

## How to migrate IAS data to a new SQL Server instance

### Applies to:

IAS Version  $\geq$  2019.Summer.1

- New IAS installations that will use the locally installed SQL Server 2017 Express
- IAS Database migration from an existing SQL Server Express local instance version  $\geq$  2008 and  $<$  2017 to a newer SQL Server 2017 Express local instance

IAS Version  $\leq$  2019.Spring.1

- Backup and restore Blue's SQL database to a new SQL server, even on different versions, providing the target SQL Server is the same or higher version.

### Description:

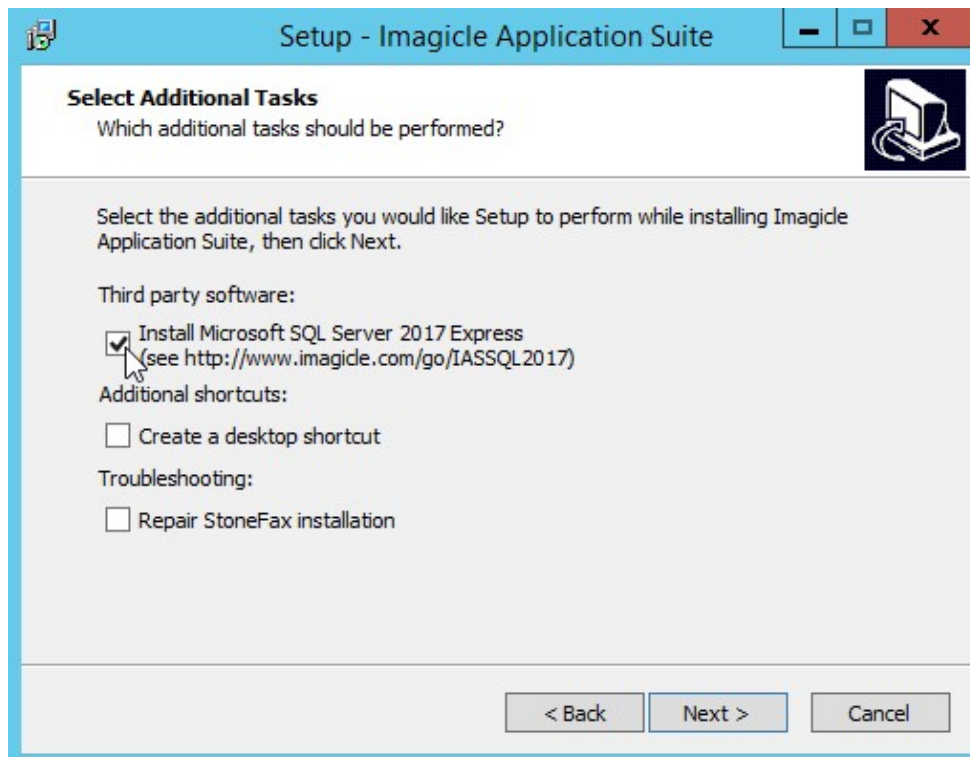
This article describes how to install, configure, or migrate an older instance to the new SQL Server instance. Two different procedures are provided, depending on IAS release:

- 2019.Summer.1 and above: Leveraging new SQL Server 2017 Express local instance
- 2019.Spring.1 and below: Using Microsoft SQL Management Studio or Imagicle Backup & Restore tool

### Procedures for IAS Version $\geq$ 2019.Summer.1

#### Installing the new SQL Server 2017 Express

The new SQL Server 2017 Express local instance can be automatically installed along with the IAS by selecting "Install Microsoft SQL server 2017 Express" option during the setup.



## Upgrading SQL Server Express

The typical use case is the migration of a local SQL Server 2008 R2 Express database, included by default in IAS setup packages 2019.Spring.1 and older releases, to the new SQL Server 2017 Express.

### **WARNING**

This upgrade is recommended in those cases where operating RAM usage is below 85% of overall available memory. As an example, if you are using AX/BX server classes, equipped with 4GB RAM, together with Windows Server 2016 or 2019 OS, the installation of SQL Server 2017 might exceed the amount of required RAM and consequently slow down Imagicle services. In those cases, we suggest to increase VM's assigned RAM of 2GB (6 GB total), to guarantee the correct system performances.

