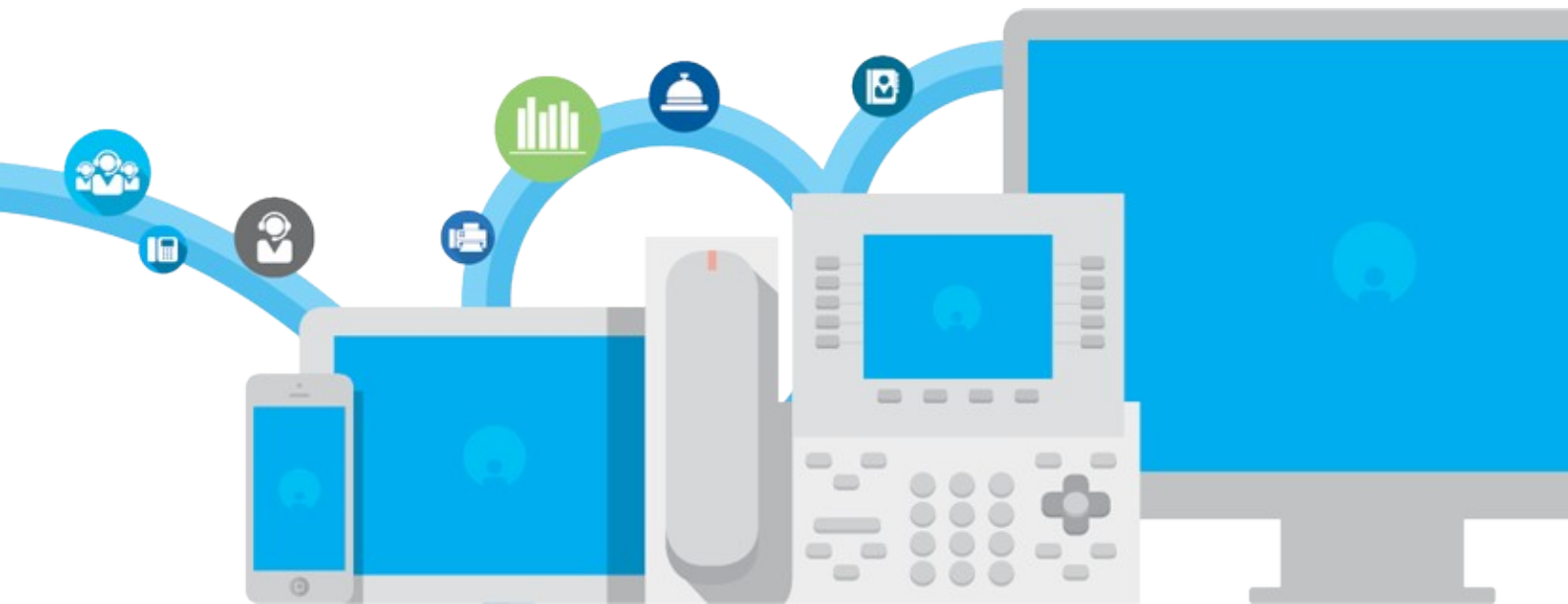


# Main Configuration

10 Apr 2020



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## Main Configuration

### Configuring the Framework

All the application of the suite are installed and updated through one single package.

The applications of the Suite are built upon a common framework. They share the User Management and some common setting. After installation of the package, you have to configure some general parameters which are shared between the applications, such as the PBX IP address or the email parameters. Then create the user's list and configure the applications you want to evaluate or activate.

The Application Suite can be configured through a web based interface. It has to be properly configured by these simple tasks:

- Configure the parameters common to all applications: PBX settings, Email settings, Numbering Plan parameters
- Configure the list of users, which can be edited manually, imported from a file or synchronized via LDAP
- Setup specific parameters for each application, as described in each application section
- Configure the PBX
- Configure CTI on the PBX (CTI controller). This may not be needed by all the applications
- Start the services through the web interface
- Activate the licenses. No license is needed during the evaluation period

## Accessing the Web Interface

The Application Suite provides a web interface for both administrator and users purposes.

You can reach the web interface typing this URL in the web browser:

**[http://Server\\_IAS/](http://Server_IAS/)** or **[https://Server\\_IAS](https://Server_IAS/)**

where Server\_IAS is the IP address or DNS name of the server the IAS is installed on.

The URL is the same for administration and common usage. The setup program also creates a Desktop shortcut on the server and a link in the Start menu.

To log in as the main administrator, enter the username and password **you** provided during installation.

Default values: **admin/admin**.

There is no way to recover this password once lost. If you loose the password, you have to reinstall the Application Suite package in the same folder. The setup program will ask you for the new administrator credentials and will overwrite the old ones.

