



**identiMetrics™**  
Simplify Your School Day

# Services Guide

## identiMetrics Biometric ID Platform™ Version 2.4

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# Services Guide

## Overview

There are three services that are part of the identiMetrics Biometric ID Platform: the Biometric Engine, the Distributor and the ID Provider. The Biometric Engine is the core service and is responsible for maintaining the data and providing identification services. The Distributor is an optional service which is used to manage the data centrally across multiple Biometric Engines. The ID Provider is an optional service which provides a copy of the data from a Biometric Engine to provide identification services for one or more Scan Managers independently. This works as a protection from network issues or to simply boost the performance.

The services provide all the necessary functions for the Enrollment Manager, Scan Manager and MultiScan applications and have to be running for these applications to work. In addition, the services run various internal and configurable tasks at scheduled times during the day.

**Special Note:** In order for the services to work correctly, the computers they are running on **MUST NOT** hibernate or sleep. When the computer hibernates and awakens, it will alter the schedules of the running tasks. If this occurs, the service will have to be restarted.

This document describes the features and properties of each.

## All Services

### *Automated Tasks*

All the services provide two automated tasks that always run.

- Daily – checks on the status of the license and enrollment counts and when appropriate, checks for EOY milestones and send an e-mails notification out if any conditions require attention.
- E-Mail Notification – provides a way to get e-mail notifications when the service needs human intervention.

### **Daily**

The Daily task is an internal task that runs whenever the service is started and at one minute after midnight. This task is responsible for checking the status of the license and enrollment counts. If the service is the top level service and EOY Processing is enabled then it will also check for the various EOY milestones. The top level service is either a Distributor or a Biometric Engine that is NOT Distributor enabled.

An email notification will be sent to all Administrators for the following situations:

- The license will expire soon or the license has expired.
  - The **License Warning Days** option determines when the license notifications will be generated. The default is 15 days.

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- The available enrollments are less than a certain percentage of the enrollments allowed by the license.
  - The **Enrollment Count Warning Percentage** option determines what percentage is used in the check. The default is 10%.
- SOY Situations
  - SOY is coming soon. The number of days is set in the SOY page of the EOY Setup Wizard.
  - SOY is today and the SOY actions were run.
- EOY Situations
  - EOY is coming soon. The number of days is set in the EOY page of the EOY Setup Wizard.
  - EOY is today and the EOY actions were run.
  - EOY has passed.
    - Auto Run is On – Reminder that EOY Process will be run soon.
    - Auto Run is Off – Reminder to run the EOY Process.

If EOY is enabled and the Auto Run property is set, then the Daily Task will run the EOY Process on the configured number of day after EOY.

### E-mail Notification

The Biometric Engine can e-mail all users that are Administrators when it needs intervention. In general, errors that can occur where a message can't be shown to a user will be reported via an e-mail. This includes license errors and automated task errors. To receive e-mail, the Administrators must have entered a valid e-mail address in their profiles and the following Options must be set correctly for your email service.

- **Mailer – SMTP Host Name** - Specifies the SMTP host name the task will use to send e-mail notifications. The default is `smtp.yourservice.com` which will do nothing.
- **Mailer – SMTP Host User Name** - Specifies the SMTP user name the task will use to send e-mail notifications. The default is no user name.
- **Mailer – SMTP Host Password** - Specifies the SMTP password the task will use to send e-mail notifications. The default is no password.
- **Mailer – Senders E-mail Address** - Specifies the e-mail address the task will use as the sender for any notifications. The default is [noreply@yourservice.com](mailto:noreply@yourservice.com) which will do nothing.

### Windows Service Configuration

The three identiMetrics' services are standard Windows services and are managed by the Windows Services app. By default, the services have extensive rights to the computer based on the rights provided by the Windows built-in account called the 'Local System' account (see <https://docs.microsoft.com/en-us/windows/win32/services/localsystem-account> for more info). This works great if all of the folders you need for identiMetrics will be located on the same computer. However,

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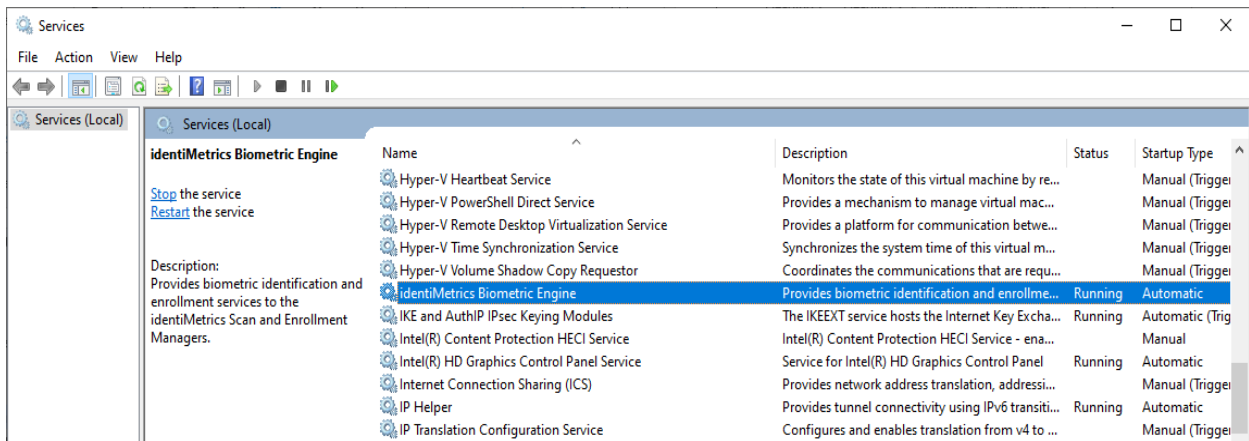
when the service is running on a computer in a Domain, and you want to put a file on a network shared folder on another computer, then this account may not have the necessary rights to access the share.

Options that could specify a shared folder:

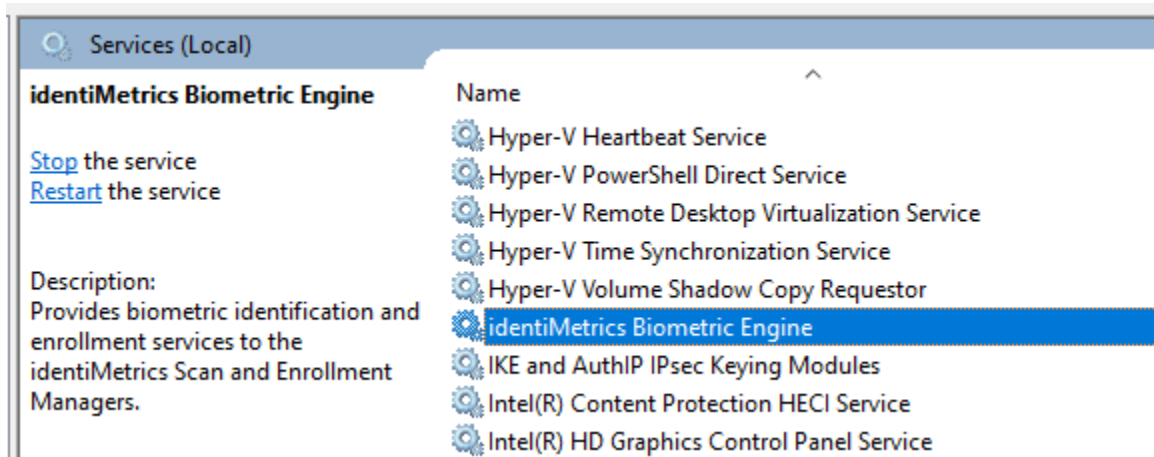
- backup.scheduled.folder
- backup.requested.folder
- import.scheduled.folder
- idlog.folder

In this case it is necessary to change the account that the service is using.

Open the Windows Services app and scroll down and click on the identiMetrics service you have installed. Here's how it looks for a Biometric Engine.

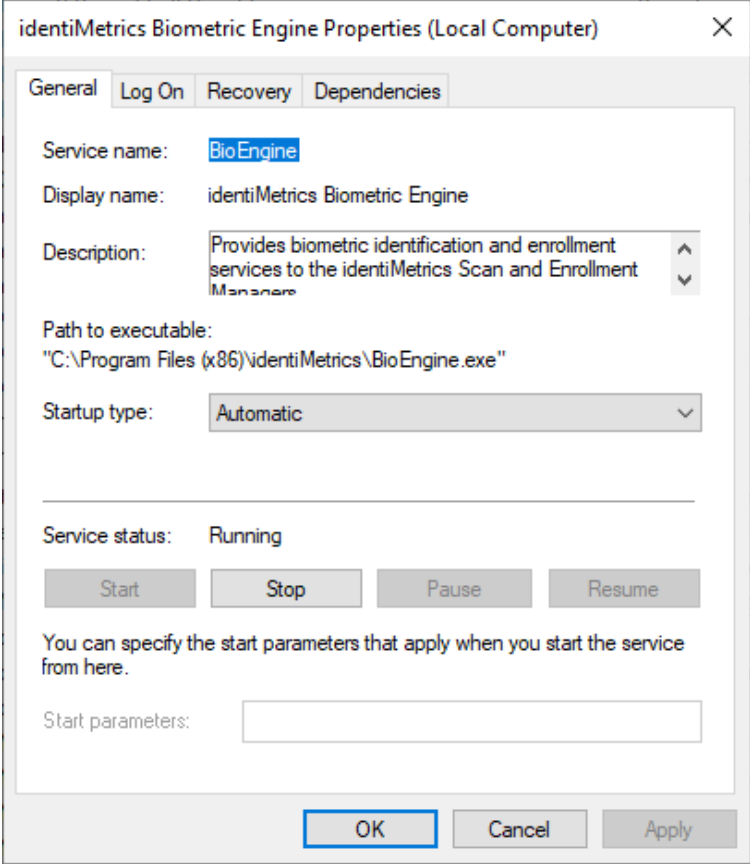


Click on the **Stop** link to stop the service.

