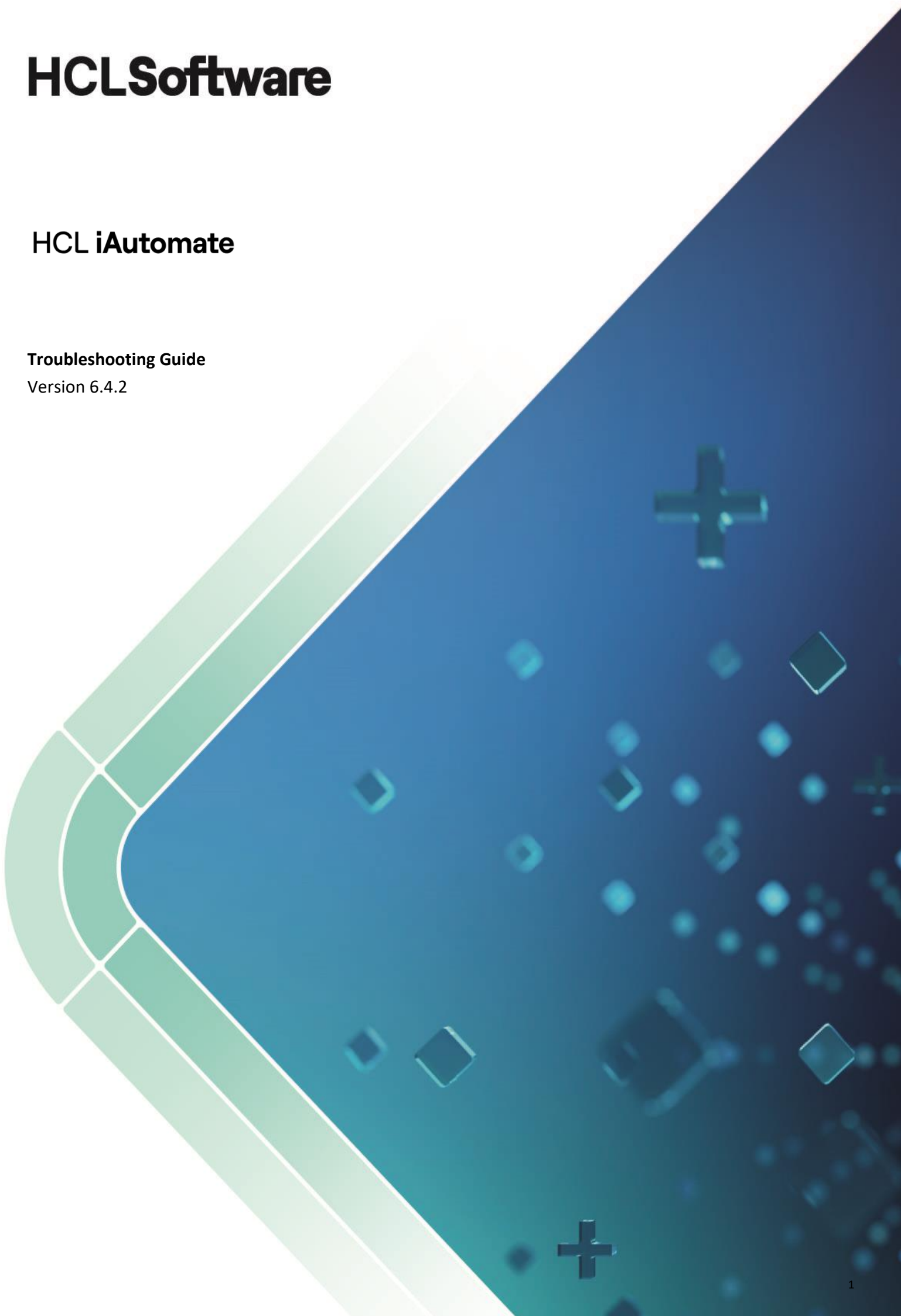


HCLSoftware

HCL iAutomate

Troubleshooting Guide

Version 6.4.2



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Table 137 - Python Services are Not Starting: Scenario 1	131

Document Revision History

This guide is updated with each release of the product or when necessary.

This table provides the revision history of this Troubleshooting Guide.

Version No.	Description
October, 2019	HCL iAutomate v4.0 Troubleshooting Guide
May, 2020	HCL iAutomate v5.0 Troubleshooting Guide
September, 2020	HCL iAutomate v6.0 Troubleshooting Guide
November, 2020	HCL iAutomate v6.0.1 Troubleshooting Guide
January, 2021	HCL iAutomate v6.0.2 Troubleshooting Guide
April, 2021	HCL iAutomate v6.0.3 Troubleshooting Guide
October, 2021	HCL iAutomate v6.1 Troubleshooting Guide
March, 2022	HCL iAutomate v6.1.1 Troubleshooting Guide
October, 2022	HCL iAutomate v6.2 Troubleshooting Guide
October, 2023	HCL iAutomate v6.3 Troubleshooting Guide
December, 2023	HCL iAutomate v6.3.2 Troubleshooting Guide
June, 2024	HCL iAutomate v6.4 Troubleshooting Guide
August, 2024	HCL iAutomate v6.4.1 Troubleshooting Guide
November, 2024	HCL iAutomate v6.4.2 Troubleshooting Guide

1 Preface

This section provides information about the HCL iAutomate Troubleshooting Guide and includes the following topics.

- [Intended Audience](#)
- [About This Guide](#)
- [Related Documents](#)
- [Conventions](#)

1.1 Intended Audience

This information is intended for administrators responsible for installing, configuring, and supporting iAutomate product.

1.2 About this Guide

This guide provides instructions to troubleshoot some of the commonly occurring issues along with the resolution steps.

1.3 Related Documents

The following documents can be referenced in addition to this guide for further information on the iAutomate platform.

- Introduction to iAutomate Guide
- iAutomate Installation Guide
- iAutomate Configuration Guide
- iAutomate Pre-Requisite Guide

1.4 Conventions

The following typographic conventions are used in this document:

Table 1 - Conventions

Convention	Element
Boldface	Indicates graphical user interface elements associated with an action, or terms defined in text or the glossary
<u>Underlined Blue Face</u>	Indicates cross-reference and links
<i>Italic blue</i>	Indicates document titles, occasional emphasis, or glossary terms
Courier New (Font)	Indicates commands within a paragraph, URLs, code in examples, and paths including onscreen text and text input from users
Numbered lists	Indicates steps in a procedure to be followed in a sequence
Bulleted lists	Indicates a list of items that is not necessarily meant to be followed in a sequence

2 Troubleshooting Scenario

This section describes the procedure for troubleshooting the most commonly occurring issues along with their resolution steps. The issues have been categorized based on the various components of iAutomate and are listed below:

2.1 Troubleshooting for iAutomate Installer

2.1.1 Installer exe is not running

Table 2 – iAutomate Installer: Scenario 1

Issue Description	Installer exe is not running
Modules Impacted	iAutomate Installer

Resolution Steps:

1. Check if antivirus is not stopping the exe from running.
2. Refer to the log and exception files (available where the installer exe has been placed) for more information.

2.1.2 No file found to merge for iAutomateDB/iCustomerDB/ASPState

Table 3 - iAutomate Installer: Scenario 2

Issue Description	A message “No file found to merge for iAutomateDB/iCustomerDB/ASPState” during the installation
Modules Impacted	iAutomate Installer

Resolution Steps:

1. Check if antivirus is not stopping the exe from running.
2. Refer to the log and exception files (available where the installer exe has been placed) for more information.

2.1.3 Database Details - Check Connection failure

Table 4 - iAutomate Installer: Scenario 3

Issue Description	Database Details - Check Connection failure
Modules Impacted	iAutomate Installer

Resolution Steps:

1. Check the connectivity to the database server.
2. Ensure that the DB port (1443) is open for communication.
3. Ensure that the username and password are entered correctly.
4. Refer to the log and exception files (available where the installer exe has been placed) for more information.

2.1.4 Server Configuration – Check User Validity failure

Table 5 - iAutomate Installer: Scenario 4

Issue Description	Server Configuration – Check User Validity failure
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Modules Impacted	iAutomate Installer
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Resolution Steps:

1. Check if all the details have been entered correctly.
2. Ensure that the user has administrator privileges.
3. Refer to the log and exception files (available where the installer exe has been placed) for more information

2.1.5 Pre-requisite software checking failure

Table 6 - iAutomate Installer: Scenario 5

Issue Description	Pre-Requisite Checker – Pre-requisite software checking failure
Modules Impacted	iAutomate Installer

Resolution Steps:

1. Ensure that all the pre-requisite softwares are installed under the **Local System** under **Registry**.
2. Click **Win+R** and type **regedit.msc** to open **Registry**.
3. To check the exact path in **Registry**, refer to installer logs under log folder inside installer. If the user doesn't have access to Registry, then check in installed programs.

2.1.6 iAutomate component installation failure

Table 7 - iAutomate Installer: Scenario 6

Issue Description	Installation (Final Submission) – iAutomate component installation failure
Modules Impacted	iAutomate Installer

Resolution Steps:

1. If the failure is due to database, resolve the issue depending on the error message.
2. If the error is "**No module named 'pip'**", then it could be an issue related with Python installation. Please uninstall python and follow the installation steps again as mentioned in pre-requisite document and ensure that the installation is correct.
3. If the failure is due to components, ensure that all the pre-requisites are completed. To check the exact error, find the complete command in the installer logs available in the log folder inside the installer.
4. Run that command in **Command Prompt**.
For e.g.: - "C:\IAUTOMATE\DATACOLLECTION\SRServices.bat" HCL.iAutomate.DC
"C:\IAUTOMATE\DataCollection\DataCollection\HCL.iAutomate.DataCollector.Service.Host.exe"
5. Repeat the steps 3 & 4 for all the respective components.
6. LISTENER: - <path of bat file> <service name> <path till service folder> <admin email ID> <password>
E.g.: - "C:\IAUTOMATE\LISTNER\SRServices.bat" HCL.iAutomate.Listener
"C:\IAUTOMATE\Listner\Listner\HCL.iAutomate.Listner.Service.Host.exe" test@hcl.com 123456
7. DATACOLLECTOR: - <path of bat file> <service name> <path till service folder> <admin email ID> <password>
E.g.: - "C:\IAUTOMATE\DATACOLLECTION\SRServices.bat"HCL.iAutomate. DC
"C:\IAUTOMATE\DataCollection\DataCollection\HCL.iAutomate.DataCollector.Service.Host.exe" test@hcl.com 123456

-
8. IRECOMMEND: - <path of bat file> <path till iRecommend folder> <drive letter>: <port> <admin email ID> <password>
E.g.: - "C:\IAUTOMATE\iRecommend\recommendBatch\irecommend_batch.bat"
"C:\IAUTOMATE\iRecommend\recommendBatch" C: 9000 test@hcl.com 123456
 9. Entity: - <path of bat file> <path till entity folder> <drive letter>: <port> <admin email ID> <password>
E.g.: - "C:\IAUTOMATE\iRecommend\batchFile\entity_batch.bat" "C:\IAUTOMATE\iRecommend\batchFile" C: 9003 test@hcl.com 123456
 10. IPARSE: - <path of bat file> <path till iparse folder> <drive letter>: <port> <admin email ID> <password>
E.g.: - "C:\IAUTOMATE\iParse\iparse_batch.bat" "C:\IAUTOMATE\iParse\\" C: 8006 test@hcl.com 123456
 11. GENERIC SERVICE: - <path of bat file> <service name> <path till service folder> <admin email ID> <password>
E.g.: - "C:\IAUTOMATE\GENERICSERVICE\SRServices.bat" HCL.iAutomate.GenericExecutor
"C:\IAUTOMATE\GenericService\GenericService\HCL.iAutomate.Generic.Host.exe" test@hcl.com 123456
 12. RBA SERVICE: - <path of bat file> <service name> <path till service folder> <admin email ID> <password>
E.g.: - "C:\IAUTOMATE\RBA\SRServices.bat" HCL.iAutomate.RBAComponent
"C:\IAUTOMATE\RBA\RBA\Hcl.RbaService.Component.Host.exe" test@hcl.com 123456
 13. IRELEASE: - <path of bat file> <service name> <path till service folder> <admin email ID> <password>
E.g.: - "C:\IAUTOMATE\RELEASESERVICE\SRServices.bat" HCL.iAutomate.ReleaseService
"C:\IAUTOMATE\ReleaseService\ReleaseService\HCL.iAutomate.Release.Host.exe" test@hcl.com 123456
 14. IUNIQUE: - <path of bat file> <path till iUnique folder> <drive letter>: <port> <admin email ID> <password>
E.g.: - "C:\IAUTOMATE\iUnique\iUnique\iunique_batch.bat" "C:\IAUTOMATE\iUnique\iUnique" C: 8009 test@hcl.com 123456
 15. ISCRIPT: - <path of bat file> <path till iScript folder> <drive letter>: <port> <admin email ID> <password>
E.g.: - "C:\IAUTOMATE\iScript\iScript\iscript_batch.bat" "C:\IAUTOMATE\iScript\iScript\" C: 8030 test@hcl.com 123456
 16. IKNOWLEDGE BASIC: - <path of bat file> <path till iKnowledge folder> <drive letter>: <port> <admin email ID> <password>
E.g.: - "C:\IAUTOMATE\iKnowledge\iKnowledge\iknowledge_batch.bat"
"C:\IAUTOMATE\iKnowledge\iKnowledge" C: 8024 test@hcl.com 123456
 17. IKNOWLEDGERATING: - <path of bat file> <path till crawler folder> <drive letter>: <port> <admin email ID> <password>
E.g.: - "C:\IAUTOMATE\KnowledgeRating\KnowledgeRating\Rating.bat"
"C:\IAUTOMATE\KnowledgeRating\KnowledgeRating\\" C: 8027 test@hcl.com 123456
 18. ICRAWLER: - <path of bat file> <path till crawler folder> <drive letter>: <port> <admin email ID> <password>
E.g.: - "C:\IAUTOMATE\ADVANCEKNOWLEDGE\Crawler\crawler_install.bat"
"C:\IAUTOMATE\ADVANCEKNOWLEDGE\Crawler\" C: 9019 test@hcl.com 123456
 19. Batch script to install IKNOWLEDGEINDEXER, IKNOWLEDGESCREENS, IKNOWLEDGESEARCH <path of bat file> <path till crawler folder> <drive letter>: <port> <admin email ID> <password>
E.g.: - "C:\IAUTOMATE\ADVANCEKNOWLEDGE\iKnowledge_batch.bat"
"C:\IAUTOMATE\ADVANCEKNOWLEDGE\" C: 9009 9013 9016 test@hcl.com 123456
-

2.1.7 Database execution failure

Table 8 - iAutomate Installer: Scenario 6

Issue Description	Installation (Final Submission) – Database execution failure
Modules Impacted	iAutomate Installer

Resolution Steps:

1. If the failure is due to database, check the error.
2. If the error is “**Violation of UNIQUE KEY constraint 'IX_CodeMaster'. Cannot insert duplicate key in object 'dbo.CodeMaster'. The duplicate key value is (secret manager).**”, then it is issue due to multiple times execution of DB scripts.
3. To resolve this error, go to iAutomateDB database and run below command.

```
IF EXISTS (SELECT 1 FROM CodeMaster WHERE Code='secret manager')
BEGIN
DELETE FROM CodeMaster WHERE Code='secret manager'
END
GO
```

4. After executing the above script, run the installer again.
5. If the same issue persists, then perform the above steps again.