Once you are logged in, your session will expire after 4 hours of inactivity.

## Supported browsers

The web interface can be best used with the following browsers:

- Mozilla Firefox (latest version)
- Chrome (latest version) **recommended**
- Internet Explorer 7, 8, 9
- Safari (latest version)

Internet Explorer 10 and 11 require Application Suite version 2013.7.2 or later.

Microsoft Edge requires Application Suite version 2013.7.2 or later.

Internet Explorer 6 is not compatible.

## SSO - Single Sign On

IAS supports Single Sign On (SSO), that is, automatic authentication to the web interface using the Windows domain user.

SSO requirements:

- Internet Explorer version 6 and above, Firefox or Chrome web browser
- The IAS server and the client PC must belong to the same Windows Domain
- In Active Directory, the user Principal Name must be equal to the ssamAccountName

To enable Single Sign On:

- Make sure the IAS users have the both the Active Directory Username and the Domain fields filled. You can set them through the Users Management web page
- Under Admin, System Parameters, User Authentication settings, select "Active Directory/LDAP -> Application Suite"

To log in trough Single Sign On, users must open the following link in Internet Explorer:

**[http://Server\\_IAS/fw/Autologin.asp](http://Server_IAS/fw/Autologin.asp)**

If authentication fails you get redirected to the standard login page. In this case, please check that the server is joint to the right domain, that you can ping the domain controller from the IAS server, and that the above requirements are met.

**Note:**

1. By default Internet Explorer identifies a Web site or a share as in the Internet zone when the url is an IP address or a FQDN containing periods.
2. By default Internet Explorer allows autologon only in Local intranet sites.

So to have SSO working you have three ways:

1. Connect to IAS using the hostname only ex.: `http://ias/fw/autologin.asp`
2. Connect to IAS using FQDN (ias.imagicle.com) or IP address and add it to the **Local intranet** zone:  
Tools | Internet options | Security | Local intranet | Sites | Advanced | `http://<IP_or_FQDN>/` > Add
3. Connect to IAS using whatever and change the **security level** of the **Internet zone**:  
Tools | Internet options | Security | Internet | Custom level | User Authentication | Logon |  
Automatic logon only in Intranet zone > Automatic logon with current user name and password

## Licensing

**Admin** **Licenses** web portal menu shows the list of the available applications and if they are licensed, in evaluation mode, permanent mode or if the licenses are expired.

### Evaluation period

After the first installation/deployment, each application runs for 30 days in evaluation mode.

Evaluation may be extended upon request to Imagicle Sales department.

### License Activation

Starting from Imagicle 2019.Summer.1 release, we have added a brand new cloud-based activation method, using an "Activation Token" generated by Imagicle Cloud portal. The existing "offline" activation method", based on "Request String" + "Response Strings" is still available for backward compatibility.

In the following paragraphs, we are describing both methods, starting from most recent one.

### Cloud Licensing (available from Imagicle 2019.Summer.1 release)

Cloud-based activation method requires IAS server to reach a specific Internet URL: <https://api.imagicle.com>

If Internet access is controlled by a Proxy Server, then please make sure that it allows a transparent connection to above web URL (i.e. tunnel), **not** using "Decrypt and Scan" mode. Proxy configuration instructions are available [here](#).

Test Cloud Connection:

Open a browser in Application Suite Server and go to <https://api.imagicle.com/test> this message confirms the correct connection to our Cloud.

```
{
  "message": "successfully connected!"
}
```

From Imagicle web portal Admin **Licenses**, it's possible to view current licenses status. See below sample:

#### Imagicle ApplicationSuite activation

Activation mode **Offline**

PRODUCT NAME	QUANTITY	METRIC	LICENSE TYPE	CARE TERM DATE	TERM DATE	LICENSE STATUS
Blue's Attendant Professional	12	clients	Trial	-	19/07/2019	Expiring
Blue's One Enterprise	2	clients	Trial	-	19/07/2019	Expiring
Call Recording	22	channels	Subscription	-	26/07/2019	Expiring
Billy Blue's 4	100	extensions	Perpetual	-	-	Licensed
SSAM Professional		channels	Subscription	-	02/05/2019	Expired
Hotel Link		rooms	Unknown	-	-	Invalid

For every license, the following information are included:

<u>Column Name</u>	<u>Content Description</u>
PRODUCT NAME	Application name
QUANTITY	License volume
<u>METRIC</u>	License based on " <u>channels</u> " or " <u>Clients</u> "
LICENSE TYPE	License type <sup>1</sup>
CARE TERM DATE	<u>Imagicle CARE expiring date</u>
TERM DATE	License <u>expiring date</u>
LICENSE STATUS	License <u>activation status</u> <sup>2</sup>
LICENSE CODE	License ID code. <u>Included for older, offline activations</u>

## Ã¹ License Type

Supported IAS license types are:

- Perpetual: never expires
- Subscription: it expires, depending on annual subscription
- Evaluation: trial license for evaluation purposes, expiring in 30 days from deployment
- Unknown: Wrong or not recognized license

## Ã² License Status

Each license is associated to own status:

- Licensed: active license
- Expiring: trial or subscription license, expiring within 30 days
- Expired: trial or subscription license, already expired
- Invalid: invalid license code

Perpetual licenses never expires.