Two different (alternative) options are described below, and are respectively based on:

1. Imagicle backup & restore tool
2. SQL database detach/attach

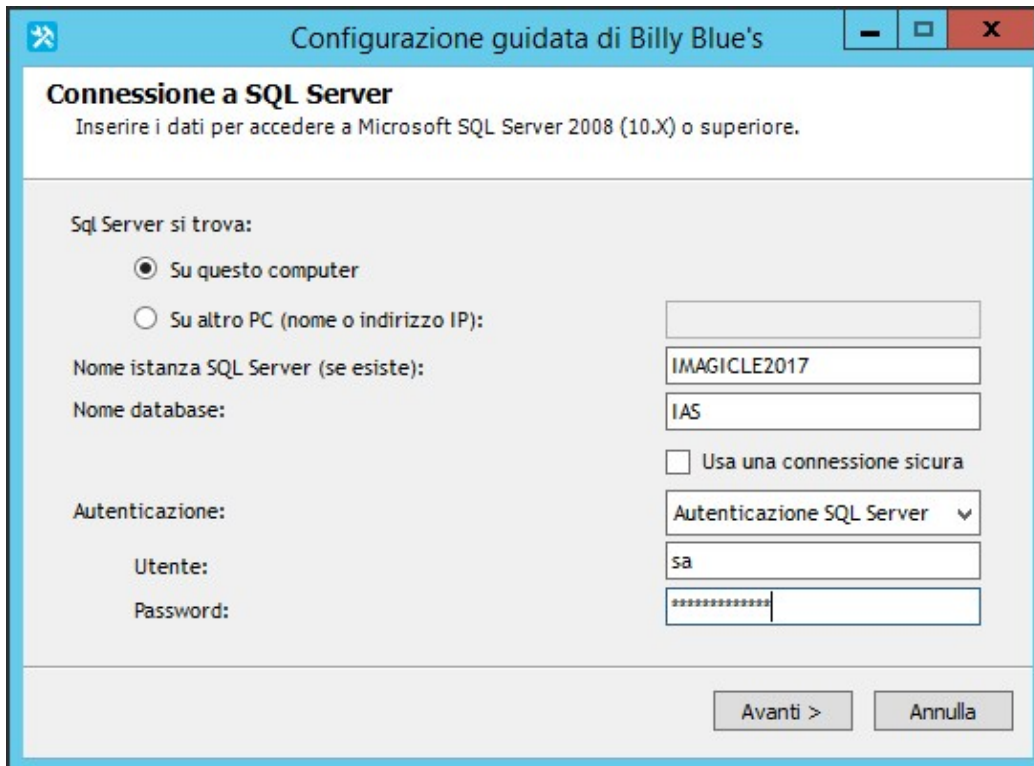
Both procedures imply having two local SQL instances on IAS server:

- Existing SQL Server Express instance (version  $\geq$  2008 and  $<$  2017) including current IAS configuration database
- A new target, blank SQL Server 2017 Express instance

### **Option1: Imagicle Backup/Restore based migration**

#### **Standalone IAS node**

1. Perform a full IAS **backup** by executing Imagicle Backup and Restore tool **as administrator**, as described [here](#).
2. If you want to enable new local authentication credentials, different than existing "sa", please create a new SQL login into new SQL Server 2017 Express instance, with local credentials to connect to IAS database, as described [here](#).
3. From Windows Start menu, please launch **Imagicle AS Database Configuration** tool as administrator and enter **new SQL Server 2017 Express instance name** (e.g. IMAGICLE2017), database name (e.g. IAS) and local authentication credentials, with permissions to allow DB creation.
4. Hit "Next" to proceed with the creation of the new DB. If entered credentials are wrong or lack needed permissions, database creation fails. In this case, please go back to SQL login creation. **Please note that even when using the "sa" user the password for the new instance could differ from the old one. (SvBillyBlues\$ is the default password)**