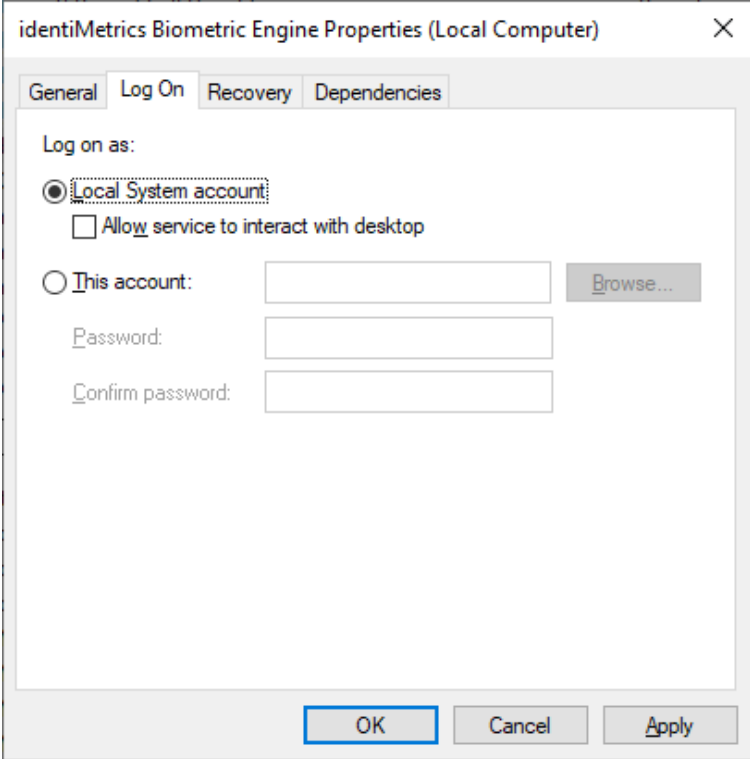


Then double-click on the highlighted item to open the properties dialog.

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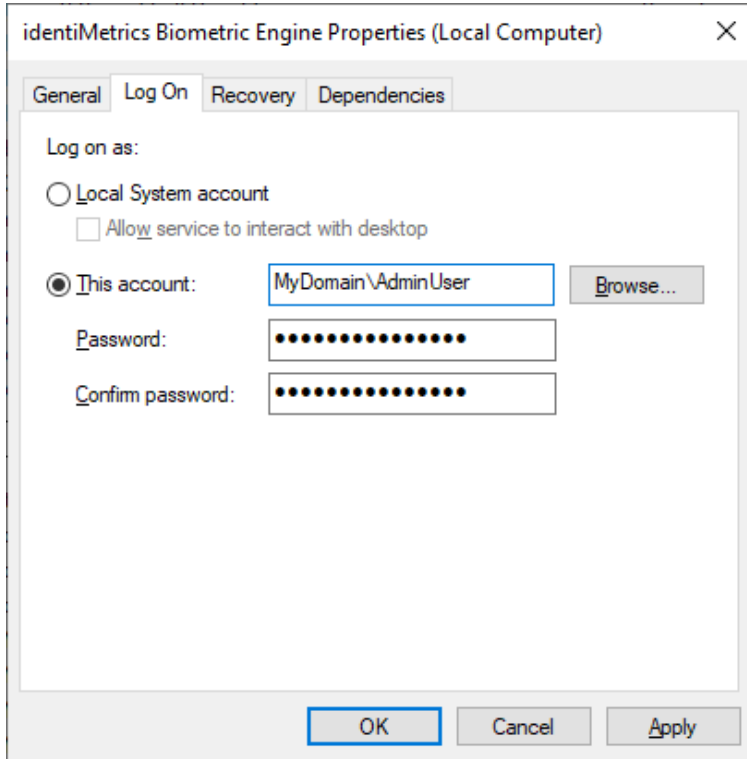


Click on the **Log On** tab to view the login dialog. Here is how it looks after installation.

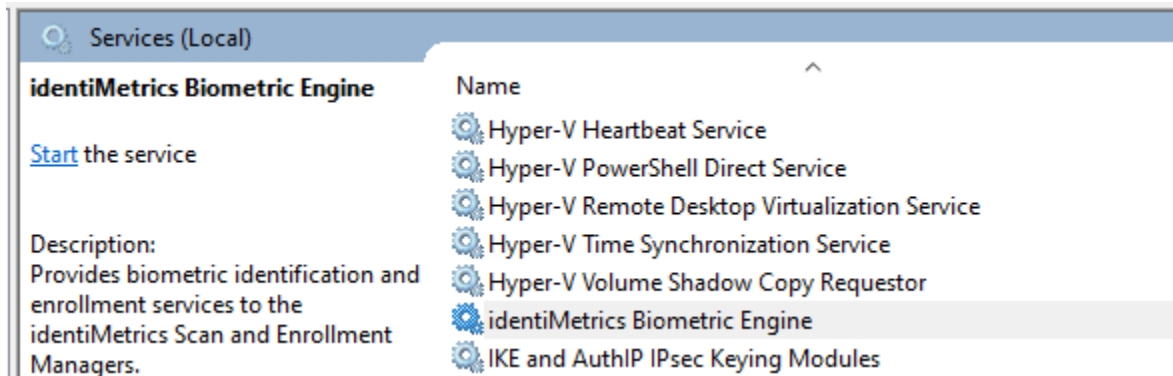


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To change the logon properties, click on the This account radio button and fill in the account and password values.



Click on **OK** to save your changes. Then click on **OK** to exit the properties dialog. Click on the **Start** link to restart the service.

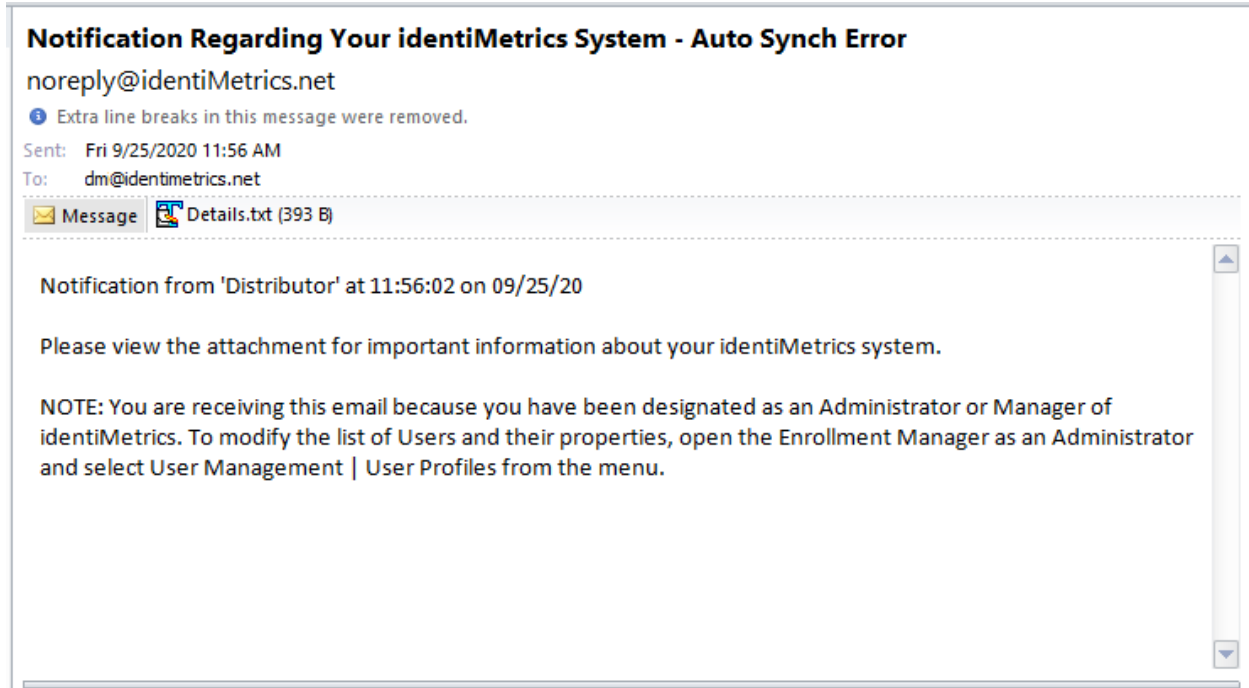


## Notification Emails

Any errors that occur during the scheduled tasks, Synchronization, Import, Backup and Compact and Repair, will be reported to all administrators via email and errors from the Daily Task will be reported to administrators and managers. If email is setup correctly as noted in the **Biometric Engine | Automated Tasks | E-mail Notification** section above, then an email will be sent with the following format.