2.2 Troubleshooting for BaseUI (Web Application)

2.2.1 iAutomate website took too long to respond

Table 9 – Base UI: Scenario 1

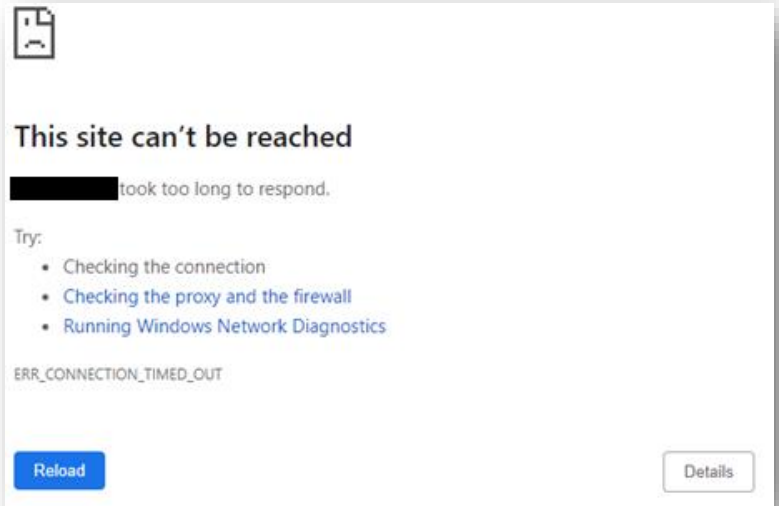
Issue Description	iAutomate website took too long to respond.  The screenshot shows a Chrome browser window with a white background. At the top left is a sad face icon. The main heading is 'This site can't be reached'. Below it, a blacked-out URL is followed by 'took too long to respond.'. Under the heading 'Try:', there are three bullet points: 'Checking the connection', 'Checking the proxy and the firewall', and 'Running Windows Network Diagnostics'. At the bottom left is the error code 'ERR_CONNECTION_TIMED_OUT'. There are two buttons at the bottom: a blue 'Reload' button and a grey 'Details' button.
Modules Impacted	Web Application
Probable Root Cause	Issue with IIS

Figure 1 – Website Not Working

Resolution Steps:

1. Ensure that IIS is running on the Web Server
2. Ensure that iAutomateAppPool is running under the Application Pools
3. Ensure that HCLiAutomateBaseUI, HCLiAutomateWebAPI, HCLiAutomateKRS is running under sites section

2.2.2 Invalid Login Attempt on iAutomate Website

Table 10 - Base UI: Scenario 2

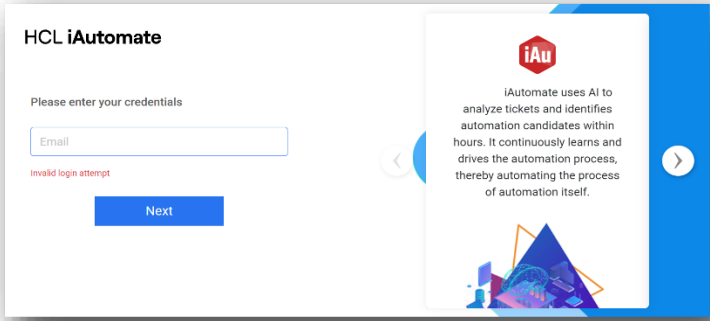
Issue Description	Invalid Login Attempt on iAutomate Website.  The screenshot shows the HCL iAutomate login interface. On the left, there is a form titled 'Please enter your credentials' with an 'Email' input field and a 'Next' button. Below the input field, a red error message reads 'Invalid login attempt'. On the right, there is a blue sidebar with the iAutomate logo and a description of the AI-driven automation process. The entire interface is set against a light blue background with a subtle grid pattern.
Modules Impacted	Web Application
Probable Root Cause	Incorrect Password entered by user

Figure 2 – Login Attempt

Resolution Steps:

1. Ensure that correct user id and password are entered for login.

2.2.3 User Not Found while login

Table 11 - Base UI: Scenario 3

Issue Description	User Not Found while logging into the application
Modules Impacted	Web Application
Probable Root Cause	User does not have access to iAutomate application

Resolution Steps:

1. Login into iAutomate using the **Super Administrator** credentials.
2. Go to **RBAC → User Management**.
3. Create new user using + option.

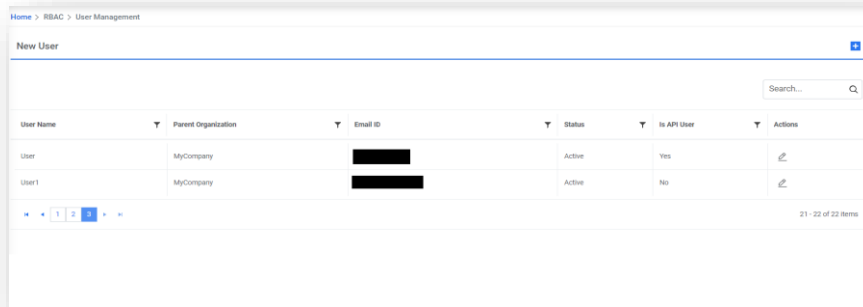


Figure 3 – Add New User

Figure 4 - Add New User (Cont.)

2.2.4 SOAP Certificate Negotiation Failure

Table 12 - Base UI: Scenario 4

Issue Description	Error message “ SOAP Certificate Negotiation Failure ” appears in Component Log Screen of BaseUI
Modules Impacted	Web Application
Probable Root Cause	HclTech.iautomate.Web certificate is not present in MMC → Local Machine → Trusted People .

Resolution Steps:

1. Although the certificate is installed by the installer when its exe runs but verify if the same is present in the system.
2. Press **win+R** and type mmc. Click **Ok**.

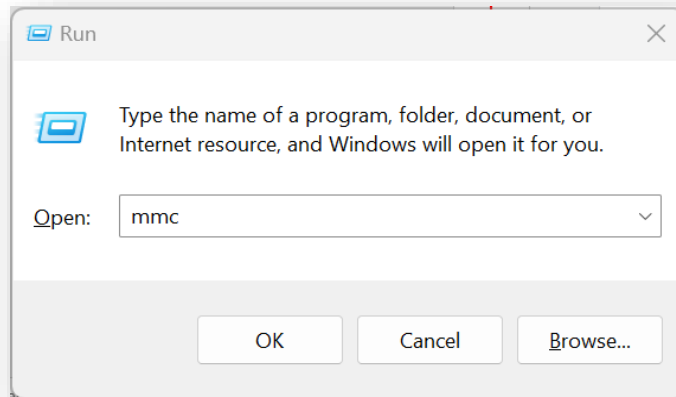


Figure 5 - Certificate

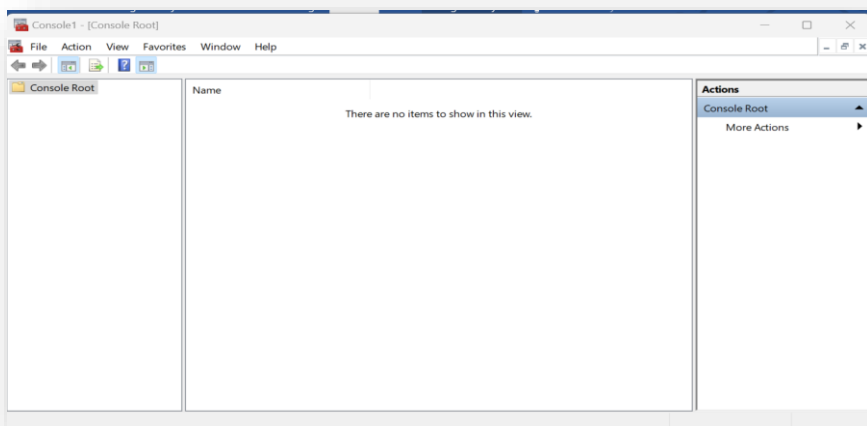


Figure 6 - Certificate Wizard (cont.)

3. Click File -> Add/Remove snap-in.

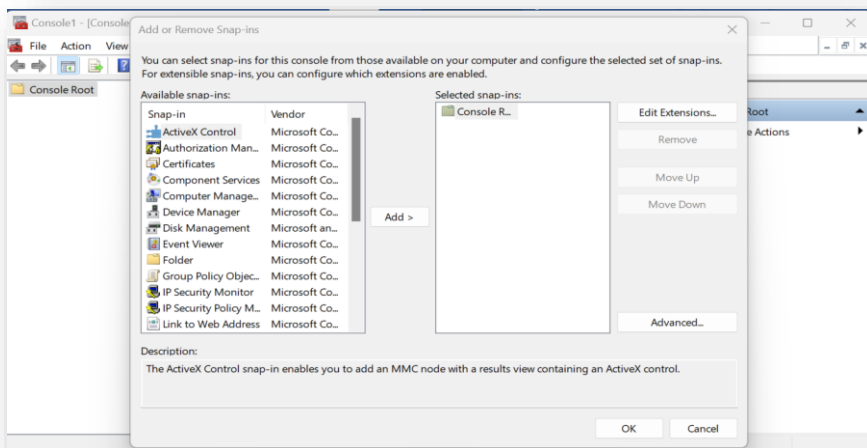


Figure 7 - Certificate Wizard (cont.)

4. Double Click on Certificates.

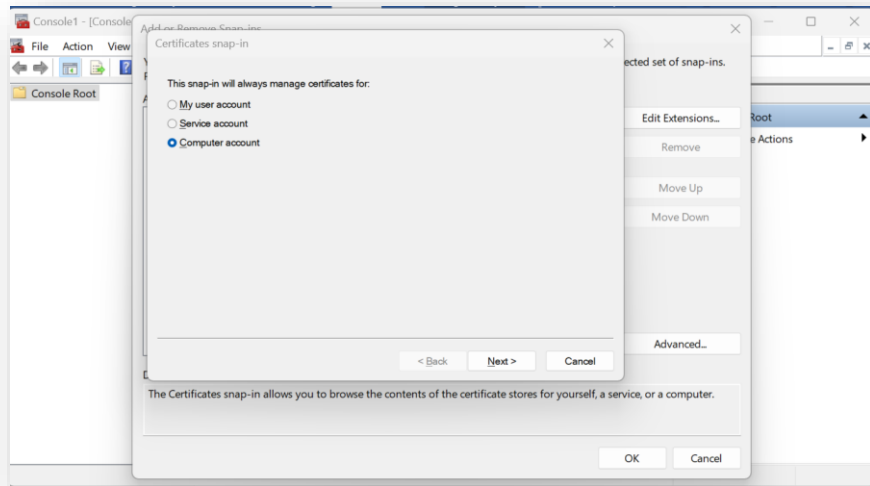


Figure 8 - Certificate Wizard (cont.)

5. First Click Computer Account, click Next and then Click Finish. At last, Click Ok.
6. Expand Certificates then expand Trusted People and Certificate.
7. Confirm that HclTech.iautomate.Web is available on the screen.

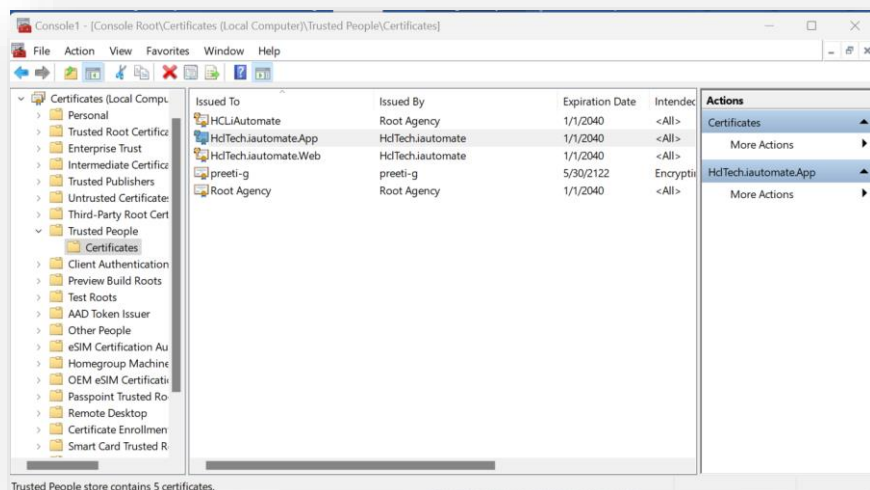


Figure 9 - Certificate Wizard (cont.)

2.2.5 User is not authorized to access iAutomate

Table 13 - Base UI: Scenario 5

Issue Description	User is not authorized to access iAutomate
Modules Impacted	Web Application
Probable Root Cause	Key Rotation Service (KRS) may not be working
Related Documentation	Troubleshooting Steps for Key Rotation Service (KRS)

Resolution Steps:

1. To validate if KRS is working, check if KRS WSDL is loading by to URL **http://<LB IP>:<port>/KeyManagement.svc**.



Figure 10 – Key Rotation Service

2. If the user gets **Bad Request** message, it means that KRS is not working.
3. Refer to [Troubleshooting Steps for Key Rotation Service \(KRS\) \(Web API component\)](#) for more information.

2.2.6 “Application Error Occurred” during runbooks import

Table 14 - Base UI: Scenario 6

Issue Description	Error message “Application Error Occurred” under Manage Runbooks section while importing the runbooks. Figure 11 – Application Error screen
Modules Impacted	Recommend service, iParse, Generic Service, RBA Service, Release service
Probable Root Cause	Pre-requisite Microsoft ACE OLEDB v12.0 not installed

Resolution Steps:

- Install **Microsoft ACE OLEDB v12.0** on the web server.

2.2.7 Entity Model build unsuccessful

Table 15 - Base UI: Scenario 7

Issue Description	Entity Model build unsuccessful
Modules Impacted	Recommend service, iParse, Generic Service, RBA Service, Release service
Probable Root Cause	HCL.iAutomate.Entity service may not be running

Resolution Steps:

1. Press **Win+R** and type **services.msc**.
2. Click **OK** to open the **Windows Services**.

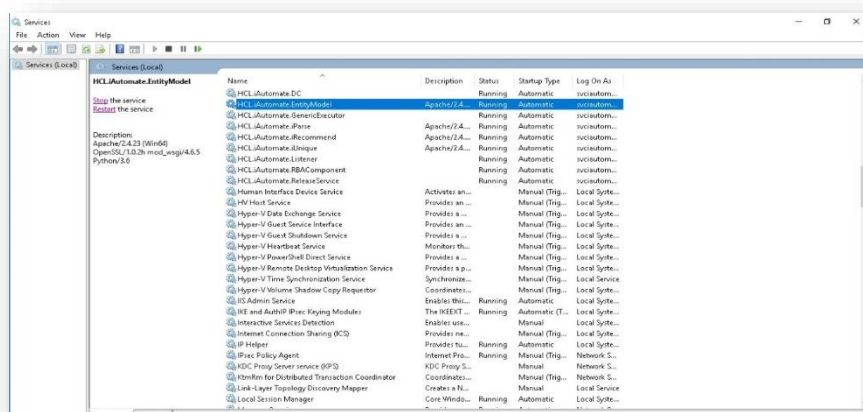


Figure 12 - Entity Model Build Unsuccessful

3. Check if the status of the service **HCL.iAutomate.Entity** is **Running**.
4. If the service is running, then check logs in **Reports → Component Log** for more information.

2.2.8 Localhost redirected too many times

Table 16 - Base UI: Scenario 8

Issue Description	Localhost redirected you too many times.
-------------------	---

Figure 13 - Base UI Issue

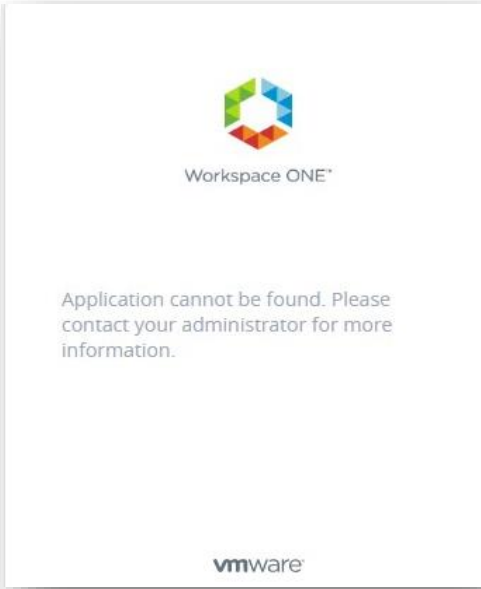
Modules Impacted	Web Application
Probable Root Cause	HclTech.iautomate.Web certificate is not present

Resolution Steps:

1. Refer to the file **global.aspx** to see the exact error.
2. If the error message is “**Unable to connect to SQL Server session database**’. The connection string (server='', database='ASPState') was returned by an instance of the IPartitionResolver type “*iAutomateWeb.App_Code.ConnectionStringResolver*”, this implies that either **HclTech.iautomate.Web** certificate is not present in **MMC → Local Machine → Trusted People** or the certificate is corrupted. Go to step 3.
3. Refer to section “[SOAP Certificate Negotiation Failure](#)” to verify the presence of certificate.

2.2.9 Identity Server is not opening while login

Table 17 - Base UI: Scenario 9

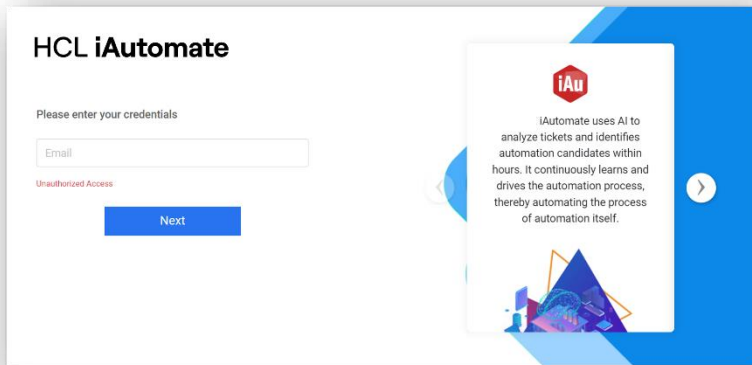
Issue Description	Identity Server is not opening while user is trying to login into iAutomate  Figure 14 - Identity Server is not opening
Modules Impacted	Web Application
Probable Root Cause	Identity Server URL is incorrect

Resolution Steps:

- Ensure that the identity server URL is correct

2.2.10 Unauthorized Access while login

Table 18 - Base UI: Scenario 10

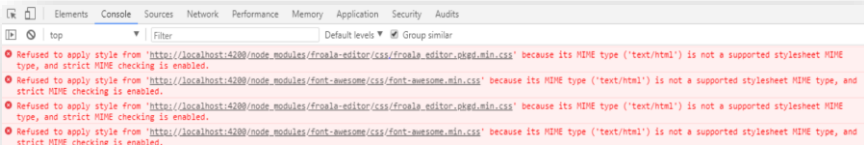
Issue Description	Unauthorized Access while logging into iAutomate  Figure 15 - Unauthorized Access while logging into iAutomate
Modules Impacted	Web Application
Probable Root Cause	Login User Id and Identity Server User Id are not same

Resolution Steps:

- Enter the same login user id in Identity server that is used for login into iAutomate

2.2.11 Not Able to load css /js of website

Table 19 - Base UI: Scenario 11

Issue Description	Not Able to load css /js of website when site on load Balancer.  Figure 16 - Site Press F12 and see if below error exists on console.  Figure 17 – BaseUI Error
Modules Impacted	Web Application

Probable Root Cause	Port forwarding in Load balancer should be 443 to different port.
----------------------------	---

Resolution Steps:

1. Ensure that correct Port forwarding is configured in Load balancer 443 to 443.
2. Ensure that the Permission is given to BASEUI folder.