Licenses web page shows offline/online activation mode. If that's a brand new IAS, this information is not shown. Moreover, for each node, the following data is shown:

- Node ID
- Customer name
- Customer ID

If you are updating a IAS with a release older than 2019.Summer.1, some of above information are not available and subsequently not displayed. See below:

### Application Suite activation

Activation mode **Offline**

### Node: Massarosa

Customer Name: **Imagicle S.p.a**  
 Customer ID: **002902927**

## First time activation

From "Licenses" web page, please click on **Activate Now** button to initiate the license activation procedure. You are immediately prompted to select desired activation mode:

- **Online Activation:** Self-service activation through Imagicle cloud service
- **Offline Activation:** Offline activation, through Imagicle Delivery team

### Online Activation

It requires an "Activation Token", generated from [Imagicle Cloud licensing portal](#). Please make sure you have received a "Smart Account" from Imagicle, otherwise you can request it from above Imagicle Cloud portal.

Once you have the token, pls. enter it in the relevant field "Activation Token". Hit **Save** to enable licenses or **Cancel** to go back to initial license screen.

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FIND OUT MORE



Online Activation

**Activation token**

0d88e0d51a76a04929b8d7cb78b467e38ffea05d6eea6cb0b848c5a773054936

If activation is successful, you are redirected to initial license page, which now shows:

- ActivationMode: **Online**
- A **Change** button which allows to change activation mode or add/remove licenses by updating the Activation Token.

### Application Suite activation

Activation mode **Online**

#### Node: Massarosa

Customer Name: **Imagicle S.p.a**  
 Customer ID: **002902927**

PRODUCT NAME	QUANTITY	METRIC	LICENSE TYPE	CARE TERM DATE	TERM DATE	LICENSE STATUS
Blue's Attendant Enterprise	5	clients	Trial	-	09/08/2019	
Blue's Attendant Professional	5	clients	Trial	-	09/08/2019	
Blue's One Enterprise	25	clients	Trial	-	09/08/2019	
Queue Manager Enterprise	4	channels - shared with IVR Module	Trial	-	09/08/2019	
IVR module for Queue Manager Enterprise	4	channels - shared with QME	Trial	-	09/08/2019	
IVR Manager Professional	20	channels	Trial	-	09/08/2019	
Call Recording	1	channels	Trial	-	09/08/2019	
Speedy Enterprise	100	users	Perpetual	-	-	Licensed
StoneFax	2	channels	Trial	-	09/08/2019	
Billy Blue's 4	250	extensions	Trial	-	09/08/2019	
Budget Control			Trial	-	09/08/2019	
StoneLock	100	users	Trial	-	09/08/2019	
SSAM Professional	1	channels	Trial	-	09/08/2019	
Hotel Link	50	rooms	Subscription	30/11/2019	31/12/2019	Licensed
UIC Licenses	100	licenses	Perpetual	-	-	Licensed



## Offline Activation

First you need to retrieve the Request String from Imagicle Licenses web page.

Then you can generate the "Response String" from [Imagicle licensing portal](#), by entering License Code (provided by Imagicle) and above Request String.

Once you have the string, pls. enter it in the relevant field "Response String". Hit **Save** to enable licenses or **Cancel** to go back to initial license screen.

### Imagicle ApplicationSuite activation

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A new way to make the assignment and management of Imagicle licenses faster, smarter and easier.

FIND OUT MORE

Offline Activation

**Request string**

```
REQ=1|app=sas|ops=6.2_(build_9200)|pkg=2019.6.1|vm=1|reqdate=2019-10-14|SupKey=3.32A243K6.A51K|MachineKey2=4.9URA517T.A51K|84bc91925f7110c4ec63175d8a14512c
```

**Response string**

```
RESP=1;app=bib;extensions=250;virtual=1;lic=Normal;lictype=EU;cust=;supkey=3.32A243K6.A51K;97fabf56d56a12c5cbaca0bac0711e11|RESP=1;app=bdg;liccode=PRODUCTION;virtual=1;lic=Normal;lictype=EU;supkey=3.32A243K6.A51K;b907bf6952e04a7aae0c1128a8684121|RESP=1;app=slo;users=250;liccode=PRODUCTION;virtual=1;lic=Normal;lictype=EU;supkey=3.32A243K6.A51K;34186afb14d5cecaaf744d0a918f226f|RESP=1;app=s
```

Save Cancel

If activation is successful, you are redirected to initial license page, which now shows:

- ActivationMode: **Offline**
- A **"Switch to online or update your license"** button which allows to change activation mode or add/remove licenses by updating the Response String.