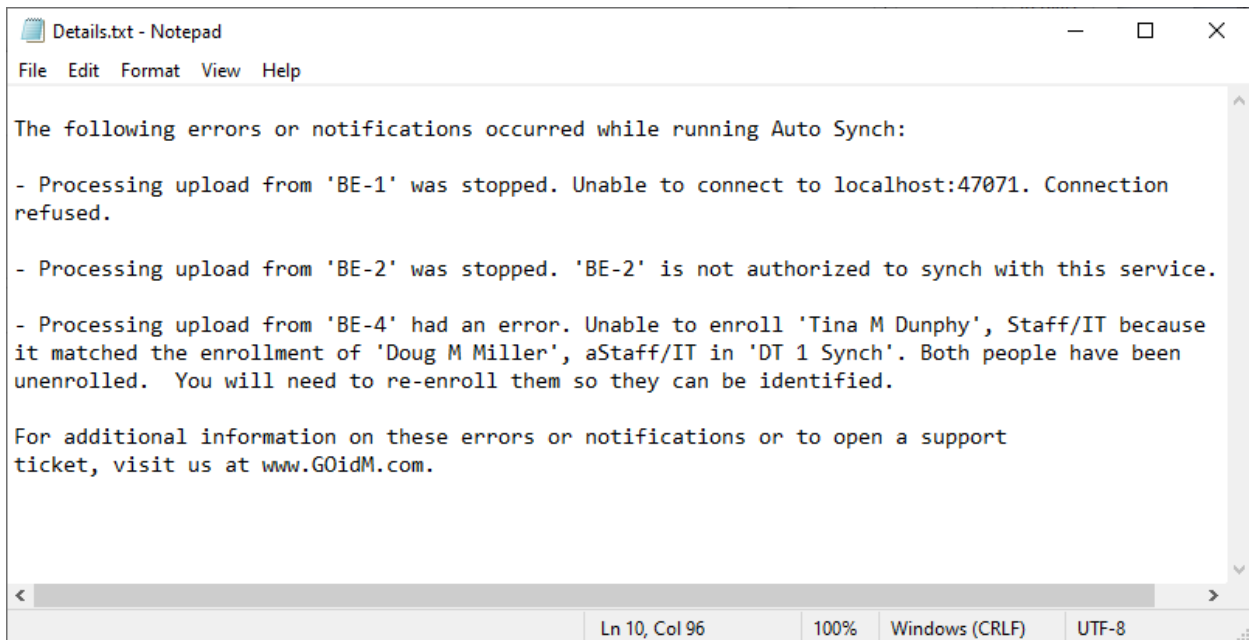


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- Subject - will provide a brief description of where the error came from.
- From - will be the value of the **Mailer – Senders E-mail Address** Option
- To – will be the administrators email address
- Body – will provide the name of the service that generated the error and the time the error was generated.
- Attachment – will always be a file called Details.txt containing the details of the error.

Here is an example of Details.txt showing a couple of errors that occurred while running the Auto Synch task.



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The first line will tell you where the error came from. Then there will be a list of one or more errors or notifications that occurred. The last line will tell you how to get additional information.

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## Biometric Engine

The Biometric Engine provides enrollment, identification and administrative services to the Scan Manager and Enrollment Manager. It can synchronize with one or more ID Providers to improve identification performance and can synchronize with a Distributor to manage the movement of enrollment records among several locations.

The Biometric Engine runs as a Windows service and is configured to run automatically whenever the computer is on. The installer modifies the Windows firewall to allow remote connections and upon completion starts the service the first time.

The Biometric Engine can also be run as a console application if that is preferable. See the **Running as a Console Application** section for more information.

### **Scheduled Tasks**

The Biometric Engine provides several scheduled tasks that are configured using the **Service Management | Options** menu item in the Enrollment Manager. You have the option of deciding which tasks to run and when.

- Backup – provides a way to back-up the database automatically.
- Import – provides a way to import new and updated enrollment records into the database automatically.
- Identification Log – provides a way to log the identification activity for all clients.
- Compact and Repair – provides a way to perform maintenance on the database on a regular basis.

### **Scheduling a Task**

The run time of a task is calculated by using the **Start Time** and **Interval Time** options to determine each run time in a given 24 hour period. When the service starts, it calculates the first run time is for each task that is enabled. Once the task is run the first time, then each subsequent run will be scheduled using the **Interval Time**. For example: if the **Start Time** is 02:00 and the **Interval Time** is 04:00, then the run times will be 02:00, 06:00, 10:00, 14:00, 18:00 and 22:00. It doesn't matter when the service is started, the run times will always be the same. The one exception is if a task cannot be started on time because the service is busy with another task. In this case, the task attempts to run again every 2 minutes until it is successful. Once it has run, it will return to its normal run times.

### **Backup Task**

The Backup task pauses the Biometric Engine at the scheduled time and backs up the database to the specified folder. If the new backup folder exceeds the maximum number, then the oldest folder is deleted.

Here are the Backup Task options:

- **Scheduled Backup - Run?** - Specifies whether or not to run scheduled backups. Can be set to Yes or No. The default is Yes.

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- **Scheduled Backup – Start Time** - Start time for backup using 24 hour format (00:00 to 23:59). The default is 01:00.
- **Scheduled Backup – Interval Time** - Time between backups using 24 hour format (00:01 and 24:00). The default is 24:00.
- **Scheduled Backup – Max Copies** - The max number of backup folders that are saved. The default is 5.
- **Scheduled Backup – Folder** - Location for scheduled backups. The default is *<Installation Folder>/Backups/Scheduled*.

### Import

The Import task runs at the scheduled time and looks in the specified folder for the specified file. If the file exists, it imports the records and deletes the file. If there are any errors during the import, the file is renamed by adding the run time to the filename so it can be reviewed.

#### Import Options

- **Scheduled Import – Run?** - Specifies whether or not to run scheduled imports. Can be set to Yes or No. The default is No.
- **Scheduled Import – Start Time** - Start time for import using 24 hour format (00:00 and 23:59). The default is 02:00.
- **Scheduled Import – Interval Time** - Time between imports using 24 hour format (00:01 and 24:00). The default is 24:00.
- **Scheduled Import – Folder** - Location of the import file. The default is *<Installation Folder>/Imports*.
- **Scheduled Import – File Name** - Name of the import file. The default is *autoimport.txt*.
- **Scheduled Import – Layout** - Specifies which fields are to be read from the import file and in what order. The default for a Biometric Engine is “Last, First, Middle, ID, Level-1, Level-2”.
- **Scheduled Import – Delimiter** - The character used to delimit each field (TAB or COMMA). The default is TAB.
- **Scheduled Import – Quoted Text?** - Specifies whether or not each field is quoted. Can be set to Yes or No. The default is No.
- **Scheduled Import – Log Level** - Specifies if import log is created and how much detail is written (Off, Summary, Detail). The default is Off.

#### Opt-out and Inactive Fields

The Opt-out and Inactive fields are not required to be in an import file by default. This simply means that they must be set manually through the Enrollment Manager. If the source of your import data can provide the values for one or both of these fields then you can enable them. See the **System Management | Properties** section of the

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[identiMetrics Enrollment Manager Guide](#) for details on how to set these properties and how they affects the Import and Export functions.

When the one or both of these fields are enabled for import then the **Scheduled Import – Layout** option will be changed to add the appropriate field names. *Please note that the field names will be added to the end of the layout. If your import file has them in a different order then you will have to edit this option before importing.*

For the import file the Opt-out field can be set to 'Opt-out' or 'Opt-in' and the Inactive field can be set to 'Active' or 'Inactive'.

### Import File Examples

The import file is a standard text file containing the records to be imported. The **Layout**, **Delimiter** and **Quoted Text** options define how each line is interpreted in order to create or update enrollment records in the database.

Here are a set of examples that all use the standard **Layout** value with different **Delimiter** and **Quoted Text** options:

**Layout:** "Last, First, Middle, ID, Level-1, Level-2, Location"

**Delimiter:** TAB, **Quoted Text:** No

```
Adams Elizabeth S 1416048 10 All
```

**Delimiter:** TAB, **Quoted Text:** Yes

```
"Adams" "Elizabeth" "S" "1416048" "10" "All"
```

**Delimiter:** COMMA, **Quoted Text:** No

```
Adams, Elizabeth, S, 1416048, 10, All
```

**Delimiter:** COMMA, **Quoted Text:** Yes

```
"Adams", "Elizabeth", "S", "1416048", "10", "All"
```

This example shows a **Layout** value with fields in a different order:

**Layout:** "First, Middle, Last, Level-1, Level-2, ID"

**Delimiter:** TAB, **Quoted Text:** No

```
Elizabeth S Adams 10 All 1416048
```

This example shows a **Layout** value with fields in a different order and includes some extra commas to indicate fields in the import line to ignore:

**Layout:** "First, Middle, Last, , , Level-1, Level-2, , ID"

**Delimiter:** COMMA, **Quoted Text:** No

```
Elizabeth, S, Adams, EXTRA, EXTRA, 10, All, EXTRA, 1416048
```

Here are a few examples showing a **Layout** value that includes the Opt-out and Inactive fields.