2.2.12 Unauthorized: Access denied due to invalid credentials

Table 20 - Base UI: Scenario 12

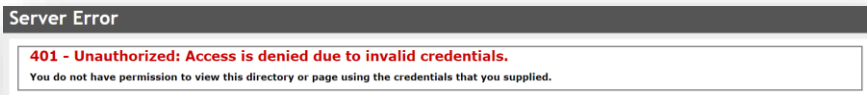
Issue Description	Web Site is giving unauthorized access when opening from another site/Application. 
Modules Impacted	Web Application
Probable Root Cause	Due to invalid URL Referrer

Figure 18 - Login Attempt

Resolution Steps:

1. Search ValidUrlReferrer key in web.config of BaseUI site.
2. Add valid URL of another site/application pipe separated as a value of key "ValidUrlReferrer".

2.2.13 Unable to Login

Table 21 - Base UI: Scenario 13

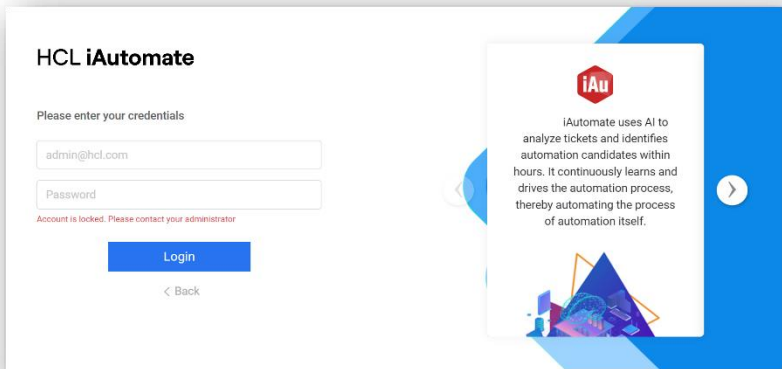
Issue description	Unable to login because the account has been locked.
Modules impacted	Web application
Probable root cause	Admin is locked. 

Figure 19 – Account Lock Out Error

Resolution steps

1. Select * from UserMaster
2. Update UserMaster set NoOfUnsuccessfulAttempts='0' where UserId='1'

2.2.14 Unable to open Chat popup for AEX

Table 22 - Base UI: Scenario 14

Issue description	Unable to open chat popup on Tickets screen due to content blocked.
Modules impacted	Web application
Probable root cause	AEX URL needs to be added in config.

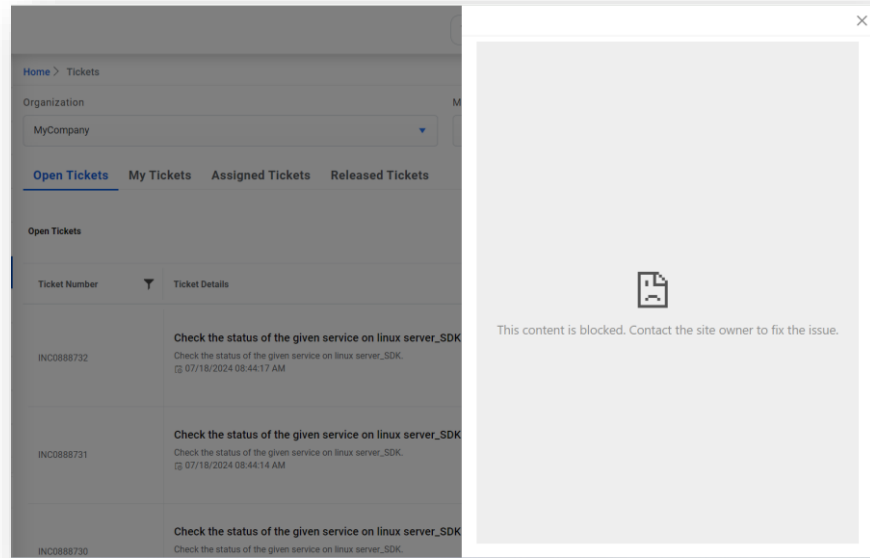


Figure 20 – Chat popup blocked

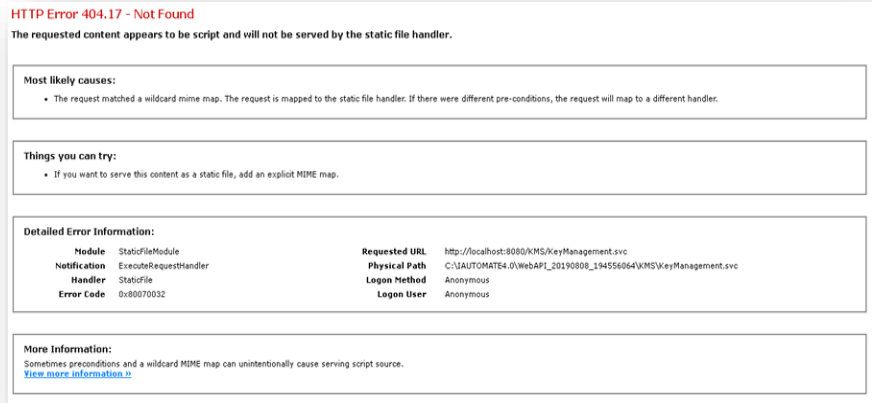
Resolution steps:

1. Go to page Advance Configuration-> Google Custom Search API/AEX API Details and click on AEX API tab. Copy the value of AEX URL.
2. Go to Web.config of BaseUI.
3. Search for key 'Content-Security-Policy'
4. Now paste the value `frame-src <AEX URL>;` at the end of the value of this key.
 Eg: `<add name="Content-Security-Policy" value="default-src 'self'; font-src 'self' data: fonts.gstatic.com; script-src 'self' data: https: data: http;; connect-src * 'self'; img-src * 'self' data: https: data: http;;object-src 'none';frame-src https://aexurl.;" />`

2.3 Troubleshooting Steps for Key Rotation Service (KRS) (Web API component)

2.3.1 KRS is unable to provide the key due to IIS configuration issue

Table 23 - Key Rotation Service (KRS): Scenario 3

Issue Description	KRS is not working as its unable to provide the key.  Figure 21 - KRS is not working
Modules Impacted	iAutomate along with all the components
Probable Root Cause	MIME Type Error – IIS has not been configured properly

Resolution Steps:

1. Go to Control Panel and turn on Windows Features.
2. Click on Next until user finds .Net Framework 4.6 Features (Installed).
3. Expand it and find **WCF Services**.
4. Expand WCF Services and enable HTTP Activation.

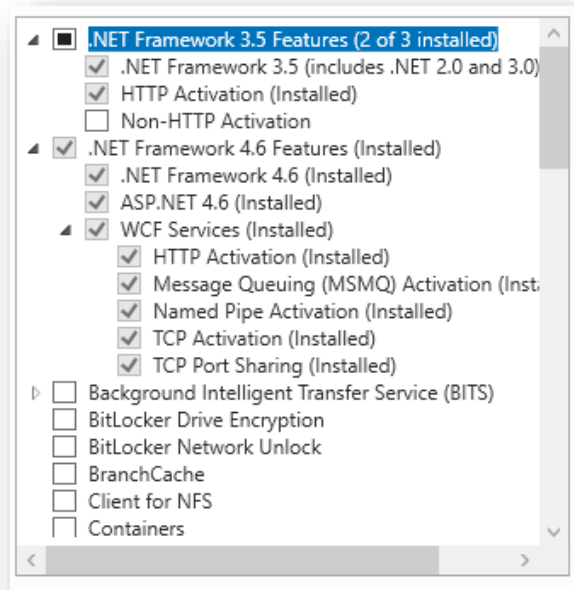


Figure 22 - KRS is not working (cont.)

5. Install and check for **WSDL** again.

2.3.2 KRS is unable to provide the key due to IIS issue

Table 24 - Key Rotation Service (KRS): Scenario 4

Issue Description	KRS is not working as its unable to provide the key
Modules Impacted	iAutomate along with all the components
Probable Root Cause	Issue with IIS

Resolution Steps:

If the steps mentioned in Scenarios 2 and 3 are performed and still WSDL of KRS is not loading successfully, it implies that issues are with IIS.

1. Press **Win+R**, type **inetmgr** and click **OK**.
2. Go to **IIS** and see if KRS is running. If there is any issue in IIS, try hosting KRS on different port and they try running the WSDL. If WSDL loads successfully, it implies that issue is with IIS.
3. Contact the System Administrator.

2.3.3 KRS is unable to provide the key due to Padding issue

Table 25 - Key Rotation Service (KRS): Scenario 5

Issue Description	KRS is not working as its unable to provide the key
Modules Impacted	iAutomate along with all the components
Probable Root Cause	Padding is invalid and can't be removed due to discrepancy in generated keys

Resolution Steps:

1. Check the log file of KRS. But first, the logger state needs to be set to 1 in the config file of KRS. Perform the following steps.

- a. Press **Win+R** and type inetmgr.
- b. Click **OK** to open IIS.

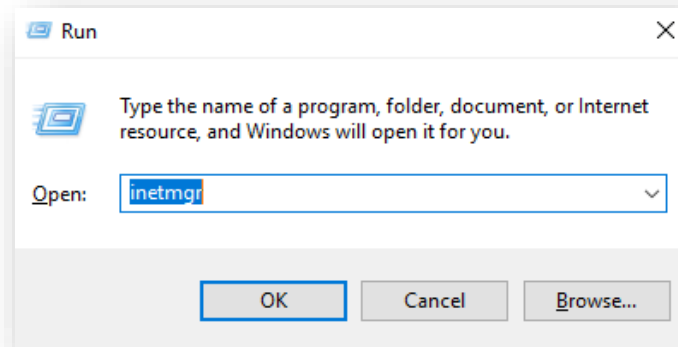


Figure 23 - KRS is Not Working

- c. Expand Sites and click HCLiAutomateKRS
- d. Expand HCLiAutomateKRS and click right click on HCLiAutomateKRS and click Explore.

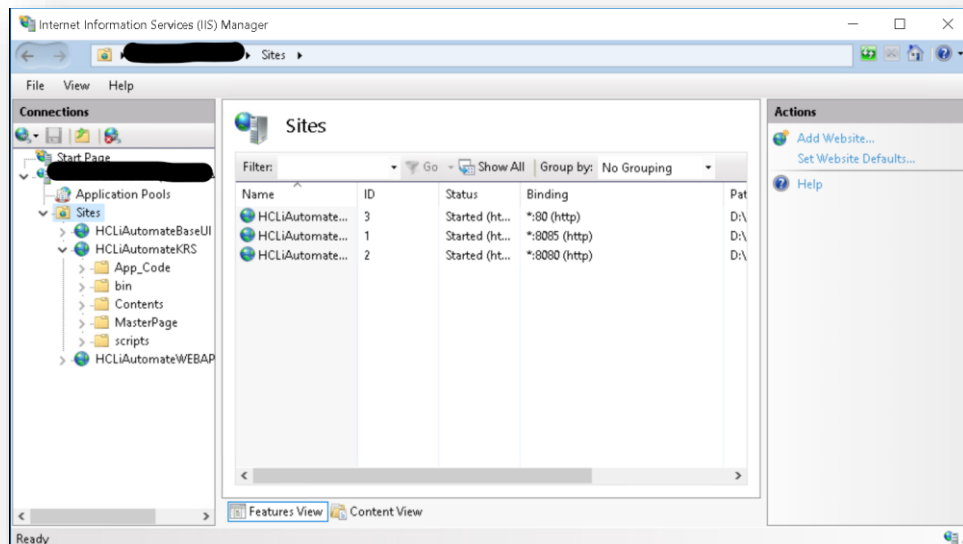


Figure 24 - KRS is not working (cont.)

- e. Find Web.config file and open it in Notepad.



Figure 25 - KRS is Not Working (cont.)

- f. Find the key Logger and change its value from 0 to 1.

```
<add key="Logger" value="1" />
```

2. To open the log file of KRS, perform the following steps:

- a. Press **Win+R** and type inetmgr.
- b. Click **OK** to open IIS.

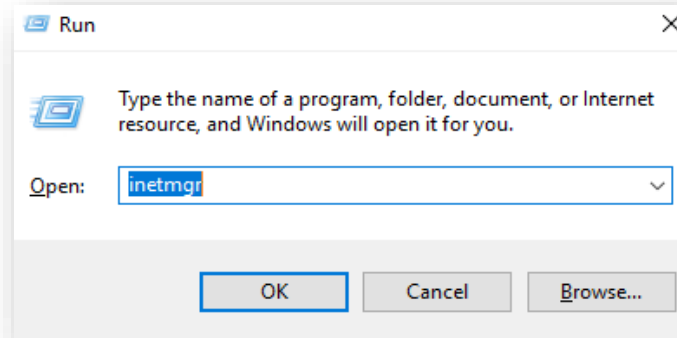


Figure 26 - KRS is not working (cont.)

- c. Expand Sites and click HCLiAutomateKRS.
- d. Expand HCLiAutomateKRS and right-click on HCLiAutomateKRS.
- e. Click Explore.

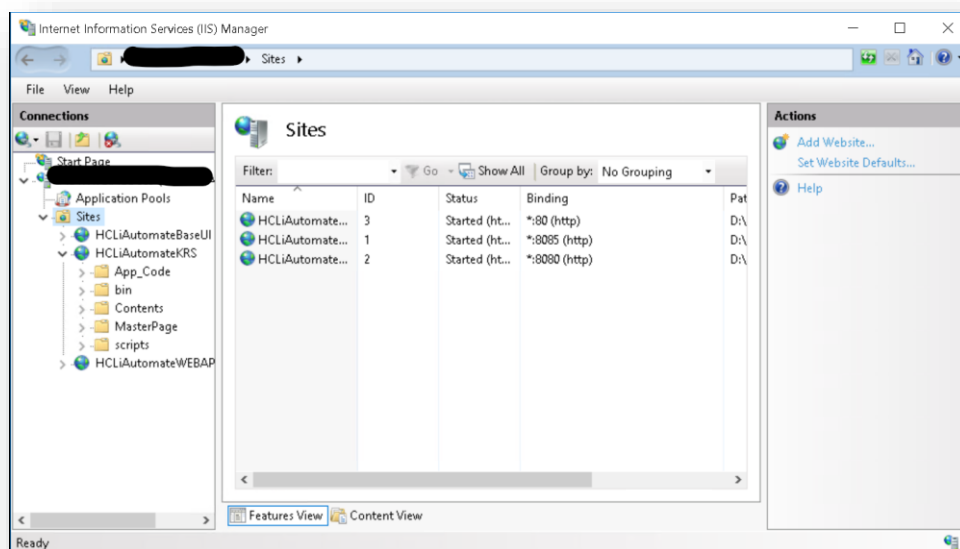


Figure 27 - KRS is not working (cont.)

- f. Find the folder **bin** and open it.
- g. Find Web.config file and open it in Notepad.

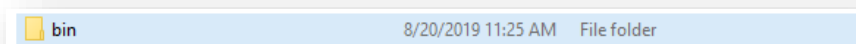


Figure 28 - KRS is not working (cont.)

- h. Find folder '**KRSLog**' and open it.
- i. If KRSLog folder is missing, it implies that KRS is not getting hit by the components. It also implies that the KRS URL is not correctly mentioned in the config file of all components. Correct URL should be <http://<website IP>:<port of KRS>/KeyManagement.svc>
- j. Find the file '**KeyManagementServiceLog**' and open it in Notepad.

- k. Read the log file. If the error message reads '**padding is invalid and cannot be removed**', it is due to the discrepancy in keys.
3. If there is no padding error, refer to the log file for more information about the issue and proceed accordingly.