### Imagicle ApplicationSuite activation

Activation mode
*Offline*
Switch to online or update your license

PRODUCT NAME	QUANTITY	METRIC	LICENSE CODE	LICENSE TYPE	CARE TERM DATE	TERM DATE	LICENSE STAT
Blue's Attendant Enterprise	40	clients	PRODUCTIO	Perpetual	-	-	Licensed
Blue's Attendant Professional	40	clients	PRODUCTIO	Perpetual	-	-	Licensed
Blue's One Enterprise	40	clients	PRODUCTIO	Perpetual	-	-	Licensed
Queue Manager Enterprise	8	channels - sl	PRODUCTIO	Perpetual	-	-	Licensed
IVR module for Queue Manager Enterprise	8	channels - sl	PRODUCTIO	Perpetual	-	-	Licensed
IVR Manager Professional		gateways		Subscription	-	08/05/2019	Expired
Call Recording	30	channels	PRODUCTIO	Perpetual	-	-	Licensed
Speedy Enterprise	250	users	PRODUCTIO	Perpetual	-	-	Licensed
StoneFax	4	channels	PRODUCTIO	Perpetual	-	-	Licensed
Billy Blue's 4	250	extensions		Perpetual	-	-	Licensed
Budget Control			PRODUCTIO	Perpetual	-	-	Licensed
StoneLock	250	users	PRODUCTIO	Perpetual	-	-	Licensed
SSAM Professional	8	channels	PRODUCTIO	Perpetual	-	-	Licensed

## Limitation

- CARE TERM DATE field is empty, when offline activation is selected. It might include outdated information

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- While updating to latest IAS, from an existing, production 2019.Spring.1 or older release, resulting activation mode is Offline. No need for further activation activities.
- New IAS installations are configured by default with Online activation.
- "Licenses" web page is accessible to Admin users only, with level 10 permissions (Complete Management)
- Replacing an existing activation token with a new one is allowed
- If an empty Activation Token/Response String is configured, all active licenses are removed. If you are within evaluation period, it doesn't make any difference. To re-activate the node, please enter previously removed valid Activation Token/Response String.

## License renewal upon crash or migration

If your server crashes or your configuration is corrupted, you can resume full operativity by restoring all data and configurations, previously saved with a backup. See [here](#) the procedure for data backup/restore.

If you do not have a backup, or if you want to **migrate** IAS to a new OS or a new hardware, please reinstall Imagicle Application Suite as described in the Installation section. A new Activation Token/Response String will be generated, so you'll need to run through the activate procedure to enable licenses in new server.

## Offline-only Licensing (available up to Imagicle 2019.Spring.1 release)

Prior to Imagicle 2019.Summer.1 release, **Admin** **License** web portal menu includes almost same information available through latest "Offline Activation" method:

- Request String
- Customer name
- The list of all applications, with relevant license code, status and size

General Information	
Detected Operating System	Windows 2012 Server 6.2 (Build 9200)
SAS Version and Platform	Imagicle Application Suite for Cisco UC 2018.1.1
Request String	<pre>REQ=1 app=sas ops=6.2_(build_9200) pkg=2018.1.1 vm=1 reqdate=2018-01-11 SupKey=3.6FMU9LME.K7TE MachineKey2=4.37K5T27M.K7TE fa6823857ae56072f50db95cb980a71c</pre>
Customer Name	<input type="text" value="Imagicle"/>
Reseller Name	<input type="text" value="Imagicle"/>

### Installed Applications

Name	License code	License Status	Size
UCL Users			0 users
Billy Blue's 4		Licensed	250 extensions
Budget Control		Expired	
StoneLock		Licensed	
StoneFax		Licensed	4 channels
Speedy Enterprise		Licensed	
IVR Manager Enterprise		Expired	
IVR module for Queue Manager Enterprise		Licensed	8 channels - shared with QME
Queue Manager Enterprise		Licensed	8 channels - shared with IVR Module
Blue's CTI Server		Licensed	40 Blue's One Enterprise Clients 40 Blue's Attendant Professional Clients 40 Blue's Attendant Enterprise Clients
Call Recording	Production02	Licensed	30 channels
SSAM Enterprise		Licensed	8 channels
Hotel Link		Expired	

