



**Business  
Services**

# **Multimedia Conference API for .NET**

## **SDK Manual**

# Multimedia Conference API for .NET: SDK Manual

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## Revision History

Revision 1.4.1-000	2009/09/01
• Introducing service account password.	
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• Merging prerequisites, getting started and sdk manual documentation.	
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• Added three new methods : GetConferenceDetails, GetConferencesList and GetLicencesUsage.	
• Updated all class diagrams.	
• Updated all code snippets.	
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• Reviewing document.	
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• Added the programming language in the title.	
• Added or updated some constructors for mandatory parameters.	
• Updated some class diagrams and samples.	
• Added the section §3.5 about SDK configuration and renamed §3.7.	
• Added the ConfigurationException.	
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# Preface

Welcome to the Multimedia Conference SDK manual!

This manual is a collection of topics related to develop code using all the advanced features of Orange™ Multimedia Conference API with our SDK.

By the end of this manual you will be able to make advanced applications using the multimedia web and/or audio conferences created via our API. You will discover the implementation details (architecture and libraries used) of SDK we made for you. Our SDK has been designed to hide all the complexity of the underlying Webservice communication and to help leverage the power of Object Oriented Programming.

You will first learn how to setup your machine, then how to configure the SDK and finally how to use every single methods provided by the API.

You will find some code snippets that are ready to go, just copy and paste the code into your favorite IDE!

You will also have access to a web conference administration portal.

# Chapter 1. Overview

## 1. Features

The MMC webservice offers two ways of conferencing (multimedia with or without audio support and audio only).

Multimedia conferences offers the following features:

- About function to get the current version of the MMC service. You can use it as a "Hello World"-like function to check connectivity with the server.
- Create instantaneous (web and/or audio) conferences.
- Create scheduled (web and/or audio) conferences.
- Invite participants to join a conference.
- Get specific conference detailed information.
- Get a list of conferences.
- Get licences usage information.
- Start scheduled (web and/or audio) conferences.
- Modify scheduled (web and/or audio) conferences.
- Delete conferences.

Audio Conferences offers the following features:

- Create instantaneous audio conferences
- Create scheduled audio conferences.
- Start scheduled audio conferences.
- Modify scheduled audio conferences.

## 2. Concepts

Multimedia Conference is a videoconferencing client. This remote conferencing service lets you share information via audio and web conferencing. Wherever you and your conference attendees are located in the world, it allows you to communicate through webconference.

Audio conference is a conferencing system designed for voice conferencing only.

# Chapter 2. Prerequisites

Before getting started, please read the information of this document, and follow any installation / download instructions. You'll be then ready to move onto the 'getting started' section.

In this chapter you will learn how to get your credentials. Then, we will explain how to have a well configured .NET environment.

## 1. What you need to consume MMC web service

To access the Multimedia Conference API, you first have to get from the Orange Partner platform some credentials. Once you have these items, please keep them, they will be necessary to access the Multimedia Conference API.

### 1.1. API access credentials needed

This section focuses on how to access the API and consume the webservice.

Developing with the API, you'll need:

- *Service URL*: the URL to consume the webservice (the URL for the trial API may be different from the one for the live API)
- *Service Account* and *Service Account Password*: you have one API Service Account and one API Service Account Password per API and you can get them by signing in Orange Partner portal and going to the API section.
- *Access Key* and *Access Key Password* for basic authentication.

You can retrieve (or create) the above in the **\*\*API Manager\*\*** area.

### 1.2. MMC requirements

You will need the relevant end point URL when using the API. You need to use different URLs for different stages of your development.

The following table recaps the WSDL endpoint locations depending on the mode you are working with.

**Table 2.1. Which endpoint should I use?**

Mode	URL
Develop (trial API)	<a href="https://iosw.orange-api.net/api_try/MultimediaConferenceTrial-1">https://iosw.orange-api.net/api_try/MultimediaConferenceTrial-1</a>
Manage (commercial API)	<a href="https://iosw.orange-api.net/api/MultimediaConference-1">https://iosw.orange-api.net/api/MultimediaConference-1</a>

Download and install the server certificate from MMC API on your machine in order to authenticate your application for the Secure Socket Layer (SSL).

## 2. Manage certificates

### 2.1. Secured Communication

HTTPS (Hypertext Transfer Protocol over Secure Socket Layer, or HTTP over SSL) is a Web protocol designed to encrypt and decrypt page requests as well as the pages that are returned by the Web server.

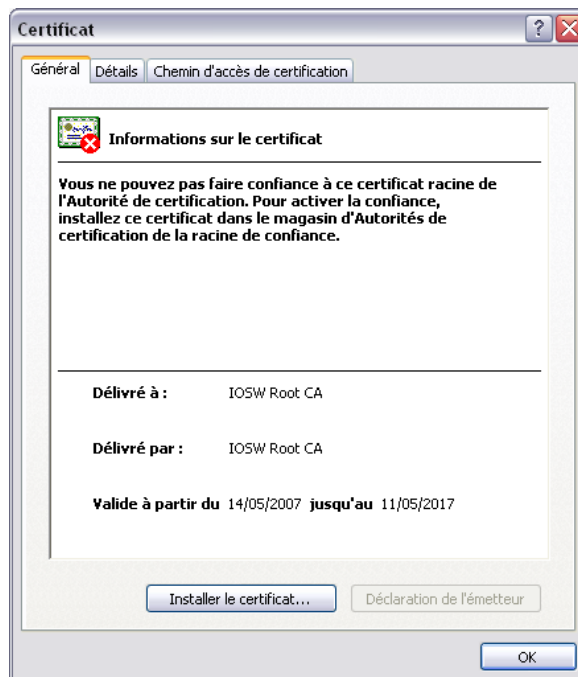
The communication between your machine and the API will be secured by a SSL server certificate over the regular HTTP protocol. Practically this means you will have to go through HTTPS endpoints and you will have to use the SSL certificate we've made available for you. It is named `orangeapi.cer`.

### 2.2. Use a certificate in .NET

.NET uses the Windows certificate store, thus, you have to install the Orange API certificates on your computer:

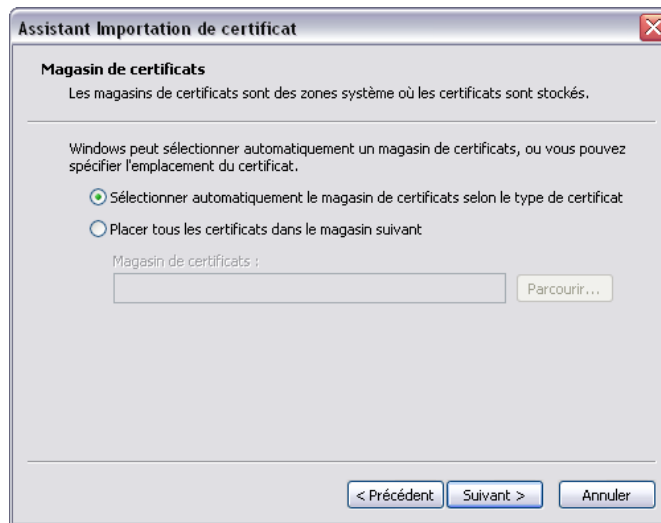
- First, download the Orange API certificates (`orangeapi.cer` and `orangeapiroot.cer`) from the Orange Partner website.
- Then, double-click on the root certificate (`orangeapiroot.cer`) to start the installation process:

**Figure 2.1. Certificate installation - step 1**



Click on the "Install the certificate" button and follow the on-screen instructions.

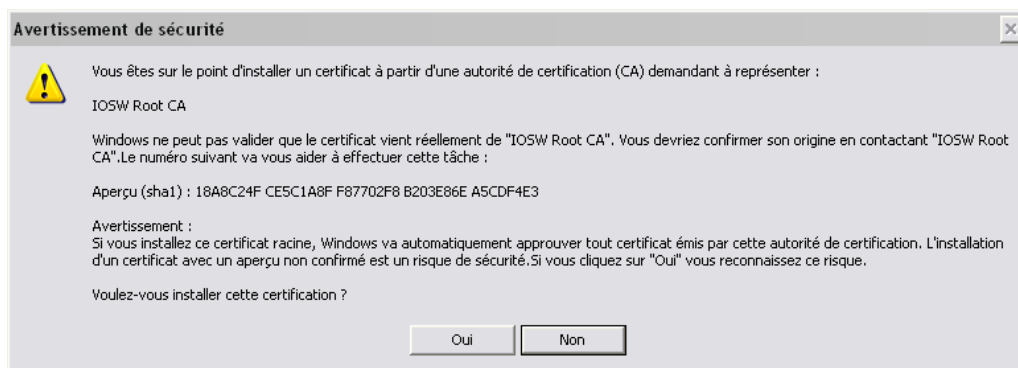
**Figure 2.2. Certificate installation - step 3**



Let Windows choose the appropriate certificate store and click "Next".

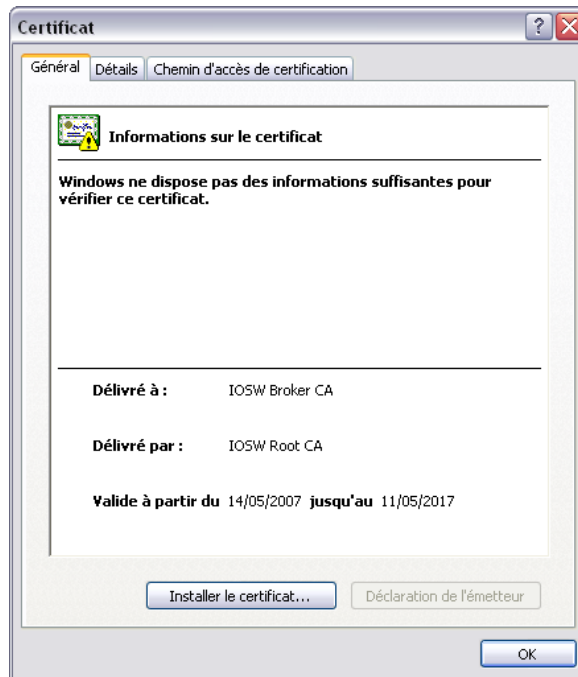
Validate your parameters by clicking the "Finish" button. A message box will ask you to confirm the installation of the root certificate in the certification authority store:

**Figure 2.3. Certificate installation - step 5**



Accept by clicking "Yes". Windows will automatically install the certificate for you.

- Finally, double-click on the broker certificate (`orangeapi.cer`) to start the installation process and follow the previous instructions.

**Figure 2.4. Certificate installation - step 1**

You are now ready to use the Orange API through HTTPS.

As for now, the server certificate is not valid. Therefore, you have to make your application trust this certificate by adding the following lines:

```
//Add the following line once before using the Orange APIs (at start-up in the main method
for example)
ServicePointManager.ServerCertificateValidationCallback
= new
System.Net.Security.RemoteCertificateValidationCallback(RemoteCertificateValidationCB);

//Add the RemoteCertificateValidationCB method
public static bool RemoteCertificateValidationCB(Object sender,
System.Security.Cryptography.X509Certificates.X509Certificate cert,
System.Security.Cryptography.X509Certificates.X509Chain chain,
System.Net.Security.SslPolicyErrors Errors)
{
//You can add security controls here.
return true;
}
```

### 3. .NET environment

In order to use our SDK, you must have the .NET framework 3.5 installed on your system. You can find .NET framework downloads on [Microsoft](http://Microsoft) website.

We encourage you to use Integrated Development Environment (IDE) which will ease your everyday work with programming.

You can obviously use Microsoft Visual Studio 2008 if you have already registered a copy.

You can also download free IDE like [Microsoft Visual Studio Express Editions](#), [SharpDevelop](#) or [MonoDevelop](#).

## 4. Proxy and firewall settings

In order to use our APIs, you have to check your proxy and firewall settings.

The firewall basically inspects network traffic passing through it. It may deny passage based on how rules have been set by your system administrator. We recommend to first check with the administrator if the port is open and if the URL request won't be blocked. Once the proxy and firewall are well set, we encourage you to test the connectivity with a simple function that takes no parameter (or a few easy-to-build parameters) and just returns a string. This will allow you to verify that everything is working fine.

# Chapter 3. Install and Setup

To kick-start your development download the .NET SDK. The reference manual (generated by Sandcastle) is also available in the ZIP of the SDK.

## 1. Install SDK

You can use the SDK in your main application project either by creating a new project in your solution including the shipped sources and referencing it, or by directly referencing the shipped libraries.

The SDK contains the following libraries:

- `Orange.Api.Common.dll` and `Orange.Api.MultimediaConference.dll` (the core libraries),
- `log4net.dll` from the [Apache Logging Services project](#) to add logging capabilities to your application.

These libraries are all mandatory.

## 2. Configure SDK

The SDK is shipped with a configuration file that stores all settings required to access the Multimedia Conference API:

- the web proxy settings: `proxyHost`, `proxyPort`, `proxyUsername` and `proxyPassword`,
- the `serviceUrl`,
- the access credentials: `accessKey`, `accessKeyPassword`, `serviceAccount` and `serviceAccountPassword`.

The configuration file is named `mmc.config` by default and is located at the root of your application.

### Example 3.1. Example of the `mmc.config` configuration file.

```
<?xml version="1.0" encoding="utf-8"?>
<configuration>
  <appSettings>
    <!-- HTTP Proxy Configuration -->
    <add key="disableProxy" value="false" />
    <add key="proxyHost" value="your_proxy_host" />
    <add key="proxyPort" value="your_proxy_port" />
    <add key="proxyUsername" value="your_proxy_username" />
    <add key="proxyPassword" value="your_proxy_password" />

    <!-- MMC Service URL -->
    <add key="serviceUrl" value="your_service_url" />

    <!-- MMC Credentials -->
    <add key="accessKey" value="your_access_key" />
    <add key="accessKeyPassword" value="your_access_key_password" />
    <add key="serviceAccount" value="your_service_account" />
    <add key="serviceAccountPassword" value="your_service_account_password" />
  </appSettings>
</configuration>
```

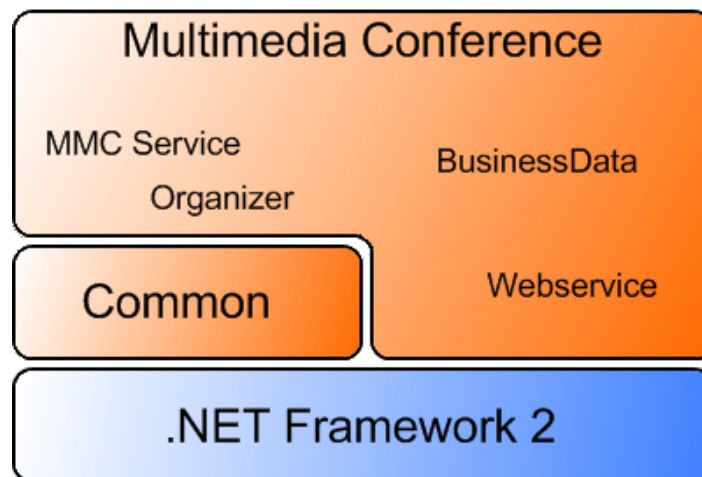
This configuration file is not mandatory (you can set all required parameters programmatically), but we encourage you to use it as it greatly eases the maintainability of your application.

# Chapter 4. The Multimedia Conference SDK

Hereafter is described a global view of the MMC Sdk architecture. Basically, the MMC Sdk is based on the Microsoft .NET Framework 2 and is composed of:

- Common: this library contains reusable classes in the Open Developer Network context.
- MultimediaConference: this library contains
  - the MMC Service with static access to the Multimedia Conference API webmethods.
  - the Organizer class, an abstraction of the organizer in a multimedia conference, encapsulating authentication data.
  - the BusinessData namespace, a business model that lets the developer get quickly involved in the Multimedia Conference API
  - the Webservice namespace, a communication layer with SOAP client and types definitions.

Figure 4.1. Diagram of the global architecture of the MMC Sdk

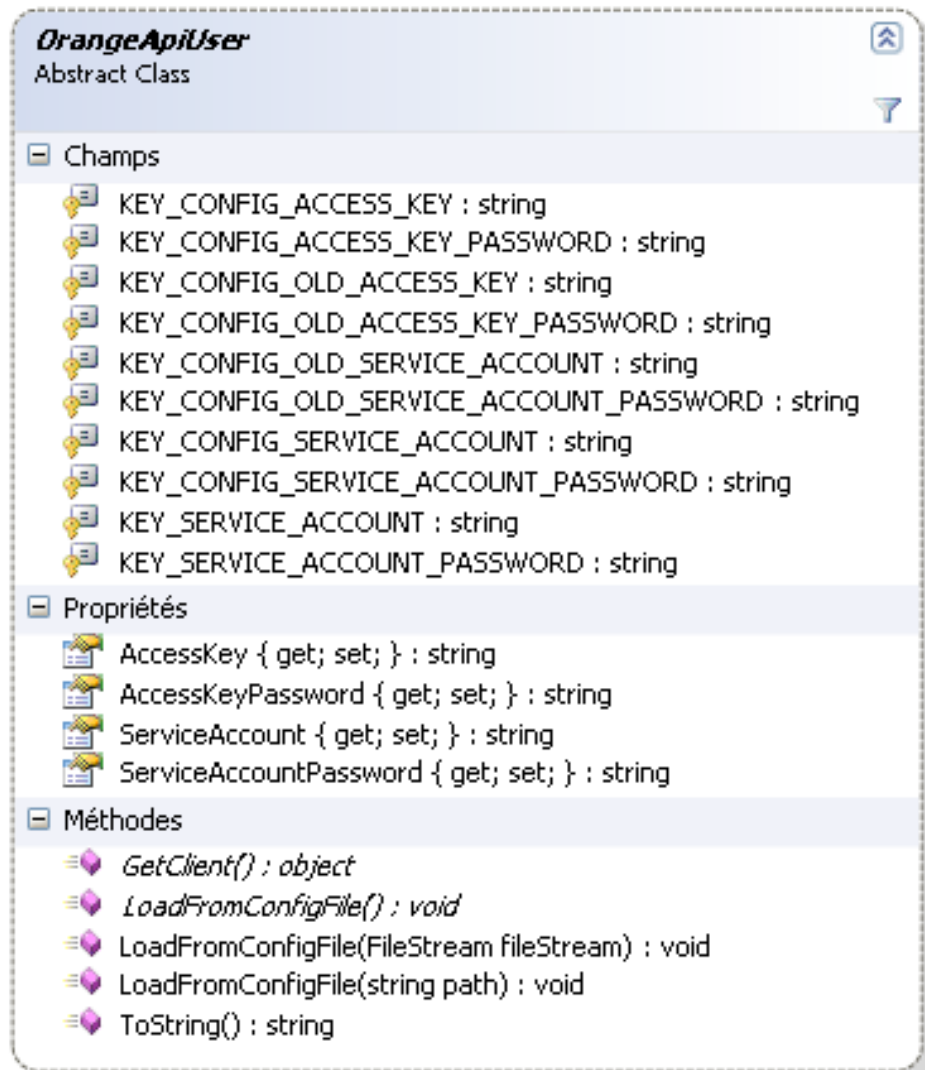


## 1. Orange.Api.Common namespace

The Orange.Api.Common namespace contains four classes.

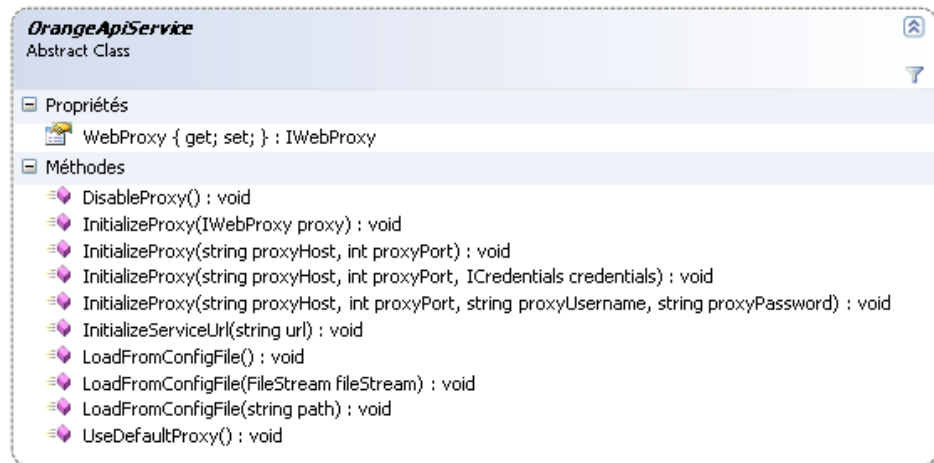
- `OrangeApiUser`: this class encapsulates the authentication data required by the Orange APIs, that is to say the HTTP basic auth credentials (the `AccessKey` and `AccessKeyPassword` properties), the service account (the `ServiceAccount` property) and the service account password (the `ServiceAccountPassword` property). The `GetClient` abstract method is overridden by each Orange APIs to get a valid and configured web client.

Figure 4.2. `OrangeApiUser` class diagram.



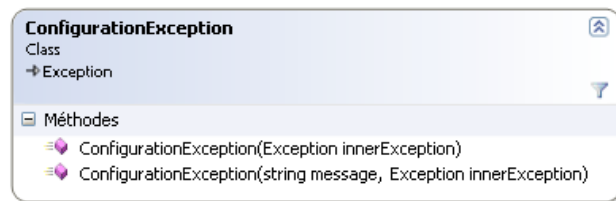
- `OrangeApiService`: this class encapsulates static initialization methods such as proxy configuration.

**Figure 4.3. OrangeApiService class diagram.**



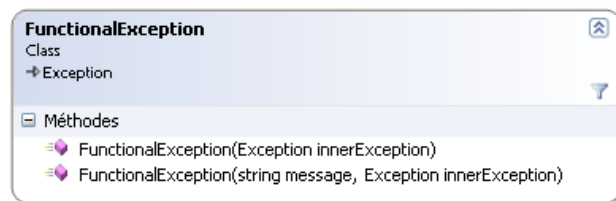
- `ConfigurationException`: this class encapsulates configuration exceptions that occurred while using Orange APIs.

**Figure 4.4. ConfigurationException class diagram.**



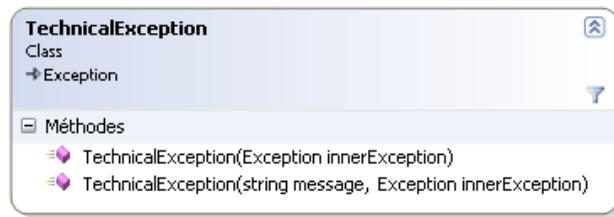
- `FunctionalException`: this class encapsulates functional exceptions that occurred while using Orange APIs.

