Mida Deployment Guide

Mida C³ - Cloud Contact Center For Microsoft Teams

Document Version: 1.1

Solution certified for Microsoft Teams

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Document Information

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1.0	01/09/2021	First approved version of this manual	-	3.1.0
1.2	22/04/2022	Minor review	Add Multi-Tenants section	3.1.5

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1. Introduction

1.1 Legal Statements

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1.2 Preface

This document is part of the official documentation of Mida Solutions products and details functionalities, user interface, options, and working modes in detail. The system allows the user to configure all system functions using a simple and intuitive WEB interface. Please refer to the reference table for a complete list of documents relevant to system configuration.

1.3 Audience

The present document addresses both end-users and system administrators of the products.

1.4 Notations

This document highlights, where possible, the main parameters and operations through **bold** or *italics* text and all parts that might be critical during system configuration or use. Critical parts are also marked with the Warning symbol reported here on the left.

1.5 Operations Flow

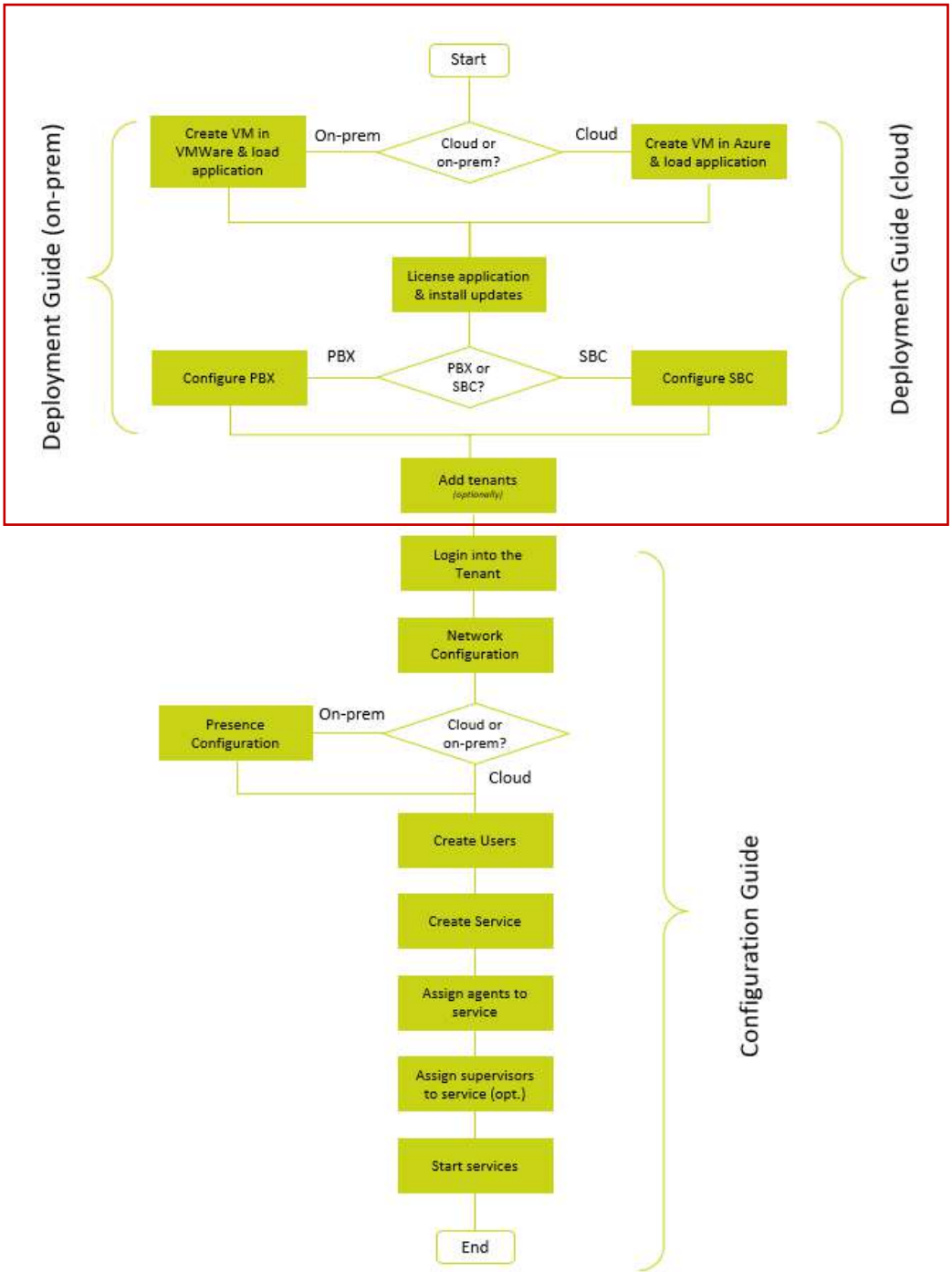
The flow chart represented below gives a step-by-step view of the actions required to complete set up Mida C^3 – Cloud Contact Center. This guide covers the initial part of the deployment, including the following logical steps:

- Creation of the VM in MS Azure
- Deployment of the C^3 – Cloud Contact Center image onto the VM
- Licensing of C^3 – Cloud Contact Center
- Installation of any required application update (may not be required)
- Configuration of the SBC

The second part, which covers the full configuration of the application, is detailed in another manual (see Mida C^3 – Configuration Guide - Azure)

The flow chart will be visible at various points along with this manual, to inform which step is being described.

This Guide is intended to help you deploy Mida Solutions' applications. Please be aware that in order to use Mida's products you should also complete the instructions included in the Configuration Guide of the product you purchased.



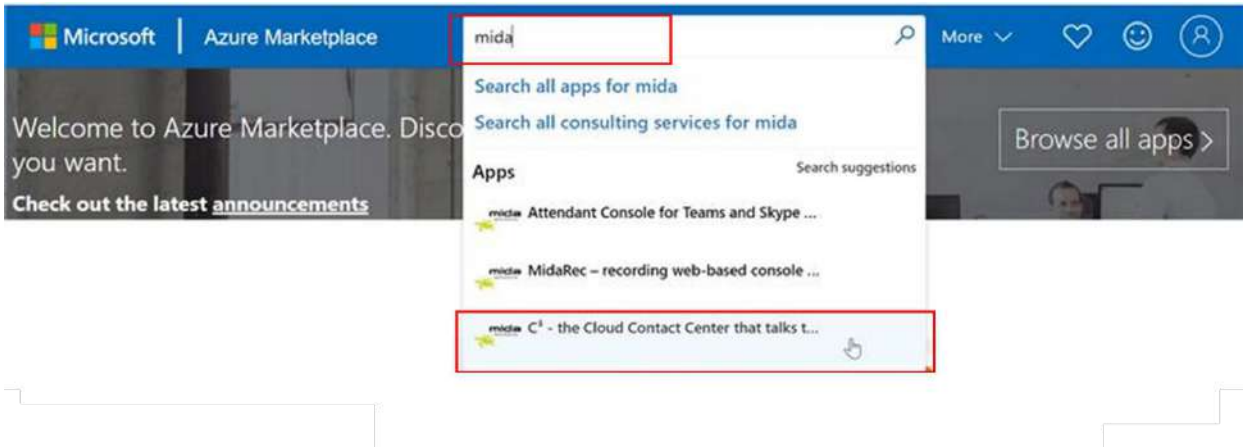
2. Deploying Mida C³ – Cloud Contact Center via Azure Marketplace

Deploying Mida C³ – Cloud Contact Center via Azure Marketplace is very simple as it comes almost entirely pre-configured.

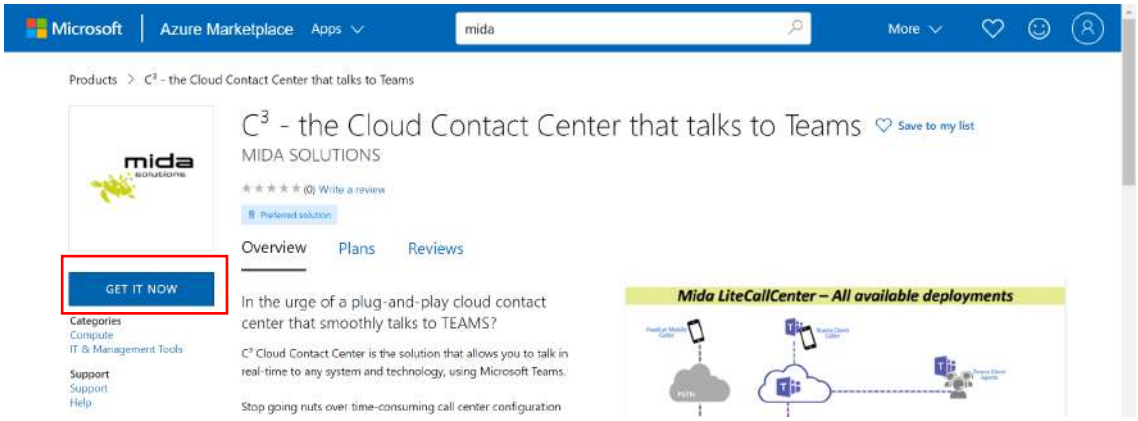
Follow the next steps to complete the deployment successfully.

2.1 Azure Marketplace

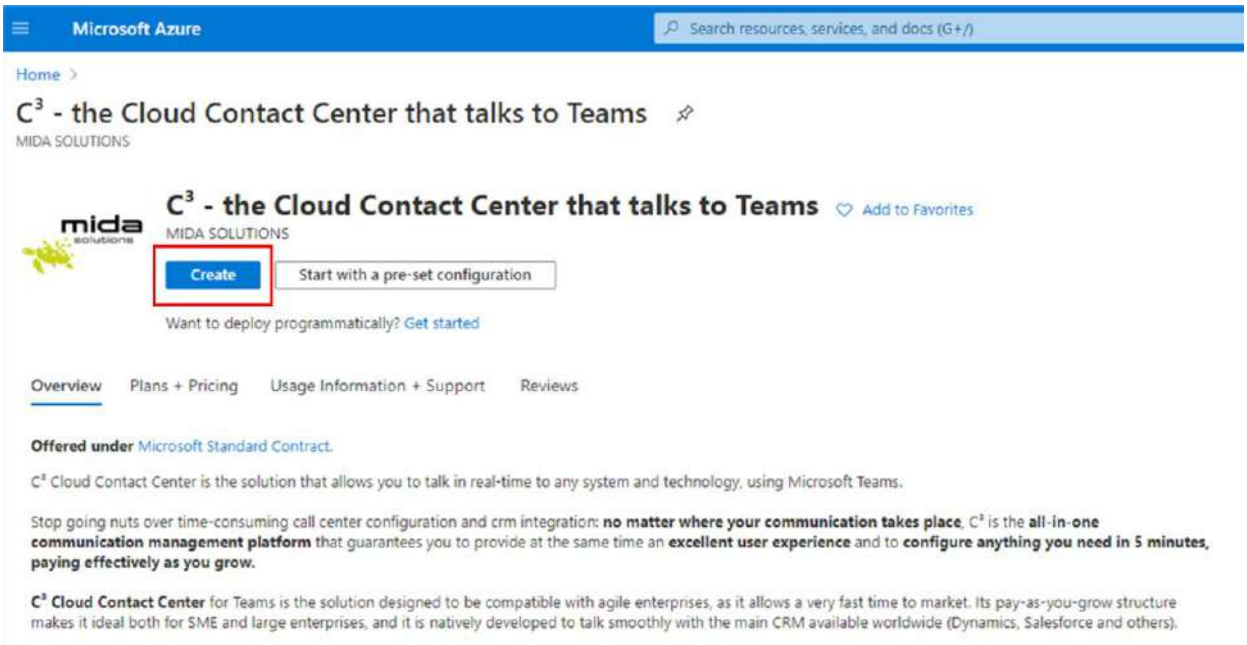
1. Access the Azure Marketplace;
2. In the menu on the top, search for ***Mida C³ – Cloud Contact Center***



3. Click on ***Mida C³ – the Cloud Contact Center that talks to Teams***,
4. Click on **Get it now** and then on continue



5. Click on ***Create***;



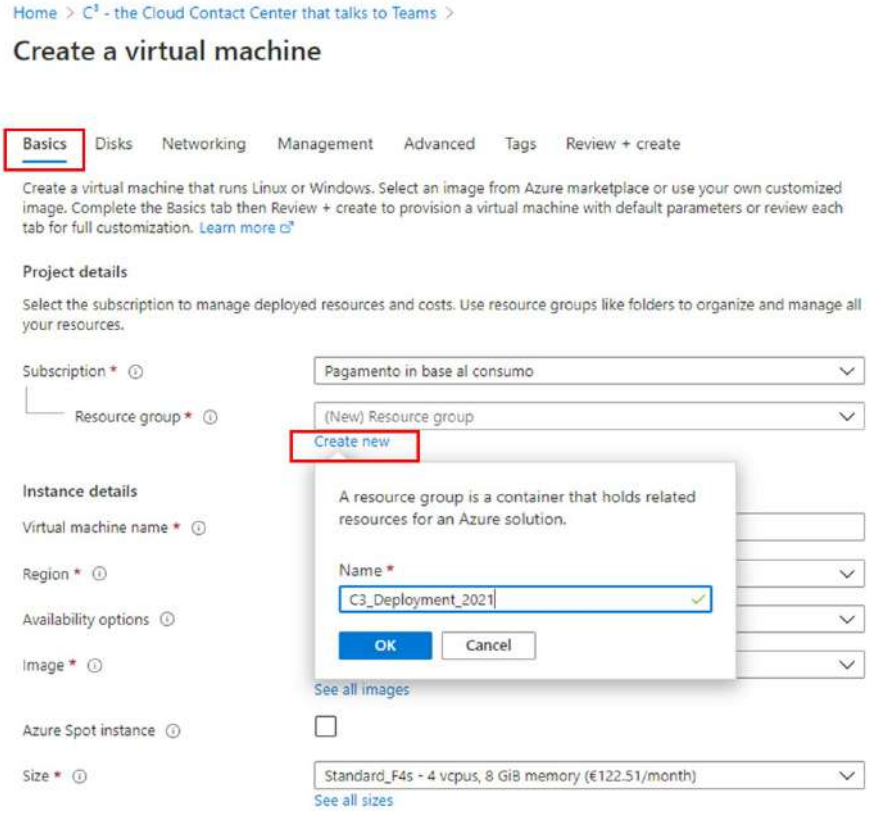
The procedure will guide you through the steps required to create your virtual machine in Microsoft Azure and install Mida C³ - Cloud Contact Center. The display will show a window with several tabs: each tab is a step forward in the deployment process, as detailed in the next Sections.

Note: the whole procedure assumes you can create a Virtual Machine in Microsoft Azure: this usually requires some form of contract to be signed with Microsoft.