**Layout:** "First, Middle, Last, Level-1, Level-2, ID, Opt-out, Inactive"

**Delimiter:** COMMA, **Quoted Text:** No

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Elizabeth, S, Adams, 10, All, 1416048, Opt-in, Active

Elizabeth, S, Adams, 10, All, 1416048, Opt-out, Inactive

## Identification Log

The Identification Log is a record of each identification request that is received by the service. The format of the output can be customized to record the fields you're interested in. You can record the successful and failed requests or just the successful ones. The Rollover settings affect when the log is saved and a new one started. If you rollover once a day, then there would a file for each day with the date appended to the name.

- **Identification Log – Run?** - Specifies whether or not to log identification activity. Can be set to Yes or No. The default is No.
- **Identification Log – Start Time** - Start time for import using 24 hour format (00:00 and 23:59). The default is 03:00.
- **Identification Log – Interval Time** - Time between imports using 24 hour format (00:01 and 24:00). The default is 24:00.
- **Identification Log – Folder** - Location of the identification log file. *<Installation Folder>/Logs*.
- **Identification Log – File Name** - Name of the identification log file. The default is *identification.log*.
- **Identification Log – Layout** - Specifies which fields are to be shown in identification log and in what order. The default layout is "Date, Time, YesNo, Location, First, Last, ID".
- **Identification Log – Delimiter** - The character(s) used to delimit each field (TAB, COMMA or COMMA\_SPACE). The default is COMMA\_SPACE.
- **Identification Log – Show Fails?** - Specifies whether or not to log a failed identification. The default is No.

## Compact and Repair

The Compact and Repair task pauses the Biometric Engine at the scheduled time, backs up the database to the Requested backup folder and then runs a Compact and Repair. If the new backup folder exceeds the maximum number, then the oldest folder is deleted.

- **Scheduled Compact – Run?** - Specifies whether or not to run scheduled backups. Can be set to Yes or No. The default is Yes.
- **Scheduled Compact – Start Time** - Start time for backup using 24 hour format (00:00 to 23:59). The default is 01:00.
- **Scheduled Compact – Interval Time** - Time between backups using 24 hour format (00:01 and 24:00). The default is 24:00.

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- **Scheduled Compact – Keep Backup?** - Compact creates a backup. By default, if the compact is successful it will delete the backup. However, you can choose to keep the backup. This could be used instead of running the Backup task. The choices are Yes and No and the default is No.

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## Distributor

The Distributor provides enrollment management and distribution services required when using multiple Biometric Engines. It's used to manage all of the enrollment records, to determine which Biometric Engines an enrollment record will be available in and to move enrollment records from one Biometric Engine to another.

The Distributor runs as a Windows service and is configured to run automatically whenever the computer is on. The installer modifies the Windows firewall to allow remote connections and upon completion starts the service the first time.

The Distributor can also be run as a console application if that is preferable. See the **Running as a Console Application** section for more information.

### **Scheduled Tasks**

The Distributor provides several automated tasks that are configured using the **Service Management | Options** menu item in the Enrollment Manager. All but the E-mail Notification task must be scheduled.

- Backup – provides a way to back-up the database automatically.
- Import – provides a way to import new and updated enrollment records into the database automatically.
- Compact and Repair – provides a way to perform maintenance on the database on a regular basis.
- Synchronization – provides a way to automatically get the latest database changes from the all Biometric Engines and to distribute those changes to all Biometric Engines.

### **Scheduling a Task**

See the full description in the **Scheduling a Task** section under **Biometric Engine**.

### **Backup**

See the full description in the **Backup** section under **Biometric Engine**.

### **Import**

See the full description in the **Import** section under **Biometric Engine**.

In addition to the fields required in the Biometric Engine, the **EngineNames** field required for Distributor imports. Here is the layout option for the Distributor.

- **Scheduled Import – Layout** - Specifies which fields are to be read from the import file and in what order. The default for a Distributor is "Last, First, Middle, ID, Level-1, Level-2, EngineNames"

The **EngineNames** field is a comma delimited list of one or more Biometric Engine names. When a record has more than one engine name in a comma delimited import then the field must be quoted.



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## Import File Examples

The import file is a standard text file containing the records to be imported. The **Layout**, **Delimiter** and **Quoted Text** options define how each line is interpreted in order to create or update enrollment records in the database.

Here are a set of examples with a single engine name. They all use the standard **Layout** value with different **Delimiter** and **Quoted Text** options:

**Layout:** "Last, First, Middle, ID, Level-1, Level-2, EngineNames"

**Delimiter:** TAB, **Quoted Text:** No

```
Adams    Elizabeth  S      1416048    10     All     BEService-1
```

**Delimiter:** TAB, **Quoted Text:** Yes

```
"Adams"  "Elizabeth" "S"    "1416048"  "10"   "All"  "BEService-1"
```

**Delimiter:** COMMA, **Quoted Text:** No

```
Adams, Elizabeth, S, 1416048, 10, All, BEService-1
```

**Delimiter:** COMMA, **Quoted Text:** Yes

```
"Adams", "Elizabeth", "S", "1416048", "10", "All", "BEService-1"
```

There are two ways to import records with more than one engine name, the List format and the Multi-line format. The List format uses one line in the import file for each record to be imported and includes a comma separated list of all of the engine names they will be assigned to.

**Layout:** "Last, First, Middle, ID, Level-1, Level-2, EngineNames"

This example shows the List format when using a TAB delimiter:

**Delimiter:** TAB, **Quoted Text:** No

```
Adams    Elizabeth  S      1416048    10     All     BEService-1, BEService-2
```

This example shows the List format when using a COMMA delimiter. In this case, the engine name list has to be enclosed in quotes:

**Delimiter:** COMMA, **Quoted Text:** No

```
Adams, Elizabeth, S, 1416048, 10, All, "BEService-1, BEService-2"
```

These examples show the List format when using quotes:

**Delimiter:** TAB, **Quoted Text:** Yes

```
"Adams"  "Elizabeth" "S"    "1416048"  "10"   "All"  "BEService-1, BEService-2"
```

**Delimiter:** COMMA, **Quoted Text:** Yes

```
"Adams", "Elizabeth", "S", "1416048", "10", "All", "BEService-1, BEService-2"
```

These examples show the Multi-line format. The Multi-line format uses repeated lines with the same data except for the engine name to create the engine name list. So in this example the Last, First, Middle, ID, Level-1, Level-2 and EngineNames fields are set by the first line. Since the data other than the engine name, is the same in the second line, the engine name BEService-2 will be added to the previous engine name to create the list that will be imported. These four lines will create two records with two engine names each.

**Delimiter:** TAB, **Quoted Text:** No

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Adams	Elizabeth	S	1416048	10	All	BEService-1
Adams	Elizabeth	S	1416048	10	All	BEService-2
Albertini	Jalen	M	1414759	10	All	BEService-1
Albertini	Jalen	M	1414759	10	All	BEService-2

### Delimiter: COMMA, Quoted Text: No

```
Adams, Elizabeth, S, 1416048, 10, All, BEService-1
Adams, Elizabeth, S, 1416048, 10, All, BEService-2
Albertini, Jalen, M, 1414759, 10, All, BEService-1
Albertini, Jalen, M, 1414759, 10, All, BEService-2
```

### Delimiter: TAB, Quoted Text: Yes

```
"Adams" "Elizabeth" "S" "1416048" "10" "All" "BEService-1"
"Adams" "Elizabeth" "S" "1416048" "10" "All" "BEService-2"
```

### Delimiter: COMMA, Quoted Text: Yes

```
"Albertini", "Jalen", "M", "1414759", "10", "All", "BEService-1"
"Albertini", "Jalen", "M", "1414759", "10", "All", "BEService-2"
```

This example shows a **Layout** value with fields in a different order:

### Delimiter: TAB, Quoted Text: No

```
Elizabeth S Adams 1416048 BEService-1 10 All
Jalen M Albertini 1414759 BEService-1, BEService-2 10 All
```

This example shows a **Layout** value with fields in a different order and includes some extra commas to indicate fields in the import line to ignore:

### Delimiter: COMMA, Quoted Text: No

```
Elizabeth, S, Adams, EXTRA, EXTRA, 10, All, EXTRA, BEService-1, 1416048
```

## Compact and Repair

See the full description in the **Compact and Repair** section under **Biometric Engine**.

## Synchronization

The Distributor is responsible for synching with all of the Biometric Engines specified in the Enrollment Manager. This allows all the enrollment records to be managed in one place and provides a simple way to move those records to the appropriate Biometric Engines where they will be used for identification.