2.4 Troubleshooting Steps for iAutomate WEB API

2.4.1 WEB API is not running

Table 26 - iAutomate WEB API: Scenario 1

Issue Description	WEB API is not running
Modules Impacted	Web API

Resolution Steps:

1. Press **Win+R** and type **inetmgr**
2. Click **OK** to open **IIS**.

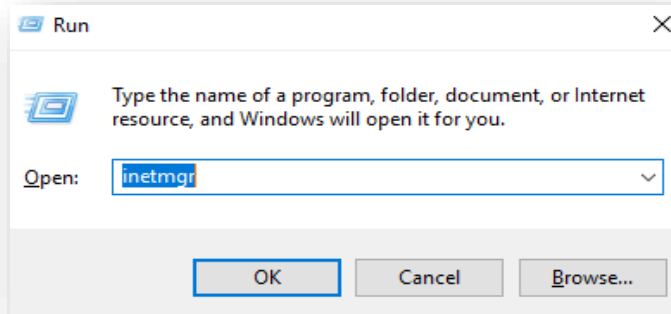


Figure 29 - WEB API is Not Running

3. Expand Sites and click HCLiAutomateWEBAPI.

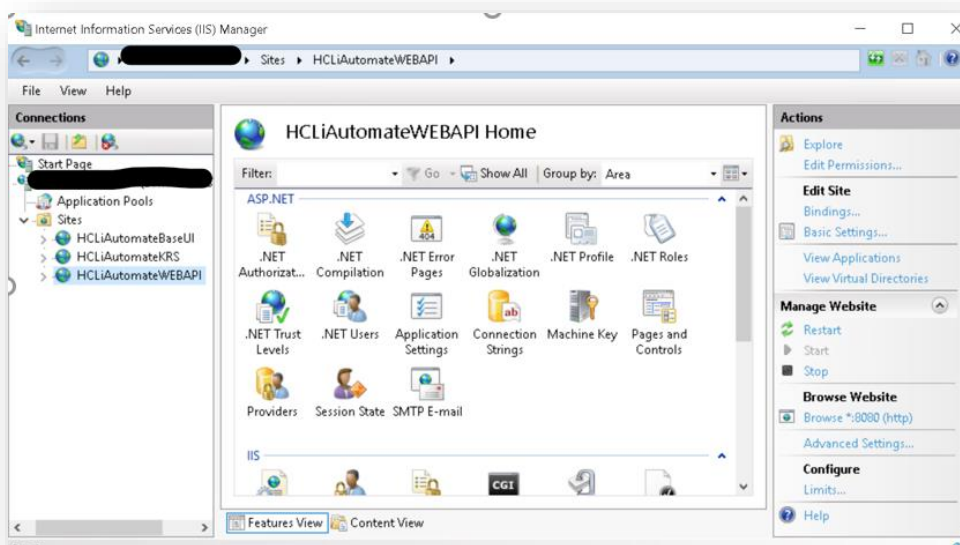


Figure 30 - WEB API is not running (cont.)

4. If **Start** under **Manage Website** section is enabled, click **Start** to start the services.
5. If the issue persists, contact **the System Administrator**.

2.4.2 WEB API service - No response received

Table 27 - iAutomate WEB API: Scenario 2

Issue Description	WEB API service is running, yet there is no response received
Modules Impacted	Authentication Failure

Resolution Steps:

1. Ensure that the credentials used for calling the API are correct.
2. Ensure that the input json which is being supplied as input to API is in the correct format.

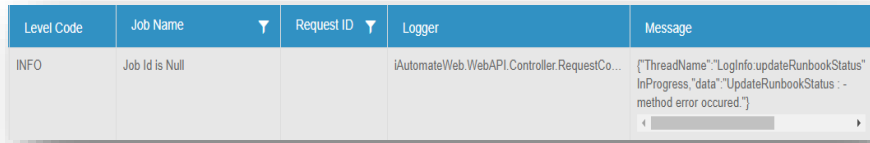
Sample JSON request:

```
{ "JobId": 15, "TicketNumber": "xxxxxx", "RbaInteractionId": "xxxxxx", "RbaStatusCode": "0", "RbaStatusMessage": "WIP" }
```

Ensure all the parameters are correct.

2.4.3 Method Error Occurred

Table 28 - iAutomate WEB API: Scenario 3

Issue Description	Error message Method Error Occurred appears in the Component Log screen of Web API. 
Modules Impacted	Provided JSON may not be in correct format

Resolution Steps:

1. Open **Postman** and paste the desired URL.
2. Select the method type as **PUT** and provide input JSON in **Body** section. Provide valid credentials for **Basic Authentication** and click **Send**.

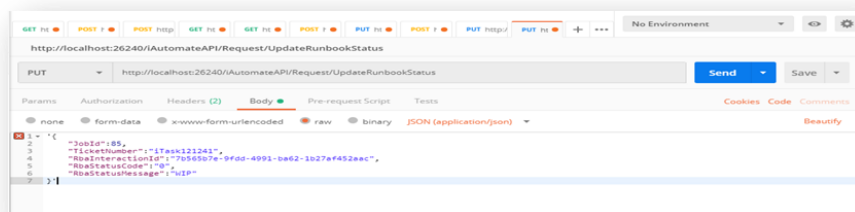


Figure 32 - Method Error in the Component Log

3. If the response error is as mentioned below, it implies that the JSON input is not in single quotes.

If following error occurred:

```
{
  "result": {
    "statusCode": 300,
    "status": "Fail",
    "message": "Value cannot be null.\r\nParameter name: value",
    "data": null
  }
}
```

4. Correct Format of JSON:

```
{
  "JobId":85,
  "TicketNumber":"XXXXXXXX",
  "RbaInteractionId":"XXXXXXXX",
  "RbaStatusCode":"0",
  "RbaStatusMessage":"WIP"
}
```

2.4.4 Unable to reach API

Table 29 - iAutomate WEB API: Scenario 4

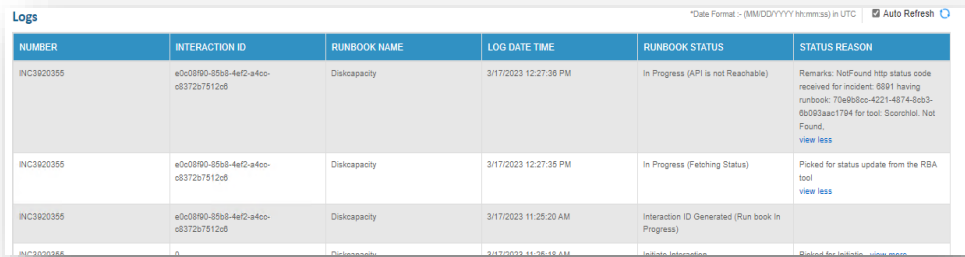
Issue Description	Unable to get response from RBA Tool
Modules Impacted	ExecuteRunbook
Probable root cause	Push notification is not turned ON.  The screenshot shows a table with 6 columns: NUMBER, INTERACTION ID, RUNBOOK NAME, LOG DATE TIME, RUNBOOK STATUS, and STATUS REASON. The first row shows an error with status 'In Progress (API is not Reachable)' and a detailed message about a 'Not Found' http status code received for incident 6891. The second row shows 'In Progress (Fetching Status)'. The third row shows 'Interaction ID Generated (Run book in Progress)'. The fourth row shows 'Indicates Indication'.

Figure 33 – NotFound http Status Code

Resolution Steps

1. Go to ExecuteRunbook Job → Turn ON execute runbook JOB.
2. This is applicable only for Ansible and Scorch.

2.5 Troubleshooting Steps for Listener

2.5.1 “Jobs are not getting picked” due to Listener Service issue

Table 30 - Listener: Scenario 1

Issue Description	Error message “ Not able to reach the component ” appears on Actions → Manage Jobs → Job Log screen for the respective Job
Modules Impacted	Data collector, Recommendation, iParse, Generic, RBA, Release, Unique
Probable Root Cause	Listener service is not up and running.

Resolution Steps:

1. Press **Win+R** and type **services.msc**.
2. Click **OK** to open the **Windows Services**.

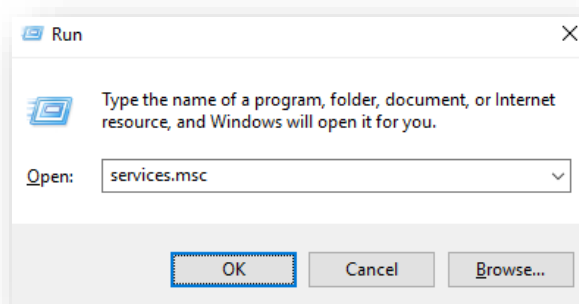


Figure 34 - Error message “Not able to reach the component”

3. Find the service **HCL.iAutomate.Listener** and select it.

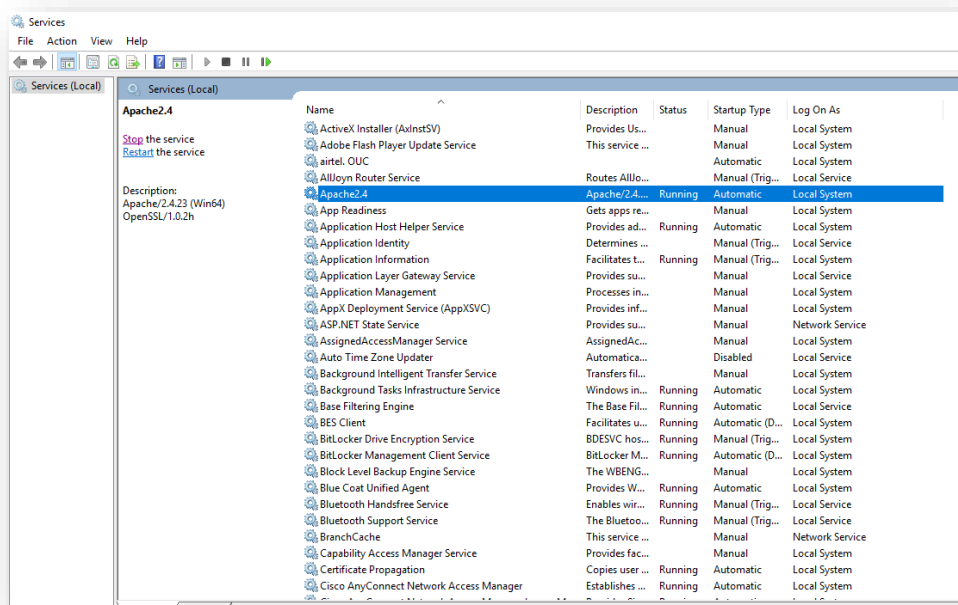


Figure 35 - Error message “Not able to reach the component” (cont.)

4. Click **Start** to start the service.



Figure 36 - Error message “Not able to reach the component” (cont.)

2.5.2 “Not able to reach the component” due to the Stored Procedure issue

Table 31 - Listener: Scenario 2

Issue Description	Error message “ Not able to reach the component ” appears on Actions → Manage Jobs → Job Log screen for the respective Job
Modules Impacted	Data collector, Recommendation, iParse, Generic, RBA, Release, Unique
Probable Root Cause	Related Stored Procedure is not giving the data.

Resolution Steps:

1. Go to SQL Server Management Studio.
2. Go to **iAutomateDB** and run the **Stored Procedure ‘GetJobToRunDetails’** and check if it is providing relevant data for the component jobs. If that is not the case, contact the **System Administrator**.
3. Query to execute the **Stored Procedure** is:

```
exec GetJobToRunDetails ‘Y’,‘Component_Code’,‘Encrypted_Key’.
```

2.5.3 “Not able to reach the component” due to KRS issue

Table 32 - Listener: Scenario 3

Issue Description	Error message “ Not able to reach the component ” appears on Actions → Manage Jobs → Job Log screen for the respective Job
Modules Impacted	Data collector, Recommendation, iParse, Generic, RBA, Release, Unique
Probable Root Cause	Issue in Key Rotation Service (KRS)

Resolution Steps:

If the Listener service is up and running and SP ‘**GetJobToRunDetails**’ is having right set of data, then check the Listener logs.

Perform the following steps:

1. Press **Win+R** and type **services.msc**.

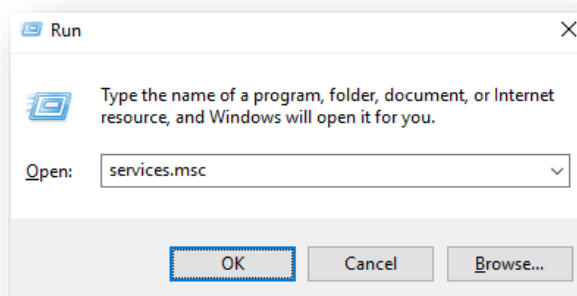


Figure 37 - Issue in Key Rotation Service (KRS)

2. Click **OK** to open the **Windows Services**.

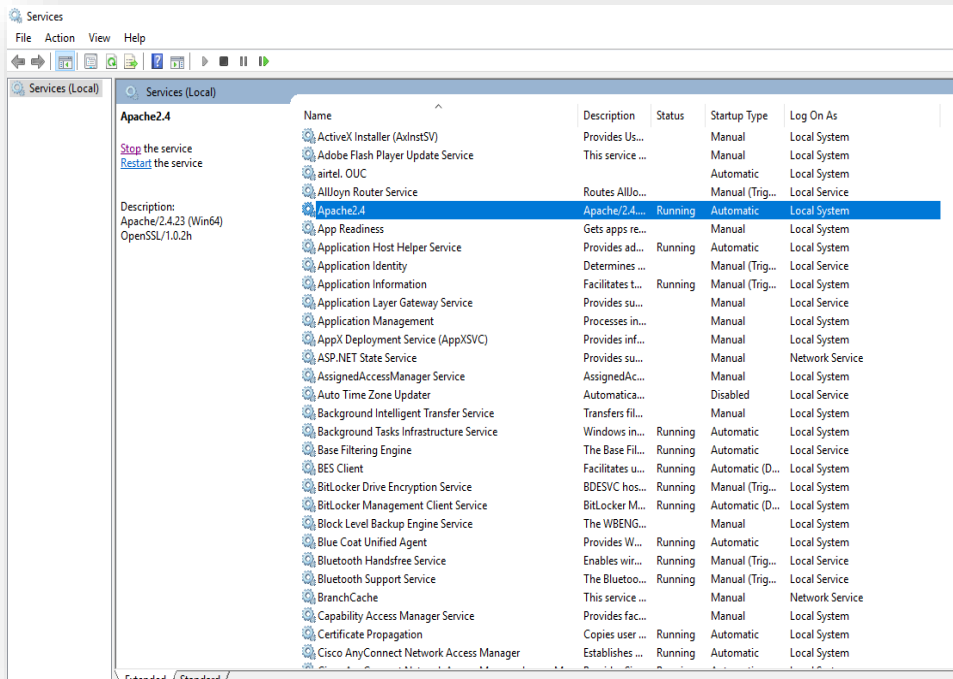


Figure 38 - Issue in Key Rotation Service (KRS) (cont.)

3. Click on any of the listed services. Type 'H' and search for **HCL.iAutomate.Listener**.
4. Right-click **HCL.iAutomate.Listener** service and click **Properties**.

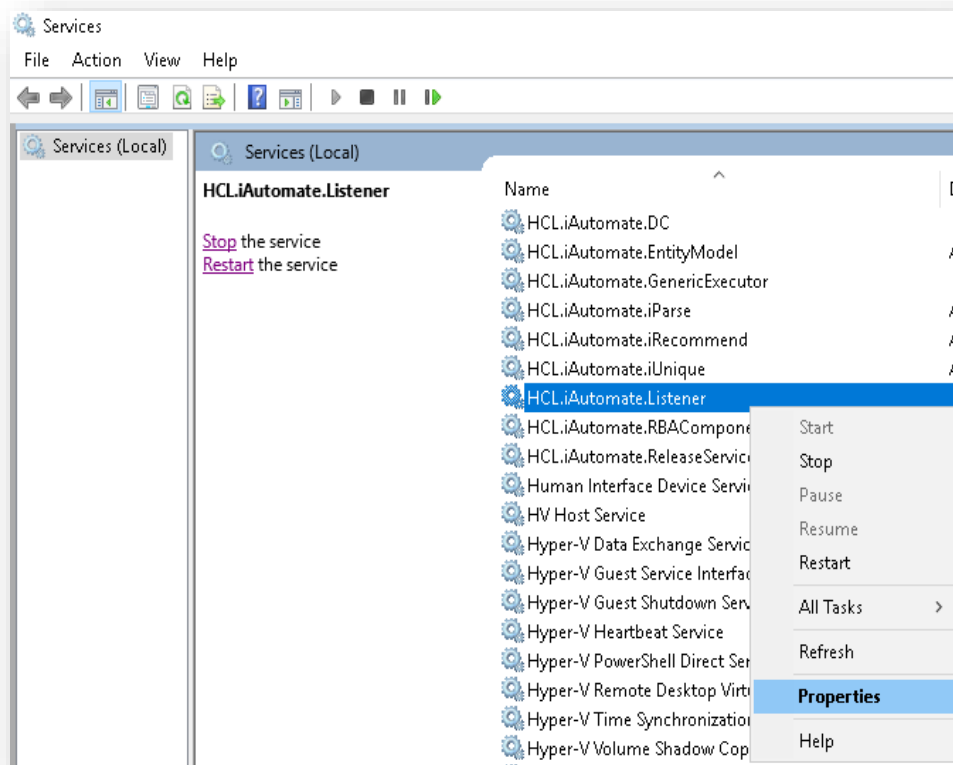


Figure 39 - Issue in Key Rotation Service (KRS) (cont.)