2.2 Basic

In the ***Basic*** tab, configure the fields as:

a. ***Resource group***: select the desired resource group or create a new group (as in the figure below);

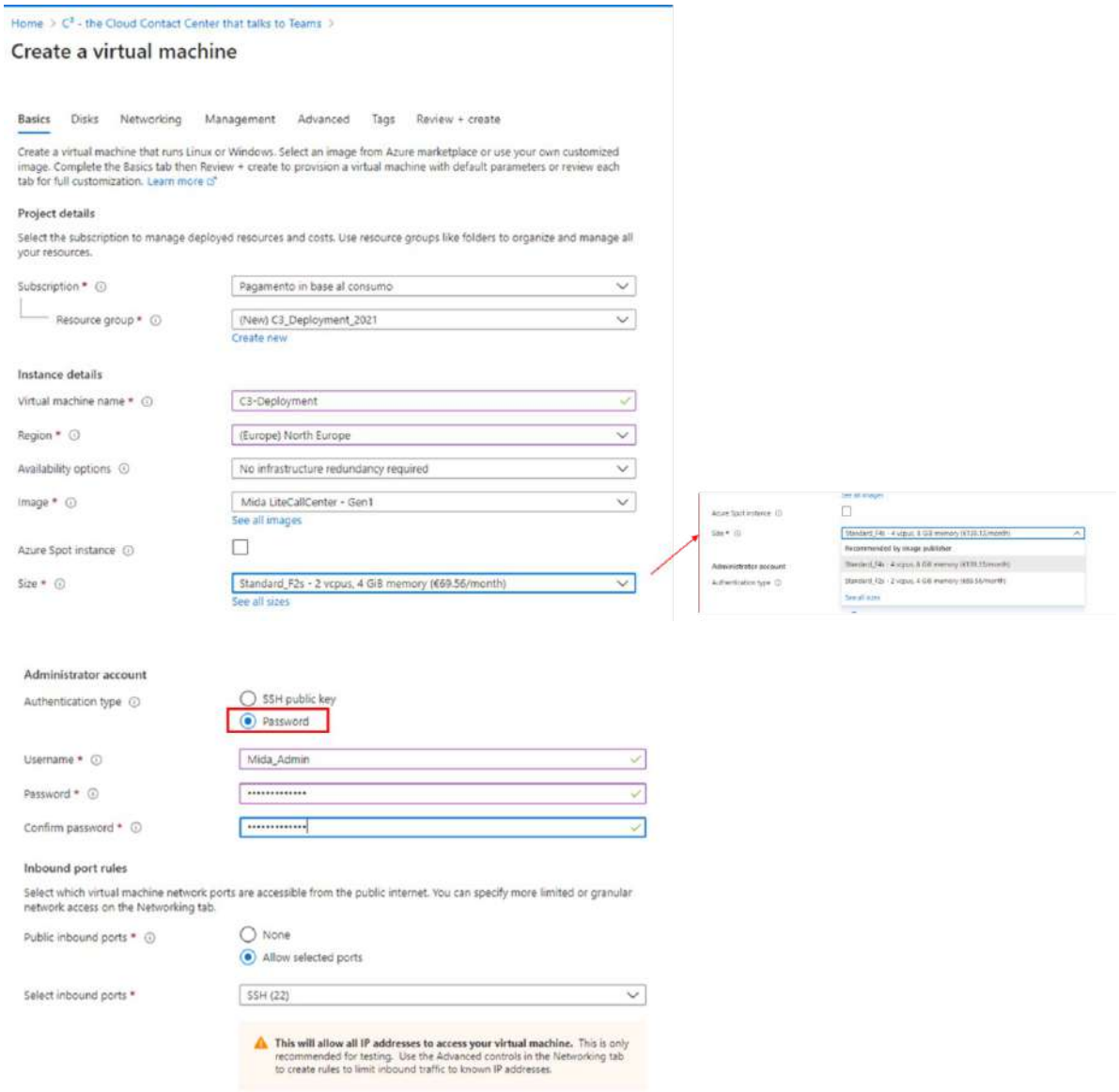


b. ***Virtual machine name***: insert your preferred name (in the figure below "*C³-Deployment")*;
c. ***Region***: select your Country area
d. ***Size***: this field should be automatically set to the minimum required size for the C³ – Cloud Contact Center to work. The table below gives further information about the VM specifications based on the requirements of the contact center in terms of agents and channels. In case of doubts, please contact support@midasolutions.com to verify the best size for your needs.

VM configuration	Max number of simultaneously logged agents + supervisors	Max number of channels
F2S (2vCPU, 4GB RAM, 160GB vHDD)	200	150
F4S (4vCPU, 8GB RAM, 320GB vHDD)	400	300
F8S (8vCPU, 16GB RAM, 640GB vHDD)	800	600

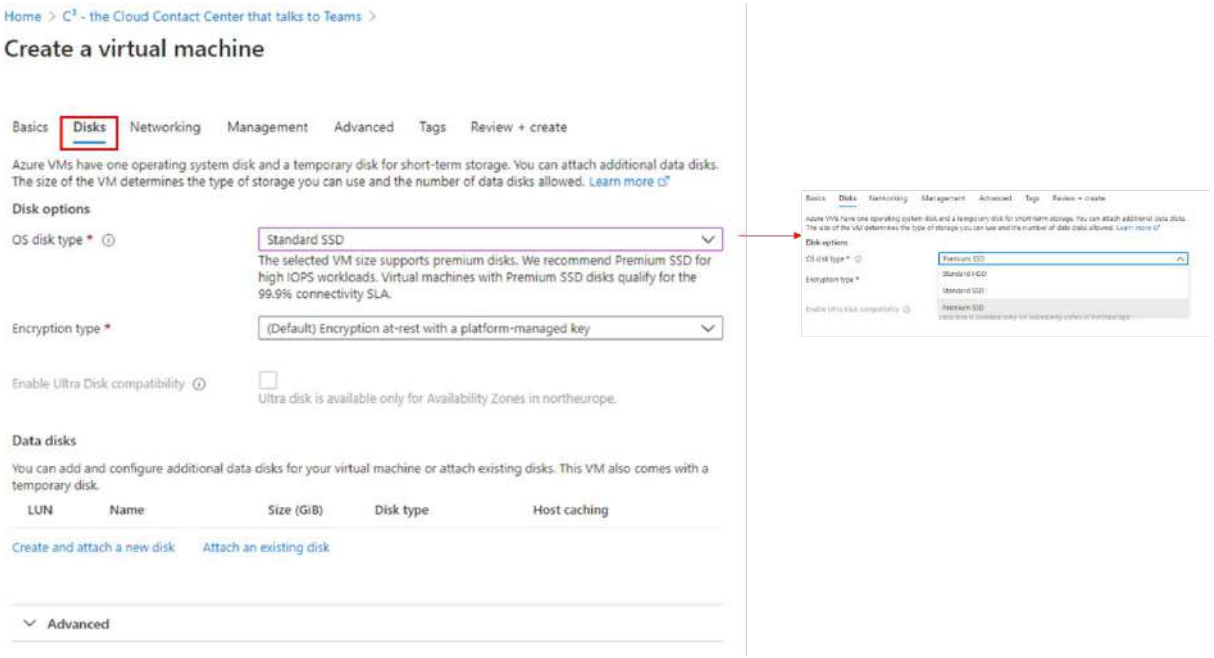
e. ***Authentication type***: select ***Password*** and insert the desired credentials.

Leave the other field by default.



2.3 Disks

1. Proceed by clicking on ***Next: Disks*** and select the desired ***OS disk type***. No other settings are required.



Note: this step creates a minimal disk that is good enough for PoC or trial purposes, but would not be sufficient for a fully operational system. The table below provides the guidelines for sizing the disk based on the number of channels and users. Please refer to your Mida Solutions reference person if you have any doubt about its interpretation or if your requirements are not included.

VM configuration	Max number of simultaneously logged agents + supervisors	Max number of channels
2vCPU, 4GB RAM, 160GB vHDD	200	150
4vCPU, 8GB RAM, 320GB vHDD	400	300
8vCPU, 16GB RAM, 640GB vHDD	800	600

If you would also deploy Mida Recorder, the disk size should be selected based on the traffic volume and retention period. As a rule of thumb, 1 Erlang of traffic under an average usage (8 busy hours/day) requires about 8 Gbyte of storage every month (30 days). You may try to use this rule to size the additional disk required by the recorder, but it's strongly suggested that you consult your Mida Solutions reference person to get advice.

To compute the required disk size, follow these steps:

- Determine the peak Erlang rate **E** of your network. This value is used to license the recorder, so it should be available from the license itself or by contacting your Mida Solutions representative
- Determine the number of busy hours **BH** for your network. This is the number of hours where you expect to have traffic to be recorded
- Determine the retention period **RP** for the recorded calls, i.e. how long such calls must be kept in the Recorder's storage

- Compute the required storage (in GB) using the following formula:

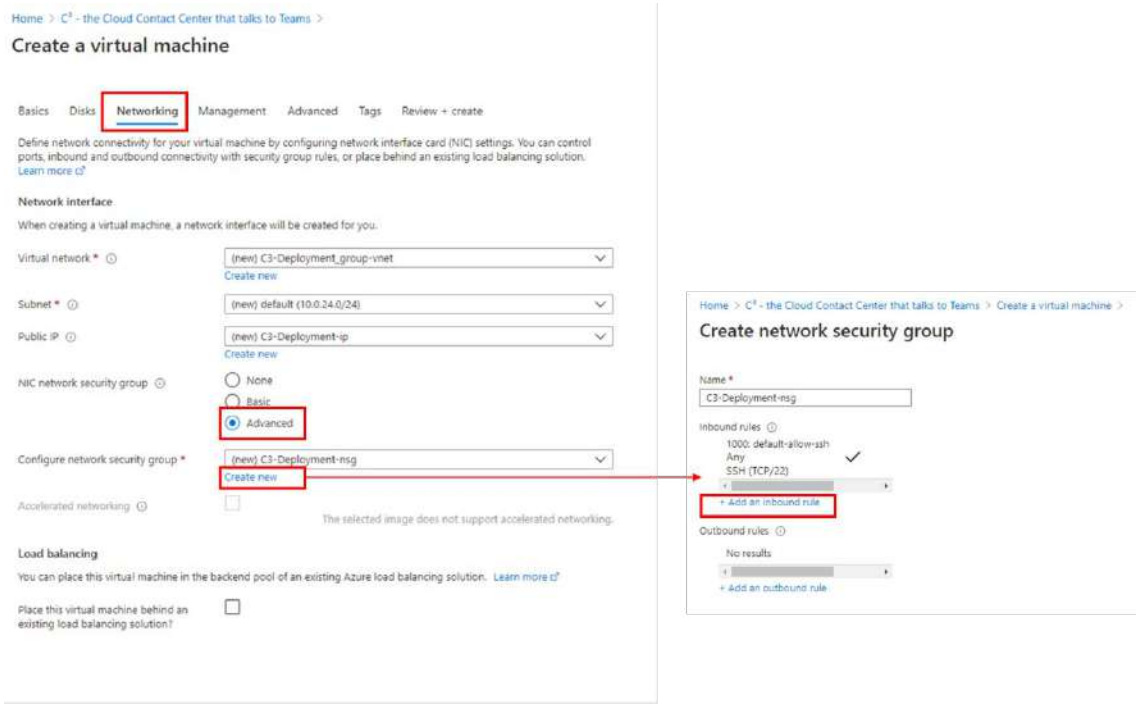
$$S = \frac{E \times BH \times RP \times 34560}{1024 \times 1024}$$

2. Proceed by clicking on ***Next: Networking***;

2.4 Networking

In the ***Networking*** tab:

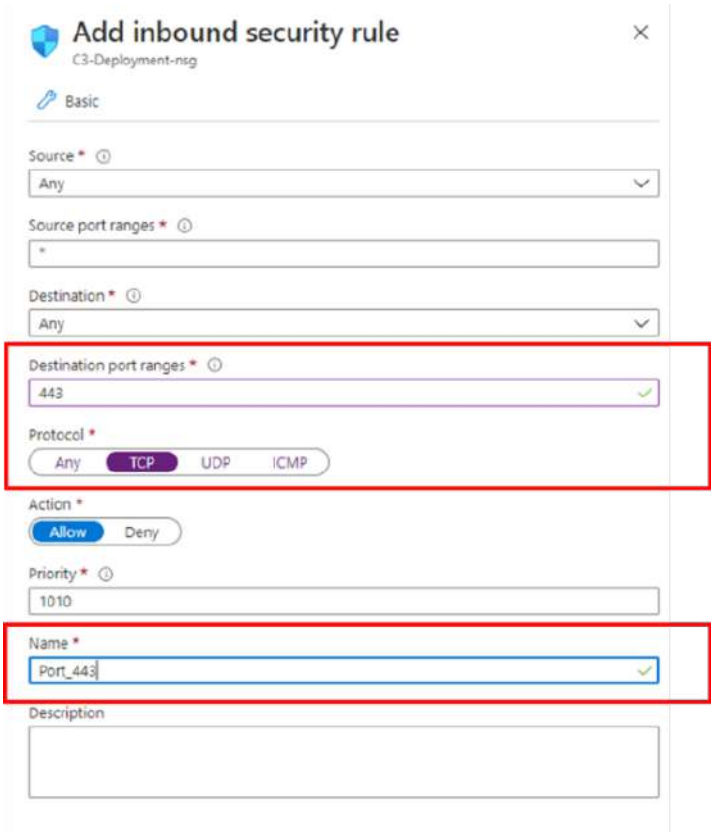
a. ***Virtual network***: select the desired virtual network from the dropdown menu;
b. ***NIC network security group***: select advanced and create a new security group.
The network security group allows defining which network ports should be opened. You will have to configure them as detailed below.
To start, click ***Create new*** in the ***Configure network security group*** option.

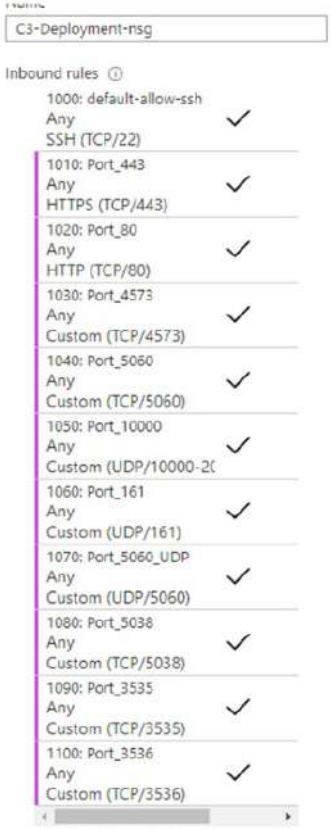


To add the inbound security rules, click on ***Add an inbound rule*** and, in the ***Add inbound security rule*** section insert the ***Destination port ranges***, select the ***Protocol*** and give the new port the desired ***Name***. Do this for all the ports listed in the table below.

Ports to be opened are:

- **443/tcp,**
- **80/tcp,**
- **4573/tcp,**
- **5060/tcp,**
- **10000-20000/udp,**
- **161/udp, 5060/udp,**
- **5038/tcp,**
- **3535/tcp,**
- **3536/tcp.**



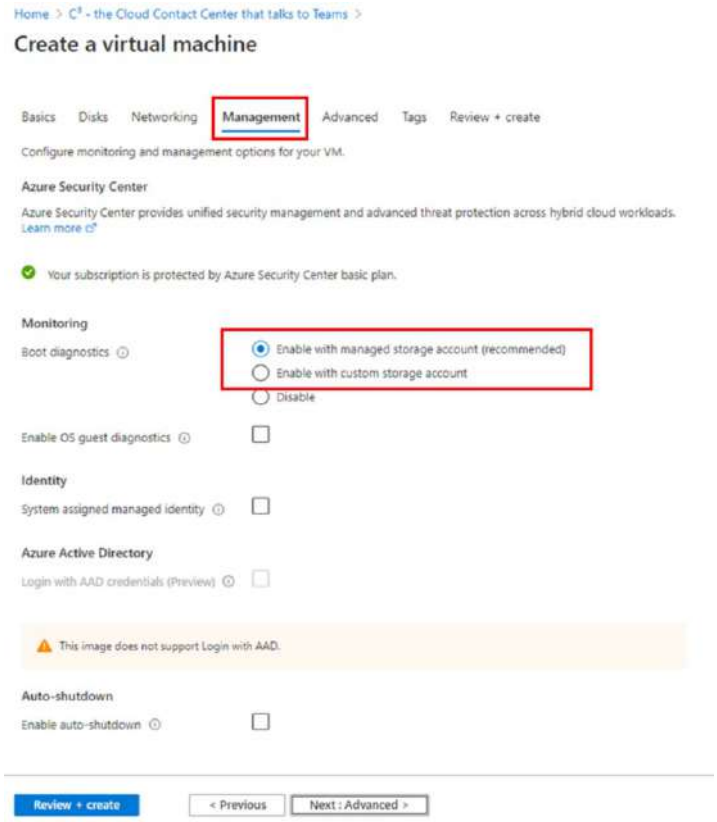


Once completed, the opened port list should look as shown in the picture on the right.