**Figure 4.5. FunctionalException class diagram.**



- `TechnicalException`: this class encapsulates technical exceptions that occurred while using Orange APIs.

**Figure 4.6. TechnicalException class diagram.**

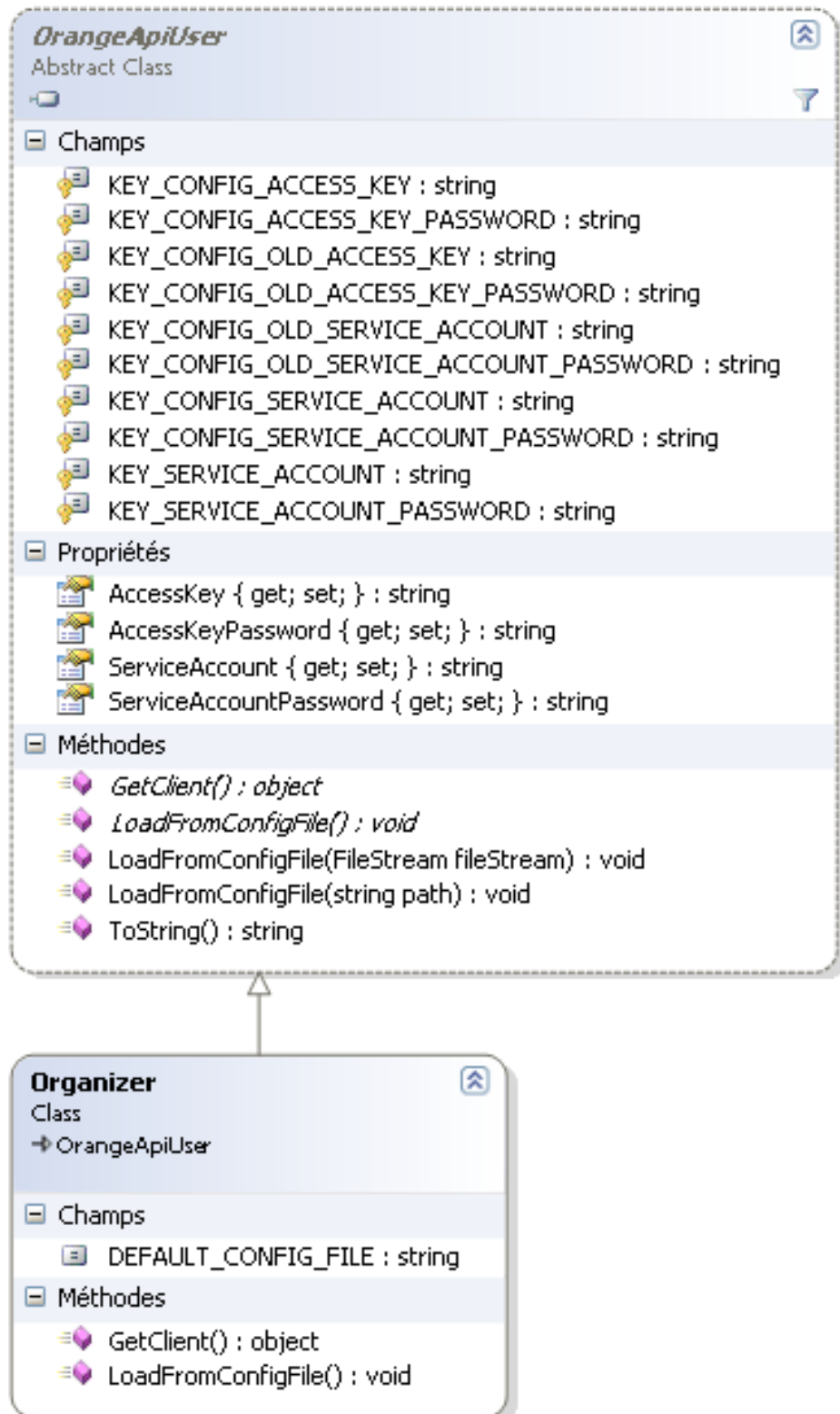


## 2. Orange.Api.MultimediaConference namespace

The Orange.Api.MultimediaConference namespace contains three classes.

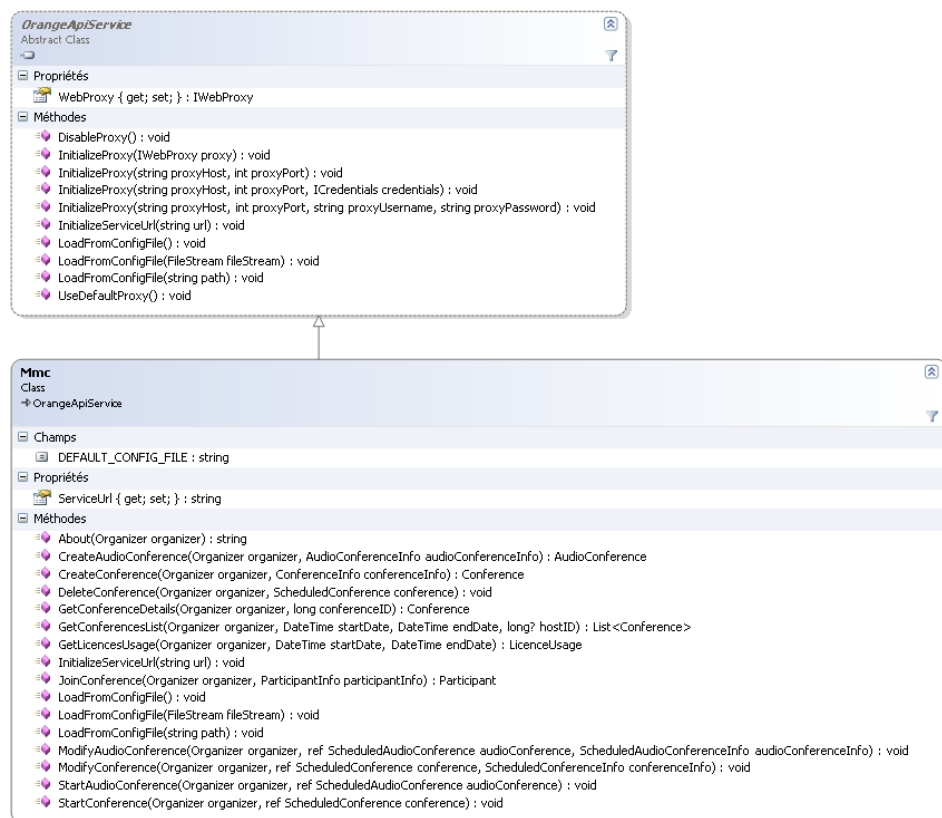
- Organizer: this class represents an organizer for MultimediaConference. It inherits from the Orange.Api.Common.OrangeApiUser.

**Figure 4.7. Organizer class diagram.**

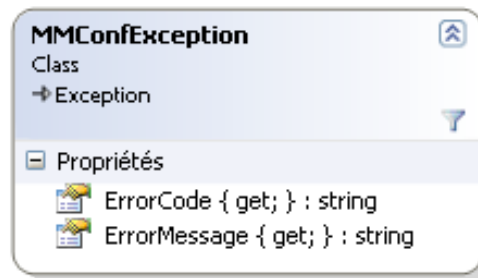


- **Mmc**: this class represents a simple entry point to call webmethods of the Multimedia Conference API. It inherits from the `Orange.Api.Common.OrangeApiService`, thus encapsulates static initialization methods. Moreover, it provides six business methods:
  - **About**: this method returns the MMC API version and can be used to test connectivity between your application and the remote service.
  - **CreateConference**: creates a multimedia conference, either an instantaneous one or a scheduled one.
  - **ModifyConference**: modifies a scheduled conference not started yet.
  - **DeleteConference**: deletes a scheduled conference not started yet.
  - **StartConference**: starts a scheduled conference not started yet.
  - **JoinConference**: invites a participant to join a scheduled conference.
  - **GetLicencesUsage**: returns the number of licences, and its usage rate
  - **GetConferencesList**: returns a list of conference in a time interval.
  - **GetConferenceDetails**: returns the detailed information of a given conference.
  - **CreateAudioConference**: creates a multimedia audio conference, either an instantaneous one or a scheduled one.
  - **ModifyAudioConference**: modifies a scheduled audio conference not started yet.
  - **StartAudioConference**: starts a scheduled audio conference not started yet.

Figure 4.8. Mmc class diagram.



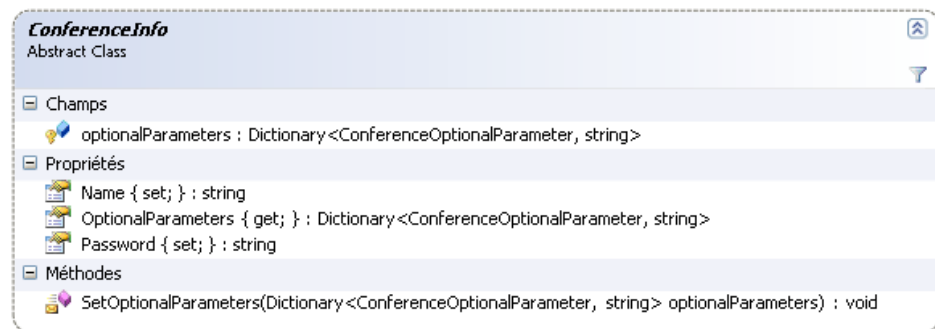
- **MMConfException**: this class represents a SOAP fault sent by the Multimedia Conference API. You can retrieve the error code and the error message from its properties.

**Figure 4.9. MMConfException class diagram.**

### 3. Orange.Api.MultimediaConference.BusinessData namespace

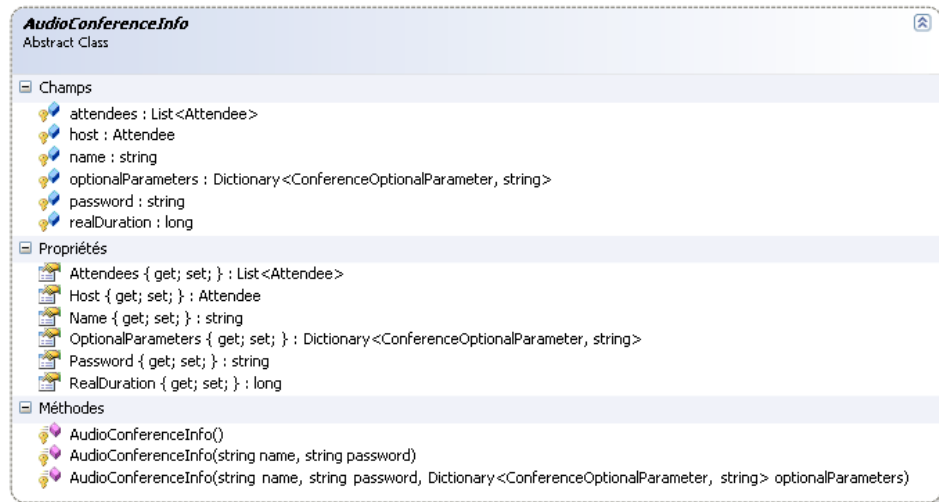
The Orange.Api.MultimediaConference.BusinessData namespace provides an abstraction layer to send and retrieve datas to/from the MMC API. It contains eight classes and one enumeration.

- **ConferenceInfo**: this abstract class encapsulates the required information to create a conference, that is the name and the password of the conference (the Name and Password properties). All optional parameters are set in the `OptionalParameters` list.

**Figure 4.10. ConferenceInfo class diagram.**

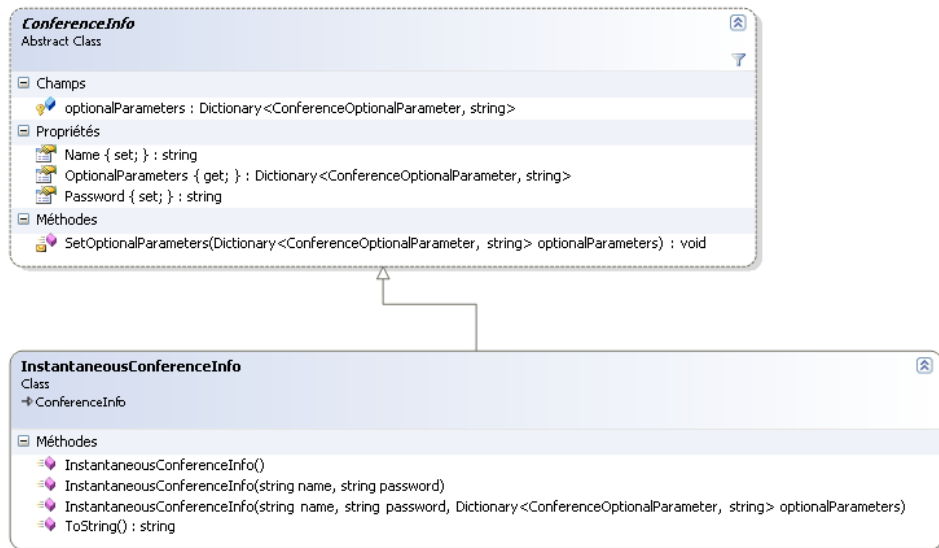
- **AudioConferenceInfo**: this abstract class encapsulates the required information to create an audio conference, that is the name, the password, the host, the participants and the duration of the conference (the Name, Password, Host, Attendees and RealDuration properties).

**Figure 4.11. ConferenceInfo class diagram.**



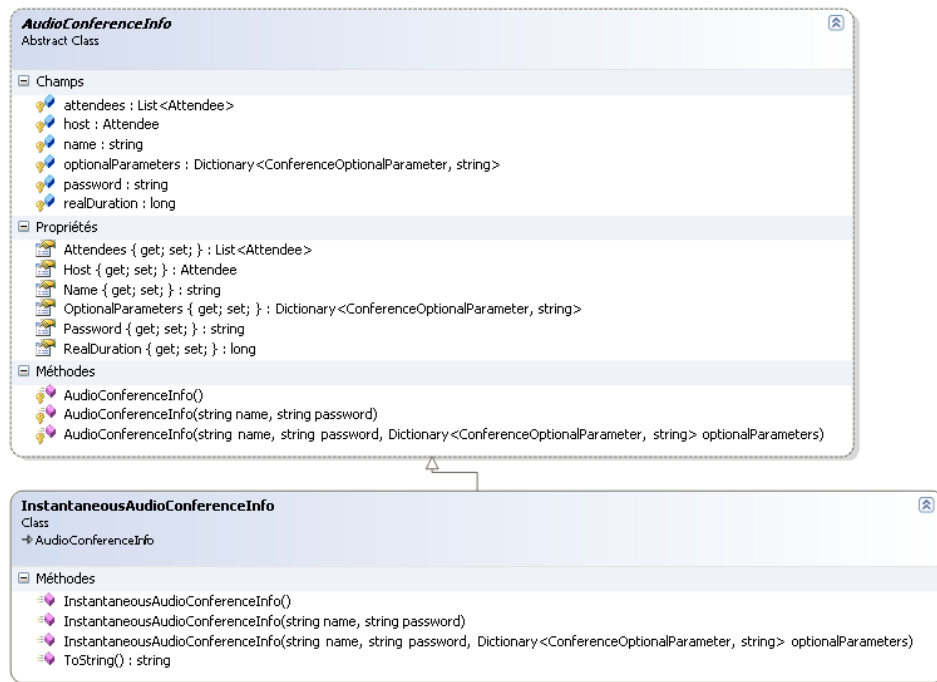
- **InstantaneousConferenceInfo**: this class encapsulates the required information to create an instantaneous conference, it inherits from the **ConferenceInfo** class.

**Figure 4.12. InstantaneousConferenceInfo class diagram.**



- **InstantaneousAudioConferenceInfo**: this class encapsulates the required information to create an instantaneous audio conference, it inherits from the **AudioConferenceInfo** class.

**Figure 4.13. InstantaneousAudioConferenceInfo class diagram.**



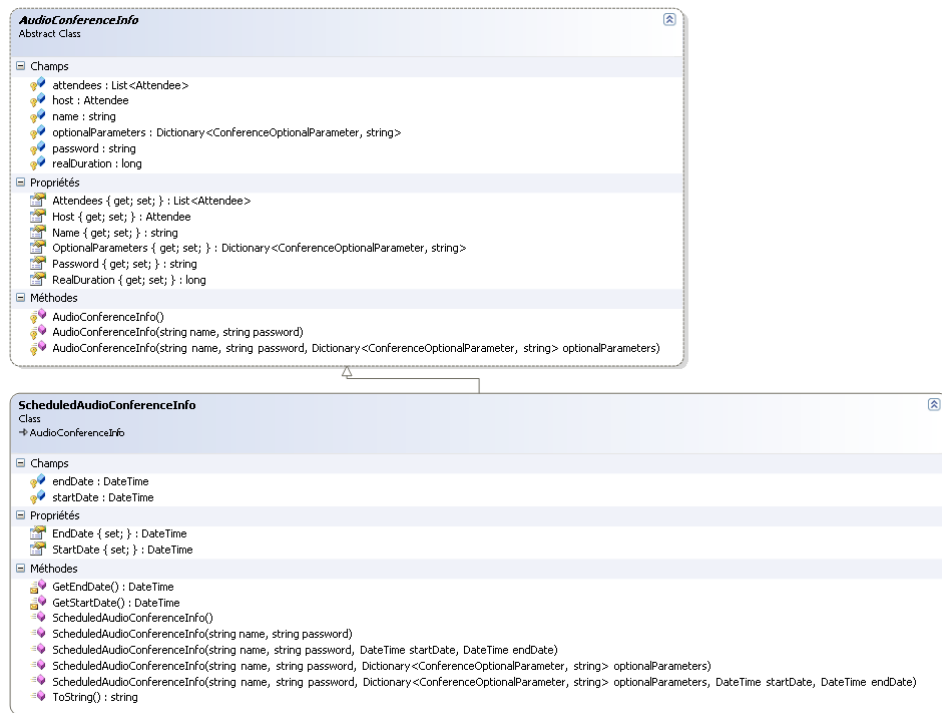
- **ScheduledConferenceInfo**: this class encapsulates the required information to create a scheduled conference, it inherits from the **ConferenceInfo** class and adds the time slot definition (the **StartDate** and **EndDate** properties).

**Figure 4.14. ScheduledConferenceInfo class diagram.**

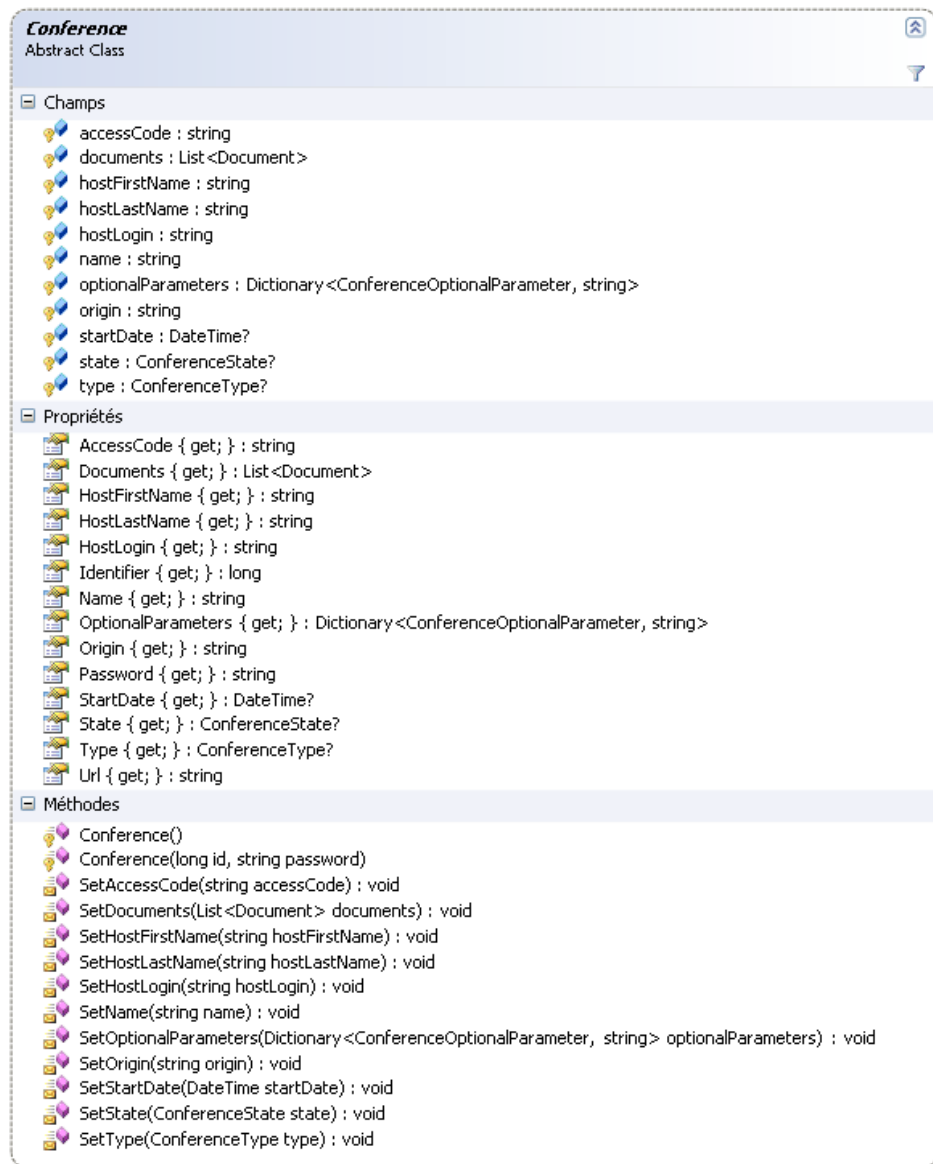


- **ScheduledAudioConferenceInfo**: this class encapsulates the required information to create a scheduled audio conference, it inherits from the **AudioConferenceInfo** class and adds the time slot definition (the **StartDate** and **EndDate** properties).