5. Copy the value mentioned in **Path to executable** as shown in the image below:

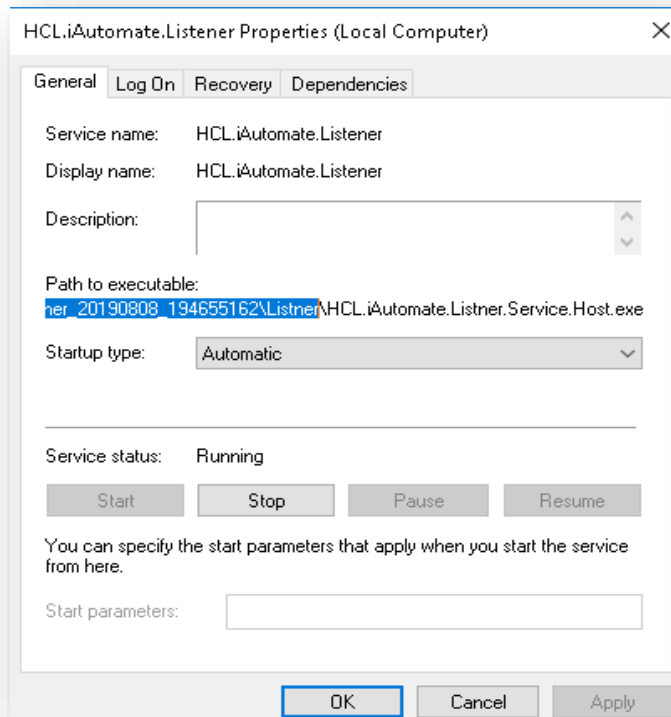


Figure 40 - Issue in Key Rotation Service (KRS) (cont.)

6. Open **File Explorer** then paste the copied path and press Enter to open the desired folder.
7. Search for folder **ListnerLogs** and open it. Inside this folder, find folder **Listner** and open it. Inside it, find the latest text file (.txt) with name starting with '**iAutomate.Listner**'. This is the log file.
8. Open the log file and check for the error mentioned below. This error implies that the URL of KRS in the config file of listener is either incorrect or not working properly.

```
2019/08/20 15:53:46 : [ERROR] : Error in CallAPI:Error converting value "There was no endpoint listening at http://[redacted] that could
accept the message. This is often caused by an incorrect address or SOAP action. See InnerException, if present, for more details." to type
[System.Collections.Generic.List`1[HCL.iAutomate.Entities.Data]]. Path 'data', line 1, position 496. to process Listner at time:8/20/2019 3:53:46 PM
2019/08/20 15:53:47 : [INFO] : Failed to get reponse from API
2019/08/20 15:53:47 : [INFO] : Error in RunListnerForJob is for central config variables and object ListnerServiceParam,ListnerService in class file StartupClass
```

Figure 41 - Issue in Key Rotation Service (KRS) (cont.)

To find the URL from config file of listener, perform the below steps:

1. Press **Win+R** and type **services.msc**.

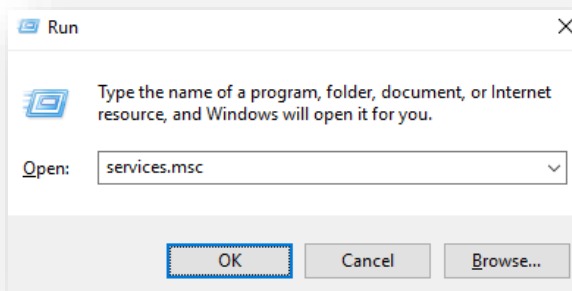


Figure 42 - Issue in Key Rotation Service (KRS) (cont.)

- Click **OK** to open Windows Services.

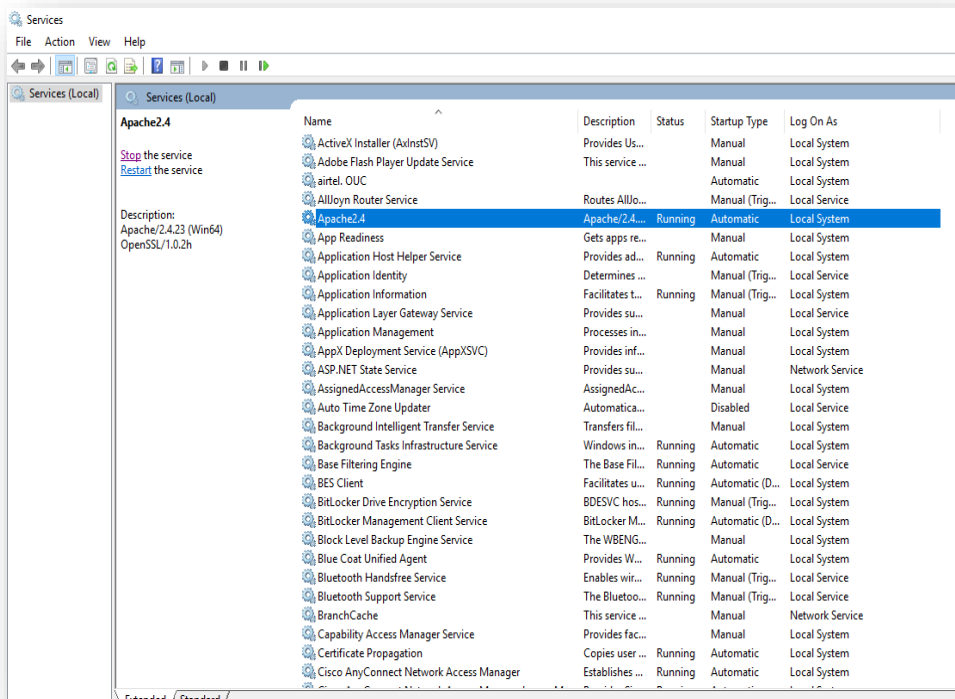


Figure 43 - Issue in Key Rotation Service (KRS) (cont.)

- Search for **HCL.iAutomate.Listener**.
- Right-click **HCL.iAutomate.Listener** service and click **Properties**.

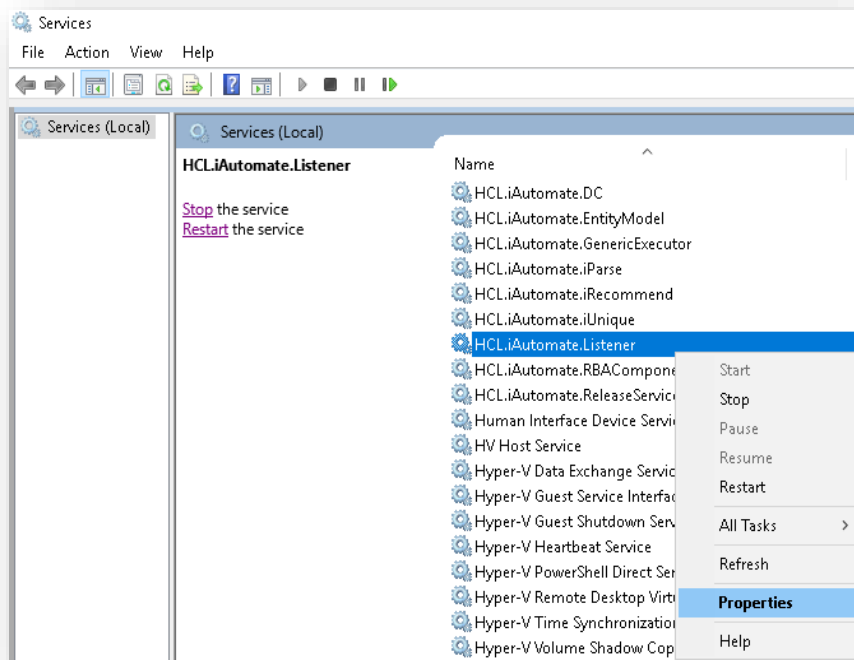


Figure 44 - Issue in Key Rotation Service (KRS) (cont.)

- Copy the value mentioned in Path to executable as shown in the image below.

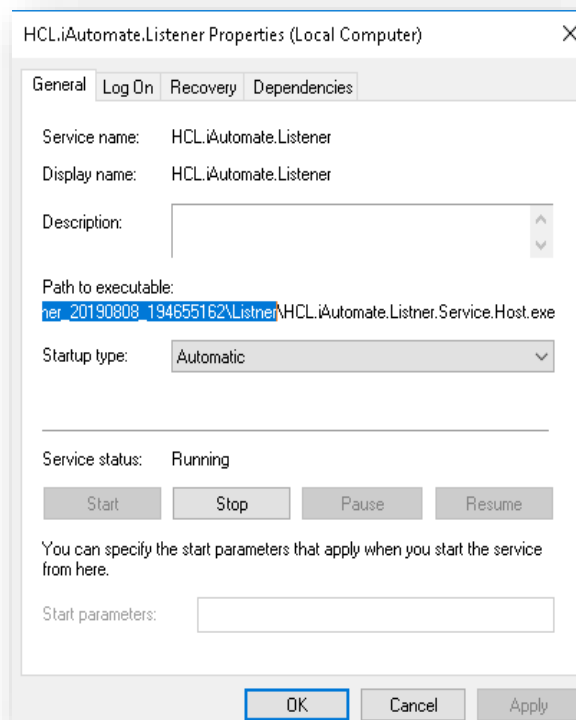


Figure 45 - Issue in Key Rotation Service (KRS) (cont.)

6. Open **File Explorer** then paste the copied path and press **Enter** to open the relevant folder.
7. Search for **HCL.iAutomate.Listener.Service.Host** config file as shown in below image.



Figure 46 - Issue in Key Rotation Service (KRS) (cont.)

8. Open the config file and find the value of the key <URL>.
9. To verify whether URL is valid or not, go to iAutomateDB, and run the query “**SELECT * FROM EnvironmentComponentURLs**” to find the URL corresponding to component code= ‘KRS’. If both URL are same that means, there is issue in KRS URL. Find the value of the **key <URL>** and **<URL Method>** in the config to make KRS URL as ‘**http://<IP>:<PORT>/KeyManagement.svc**’.

```
<add key="URL" value="http://<IP>:<PORT>" />
<add key="URLMethod" value="/KeyManagement.svc" />
```

10. Run this **URL** on browser. Check if **WSDL of KeyManagement.svc** loads successfully. If the following error occurs, then there is an error in KRS. Refer to [Troubleshooting Steps for KRS](#).

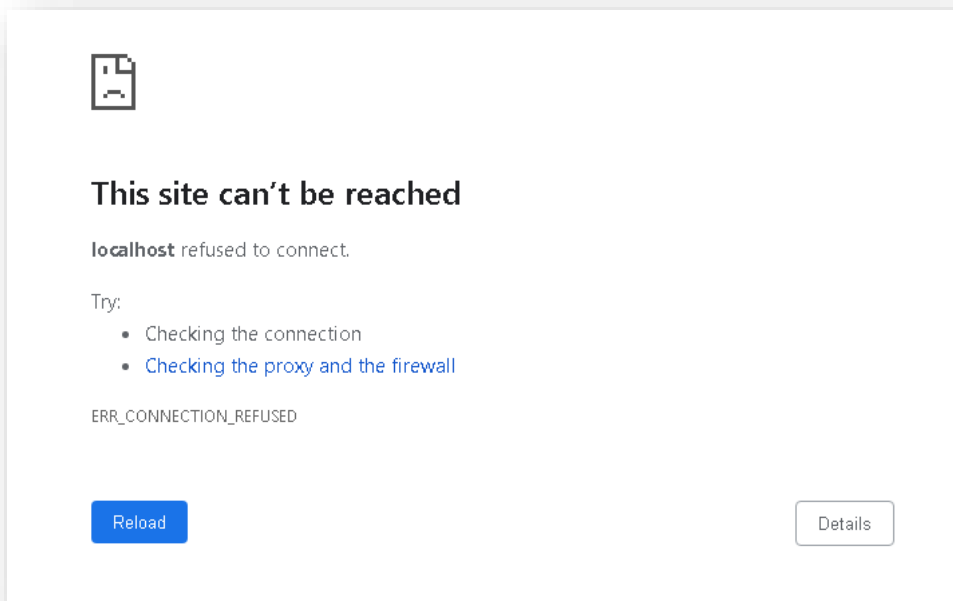


Figure 47 - Issue in Key Rotation Service (KRS) (cont.)

11. If the following WSDL loads, it implies that KRS is running fine.

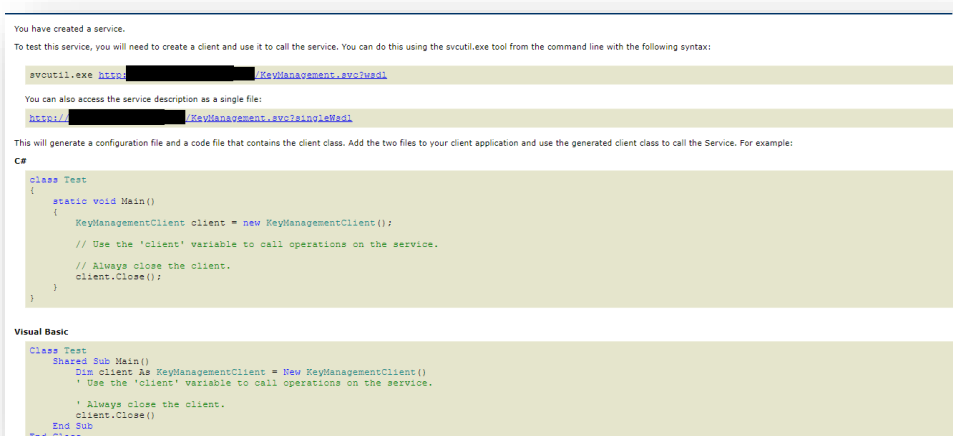


Figure 48 - Issue in Key Rotation Service (KRS) (cont.)

2.5.4 “Not able to reach the component” due to Storage issue

Table 33 - Listener: Scenario 4

Issue Description	Error message “Not able to reach the component” appears on Actions → Manage Log screen for the respective Job.
Modules Impacted	Data Collector, Recommendation, iParse, Generic, RBA, Release, Unique
Probable Root Cause	Drive is full – Storage issue

Resolution Steps:

1. Go to the server where **Listener** service is installed. See if there is any space available on drive. If not, then ask the **System Administrator** to increase the space on the drive.
2. Restart the service and check again.

2.6 Troubleshooting Steps for Data Collector

2.6.1 Tickets are not appearing post data source creation

Table 34 – Data Collector: Scenario 1

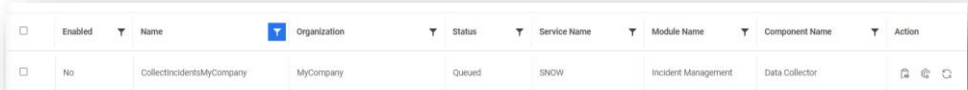
Issue Description	Post creation of data source, tickets are not appearing on the screen
Modules Impacted	Data collector, Recommendation, iParse, Generic, RBA, Release
Probable Root Cause	'CollectIncidents' job may not be enabled. 

Figure 49 – Data Collector

Resolution Steps:

1. Under **Manage Jobs** screen, select **CollectIncidents** job and enable it by clicking on **Enable Jobs** button.

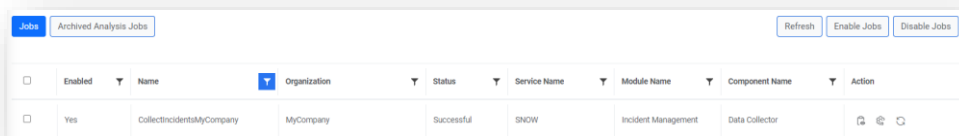


Figure 50 - Data Collector (cont.)

2. The status of the job should change to **Successful**.

2.6.2 “No Records Found” on the Job Log Screen for Data Collector Job

Table 35 - Data Collector: Scenario 2

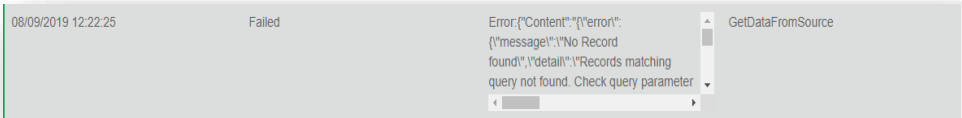
Issue Description	Error message “ No Records Found ” appears on the Actions → Manage jobs → Job Log screen for Data Collector job. 
-------------------	--

Figure 51 - Error message “No Records Found”

Modules Impacted	Data collector, Recommendation, iParse, Generic, RBA, Release
Probable Root Cause	'CollectIncidents' job is enabled but status of job is Failed

Resolution Steps:

1. Open the log of the job **CollectIncidents**.
2. If the message in logfile reads '**No Record Found**', it doesn't imply an error. It could be because there is no ticket data available. Once the data is available, the data collector will fetch the data, and tickets will start appearing on screen.

2.6.3 Ticket Data is not appearing

Table 36 - Data Collector: Scenario 3

Issue Description	Ticket Data is not appearing on the screen even if ' CollectIncidents ' job is enabled, and status of the job is Successful .
Modules Impacted	Data collector, Recommendation, iParse, Generic, RBA, Release
Probable Root Cause	Execution Scope is not defined.

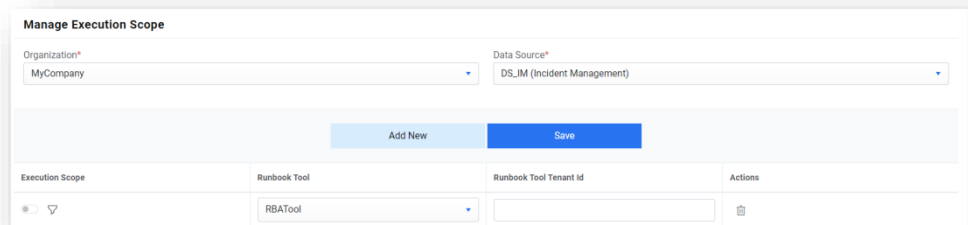


Figure 52 - Ticket Data not appearing on screen

Resolution Steps:

1. To map execution scope, it is a pre-requisite that organization should be mapped with a runbook tool. To check this, go to **Configuration → Manage Runbook Tool** and map the runbook tool, if not already mapped.

