BIOMATIQUES

BiomatiquesRDS Integration Guide

Iris Scanner (Model: EPI-1000)

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1.4	Added OTP support within opts input element	1.0.4	August 2020	Pratik Patel

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Overview

This document outlines the integration guide of Biomatiques Registered Device Service for Biomatiques Iris Scanner (Model: EPI-1000) on Windows Operating Systems excluding Windows XP both 32 and 64 bit versions. The Biomatiques RD Service is compliant to UIDAI's Level 0 security of Aadhaar Authentication API - VERSION 2.0 (REVISION 1) and Aadhaar Registered Device Technical Specifications - Version 2.0 (REVISION 1). This RD Service installer installs Biomatiques RD Service in both HTTP and HTTPS protocol combined.

RD Service Provider Information

Below is the device provider details.

S. No	Basic Information	Device Vendor Comments
1	Entity holding RD service certification	BIOMATIQUES IDENTIFICATION SOLUTIONS PRIVATE LIMITED
2	Certified Device Model	EPI-1000
3	RDS ID	BIOMATIQUES.WIN.001
4	Operating System Supported	Windows OS (Except Windows XP)
5	Modality	IRIS – Monocular Discrete
6	Level of compliance claimed (L0/L1)	Level – 0

Table 1: RD Service Provider Information

Prerequisites

Before Installing or Using the RD service we presume:

1. User has necessary rights to copy and install the RD service to the required system.
2. Internet connectivity using any of GSM, Wi-Fi or P2P is configured and working, for RD service to function as designed.
3. Biomatiques Management Service IP must be whitelisted for successful communication by Biomatiques RD Service.

Management Server

For the RD Service to function as designed, host must have adequate internet connectivity to the Biomatiques' Management Server for various functionality as specified by UIDAI. The AUA or System Integrator must ensure below server is reachable at all times for the RD Service function. If needed, firewall or proxy settings must be updated to ensure below server is reachable:

Web Domain: https://biomatiques.co.in/

Server IP: (1) 27.109.28.134 (2) 103.74.75.56

Port: HTTPS (443) & 8443

Technical Support

As Biomatiques RD Service has been developed following the published Aadhaar Registered Device Specification Ver 2.0 (Revision 1) as per the references, integration to the host application shall follow the same guidelines and function calling methods. Additional support is also available and our expert support team can be contacted on below:

Email: support@biomatiques.com

Contact Number: (+91) 8160326389

Support URL: support.biomatiques.com

Installation

To download the Biomatiques RD service, user must visit www.biomatiques.com or www.aadhaarrds.biomatiques.com and download the ZIP file for latest RD Service version, which includes RD Service Installer and User Manuals. Some users may need Administrative privileges to install the RD Service. Hence

> **Installer Name: BiomatiquesRDS EPI-1000 Installer Ver-1.0.4.msi**

⚠️ *For Users require Administrative Privileges, shall use "setup.exe" by right-clicking on the same to select "Run as Administrator" follow the screen prompt to complete the RD service installation.*

To install the RD Service to Windows system follow the steps explained below:

1. Save the downloaded installer to appropriate location on system. Provide administrative rights, if requested.
2. Once successful installation of Biomatiques RD Service to below path on the system.

> **Installation Path: <OS_Drive>: \Biomatiques\BiomatiquesRDS**

⚠️ *Do not change the installation path for enhanced functionality of the RD Service such as updates etc.*

3. Installation will create shortcut on desktop and add service to the startup of system.
4. Once installation is complete, restart the system to complete the installation of the Biomatiques RD Service.

⚠️ *Not Restarting the System will not update the HTTPS certificates to the Web Browsers and thus users will not be able to utilize web-browser based calling functions.*

5. Once the Biomatiques RD Service has been started RD Service will automatically assign free port between 11100 and 11120 as per the UIDAI specifications for both HTTP and HTTPS protocols separately.
6. Default installation environment is "Production".

Configure Internet Proxy

Option 1: Using Biomatiques RDS Client Tray Icon from the task bar.

1. Right Click on the Biomatiques Tray Icon on Right Bottom corner and select "Proxy Settings" from the menu.
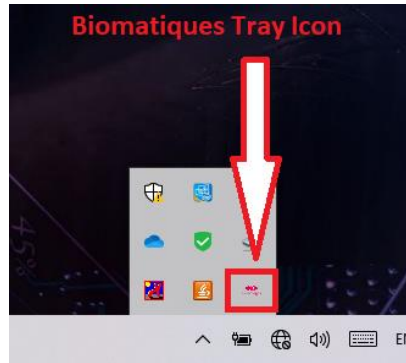

Figure 1: Biomatiques RDS Client Tray Icon

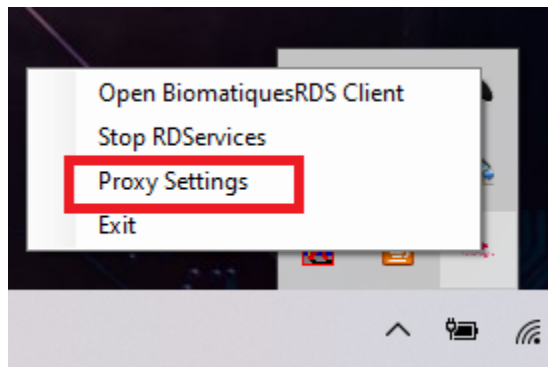2. Select "Proxy Settings" from the menu.