**Figure 4.15. ScheduledAudioConferenceInfo class diagram.**

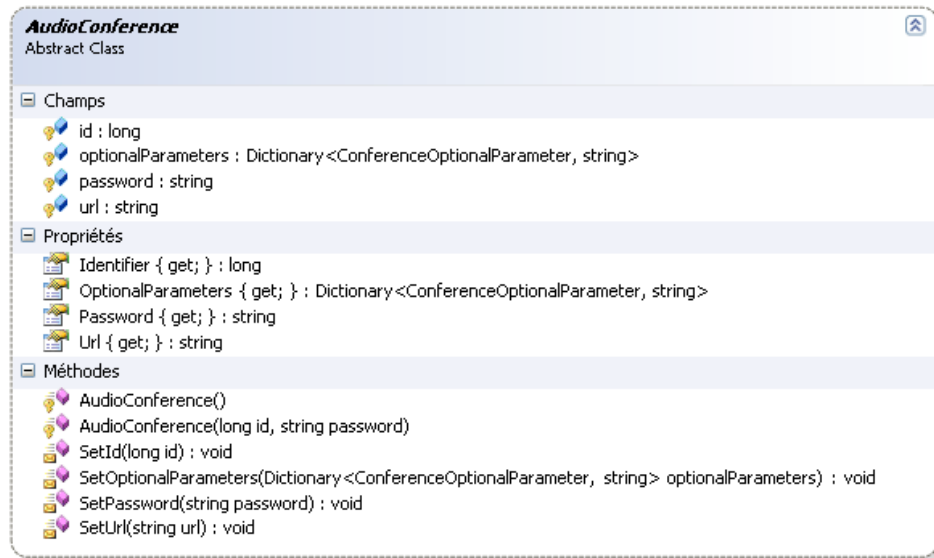


- **Conference:** this abstract class represents a multimedia conference created with the MMC API. It stores the conference identifier and password, the URL to use to start the conference and, if the audio support is enabled, the access and room numbers.

**Figure 4.16. Conference class diagram.**

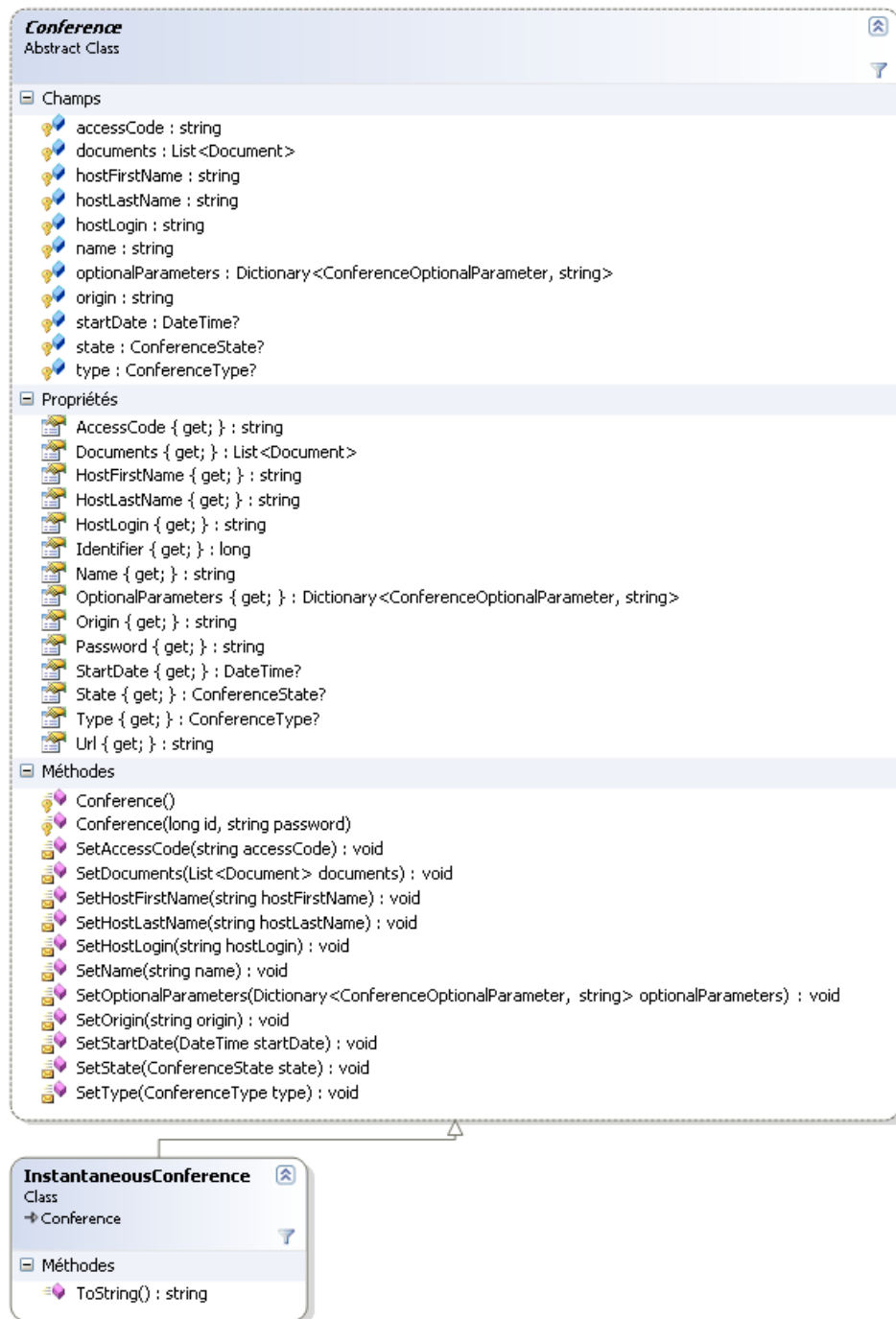
- **AudioConference:** this abstract class represents a multimedia audio conference created with the MMC API. It stores the audio conference identifier and password, the URL to use to start the conference and all informations linked to the audio conference.

**Figure 4.17. AudioConference class diagram.**



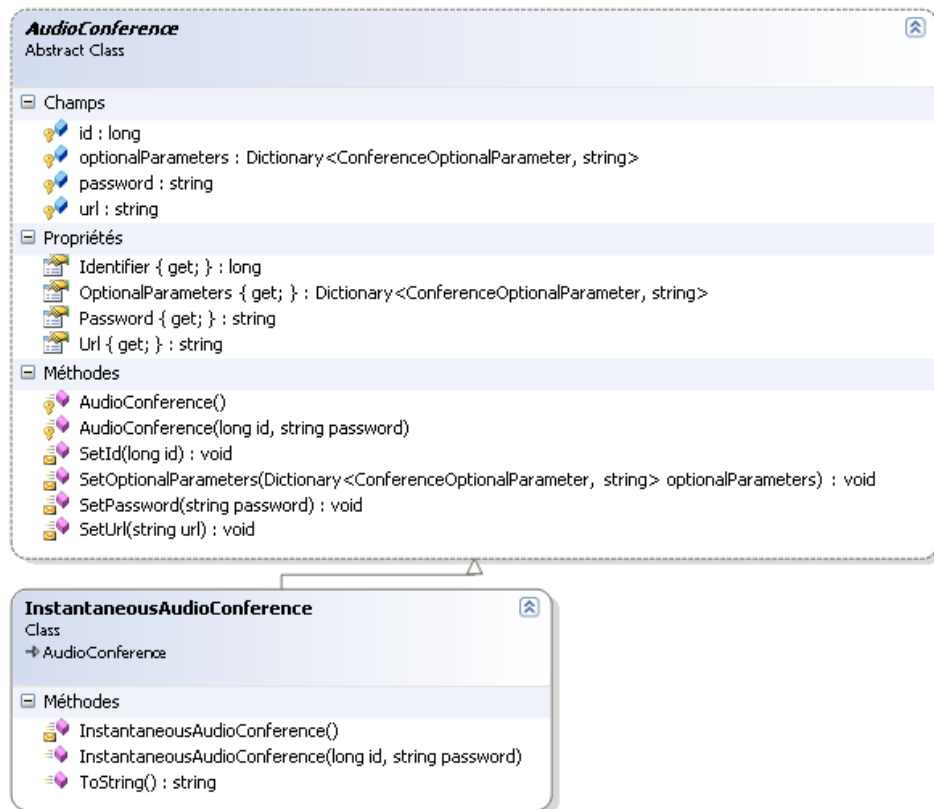
- **InstantaneousConference**: this class represents an instantaneous conference created with the MMC API. It inherits from the **Conference** class.

**Figure 4.18. InstantaneousConference class diagram.**



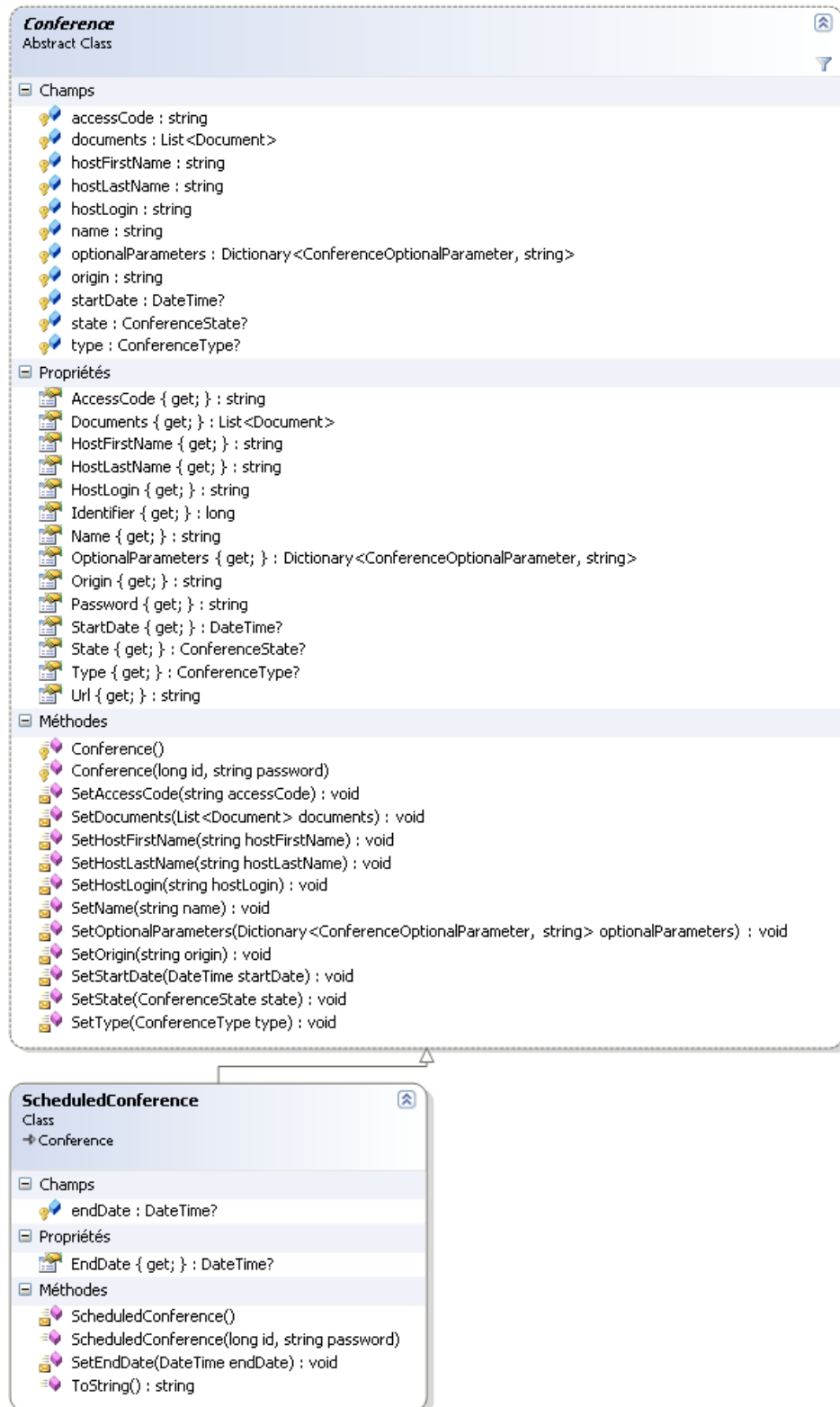
- **InstantaneousAudioConference**: this class represents an instantaneous audio conference created with the MMC API. It inherits from the **AudioConference** class.

**Figure 4.19. InstantaneousAudioConference class diagram.**



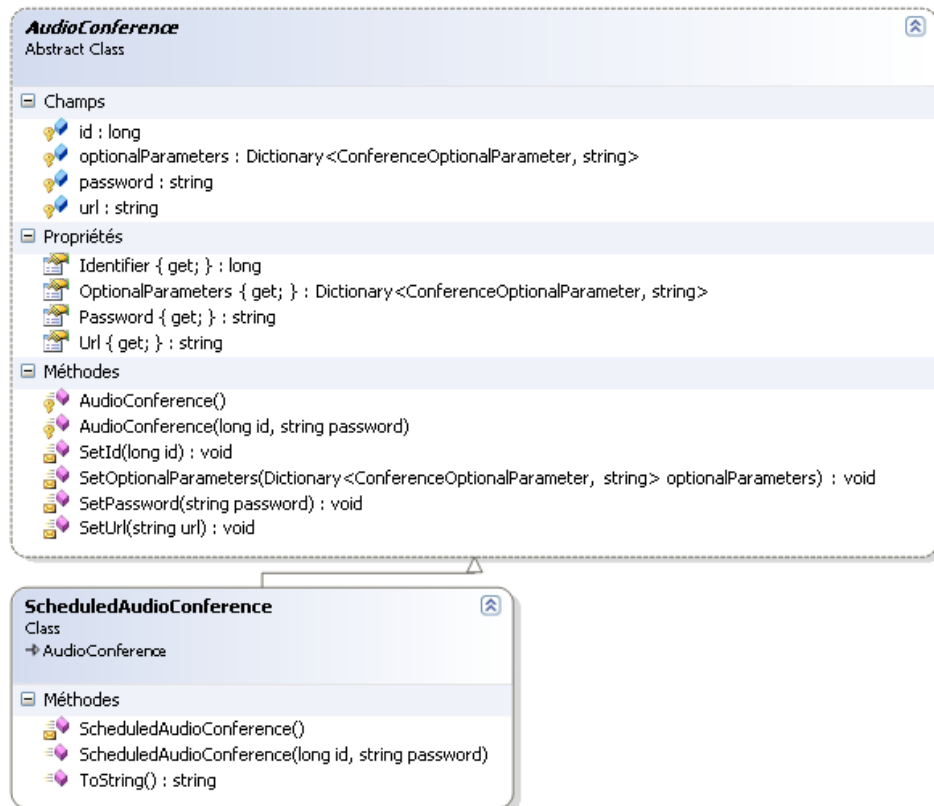
- **ScheduledConference**: this class represents a scheduled conference created with the MMC API. It inherits from the **Conference** class.

**Figure 4.20. ScheduledConference class diagram.**

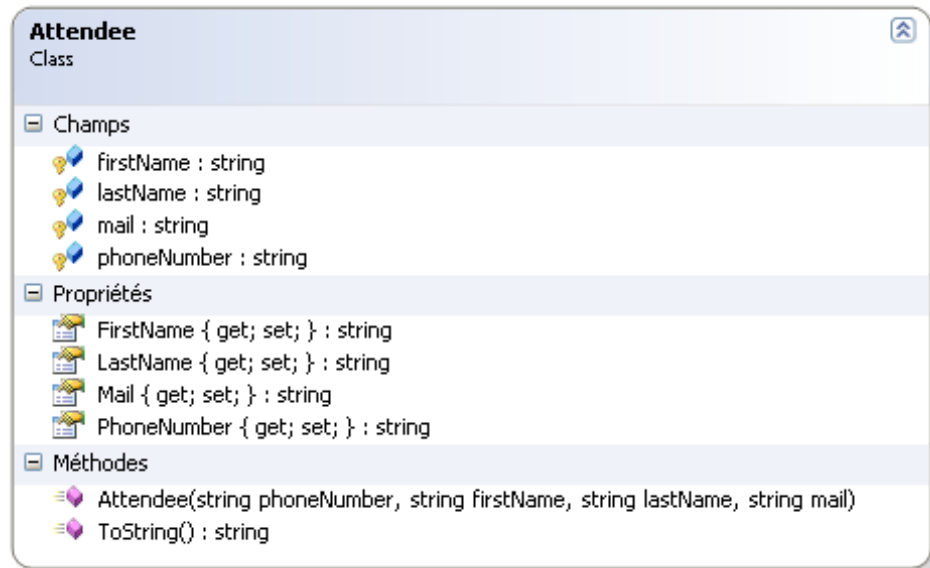


- **ScheduledAudioConference**: this class represents a scheduled audio conference created with the MMC API. It inherits from the **AudioConference** class.

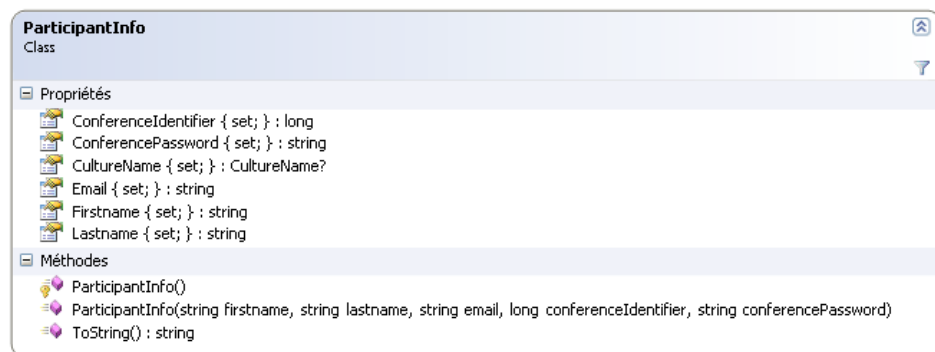
**Figure 4.21. ScheduledAudioConference class diagram.**



- **Attendee**: this class represents an audio conference participant created with the MMC API. It stores the participant **FirstName**, **LastName**, **PhoneNumber** and **Email**.

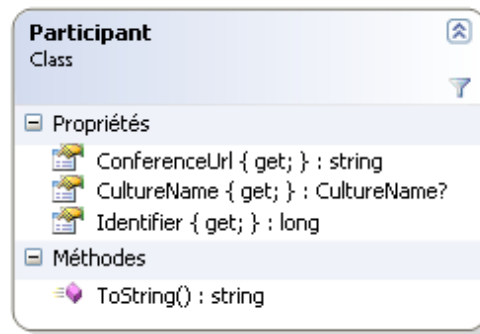
**Figure 4.22. Attendee class diagram.**

- **ParticipantInfo**: this class encapsulates the required information to invite a participant to a conference, that is to say the conference identifier and password, the participant first name, last name, email and culture preference. If the CultureName property is null, the default value defined in your contract will apply.

**Figure 4.23. ParticipantInfo class diagram.**

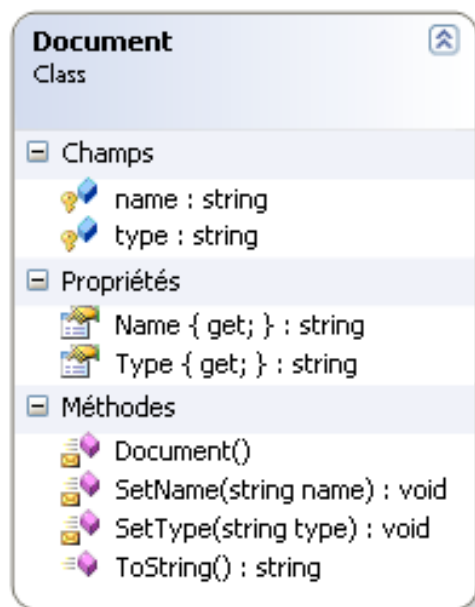
- **Participant**: this class represents a conference participant created with the MMC API. It stores the participant identifier and culture preference, and the URL to use to join the conference.

**Figure 4.24. Participant class diagram.**



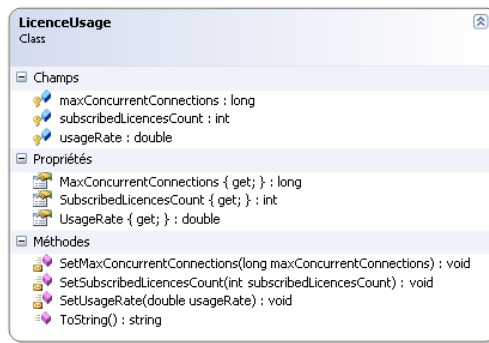
- **Document**: this class represents any document associated with a conference. It stores the document name and type.

**Figure 4.25. Document class diagram.**



- **LicenceUsage**: this class represents different usages information associated with a contract.

**Figure 4.26. LicenceUsage class diagram.**



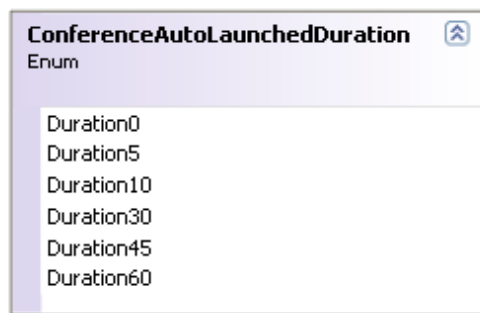
- `AudioType`: this enumeration represents the audio types available in the MMC portal.

**Figure 4.27. AudioType class diagram.**



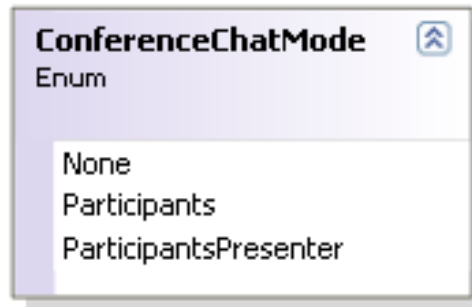
- `ConferenceAutoLaunchedDuration`: this enumeration represents the differents scheduled conference autostart periods of anticipation available in the MMC portal.

**Figure 4.28. ConferenceAutoLaunchedDuration class diagram.**



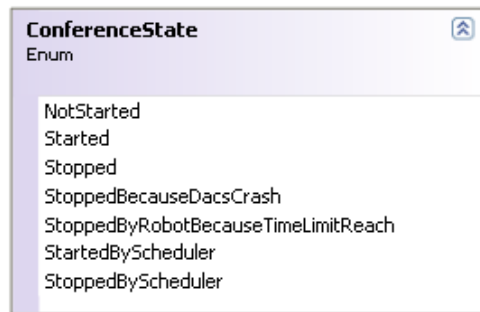
- `ConferenceChatMode`: this enumeration represents the differents conference chat modes available in the MMC portal.