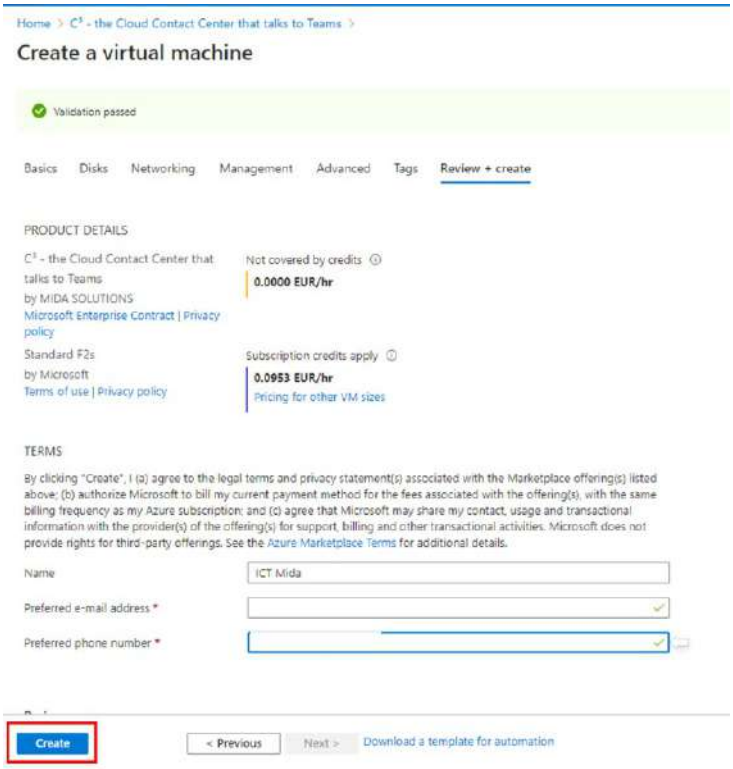
If the configuration is completed, click ***OK*** and then ***Next: Management***.

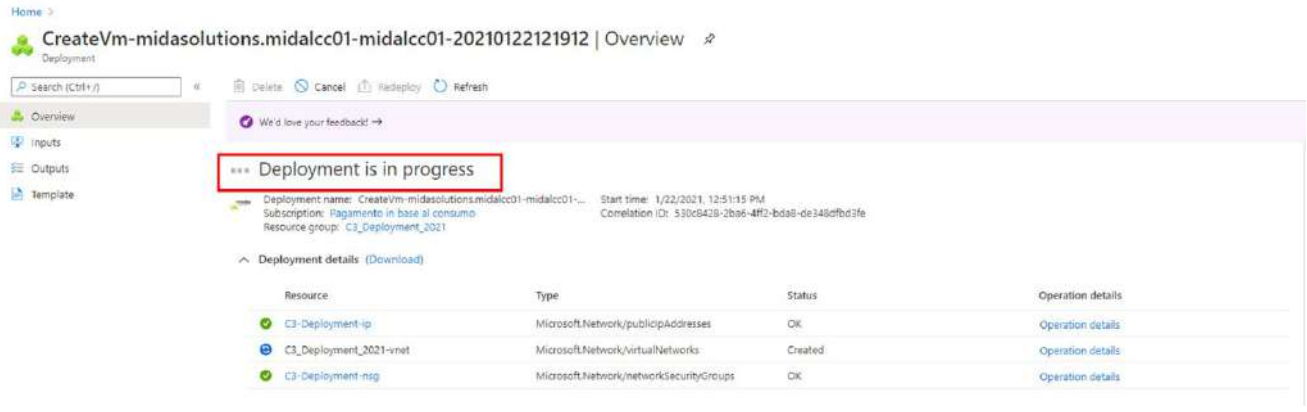
2.5 Management

1. In the ***Management*** tab, just select the desired ***Boot diagnostic***

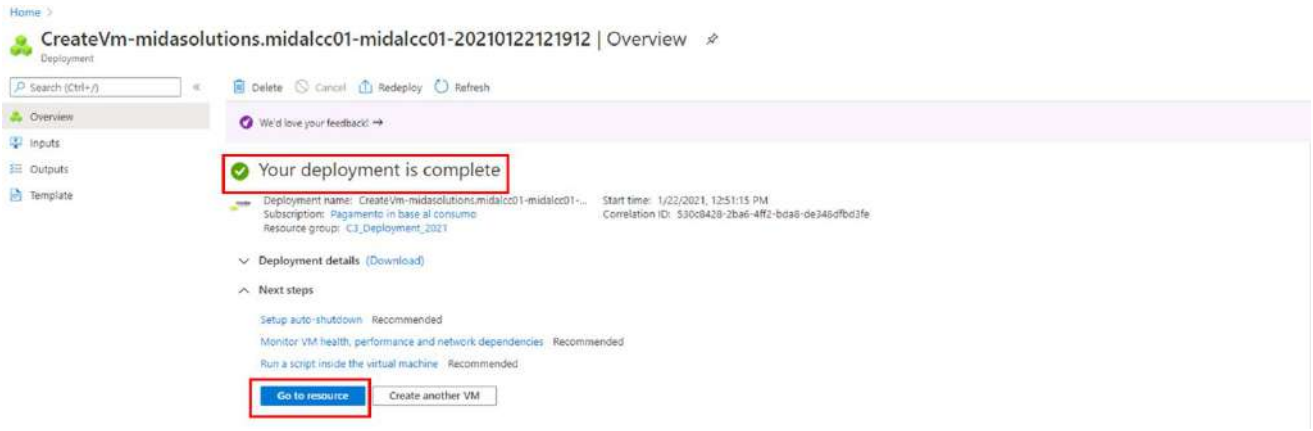


2. Click on ***Review + create*** once complete.
3. In the ***Review + create*** page, review all Virtual Machine details and click on ***Create*** to proceed with the Virtual Machine deployment.

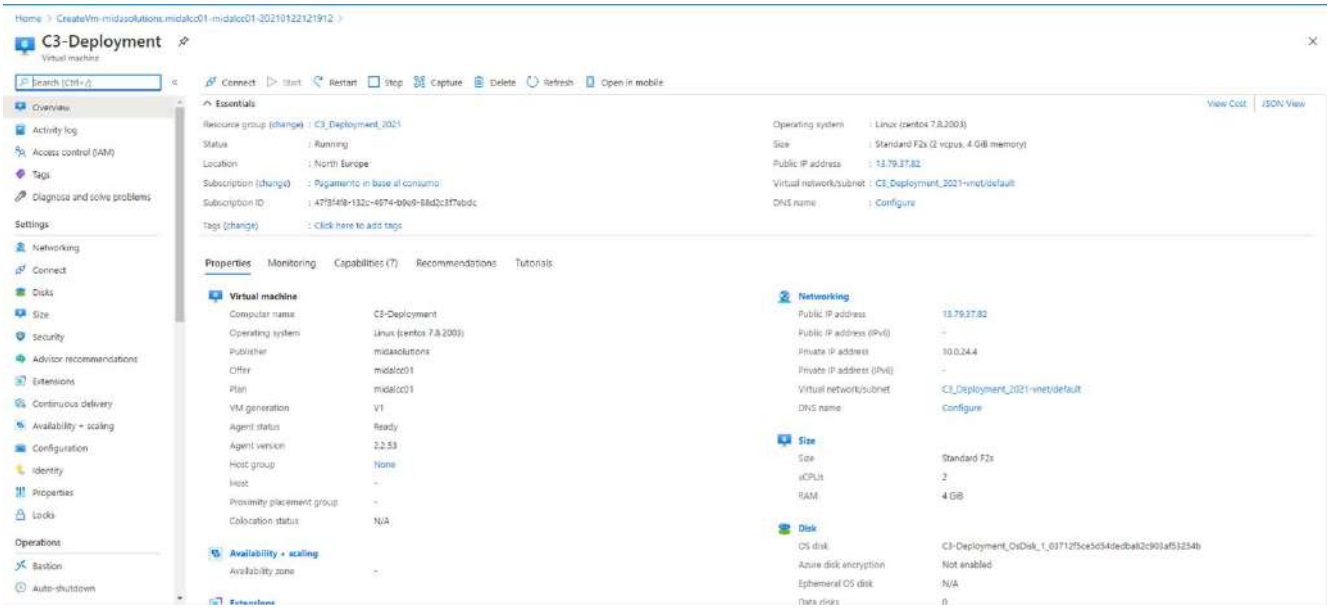




This may take a while and the system will notify you once the procedure is complete.

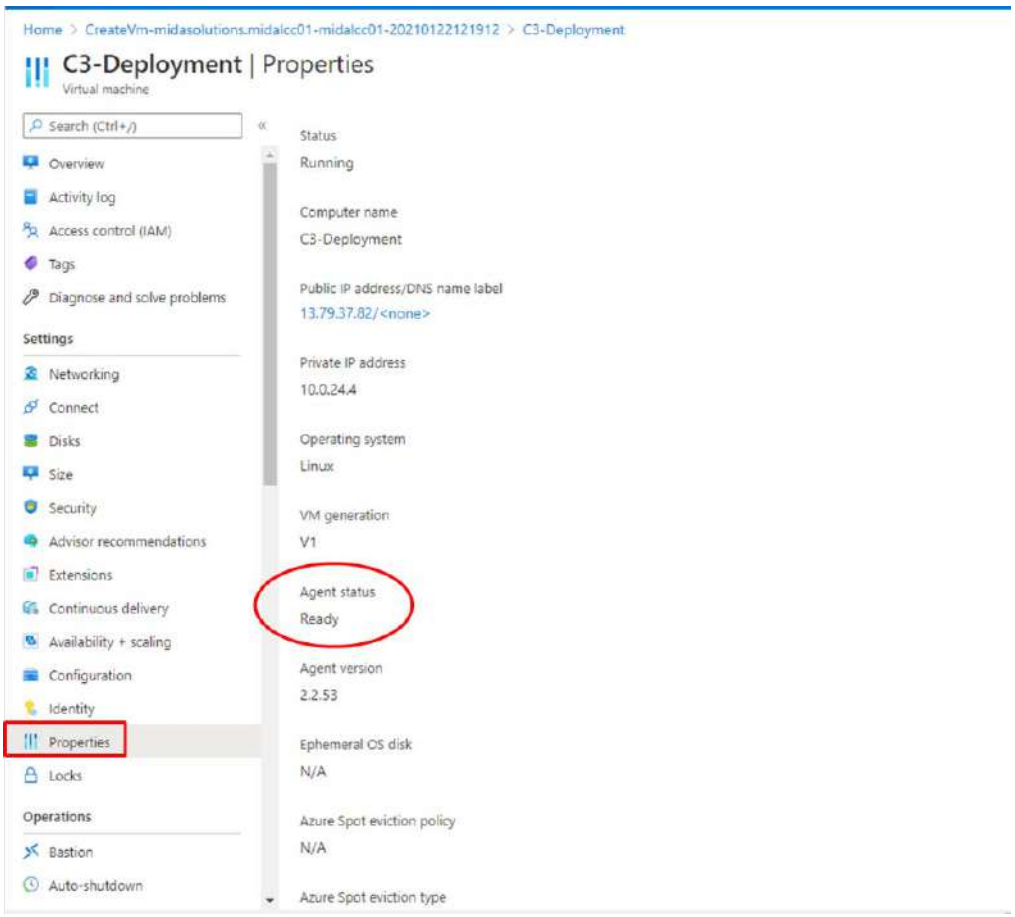


When the deployment is completed, click **Go to resource.**
The page below will appear.



Please note that to use the VM, Microsoft Azure needs to activate an agent. If the agent activation is not automatically configured, open the created virtual machine from the virtual machine list, and go to ***Setting > Properties***.

In Properties, you can see if the agent status is ready, as in the figure below. If not, you need to activate it.

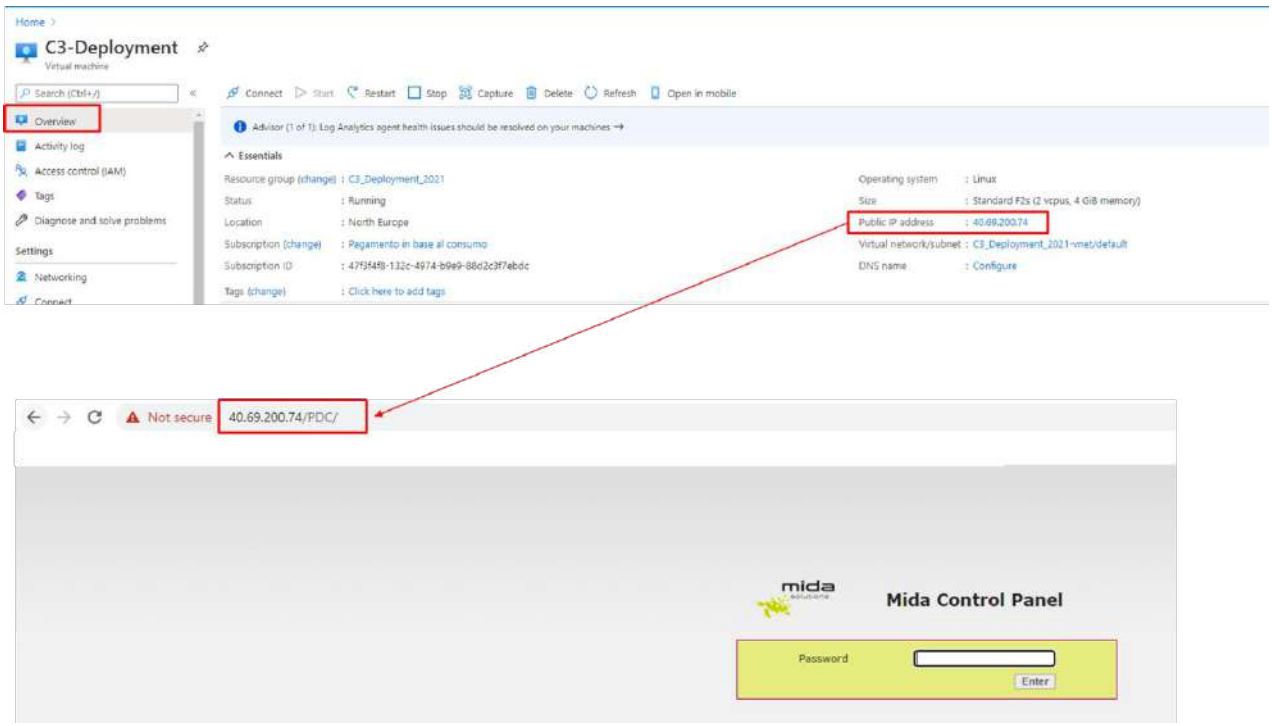

Home > CreateVm-midasolutions.midalcc01-midalcc01-20210122121912 > C3-Deployment
C3-Deployment | Properties
Virtual machine
Search (Ctrl+/)
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Networking
Connect
Disks
Size
Security
Advisor recommendations
Extensions
Continuous delivery
Availability + scaling
Configuration
Identity
Properties
Locks
Operations
Bastion
Auto-shutdown
Status
Running
Computer name
C3-Deployment
Public IP address/DNS name label
13.79.37.82/<none>
Private IP address
10.0.24.4
Operating system
Linux
VM generation
V1
Agent status
Ready
Agent version
2.2.53
Ephemeral OS disk
N/A
Azure Spot eviction policy
N/A
Azure Spot eviction type

3. License application & install updates

3.1 License Request and Setup

To use the Mida products you have chosen. you need to install a valid system license.
Please note that the Virtual Machine you download from Azure Marketplace comes already with 30 days trial license with some limitations. It is for evaluation purposes only. If you plan to have a final deployment you should follow the procedures below to obtain a valid perpetual license.