Figure 2: "Proxy Settings" selection

3. Configure the desired settings as per your network requirements and click "Save".
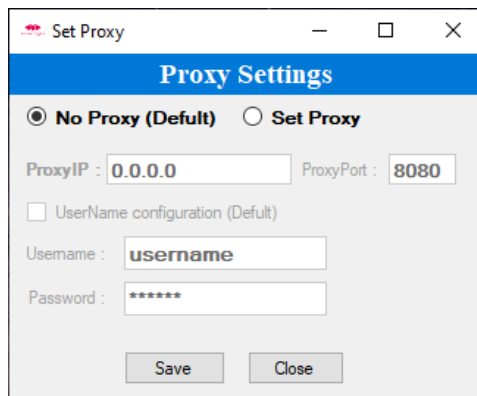

Figure 3: "Proxy Settings"

Option 2: Using the "BIORDS.config" file.

1. Go to the BiomatiquesRD service installation path and search for "BIORDS.config" file.
2. Open the file in text editor and set the ProxyConfig, ProxyIP and ProxyPort as desire.
   a. If user incorrectly configure the Proxy Settings, Biomatiques RD service will start to default mode of "Direct Internet Access".

```
1  # Proxy Configuration-- 0 for Direct Internet Access, 1 for Access via Proxy
2  ProxyConfig = 0
3  ProxyIP = 0.0.0.0
4  ProxyPort = 8080
5
```

Figure 4: Internet Proxy Configuration

3. End task "Biomatiques RD Service for Iris Scanner Model: EPI-1000 (32 bit)" by navigating to the process in Task Manager ➔ Processes
4. Run BiomatiquesRD Service by double clicking on the desktop icon.

Client API

RD Service Discovery

To discover the Biomatiques RD Service, scan the ports on localhost between **11100** and **11120**. Analyze the **"info"** attribute from the response of each port. The discovery must be done separately for both HTTP and HTTPS protocols. Below command can be used to obtain the response from specific port:

Method:	**Custom**
Verb:	**RDSERVICE**
HTTP URL:	**http://127.0.0.1:\<port>**
HTTPS URL:	**https://127.0.0.1:\<port>**

Sample response of Biomatiques RD service is as below:

<RDService status="\<status>" info="Biomatiques Iris (Model: EPI-1000)"> <Interface id="CAPTURE" path="\<capture_path>" /><Interface id="DEVICEINFO" path="\<info_path>" /></RDService>

User must use the port specific to the HTTP or HTTPS which send above response along with "CAPTURE" and "DEVICEINFO" path provided in above response for further communication with Biomatiques RD Service.

DEVICEINFO

Post successful discovery of Biomatiques RD service, application can use below command to obtain device information:

Method:	**Custom**
Verb:	**DEVICEINFO**
HTTP URL:	**http://127.0.0.1:\<port>/\<info_path>**
HTTPS URL:	**https://127.0.0.1:\<port>/\<info_path>**

Successful execution of above command will ask user to input *last 5 digits of "Device Serial Number"* and its *"Activation Code" [default last 5 digits of device serial number].* Please note, Device Serial Number is pasted on the back of the device while activation code will be provided by Biomatiques. Device must be connected when performing **DEVICEINFO** else, RD Service will provide error.

Sample response is as below:

```
<DeviceInfo dpId="" rdsId="BIOMATIQUES.EMB.001" rdsVer="1.0.0" dc="" mi="" mc=""/>
```

CAPTURE

To perform the capture, use below command along with appropriate input **"PidOptions"** as explained below:

Method:	**Custom**
Verb:	**CAPTURE**
HTTP URL:	**http://127.0.0.1:\<port>/\<capture_path>**
HTTPS URL:	**https://127.0.0.1:\<port>/\<capture_path>**

Standard < PidOptions> for Iris Device is as below (acceptable input):

```
<PidOptions ver="1.0">
<Opts env="" fCount="0" fType="0" iCount="1" iType="0" pCount="0" pType="0" format="0"
pidVer="2.0" timeout="10000" otp="" wadh="" posh=""/> <Demo></Demo>
<CustOpts></CustOpts></PidOptions>
```

PLEASE NOTE:

1. "PidOptions" input must refer to the Aadhaar Registered Device standard published as "AADHAAR REGISTERED DEVICES TECHNICAL SPECIFICATION - VERSION 2.0 (REVISION 1)"
2. If "env" is not provided or passed as blank, default value will be set as "P" for "Production" environment.
3. If "timeout" is not provided or passed as blank, default timeout value will be set as 10 second. Value must be passed in millisecond.
4. Any incorrect value will result in error. Refer to Registered Device Error Code for further details.
5. Change in "env" attribute, will automatically perform "init" function and hence user must input device serial number and activation code again.

Reference

1. Registered Devices (Addendum) – Error Codes
   March 6, 2017
2. AADHAAR REGISTERED DEVICES TECHNICAL SPECIFICATION - VERSION 2.0 (REVISION 1)
   February 2017
3. AADHAAR AUTHENTICATION API SPECIFICATION - VERSION 2.0 (REVISION 1)
   February 2017
4. AADHAAR E-KYC API SPECIFICATION - VERSION 2.1
   May 2017