5. Perform now a **restore** by executing again Imagicle Backup and Restore tool **as administrator**.  
**Warning:** Please check the disk space before proceeding. (this procedure will be a copy of your previous database)
6. From now on, your IAS starts using new SQL Server 2017 Express instance, where all DB data have been properly restored from the original SQL database.
7. The original SQL Server Express instance is still there, even though it is no longer used by IAS. You can manually remove it from Imagicle server after having verified that all data have been properly moved to the new SQL Server 2017 Express instance and no additional databases are hosted on the original instance. **Please note that while the original SQL Server Express instance could be deleted, all the other features including Management Objects, Native Client and Setup must not be deleted, in order not to compromise the proper IAS functioning.** In the following example, where the original SQL Server Express instance was version 2008 R2, the highlighted feature should be the only one to be

Microsoft ODBC Driver 11 for SQL Server	Microsoft Corporation
Microsoft ODBC Driver 13 for SQL Server	Microsoft Corporation
Microsoft Report Viewer 2015 Runtime	Microsoft Corporation
Microsoft Report Viewer Redistributable 2008 (KB9711...	Microsoft Corporation
Microsoft Report Viewer Redistributable 2008 SP1	Microsoft Corporation
Microsoft Silverlight	Microsoft Corporation
Microsoft SQL Server 2008 Management Objects	Microsoft Corporation
Microsoft SQL Server 2008 Management Objects	Microsoft Corporation
Microsoft SQL Server 2008 R2	Microsoft Corporation
Microsoft SQL Server 2008 R2 Native Client	Microsoft Corporation
Microsoft SQL Server 2008 R2 Setup (English)	Microsoft Corporation
Microsoft SQL Server 2008 Setup Support Files	Microsoft Corporation
Microsoft SQL Server 2012 Native Client	Microsoft Corporation
Microsoft SQL Server 2017 (64-bit)	Microsoft Corporation
Microsoft SQL Server 2017 Setup (English)	Microsoft Corporation

deleted.

## Redundant IAS cluster

If you are running an Imagicle redundant HA cluster, please follow these steps:

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1. Stop all Imagicle services (including the replication services) on all nodes. You can use the <installation\_folder>\Temp\Sv-StopAllServices.bat batch file.  
Please, notice that this implies a downtime for all the Imagicle services.
2. On each node, run the Node Removal Tool to remove the **local node** from the cluster as described here.
3. Perform all the steps of the above "Standalone IAS node" section on the master node.
4. On each other node in your Imagicle HA cluster use the **Imagicle AS Database Configuration** tool as described above in section "Standalone IAS node" (steps 2, 3 and 4) to configure the IAS with the new SQL Server instance.
5. Rebuild the cluster starting from the master node.

## Option 2: Database Detach migration

Database migration through *detach* and subsequent *attach* procedure requires a number of manual tasks to be applied on both original and recipient SQL Server instances. This is the suggested procedure for Imagicle HA clusters and if you have a large amount of billing data in your existing DB. Please carefully read current limitations described here.

Moreover, notice that this procedure requires a temporary stop of all Imagicle services (on all nodes in the cluster).

## Standalone IAS node

This procedure applies to a stand-alone server, see the next paragraph if you need to handle an Imagicle AppSuite cluster.

1. Stop all Imagicle services  
You can use the <installation\_folder>\StonevoiceAS\Temp\Sv-StopAllServices.bat batch file.
2. Disconnect (**detach**) IAS database from old SQL Server instance as described here.  
Select "Drop Connections" and click "Ok"
3. Move (Cut and Paste) the IAS database **.mdf** and **.ldf** files from this folder  
**Warning:** If you decide to copy and paste these files please check the disk space before proceeding. (this procedure will be a copy of your previous database)

Imagicle default path here

```
<Installation path>\StonevoiceAS\SqlServerData\MSSQL10_50.IMAGICLE\MSSQL\DATA
```

to a new SQL 2017 DB folder

```
<Installation path>\StonevoiceAS\SqlServerData\MSSQL14.IMAGICLE2017\MSSQL\DATA
```