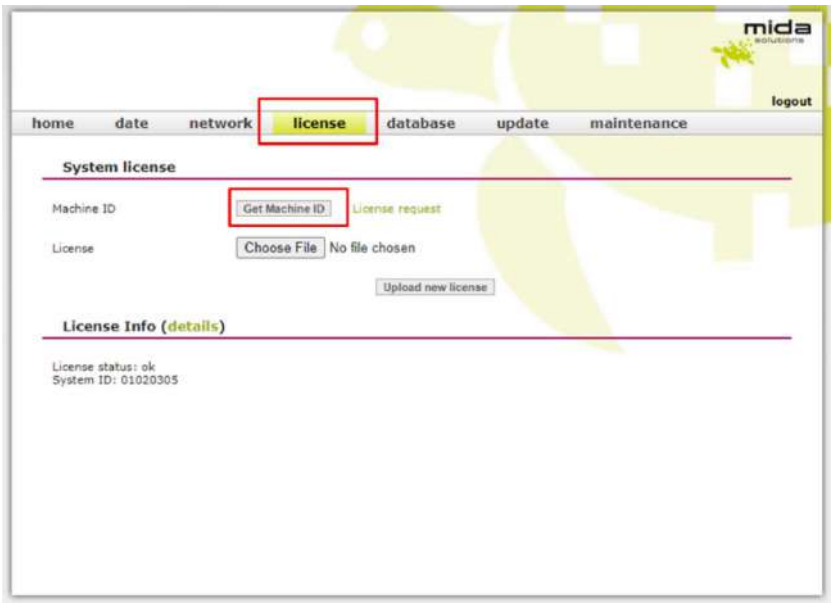
The Virtual Machine has a Public IP address. You can find it in the overview panel. Copy and paste it into a web browser, adding "/PDC/", as in the figure below.



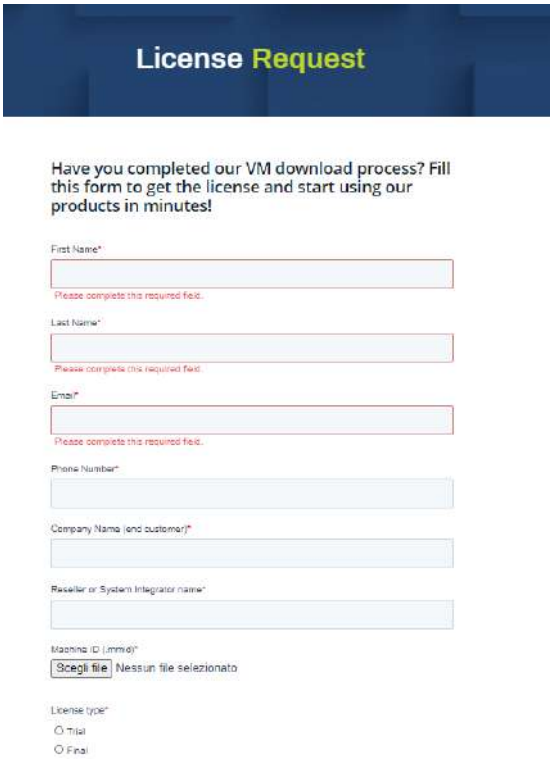
The first-access password is admin, do not forget to change it for future login.

Open the "license" tab (see picture below).

Press **Get Machine ID**.



Download the MidaGetLicense.mmid file from the system: this is required to submit a license request. Now you should get in contact with Mida Solutions to get your license. To do so, use the online **license request** form: http://www.midasolutions.com/support/license-request/



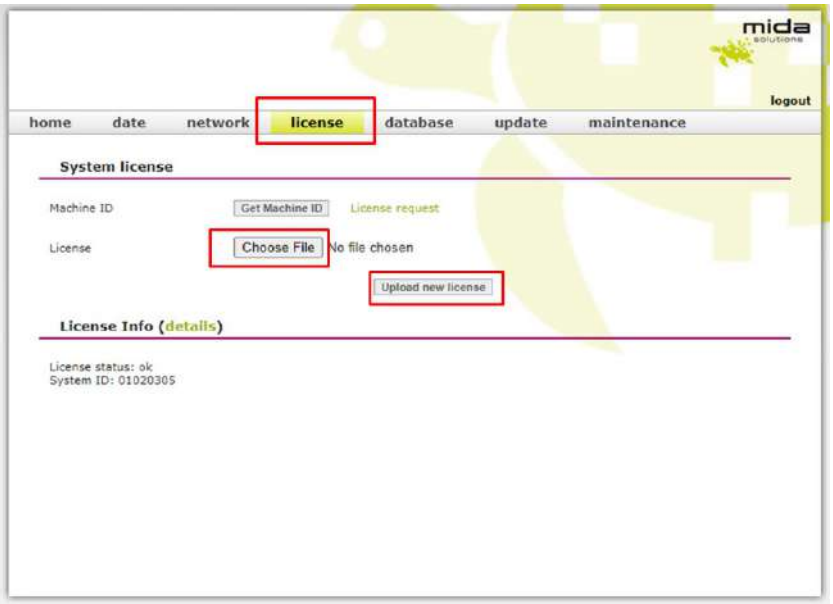
The form (see the following picture) shall be filled in reporting all relevant information such as your name and surname, email address, phone number, end customer company name, and reseller or System integrator you prefer to involve.

Upload the Machine ID file you just downloaded (.mmid) and specify the license type you are requesting: trial or final license. Click on the authorization flag, insert optional notes and press submit.

You will receive immediately a confirmation email and Mida will process your request as soon as possible.

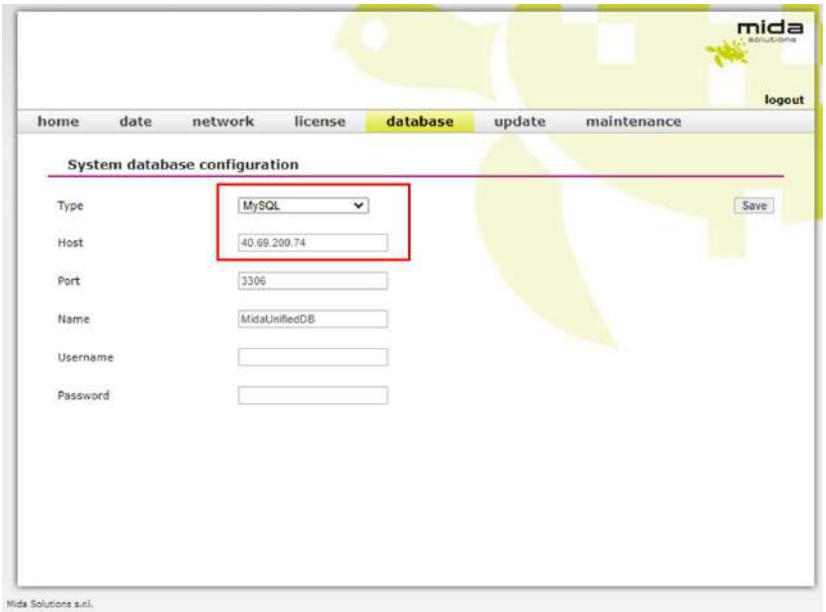
Once you have received the **license file** from Mida Solutions, go back to the "/PDC/" web page you used to generate the .mmid file and upload it.

To do so, press **Upload new license** (as in the picture below).



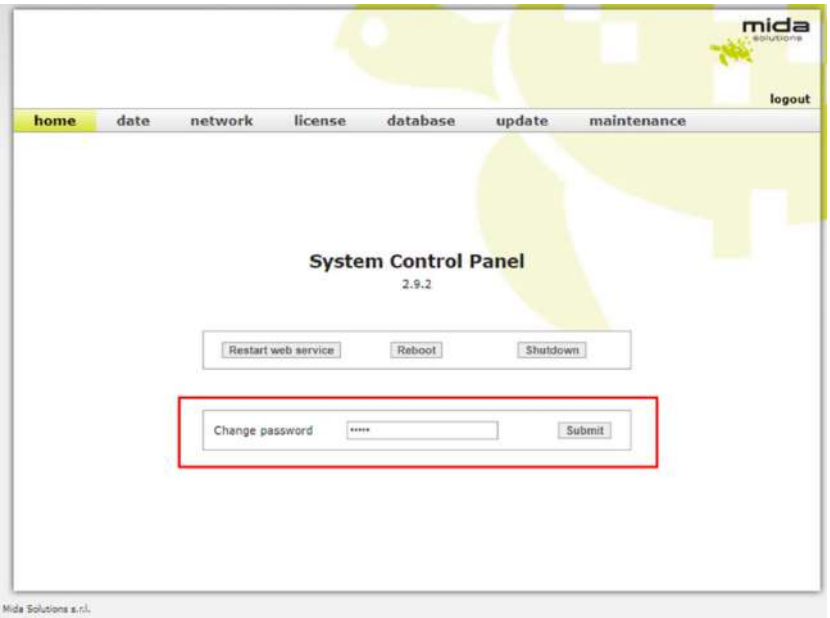
3.2 Preference settings

In the database area, you can configure the application's database. **Mida products normally make use of an internal database** (as in the picture below), **but can also use an external one**.



If you decide to use the internal database, don't change the default settings that appear on the page. Otherwise, select the database type (it could be MySQL or MS SQLServer) and provide values for all the required parameters.

To change the default password for the /PDC/, you should now go to the home section and set the new one.



Now you have correctly set the license and you can start using Mida Solutions' products. If you like, you can customize other sections (like "date", "maintenance") or you can leave them by default.

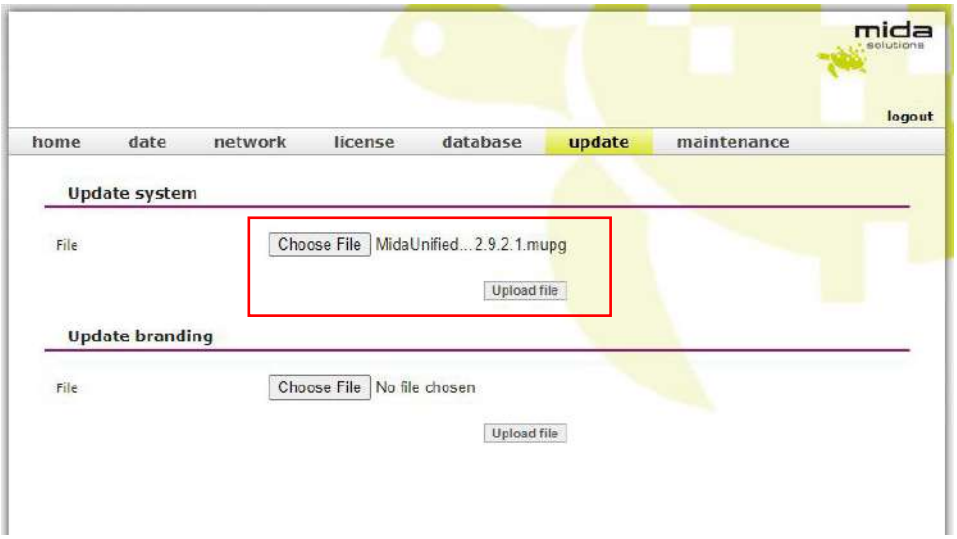
For further details on the Control Panel please refer to "Mida Appliance-Administration Manual".

For further details on the main platform portal and administration options please refer to "Mida Unified Portal-Administration & User Manual".

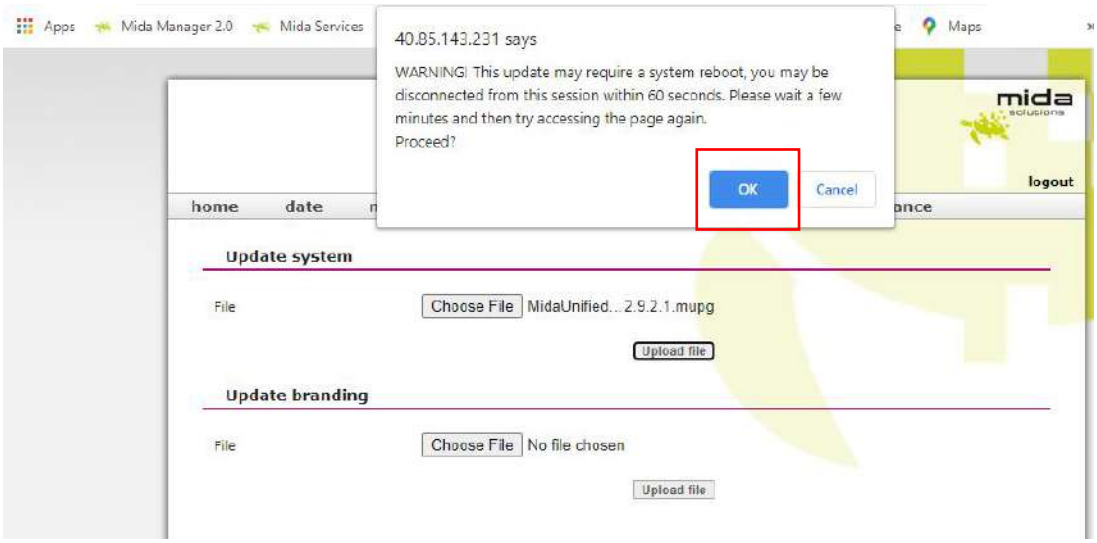
3.3 Update a new release

To make sure the installed version is the last one, **contact Mida Solutions at licensing@midasolutions.com**. In the event there is a more recent release available, we will send you a link from which you can download the image file (.mupg) to update it. You should then go to the "update" section of the PDC to upload and install it (as in the picture below).

The update process normally requires some minutes, please wait and follow the instruction.



After clicking on “upload file” a pop-up will appear to warn you the upload may require a system reboot to be completed. Click ok and then wait for the update to be completed, the process might take some minutes.



When the file is correctly uploaded, you will see a written notice. Now the update process will start.