At the scheduled time the Distributor will attempt to connect to each of the Biometric Engines and upload any changes made to the database. Then for each Biometric Engine it connected to during the upload phase, it will connect to again and will download any changes made to the Distributor's database which includes the data just uploaded. Any enrollments done in one Biometric Engine will be distributed to all other Biometric Engines that a particular person has configured for. Any changes to a person's list of Biometric Engines will cause the person's enrollment record to be removed from a Biometric Engine, added to a Biometric Engine or both.

If the Distributor is synching with a Biometric Engine for the first time or if the Distributor has been restored, then all records for that engine will be downloaded. If the connection cannot be made, then nothing will happen until the next scheduled run time. If the connection is lost during the synch then all the changes already processed will have been saved and the next synchronize will start where it left off.

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- **synch.scheduled.run** - Specifies whether or not to run the replication task. Can be set to Yes or No. The default is No.
- **synch.scheduled.start** - Start time for the task using a 24 hour format (00:00 and 23:59). The default is 01:00.
- **synch.scheduled.interval** - Time between replications using 24 hour format (00:01 and 24:00). The default is 24:00.
- **synch.scheduled.folder** - Location of the backup made during a replication. The default is *./Backups/Requested*.

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## ID Provider

The ID Provider provides identification services to the Scan Manager. It synchronizes with a Biometric Engine to get a read-only copy of the data in order to improve identification performance or to provide the ability for a Scan Manager to work even when the network is not available.

The ID Provider runs as a Windows service and is configured to run automatically whenever the computer is on. The installer modifies the Windows firewall to allow remote connections and upon completion starts the service the first time.

The ID Provider can also be run as a console application if that is preferable. See the **Running as a Console Application** section for more information.

### **Scheduled Tasks**

The ID Provider has a few automated tasks that are configured using the **Service Management | Options** menu item in the Enrollment Manager. All but the E-mail Notification task must be scheduled.

- Identification Log – provides a way to log the identification activity for all clients.
- Synchronization – provides a way to get the latest database changes from the Biometric Engine automatically.

### **Scheduling a Task**

See the full description in the **Scheduling a Task** section under **Biometric Engine**.

### **Identification Log**

See the full description in the **Identification Log** section under **Biometric Engine**.

### **Synchronization**

The ID Provider must periodically connect to the Biometric Engine in order to get the latest changes to the database so that it has the same data that the Biometric Engine has. The ID Provider **must** be able to connect to the Biometric Engine at least once. At the scheduled time the ID Provider will attempt to connect to the Biometric Engine. If the connection is completed, it will download any changes made since the last time that the ID Provider connected. If the ID Provider has never connected before or if the Biometric Engine has been restored, then all records will be downloaded. If the connection cannot be made, then nothing will happen until the next scheduled run time. If the connection is lost during the synch then all the changes already processed will have been saved and the next synchronize will start where it left off.

- **Scheduled Synch – Run?** - Specifies whether or not to run the replication task. Can be set to Yes or No. The default is No.
- **Scheduled Synch – Start Time** - Start time for the task using a 24 hour format (00:00 and 23:59). The default is 01:00.

## Services Guide

- **Scheduled Synch – Interval Time** - Time between replications using 24 hour format (00:01 and 24:00). The default is 24:00.
- **Scheduled Synch – Backup Folder** - Location of the backup made during a replication. The default is *./Backups/Requested*.
- **Scheduled Synch – To Address** - The address (computer name or IP address) of the task to synchronize with. The default is 'someservice' which will have to be changed. The address and port value are also used by the Synch Now function.
- **Scheduled Synch – To Port** - The port of the Biometric Engine to connect to. The default is 47070. The address and port value are also used by the Synch Now function.

# Services Guide

## Property File

A property file contains the properties used to customize a service's behavior to fit your needs. In general it's not necessary to edit the property file since all of the common properties are available to view and modify by using the **Service Management | Options...** menu item in the Enrollment Manager.

However, if you need to set a special property or need to change an option before starting a service, you can view or edit any property by opening the file that matches your service (*BioEngine.properties*, *Distributor.properties* or *IdProvider.properties*) in a text editor. Before saving your changes, make sure the service is stopped. Once saved, start the service again. The property files can be found in the installation folder.

Here is a list of the available properties with a short description of each.

### All Services

- **backup.requested.folder** - Location for requested backups. The default is *<Installation Folder>/Backups/Requested*.
- **data.folder** - Specifies the folder that contains the *db.properties* file. The default is *<Installation Folder>/Database/Site* or *<Installation Folder>/Database/Id* depending on the type of service installed. After setting this option, the service will have to be restarted for it to take effect.
- **server.port** – Specifies the port the service is listening on. The *server.port* property in the client needs to specify the same value. The default is 47070 for a Biometric Engine and 47080 for an ID Provider.
- **server.connection.cmdidle.waitmin** – Specifies the number of minutes the service will wait after the last command before it disconnects. This helps reduce the resources the service uses. The default is 10 minutes.
- **server.shutdown.waitms** – Specifies the maximum amount of time the service will wait for busy threads when asked to shutdown. The default is 120000 which is two minutes. Making this larger would allow long processes plenty of time to finish but then will take longer for the service to be reset if that is required.
- **server.email.smtphost** - Specifies the SMTP host name the task will use to send e-mail notifications. The default is 'mail.smtp2go.com:2525' which is the email service that identiMetrics provides if the customer chooses not to use their own.
- **server.email.smtpuser** - Specifies the SMTP user name the task will use to send e-mail notifications. The default is 'identiMetrics'.
- **server.email.smtppwd** - Specifies the SMTP password the task will use to send e-mail notifications. The default is 'idM\*Works4u'.
- **server.email.senderaddress** - Specifies the e-mail address the task will use as the sender for any notifications. The default is 'idM-Service@customer.com' which must be replaced with a customer supplied value and should be a valid email address.

## Services Guide

- **logging.loggers.app.level** - Level of detail of the output from the logger. Can be error, information, debug or trace. The default level is information.
- **license.warning.days** - When the license has this number of days left, issue a warning. The default is 15 days.
- **daily.enrollwarning.pct** – This value is used when the daily task checks how many enrollments are available. If the value is LESS than this percentage, then a warning email will be sent. For example, if the license has a limit of 1200, there are currently 1081 enrollments available and the percentage is 10 (which is the default) then an email would be sent.
- **logging.channels.c1.archive** – Internal, do not change.
- **logging.channels.c1.class** - Internal, do not change.
- **logging.channels.c1.formatter** - Internal, do not change.
- **logging.channels.c1.path** – Specifies the name of the log file. The default is SiteService.log.
- **logging.channels.c1.purgeCount** – Specifies the number of rotating log files. The default is 2.
- **logging.channels.c1.rotation** – Specifies the size of each rotating log file. The default is 1MB.
- **logging.channels.c2.channel** - Internal, do not change.
- **logging.channels.c2.class** - Internal, do not change.
- **logging.formatters.f1.class** - Internal, do not change.
- **logging.formatters.f1.pattern** - Internal, do not change.
- **logging.formatters.f1.times** - Internal, do not change.
- **logging.loggers.app.channel** - Internal, do not change.
- **logging.loggers.app.level** – Specifies the amount of detail in the log file. Can be error, information, debug and trace. The default is information.
- **logging.loggers.app.name** - Internal, do not change.
- **logging.loggers.root.channel** - Internal, do not change.
- **logging.loggers.root.level** - Internal, do not change.

### *Distributor and Biometric Engine*

- **backup.scheduled.run** - Specifies whether or not to run scheduled backups. Can be set to Yes or No. The default is Yes.
- **backup.scheduled.start** - Start time for backup using 24 hour format (00:00 and 23:59). The default is 22:30.
- **backup.scheduled.interval** - Time between backups using 24 hour format (00:01 and 24:00). The default is 24:00.
- **backup.scheduled.copies** - The max number of backup folders that are saved. The default is 5.

## Services Guide

- **backup.scheduled.folder** - Location for scheduled backups. The default is *<Installation Folder>/Backups/Scheduled*.
- **import.scheduled.run** - Specifies whether or not to run scheduled imports. Can be set to Yes or No. The default is No.
- **import.scheduled.start** - Start time for import using 24 hour format (00:00 and 23:59). The default is 00:30.
- **import.scheduled.interval** - Time between imports using 24 hour format (00:01 and 24:00). The default is 24:00.
- **import.scheduled.folder** - Location of the import file. The default is *<Installation Folder>/Imports*.
- **import.scheduled.file** - Name of the import file. The default is *autoimport.txt*.
- **import.scheduled.layout** - Specifies which fields are to be read from the import file and in what order. The default is "Last, First, Middle, ID, Level-1, Level-2".
- **import.scheduled.delimiter** - The character used to delimit each field (TAB or COMMA). The default is TAB.
- **import.scheduled.quoted** - Specifies whether or not each field is quoted. Can be set to Yes or No. The default is No.
- **import.scheduled.loglevel** - Specifies if import log is created and how much detail is written (Off, Summary, Detail). The default is Off.
- **compact.scheduled.run** - Specifies whether or not to run scheduled backups. Can be set to Yes or No. The default is Yes.
- **compact.scheduled.start** - Start time for backup using 24 hour format (00:00 to 23:59). The default is 23:00.
- **compact.scheduled.interval** - Time between backups using 24 hour format (00:01 and 24:00). The default is 24:00.
- **compact.scheduled.keepbackup** - Compact creates a backup. By default, if the compact is successful it will delete the backup. However, you can choose to keep the backup. This could be used instead of running the Backup task. The choices are Yes and No and the default is No.