**Figure 4.29. ConferenceChatMode class diagram.**



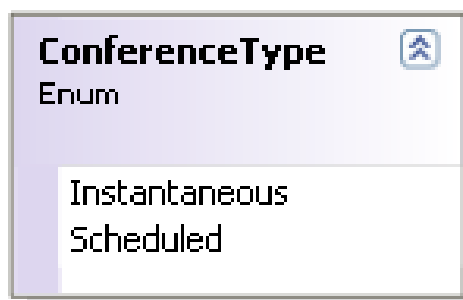
- **ConferenceState**: this enumeration represents the different states of a conference available in the MMC portal.

**Figure 4.30. ConferenceState class diagram.**



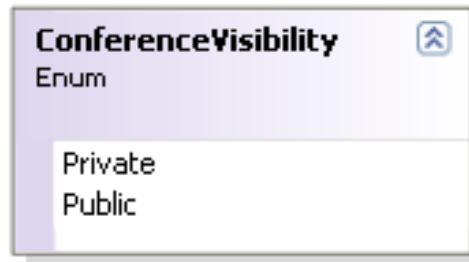
- **ConferenceType**: this enumeration represents the different conference types available in the MMC portal.

**Figure 4.31. ConferenceType class diagram.**



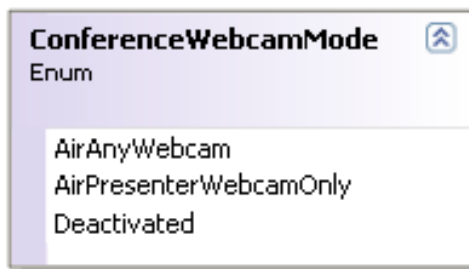
- **ConferenceVisibility**: this enumeration represents the conference privacy level available in the MMC portal.

**Figure 4.32. ConferenceVisibility class diagram.**



- **ConferenceWebcamMode**: this enumeration represents the different conference webcam modes available in the MMC portal.

**Figure 4.33. ConferenceWebcamMode class diagram.**

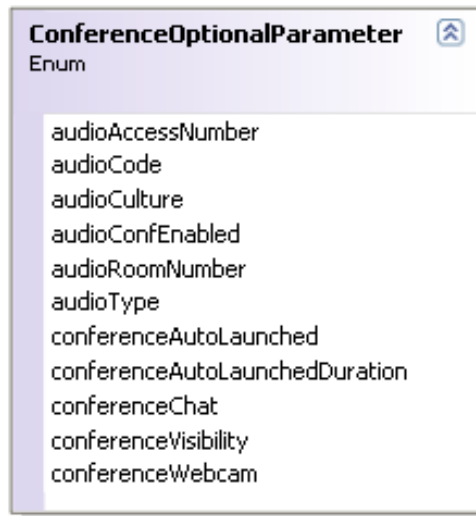


- **CultureName**: this enumeration represents the language available in the MMC portal.

**Figure 4.34. CultureName class diagram.**



- **ConferenceOptionalParameter**: this enumeration represents the different key values for conference optional parameters.

**Figure 4.35. ConferenceOptionalParameter class diagram.**

## 4. Orange.Api.MultimediaConference.Webservice namespace

The Orange.Api.MultimediaConference.Webservice namespace contains classes automatically generated from the WSDL file by the `wsdl.exe` tool included in the Microsoft .NET Framework 2.0 SDK.

## 5. SDK configuration

Before requesting the Multimedia Conference API through the SDK, you must initialize `Mmc` and `Organizer` classes:

- settings for `Mmc` class:
  - the web proxy: you can disable the web proxy, use the default Windows proxy or specify your own proxy.
  - the service URL.
- settings for `Organizer` class:
  - the access key and the access key password for HTTP basic auth.
  - the service account and the service account password for the Orange mediation platform.

You can do it either by using the `mmc.config` configuration file described above or by setting programmatically properties of the objects.

If you choose the configuration file way, you have to use the `LoadFromConfigFile()` method (or one of its overrides):

- `LoadFromConfigFile()`: it loads settings from the configuration file named `mmc.config` and located in the same folder than the current working executable.
- `LoadFromConfigFile(string fileName)`: it loads settings from the configuration file whose path is `fileName`.
- `LoadFromConfigFile(System.IO.FileStream fileStream)`: it loads settings from the stream pointed by `fileStream`.

An exception is thrown if the configuration file is not found or contains invalid data.

Here is an example of the configuration file way:

```
//Initializes the Mmc service
Mmc.LoadFromConfigFile();

//Initializes the Organizer
Organizer organizer = new Organizer();
organizer.LoadFromConfigFile();
```

If you choose the programmatical way, you have to set manually all the required object properties:

- properties for Mmc class:
  - WebProxy property.
  - ServiceUrl property.
- properties for Organizer class:
  - AccessKey property.
  - AccessKeyPassword property.
  - ServiceAccount property.
  - ServiceAccountPassword property.

Here is an example of the programmatical way:

```
//Initializes the Mmc service
Mmc.ServiceUrl = "your_service_url";
Mmc.WebProxy = new WebProxy("your_proxy_host", your_proxy_port);

//Initializes the Organizer
Organizer organizer = new Organizer();
organizer.AccessKey = "your_access_key";
organizer.AccessKeyPassword = "your_access_key_password";
organizer.ServiceAccount = "your_service_account";
organizer.ServiceAccountPassword = "your_service_account_password";
```

## 6. Logging

The SDK uses the [log4net library](#) for purposes of application debugging and auditing. If you don't want to use this feature, just skip this section as it won't impact the execution of your application.

The log4net tool is part of the [Apache Logging Services](#) project and is made to help the programmer output log statements to a variety of output targets. It is a port of the log4j framework to the .NET runtime.

The log4net configuration is made through a configuration file.

Here is an example of a log4net configuration file:

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>

  <configSections>
    <!-- Specifies the correct section handler to use for the log4net section. -->
    <section name="log4net"
      type="log4net.Config.Log4NetConfigurationSectionHandler, log4net" />
  </configSections>
</configuration>
```

```

</configSections>

<log4net>

  <!-- Defines a file appender. -->
  <appender name="FileAppender" type="log4net.Appender.FileAppender">
    <param name="File" value="your_log_file_name" />
    <param name="AppendToFile" value="true" />
    <layout type="log4net.Layout.PatternLayout">
      <param name="ConversionPattern" value="%d [%t] %-5p %c %m%n" />
    </layout>
  </appender>

  <!-- Defines a console appender. -->
  <appender name="ConsoleAppender" type="log4net.Appender.ConsoleAppender" >
    <layout type="log4net.Layout.PatternLayout">
      <param name="ConversionPattern" value="%-5p %m%n" />
    </layout>
  </appender>

  <root>
    <!-- Defines the logging level for this logger. -->
    <!-- May be DEBUG, INFO, WARNING, ERROR, CRITICAL, ALL. -->
    <level value="DEBUG" />
    <!-- References appenders by name. -->
    <appender-ref ref="FileAppender" />
    <appender-ref ref="ConsoleAppender" />
  </root>

</log4net>

</configuration>

```

This configuration file defines 2 appenders:

- a FileAppender that will write the logging messages in a file whose name is to define.
- a ConsoleAppender that will display the logging messages in the System.Console.

Here is an example of program where logging capabilities are activated (do not forget to add a reference to the log4net.dll):

```

using System;
namespace Namespace
{
  public class Test
  {
    static void Main(string[] args)
    {
      //Configures log4net using the application
      //configuration file described above.
      log4net.Config.XmlConfigurator.Configure();

      try
      {
        //Initializes the Mmc service
        Orange.Api.MultimediaConference.LoadFromConfigFile();

        //This MMC method call throw an
        //exception that will be logged.
      }
    }
  }
}

```

```

        Orange.Api.MultimediaConference.Mmc.About(null);
    }
    catch { }
}
}
}

```

If you run this sample, you should get the following console output:

```

INFO <About>
ERROR La valeur ne peut pas être null.
Nom du paramètre : organizer
System.ArgumentNullException: La valeur ne peut pas être null.
Nom du paramètre : organizer
à Orange.Api.MultimediaConference.Mmc.About(Organizer organizer)

```

And a file which content is:

```

2008-03-12 16:52:35,021 [10] INFO Orange.Api.MultimediaConference.Mmc <About>
2008-03-12 16:52:35,021 [10] ERROR Orange.Api.MultimediaConference.Mmc La valeur ne peut pas être
null.
Nom du paramètre : organizer
System.ArgumentNullException: La valeur ne peut pas être null.
Nom du paramètre : organizer
à Orange.Api.MultimediaConference.Mmc.About(Organizer organizer)

```

For more information, you can refer to the [Apache log4net manual](#).

## 7. First project

A "Hello World"-like web service has been created to both test and check your machine environment and your connectivity to the Multimedia Conference API. Please do the following steps:

- Install the Orange API server certificate.
- Create a new .NET console application project in your favorite IDE.
- Reference the `Orange.Api.Common.dll` and the `Orange.Api.MultimediaConference.dll` in your project.
- Reference the `log4net.dll` in your project.
- Finally create a main class as follows:

```

using System;
using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;
using Orange.Api.MultimediaConference.BusinessData;

namespace Namespace
{
    public class Test
    {
        public static bool RemoteCertificateValidationCallback(

```

```

    Object sender,
    X509Certificate certificate,
    X509Chain chain,
    SslPolicyErrors sslPolicyErrors)
{
    // If you want to perform extra remote certificate validations,
    // please add implementation here.

    return true;
}

public static void Main(string[] args)
{
    ServicePointManager.ServerCertificateValidationCallback =
        RemoteCertificateValidationCallback;

    try
    {
        //Initialize the service URL & the HTTP proxy (optional)
        Mmc.LoadFromConfigFile();

        //Create the organizer
        //You can also use LoadFromConfigFile to set these parameters
        Organizer organizer = new Organizer();
        organizer.AccessKey = "your_access_key";
        organizer.AccessKeyPassword = "your_access_key_password";
        organizer.ServiceAccount = "your_service_account";
        organizer.ServiceAccountPassword = "your_service_account_password";

        //Call the "About" method and print the result
        Console.WriteLine("About");
        Console.WriteLine(Mmc.About(organizer));
    }
    catch (Exception exc)
    {
        Console.WriteLine("An exception occurred while processing your request: " +
exc.Message);
    }
}
}

```

- Run your project, the response for the code snippet should give you the version of the MMC API as follows:

```

About
V1.4

```

Congratulations!

# Chapter 5. Methods

You should first make sure you've read the prerequisites before coding and running the following program listing. The prerequisites explain, among others, how to set up your proxy information and your account information through a configuration file.

## 1. Basic scenarios

In this chapter you will learn how to use the base objects we defined for you inside our SDK through some ready-to-use samples.

What are the basic steps to create a multimedia conference?

1. Create an `Organizer` and initialize its parameters.
2. Create a `ConferenceInfo`, i.e. either an `InstantaneousConferenceInfo` or a `ScheduledConferenceInfo`, set the conference name and password.
3. Add audio support by using the `EnableAudio` property.
4. Set the start date and end date to use for a scheduled conference.
5. In the end, call the API method.

What are the basic steps to modify a scheduled conference?

1. Create an `Organizer` and initialize its parameters.
2. Create a `ScheduledConference` (or re-use one returned by the `CreateConference` method).
3. Create a `ScheduledConferenceInfo`, set the new values for the conference name and password, the audio support, the start date and end date.
4. In the end, call the API method.

What are the basic steps to delete a scheduled conference?

1. Create an `Organizer` and initialize its parameters.
2. Create a `ScheduledConference` (or re-use one returned by the `CreateConference` method).
3. In the end, call the API method.

What are the basic steps to create an audio conference?

1. Create an `Organizer` and initialize its parameters.
2. Create a `ScheduledAudioConference` or an `InstantaneousAudioConference`.
3. In the end, call the API method.

What are the basic steps to start a scheduled audio conference?

1. Create an `Organizer` and initialize its parameters.
2. Create a `ScheduledAudioConference` and set its `id` and `password` (from the previously created `ScheduledAudioConference`)
3. In the end, call the API method.

## 2. Multimedia conference methods

### 2.1. Method About

#### 2.1.1. Description

This method return the current Multimedia Conference API release.

#### 2.1.2. Input parameters

None.

#### 2.1.3. Output parameters

**Table 5.1. CreateConference: Output parameter.**

Name	Type	Description	Cardinality
aboutReturn	string	The current Multimedia Conference API release.	1..1

#### 2.1.4. Exceptions

This web method may throw `TechnicalException` or `FunctionalException`.

#### 2.1.5. Sample code

This sample uses the `mmc.config` file, don't forget to fill in your information.

This sample shows you how to get the current Multimedia Conference API release.

```
using System;
using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;
using Orange.Api.MultimediaConference.BusinessData;

namespace Namespace
{
    public class Test
    {
        public static bool RemoteCertificateValidationCallback(
            Object sender,
            X509Certificate certificate,
            X509Chain chain,
            SslPolicyErrors sslPolicyErrors)
        {
            // If you want to perform extra remote certificate validations,
```

```

        // please add implementation here.

        return true;
    }

    public static void Main(string[] args)
    {
        ServicePointManager.ServerCertificateValidationCallback =
            RemoteCertificateValidationCallback;

        try
        {
            //Initialize the service URL & the HTTP proxy (optional)
            Mmc.LoadFromConfigFile();

            //Create the organizer
            //You can also use LoadFromConfigFile to set these parameters
            Organizer organizer = new Organizer();
            organizer.AccessKey = "your_access_key";
            organizer.AccessKeyPassword = "your_access_key_password";
            organizer.ServiceAccount = "your_service_account";
            organizer.ServiceAccountPassword = "your_service_account_password";

            //Call the "About" method and print the result
            Console.WriteLine("About");
            Console.WriteLine(Mmc.About(organizer));
        }
        catch (Exception exc)
        {
            Console.WriteLine("An exception occurred while processing your request: " +
                exc.Message);
        }
    }
}

```

The output looks like:

```

About
V1.4

```

## 2.2. Method CreateConference

### 2.2.1. Description

Create either an instantaneous or a scheduled conference.

This method allows to create a conference with optional audio-bridge feature. To start the conference, the user should open an internet browser and type in the URL returned by the method.

## 2.2.2. Input parameter

Table 5.2. CreateConference: Input parameters.

Name	Type	Description	Cardinality
organizer	Organizer	An organizer for the MMC service	1..1
conferenceInfo	ConferenceInfo	The information needed to create a conference.	1..1

## 2.2.3. Output parameter

Table 5.3. CreateConference: Output parameter.

Name	Type	Description	Cardinality
conference	Conference	The created conference.	1..1

## 2.2.4. Exceptions

This web method may throw `TechnicalException` or `FunctionalException`.

## 2.2.5. Sample code

These samples use the `mmc.config` file, don't forget to fill in your information.

This sample shows you how to create an instantaneous conference.

```
using System;
using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;
using Orange.Api.MultimediaConference.BusinessData;

namespace Namespace
{
    public class Test
    {
        public static bool RemoteCertificateValidationCallback(
            Object sender,
            X509Certificate certificate,
            X509Chain chain,
            SslPolicyErrors sslPolicyErrors)
        {
            // If you want to perform extra remote certificate validations,
            // please add implementation here.

            return true;
        }

        public static void Main(string[] args)
        {
            ServicePointManager.ServerCertificateValidationCallback =
                RemoteCertificateValidationCallback;
        }
    }
}
```

```

try
{
    //Initialize the service URL & the HTTP proxy (optional)
    Mmc.LoadFromConfigFile();

    //Create the organizer
    Organizer organizer = new Organizer();
    organizer.LoadFromConfigFile();

    //Fill the information about your conference
    InstantaneousConferenceInfo conferenceInfo = new InstantaneousConferenceInfo(
        "your_conference_name",
        "your_conference_password");

    //Add audio support
    conferenceInfo.OptionalParameters.Add(ConferenceOptionalParameter.audioConfEnabled, "true");

    //Make conference public
    conferenceInfo.OptionalParameters.Add(ConferenceOptionalParameter.conferenceVisibility, "Public");

    //Call the 'CreateConference' method
    Conference conference = Mmc.CreateConference(organizer, conferenceInfo);

    //Print the result
    Console.WriteLine("Conference created");
    Console.WriteLine(conference.ToString());
}
catch (Exception exc)
{
    Console.WriteLine("An exception occurred while processing your request: " +
exc.Message);
}
}
}

```

The output looks like:

```

Conference created
[InstantaneousConference]
  AccessCode = 'null'
  HostFirstName = 'null'
  HostLastName = 'null'
  HostLogin = 'null'
  Identifier = '37891'
  Name = 'null'
  Origin = 'null'
  Password = 'your_conference_password'
  StartDate = 'null'
  State = 'null'
  Type = 'null'
  Url = 'https://orangeapi.pp.multimedia-conference.orange-business.com/DirectAccess/StartConferenceByUrl.aspx?id=68D79946-E45C-4855-ABA3-14BFC59AA9F4&a=StartWithNoPopup'
[Parameter]

```

```

Key = 'audioAccessNumber'
Value = '+33149945060'
[Parameter]
Key = 'audioRoomNumber'
Value = '777908'

```

This sample shows you how to create a scheduled conference.

```

using System;
using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;
using Orange.Api.MultimediaConference.BusinessData;

namespace Namespace
{
    public class Test
    {
        public static bool RemoteCertificateValidationCallback(
            Object sender,
            X509Certificate certificate,
            X509Chain chain,
            SslPolicyErrors sslPolicyErrors)
        {
            // If you want to perform extra remote certificate validations,
            // please add implementation here.

            return true;
        }

        public static void Main(string[] args)
        {
            ServicePointManager.ServerCertificateValidationCallback =
                RemoteCertificateValidationCallback;

            try
            {
                //Initialize the service URL & the HTTP proxy (optional)
                Mmc.LoadFromConfigFile();

                //Create the organizer
                Organizer organizer = new Organizer();
                organizer.LoadFromConfigFile();

                //Fill the information about your conference
                ScheduledConferenceInfo conferenceInfo = new ScheduledConferenceInfo(
                    "your_conference_name",
                    "your_conference_password",
                    DateTime.Now.AddMinutes(1),
                    DateTime.Now.AddHours(2));

                //Add audio support

                conferenceInfo.OptionalParameters.Add(ConferenceOptionalParameter.audioConfEnabled, "true");
            }
            catch { }
        }
    }
}

```

```

        //Make conference public
conferenceInfo.OptionalParameters.Add(ConferenceOptionalParameter.conferenceVisibility, "Public");

        //Call the 'CreateConference' method
        Conference conference = Mmc.CreateConference(organizer, conferenceInfo);

        //Print the result
        Console.WriteLine("Conference created");
        Console.WriteLine(conference.ToString());
    }
    catch (Exception exc)
    {
        Console.WriteLine("An exception occurred while processing your request: " +
exc.Message);
    }
}
}
}

```

The output looks like:

```

Conference created
[ScheduledConference]
  EndDate = 'null'
  AccessCode = 'null'
  HostFirstName = 'null'
  HostLastName = 'null'
  HostLogin = 'null'
  Identifier = '37893'
  Name = 'null'
  Origin = 'null'
  Password = 'your_conference_password'
  StartDate = 'null'
  State = 'null'
  Type = 'null'
  Url = 'https://orangeapi.pp.multimedia-conference.orange-business.com/DirectAccess/
StartConferenceByUrl.aspx?id=3E1A71AE-EF35-4715-AA34-BDFCE28178D4&a=StartWithNoPopup'
  [Parameter]
    Key = 'audioAccessNumber'
    Value = '+33149945060'
  [Parameter]
    Key = 'audioRoomNumber'
    Value = '775104'

```

## 2.3. Method ModifyConference

### 2.3.1. Description

Modify a scheduled conference that has not started yet.

This method allows the user to modify the scheduled conference characteristic, e.g. to postpone the meeting.

## 2.3.2. Input parameter

**Table 5.4. ModifyConference: Input parameters.**

Name	Type	Description	Cardinality
organizer	Organizer	An organizer for the MMC service	1..1
conferenceScheduledConference	Conference	The conference you want to modify (in/out).	1..1
conferenceInfo	ConferenceInfo	The information needed to modify the conference.	1..1

## 2.3.3. Output parameter

None.

## 2.3.4. Exceptions

This web method may throw `TechnicalException` or `FunctionalException`.

## 2.3.5. Sample code

This sample code uses the `mmc.config` file, don't forget to fill in your information.

This sample shows you how to modify a scheduled conference. *To run this example, you will need to input the conference id and password that was returned by the `CreateConference` method.*

```
using System;
using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;
using Orange.Api.MultimediaConference.BusinessData;

namespace Namespace
{
    public class Test
    {
        public static bool RemoteCertificateValidationCallback(
            Object sender,
            X509Certificate certificate,
            X509Chain chain,
            SslPolicyErrors sslPolicyErrors)
        {
            // If you want to perform extra remote certificate validations,
            // please add implementation here.

            return true;
        }

        public static void Main(string[] args)
        {
            ServicePointManager.ServerCertificateValidationCallback =

```

```

RemoteCertificateValidationCallback;

try
{
    //Initialize the service URL & the HTTP proxy (optional)
    Mmc.LoadFromConfigFile();

    //Create the organizer
    Organizer organizer = new Organizer();
    organizer.LoadFromConfigFile();

    //Fill the information about your conference (using the previously created
    scheduled conference)
    ScheduledConference conference = new ScheduledConference(
        27500,
        "your_conference_password");

    //Fill new parameters
    ScheduledConferenceInfo conferenceInfo = new ScheduledConferenceInfo(
        "your_new_conference_name",
        "your_new_conference_password",
        DateTime.Now.AddHours(3), DateTime.Now.AddHours(5)); // Your new start and
end dates

    //Disable audio support
    conferenceInfo.OptionalParameters.Add(
        ConferenceOptionalParameter.audioConfEnabled, "false");

    //Make conference public
    conferenceInfo.OptionalParameters.Add(
        ConferenceOptionalParameter.conferenceVisibility, "Private");

    //Call the 'ModifyConference' method
    Mmc.ModifyConference(organizer, ref conference, conferenceInfo);

    //Print the result
    Console.WriteLine("Conference modified");
    Console.WriteLine(conference.ToString());
}
catch (Exception exc)
{
    Console.WriteLine("An exception occured while processing your request: " +
exc.Message);
}
}
}

```

The output looks like:

```

Conference modified
[ScheduledConference]
  EndDate = 'null'
  AccessCode = 'null'
  HostFirstName = 'null'
  HostLastName = 'null'
  HostLogin = 'null'

```

