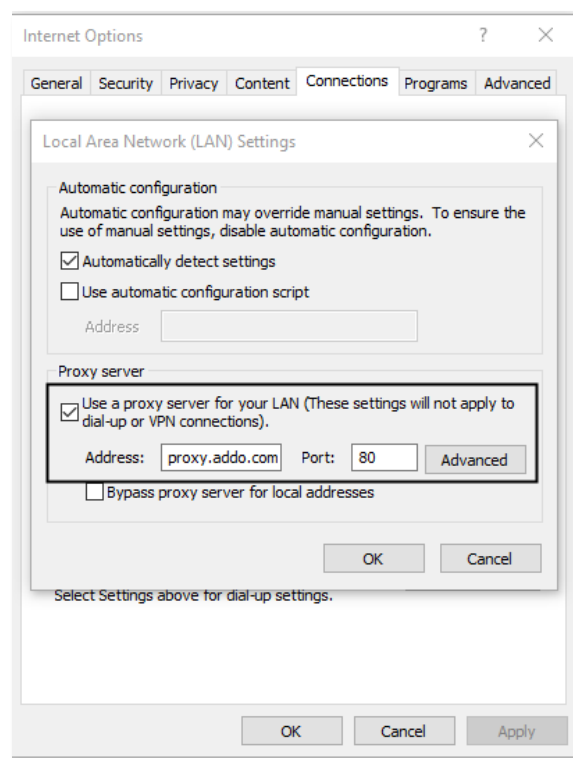


Figure 2 - Proxy Server Settings

The security communication can be illustrated by the following drawing:

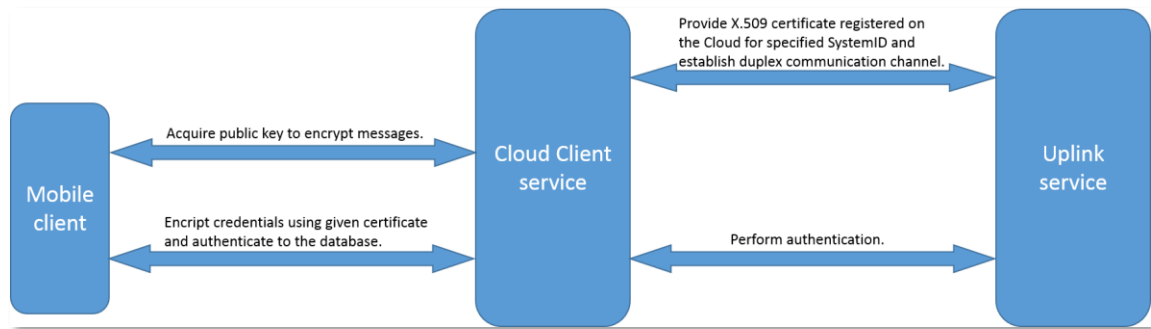


Figure 3 - Cloud/Uplink Security Communication

2 System requirements

The table below describes the system requirements for client machines.

System Requirements for Addovation Microsoft 365 CRM Sync	
Operating System	Windows 10 (32-bit or 64-bit) and above Windows Server 2016 (32-bit or 64-bit) and above
Memory	8 GB RAM or more
CPU	Intel/AMD (Dual core or more recommended)
.NET Framework	Full 4.6.2 or newer
Microsoft SQL Server	2017 Standard (14.0) or above

*) Other versions of Microsoft Windows and/or IIS might work, but they are not supported. There is no support for Azure Stack nor Microsoft Exchange on-premise.

3 Compatibility matrix

Addovation Cloud & Uplink module is compatible with/requires the following operating systems, frameworks, and applications:

SUPPORTS / REQUIRES	VERSION / BITNESS	CLOUD/UPLINK
WINDOWS SERVER 2012	32 and 64	✗
WINDOWS SERVER 2016	32 and 64	✓
WINDOWS SERVER 2019	32 and 64	✓
WINDOWS 7	32 and 64	✗
WINDOWS 8	32 and 64	✗
WINDOWS 10	32 and 64	✓
IFS APPLICATIONS	7.5	✓
IFS APPLICATIONS	8	✓
IFS APPLICATIONS	9 Upd 15	✓
IFS APPLICATIONS	10 Upd 9	✓

4 GDPR compliance

Automation AIS Cloud and Uplink from Addovation obeys regulations controlled by GDPR and communicates in the same way as IFS Applications Enterprise Explorer 7, 8, 9 and 10.