### ***Distributor and ID Provider***

- **synch.scheduled.run** - Specifies whether or not to run the replication task. Can be set to Yes or No. The default is Yes.
- **synch.scheduled.start** - Start time for the task using a 24 hour format (00:00 and 23:59). The default is 01:00.
- **synch.scheduled.interval** - Time between replications using 24 hour format (00:01 and 24:00). The default is 24:00.
- **synch.scheduled.folder** - Location of the backup made during a replication. The default is *./Backups*.



# Services Guide

## ***Biometric Engine and ID Provider***

- **idlog.activate** - Specifies whether or not to log identification activity. Can be set to Yes or No. The default is No.
- **idlog.rollover.start** - Start time for import using 24 hour format (00:00 and 23:59). The default is 22:00.
- **idlog.rollover.interval** - Time between imports using 24 hour format (00:01 and 24:00). The default is 24:00.
- **idlog.folder** - Location of the identification log file. *<Installation Folder>/Logs*.
- **idlog.file** - Name of the identification log file. The default is *identification.log*.
- **idlog.layout** - Specifies which fields are to be shown in identification log and in what order. The default layout is "Date, Time, YesNo, Location, First, Last, ID".
- **idlog.delimiter** - The character(s) used to delimit each field (TAB, COMMA or COMMA\_SPACE). The default is COMMA\_SPACE.
- **idlog.showfails** - Specifies whether or not to log a failed identification. The default is No.

## ***ID Provider Only***

- **synch.scheduled.server.address** - The address (computer name or IP address) of the service to synchronize with. The default is localhost which will have to be changed.
- **synch.scheduled.server.port** - The port of the Biometric Engine to connect to. The default is 47070.

This table shows the relationship between V2 Options (used in the Options dialog), V2 Properties (used in the .properties file) and V1 parameters. The Service column shows which service the property is used for: B – Biometric Engine, D – Distributor and I – ID Provider and empty is for all services.

Service	Options	Properties	Version 1.x Parameters
BE	Scheduled Backup - Run?	backup.scheduled.run	
BE	Scheduled Backup - Start Time	backup.scheduled.start	
BE	Scheduled Backup - Interval Time	backup.scheduled.interval	
BE	Scheduled Backup - Max Copies	backup.scheduled.copies	AutoBackupMaxFolders
BE	Scheduled Backup - Folder	backup.scheduled.folder	
	Requested Backup Folder	backup.requested.folder	
BE	Scheduled Import - Run?	import.scheduled.run	
BE	Scheduled Import - Start Time	import.scheduled.start	

## Services Guide

Service	Options	Properties	Version 1.x Parameters
BE	Scheduled Import - Interval Time	import.scheduled.interval	
BE	Scheduled Import - Folder	import.scheduled.folder	
BE	Scheduled Import - File Name	import.scheduled.file	AutoImportFile
BE	Scheduled Import - Layout	import.scheduled.layout	
BE	Scheduled Import - Delimiter	import.scheduled.delimiter	AutoImportDelimiter
BE	Scheduled Import - Quoted Text?	import.scheduled.quoted	AutoImportUseQuotes
BE	Scheduled Import - Log Level	import.scheduled.loglevel	
	Identification Log - Run?	idlog.activate	
	Identification Log - Start Time	idlog.rollover.start	
	Identification Log - Interval Time	idlog.rollover.interval	
	Identification Log - Folder	idlog.folder	
	Identification Log - File Name	idlog.file	
	Identification Log - Layout	idlog.layout	ActivityLogFieldList
	Identification Log - Delimiter	idlog.delimiter	ActivityLogFieldSeparator
	Identification Log - Show Fails?	idlog.showfails	ActivityLogShowFailed
	Scheduled Compact - Run?	compact.scheduled.run	
	Scheduled Compact - Start Time	compact.scheduled.start	
	Scheduled Compact - Interval Time	compact.scheduled.interval	
	Scheduled Compact - Keep Backup?	compact.scheduled.keepbackup	
	Scheduled Synch - Run?	synch.scheduled.run	
	Scheduled Synch - Start Time	synch.scheduled.start	
	Scheduled Synch - Interval Time	synch.scheduled.interval	
	Scheduled Synch - Backup Folder	synch.scheduled.folder	
	Scheduled Synch - To Address	synch.scheduled.server.address	
	Scheduled Synch - To Port	synch.scheduled.server.port	
	Client Connection Port	service.port	UDPPort
	Mailer - SMTP Host Name	service.email.smtphost	
	Mailer - SMTP Host User Name	service.email.smtphost	
	Mailer - SMTP Host Password	service.email.smtphost	

## Services Guide

Service	Options	Properties	Version 1.x Parameters
	Emailer - Senders E-mail Address	service.email.senderaddress	
	Database Folder	data.folder	DatabasePath
	Message Logging Level	logging.loggers.app.level	
	License Warning Days	license.warning.days	TimedKeyNotice
		logging.channels.c1.archive	
		logging.channels.c1.class	
		logging.channels.c1.formatter	
		logging.channels.c1.path	
		logging.channels.c1.purgeCount	LogFileCount
		logging.channels.c1.rotation	LogFileSize
		logging.channels.c2.channel	
		logging.channels.c2.class	
		logging.formatters.f1.class	
		logging.formatters.f1.pattern	
		logging.formatters.f1.times	
		logging.loggers.app.channel	
		logging.loggers.app.level	
		logging.loggers.app.name	
		logging.loggers.root.channel	
		logging.loggers.root.level	

# Services Guide

## What is Installed?

### Files

The files that are installed are organized into two groups: Installation files and Application files. Installation files are files that can be created or modified by the user or the application such as property files, log files, sound files and database files. The Application files are files that cannot be modified and includes the executable itself.

The Installation files are installed in the following folder by default:

*C:\Users\Public\Documents\identiMetrics*

However, you can select a folder of your own. Make sure all users have write access to the folder you choose.

The Application files are always installed in the following folder:

*32 Bit OS: C:\Program files\identiMetrics*

*64 Bit OS: C:\Program files (x86)\identiMetrics*

Here is a description of the Installation files and folders:

### Biometric Engine Only

- *BioEngine.properties* – This text file contains the configuration settings for the Biometric Engine.
- *BioEngine-Default.properties* – This text file is a copy of the *BioEngine.properties* file and is available so you can review the original installed settings.
- *BioEngine -172Conversions.properties* – This text file contains the conversions needed to upgrade the properties file from version 1.7.2 to the installed version.
- *BioEngine.log* – This text file contains the execution log for the Biometric Engine. In general, you don't have to look at this, but it can be very helpful when tracking down a problem.
- *Database\BE* – This folder contains the files that comprise identiMetrics proprietary database.

### Distributor Only

- *Distributor.properties* – This text file contains the configuration settings for the Distributor.
- *Distributor -Default.properties* – This text file is a copy of the *Distributor.properties* file and is available so you can review the original installed settings.
- *Distributor.log* – This text file contains the execution log for the Distributor. In general, you don't have to look at this, but it can be very helpful when tracking down a problem.

## Services Guide

- *Database\DT* – This folder contains the files that comprise identiMetrics proprietary database.

### ID Provider Only

- *IdProvider.properties* – This text file contains the configuration settings for the ID Provider.
- *IdProvider-Default.properties* – This text file is a copy of the *IdProvider.properties* file and is available so you can review the original installed settings.
- *IdProvider.log* – This text file contains the execution log for the ID Provider. In general, you don't have to look at this, but it can be very helpful when tracking down a problem.
- *Database\ID* – This folder contains the files that comprise identiMetrics proprietary database.

### All Services

- *Backups\Scheduled* – This folder contains the backup subfolders. The backups found here are created when you use any of the Admin functions or when Auto-Backup is running.
  - *Backup.Auto.yyyymmddhhmm(.#)* – This folder contains a backup of the database. Each backup folder is named using the current date and may have a version number if more than one backup is performed during the same day.
- *Backups\Requested* – This folder contains the backup subfolders. The backups found here are created when you run the Backup function from the Enrollment Manager and you select the default folder.
  - *Backup.yyyymmddhhmm(.#)* – This folder contains a backup of the database. Each backup folder is named using the current date and may have a version number if more than one backup is performed during the same day.
- *Docs* – This folder contains the installation, user and troubleshooting guides.