```

Identifier = '37893'
Name = 'null'
Origin = 'null'
Password = 'your_new_conference_password'
StartDate = 'null'
State = 'null'
Type = 'null'
Url = 'null'

```

## 2.4. Method DeleteConference

### 2.4.1. Description

Delete a scheduled conference not started yet.

This method allows the user to cancel a scheduled conference.

### 2.4.2. Input parameter

**Table 5.5. DeleteConference: Input parameters.**

Name	Type	Description	Cardinality
organizer	Organizer	An organizer for the MMC service	1..1
conferenceScheduledConference		The conference you want to delete.	1..1

### 2.4.3. Output parameter

None.

### 2.4.4. Exceptions

This web method may throw `TechnicalException` or `FunctionalException`.

### 2.4.5. Sample code

This sample code uses the `mmc.config` file, don't forget to fill in your information.

This sample shows you how to delete a scheduled conference. *To run this example, you will need to input the conference id and password that was returned by the `CreateConference` method.*

```

using System;
using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;

```

```

using Orange.Api.MultimediaConference.BusinessData;

namespace Namespace
{
    public class Test
    {
        public static bool RemoteCertificateValidationCallback(
            Object sender,
            X509Certificate certificate,
            X509Chain chain,
            SslPolicyErrors sslPolicyErrors)
        {
            // If you want to perform extra remote certificate validations,
            // please add implementation here.

            return true;
        }

        public static void Main(string[] args)
        {
            ServicePointManager.ServerCertificateValidationCallback =
                RemoteCertificateValidationCallback;

            try
            {
                //Initialize the service URL & the HTTP proxy (optional)
                Mmc.LoadFromConfigFile();

                //Create the organizer
                Organizer organizer = new Organizer();
                organizer.LoadFromConfigFile();

                //Fill the information about the scheduled conference (using the previously
                //created scheduled conference)
                ScheduledConference conference = new
                ScheduledConference(12073, "your_conference_password");

                //Call the DeleteConference method
                Mmc.DeleteConference(organizer, conference);

                //Print the result
                Console.WriteLine("Conference deleted");
            }
            catch (Exception exc)
            {
                Console.WriteLine("An exception occurred while processing your request: " +
                exc.Message);
            }
        }
    }
}

```

The output looks like:

```
Conference deleted
```

## 2.5. Method StartConference

### 2.5.1. Description

Start a scheduled conference that has not started yet.

This method returns the access URL to the scheduled conference and starts the conference session.

### 2.5.2. Input parameter

**Table 5.6. StartConference: Input parameters.**

Name	Type	Description	Cardinality
organizer	Organizer	An organizer for the MMC service	1..1
conferenceScheduledConference		The conference you want to start (in/out).	1..1

### 2.5.3. Output parameter

None.

### 2.5.4. Exceptions

This web method may throw `TechnicalException` or `FunctionalException`.

### 2.5.5. Sample code

This sample code uses the `mmc.config` file, don't forget to fill in your information.

This sample shows you how to start a scheduled conference. *To run this example, you will need to input the conference id and password that was returned by the `CreateConference` method.*

```
using System;
using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;
using Orange.Api.MultimediaConference.BusinessData;

namespace Namespace
{
    public class Test
    {
        public static bool RemoteCertificateValidationCallback(
            Object sender,
            X509Certificate certificate,
            X509Chain chain,
            SslPolicyErrors sslPolicyErrors)
        {
            // If you want to perform extra remote certificate validations,
            // please add implementation here.
        }
    }
}
```

```

        return true;
    }

    public static void Main(string[] args)
    {
        ServicePointManager.ServerCertificateValidationCallback =
            RemoteCertificateValidationCallback;

        try
        {
            //Initialize the service URL & the HTTP proxy (optional)
            Mmc.LoadFromConfigFile();

            //Create the organizer
            Organizer organizer = new Organizer();
            organizer.LoadFromConfigFile();

            //Fill the information about the scheduled conference (using the previously
            created scheduled conference)
            ScheduledConference conference = new ScheduledConference(
                12073,
                "your_conference_password");

            //Call the StartConference method
            Mmc.StartConference(organizer, ref conference);

            //Print the result
            Console.WriteLine("Conference started");
            Console.WriteLine(conference.ToString());
        }
        catch (Exception exc)
        {
            Console.WriteLine("An exception occurred while processing your request: " +
                exc.Message);
        }
    }
}

```

The output looks like:

```

Conference started
[ScheduledConference]
  EndDate = 'null'
  AccessCode = 'null'
  HostFirstName = 'null'
  HostLastName = 'null'
  HostLogin = 'null'
  Identifier = '37893'
  Name = 'null'
  Origin = 'null'
  Password = 'your_conference_password'
  StartDate = 'null'
  State = 'null'
  Type = 'null'
  Url = 'https://orangeapi.pp.multimedia-conference.orange-business.com/DirectAccess/
StartConferenceByUrl.aspx?id=3E1A71AE-EF35-4715-AA34-BDFCE28178D4&a=StartWithNoPopup'

```

## 2.6. Method JoinConference

### 2.6.1. Description

Join a started conference.

This method serves to invite attendees whether to an instantaneous or scheduled conference. The invitation language can be set to French or English.

### 2.6.2. Input parameter

**Table 5.7. JoinConference: Input parameters.**

Name	Type	Description	Cardinality
organizer	Organizer	An organizer for the MMC service	1..1
participantInfo	ParticipantInfo	The information needed to create a participant.	1..1

### 2.6.3. Output parameter

**Table 5.8. JoinConference: Output parameter.**

Name	Type	Description	Cardinality
participant	Participant	The created participant.	1..1

### 2.6.4. Exceptions

This web method may throw `TechnicalException` or `FunctionalException`.

### 2.6.5. Sample code

This sample code uses the `mmc.config` file, don't forget to fill in your information.

This sample shows you how to join a conference. *To run this example, you will need to input the conference id and password that was returned by the `CreateConference` method.*

```
using System;
using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;
using Orange.Api.MultimediaConference.BusinessData;

namespace Namespace
{
    public class Test
```

```

{
    public static bool RemoteCertificateValidationCallback(
        Object sender,
        X509Certificate certificate,
        X509Chain chain,
        SslPolicyErrors sslPolicyErrors)
    {
        // If you want to perform extra remote certificate validations,
        // please add implementation here.

        return true;
    }

    public static void Main(string[] args)
    {
        ServicePointManager.ServerCertificateValidationCallback =
            RemoteCertificateValidationCallback;

        try
        {
            //Initialize the service URL & the HTTP proxy (optional)
            Mmc.LoadFromConfigFile();

            //Create the organizer
            Organizer organizer = new Organizer();
            organizer.LoadFromConfigFile();

            //Fill the information about the participant and the conference
            // (using the previously created scheduled conference)
            long conferenceID = 12000;

            ParticipantInfo participantInfo = new ParticipantInfo(
                "John",
                "Doe",
                "john.doe@mailbox.com",
                conferenceID,
                "your_conference_password");

            //Call the JoinConference method
            Participant participant = Mmc.JoinConference(organizer, participantInfo);

            //Print the result
            Console.WriteLine("Participant details");
            Console.WriteLine(participant.ToString());
        }
        catch (Exception exc)
        {
            Console.WriteLine("An exception occurred while processing your request: " +
                exc.Message);
        }
    }
}

```

The output looks like:

```
Participant details
```

```
[Participant]
```

```
ConferenceUrl = 'https://orangeapi.pp.multimedia-conference.orange-business.com/DirectAccess/StartConferenceByUrl.aspx?id=7FFAC386-43AE-4EBE-BDEB-71D4876F8C4B&a=JoinWithNoPopup'
CultureName = 'null'
Identifier = '52300'
```

## 2.7. Method GetConferenceDetails

### 2.7.1. Description

Get conference (instantaneous or scheduled) details.

This method will retrieve the details of a conference which identifier is passed as parameters. The conference from which you want to retrieve the details should be part of the same user contract.

### 2.7.2. Input parameter

**Table 5.9. GetConferenceDetails: Input parameters.**

Name	Type	Description	Cardinality
organizer	Organizer	An organizer for the MMC service.	1..1
conferenceID	long	The conference identifier.	1..1

### 2.7.3. Output parameter

**Table 5.10. GetConferenceDetails: Output parameter.**

Name	Type	Description	Cardinality
conference	Conference	The detailed conference.	1..1

### 2.7.4. Exceptions

This web method may throw `TechnicalException` or `FunctionalException`.

### 2.7.5. Sample code

This sample code uses the `mmc.config` file, don't forget to fill in your information.

This sample shows you how to get details from a conference.

```
using System;
using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;
using Orange.Api.MultimediaConference.BusinessData;
```

```

namespace Namespace
{
    public class Test
    {
        public static bool RemoteCertificateValidationCallback(
            Object sender,
            X509Certificate certificate,
            X509Chain chain,
            SslPolicyErrors sslPolicyErrors)
        {
            // If you want to perform extra remote certificate validations,
            // please add implementation here.

            return true;
        }

        public static void Main(string[] args)
        {
            ServicePointManager.ServerCertificateValidationCallback =
                RemoteCertificateValidationCallback;

            try
            {
                //Initialize the service URL & the HTTP proxy (optional)
                Mmc.LoadFromConfigFile();

                //Create the organizer
                Organizer organizer = new Organizer();
                organizer.LoadFromConfigFile();

                //Call the 'CreateConference' method
                long conferenceID = 12000;
                Conference conference = Mmc.GetConferenceDetails(organizer, conferenceID);

                //Print the result
                Console.WriteLine("Conference details");
                Console.WriteLine(conference.ToString());
            }
            catch (Exception exc)
            {
                Console.WriteLine("An exception occurred while processing your request: " +
                    exc.Message);
            }
        }
    }
}

```

The output looks like:

```

Conference details
[ScheduledConference]
  EndDate = '21/09/2009 15:37:06'
  AccessCode = '837675'
  HostFirstName = 'your_service_account'
  HostLastName = 'your_service_account'
  HostLogin = 'your_service_account'
  Identifier = '37893'

```

```

Name = 'your_conference_name'
Origin = 'Odn'
Password = 'null'
StartDate = '21/09/2009 13:38:06'
State = 'NotStarted'
Type = 'Scheduled'
Url = 'null'
[Parameter]
  Key = 'conferenceVisibility'
  Value = 'Public'
[Parameter]
  Key = 'audioAccessNumber'
  Value = '+33149945060'
[Parameter]
  Key = 'audioRoomNumber'
  Value = '775104'
[Parameter]
  Key = 'audioCulture'
  Value = 'en-US'
[Parameter]
  Key = 'audioType'
  Value = 'Apac'
[Parameter]
  Key = 'conferenceWebcam'
  Value = 'AirAnyWebcam'
[Parameter]
  Key = 'conferenceChat'
  Value = 'Participants'
[Parameter]
  Key = 'conferenceAutoLaunched'
  Value = 'False'

```

## 2.8. Method GetConferencesList

### 2.8.1. Description

Get a conference (instantaneous or scheduled) list according to filter parameters.

This method will retrieve a list of conferences on a given time interval. It is also possible to restrict the list to get only conference created by a user.

### 2.8.2. Input parameter

**Table 5.11. GetConferencesList: Input parameters.**

Name	Type	Description	Cardinality
organizer	Organizer	An organizer for the MMC service.	1..1
startDate	DateTime	The interval start date. <i>(must be between T - 6 monthes and T + 1 year where T is current time)</i>	1..1
endDate	DateTime	The interval end date. <i>(must be between T - 6 monthes and T + 1 year where T is current time)</i>	1..1
hostID	long	The user identifier.	0..1

## 2.8.3. Output parameter

Table 5.12. GetConferencesList: Output parameter.

Name	Type	Description	Cardinality
conferenceList	List<Conference>	The conference list matching filter parameters.	1..1

## 2.8.4. Exceptions

This web method may throw `TechnicalException` or `FunctionalException`.

## 2.8.5. Sample code

This sample code uses the `mmc.config` file, don't forget to fill in your information.

This sample shows you how to get a conference list according filter parameters.

```
using System;
using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;
using Orange.Api.MultimediaConference.BusinessData;

namespace Namespace
{
    public class Test
    {
        public static bool RemoteCertificateValidationCallback(
            Object sender,
            X509Certificate certificate,
            X509Chain chain,
            SslPolicyErrors sslPolicyErrors)
        {
            // If you want to perform extra remote certificate validations,
            // please add implementation here.

            return true;
        }

        public static void Main(string[] args)
        {
            ServicePointManager.ServerCertificateValidationCallback =
                RemoteCertificateValidationCallback;

            try
            {
                //Initialize the service URL & the HTTP proxy (optional)
                Mmc.LoadFromConfigFile();

                //Create the organizer
                Organizer organizer = new Organizer();
                organizer.LoadFromConfigFile();
            }
        }
    }
}
```

```

//Call the 'CreateConference' method
List<Conference> conferenceList = Mmc.GetConferencesList(
    organizer,
    DateTime.Now.AddHours(-6),
    DateTime.Now.AddHours(6),
    null);

//Print the result
if (conferenceList.Count > 0)
{
    foreach (Conference conference in conferenceList)
    {
        Console.WriteLine("Conference details");
        Console.WriteLine(conference.ToString());
    }
}
else
{
    Console.WriteLine("No conference found");
}
}
catch (Exception exc)
{
    Console.WriteLine("An exception occurred while processing your request: " +
exc.Message);
}
}
}
}

```

The output looks like:

```

Conference details
[InstantaneousConference]
  AccessCode = 'null'
  HostFirstName = 'your_service_account'
  HostLastName = 'your_service_account'
  HostLogin = 'your_service_account'
  Identifier = '37886'
  Name = 'confname'
  Origin = 'null'
  Password = 'null'
  StartDate = '21/09/2009 13:21:01'
  State = 'Stopped'
  Type = 'Instantaneous'
  Url = 'null'
  [Parameter]
    Key = 'conferenceVisibility'
    Value = 'Public'
  [Parameter]
    Key = 'audioType'
    Value = 'Apac'

Conference details
[ScheduledConference]
  EndDate = '21/09/2009 14:06:06'
  AccessCode = 'null'

```

```

HostFirstName = 'your_service_account'
HostLastName = 'your_service_account'
HostLogin = 'your_service_account'
Identifier = '37888'
Name = 'confname'
Origin = 'null'
Password = 'null'
StartDate = '21/09/2009 13:51:06'
State = 'NotStarted'
Type = 'Scheduled'
Url = 'null'
[Parameter]
  Key = 'conferenceVisibility'
  Value = 'Public'
[Parameter]
  Key = 'audioType'
  Value = 'Apac'

```

## Conference details

```

[ScheduledConference]
  EndDate = '21/09/2009 15:22:09'
  AccessCode = 'null'
  HostFirstName = 'your_service_account'
  HostLastName = 'your_service_account'
  HostLogin = 'your_service_account'
  Identifier = '37889'
  Name = 'your_conference_name'
  Origin = 'null'
  Password = 'null'
  StartDate = '21/09/2009 13:23:09'
  State = 'NotStarted'
  Type = 'Scheduled'
  Url = 'null'
[Parameter]
  Key = 'conferenceVisibility'
  Value = 'Public'
[Parameter]
  Key = 'audioType'
  Value = 'Apac'

```

## Conference details

```

[InstantaneousConference]
  AccessCode = 'null'
  HostFirstName = 'your_service_account'
  HostLastName = 'your_service_account'
  HostLogin = 'your_service_account'
  Identifier = '37890'
  Name = 'confname'
  Origin = 'null'
  Password = 'null'
  StartDate = '21/09/2009 13:35:58'
  State = 'Stopped'
  Type = 'Instantaneous'
  Url = 'null'
[Parameter]
  Key = 'conferenceVisibility'
  Value = 'Public'
[Parameter]
  Key = 'audioType'
  Value = 'Apac'

```

```

Conference details
[ScheduledConference]
  EndDate = '21/09/2009 14:21:03'
  AccessCode = 'null'
  HostFirstName = 'your_service_account'
  HostLastName = 'your_service_account'
  HostLogin = 'your_service_account'
  Identifier = '37892'
  Name = 'confname'
  Origin = 'null'
  Password = 'null'
  StartDate = '21/09/2009 14:06:03'
  State = 'NotStarted'
  Type = 'Scheduled'
  Url = 'null'
  [Parameter]
    Key = 'conferenceVisibility'
    Value = 'Public'
  [Parameter]
    Key = 'audioType'
    Value = 'Apac'

```

```

Conference details
[ScheduledConference]
  EndDate = '21/09/2009 15:37:06'
  AccessCode = 'null'
  HostFirstName = 'your_service_account'
  HostLastName = 'your_service_account'
  HostLogin = 'your_service_account'
  Identifier = '37893'
  Name = 'your_conference_name'
  Origin = 'null'
  Password = 'null'
  StartDate = '21/09/2009 13:38:06'
  State = 'NotStarted'
  Type = 'Scheduled'
  Url = 'null'
  [Parameter]
    Key = 'conferenceVisibility'
    Value = 'Public'
  [Parameter]
    Key = 'audioType'
    Value = 'Apac'

```

## 2.9. Method GetLicencesUsage

### 2.9.1. Description

Get contract licences usage.

This method allows to recover the rate of licenses used on a given contract for the user who made the complaint.

## 2.9.2. Input parameter

Table 5.13. GetLicencesUsage: Input parameters.

Name	Type	Description	Cardinality
organizer	Organizer	An organizer for the MMC service.	1..1
startDate	DateTime	The interval start date. <i>(must be between T - 1 year and T - 1 day where T is current time)</i>	1..1
endDate	DateTime	The interval end date. <i>(must be between T - 1 year and T - 1 day where T is current time)</i>	1..1

## 2.9.3. Output parameter

Table 5.14. GetLicencesUsage: Output parameter.

Name	Type	Description	Cardinality
licenceUsage	LicenceUsage	The conference list matching filter parameters.	1..1

## 2.9.4. Exceptions

This web method may throw `TechnicalException` or `FunctionalException`.

## 2.9.5. Sample code

This sample code uses the `mmc.config` file, don't forget to fill in your information.

This sample shows you how to get a contract licences usage.

```
using System;
using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;
using Orange.Api.MultimediaConference.BusinessData;

namespace Namespace
{
    public class Test
    {
        public static bool RemoteCertificateValidationCallback(
            Object sender,
            X509Certificate certificate,
            X509Chain chain,
            SslPolicyErrors sslPolicyErrors)
        {
            // If you want to perform extra remote certificate validations,
            // please add implementation here.
        }
    }
}
```

```

        return true;
    }

    public static void Main(string[] args)
    {
        ServicePointManager.ServerCertificateValidationCallback =
            RemoteCertificateValidationCallback;

        try
        {
            //Initialize the service URL & the HTTP proxy (optional)
            Mmc.LoadFromConfigFile();

            //Create the organizer
            Organizer organizer = new Organizer();
            organizer.LoadFromConfigFile();

            //Call the 'CreateConference' method
            LicenceUsage licenceUsage = Mmc.GetLicencesUsage(
                organizer,
                DateTime.Now.AddDays(-10),
                DateTime.Now.AddDays(-2));

            //Print the result
            Console.WriteLine("Licence usage");
            Console.WriteLine(licenceUsage.ToString());
        }
        catch (Exception exc)
        {
            Console.WriteLine("An exception occurred while processing your request: " +
                exc.Message);
        }
    }
}

```

The output looks like:

```

Licence usage
[LicenceUsage]
  MaxConcurrentConnections = '2'
  SubscribedLicencesCount = '0'
  UsageRate = '0'

```

## 3. Audio conference methods

### 3.1. Method CreateAudioConference

#### 3.1.1. Description

Creates an audio conference, either instantaneous or scheduled.

This method allows to create an audio conference. To start the conference, the user should open an internet browser and type in the URL returned by the method.

### 3.1.2. Input parameter

**Table 5.15. CreateAudioConference: Input parameters.**

Name	Type	Description	Cardinality
organizer	Organizer	An organizer for the MMC service	1..1
audioConferenceInfo	AudioConferenceInfo	The information needed to create an audio conference.	1..1

### 3.1.3. Output parameter

**Table 5.16. CreateAudioConference: Output parameter.**

Name	Type	Description	Cardinality
audioConference	AudioConference	The created audio conference.	1..1

### 3.1.4. Exceptions

This web method may throw `TechnicalException` or `FunctionalException`.

### 3.1.5. Sample code

These samples use the `mmc.config` file, don't forget to fill in your information.

This sample shows you how to create an instantaneous audio conference.

```
using System;
using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;
using Orange.Api.MultimediaConference.BusinessData;

namespace Namespace
{
    public class Test
    {
        public static bool RemoteCertificateValidationCallback(
            Object sender,
            X509Certificate certificate,
            X509Chain chain,
            SslPolicyErrors sslPolicyErrors)
        {
            // If you want to perform extra remote certificate validations,
            // please add implementation here.
        }
    }
}
```

```

        return true;
    }

    public static void Main(string[] args)
    {
        ServicePointManager.ServerCertificateValidationCallback =
            RemoteCertificateValidationCallback;

        try
        {
            //Initialize the service URL & the HTTP proxy (optional)
            Mmc.LoadFromConfigFile();

            //Create the organizer
            Organizer organizer = new Organizer();
            organizer.LoadFromConfigFile();

            //Fill the information about your audio conference
            InstantaneousAudioConferenceInfo audioConferenceInfo = new
InstantaneousAudioConferenceInfo();
            audioConferenceInfo.Attendees.Add(new
Attendee("+IDDprefix_your_phone_number", "joey", "blackey", "joey.blackey@never.land"));
            audioConferenceInfo.Host = new
Attendee("+IDDprefix_your_phone_number", "joe", "black", "joe.black@never.land");
            audioConferenceInfo.Name = "confname";
            audioConferenceInfo.Password = "confpwd";
            audioConferenceInfo.RealDuration = 60;

            //Set audio conference culture
            audioConferenceInfo.OptionalParameters.Add(
                ConferenceOptionalParameter.audioCulture, "en-US");

            //Set audio conference audio type
            audioConferenceInfo.OptionalParameters.Add(
                ConferenceOptionalParameter.audioType, AudioType.Apac.ToString());

            //Call the 'CreateAudioConference' method
            AudioConference audioConference = Mmc.CreateAudioConference(organizer,
audioConferenceInfo);

            //Print the result
            Console.WriteLine("AudioConference created");
            Console.WriteLine(audioConference.ToString());
        }
        catch (Exception exc)
        {
            Console.WriteLine("An exception occurred while processing your request: " +
exc.Message);
        }
    }
}

```

The output looks like:

```

AudioConference created
[InstantaneousAudioConference]

```

```

Identifier = '37890'
Password = 'confpwd'
Url = 'http://www.ppl.conference-telephone.orange-business.com/Default.aspx?id=37890&token=36723E39-ABE4-4F0D-BD91-A3CECE80DDAB'
[Parameter]
    Key = 'audioAccessNumber'
    Value = '+33149945060'
[Parameter]
    Key = 'audioRoomNumber'
    Value = '774488'

```

This sample shows you how to create a scheduled audio conference.