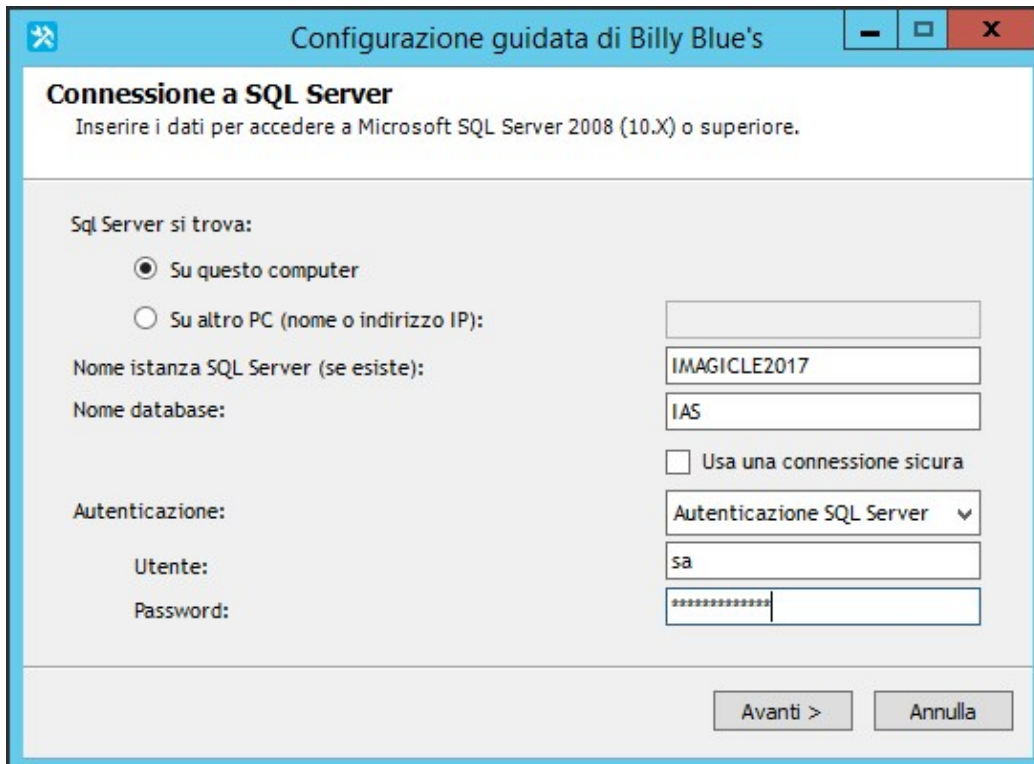
4. Connect (**attach**) the IAS database to the new SQL Server 2017 Express instance as described here.
5. If you want to enable new local authentication credentials, different than existing "sa", please create a new SQL login into new SQL Server 2017 Express instance, with local credentials to connect to IAS database, as described here.
6. If a new SQL login has been added as described in the previous step, please run the following SQL script to create a DB user with "owner" permissions on database itself. [<DB\_NAME>] should be replaced with actual IAS database name; [<IAS\_USER>] should be replaced with the username of new login user previously created.

```
USE [<DB_NAME>]
```

```
CREATE USER [<IAS_USER>] FOR LOGIN [<IAS_USER>]
```

```
EXEC sp_addrolemember N'db_owner', [<IAS_USER>]
```

7. From Windows Start menu, please launch **Imagicle AS Database Configuration** tool as administrator and enter **new SQL Server 2017 Express instance name** (e.g. IMAGICLE2017), database name (e.g. IAS) and local authentication credentials, with the required DB permissions.
8. Hit "Next" to proceed with the creation of the new DB. If entered credentials are wrong or lack needed permissions, database creation fails. In this case, please go back to SQL login creation. **Please note that even when using the "sa" user the password for the new instance could differ from the old one.**  
**(SvB1llyBlues\$ is the default password)**



9. If the task is successfully accomplished, the database configuration wizard will automatically restart all the Imagicle services.
10. The original SQL Server Express instance is still there, even though it is no longer used by IAS. You can manually remove it from Imagicle server after having verified that all data have been properly moved to the new SQL Server 2017 Express instance and no additional databases are hosted on the original instance. **Please note that while the original SQL Server Express instance could be deleted, all the other features including Management Objects, Native Client and Setup must not be deleted, in order not to compromise the proper IAS functioning.** In the following example, where the original SQL Server Express instance was version 2008 R2, the highlighted feature should be the only one to be

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Microsoft SQL Server 2017 (64-bit)	Microsoft Corporation
Microsoft SQL Server 2017 Setup (English)	Microsoft Corporation

deleted.