"Response String" field is available, too. Instead of having a single, long Response String, here you have to enter a Response String for each license/application you need to activate, like below screenshot sample:

### Attiva licenze - i

Nome	Response String
UCL Users	RESP=1;app=mai;ucls=145;liccode=TQ4X9XC3;virtual=1;tel=ccm;lic=Normal;lictype=EU;cust=UnCliente;res=Tele
Billy Blue's 4	RESP=1;app=bib;extensions=1000;liccode=TQ4X9XC3;virtual=1;tel=ccm;lic=Normal;lictype=EU;cust=UnCliente;r
Budget Control	
StoneFax	RESP=1;app=sfx;ports=8;virtual=1;lic=Normal;lictype=EU;supkey=3.ARM61R1T.15F9;44bee7440756b4aac18fe4d
Speedy Enterprise	RESP=1;app=spd;users=1000;liccode=TQ4X9XC3;virtual=1;tel=ccm;lic=Normal;lictype=EU;cust=UnCliente;res=T
IVR Manager Enterprise	
Queue Manager Enterprise	RESP=1;app=qme;Channels=30;liccode=TQ4X9XC3;virtual=1;tel=ccm;lic=Normal;lictype=EU;cust=UnCliente;res:
Blue's CTI Server	RESP=1;app=att;bae_clients=10;liccode=TQ4X9XC3;virtual=1;tel=ccm;lic=Normal;lictype=EU;cust=UnCliente;res
StoneLock	RESP=1;app=slo;devices=1000;liccode=TQ4X9XC3;virtual=1;tel=ccm;lic=Normal;lictype=EU;cust=UnCliente;res=
SSAM Enterprise	RESP=1;app=sam;ports=8;virtual=1;lic=Normal;lictype=EU;cust=LABS;supkey=3.ARM61R1T.15F9;86e8148f2e51i

Hit **Save** to enable licenses.

## System Parameters

### IP Telephony System Parameters

The applications of the Suite are built upon a common framework. They share the User Management and also some common setting. You can change them by clicking the **System parameters** link in the **Admin** menu.

- **System name:** a label to identify the system. This parameter is **mandatory** but can be arbitrary
- **IP address:** address of the IP PBX on your network. This parameter is **mandatory**

**Warning:** Any change to IP Telephony parameters requires stopping and restarting **each** IAS service, so it should be the first parameter to be configured.

## Numbering Plan

You can edit these parameters through the **Admin** -> **System parameters** link in the App Suite menu, pressing the **Numbering Plan Parameters** button. These settings apply to the applications that make and receive calls such as Attendant Console and Speedy. To be able to modify a parameter, you have to deselect "Use default settings".

### General

General settings affect both incoming and outgoing calls.

- **Internal Phone Number Patterns:** These patterns identify the internal PBX extensions and, in general, all numbers that do not require the PSTN access code to be dialled. The usual range is 1 - 5. The list of patterns is checked top-down. To know how to build the pattern, please refer to the online help in the web page.
- **PBX supports E.164 dialling:** flag this checkbox if you use the + to dial external numbers (e.g. +123456789)
- **Local Country Code:** This prefix will be stripped from the caller number before looking for it in Speedy directories (e.g. +44). Incoming prefix will be stripped first, then the Local country code. You can specify only one prefix.
- **International Dialling Prefix:** This is the prefix needed to reach international numbers when the + sign is not used. E.g. 00 in European countries, +1 in US.

### Incoming calls

- **Prefix** for incoming calls: This prefix will be stripped from the caller number before looking for it in Speedy directories. Example: if your outgoing prefix is 0, it is likely that the PBX adds 0 to the caller number to allow redialling. In this case enter 0 as incoming prefix.

### Outgoing calls

- **Prefix** for outgoing calls: This prefix will be automatically added to outgoing calls, e.g. to calls placed by Speedy towards external numbers. This prefix won't be added to internal calls nor to calls towards the users' primary extension configured in the users list
- **Suffix** for outgoing calls: On some telephony systems, a suffix can be used to quicken the destination selection (for instance #)
- **TAPI events include the prefix:** set this flag to on if the called number which the pbx signals through TAPI calls includes the prefix for outgoing calls, so that it will be stripped. This should happen only if the outgoing prefix is removed by a voice gateway instead of the PBX. This setting affects the lookup in Speedy directories for the **called** numbers of outgoing calls.

## Shared Email Parameters

Common email parameters enable the applications of the Application Suite to send email through your company email server. For example, the IAS applications use SMTP to forward voicemail messages, incoming faxes, alarms, and to notify to the administrators the applications events.

This section describes those settings and their meaning. You can change them by clicking the **System parameters** link in the **Admin** menu, then pressing the **SMTP parameters** button.