```

using System;
using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;
using Orange.Api.MultimediaConference.BusinessData;

namespace Namespace
{
    public class Test
    {
        public static bool RemoteCertificateValidationCallback(
            Object sender,
            X509Certificate certificate,
            X509Chain chain,
            SslPolicyErrors sslPolicyErrors)
        {
            // If you want to perform extra remote certificate validations,
            // please add implementation here.

            return true;
        }

        public static void Main(string[] args)
        {
            ServicePointManager.ServerCertificateValidationCallback =
                RemoteCertificateValidationCallback;

            try
            {
                //Initialize the service URL & the HTTP proxy (optional)
                Mmc.LoadFromConfigFile();

                //Create the organizer
                Organizer organizer = new Organizer();
                organizer.LoadFromConfigFile();

                //Fill the information about your audio audio conference
                ScheduledAudioConferenceInfo audioConferenceInfo = new
                ScheduledAudioConferenceInfo();
                audioConferenceInfo.Attendees.Add(new
                Attendee("+IDDprefix_your_phone_number", "joey", "blackey", "joey.blackey@never.land"));
            }
            catch { }
        }
    }
}

```

```

        audioConferenceInfo.Host = new
Attendee("+IDDprefix_your_phone_number", "joe", "black", "joe.black@never.land");
        audioConferenceInfo.Name = "confname";
        audioConferenceInfo.Password = "confpwd";
        audioConferenceInfo.RealDuration = 60;
        audioConferenceInfo.StartDate = DateTime.Now.AddMinutes(30);
        audioConferenceInfo.EndDate = DateTime.Now.AddMinutes(45);

        //Set audio conference culture
        audioConferenceInfo.OptionalParameters.Add(
            ConferenceOptionalParameter.audioCulture, "en-US");

        //Set audio conference audio type
        audioConferenceInfo.OptionalParameters.Add(
            ConferenceOptionalParameter.audioType, AudioType.Apac.ToString());

        //Call the 'CreateConference' method
        AudioConference audioConference = Mmc.CreateAudioConference(organizer,
audioConferenceInfo);

        //Print the result
        Console.WriteLine("AudioConference created");
        Console.WriteLine(audioConference.ToString());
    }
    catch (Exception exc)
    {
        Console.WriteLine("An exception occurred while processing your request: " +
exc.Message);
    }
}
}
}

```

The output looks like:

```

AudioConference created
[ScheduledAudioConference]
  Identifier = '37892'
  Password = 'confpwd'
  Url = 'http://www.pp1.conference-telephone.orange-business.com/Default.aspx?id=37892&token=39BE403A-7F1F-49B1-A5CC-D818B978787F'
  [Parameter]
    Key = 'audioAccessNumber'
    Value = '+33149945060'
  [Parameter]
    Key = 'audioRoomNumber'
    Value = '770465'

```

## 3.2. Method ModifyAudioConference

### 3.2.1. Description

Modify a scheduled audio conference that has not started yet.

This method allows the user to modify the scheduled audio conference characteristic.

### 3.2.2. Input parameter

**Table 5.17. ModifyAudioConference: Input parameters.**

Name	Type	Description	Cardinality
organizer	Organizer	An organizer for the MMC service	1..1
audioConferenceId	ScheduledAudioConference	The audio conference you want to modify (in/out).	1..1
audioConferenceInfo	ScheduledAudioConferenceInfo	The information needed to modify the audio conference.	1..1

### 3.2.3. Output parameter

None.

### 3.2.4. Exceptions

This web method may throw `TechnicalException` or `FunctionalException`.

### 3.2.5. Sample code

This sample code uses the `mmc.config` file, don't forget to fill in your information.

This sample shows you how to modify a scheduled conference.

*To run this example, you will need to input the conference id and password that was returned by the `CreateAudioConference` method.*

```
using System;
using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;
using Orange.Api.MultimediaConference.BusinessData;

namespace Namespace
{
    public class Test
    {
        public static bool RemoteCertificateValidationCallback(
            Object sender,
            X509Certificate certificate,
            X509Chain chain,
            SslPolicyErrors sslPolicyErrors)
        {
            // If you want to perform extra remote certificate validations,
            // please add implementation here.

            return true;
        }
    }
}
```

```

    }

    public static void Main(string[] args)
    {
        ServicePointManager.ServerCertificateValidationCallback =
            RemoteCertificateValidationCallback;

        try
        {
            //Initialize the service URL & the HTTP proxy (optional)
            Mmc.LoadFromConfigFile();

            //Create the organizer
            Organizer organizer = new Organizer();
            organizer.LoadFromConfigFile();

            //Fill the information about your audio conference (using the previously created
            //scheduled audio conference)
            ScheduledAudioConference audioConference = new
            ScheduledAudioConference(27500, "confpwd");

            //Fill new parameters
            ScheduledAudioConferenceInfo audioConferenceInfo = new
            ScheduledAudioConferenceInfo();
            audioConferenceInfo.Attendees.Add(new
            Attendee("+IDDprefix_your_phone_number", "joey2", "blackey2", "joey2.blackey2@never.land"));
            audioConferenceInfo.Host = new
            Attendee("+IDDprefix_your_phone_number", "joe2", "black2", "joe2.black2@never.land");
            audioConferenceInfo.Name = "newconfname";
            audioConferenceInfo.Password = "newconfpwd";
            audioConferenceInfo.RealDuration = 30;
            audioConferenceInfo.StartDate = DateTime.Now.AddHours(1);
            audioConferenceInfo.EndDate = DateTime.Now.AddHours(2);

            //Set new audio conference culture
            audioConferenceInfo.OptionalParameters.Add(
                ConferenceOptionalParameter.audioCulture, "fr-FR");

            //Set audio conference audio type
            audioConferenceInfo.OptionalParameters.Add(
                ConferenceOptionalParameter.audioType, AudioType.Apac.ToString());

            //Call the 'ModifyAudioConference' method
            Mmc.ModifyAudioConference(organizer, ref audioConference, audioConferenceInfo);

            //Print the result
            Console.WriteLine("AudioConference modified");
            Console.WriteLine(audioConference.ToString());
        }
        catch (Exception exc)
        {
            Console.WriteLine("An exception occurred while processing your request: " +
            exc.Message);
        }
    }
}

```

The output looks like:

```

AudioConference modified
[ScheduledAudioConference]
  Identifier = '37892'
  Password = 'newconfpwd'
  Url = 'http://www.ppl.conference-telephone.orange-business.com/Default.aspx?id=37892&token=39BE403A-7F1F-49B1-A5CC-D818B978787F'
  [Parameter]
    Key = 'audioAccessNumber'
    Value = '+33149945050'
  [Parameter]
    Key = 'audioRoomNumber'
    Value = '770465'

```

### 3.3. Method StartAudioConference

#### 3.3.1. Description

Start a scheduled audio conference that has not started yet.

This method returns the access URL to the scheduled audioconference and starts the audio conference session.

#### 3.3.2. Input parameter

**Table 5.18. StartAudioConference: Input parameters.**

Name	Type	Description	Cardinality
organizer	Organizer	An organizer for the MMC service	1..1
audioConferenceId	ScheduledAudioConference	The audio conference you want to start (in/out).	1..1

#### 3.3.3. Output parameter

None.

#### 3.3.4. Exceptions

This web method may throw `TechnicalException` or `FunctionalException`.

#### 3.3.5. Sample code

This sample code uses the `mmc.config` file, don't forget to fill in your information.

This sample shows you how to start a scheduled conference.

*To run this example, you will need to input the conference id and password that was returned by the `CreateAudioConference` method.*

```
using System;
```

```

using System.Collections.Generic;
using System.Net;
using System.Net.Security;
using System.Security.Cryptography.X509Certificates;
using Orange.Api.MultimediaConference;
using Orange.Api.MultimediaConference.BusinessData;

namespace Namespace
{
    public class Test
    {
        public static bool RemoteCertificateValidationCallback(
            Object sender,
            X509Certificate certificate,
            X509Chain chain,
            SslPolicyErrors sslPolicyErrors)
        {
            // If you want to perform extra remote certificate validations,
            // please add implementation here.

            return true;
        }

        public static void Main(string[] args)
        {
            ServicePointManager.ServerCertificateValidationCallback =
                RemoteCertificateValidationCallback;

            try
            {
                //Initialize the service URL & the HTTP proxy (optional)
                Mmc.LoadFromConfigFile();

                //Create the organizer
                Organizer organizer = new Organizer();
                organizer.LoadFromConfigFile();

                //Fill the information about the scheduled audio conference (using the previously
                //created scheduled audio conference)
                ScheduledAudioConference audioConference = new
                ScheduledAudioConference(12073, "confpwd");

                //Call the StartAudioConference method
                Mmc.StartAudioConference(organizer, ref audioConference);

                //Print the result
                Console.WriteLine("AudioConference started");
                Console.WriteLine(audioConference.ToString());
            }
            catch (Exception exc)
            {
                Console.WriteLine("An exception occurred while processing your request: " +
                exc.Message);
            }
        }
    }
}

```

The output looks like:

```
AudioConference started  
[ScheduledAudioConference]  
  Identifier = '37892'  
  Password = 'newconfpwd'  
  Url = 'null'
```

# Chapter 6. Interaction with MMC portal

## 1. Multimedia Conference portal

The final user of the Multimedia Conference web service interacts with the service through web pages. This section presents some features of the Multimedia Conference web portal.

### 1.1. Starting a conference before the scheduled time

If the organizer tries to start his conference before the scheduled time (using the url provided by the createScheduledConference response), then he is redirected to the following page:

The screenshot shows a web page from Orange Business Services. At the top left is the logo. The page title is "récapitulatif" and it includes a date and time: "mercredi 10 octobre 2007 — 10:56 (Paris, Madrid (heure d'été))". Below the title is a navigation bar with "aide ?". A message states: "Vous ne pouvez pas démarrer cette réunion : La réunion ne peut être démarrée car l'heure courante n'est pas comprise dans la plage de réservation de la réunion." Below this is a "description" section with a table of conference details. At the bottom right is a button labeled "outil de diagnostic".

description	
nom de la réunion	test
code d'accès	10872516226
visibilité de la réunion	Privée
réunion	Programmée
date et heure de début	mercredi 10 octobre 2007 - 17:30
type de démarrage	Manuel
nombre de participants	Aucun
réunion audio	Pas d'audio

This page shows:

- the error message: the organizer is out of the conference time slot.
- a summary of the conference: name, access code, visibility, start date, audio support ...
- a button to access the diagnostic tool (see below).

The organizer can start the conference in advance, up to one hour before the scheduled time. If he does so, the following webpage will be displayed:

The screenshot shows a web interface for a multimedia conference. At the top left is the 'orange Business Services' logo. Below it, a navigation bar contains 'bienvenue M. Frank Gravouil' and 'mercredi 10 octobre 2007 — 11:14 (Paris, Madrid (heure d'été))'. The main heading is 'récapitulatif' with an 'aide ?' link. A sub-heading reads 'Informations détaillées sur la réunion.' Below this is a 'description' section with a table of conference details:

nom de la réunion	test
code d'accès	69114316227
visibilité de la réunion	Privée
réunion	Programmée
date et heure de début	mercredi 10 octobre 2007 - 11:30
type de démarrage	Manuel
nombre de participants	Aucun
réunion audio	Pas d'audio

At the bottom right of the description area are two buttons: 'outil de diagnostic' and 'commencer la réunion'. At the very bottom of the page, there are links for 'contactez-nous', 'mentions légales', and 'faq', and the text 'Powered by Orange Business Services'.

He needs only to click on the "Start the conference" button to enter the conference and allow guests to join.

## 1.2. Loss of user session

If the user stays on this page for a long time, he may lose his session on the portal. He is then redirected to a page asking him to authenticate against his service provider.

The screenshot shows a web interface for authentication. At the top left is the 'orange Business Services' logo. Below it, a navigation bar contains 'bienvenue M. Frank Gravouil' and 'mercredi 10 octobre 2007 — 11:21 (Paris, Madrid (heure d'été))'. The main heading is 'bienvenue sur Cedre Qualification [G3R3C0]' with an 'aide ?' link. Below this is a sub-heading 'authentification' in a box. The text inside the box reads: 'authentification' followed by 'Merci de vous authentifier à nouveau auprès de votre fournisseur de service.' At the bottom left of the page, there are links for 'contactez-nous', 'mentions légales', and 'faq'.

## 1.3. Access to the conference by a guest

A participant (created by the joinConference method) can also try to join the conference before it has started. He'll reach the following page:

orange Business Services

bienvenue M. Gérard Test mercredi 10 octobre 2007 — 11:23 (Paris, Madrid (heure d'été))

## récapitulatif aide ?

▾ Ce récapitulatif vous permet de visualiser toutes les informations concernant la réunion.

**⚠ Vous ne pouvez pas participer à cette réunion : Elle n'est pas encore démarrée.**

### description

nom de la réunion	test
visibilité de la réunion	Privée
réunion	Programmée
date et heure de début	mercredi 10 octobre 2007 - 11:30
type de démarrage	Manuel

[outil de diagnostic](#)

---

[contactez-nous](#) [mentions légales](#) [faq](#) Powered by Orange Business Services

As long as the meeting is not initiated by the organizer, conference guests cannot join.

## 1.4. Exiting conference

When the user leaves the conference, he is shown a page with information on the conference and a message saying that the conference is over.

orange Business Services

bienvenue M. Frank Gravouil mercredi 10 octobre 2007 — 11:30 (Paris, Madrid (heure d'été))

## récapitulatif aide ?

▾ Informations détaillées sur la réunion.

**⚠ Vous venez de quitter la réunion**

### description

nom de la réunion	test
code d'accès	69114316227
visibilité de la réunion	Privée
réunion	Programmée
date et heure de début	mercredi 10 octobre 2007 - 11:30
type de démarrage	Manuel
nombre de participants	Aucun
réunion audio	Pas d'audio

[outil de diagnostic](#)

---

[contactez-nous](#) [mentions légales](#) [faq](#) Powered by Orange Business Services

## 1.5. Piloting Audioconference

You can pilot an audioconference from the web: see the attendees, mute the microphones...

orange Business Services

Orange Business Services

bienvenue sur Conférence Téléphone, vous êtes : Guilhem Martin, vous pilotez la conférence 790279

fermer la conférence

confort animation sécurité services plus assistance

welcome

appel sortant fermer tous les micros désactiver le carillon

conférence 2

aparté

personnes non connectées 0

contactez-nous mentions légales

français

You can also webpilot a specific attendee:

The screenshot displays the Orange Business Services Multimedia Conference API interface. At the top left is the Orange Business Services logo. The main header area includes a welcome message: "bienvenue sur Conférence Téléphone, vous êtes : Guilhem Martin, vous pilotez la conférence 790137" and a "fermer la conférence" button. Below this is a navigation bar with tabs for "confort", "animation", "sécurité", "services plus", and "assistance".

The main content area is divided into several sections:
 

- A "welcome" banner with an illustration of a person at a desk.
- Control buttons: "appel sortant", "fermer tous les micros", and "désactiver le carillon".
- A "conférence" status bar showing 2 participants.
- An "aparté" (mute) status bar.
- A "personnes non connectées" (disconnected) status bar showing 0 participants.
- A "participant" details window on the left, which includes:
  - Fields for "nom prénom", "téléphone", and "lieu" (set to "conférence").
  - A "modifier" button.
  - An "actions" list: "fermer le micro", "désactiver le droit de vote", "mettre en aparté", and "déconnecter le participant".

At the bottom of the interface, there are links for "contactez-nous" and "mentions legales", and a language selector set to "français".

## 1.6. Exiting conference due to error

If an error occurs in conference, the user exits the meeting, and is redirected to a page with information on the conference and an error message. If the status of the conference allows it, the user can return to the conference by clicking on the "Join the conference" button.

The screenshot shows the 'récapitulatif' (summary) page of a multimedia conference. At the top left is the 'orange Business Services' logo. Below it, a navigation bar contains 'bienvenue M. Antoine Gachet' on the left and 'mercredi 10 octobre 2007 — 11:41 (Paris, Madrid (heure d'été))' on the right. The main heading is 'récapitulatif' with an 'aide ?' link on the right. A message states: 'Informations détaillées sur la réunion. Une erreur est survenue pendant la réunion toto. Erreur : #20'. Below this is a 'description' section with a table of meeting details:

nom de la réunion	toto
code d'accès	21936916229
visibilité de la réunion	Privée
réunion	Immédiate
date et heure de début	mercredi 10 octobre 2007 - 11:40
réunion audio	Numéro d'appel : +33231758038 Numéro conférence téléphone : 789977

At the bottom right of the summary, there are two buttons: 'outil de diagnostic' and 'rejoindre la réunion'. The footer contains 'contactez-nous', 'mentions légales', 'faq', and 'Powered by Orange Business Services'.

## 1.7. Diagnostic tool

The portal provides the user with a diagnostic tool to test the connectivity to the Multimedia Conference service. To do so, the user clicks the "diagnostic tool" button present on the conference summary page. He then accesses to the Diagnostic Tool:

The screenshot shows the 'outil de diagnostic' (diagnostic tool) page. It features the same 'orange Business Services' logo and navigation bar as the previous page. The main heading is 'outil de diagnostic' with an 'aide ?' link on the right. A message states: 'Vous pouvez démarrer le diagnostic de votre configuration en cliquant sur le bouton lancer le diagnostic.' Below this is a single button labeled 'lancer le diagnostic'. The footer is identical to the previous page, showing 'contactez-nous', 'mentions légales', 'faq', and 'Powered by Orange Business Services'.

To launch the tool, the user clicks on the "Launch the diagnosis" button. The testing process starts. The user can wait until the end of the process, or click on the "Stop the diagnosis" button to cancel the test.

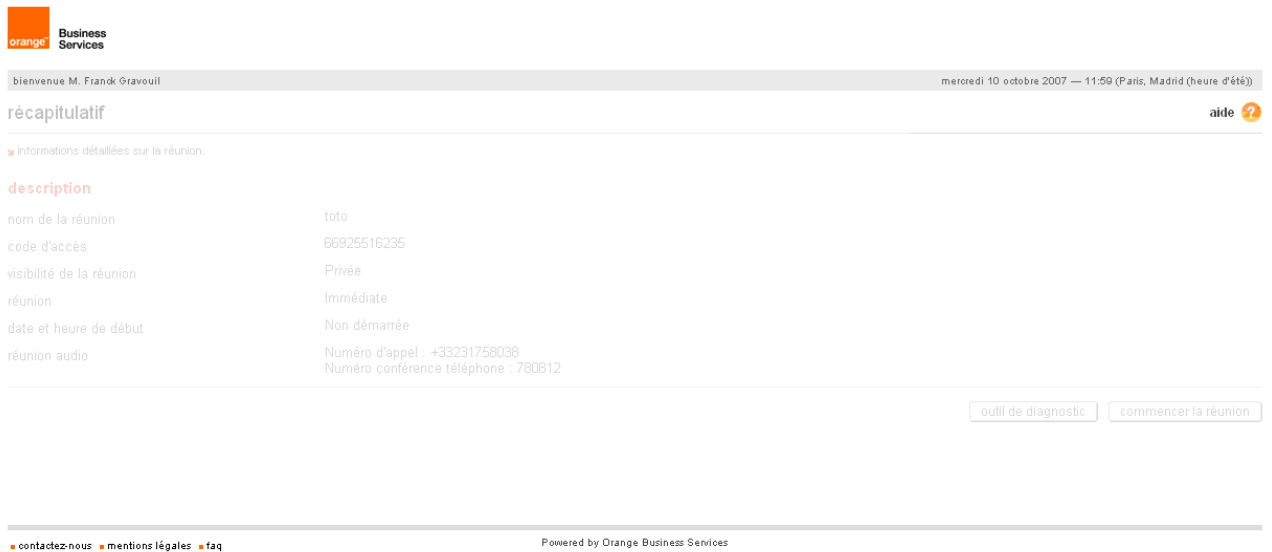
The screenshot shows the 'outil de diagnostic' (diagnostic tool) interface. At the top left is the 'orange Business Services' logo. Below it, a navigation bar contains 'bienvenue M. Antoine Gachet' and 'mercredi 10 octobre 2007 — 11:48 (Paris, Madrid (heure d'été))'. The main title is 'outil de diagnostic' with an 'aide ?' link. A progress indicator shows 'En cours... 16 %'. A list of diagnostic categories is displayed, each with a checkbox and a progress icon: 'Diagnostic Hardware' (checked), 'Diagnostic SystemSoftware' (checked), 'Diagnostic UserSoftware' (checked), 'Diagnostic eDataComponents' (checked), 'Diagnostic LocalUser' (checked), and 'Diagnostic NetworkPerfs' (checked). A 'stopper le diagnostic' button is located at the bottom right. The footer includes 'contactez-nous', 'mentions légales', 'faq', and 'Powered by Orange Business Services'.

When the test is completed, the page details possible problems or reports that the test was successful.

The screenshot shows the 'outil de diagnostic' interface after the test is completed. The top navigation bar is identical to the previous screenshot, but the user is now 'bienvenue M. Frank Gravouil'. A warning message is displayed: 'Un ou plusieurs tests ont échoué, le Multimedia-conferenceDiagnosticLog-MMC.xml sauvegardé.' Below this, the diagnostic categories are listed with their status: 'Diagnostic Hardware' (checked), 'Diagnostic SystemSoftware' (checked), and 'Diagnostic UserSoftware' (checked with a warning icon). Under 'Diagnostic UserSoftware', a list of test results is shown, all with checkmarks: 'version Internet explorer : Internet Explorer version 6.0 SP2', 'Internet explorer version number : 6.0.2900.2180', 'Type de proxy : Adresse et port proxy définis manuellement', 'Serveur proxy http : proxy', 'Port proxy http : 8080', 'Serveur proxy https : proxy', 'Port proxy https : 8080', 'Domaines ne nécessitant pas de proxy :', 'Niveau de confiance accordé au site : Site Local', 'Contrôles ActiveX reconnus sûrs pour l'écriture de scripts : Activé', 'Contrôles d'initialisation et de script ActiveX non marqués comme sécurisés : Desactivé', 'Exécuter les contrôles ActiveX et les plug-ins : Activé', 'Télécharger les contrôles ActiveX non signés : Desactivé', 'Télécharger les contrôles ActiveX signés : Demander', 'Version Word : 2007', 'Version PowerPoint : 2007', and 'Version Excel : 2007'. The footer is the same as the previous screenshot.

Each connectivity test results in the creation of a file "Log-MMC.xml" stored on the user hard-drive (in the "\\ My Documents \ Multimedia-conference \ Diagnostic \" folder). This file can be transmitted to the user support service to get help for solving issues.

## 1.8. Help, contacts, FAQ



The screenshot shows the Orange Business Services portal interface. At the top left is the Orange Business Services logo. The main header area contains a welcome message "bienvenue M. Frank Gravouil" and the date/time "mercredi 10 octobre 2007 — 11:59 (Paris, Madrid (heure d'été))". Below this is a "récapitulatif" section with an "aide ?" link. A link for "Informations détaillées sur la réunion." is also present. The main content area is titled "description" and contains a table of meeting details:

nom de la réunion	toto
code d'accès	66926516235
visibilité de la réunion	Privée
réunion	Immédiate
date et heure de début	Non démarrée
réunion audio	Numéro d'appel : +33231758038 Numéro conférence téléphone : 780812

At the bottom right of the main content area, there are two buttons: "outil de diagnostic" and "commencer la réunion". The footer contains navigation links: "contactez-nous", "mentions légales", and "faq", along with the text "Powered by Orange Business Services".

The portal provides access to user assistance to top right hand-corner of page.



■ [contactez-nous](#) ■ [mentions légales](#) ■ [faq](#)

In the footer, the final user can find:

- contact information, to ask any questions about the service.
- a link to the legal notice.
- a link to the service FAQ.

# Appendix A. Error codes

## Caution

The error message returned by the MMC API may contain a reference to `Partner_API_Account_ID` or `Partner_API_Account_Pwd`. It refers to the couple Service Account - Service Account Password used for authentication.

**Table A.1. Error codes**

Code	Detail
MMC_7	<p>Error name: <code>NullUserInfoInput</code>.</p> <p>Description: The <code>participantInfo</code> element is not present in the SOAP body.</p> <p>Input parameter: <code>participantInfo</code>.</p>
MMC_8	<p>Error name: <code>NullUserInfoInputFirstName</code>.</p> <p>Description: The first name element is not present in the <code>participantInfo</code> element of the SOAP body.</p> <p>Input parameter: <code>participantInfo/first name</code>.</p>
MMC_9	<p>Error name: <code>EmptyUserInfoInputFirstName</code>.</p> <p>Description: The first name of the participant is empty.</p> <p>Input parameter: <code>participantInfo/first name</code>.</p>
MMC_10	<p>Error name: <code>NullUserInfoInputLastName</code>.</p> <p>Description: The last name element is not present in the <code>participantInfo</code> element of the SOAP body.</p> <p>Input parameter: <code>participantInfo/last name</code>.</p>
MMC_11	<p>Error name: <code>EmptyUserInfoInputLastName</code>.</p> <p>Description: The last name of the participant is empty.</p> <p>Input parameter: <code>participantInfo/last name</code>.</p>
MMC_12	<p>Error name: <code>NullUserInfoInputMail</code>.</p> <p>Description: The mail element is not present in the <code>participantInfo</code> element of the SOAP body.</p> <p>Input parameter: <code>participantInfo/mail</code>.</p>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_13	<p>Error name: EmptyUserInfoInputMail.</p> <p>Description: The mail of the participant is empty.</p> <p>Input parameter: <i>participantInfo/mail</i>.</p>
MMC_14	<p>Error name: BadFormatUserInfoInputMail.</p> <p>Description: The mail of the participant does not conform to expected pattern (w.x@y.z).</p> <p>Input parameter: <i>participantInfo/mail</i>.</p>
MMC_15	<p>Error name: NullConferenceInfoInput.</p> <p>Description: The instantaneousConferenceInfo element is not present in the SOAP body.</p> <p>Input parameter: <i>instantaneousConferenceInfo</i>.</p>
MMC_16	<p>Error name: NullConferenceInfoInputName.</p> <p>Description: The name element is not present in the instantaneousConferenceInfo element of the SOAP body.</p> <p>Input parameter: <i>instantaneousConferenceInfo/name</i>.</p>
MMC_17	<p>Error name: EmptyConferenceInfoInputName.</p> <p>Description: The name of the conference is empty.</p> <p>Input parameter: <i>instantaneousConferenceInfo/name</i>.</p>
MMC_18	<p>Error name: NullConferenceInfoInputPassword.</p> <p>Description: The password element is not present in the instantaneousConferenceInfo element of the SOAP body.</p> <p>Input parameter: <i>instantaneousConferenceInfo/password</i>.</p>
MMC_19	<p>Error name: EmptyConferenceInfoInputPassword.</p> <p>Description: The password of the conference is empty.</p> <p>Input parameter: <i>instantaneousConferenceInfo/password</i>.</p>
MMC_20	<p>Error name: MinLengthConferenceInfoInputPassword.</p> <p>Description: The password of the conference must contain at least 4 characters.</p> <p>Input parameter: <i>instantaneousConferenceInfo/password</i>.</p>
MMC_22	<p>Error name: DataBaseError.</p> <p>Description: Generic error for any cases not handled.</p>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_23	<p>Error name: NullConferenceConnection.</p> <p>Description: The conferenceConnection element is not present in the SOAP message.</p> <p>Input parameter: <i>conferenceConnection</i>.</p>
MMC_24	<p>Error name: InvalidConferenceConnectionID.</p> <p>Description: The id element is not present in the conferenceConnection element of the SOAP body.</p> <p>Input parameter: <i>conferenceConnection/id</i>.</p>
MMC_25	<p>Error name: NullConferenceConnectionPassword.</p> <p>Description: The password element is not present in the conferenceConnection element of the SOAP body.</p> <p>Input parameter: <i>conferenceConnection/password</i>.</p>
MMC_26	<p>Error name: EmptyConferenceConnectionPassword.</p> <p>Description: The password of the conference is empty.</p> <p>Input parameter: <i>conferenceConnection/password</i>.</p>
MMC_27	<p>Error name: MinLengthConferenceConnectionPassword.</p> <p>Description: The password of the conference must contain at least 4 characters.</p> <p>Input parameter: <i>conferenceConnection/password</i>.</p>
MMC_28	<p>Error name: BadPasswordConferenceConnection.</p> <p>Description: Wrong password: This error indicates that the password you entered does not match what the remote conference expected.</p> <p>Input parameter: <i>conferenceConnection/password</i>.</p>
MMC_32	<p>Error name: InvalidConferenceState.</p> <p>Description: The conference corresponding to this identifier is in an invalid state.</p> <p>Input parameter: <i>conferenceConnection/id</i>.</p>
MMC_33	<p>Error name: ConferenceStarted.</p> <p>Description: The conference corresponding to this identifier is in progress.</p> <p>Input parameter: <i>conferenceConnection/id</i>.</p>

Code	Detail
MMC_34	<p>Error name: ConferenceStopped.</p> <p>Description: The conference corresponding to this identifier is already stopped.</p> <p>Input parameter: <i>conferenceConnection/id</i>.</p>
MMC_35	<p>Error name: ConferenceDeleted.</p> <p>Description: The conference corresponding to this identifier is already deleted.</p> <p>Input parameter: <i>conferenceConnection/id</i>.</p>
MMC_36	<p>Error name: InvalidScheduledConferenceInfoInputStartDateTime.</p> <p>Description: The start date is earlier than the current date, or is not provided..</p> <p>Input parameter: <i>scheduledConferenceInfo /startDateTime</i>.</p>
MMC_37	<p>Error name: InvalidScheduledConferenceInfoInputEndDateTime.</p> <p>Description: The end date is earlier than the current date, or is not provided..</p> <p>Input parameter: <i>scheduledConferenceInfo /endDateTime</i>.</p>
MMC_38	<p>Error name: InvalidScheduledConferenceInfoInputDuration.</p> <p>Description: The start date is later than the end date.</p> <p>Input parameter: <i>scheduledConferenceInfo /startDateTime</i> and <i>scheduledConferenceInfo /endDateTime</i>.</p>
MMC_44	<p>Error name: BadHostConnection.</p> <p>Description: The user corresponding to the given ApplicationContext is not the organizer of this conference.</p> <p>Input parameter: <i>conferenceConnection/id+ApplicationContext</i>.</p>
MMC_45	<p>Error name: BadConferenceType.</p> <p>Description: The conference corresponding to this identifier is not a scheduled one.</p> <p>Input parameter: <i>conferenceConnection/ id</i>.</p>
MMC_46	<p>Error name: NotFoundConference.</p> <p>Description: There isn't any conference corresponding to the given identifier.</p> <p>Input parameter: <i>conferenceConnection/id</i>.</p>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_47	<p>Error name: NotFoundDiary.</p> <p>Description: This conference has no time slot.</p> <p>Input parameter: <i>conferenceConnection/id</i>.</p>
MMC_48	<p>Error name: StartDateTimeLaterThanUtcNow.</p> <p>Description: The conference start date is later than the current date.</p>
MMC_49	<p>Error name: StopDateTimeEarlierThanUtcNow.</p> <p>Description: The conference end date is earlier than the current date.</p>
MMC_50	<p>Error name: NoSoapHeaderKey.</p> <p>Description: The ApplicationContext element is not present in the SOAP header.</p> <p>Input parameter: <i>ApplicationContext</i>.</p>
MMC_52	<p>Error name: Partner_API_AccountID_SoapHeaderValueNotFound.</p> <p>Description: The Partner_API_Account_ID key is not present in the ApplicationContext element of the SOAP header.</p> <p>Input parameter: <i>ApplicationContext/Partner_API_Account_ID</i>.</p>
MMC_53	<p>Error name: Partner_API_Password_SoapHeaderKeyNotFound.</p> <p>Description: The Partner_API_Account_Pwd key is not present in the ApplicationContext element of the SOAP header.</p> <p>Input parameter: <i>ApplicationContext/Partner_API_Account_Pwd</i>.</p>
MMC_57	<p>Error name: Partner_API_AccountID_SoapHeaderValueNotFound.</p> <p>Description: The Partner_API_Account_ID value in the ApplicationContext element of the SOAP header is empty.</p> <p>Input parameter: <i>ApplicationContext/Partner_API_Account_ID</i>.</p>
MMC_58	<p>Error name: Partner_API_Password_SoapHeaderValueNotFound.</p> <p>Description: The Partner_API_Account_Pwd value in the ApplicationContext element of the SOAP header is empty.</p> <p>Input parameter: <i>ApplicationContext/Partner_API_Account_Pwd</i>.</p>
MMC_63	<p>Error name: CultureNameParameterKeyNotFound.</p> <p>Description: The cultureName parameter was not found in the SOAP message.</p> <p>Input parameter: <i>parameters/cultureName</i>.</p>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_64	<p>Error name: CultureNameParameterValueNotFound.</p> <p>Description: The value of the cultureName parameter was not found.</p> <p>Input parameter: <i>parameters/cultureName</i>.</p>
MMC_66	<p>Error name: AudioParameterValueIsEmpty.</p> <p>Description: The value of the audioConfEnabled parameter is empty.</p> <p>Input parameter: <i>parameters/audioConfEnabled</i>.</p>
MMC_67	<p>Error name: AudioParameterBadValue.</p> <p>Description: The value of the audioConfEnabled parameter is not valid.</p> <p>Input parameter: <i>parameters/audioConfEnabled</i>.</p>
MMC_73	<p>Error name: AudioReservationFailed.</p> <p>Description: The audio reservation failed.</p> <p>Input parameter: <i>parameters/audioConfEnabled = true</i>.</p>
MMC_75	<p>Error name: AudioConferenceForbidden.</p> <p>Description: The audio conference is forbidden to this contract.</p> <p>Input parameter: <i>parameters/audioConfEnabled = true</i>.</p>
MMC_78	<p>Error name: AuthenticationBadPassword.</p> <p>Description: The Partner_API_Account_Pwd value in the ApplicationContext element of the SOAP header is not correct.</p> <p>Input parameter: <i>ApplicationContext/Partner_API_Account_Pwd</i>.</p>
MMC_79	<p>Error name: AuthenticationFailed.</p> <p>Description: The Partner_API_Account_ID value and/or the Partner_API_Account_Pwd value in the ApplicationContext element of the SOAP header are/is not correct.</p> <p>Input parameter: <i>ApplicationContext/Partner_API_Account_ID +Partner_API_Account_Pwd</i>.</p>
MMC_80	<p>Error name: AuthenticationUserBlocked.</p> <p>Description: This service account is blocked.</p> <p>Input parameter: <i>ApplicationContext/Partner_API_Account_ID +Partner_API_Account_Pwd</i>.</p>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_81	<p>Error name: AuthenticationContractBlocked.</p> <p>Description: The contract corresponding to this service account is blocked.</p> <p>Input parameter: <i>ApplicationContext</i> /<i>Partner_API_Account_ID</i> +<i>Partner_API_Account_Pwd</i>.</p>