## Redundant IAS cluster

If you are running an Imagicle redundant HA cluster, please follow these steps:

1. Stop all Imagicle services (including the replication services) on all nodes. You can use the <installation\_folder>\Temp\Sv-StopAllServices.bat batch file.



Please, notice that this implies a downtime for all the Imagicle services.

2. On each node, run the Node Removal Tool to remove the **local node** from the cluster as described [here](#).
3. On the master node only, perform all the steps of the above "Standalone IAS node" section above.
4. On each other secondary node of your Imagicle HA cluster use the **Imagicle AS Database Configuration** tool as described above in section "Standalone IAS node" (steps 7 and 8) to configure the IAS with the new SQL Server instance.
5. Rebuild the cluster starting from the master node.

## Procedures for IAS Version <= 2019.Spring.1

### Migration using SQL Server Management Studio

Before starting the DB migration, please make sure the destination SQL Server version is the same or higher than source SQL Server.

- Download and install Microsoft SQL Server Management Studio Express
- Make sure your SQL is already installed on the destination machine and you have username and password for both source and destination SQL Servers
- Login through Remote desktop to Imagicle Application Server and stop all Imagicle Services by running `<IAS_Installation_Folder>*\Temp\SV-StopAllService.bat` as administrator
- Run SQL Server Management Studio and connect to the source SQL where your current database is stored
- Open database folder and right click on `<IAS_DB_Name>**` → activity → Backup.
- From new tab, click *add* and set a destination path for the backup, specifying the file name. Click OK
- Click OK once more to start the backup
- Right click database folder and select restore database
- Select 'source resource' and click '...'. Select the previously created backup file
- Click OK to import the database
- After the restore, close the application and run Billy Blue's Configuration: Start menu → Imagicle Application Suite → Configure Billy Blue's
- Starting from Spring '18, you can run Start menu → Imagicle Application Suite → Imagicle AS Database Configuration
- Modify the connection settings with the new ones
- Click next and wait until operation ends
- Click next until the end

When procedure is completed restart Imagicle Application Server, after the restart the applications will start to use the database in the new location

\* `<IAS_Installation_Folder>` by default is `C:\Program Files (x86)\StonevoiceAS\`

\*\*`<IAS_DB_Name>` by default is 'BluesPro' and for new installations, starting from Spring '18 is 'IAS'

### Migration using Backup & Restore Tool

Before starting the DB migration, please make sure the destination SQL Server version is the same or higher than source SQL Server.

- Make sure your SQL Server is already installed on the destination machine and you have username and password for both source and destination SQL Servers
- Run the "Imagicle Backup and Restore" utility and click on "Backup" tab
- Set a destination path for the backup and click "Run Backup"
- Once the backup is complete, click on the "Restore" tab
- Click on "Stop All Applications" and confirm
- Wait for a confirmation message, and then close the "Backup and Restore" utility
- Open a command prompt and run: `C:\Program Files (x86)\StonevoiceAS\System\BackupRestore.exe /UPGRADE`
- Enter the data to access the destination SQL Server instance and click "Connection test"
- if the connection test fails check inserted data and try again
- Once the test is passed, click "Next"
- Follow the configuration wizard and wait for it to complete
- Run again the "Imagicle Backup and Restore" utility and click on "Restore" tab
- Click on "Stop All Applications"
- Choose the path to the backup you created in step 3 and click "Restore Now"
- Confirm the data to access the destination SQL Server instance and click "Next"

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- Follow the instructions until the restore procedure is complete
- Reboot the server