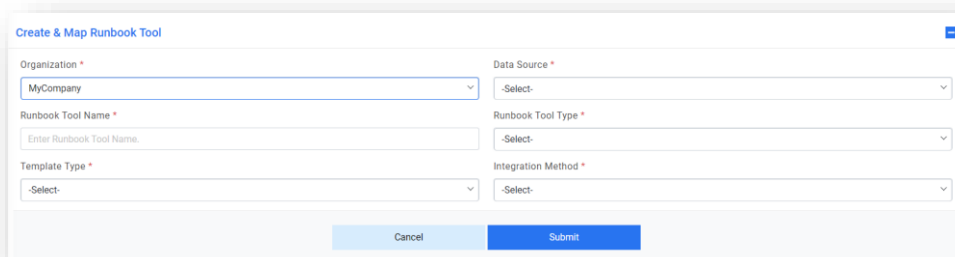


Figure 53 - Ticket Data not appearing on screen (cont.)

2. Once the Runbook Tool is mapped with the organization and its data source, go to **Action → Runbooks → Manage Execution Scope**.
3. See if any execution scope is mapped with the pair of organization and data source corresponding to a mapped runbook tool. If not, then map it.

- Select the runbook tool mapped with the organization and provide **Runbook Tool Tenant ID (Optional)** and click **Save**.

Execution Scope	Runbook Tool	Runbook Tool Tenant Id	Actions
☐	RBATool		

Figure 54 - Ticket Data not appearing on screen (cont.)

- Now check the availability of tickets on screen.

2.6.4 Not able to reach the component

Table 37 - Data Collector: Scenario 4

Issue Description	Error message ' Not able to reach the component ' appears
Modules Impacted	Data collector, Recommendation, iParse, Generic, RBA, Release
Probable Root Cause	'CollectIncidents' job is enabled, and status of job is Failed – Issue with Data Collector Service Figure 55 - Error Message "Not Able to Reach the Component" Figure 56 - Error message 'Not able to reach the component' (cont.)

Resolution Steps:

Open the job log for **CollectIncidents** job. If the job log reads '**Not able to reach the component**', check the status of DataCollector service by performing the following steps:

- Press **Win+R** and type **services.msc**.

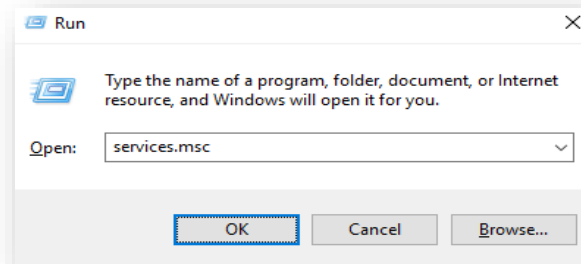


Figure 57 - Error message 'Not able to reach the component' (cont.)

2. Click **OK** to open the **Windows Services**.

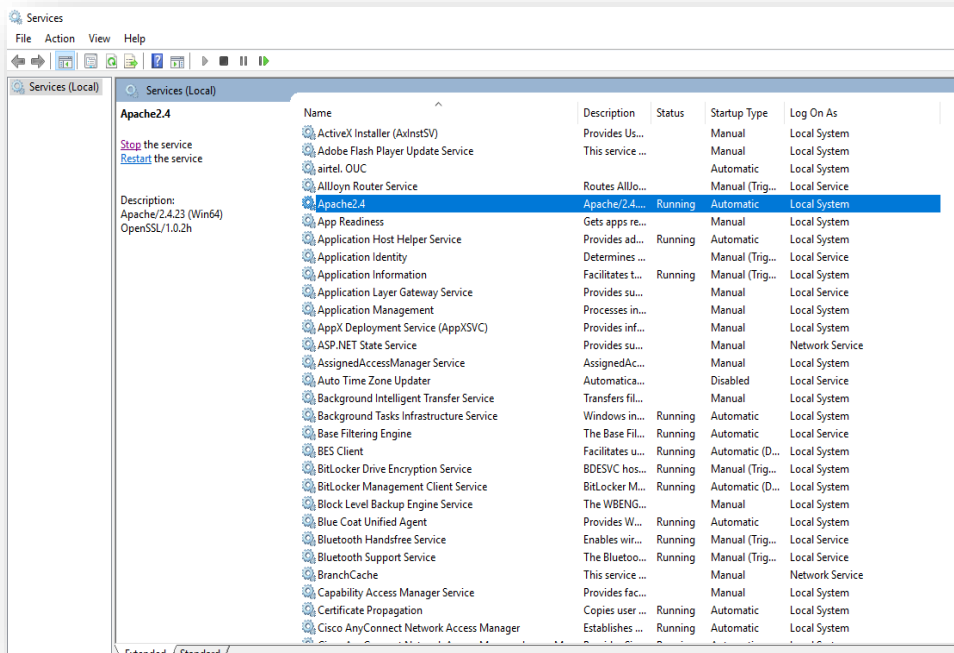


Figure 58 - Error message 'Not able to reach the component' (cont.)

3. Search for **HCL.iAutomate.DC**.
4. Right-click **HCL.iAutomate.DC** service and click on **Properties**.

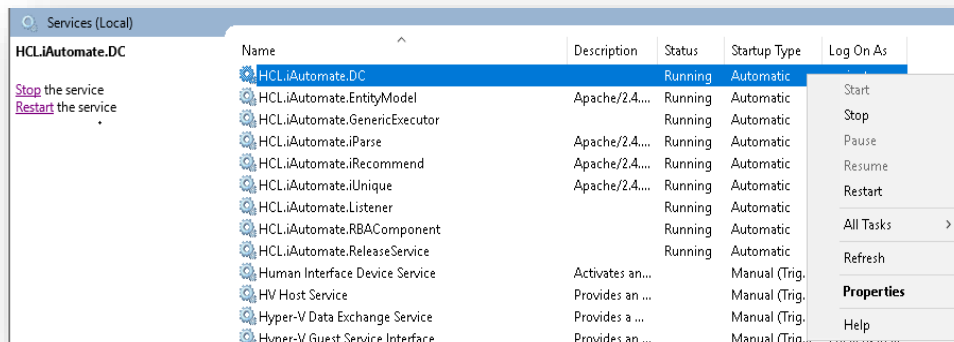


Figure 59 - Error message 'Not able to reach the component' (cont.)

5. Copy the value mentioned in **Path to executable** as shown in the image below.

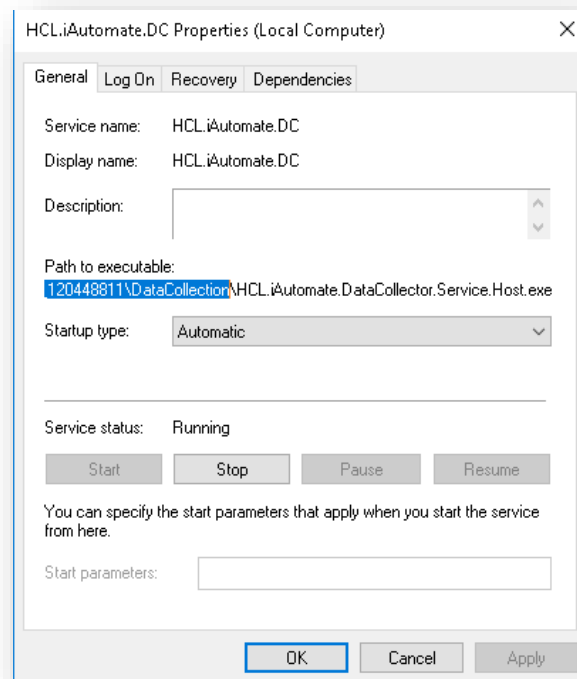


Figure 60 - Error message 'Not able to reach the component' (cont.)

6. Open **File Explorer**, then paste the **copied path** and press **Enter** to open the desired folder.
7. Search for **HCL.iAutomate.DataCollector.Service.Host.exe** config file and open it in Notepad.

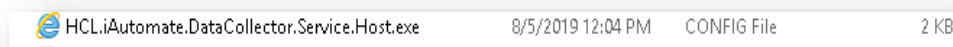


Figure 61 - Error Message 'Not able to reach the component' (cont.)

8. Search for key **ServiceHostURL**. The value corresponding to this key is the heartbeat URL. Copy it and paste it in browser.
9. If the flowing page appears, it implies that either service is not running or there is some issue with datacollector.

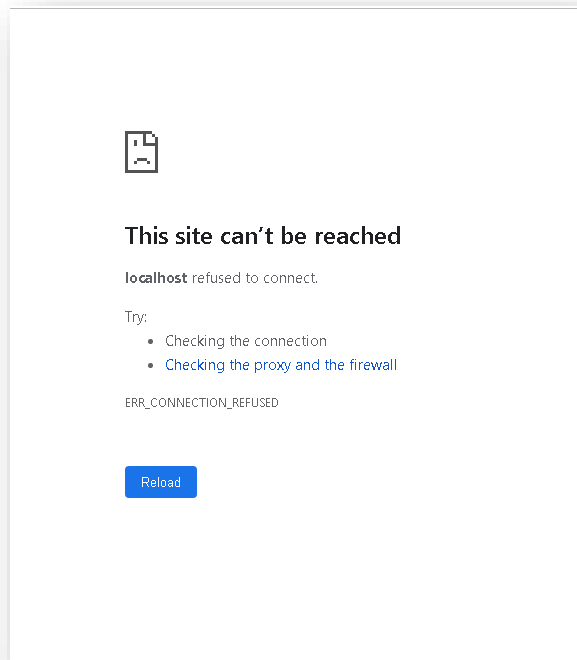


Figure 62 - Error message 'Not able to reach the component' (cont.)

10. If the following WSDL loads successfully, it implies that service is running fine.

DCService Service

You have created a service.

To test this service, you will need to create a client and use it to call the service. You can do this using the svcutil.exe tool from the command line with the following syntax:

```
svcutil.exe http://localhost/DataCollector/?wsdl
```

You can also access the service description as a single file:

```
http://localhost/DataCollector/?singleWsdl
```

This will generate a configuration file and a code file that contains the client class. Add the two files to your client application and use the generated client class to call the Service. For example:

C#

```

class Test
{
    static void Main()
    {
        DCServiceClient client = new DCServiceClient();

        // Use the 'client' variable to call operations on the service.

        // Always close the client.
        client.Close();
    }
}

```

Visual Basic

```

Class Test
    Shared Sub Main()
        Dim client As DCServiceClient = New DCServiceClient()
        ' Use the 'client' variable to call operations on the service.

        ' Always close the client.
        client.Close()
    End Sub
End Class

```

Figure 63 - Error message 'Not able to reach the component' (cont.)

2.6.5 The job status is Failed due to Authorization issue

Table 38 - Data Collector: Scenario 5

Issue Description	CollectIncidents job is enabled, the datacollector service is running fine but still status of job is Failed
Modules Impacted	Data collector, Recommendation, iParse, Generic, RBA, Release
Probable Root Cause	Authorization Issue

Resolution Steps:

1. Go to **Logs** → **Component Log**.
2. Check the logs corresponding to the component name '**Data Collector**' for the time interval when the job is not running.

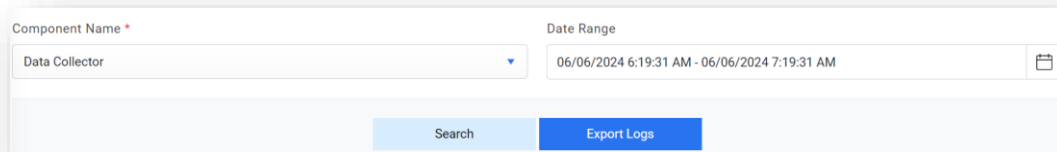


Figure 64 – Error in Data Source Creation

3. If the log reads, '**Unauthorized**', it implies that there is some issue with the created data source.
4. Check the data source has been created by going to **Configuration** → **Manage Data Sources**.
5. Click **Edit** and ensure that the provided credentials/details in '**Fetch Data**' tab are correct.

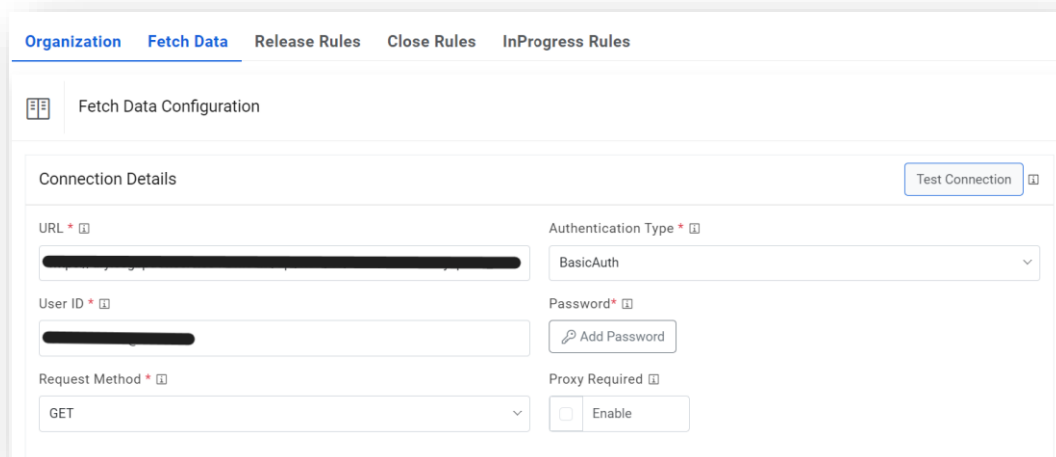
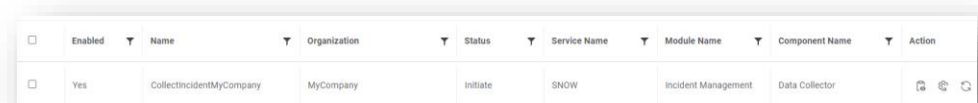


Figure 65 – Error in Data Source Creation (cont.)

2.6.6 The status of job is stuck at INITIATE/FAILED

Table 39 - Data Collector: Scenario 6

Issue Description	'CollectIncidents' job is enabled, the data collector service is running fine, but status of job is stuck at INITIATE/FAILED (in case of reset)
Modules Impacted	Data collector, Recommendation, iParse, Generic, RBA, Release
Probable Root Cause	Issue with Listener as it is not able to hit Data Collector.



	Enabled	Name	Organization	Status	Service Name	Module Name	Component Name	Action
☐	Yes	CollectIncidentMyCompany	MyCompany	Initiate	SNOW	Incident Management	Data Collector	  

Figure 66 - Status of job is stuck at INITIATE/FAILED

Request Id	Date Time	Listener Node	Current St...	Step Remarks	Message
NAmore	06/06/2024 08:38:27:427	NAmore	Success	Job Resetmore	Job Reset

Figure 67 - Status of job is stuck at INITIATE/FAILED

Resolution Steps:

1. If the status of the job CollectIncidents remains Initiate for a long time, it implies that Listener is not picking up the job.
2. Also, if user resets the job, and status of the job remains 'Failed' for a long time and the log of the job reads 'Job Reset' then also it implies that Listener is not picking up the job.
3. Refer to [Troubleshooting Steps for Listener](#) for more information.

2.6.7 The job status is Failed due to Entry / Exit Criteria issue

Table 40 - Data Collector: Scenario 7

Issue Description	'CollectIncidents' job is enabled, the data collector service is running fine, but status of job is Failed
Modules Impacted	Data collector, Recommendation, iParse, Generic, RBA, Release
Probable Root Cause	Issue with Entry / Exit Criteria

Resolution Steps:

1. Check if the ticket is present in **ilIncident** table in the corresponding organization database.

Query - select * from ilIncident.

2. If the query does not return any data, it implies that URL that is entered for fetching data while creating data source is wrongly formed.
3. Correct it and try again.

Figure 68 - Status of Job is Failed

- If the ticket is present in table '**Incident**' but not in table '**IncidentActionable**' (select * from IncidentActionable), then also tickets won't appear on screen. For tickets to appear in IncidentActionable table, ensure that Entry criteria has been properly defined because only those tickets will be available in **IncidentActionable** table which satisfies the defined Entry criteria.
- To check for Entry criteria, go to Actions → Manage Data Sources → Manage Entry Criteria and ensure the correct criteria are defined.

Organization Name	Datasource Name	Module Name	Service Name	Actions
MyCompany	DataSource	Incident Management	SNOW	  

Figure 69 - Status of job is Failed (cont.)

- Only those tickets will appear on the screen which satisfy the defined criteria.

Manage Entry Criteria

Column	Operator	Value	Clause	Sub Clause	
					

Figure 70 - Status of job is Failed (cont.)

2.6.8 Data collector Job is stuck in reinstallation state

Table 41 - Data Collector: Scenario 8

Issue Description	Data Collector service is not running. It is one of the primary services for iAutomate & ServiceNow Integration. This is normally observed during upgrade from 6.0.3 to 6.1
Modules Impacted	Data collector, Recommendation, iParse, Generic, RBA, Release
Findings	Windows update patch KB5019964 is the root cause of the reported issue. JavaScript files referenced in iAutomate application gets blocked if the security patch KB5019964 is installed on windows server.
Resolution Steps	Uninstall the security patch KB5019964.