MMC_82	<p>Error name: UserBadPasswordBlockedOnNextTry.</p> <p>Description: The service account will be blocked if the next authentication attempt fails.</p> <p>Input parameter: <i>ApplicationContext</i> /<i>Partner_API_Account_ID</i> +<i>Partner_API_Account_Pwd</i>.</p>
MMC_85	<p>Error name: NullGetConferencesListInput.</p> <p>Description: Input parameter is null.</p> <p>Input parameter: <i>getConferencesListInput</i></p>
MMC_86	<p>Error name: InvalidGetConferencesListInputStartDateTime.</p> <p>Description: Start date time is not valid. It must be set between T - 6 monthes and T + 1 year where T is current date time.</p> <p>Input parameter: <i>getConferencesListInput /startDateTime</i></p>
MMC_87	<p>Error name: InvalidGetConferencesListInputEndDateTime.</p> <p>Description: End date time is not valid. It must be set between T - 6 monthes and T + 1 year where T is current date time.</p> <p>Input parameter: <i>getConferencesListInput /endDateTime</i></p>
MMC_88	<p>Error name: InvalidGetConferencesListInputDuration.</p> <p>Description: Start date time is greater than end date time.</p> <p>Input parameter: <i>getConferencesListInput /startDateTime,endDateTime</i></p>
MMC_89	<p>Error name: VisibillityParameterBadValue.</p> <p>Description: Visibility parameter value is not valid.</p> <p>Input parameter: <i>parameters /conferenceVisibility</i>.</p>
MMC_90	<p>Error name: VisibillityParameterEmptyValue.</p> <p>Description: Visibility parameter value is empty.</p> <p>Input parameter: <i>parameters /conferenceVisibility</i>.</p>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_91	<p>Error name: AutoLaunchedParameterEmptyValue.</p> <p>Description: Auto launch parameter is empty.</p> <p>Input parameter: <i>parameters /conferenceAutoLaunched</i></p>
MMC_92	<p>Error name: AutoLaunchedParameterBadValue.</p> <p>Description: Auto launch parameter is not valid.</p> <p>Input parameter: <i>parameters /conferenceAutoLaunched</i></p>
MMC_93	<p>Error name: AutoLaunchedDurationParameterBadValue.</p> <p>Description: Auto launch duration parameter is not valid.</p> <p>Input parameter: <i>parameters /conferenceAutoLaunchedDuration</i></p>
MMC_94	<p>Error name: AutoLaunchedDurationParameterEmptyValue.</p> <p>Description: Auto launch duration parameter is empty.</p> <p>Input parameter: <i>parameters /conferenceAutoLaunchedDuration</i></p>
MMC_95	<p>Error name: AutoLaunchedDurationWithoutAutoLaunchedParameterValue.</p> <p>Description: Auto launch duration parameter is not allowed without auto launch parameter.</p> <p>Input parameter: <i>parameters /conferenceAutoLaunched,conferenceAutoLaunchedDuration</i></p>
MMC_96	<p>Error name: AutoLaunchedWithoutAutoLaunchedDurationParameterValue.</p> <p>Description: Auto launch parameter is not allowed without auto launch duration parameter.</p> <p>Input parameter: <i>parameters /conferenceAutoLaunched,conferenceAutoLaunchedDuration</i></p>
MMC_98	<p>Error name: AutoLaunchedForbidden.</p> <p>Description: If the contract does not allow auto launched mode, this exception will be raised if an attempt is made to auto launch the conference.</p> <p>Input parameter: <i>parameters /conferenceAutoLaunched.</i></p>
MMC_99	<p>Error name: WebcamParameterEmptyValue.</p> <p>Description: Webcam parameter value is empty.</p> <p>Input parameter: <i>parameters /conferenceWebcam.</i></p>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_100	<p>Error name: WebcamParameterBadValue.</p> <p>Description: Webcam parameter value is not valid.</p> <p>Input parameter: <i>parameters /conferenceWebcam</i>.</p>
MMC_101	<p>Error name: WebcamParameterRedefinitionForbidden.</p> <p>Description: If the contract does not allow the Webcam option, this exception will be raised if an attempt to create conference with this option is made.</p> <p>Input parameter: <i>parameters /conferenceWebcam</i>.</p>
MMC_102	<p>Error name: NullGetConferenceDetailsInput.</p> <p>Description: Input parameter is null.</p> <p>Input parameter: <i>getConferenceDetailsInput</i></p>
MMC_103	<p>Error name: InvalidConferenceIDDetailsInput.</p> <p>Description: Conference identifier parameter is not valid.</p> <p>Input parameter: <i>getConferenceDetailsInput /conferenceID</i></p>
MMC_104	<p>Error name: ConferenceIsDeleted.</p> <p>Description: Conference is deleted.</p> <p>Input parameter: <i>getConferenceDetailsInput</i></p>
MMC_105	<p>Error name: ConferenceIsNotInTheContract.</p> <p>Description: Conference is not in the contract of the user who made the request.</p> <p>Input parameter: <i>getConferenceDetailsInput</i></p>
MMC_106	<p>Error name: ConferenceNotFound.</p> <p>Description: Conference with specified identifier could not be found.</p> <p>Input parameter: <i>getConferenceDetailsInput</i></p>
MMC_107	<p>Error name: NullGetLicencesUsageInput.</p> <p>Description: Input parameter is null.</p> <p>Input parameter: <i>getLicencesUsageInput</i></p>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_108	<p>Error name: InvalidGetLicencesUsageInputStartDateTime.</p> <p>Description: Start date time is not valid. It must be set between T - 6 monthes and T + 1 year where T is current date time.</p> <p>Input parameter: <i>getLicencesUsageInput /startDateTime</i></p>
MMC_109	<p>Error name: InvalidGetLicencesUsageInputEndDateTime.</p> <p>Description: End date time is not valid. It must be set between T - 6 monthes and T + 1 year where T is current date time.</p> <p>Input parameter: <i>getLicencesUsageInput /endDateTime</i></p>
MMC_110	<p>Error name: InvalidGetLicencesUsageInputDuration.</p> <p>Description: Start date time is greater than end date time.</p> <p>Input parameter: <i>getLicencesUsageInput /startDateTime,endDateTime</i></p>
MMC_111	<p>Error name: AudioCultureParameterBadValue.</p> <p>Description: Audio culture parameter value is not valid.</p> <p>Input parameter: <i>parameters /audioCulture.</i></p>
MMC_112	<p>Error name: AudioTypeParameterBadValue.</p> <p>Description: Audio type parameter value is not valid.</p> <p>Input parameter: <i>parameters /audioType.</i></p>
MMC_113	<p>Error name: AudioAccessNumberParameterBadValue.</p> <p>Description: Audio access number parameter value is not valid.</p> <p>Input parameter: <i>parameters /audioAccessNumber.</i></p>
MMC_114	<p>Error name: AudioRoomNumberParameterBadValue.</p> <p>Description: Audio room number parameter value is not valid.</p> <p>Input parameter: <i>parameters /audioRoomNumber.</i></p>
MMC_115	<p>Error name: AudioCodeParameterBadValue.</p> <p>Description: Audio code parameter value is not valid.</p> <p>Input parameter: <i>parameters /audioCode.</i></p>
MMC_116	<p>Error name: InvalidCTAccessNumber.</p> <p>Description: Access number is not valid for ConferenceTelephone audio type.</p> <p>Input parameter: <i>parameters /audioType,audioAccessNumber</i></p>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_117	<p>Error name: InvalidCTCode.</p> <p>Description: Access code is not valid for a ConferenceTelephone audio type.</p> <p>Input parameter: <i>parameters/audioType, audioCode</i></p>
MMC_119	<p>Error name: InvalidCTNEAccessNumber.</p> <p>Description: Access number is not valid for a CTNE audio type.</p> <p>Input parameter: <i>parameters/audioType, audioAccessNumber</i></p>
MMC_120	<p>Error name: InvalidCTNERoomNumber.</p> <p>Description: Room number is not valid for a CTNE audio type.</p> <p>Input parameter: <i>parameters/audioType, audioRoomNumber</i></p>
MMC_121	<p>Error name: InvalidCTNECode.</p> <p>Description: Audio code is not valid for a CTNE audio type.</p> <p>Input parameter: <i>parameters/audioType, audioCode</i></p>
MMC_122	<p>Error name: InvalidCTNEAccessNumberandcode.</p> <p>Description: Audio access number &amp; code is not valid for a CTNE audio type.</p> <p>Input parameter: <i>parameters/audioType, audioAccessNumber, audioCode</i></p>
MMC_123	<p>Error name: AudioTypeParameterEmptyValue.</p> <p>Description: Audio type parameter is empty.</p> <p>Input parameter: <i>parameters/audioType</i></p>
MMC_124	<p>Error name: AudioAccessNumberParameterEmptyValue.</p> <p>Description: Audio access number parameter is empty.</p> <p>Input parameter: <i>parameters/audioAccessNumber</i></p>
MMC_125	<p>Error name: AudioRoomNumberParameterEmptyValue.</p> <p>Description: Audio room number parameter is empty.</p> <p>Input parameter: <i>parameters/audioRoomNumber</i></p>
MMC_126	<p>Error name: AudioCodeParameterEmptyValue.</p> <p>Description: Audio code parameter is empty.</p> <p>Input parameter: <i>parameters/audioCode</i></p>

Code	Detail
MMC_127	<p>Error name: AudioCodeParameterRequired.</p> <p>Description: Audio code parameter is required.</p> <p>Input parameter: <i>parameters/audioCode</i></p>
MMC_128	<p>Error name: AudioAccessNumberParameterRequired.</p> <p>Description: Audio access number parameter is required.</p> <p>Input parameter: <i>parameters/audioAccessNumber</i></p>
MMC_129	<p>Error name: AudioRoomNumberParameterRequired.</p> <p>Description: Audio room number parameter is required.</p> <p>Input parameter: <i>parameters/audioRoomNumber</i></p>
MMC_130	<p>Error name: AudioTypeParameterRequired.</p> <p>Description: Audio type parameter is required.</p> <p>Input parameter: <i>parameters/audioType</i></p>
MMC_131	<p>Error name: CTForbidden.</p> <p>Description: If the contract does not allow the ConferenceTelephone audio type, this exception will be raised if an audio book attempt is made.</p> <p>Input parameter: <i>parameters/audioType</i></p>
MMC_132	<p>Error name: CTNEForbidden.</p> <p>Description: If the contract does not allow the CTNE audio type, this exception will be raised if an audio book attempt is made.</p> <p>Input parameter: <i>parameters/audioType</i></p>
MMC_133	<p>Error name: ChatParameterEmptyValue.</p> <p>Description: Chat parameter value is empty.</p> <p>Input parameter: <i>parameters/conferenceChat</i>.</p>
MMC_134	<p>Error name: ChatParameterBadValue.</p> <p>Description: Chat parameter value is not valid.</p> <p>Input parameter: <i>parameters/conferenceChat</i>.</p>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_135	<p>Error name: ChatParameterRedefinitionForbidden.</p> <p>Description: If the Chat option is not allowed, this exception will be raised if an attempt to create conference with this option is made.</p> <p>Input parameter: <i>parameters/conferenceChat</i>.</p>
MMC_136	<p>Error name: AudioRoomNumberParameterUnauthorized.</p> <p>Description: Audio room number is not allowed in case of ConferenceTelephone audio type.</p> <p>Input parameter: <i>parameters/audioRoomNumber</i></p>
MMC_137	<p>Error name: AudioValueParameterUnauthorized.</p> <p>Description: Parameters associated with ConferenceTelephone or CTNE audio type are not allowed in case of APAC audio type.</p> <p>Input parameter: <i>parameters/audioType</i></p>
MMC_138	<p>Error name: AudioCultureParameterUnauthorized.</p> <p>Description: Audio culture parameter is not allowed.</p> <p>Input parameter: <i>parameters/audioCulture</i></p>
MMC_139	<p>Error name: AudioCultureParameterRequired.</p> <p>Description: Audio culture parameter is required.</p> <p>Input parameter: <i>parameters/audioCulture</i></p>
MMC_140	<p>Error name: IncompatibleValueBetweenAudioAskedAndAudioType.</p> <p>Description: The parameters audioType and audioConfEnabled should not be filled at the same time. Only one of two keys can be defined.</p> <p>Input parameter: <i>parameters/audioCulture</i></p>
MMC_141	<p>Error name: AudioCultureParameterEmptyValue.</p> <p>Description: Audio culture parameter is empty.</p> <p>Input parameter: <i>parameters/audioCulture</i></p>
MMC_500	<p>Error name: NullCreateInstantaneousAudioConference</p> <p>Description: the createInstantaneousAudioConferenceInput object is null</p> <p>Input parameter: <i>parameters/</i></p>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_501	Error name: NullAudioConferenceInput . Description: the audioConferenceInput object is null Input parameter: <i>createScheduledAudioConferenceInput</i>
MMC_502	Error name: NullAudioConferenceInputName. Description: the structure containing the conference name is not provided Input parameter: audioConferenceInput / audioConferenceName
MMC_503	Error name: EmptyAudioConferenceInputName. Description: the conference name is empty Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceName</i>
MMC_504	Error name: NullAudioConferenceInputHost . Description: the audioConferenceHost is null Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceHost</i>
MMC_505	Error name: NullAudioConferenceInputAttendee . Description: audioConferenceHost object is null Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceAttendeesList</i>
MMC_506	Error name: NullAudioConferenceInputHostFirstName . Description: the structure containing the host firstname is empty Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceHost</i> / <i>attendeeFirstName</i>
MMC_507	Error name: NullAudioConferenceInputAttendeeFirstName. Description: the structure containing the attendee firsnme Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceAttendeesList</i> / <i>attendeeFirstName</i>
MMC_508	Error name: EmptyAudioConferenceInputHostFirstName . Description: Host firtnme is empty Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceHost</i> / <i>attendeeFirstName</i>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_509	<p>Error name: EmptyAudioConferenceInputAttendeeFirstName.</p> <p>Description: Attendee firstname is empty</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceAttendeesList</i> / <i>attendeeFirstName</i></p>
MMC_510	<p>Error name: NullAudioConferenceInputHostLastName .</p> <p>Description: The structure holding the host name informations is null</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceHost</i> / <i>attendeeLastName</i></p>
MMC_511	<p>Error name: NullAudioConferenceInputAttendeeLastName .</p> <p>Description: The structure holding the attendee name informations is null</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceAttendeesList</i> / <i>attendeeLastName</i></p>
MMC_512	<p>Error name: EmptyAudioConferenceInputHostLastName .</p> <p>Description: host name is empty</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceHost</i> / <i>attendeeLastName</i></p>
MMC_513	<p>Error name: EmptyAudioConferenceInputAttendeeLastName .</p> <p>Description: Attendee name is empty</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceAttendeesList</i> / <i>attendeeLastName</i></p>
MMC_514	<p>Error name: NullAudioConferenceInputHostMail .</p> <p>Description: the structure holding the host mail is null</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceHost</i> / <i>attendeeMail</i></p>
MMC_515	<p>Error name: NullAudioConferenceInputAttendeeMail .</p> <p>Description: the structure holding the attendee mail is null</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceAttendeesList</i> / <i>attendeeMail</i></p>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_516	<p>Error name: EmptyAudioConferenceInputHostMail .</p> <p>Description: host mail is empty</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceHost</i> / <i>attendeeMail</i></p>
MMC_517	<p>Error name: EmptyAudioConferenceInputAttendeeMail .</p> <p>Description: attendee mail is empty</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceAttendeesList</i> / <i>attendeeMail</i></p>
MMC_518	<p>Error name: NullAudioConferenceInputHostPhoneNumber .</p> <p>Description: the structure holding the host phone number is empty</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceHost</i> / <i>attendeePhoneNumber</i></p>
MMC_519	<p>Error name: NullAudioConferenceInputAttendeePhoneNumber .</p> <p>Description: the structure holding the attendee phone number is empty</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceAttendeesList</i> / <i>attendeePhoneNumber</i></p>
MMC_520	<p>Error name: EmptyAudioConferenceInputHostPhoneNumber .</p> <p>Description: the host phone number is empty</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceHost</i> / <i>attendeePhoneNumber</i></p>
MMC_521	<p>Error name: EmptyAudioConferenceInputAttendeePhoneNumber .</p> <p>Description: the attendee phone number is empty</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceAttendeesList</i> / <i>attendeePhoneNumber</i></p>
MMC_522	<p>Error name: InvalidAudioConferenceInputHostPhoneNumber .</p> <p>Description: incorrect host phone number format</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceHost</i> / <i>attendeePhoneNumber</i></p>
MMC_523	<p>Error name: InvalidAudioConferenceInputAttendeePhoneNumber .</p> <p>Description: incorrect attendee phone number format</p> <p>Input parameter: <i>audioConferenceInput</i> / <i>audioConferenceAttendeesList</i> / <i>attendeePhoneNumber</i></p>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_524	Error name: <code>AudioGetManagerFailed</code> . Description: Internal error with APAC audio system
MMC_525	Error name: <code>AudioOpenConferenceFailed</code> . Description: Fail to open audio conference
MMC_526	Error name: <code>NullCreateScheduledAudioConference</code> . Description: the <code>createScheduledAudioConferenceInput</code> is not provided in method call Input parameter: <code>parametersaudioConferenceInput</code>
MMC_527	Error name: <code>NullScheduledAudioConferenceInput</code> . Description: the <code>scheduledAudioConferenceInfo</code> object is not provided on method call Input parameter: <code>scheduledAudioConferenceInfo</code>
MMC_528	Error name: <code>scheduledAudioConferenceInfo / startDateTime</code> . Description: the conference start date is outdated Input parameter: <code>scheduledAudioConferenceInfo / startDateTime</code>
MMC_529	Error name: <code>InvalidScheduledAudioConferenceInfoInputEndDateTime</code> . Description: the conference end date is outdated Input parameter: <code>scheduledAudioConferenceInfo / endDateTime</code>
MMC_530	Error name: <code>InvalidScheduledAudioConferenceInfoInputDuration</code> . Description: the conference end date is anterior to the start date Input parameter: <code>scheduledAudioConferenceInfo / startDateTime / endDateTime</code>
MMC_531	Error name: <code>NullAudioConferenceInputPassword</code> . Description: the structure holding the conference password is null Input parameter: <code>audioConferenceInput / audioConferencePassword</code>
MMC_532	Error name: <code>EmptyAudioConferenceInputPassword</code> . Description: conference password is empty Input parameter: <code>audioConferenceInput / audioConferencePassword</code>

Multimedia Conference API for .NET - Error codes

Code	Detail
MMC_533	<p>Error name: <code>MinLengthAudioConferenceInputPassword</code> .</p> <p>Description: conference password too short (minimum 4 character)</p> <p>Input parameter: <code>audioConferenceInput / audioConferencePassword</code></p>
MMC_534	<p>Error name: <code>AudioConferenceStartDateReached</code> .</p> <p>Description: the audio conference start date is outdated</p> <p>Input parameter: <code>audioconferenceConnection / id</code></p>
MMC_535	<p>Error name: <code>AudioConferenceStartBeforeOneHour</code> .</p> <p>Description: the conference must be started at least one hour before planned hour</p> <p>Input parameter: <code>audioconferenceConnection / id</code></p>
MMC_536	<p>Error name: <code>ApacInteractionError</code> .</p> <p>Description: internal error with Apac audio system</p>
MMC_537	<p>Error name: <code>NullModifyScheduledAudioConference</code> .</p> <p>Description: the <code>modifyScheduledAudioConferenceInput</code> object is not provided on method call</p> <p>Input parameter: <code>modifyScheduledAudioConferenceInput</code></p>
MMC_538	<p>Error name: <code>WebPilotAlreadyOpened</code> .</p> <p>Description: The steering of this audio conference is already open</p>
MMC_539	<p>Error name: <code>SomeoneAlreadyInConference</code> .</p> <p>Description: Someone is already in the conference</p>
MMC_540	<p>Error name: <code>TryConferenceAttendeesLimitReached</code> .</p> <p>Description: To mutch attendees in conference for a "try" service account</p> <p>Input parameter: <code>audioConferenceInput / audioConferenceAttendeesList</code></p>
MMC_541	<p>Error name: <code>TryRestrictionsFailed</code> .</p> <p>Description: fail to validate the restrictions for audio conferences created with a try service account.</p>
MMC_542	<p>Error name: <code>InvalidRealDuration</code> .</p> <p>Description: conference duration must not exceed 24 hours</p> <p>Input parameter: <code>audioConferenceInput / realDuration</code></p>

Code	Detail
MMC_543	<p>Error name: <code>NullStartScheduledAudioConference</code> .</p> <p>Description: the <code>startScheduledAudioConferenceInput</code> object is not provided on method call</p> <p>Input parameter: <code>startScheduledAudioConferenceInput</code></p>

## 1. Technical error

### 1.1. Metadata

**Table A.2. Metadata errors**

Code	Detail
MET0001	Context Metadata {0} does not exist
MET0002	Context Metadata {0} already exists
MET0008	Metadata value {0} does not exist
MET0009	Metadata value {0} already exists
MET0011	Context Metadata Key {0} does not exist
MET0012	Context Metadata Key {0} already exist

### 1.2. Policy

**Table A.3. Policy errors**

Code	Detail
MED0001	Missing mandatory parameter: {0}
MED0002	The required service is not activated
MED0003	The service account {0} is deactivated
MED0004	No subscription matches the API Service Account {0}
MED0005	The subscription is out of a valid period
MED0006	The quota is exceeded
MED0007	A mandatory metadata is missing: {0}
MED0008	All accesses are blocked for technical reasons
MED0009	Too much subscriptions match the API Service Account {0}
MED0010	The Business Service {0} is not linked to the Service Provider {1}
MED0011	Quota Exceeded
MED0012	There is no SLM primary Server available !
MED0013	The mandatory inbound metadata {0} is not present
MED0014	The inbound metadata {0} is mandatory and the value {1} is not found

## 1.3. Gateway

**Table A.4. Gateway errors**

Code	Detail
DPW0001	Unknown error
DPW0002	Error occurred during SOAP validation
DPW0003	Error in metadata declaration
DPW0004	Metadata key is not valid
DPW0005	Metadata value is not valid
DPW0006	Mediation engine connection error
DPW0007	Unknown access key
DPW0008	Failed to establish a backside connection
DPW0009	Correlation identifier is missing
DPW0010	Correlation timestamp is missing
DPW0011	Metadata number between upper and lower limit
DPW0012	Duplicated metadata key
DPW0013	Back-end response cannot be parsed

## 1.4. Connectivity

**Table A.5. Connectivity errors**

Code	Detail
REQ.BACKSIDE_CONNECTION_FAILURE	Failed to establish a backside connection with the back-end service  (500) Network connection error between technical platform and WSP server.
GENERAL	Internal Error  (500) SOAP message specify an unknown operation name like "operation_C" or SOAP message has a missing '>' for the closing tag soapenv:Envelope.
REQ.SERVICE_NOT_FOUND	The back-end service could not handle the request because it has not found any service corresponding to the received request  (500) Service is not available.
IOSW.UNKNOWN_ERROR	An unknown error has occurred during the processing of the request/response  (500) « Internal error » of the technical platform.

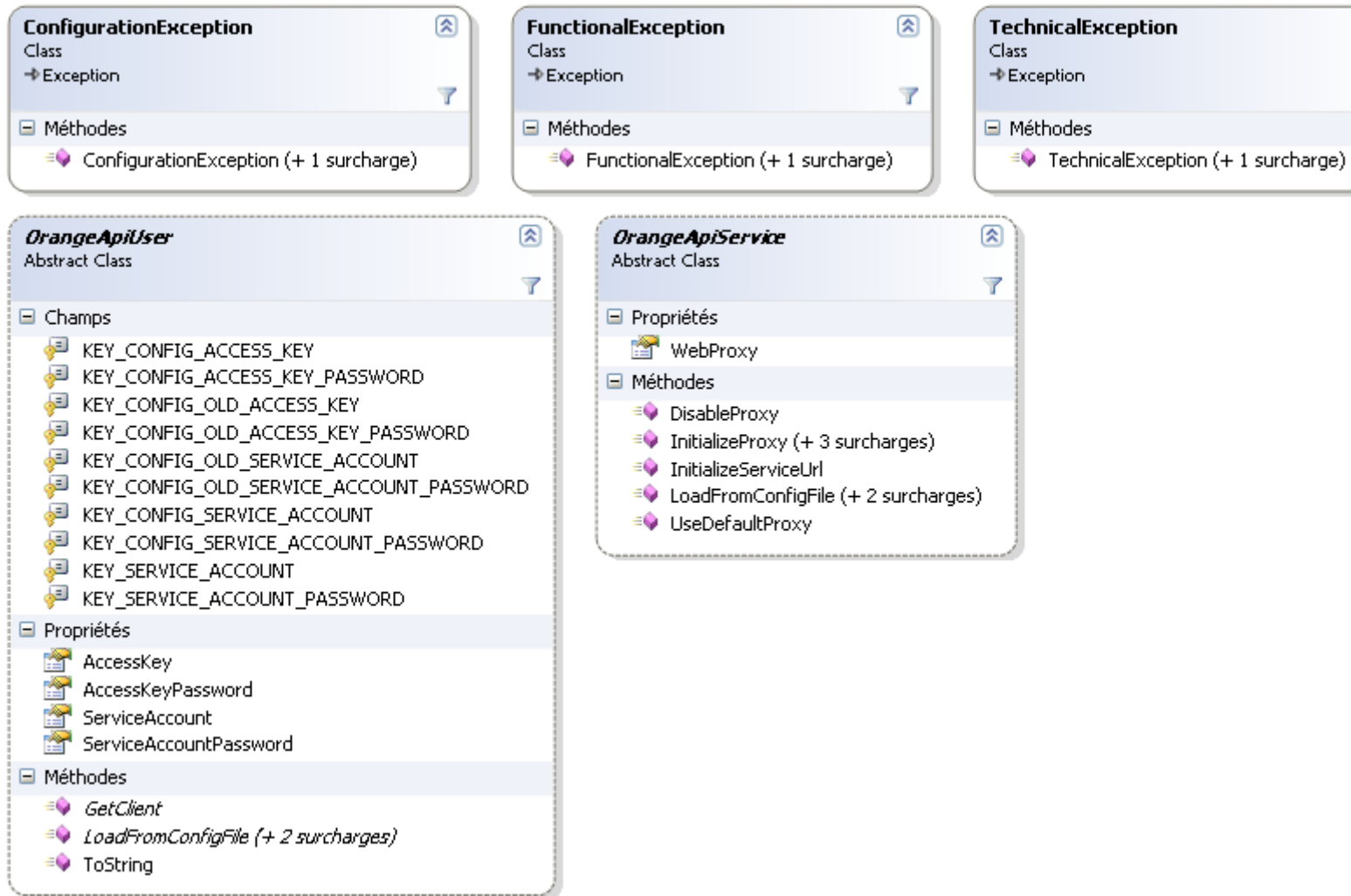
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Code	Detail
REQ.AUTHENTICATION_FAILURE	The credentials provided are not valid  (401) Unauthorized.
REQ.AUTORISATION_FAILURE	The client is not authorized to consume the requested service  (500).
REQ.SERVICE_AUTHENTICATION_FAILURE	The credentials provided by the service broker when connecting to the back-end service are not valid  (500).
REQ.SERVICE_AUTORISATION_FAILURE	The service broker is not authorized to consume the requested back-end service  (500).
REQ.SCHEMA_VALIDATION_ERROR	The request sent by the client does not conform to the xml schema of the service  (500) Schema Validation Error.
IOSW.XML_THREAT_ERROR	An xml threat was detected by the technical validation platform  XML Threat protection, attacks, XDoS.
MESSAGE_TOO_LARGE	The size of the request or response message is too large  XML Threat protection - Message too large.
REQ.SERVICE_INTERNAL_ERROR	The service failed to respond to the request because of an internal error  Server Internal error.

# Appendix B. Class diagrams

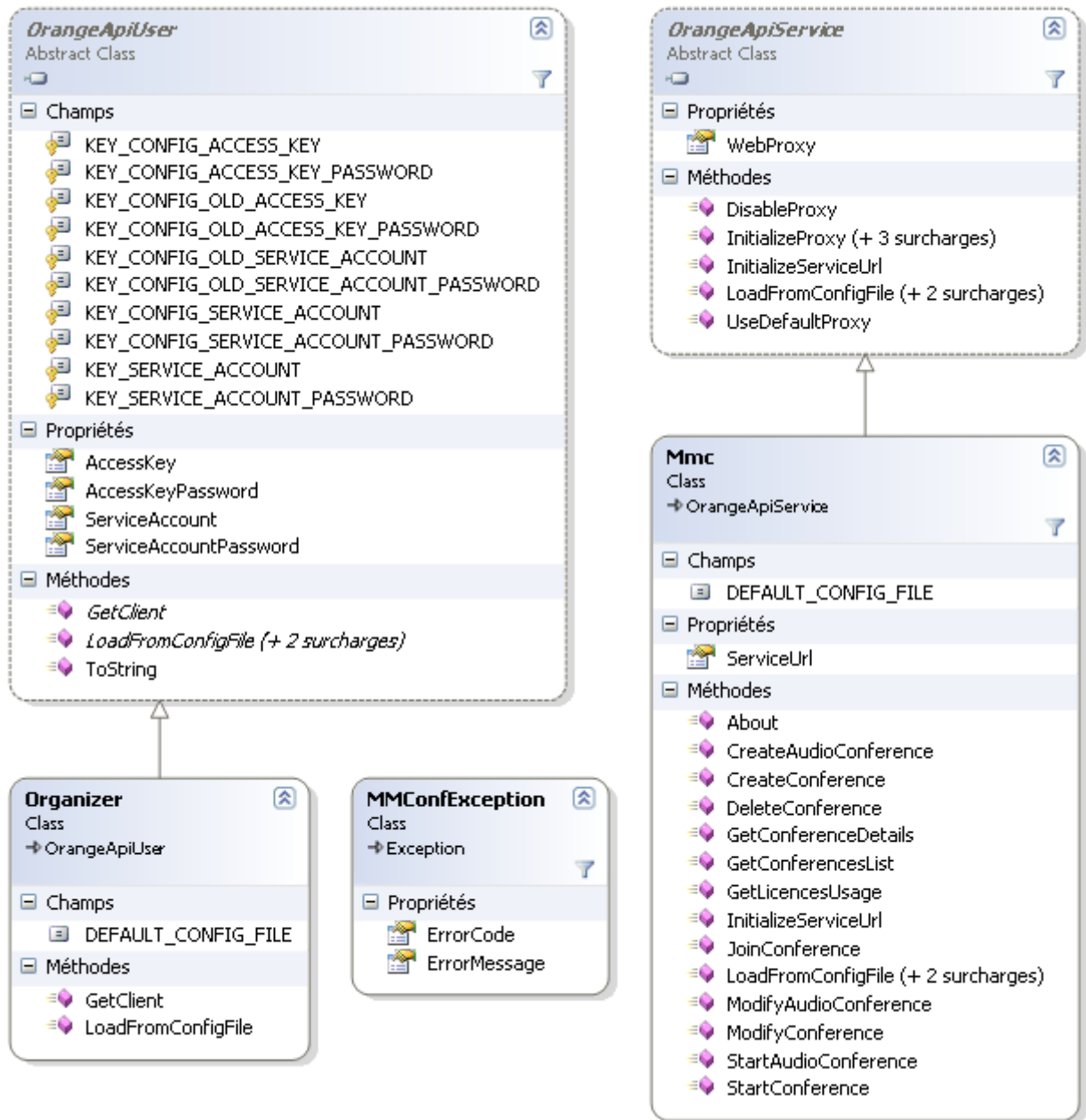
## 1. Orange.Api.Common namespace

Figure B.1. Orange.Api.Common Model



## 2. Orange.Api.MultimediaConference namespace

Figure B.2. Orange.Api.MultimediaConference Model



# 3. Orange.Api.MultimediaConference.BusinessData namespace

Figure B.3. Orange.Api.MultimediaConference.BusinessData Model