- Enable Outgoing Mail: must be checked for the IAS applications to send emails
- Email Form Address: this is usually cosmetic, although some mail server may use it for identification. It is the address which appears in the "From" field of the mail sent by the IAS
- Server Name: enter the DN name or the IP address of the mail server.
- Server Port: enter the port number on which the mail server is listening (example 25 for SMTP and 465/587 for Secure SMTP).
- Use authentication, Username, and Password: fill these fields if authentication is required.

**Secure SMTP is also supported.** The protocol to be used is auto-detected from the remote server choosing the safest first: TLS (we do support 1.2 - 1.0) or SSL (3.0 - 1.0) or plain.

Press the "Test" button to test the connection. Remember to press the "Update" button to save the changes before leaving.

**Warning:** even if the connection test succeeds, some email server might reject the "email from" address at the moment the email message is sent. Please check your email server configuration.

### SMTP email queuing for high reliability

The application suite integrates an email messaging queue which prevents losing notifications when the connection with the email server fails.

If the SMTP parameters are never been configured (especially the server IP address), connection is not attempted, outgoing emails are not generated, voicemail messages and incoming faxes may never reach their recipients.


If SMTP parameters are wrong, or if the email server cannot be reached at the moment, email messages are generated and stored in a local folder ("`<inst.dir>\Var\Spool\Pickup`"). As soon as the connection is available, all the messages stored in queue are sent.

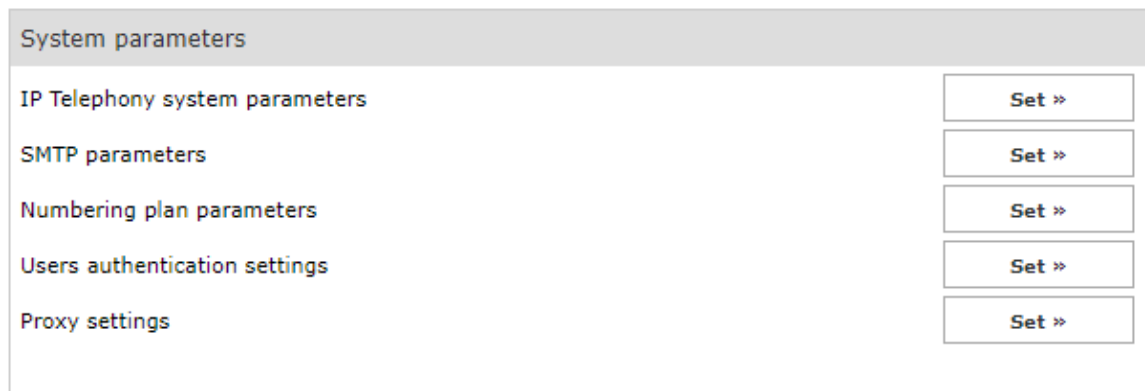
The queue service tries to reconnect to the email server every 30 seconds. The email messages are sent one by one in sequence.

## Proxy settings

This article is applicable to Imagicle ApplicationSuite 2019.Summer.1 or later and it allows to apply a Proxy configuration to reach Internet addresses, specifically for the following features:

- Imagicle Online License Activation, where you need to reach Imagicle Cloud services at <https://api.imagicle.com>
- Cloud-based email services, like Office365 or Google mail

You can edit these parameters through the Admin  System parameters link in the App Suite menu, hitting the Proxy settings button.



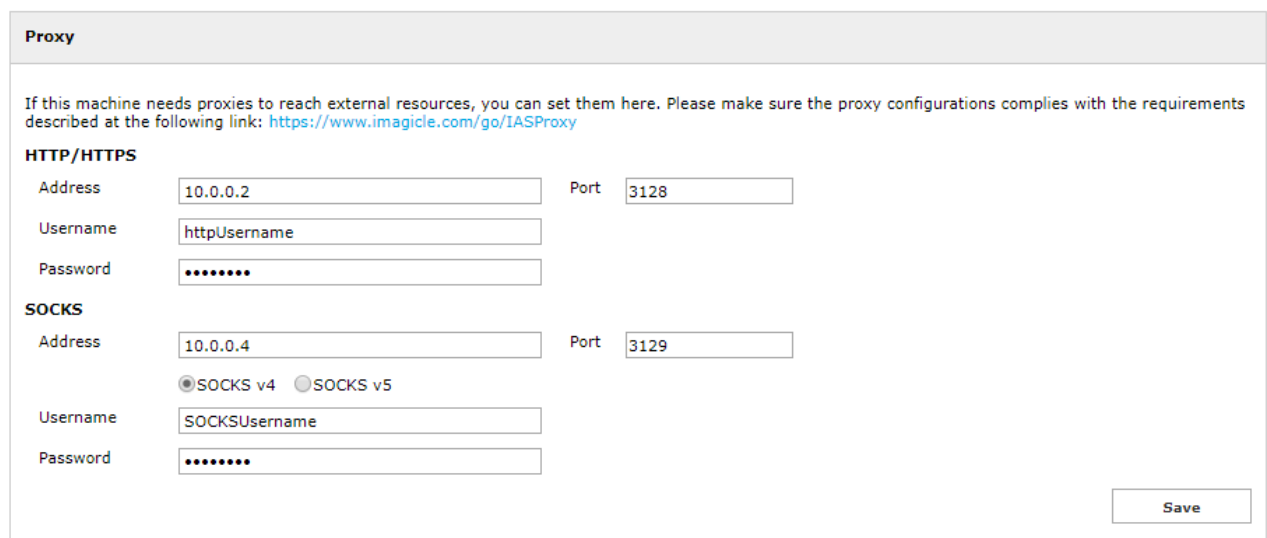
The screenshot shows a 'System parameters' menu with five items, each with a 'Set >>' button:

- IP Telephony system parameters
- SMTP parameters
- Numbering plan parameters
- Users authentication settings
- Proxy settings

## Proxy

You can either enable a HTTP/HTTPS-based proxy server and/or a SOCKS v4/v5 proxy server. In both cases, these are the field to be compiled:

- **Address:** this is the proxy URL or IP address. This parameter is **mandatory**
- **Port:** This is the TCP port used by proxy. If above address is entered, port is **mandatory**
- **Username:** the username for proxy authentication (if needed)
- **Password:** the password for proxy authentication. If above username is entered, password is **mandatory**



The screenshot shows the 'Proxy' configuration form with the following fields:

**HTTP/HTTPS**

- Address: 10.0.0.2
- Port: 3128
- Username: httpUsername
- Password: .....

**SOCKS**

- Address: 10.0.0.4
- Port: 3129
- SOCKS v4 (selected) / SOCKS v5
- Username: SOCKSUsername
- Password: .....

Save

Configuring a proxy directly on the IAS server network settings is discouraged, but if it is needed for some reason (e.g. allow SO Updates), there are 2 options:

- enable it temporarily and then disable it when it is not longer necessary

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- enable it and allow all direct communications between IAS server and all other Imagicle cluster nodes (in case of HA installation), the PBX and all other 3rd party elements (e.g. AD/LDAP sources)

In case of HA installation, proxy configuration is not replicated between the Imagicle cluster nodes.

**Warning:** The IAS must be able to obtain api.imagicle.com SSL certificate and not the proxy certificate, otherwise security checks will fail. The proxy has to act in transparent way, so it has not to do the https "decrypt & scan".



## Secure Communications Certificate

This article is applicable to Imagicle ApplicationSuite 2020.Spring.1 or later and it allows to download the Digital Certificate, required to enable Secure SIP and Secure RDP communications for Imagicle Queue Manager Enterprise applications.

### Loading the Imagicle Certificate on your PBX

When Imagicle Server boots up, it creates a security certificate which is valid for the IAS server on which it was generated. It must be downloaded from the web interface, and uploaded on your PBX.

To get the Imagicle certificate:

- Login to the IAS web interface as Administrator
- Click on Admin → System Parameters → Secure communications certificate
- Click on the **Download** button to download the communal Imagicle digital certificate and save it to your PC. The file extension is .pem.

To upload the certificate on your PBX, please follow the procedure related to your IP Telephony platform. Ask your PBX partner or vendor for further details.

**Warning:** Changing the Computer Name will invalidate the certificate. If you change the IAS server computer name, you need to regenerate the digital certificate.

**Warning:** The digital certificate will last 5 years from the day it was generated, which is the day the product was installed. If required, the certificate can be re-generated for additional 5 years, by following [this procedure](#).

## Monitoring

### Monitoring service configuration

The Application Suite includes a monitoring services which can send alerts to the system administrator when some important events occur. Examples of monitored events are:

- Insufficient disk space
- An Imagicle service failing
- Low database space
- Bad service performance
- License issues
- License overcome (e.g. calls dropped in QME because the licensed channels are too few)

The monitoring service includes auditing features. The list of events can be displayed through a web page and can also be exported in CSV or XLS formats.

### Architecture

The monitoring service (MAM) is installed on the machine by the setup program together with Imagicle applications. It is runs automatically when the machine starts. The service performs two main operations:

- **ALARM:** It monitors the local machine. If some of the monitored parameters are out of range (low disk space, low memory, high CPU, low DB space...), it records an error or a warning in the application event log named "IAS"
- **NOTIFY:** When an error is logged in the event log, it notifies the System administrator through email. It can also generate a SNMP trap messages.