2.6.9 Authentication error in Data Collector Job

Table 42 - Data Collector: Scenario 9

Issue Description	Error in authentication while fetching data from the source.
Probable Root Cause	Invalid credentials configured for data source.

Job Log Details						
Request Id		Date Time	Listner Node	Current Stat...	Step Remarks	Message
SDF7E124-41C0-4AF0-970C... more		06/07/2024 12:26:49:150	IAUJWWBL... more	Failed	Error:{"Content":{"error":{"detail":{"Required to provide Auth information"},"message":{"User Not Authenticated"},"status":{"failureEncoding":"Type":0,"value":"civ"},"contentType":"null","Name":"Calive	GetDataFromSource

Figure 71 – Data source authentication error

Resolution steps

1. Fetch the data source details.
2. Check for the authentication credentials of data source.
3. Look for the username and password whether it is provided correctly.

2.6.10 Invalid Request Method Issue

Table 43 - Data Collector: Scenario 10

Issue Description	Invalid REST API request method configured in data source configuration.
Probable Root Cause	Invalid REST API method configured for datasource configuration.

Job Log Details

Request Id		Date Time	Listner Node	Current Stat...	Step Remarks	Message
SDF7E124-41C0-4AF0-970C... more		06/07/2024 12:26:49:150	IAUJWWBL... more	Failed	Error:{"Content":{"error":{"message":{"Operation Failed"},"detail":{"ACL Exception Insert Failed sue to security	GetDataFromSource

Figure 72 – Error for Invalid REST API Request Method

Resolution steps

1. Check the REST API request method configured in data source configuration.
2. Change it to GET method.

2.6.11 Troubleshooting for Space in URL

Table 44 - Data Collector: Scenario 11

Issue description	Failed to fetch data from the URL and Job is stuck while fetching the details from the source.
Probable Root Cause	Space present in the URL configured as source.

Job Log Details

Request Id	Date Time	Listener Node	Current Stat...	Step Remarks	Message
SDF7E124-41C0-4AF0-970C...more	06/07/2024 12:26:49:150	IAUWIWBI...more	Failed	Message Invalid URL: The hostname could not be parsed. StackTraceat system Url Create This(String url, Boolean dontEscape, Unikind, Unikind)	GetDataFromSource

Figure 73 – Error if space present in URL configured as source

Figure 73 – Error if space present in URL configured as source

Resolution Steps

1. Recheck the URL.
2. Remove unwanted spaces and special characters from the URL configured as source.

2.7 Troubleshooting Steps or Generic Services

2.7.1 Logs are not deleted from Log table

Table 45 – Generic Services: Scenario 1

Job Name	iAutomatePurgeData																		
Issue Description	Logs are not deleted from Log table. Jobs Archived Analysis Jobs Refresh Enable Jobs Disable Jobs I <table><tr><th>☐</th><th>Enabled</th><th>Name</th><th>Organization</th><th>Status</th><th>Service Name</th><th>Module Name</th><th>Component Name</th><th>Action</th></tr><tr><td>☐</td><td>No</td><td>iAutomatePurgeData</td><td>N/A</td><td>Queued</td><td>NA</td><td>NA</td><td>Generic Service</td><td>  </td></tr></table> Figure 74 – iAutomatePurgeData	☐	Enabled	Name	Organization	Status	Service Name	Module Name	Component Name	Action	☐	No	iAutomatePurgeData	N/A	Queued	NA	NA	Generic Service	  
☐	Enabled	Name	Organization	Status	Service Name	Module Name	Component Name	Action											
☐	No	iAutomatePurgeData	N/A	Queued	NA	NA	Generic Service	  											
Table Impacted	Log4NetLog, JobExecutionLog, JobExecutionRequestDetails																		

Figure 74 – iAutomatePurgeData

Resolution Steps:

- Go to the job and ensure that the job is enabled. Enable the job if it isn't already.
-

2.7.2 The Log reads 'Not able to reach the component'

Table 46 - Generic Services: Scenario 2

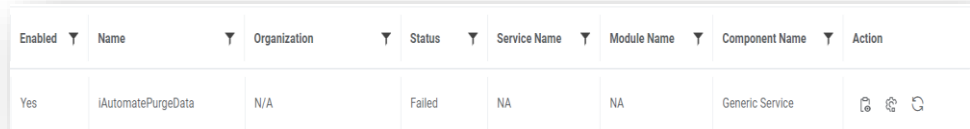
Job Name	iAutomatePurgeData
Issue Description	The Log reads 'Not able to reach the component'
Table Impacted	Log4NetLog, JobExecutionLog, JobExecutionRequestDetails
Probable Root Cause	Not able to reach the component. 

Figure 75 – iAutomatePurgeData error

Resolution Steps:

1. Go to **iAutomatePurgeData** job, open the job log. If the log reads '**Not able to reach the component**' then check the status of Generic service by following below steps:
 - a. Go to the server where services are installed.
 - b. Press **Win+R** and type services.msc.

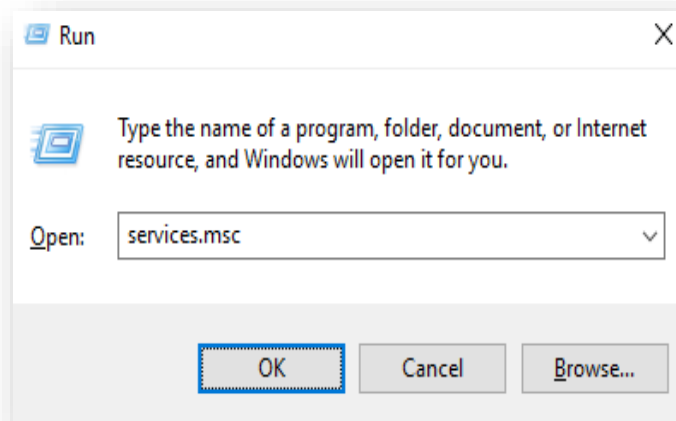


Figure 76 - iAutomatePurgeData error (cont.)

- c. Click OK to open Windows Services.

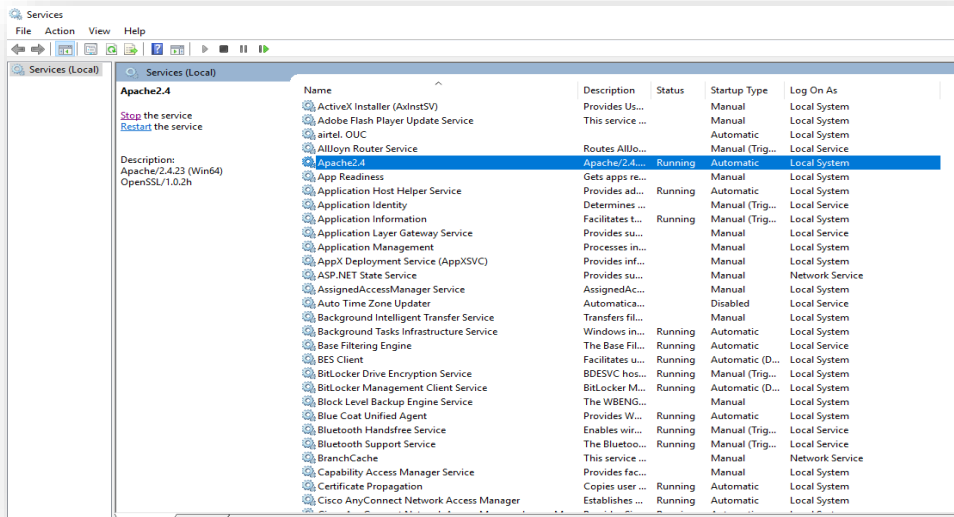


Figure 77 - iAutomatePurgeData error (cont.)

- d. Click on any of the listed services. Type 'H' and search for HCL.iAutomate.GenericExecutor. Select it.
- e. Click Start to start the service, if it's not running already.
2. To check if the service is running fine, perform the below steps:
 - a. Load the WSDL of Generic Service by entering the URL on browser. For e.g.
<http://myHost:8015/GenericService>
 - b. If the below page appears, it implies that either service is not running or there is some issue with Generic Service. Contact the System Administrator for resolution.

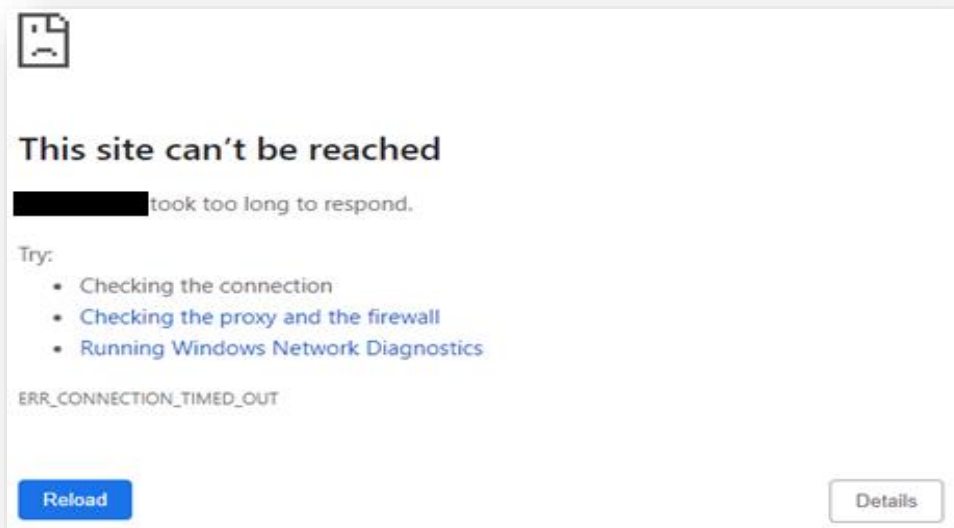


Figure 78 - iAutomatePurgeData error (cont.)

- c. If the below page appears, it implies that service is running fine.

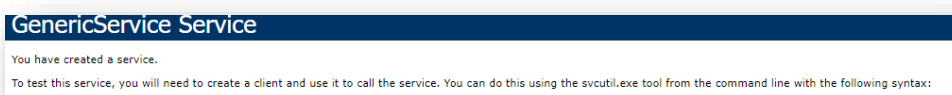


Figure 79 - iAutomatePurgeData Error (cont.)

2.7.3 WSDL gets loaded successfully but issues persist

Table 47 - Generic Services: Scenario 3

Job Name	iAutomatePurgeData
Issue Description	Service is running and WSDL gets loaded successfully but still issues persist
ModulesImpacted	Log4NetLog, JobExecutionLog, JobExecutionRequestDetails

Resolution Steps:

1. Check the logs in the '**Component Log**' page corresponding to **Generic Service**.
2. If the error doesn't appear on the '**Component Log**' page, then check the log file. The log file is in the folder in which the components are installed which is given while **installation** → **Generic Service** → **iAutomateLog**.
3. If the user has database access, then execute the below command:

```
exec getjobtorundetails 'Gen','Y',''
```

4. If the above command doesn't provide any data, then contact the **System Administrator**.

2.7.4 Job Failure

Table 48 - Generic Services: Scenario 4

Job Name	iAutomatePurgeData
Issue Description	Job Failure

Resolution Steps:

1. Check the logs in **Component Log** page corresponding to **Main Listener**.
2. Check if the listener can hit the Generic Service. If the below error appears, it implies that Listener is not able to hit the Generic Service.

08/26/2019	INFO	iAutomatePurgeData	2685E5D5849E	HCL iAutomate Listener Service	Response data - There was no endpoint listening at http://airo0004.8015/GenericService/Invoke
------------	------	--------------------	--------------	--------------------------------	--

Figure 80 - Job Failure

3. If listener is able to hit Generic service but not providing data, then check whether the request JSON has SP name or not. Also, check database name and connection string are valid or not.

08/26/2019	INFO	iAutomatePurgeData	2685E5D5849E	HCL iAutomate Listener Service	Going CallAPI function with JSON data: {"DBConnection":"QvESS08WqZjGXS"}
------------	------	--------------------	--------------	--------------------------------	--

Figure 81 - Job Failure (cont.)

4. To check connection string, go to BaseUI config and set the value of key 'IsDecryptConnection' as 'Y'.
5. Then login to iAutomate and go to Connection Details page and edit the connection string for the database and check the decrypted connection string.
6. Change the value of 'IsDecryptConnection' back to 'N' in BaseUI config after verification.

2.7.5 Ticket is stuck in MoveToAssignmentDecision

Table 49 – Generic Services: Scenario 6

Job Name	ProcessAuto
Issue Description	Ticket is stuck in MoveToAssignmentDecision
Modules Impacted	RBA, Release

Resolution Steps:

Refer to the steps followed for resolving iAutomatePurgeData job in [Table 48 - Generic Services: Scenario 4.](#)

2.7.6 No runbook is available for scheduling

Table 50 - Generic Services: Scenario 7

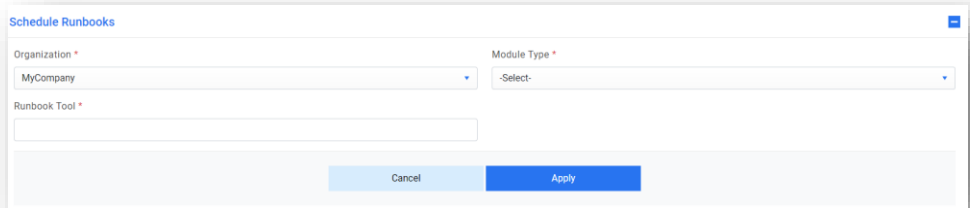
Job Name	ScheduleRunbook
Issue Description	No runbook is available for scheduling. 
Modules Impacted	Recommendation, iParse, RBA, Release
Probable Root Cause	No runbook is mapped to the organization

Figure 82 – ScheduleRunbook

Resolution Steps:

- Go to **Map Runbook** to map the runbook with the Organization.

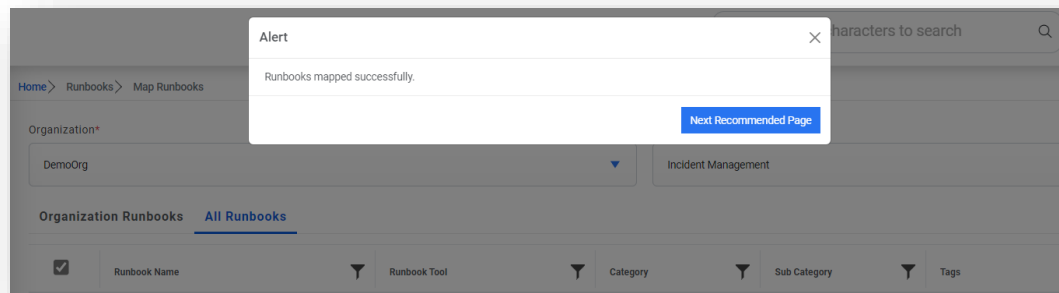


Figure 83 – ScheduleRunbook (cont.)

2.8 Troubleshooting Steps for RBA

2.8.1 Not able to reach the component

Table 51 - RBA: Scenario 1

Issue Description	Error message “Not able to reach the component” appears on Actions → Manage Jobs → Job Log screen of respective Job
Modules Impacted	RBA

Resolution Steps:

1. Go to **Manage Jobs** and check if the RBA Job is enabled and successful. If not, enable it.

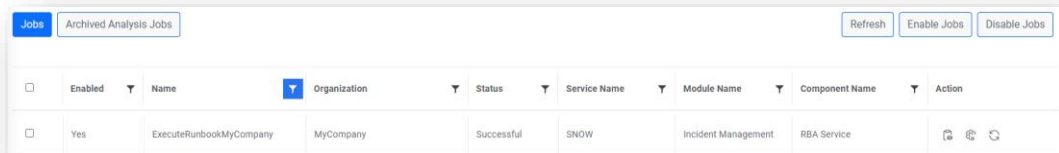


Figure 84 – RBA: Error message “Not able to reach the component”

2. For e.g.
 - **Organization Name** - MyCompany
 - **Job Name** - ExecuteRunbookDemoOrg
 - **Component Name** - RBA Service
 - **Parameter** - PushNotificationEnable →Y - ANSIBLE TOWER/CLI

Job Actions

General
Schedule
Parameter

Parameter

Parameter Name	Parameter Description	Value
FetchInitiateCount	This is the number of records to be fetched for initialization.	-1
FetchStatusUpdateCount	This is the number of records to be fetched for status update.	-1
TicketCount	This is to identify No of tickets on Which RBA will work simultaneously	10
LoggerState	This is to determine whether detailed logging is enabled or not.	☐
PushNotificationEnable	This Stores the Y or N	☐
UpdateParseBlankValue	This stores the string value which will be used to replace the parse processed blank value.(This will only be considered if the parameter 'IsReleasedBasedOnNullValue' at corresponding parsing job is set to false.)	
DBConnectionRetryCount	This will return the database connection retry count	3
DBConnectionRetryInterval	This will return the database connection retry interval in seconds	5

Close Save

Figure 85 - RBA: Error message “Not able to reach the component” (cont.)

3. Ensure that RBA service is up on component server.
4. Ensure that Listener service is up on component server.
5. If Listener is not picking up RBA service, then troubleshoot the service. Refer to [Troubleshooting Steps for Listener](#).