Once the update has finished, in the “home” section you will see the new system release (as in the picture below). It is always a good practice to reboot the VM after updating it with a new release.


mida
solutions
logout
home
date
network
license
database
update
maintenance
System Control Panel
2.9.2.1
Restart web service
Reboot
Shutdown
Change password
Submit

4. Configure SBC

For Microsoft Teams Direct Routing, Mida C³ - Cloud Contact Center could be integrated into the following certificated SBCs:

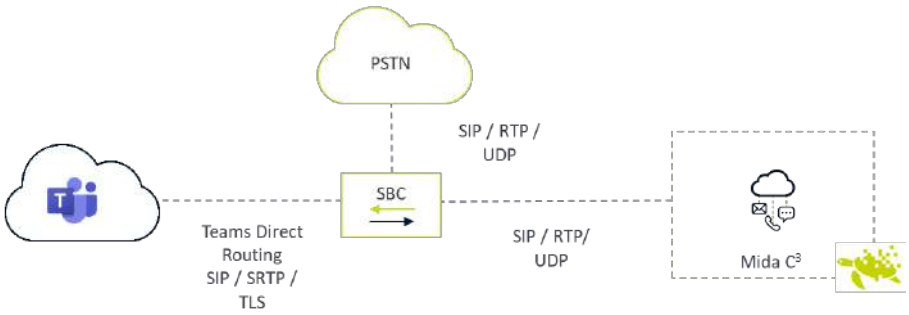
- Ribbon
- AudioCodes
- Oracle
- Cisco
- Avaya
- Italtel
- Nokia
- Patton

In this guide, Mida helps you to perform a **basic configuration of the Ribbon SWe Lite SBC and connect it to Mida C³ - Cloud Contact Center for Teams**.

Of course, both Teams and the SBC can have a much more complex configuration to address specific needs in the customer's architecture. Fields not mentioned, in this guide, can maintain default values.

There are three main steps you should do:

- Connect the SBC to Teams
- Connect Mida C³ - Cloud Contact Center to the SBC
- Connect the PSTN to the SBC



Team users must have a phone number in E.164 format, with the "+" character at the beginning. The same applies to all numbers that a Teams user calls through the PSTN network. So, the simplest solution is to configure the agents in C³ directly with their telephone number in Teams, which will be in the format +<country code><area code><telephone number>.

Note that Teams agents must necessarily have the Phone System license and they must be configured as agents in C³ (for details on this, please refer to the Mida C³ - Configuration Guide).

1. **Configuration of transformation rules (Transformation).** These are rules to handle the called numbers and CLIDs. The following rules must be created:
   - Rules for calls routed to Teams
   - Rules for calls routed to C³

2. **Configuring the Call Routing Table.** Indicates how to handle the calls coming in from the different connections. The following tables must be created:
   - Tables for calls coming from Teams
   - Tables for calls coming from C³
   - Tables for calls coming from the PSTN

3. **SIP Profiles (SIP Profiles).** They define how to handle SIP dialogues in the different interfaces. SIP profiles must be created for the following interfaces:
   - Teams
   - C³
   - PSTN

4. **Server Tables (SIP Server Tables).** They contain the information required to reach the different servers the SBC is connected to. Server tables must be created to reach:
   - Teams
   - C³
   - PSTN

5. **Media List.** It defines the configuration of the media that can be used in the different interfaces, also according to the different licenses available in the SBC. In our example, we consider the minimal hypothesis of using G.711 only, with its two variants A-Law and u-Law. Lists must be defined for the following interfaces
   - Teams
   - C³
   - PSTN

6. **Signaling Groups.** They define how the various connection interfaces are to be managed by appropriately combining all the configurations set out in the previous points. Signaling groups must be created for the following interfaces:
   - Teams
   - C³
   - PSTN

4.1 Configurations – Ribbon SBC SWe Lite

This guide assumes that:

- The SBC network interfaces are configured with the appropriate IP addresses

- The configuration of the SBC required **to connect Ribbon SBC to Microsoft Teams** has been completed following the instructions in the ***Ribbon configuration guide*****.**
- the SBC is regularly equipped with the necessary licenses
- the SBC has the necessary certificates on board (see the ***Ribbon configuration guide***)

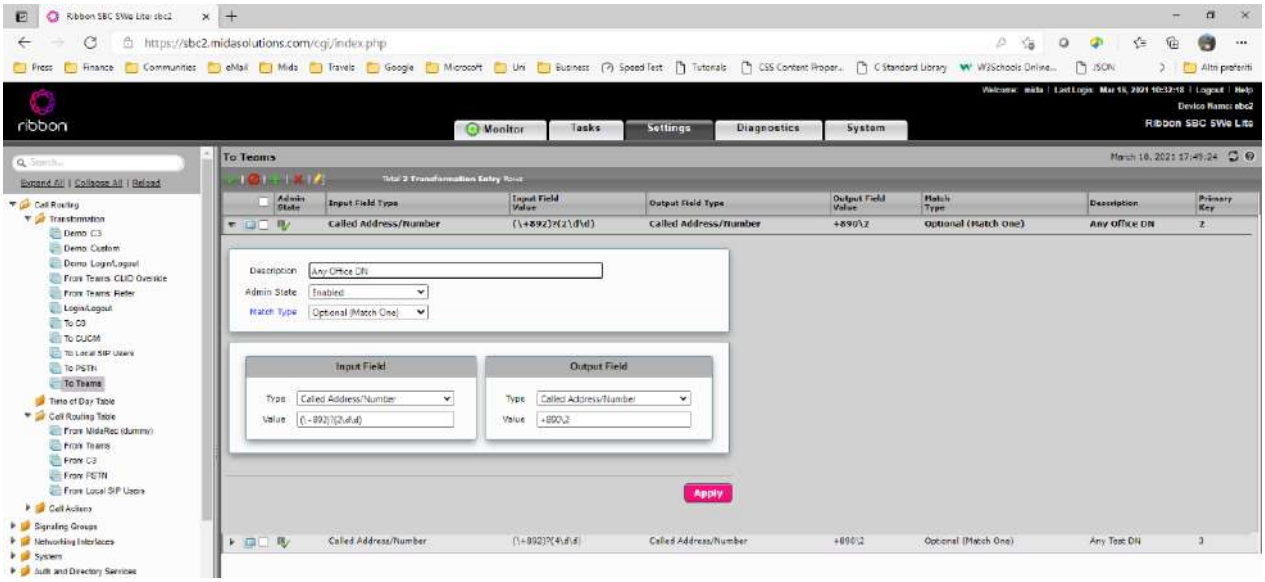
If the SBC is in Azure all this requires only one network interface with a static IP.

4.2 Connect Mida C³ - Cloud Contact Center and PSTN to Ribbon SBC SWe Lite

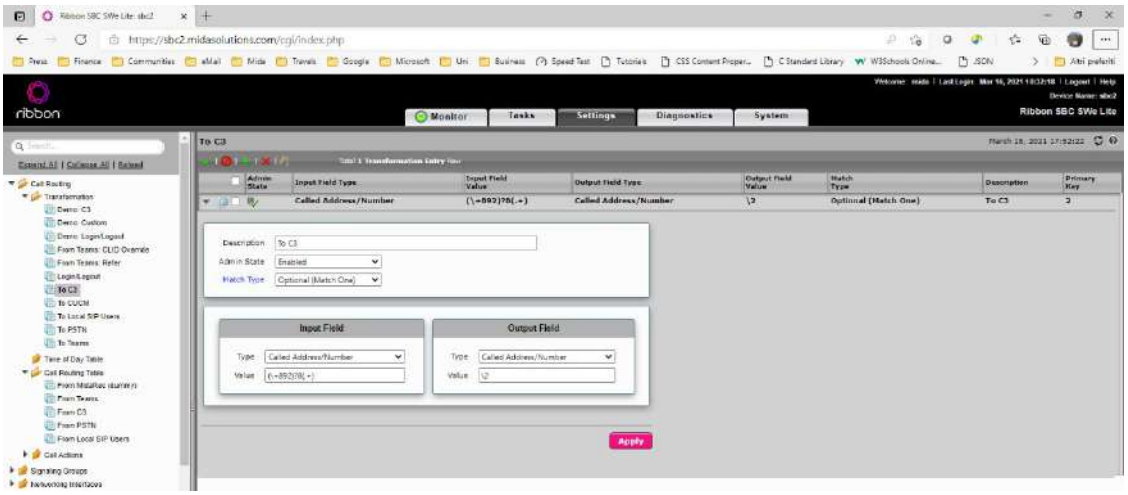
To set up the connection between Mida C³ - Cloud Contact Center and the Ribbon SBC, follow the steps below and insert values as stated in the screenshots if no other values are specified.

1. Go to ***Call Routing*** > ***Transformation*** and create a new ***Transformation table***. This transformation will change the call destination with the proper Teams number.

Transformation table - To Teams

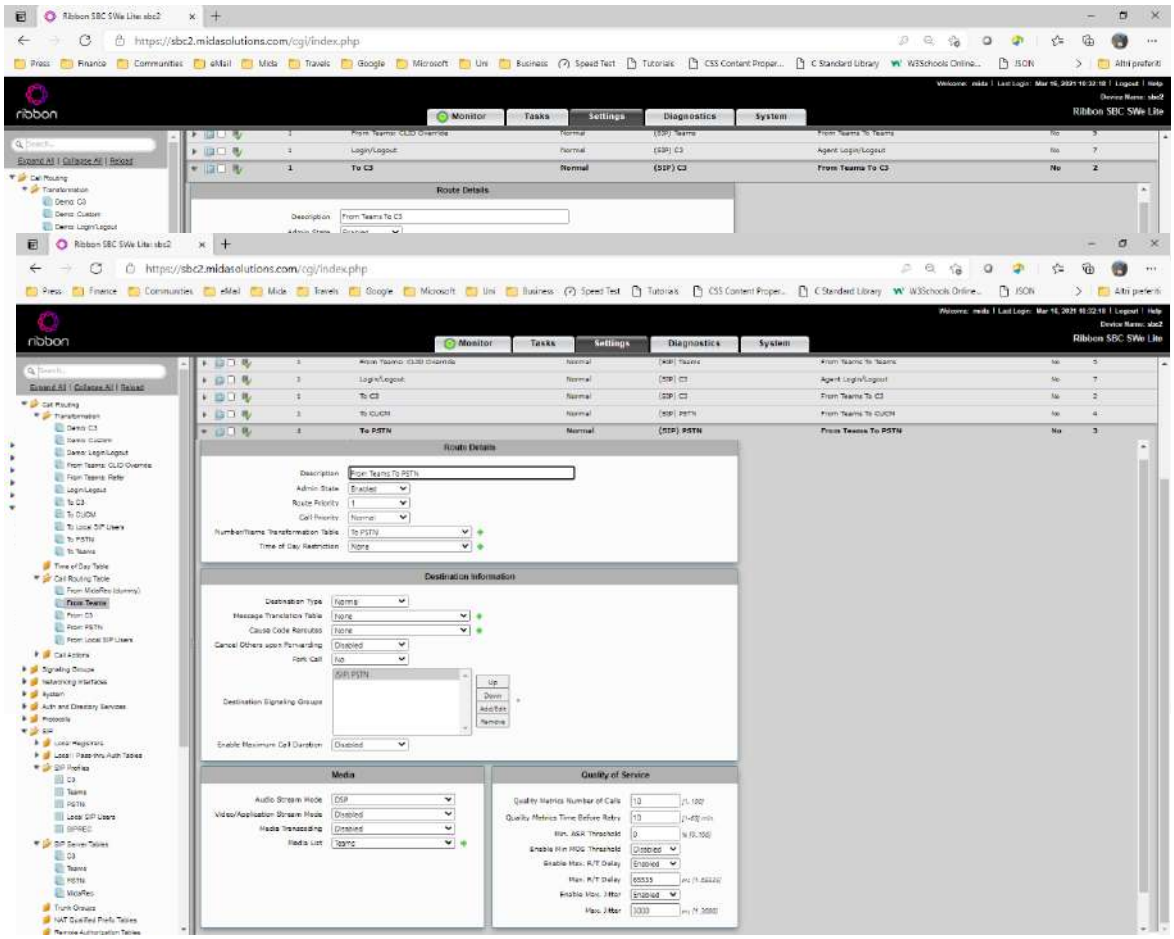


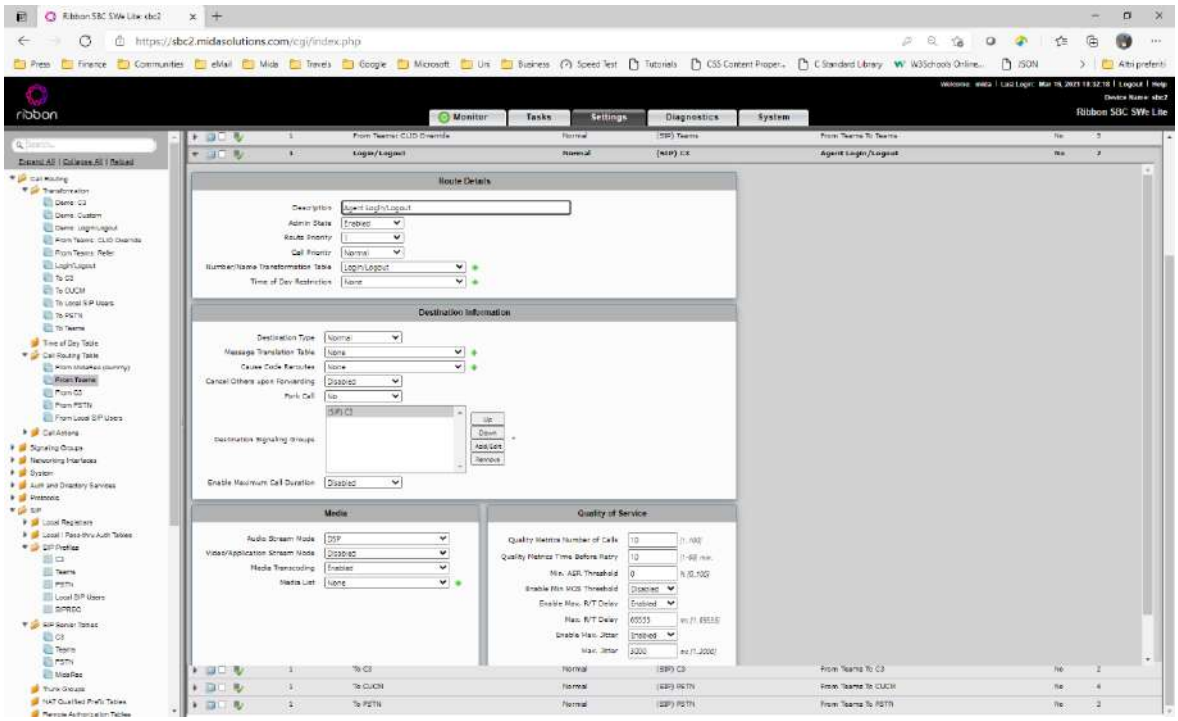
Transformation table - To C[3]



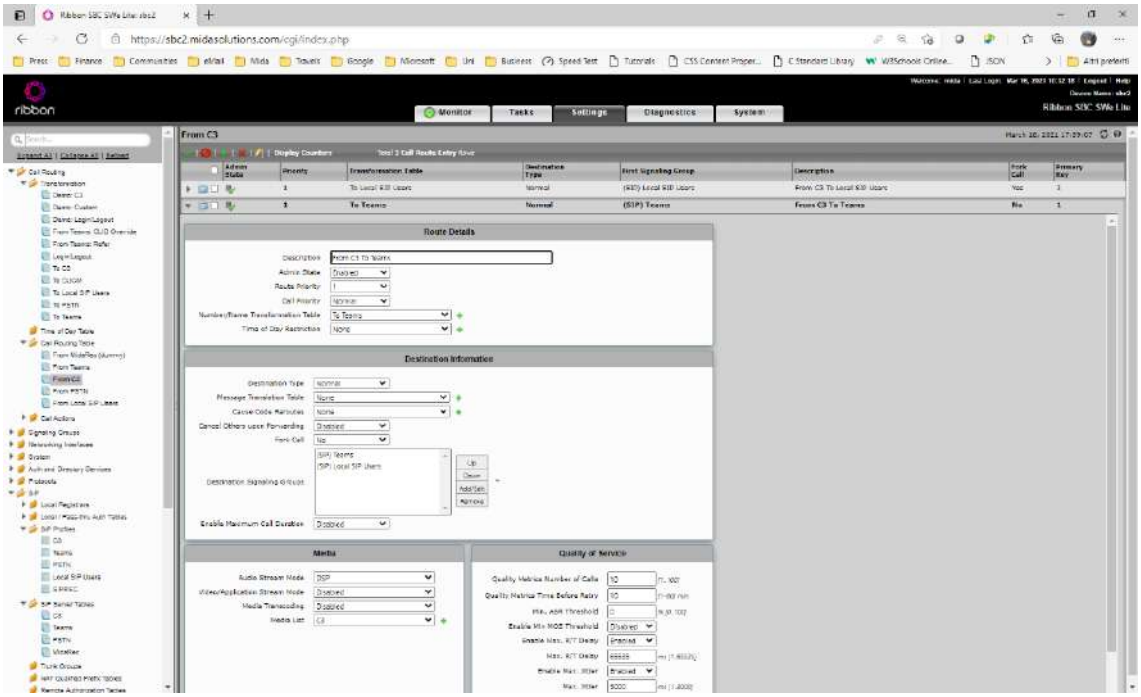
2. Go to ***Call Routing > Call Routing Table*** and create the new call routes.