Other Imagicle services can log errors or warnings to the custom IAS event log; the monitor service will take care of the notifications.

Specific event notification can be enabled or disabled through the web interface.

The IAS event log can also be browsed through the standard Windows Event Viewer.

The monitoring service is also in charge of deleting old log files (retention period is 30 days by default).

The MAM web interface can be accessed through the main Application Suite menu, selecting "Main" and then "Monitoring". It is available to the Application Suite administrators only.

### Alarms status

On the **Alarms** tab you can quickly check the health of the system. You can selectively disable the alarms if you think they are not needed. Warnings and errors are displayed here. To read the details of the current status, move your mouse pointer over the little dot with the "i".

### Mail Configuration

Click on **Mail Configuration** to set the list of the recipients of the email notifications. Recipients addresses must be valid email addresses separated by comma (,).

The SMTP parameters in the System Parameters need to be correctly set for the email notifications to run. Press check the settings using the Send Test Email button.

### Event History

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The list of events raised by the monitoring service and other Imagicle service can be examined through the web interface in the **Events History** page. The controls on the top of the list will allow you to filter the displayed events by date, by type, by application and by category. Each event has a unique id.

The type of the event represents its severity: information, warning or error.

To enable or disable further notifications, use the checkbox in the event row.

**Warning:** the filter lists are dynamic. If an application, event type or category is not available in the list, this means that no event with that property has been raised yet. As a consequence, you can only disable events that have been notified once.

The list of events can be downloaded in CSV or XLS formats by clicking on the small icons in the upper right corner of the list.

## Monitored events details

The MAM monitors a lot of parameters and can raise a lot of events. Here are some relevant caveats and additional details.

**Service failing:** The error stating that an Imagicle service is failing is raised if the process disappears for more than 15 seconds from the process list.

**Low disk space:** when the disk space is low, the Monitor will warn the user and will also try to gain space by deleting old log files

**Database full:** if no space is left in the database, Imagicle Billing Miner service will be stopped. The call data will be stored in local files until the database is purged. This way no call will be lost.

## Tuning and customizations

The monitoring service can run external processes if needed; its behavior can be fine-tuned and customized through XML files. Please ask Imagicle Technical Support team if you have specific needs.

## SNMP configuration

The SNMP configuration web page allows you to easily add the IAS server to a SNMP monitor.

The Simple Network Monitoring Protocol **monitor** is a third party software able to receive the notifications, installed somewhere on your network. Optionally, the software may include a **master agent** which receives the notifications and makes them available to the monitor.

The IAS MAM acts as a **monitored device**. There is no need to install a third party agent on the IAS server to monitor it through SNMP.

**Warning:** IAS monitoring services only sends SNMP trap services. It does not respond to SNMP inquiries.

Here are the steps to activate the SNMP trap generation and receive them on a SNMP manager:

- **SNMP trap servers:** enter the SNMP manager IP address; if more than one manager must be reached, enter the ip addresses separated by commas. If your system includes a master agent, enter the master agent ip address.
- **SNMP trap community:** it is a common practice to put monitored devices in groups called *communities*. If this parameter does not match the configured community on the monitor, the trap messages could be discarded.

Press Save after the changes.

To enable the third party SNMP monitor to receive the SNMP trap messages from the MAM, you have to download the IAS MIB file by pressing "Download SNMP MIB" button, then load it to the SNMP monitor software. Please refer to your SNMP monitor documentation to know how to load the IAS MIB file.

After configuration, whenever an alarm is raised, a SNMP trap is also sent to the SNMP monitor. SNMP traps can be selectively disabled from the Events history web page

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Note: if the IAS server fails (for example because of a power outage), no SNMP trap will be generated, because the MAM won't be running.

**Warning:** SNMP traps are sent towards UDP port 162. Please ensure the SNMP manager IP address and port can be reached over the network, and no firewall is blocking the communication.

### Technical details

SNMP OID used for TRAP messages associated to IAS alerts, are located in the Imagicle branch:

.1.3.6.1.4.1.39801 (.iso.org.dod.internet.private.enterprise.imagicle)

Events are identified as follows, through SNMPv2 OIDs:

39801.2.0.[eventid] (imagicle.suiteEventNotifs.[enterprise-specific].[eventid])

Events include the following additional variables:

39801.1.1 (imagicle.types.eventText) (with a short text description of the events).

### Troubleshooting SNMP trap messages

- When you sent the test TRAP, the result displayed can be misleading. Check that you can actually ping the configured SNMP manager or master agent IP addresses from the IAS server
- Verify that no firewall is blocking outgoing UDP connections FROM the IAS server towards port 162 of the SNMP monitor server
- To generate an actual alarm, stop one of the licensed IAS services (e.g. StoneLock)