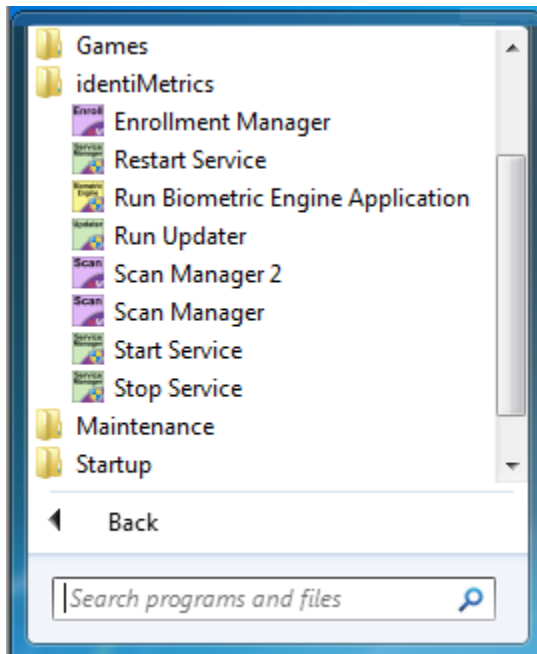
Here is a description of the Application files and folders:

- *BioEngine.exe*, *Distributor.exe* or *IdProvider.exe* – The service application.
- *DbManager.exe* – The database manager application. This will only be used with direction from identiMetrics tech support.
- *ServiceMan.exe* – This is a console application that can start, stop or restart the installed service (Id Provider or Biometric Engine). This can be run by using the **Restart Service** shortcut or with direction from identiMetrics tech support.
- *DbViewer64.exe* – The bio database viewer application. This will only be used with direction from identiMetrics tech support.
- *Utilities* – This folder contains additional files and programs.

# Services Guide

## Shortcuts

Service shortcuts can be found in the **Start | All Programs | identiMetrics** program folder.

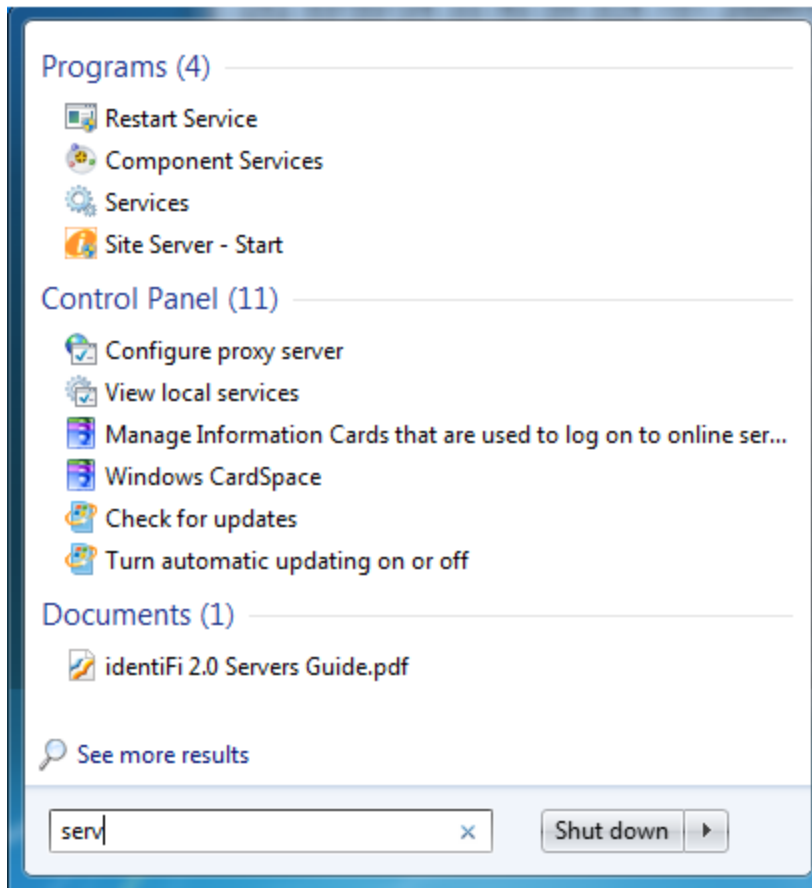


## Managing the Services

To manage the service you need to open the Services window.

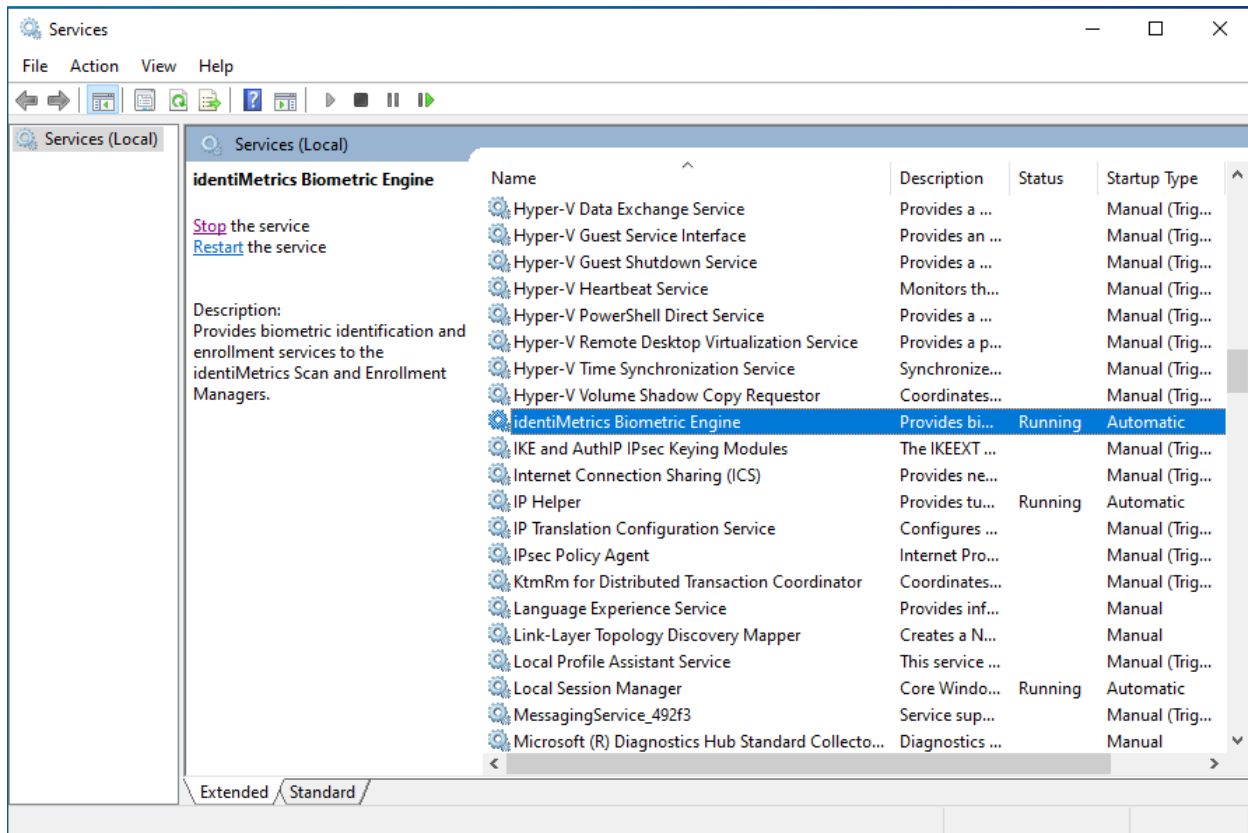
- Click on the **Start** button on the Windows toolbar.
- Type “serv” in the search box and you’ll see something similar to this.

## Services Guide



- Click on “Services” under Programs to bring up the Services window.

# Services Guide



- Click on the identiMetrics entry that matches your service: **identiMetrics Distributor**, **identiMetrics Biometric Engine** or **identiMetrics ID Provider**.

## Starting, Stopping and Restarting

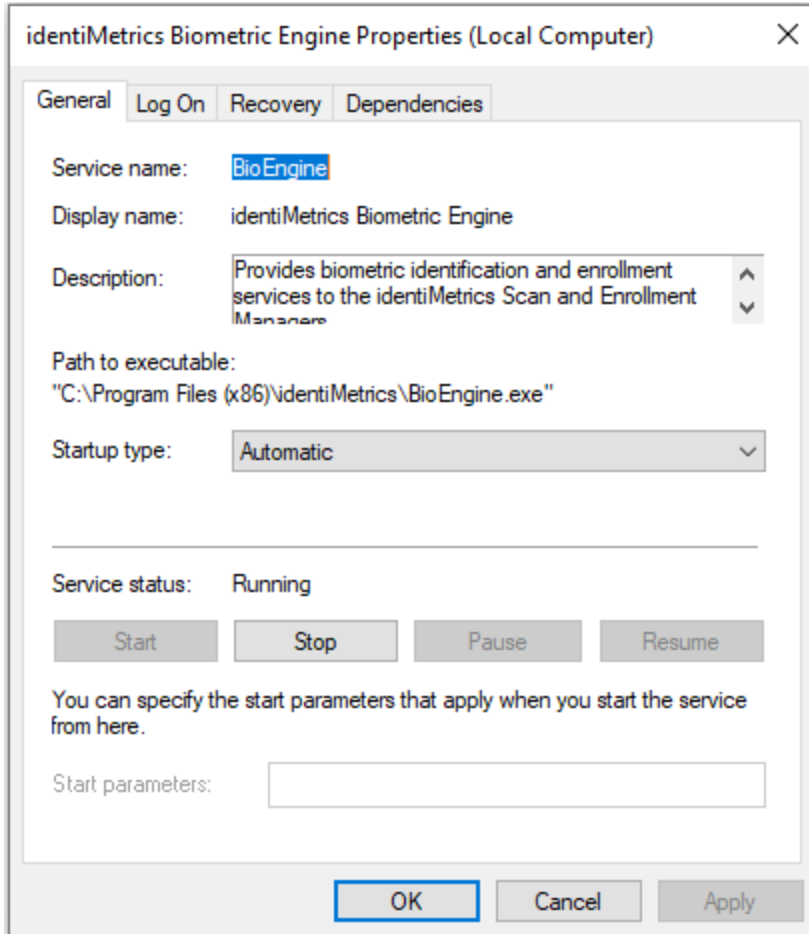
In the Extended tab you will have access to the actions that are appropriate for the current status. In the above screen shot, the service is *Started* so the actions available are *Stop* and *Restart*. You can click on the link, use the Action menu or use the context menu by right-clicking on the entry.