Call Routing Table - From Teams

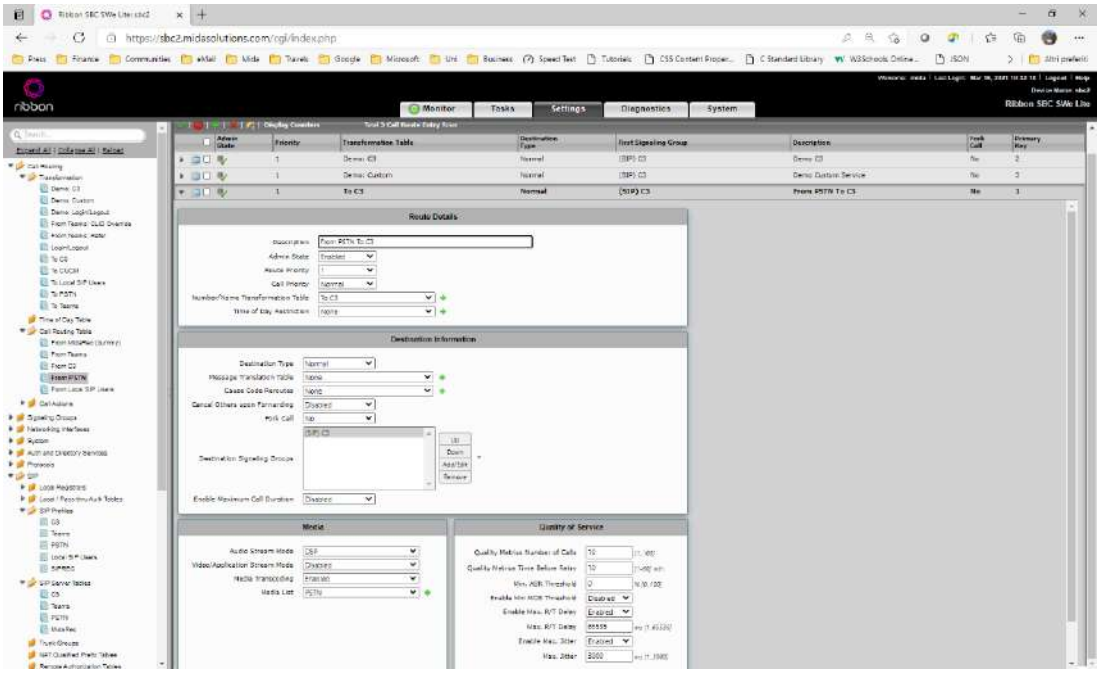




Call Routing Table - From C[3]