The information that is being stored locally on the client machine in regards of AIS Cloud & Uplink is:

Config files-

Cloud

```
<?xml version="1.0"?>
<ServiceConfiguration xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="
http://www.w3.org/2001/XMLSchema">
  <Index>0</Index>
  <ProcessId>1748</ProcessId>
  <Title>cloud</Title>
  <Tracking>jQasbMJk0ndZs4NEgFpflA==</Tracking>
  <IsSelfHosted>true</IsSelfHosted>
  <IsAutomaticallyStart>false</IsAutomaticallyStart>
  <IsLogged>true</IsLogged>
  <DbConnection>Data Source=CHP2\SQLEXPRESS;Initial Catalog=DbMobileActionNew;User
ID=sa1234;Password=rttee;MultipleActiveResultSets=True;Application Name=EntityFramework</DbConnection>
  <DbBackup>C:\Addovation\Backups\NewBackup</DbBackup>
  <IsBackupDisabled>false</IsBackupDisabled>
  <AddressDataService>net.tcp://localhost:48080/Addovation.Cloud/DataService/</AddressDataService>
  <AddressDataServiceWss>https://localhost:48079/Addovation.Cloud/DataServiceWss/</AddressDataServiceWss>
  <AddressClientService>https://localhost:48081/Addovation.Cloud/ClientService/</AddressClientService>
  <CertificateThumbprintClientService>72618fcbbad07e9ab373917c3478347cdc47e8e9
  </CertificateThumbprintClientService>
  <Status>Running</Status>
  <ClientProtocol>Https</ClientProtocol>
</ServiceConfiguration>
```

Figure 4 – Cloud Config File

Purpose of storing the DB connection in the config file is to communicate with the relevant database of an application with IFS Applications.

Located Folder:

This PC > Windows (C:) > ProgramData > Addovation > CloudServices				
Name	Date modified	Type	Size	
cloud.Addovation.Cloud	1/22/2020 4:04 PM	XML Document	2 KB	
cloud_db.Addovation.Cloud	1/8/2020 5:57 PM	XML Document	2 KB	

Figure 5 - Located Folder

Uplink

```
<?xml version="1.0"?>
<ServiceConfiguration xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="
http://www.w3.org/2001/XMLSchema">
  <Index>2</Index>
  <ProcessId>0</ProcessId>
  <Title>race10</Title>
  <Username>jQasbMJK0ndZs4NfdffgdfgffffffffffffffffEgFpf1A==</Username>
  <Password>jQasbMJK0ndZs4NfgfsderetrytutytytyyEgFpf1A==</Password>
  <SystemId>race10.addovation.com</SystemId>
  <ApplicationVersion>APPS10</ApplicationVersion>
  <ConnectionType>NetTcp</ConnectionType>
  <DatabaseUrl>https://azure013.addovation.com</DatabaseUrl>
  <IsSelfHosted>true</IsSelfHosted>
  <IsAutomticallyStart>false</IsAutomticallyStart>
  <AddressCloudService>net.tcp://localhost:Addovation</AddressCloudService>
  <Status>Stopped</Status>
</ServiceConfiguration>
```

Figure 6 - Uplink Config File

Encrypted credentials will be saved after the configurations are created to communicate with IFS applications.

Located Folder:

This PC > Windows (C:) > ProgramData > Addovation > UplinkServices				
Name	Date modified	Type	Size	
race8.Addovation.Uplink	2/7/2020 11:07 AM	XML Document	1 KB	
race9.Addovation.Uplink	2/7/2020 11:07 AM	XML Document	1 KB	
race10.Addovation.Uplink	2/7/2020 11:07 AM	XML Document	1 KB	

Figure 7 - Located Folder

5 Contact

For further inquiries, please contact your nearest Addovation office:

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For existing customers, please use <http://support.addovation.com>

For further inquiries, please have a look at www.addovation.com for contact information.