## Configuring

The service is setup to run automatically whenever the computer is on. To change this behavior, right-click on the appropriate identiMetrics service entry and select **Properties**.



## Services Guide



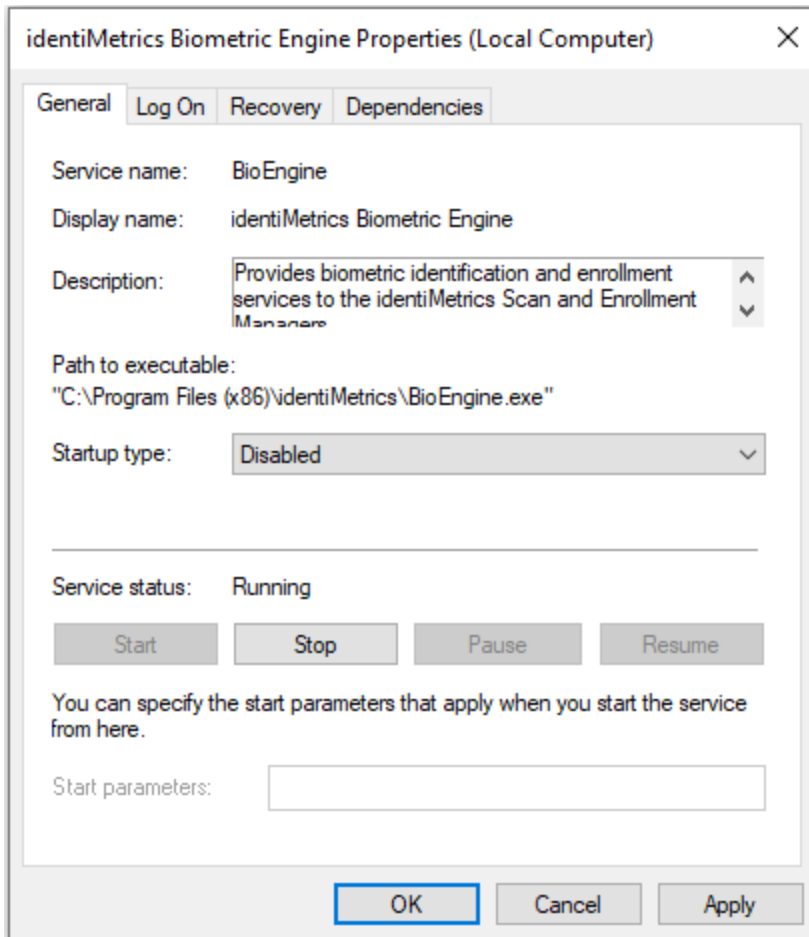
The **Startup Type** determines if and how the service is started. Click on the dropdown and select the option that you require.

- **Automatic** – the service will start when the computer is turned on. This is the default.
- **Automatic (Delayed Start)** – the service will start when the computer is turned on and all of drivers and services have been started.
- **Manual** – the service is only started by using the *Start* action from the Service application.
- **Disabled** – The service is disabled and cannot be started until the **Startup Type** is changed.

### ***Disabling the Service***

- Right-Click on the appropriate identiMetrics service entry and select **Properties**.

## Services Guide



- Click on the **Stop** button.
- Click on the **Startup Type** dropdown and change *Automatic* to *Disabled*.
- Click on **OK** to save your changes and then close the Services window.

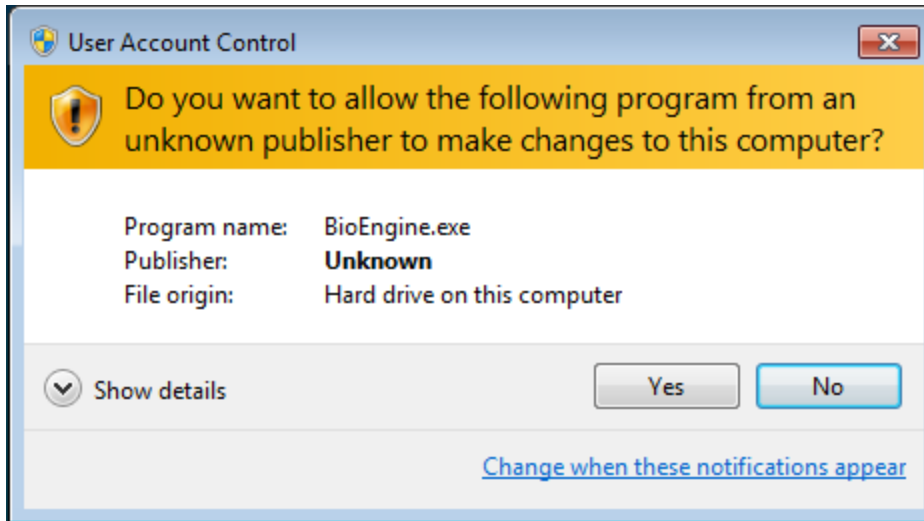
The service will no longer run until you change its configuration.

### ***Running as a Console Application***

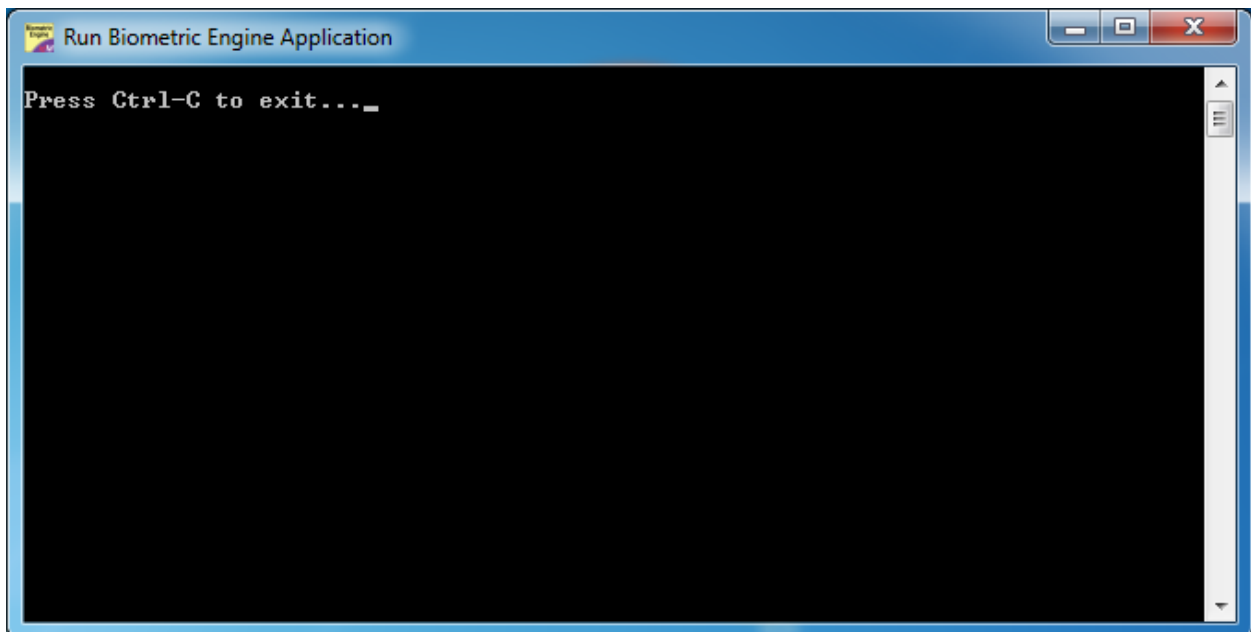
The Biometric Engine can also be run as a console application if that is preferred. To do so, you have to stop the service first. Follow the instructions in the **Managing the Service** section to open the service application. Then, follow these steps:

- Click on the **Start** button on the Windows toolbar.
- Click on **All Programs** from the menu.
- Click on **identiMetrics** folder.
- Click on the **Run Biometric Engine Application** item.

## Services Guide



This will open the service's console window as show here.



To stop the service, press CTRL-C or click on the .

# Services Guide