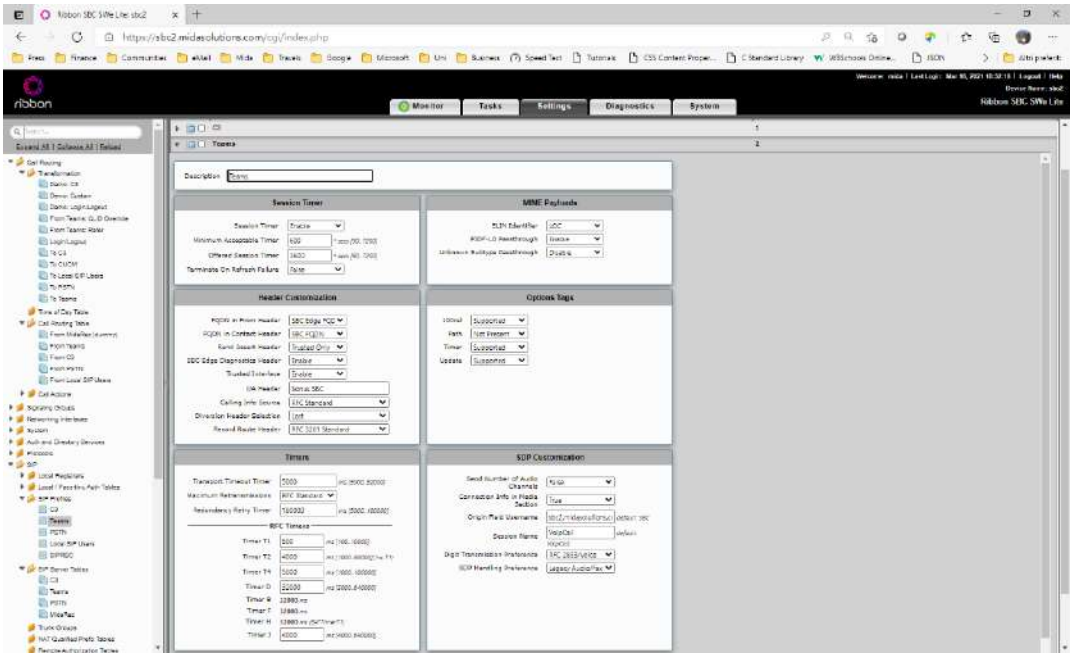


Call Routing Table - From PSTN

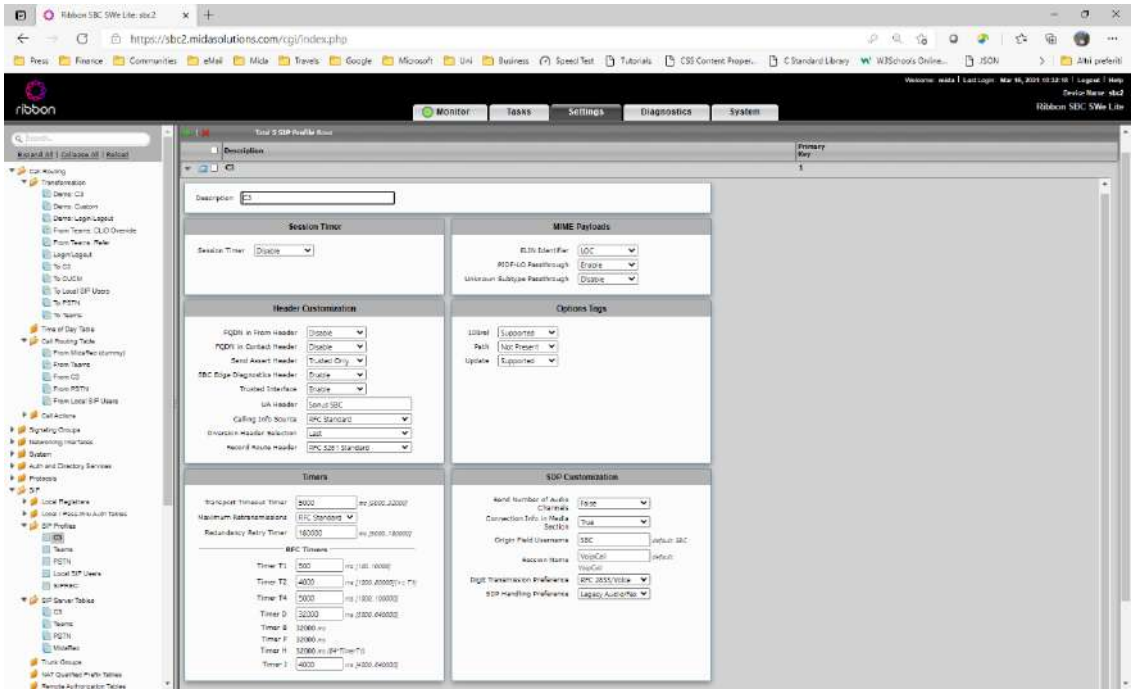


3. Go to ***SIP > SIP Profiles*** and create these new entries.

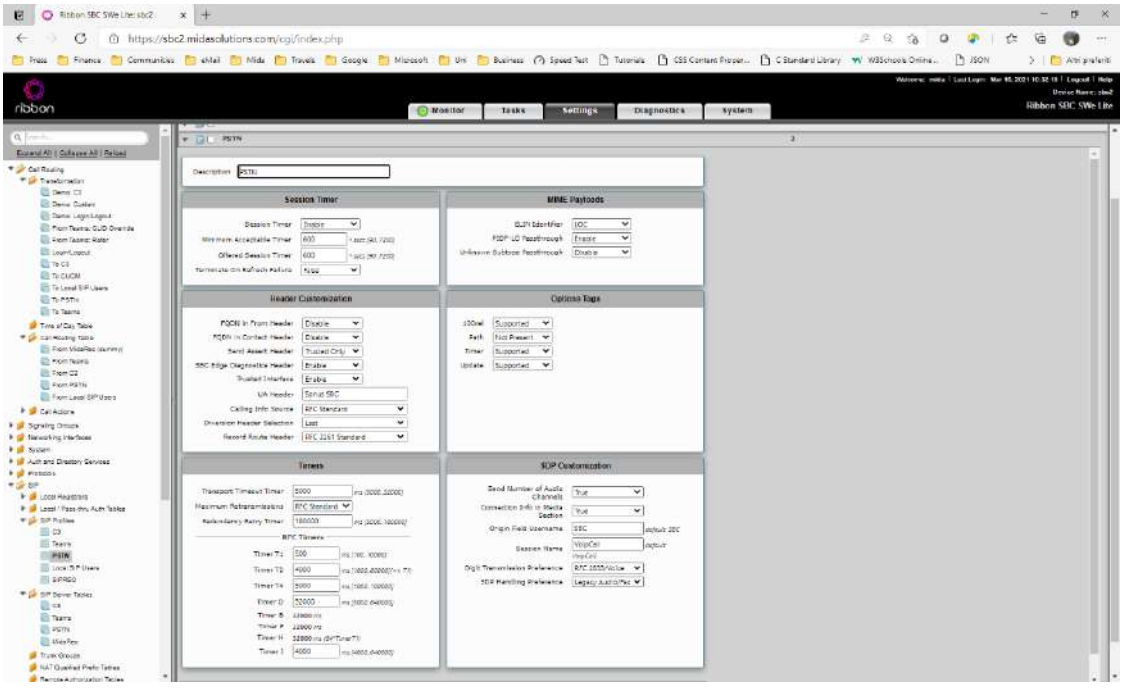
SIP Profiles - Teams



SIP Profiles - C^3

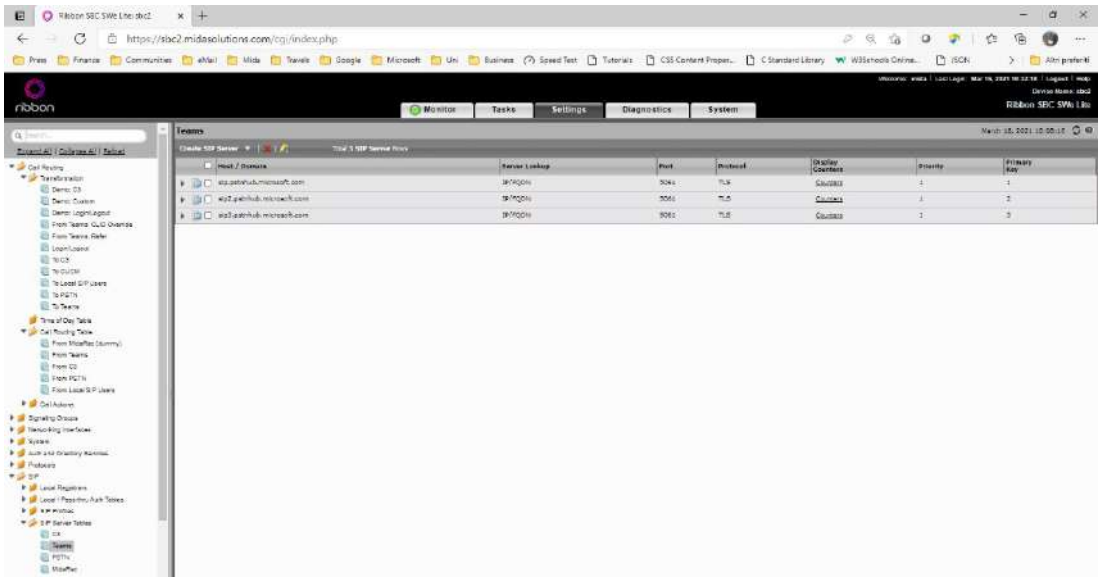


SIP Profiles – PSTN

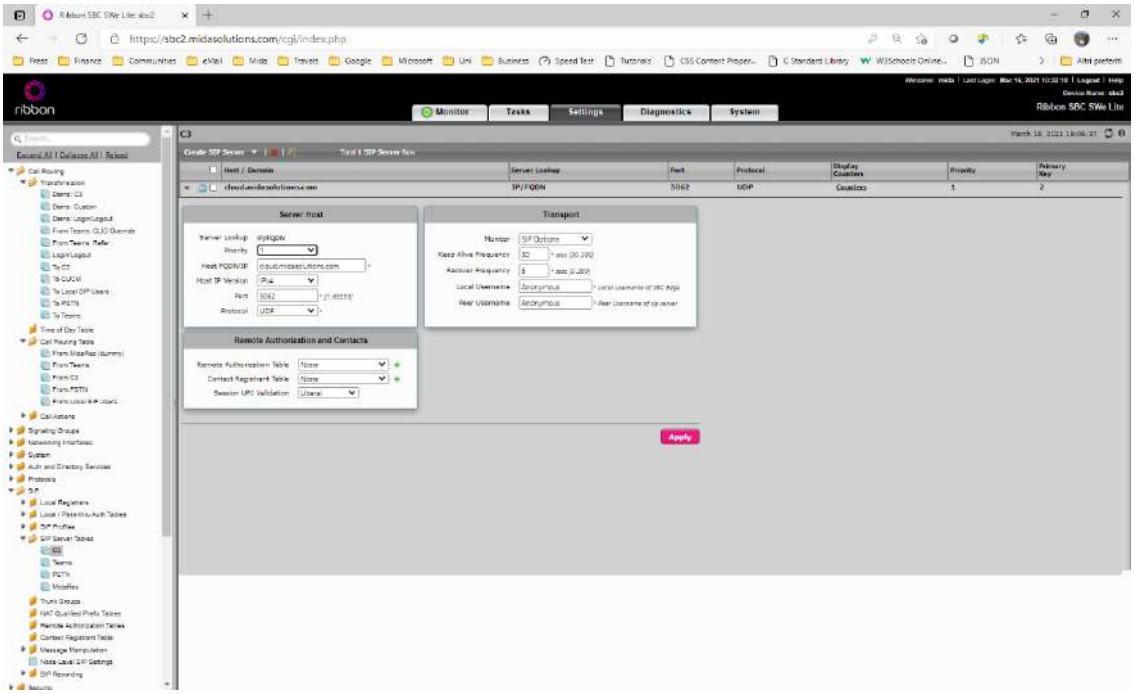


4. Go to ***SIP > SIP Server Tables*** and create a new SIP Server.

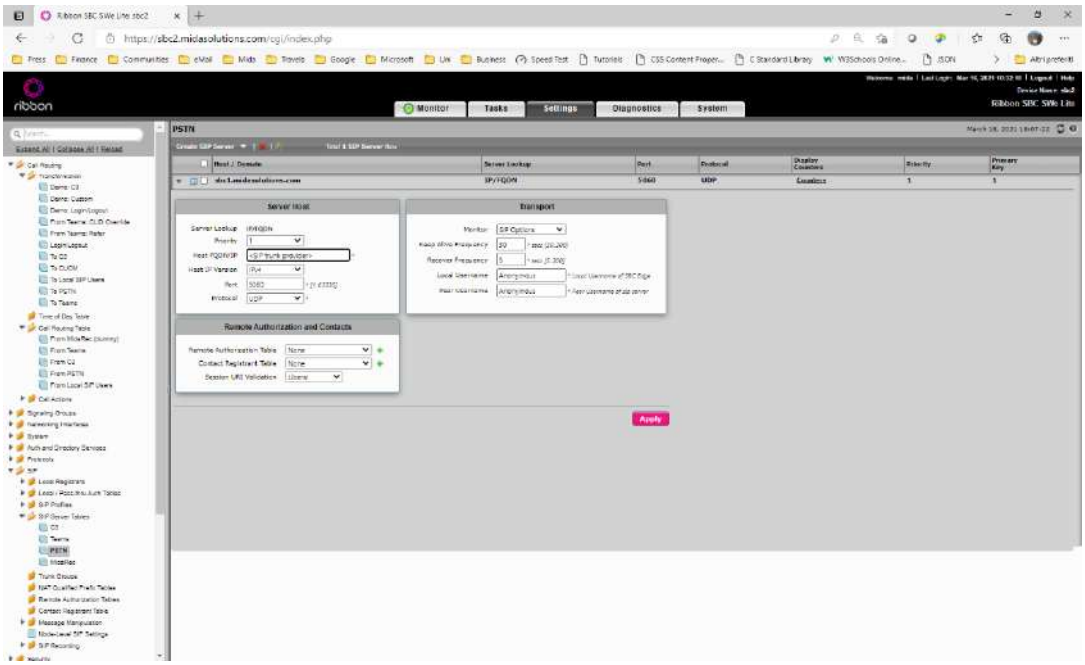
SIP Server - Teams (follow the ***Ribbon configuration guide***)



SIP Server - C^3

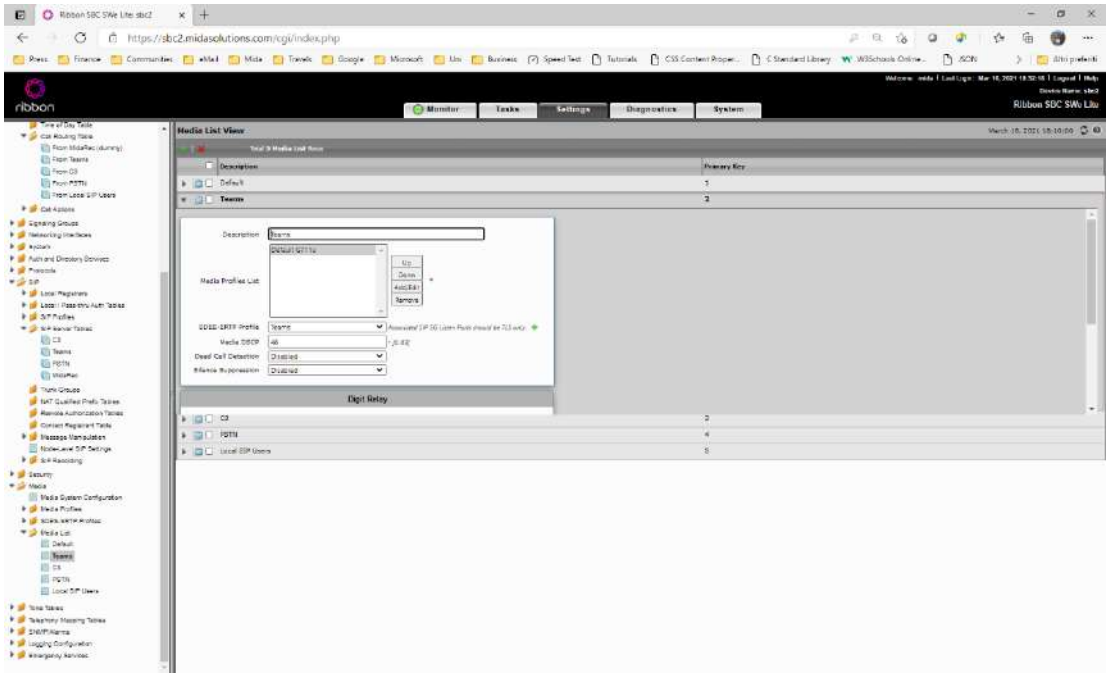


SIP Server - PSTN

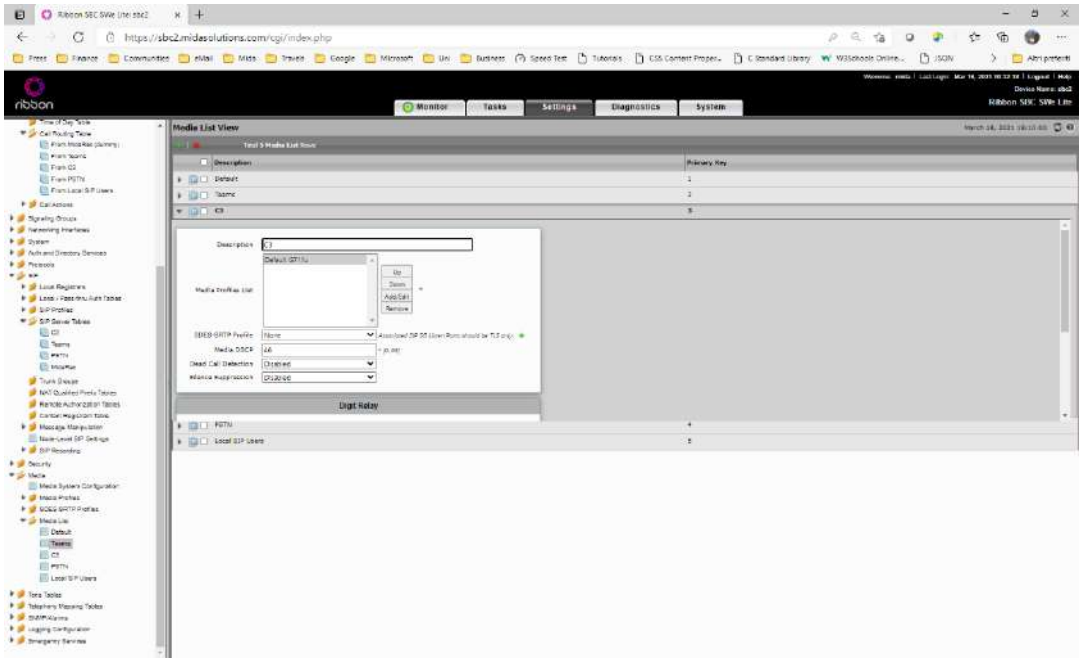


5. Go to ***Media List*** and create these new entries

Media List – Teams

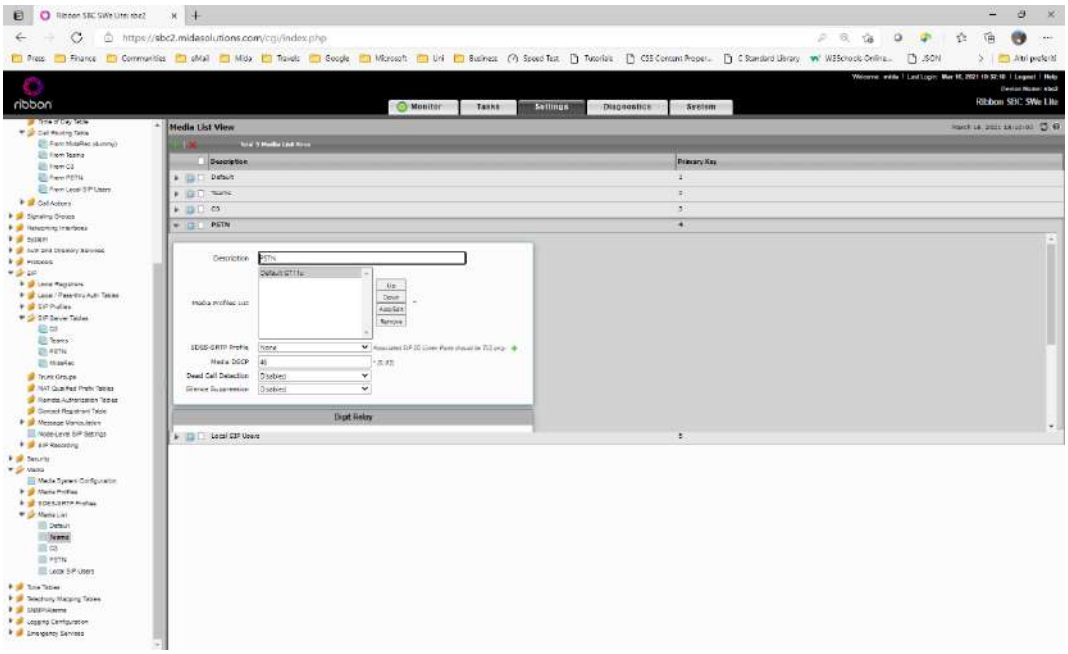


Media List - C^3



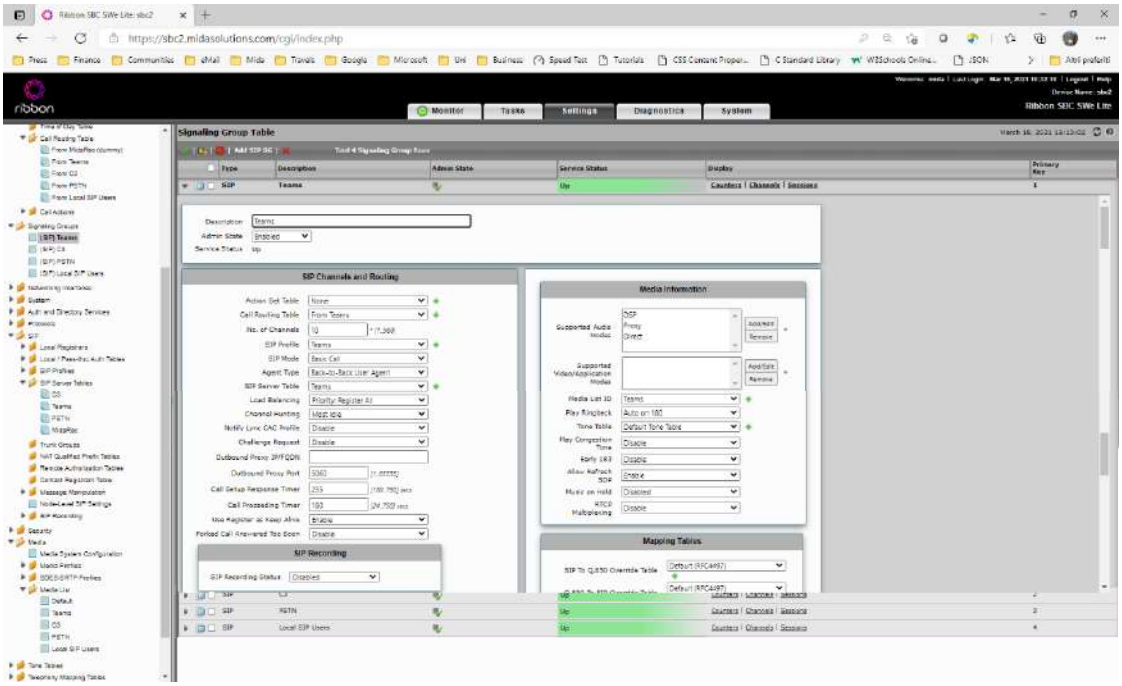
Select a single codec, or A-Law or u-Law.

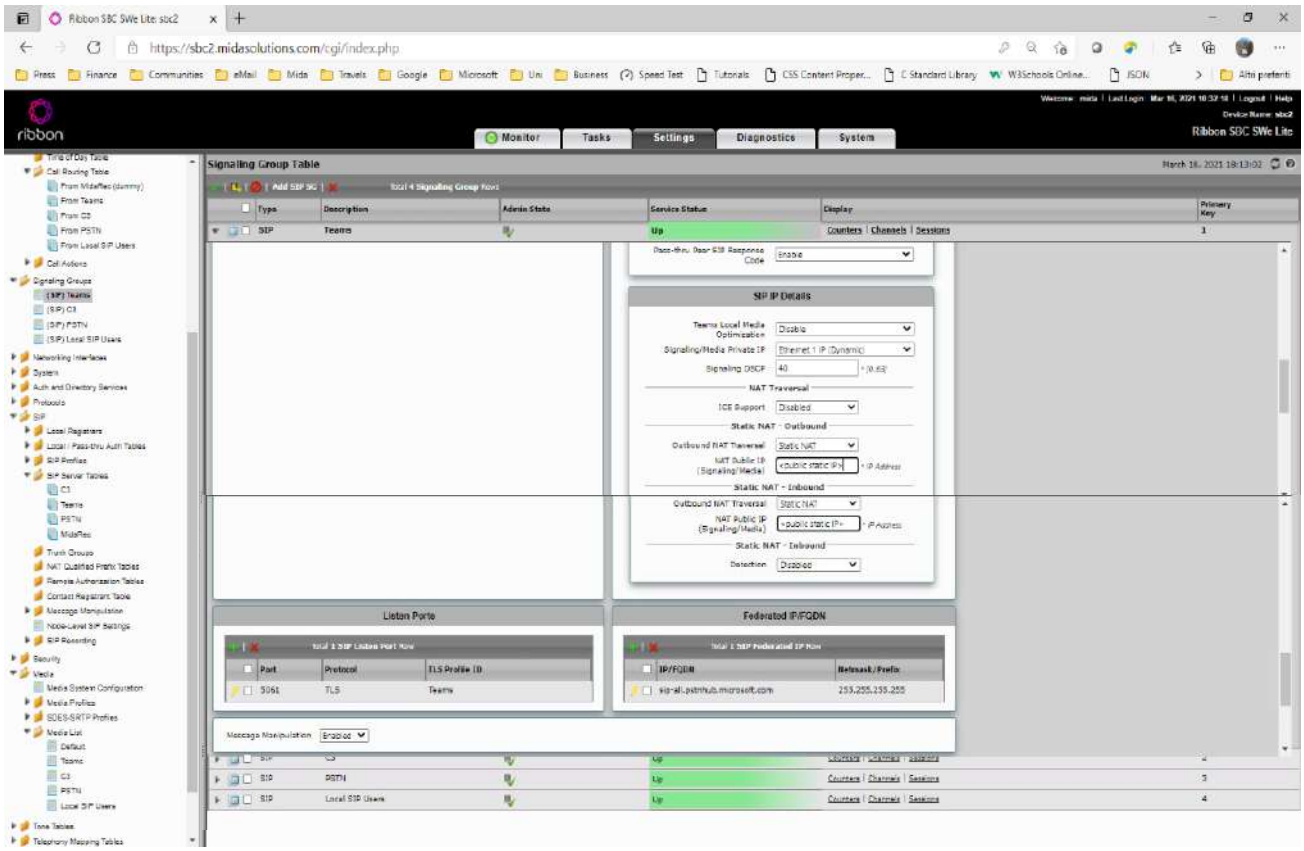
Media List - PSTN



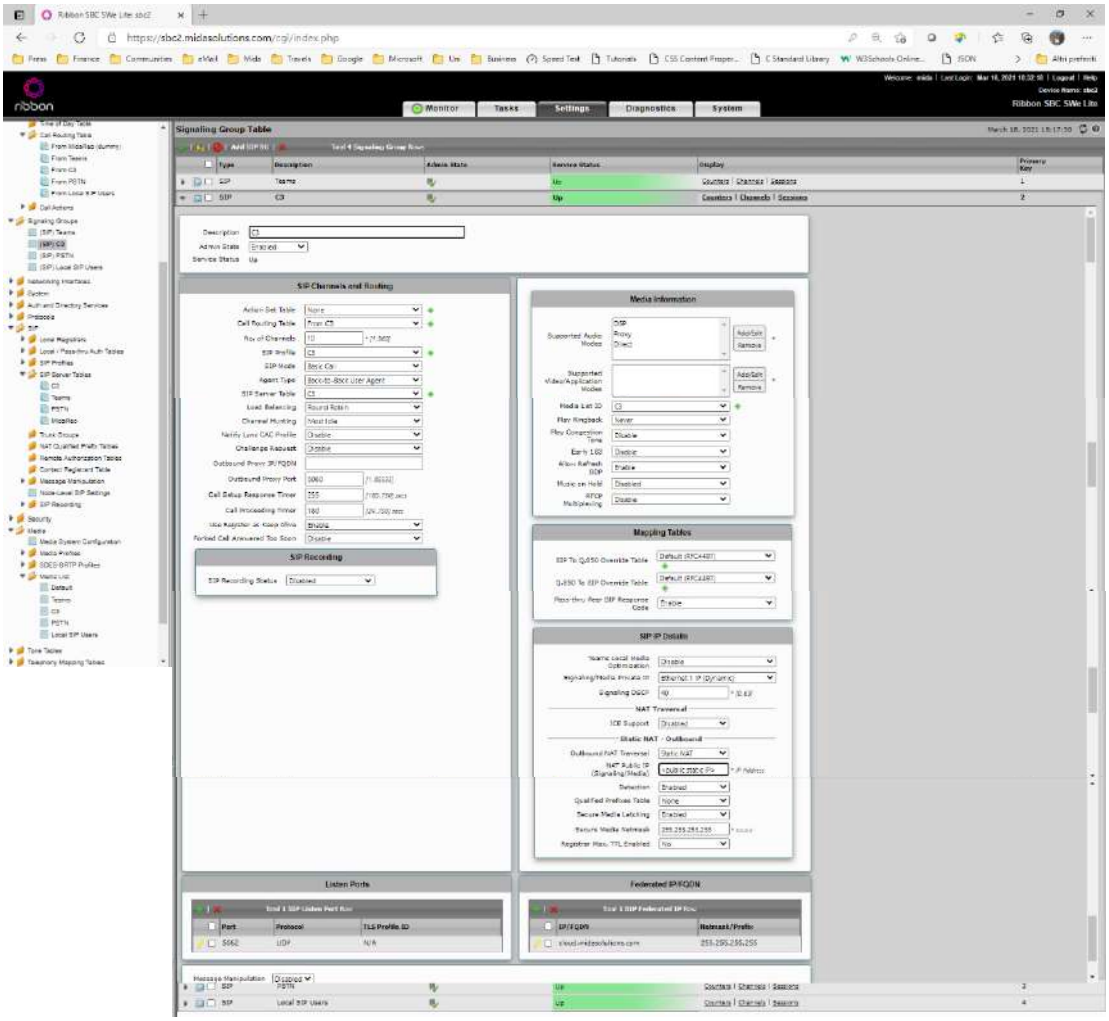
6. ***Signaling Groups*** and create a new entry ("*Signaling Group*")

Signaling Groups - Teams (follow the ***Ribbon configuration guide***)

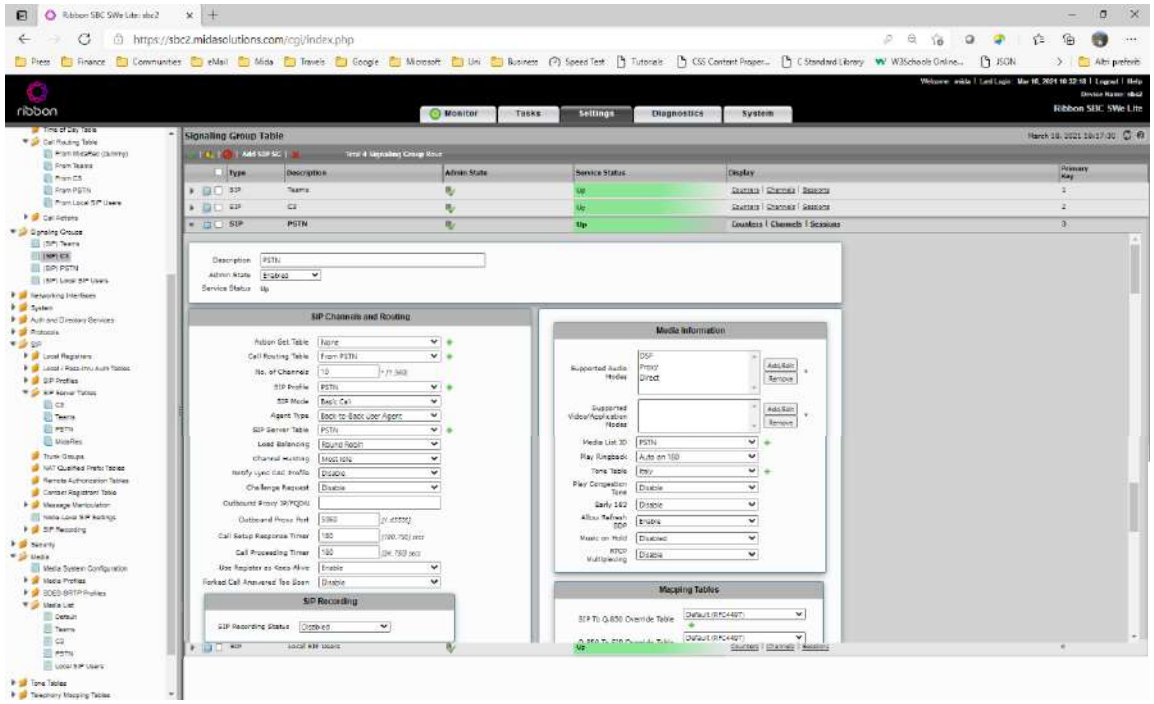


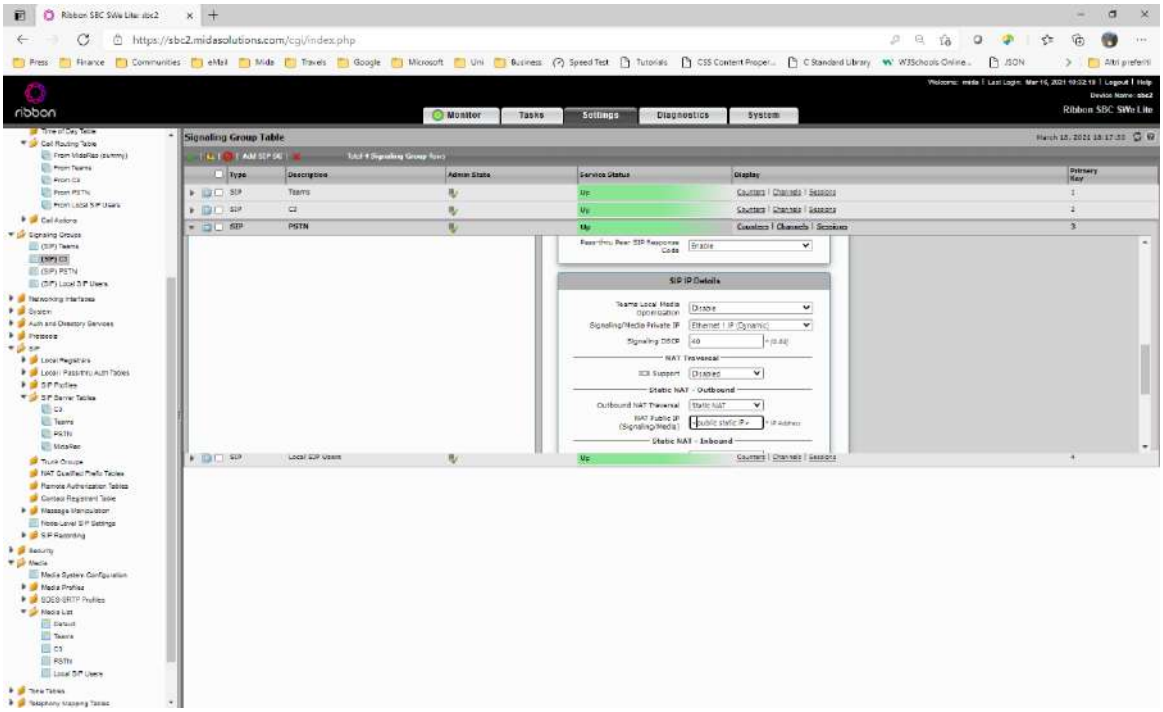

Ribbon SBC SWe Lite: sbc2
https://sbc2.midasolutions.com/cgi/index.php
ribbon
Monitor
Tasks
Settings
Diagnostics
System
Ribbon SBC SWe Lite
Signaling Group Table
SIP IP Details
Listen Ports
Federated IP/FQDN

Signaling Groups - C^3



Signaling Groups - PSTN





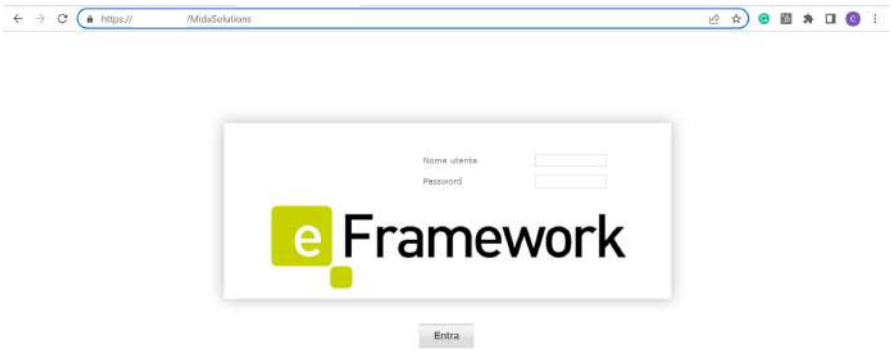
5. Multi-tenant systems: add tenants

Multi-Tenant systems are useful when multiple organizations are sharing the same application server. When the multi-tenant option is enabled, administrator profiles are slightly different compared to standard systems.

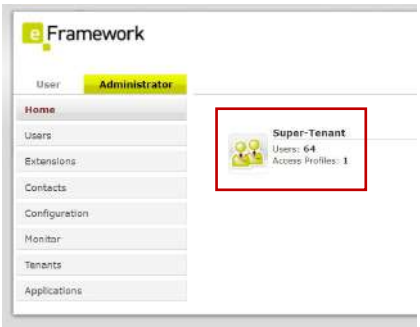
If you are our partner with more than one customer, you can handle them on our multi-tenant platform using one single Virtual Machine. Please refers to this paragraph only if it is your case, otherwise, you can leave out this paragraph.

In the No Tenant section of the Mida Unified Portal – MUP (which is the Mida Solutions products' main interface), it is possible to add tenants and handle them. Here it is also possible to set some parameters that concern all the tenants because these settings are related to the unique Virtual Machine.

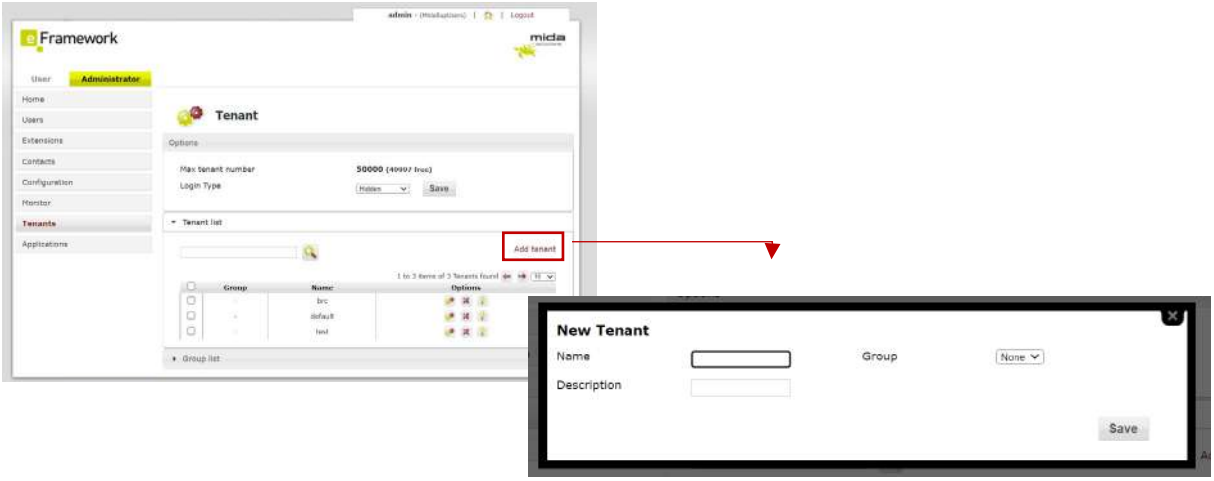
1. Access to the super-tenant administration page at http://<IP ADDRESS>/MidaSolutions with these credentials:
    - Username: admin
    - Password: admin



2. Check to be logged as ***Super-Tenant***.



3. From the navigation menu on the left, go to Administrator > ***Tenants***. The page will show the already existing tenants and will enable to create new ones simply clicking on the ***Add new*** option.



4. Insert here the name and the description of the new tenant and click on Save.
5. The new tenant is now ready to be use.

Please note that:

- the tenant's name will be the one the tenant uses to log in to his MUP.
- the procedure of adding a tenant takes a few minutes. Wait a moment before the tenant log in into the Mida Unified Portal (as explained below).
- by default, each new tenant has an admin user
- it is possible to organize tenants in group.

For each tenant, the page allows to:

- *Edit* – open the edit tenant page to change the name, the description, and the group;
- *Delete* – a warning dialog box will open to ask for confirmation;
- *Disable* – a warning dialog box will open to ask for confirmation.

6. To access the new tenant's Mida Unified Portal just go to *http://* <IP ADDRESS>*//NEW_TENANT_NAME* and use the following credentials.

- Username: admin
- Password: tenant name with the first letter of the chosen name capitalized and the current year written with numbers. This is a password given by default. At any time, it is possible to change it.

For example, if the tenant's name is brc, to log in use:

- the URL http:// <IP ADDRESS>/brc
- the user's name admin
- the password: Brc2022

As shown in the picture below, the tenant can check to be logged in his Mida Unified Portal.