2.8.2 Interaction Failed – Unauthorized

Table 52 - RBA: Scenario 2

Issue Description	Error message “Interaction Failed – Unauthorized” appears in Actions → Manage Jobs → Job Log screen of respective Job
Modules Impacted	RBA

Resolution Steps:

1. Ensure that below configurations are completed for RBA component.
 - Runbook Tool and Parameters
 - Map Runbook Tool
 - Map Runbook
 - Manage Execution Scope
 - Build Model
2. Refer to **iAutomate Configuration Guide** for additional information.

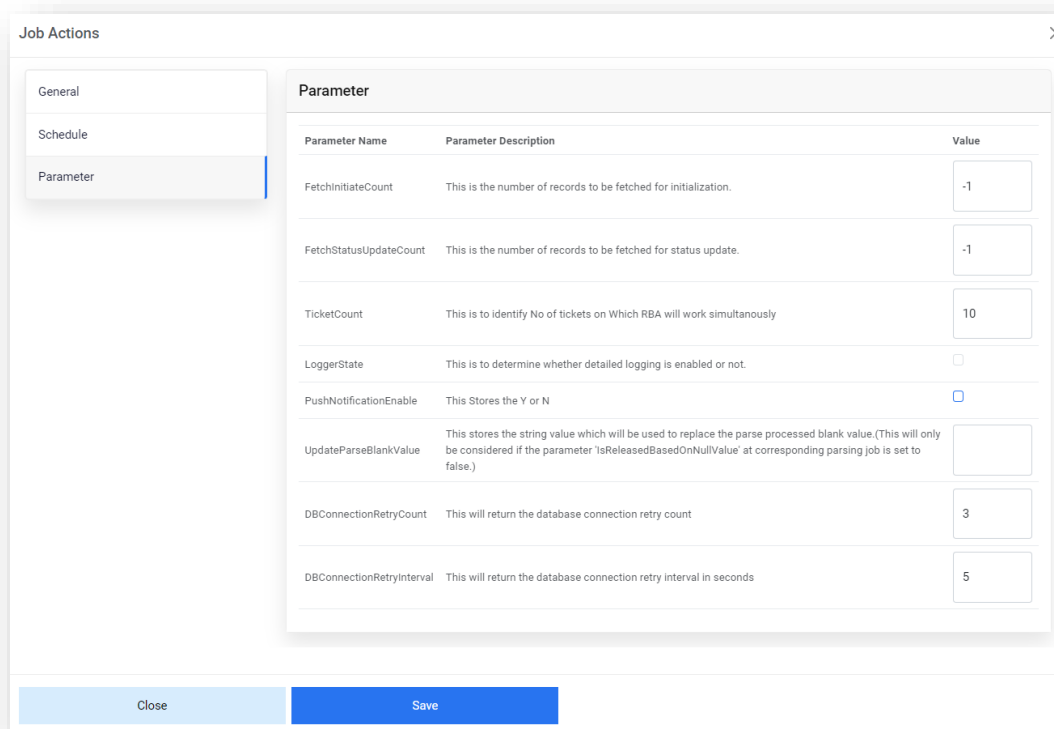
2.8.3 “No Response from API”

Table 53 RBA: Scenario 3

Issue Description	Error message “No Response from API” appears in Actions → Manage Jobs → Job Log screen of respective Job
Modules Impacted	RBA

Resolution Steps:

1. Ensure that below configurations are complete for the RBA component.



Parameter Name	Parameter Description	Value
FetchInitiateCount	This is the number of records to be fetched for initialization.	-1
FetchStatusUpdateCount	This is the number of records to be fetched for status update.	-1
TicketCount	This is to identify No of tickets on Which RBA will work simultaneously	10
LoggerState	This is to determine whether detailed logging is enabled or not.	☐
PushNotificationEnable	This Stores the Y or N	☐
UpdateParseBlankValue	This stores the string value which will be used to replace the parse processed blank value.(This will only be considered if the parameter 'IsReleasedBasedOnNullValue' at corresponding parsing job is set to false.)	
DBConnectionRetryCount	This will return the database connection retry count	3
DBConnectionRetryInterval	This will return the database connection retry interval in seconds	5

Figure 86 - Error message “No Response from API”

- Parameter - PushNotificationEnable →Y - ANSIBLE TOWER/CLI
- Parameter - PushNotificationEnable →N

2.8.4 Unauthorized HTTP status code

Table 54 - RBA: Scenario 4

Issue Description	Error message “Unauthorized HTTP status code” appears in Actions → Manage Jobs → Job Log screen of respective Job.
Modules Impacted	RBA

Resolution Steps:

- Ensure that Runbook Tool URL / IP address and UserID / Password are correct

2.8.5 “API is not reachable”

Table 55 - RBA: Scenario 5

Issue Description	Error message “API is not reachable” appears in Actions → Manage Jobs → Job Log screen of respective Job
Modules Impacted	RBA

Resolution Steps:

- Ensure that Push Notification API IP address and API User Id and Password are correct

2.8.6 Error while setting value to 'RequestDetails' on 'Hcl.RbaService.Entities.Common.ToolInfo’

Table 56 - RBA: Scenario 6

Issue Description	Error while setting value to 'RequestDetails' on 'Hcl.RbaService.Entities.Common.ToolInfo’ appears
Modules Impacted	RBA

Resolution Steps:

- Ensure that **Runbook Tool URL/IP address** and **USERID/ Password** are correct. User id Should be without **Domain Address**.

2.8.7 “target_host is undefined”

Table 57 - RBA: Scenario 7

Issue Description	ERROR! The field hosts have an invalid value, which includes an undefined variable. The error is: target_host is undefined
Modules Impacted	RBA

Resolution Steps:

1. Ensure that below configurations are completed for RBA component.
 - Runbook Tool and Parameters
 - Map Runbook Tool
 - Map Runbook
 - Manage Execution Scope
 - Build Model

2.8.8 Unauthorized HTTP Status Code

Table 58 - RBA: Scenario 8

Issue Description	Error in RBA URL due to unauthorized credentials
Module Impacted	RBA, iRecommend, iParse
Probable root cause	Invalid credentials.

Request Id	Date Time	Listner Node	Current St...	Step Remarks	Message
447F460B-62CA-4752-AB9B... more	06/07/2024 07:23:27:297	IAUWIWBI... more	Success		Moving job to Inprogress
447F460B-62CA-4752-AB9B... more	06/07/2024 07:23:27:110	IAUWIWBI... more	Success	Moving Job to initiated	Moving job to initiated
447F460B-62CA-4752-AB9B... more	06/07/2024 07:23:26:953	IAUWIWBI... more	Failed	Unauthorised http status code received for incident: 133013 having runbook: 447F460B-62CA-4752-AB9B for tool vRO.Unauthorized	
447F460B-62CA-4752-AB9B... more	06/07/2024 07:23:26:593	IAUWIWBI... more	Success	Total : 10 ticket received	

Figure 87 – Unauthorized http Status Code

Resolutions Steps

1. Fetch the RBA details.
2. Check for the authentication credentials of RBA
3. Look for the username and password whether it is provided correctly.

2.8.9 Presence of Null Value in Runbook

Table 59 - RBA: Scenario 9

Issue description	Presence of null or empty values in the parameters while we import runbook file to console
Modules Impacted	RBA, Manage runbook
Probable root cause	Null values in the parameters.

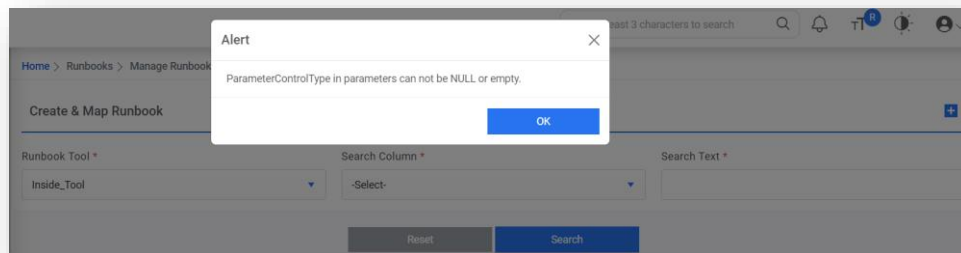


Figure 88 – Error for null value in parameter

Resolution Steps

1. Ensure all the fields are updated and there is no empty/null parameters.
2. Remove the null values.

2.8.10 Invalid Rest API Method Used

Table 60 - RBA: Scenario 10

Issue Description	Invalid method is used in manage runbook tool.
Modules Impacted	RBA

Probable root cause Invalid REST API Method provided.

Job Log Details					
447F460B-62CA-4752-AB9B... more	06/07/2024 07:23:25:267	AHDAP3257 more	Failed	Error converting value "PUT" to type "HCL.RBAService.entities.Common.error.path.ToolInfo.request.type:Line 1 position 10299	Moving job to failed
447F460B-62CA-4752-AB9B... more	06/07/2024 07:23:25:233	AHDAP3257 more	Success	Moving job to initiated	Moving job to initiated

Figure 89 – Error for invalid method used in runbook tool

Resolution Steps

1. Check the method used in the runbook tool.
2. Change the method to POST.

2.8.11 Failed to Execute Job

Table 61 - RBA: Scenario 11

Issue description	Failed to find the http status code for incident by using wrong Runbook API URL.
Modules Impacted	RBA
Probable root cause	Invalid Runbook API URL.

Job Log Details					
447F460B-62CA-4752-AB9B... more	06/07/2024 07:23:25:267	AHDAP3257 more	Failed	NotFound http status code received for incident 6891 having runbook: 447F460B-62CA-4752-AB9B-8cb098aac1794 for tool Scorchlol: Not found	
447F460B-62CA-4752-AB9B... more	06/07/2024 07:23:25:233	AHDAP3257 more	Success	Total: 1 ticket received	

Figure 90 – Not Found http status code for invalid API URL

Resolution Steps

1. Check the Runbook Tool API URL.
2. Change the Runbook Tool Api URL.

2.8.12 Incorrect Status Code

Table 62 - RBA: Scenario 12

Issue description	Incorrect status code due to unauthorized credentials in Runbook Tool integration.
Modules Impacted	RBA
Probable root cause	Invalid credentials in Runbook Tool integration.

Job Log Details

447F460B-62CA-4752-AB9B... more	06/07/2024 07:23:25:267	AHDAP3257 more	Failed	NotFound http status code received for incident 6891 having runbook: 447F460B-62CA-4752-AB9B-8cb098aac1794 for tool Scorchlol: Not found	
447F460B-62CA-4752-AB9B... more	06/07/2024 07:23:25:233	AHDAP3257 more	Success	Total: 1 ticket received	

Figure 91 – Unauthorized Status Code for Runbook Tool

Resolution Steps

Check the runbook tool username and password configured for Runbook Tool.

2.9 Troubleshooting Steps for Release

2.9.1 “Not able to reach the component”

Table 63 – Release: Scenario 1

Issue Description	Error message “ Not able to reach the component ” appears in Manage Jobs → job Log screen of respective Job
Modules Impacted	Release

Resolution Steps:

1. Go to **Manage Jobs** and check if the Release Job is enabled and successful. If not, enable it.

Yes	ReleaseTicketsDemoOrg	DemoOrg	Successful	ServiceNow	Incident Management	Release Service	  
-----	-----------------------	---------	------------	------------	---------------------	-----------------	---

Figure 92 - Release Troubleshooting

2. For e.g. –
 - Organization name - MyCompany
 - **Job Name** - ReleaseTicketsMyCompany
 - **Component Name** - Release Service
3. Ensure that Release service is up on component server.
4. Ensure that Listener service is up on component server.

If Listener is not picking up **Release** service, then troubleshoot the service. Refer to [Troubleshooting Steps for Listener](#).

2.9.2 Tickets stuck in grid

Table 64 - Release: Scenario 2

Issue Description	Tickets stuck in grid - Marked for Release for Actionable Tickets
Modules Impacted	Release

Resolution Steps:

1. Ensure that below configuration is completed for Release component.



Figure 93 – Release

2. Ensure that **Manage Release Rules** are configured. If not, follow the below steps:
 - a. Go to Actions > Runbooks > Manage Rules.
 - b. Select Organization for which user wants to configure the release rules.
 - c. Select the Data Source where the organization brings the data from the data source in iAutomate.
 - d. Select the Service with which iAutomate is integrated and pulls data for automation.
 - e. Click Add New. User will be prompted to enter the Rule Name in dialog box, and then click Save.
 - f. The new rule is added, and it appears in the list of rules. Once the rule is added, then user needs to set up the configuration parameters for the rule.

All the existing rules are listed in the tabular view with the associated parameters and enable user to manage the parameters for the existing rule.

2.9.3 Unauthorized Error

Table 65 - Release: Scenario 2

Issue Description	Unauthorized Error
Modules Impacted	Release

Resolution Steps:

- Ensure that the Authentication Type, URL, User ID and Password are correct under Create Data Source → Release Rules.

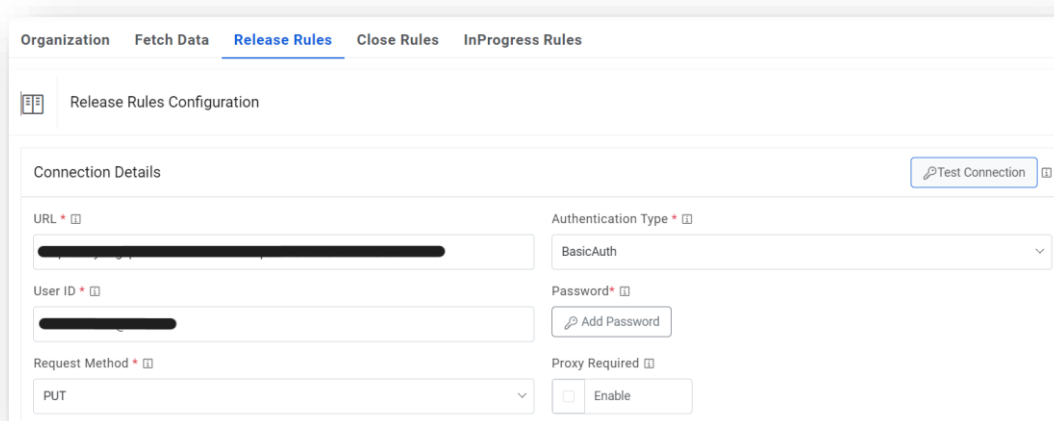


Figure 94 - Unauthorized Error

2.9.4 Unauthorized Error

Table 66 - Release: Scenario 2

Issue Description	Unauthorized Error
Modules Impacted	Release

Resolution Steps:

- Ensure that the Authentication Type, URL, User ID and Password are correct under Create Data Source : Release Rules Configuration.

The screenshot shows the 'Release Rules Configuration' window. It has tabs for 'Organization', 'Fetch Data', 'Release Rules' (selected), 'Close Rules', and 'InProgress Rules'. Below the tabs is a 'Release Rules Configuration' section. Under 'Connection Details', there is a 'Test Connection' button. The 'URL' field is filled with a redacted value. The 'Authentication Type' dropdown is set to 'BasicAuth'. The 'User ID' field is also redacted. The 'Password' field has an 'Add Password' button. The 'Request Method' dropdown is set to 'PUT'. The 'Proxy Required' checkbox is unchecked, with an 'Enable' button next to it.

Figure 95 - Unauthorized Error

2.10 Troubleshooting Steps for ADSync

2.10.1 Not able to reach the component

Table 67 – ADSync: Scenario 1

Issue Description	Error message “Not able to reach the component” appears in Actions → Manage Jobs → Job Log screen of respective Job
Modules Impacted	ADSync

Resolution Steps:

1. Go to **Manage Jobs** and check if the ADSync Job is enabled and successful. If not, enable it.

The screenshot shows a table with the following data:

Yes	ActiveDirectoryDemoOrg	DemoOrg	Successful	NA	NA	Active Directory			
-----	------------------------	---------	------------	----	----	------------------	--	--	--

Figure 96 - ADSync Troubleshooting

2. For e.g. –
 - **Organization name** - MyCompany
 - **Job Name** - ActiveDirectoryMyCompany
 - **Component Name** - Active Directory

3. Ensure that ADSYNC service is up on component server
4. Ensure that Listener service is up on component server

If Listener is not picking up **ADSYNC** service, then troubleshoot the service. Refer to [Troubleshooting Steps for Listener](#).

2.10.2 The status of 'ActiveDirectory' job FAILED due to Data Source Issue

Table 68 - ADSync: Scenario 2

Issue Description	'ActiveDirectory' job is enabled, and status of job is FAILED
Modules Impacted	ADSync

Resolution Steps:

- If Step Remarks mentions 'OK|Data source is not created for requested organization', then create data source for requested organization.

Date Time	Listner Node	Current St...	Step Remarks	Message
06/07/2024 08:47:23:757	IAUWIWBI... more	Failed	OK Data source is not created for requested organization more	Moving Job to Failed

Figure 97 – ADSync

2.10.3 The status of 'ActiveDirectory' job is FAILED due to Service issue

Table 69 - ADSync: Scenario 3

Issue Description	'ActiveDirectory' job is enabled, and status of job is FAILED
Modules Impacted	ADSync

Resolution Steps:

1. If root cause is '**Not able to reach the component**' then check if the ADSync service is up or not. For that, go to server where services are installed. Open '**services**' by pressing **win+R**, type '**services.msc**'.

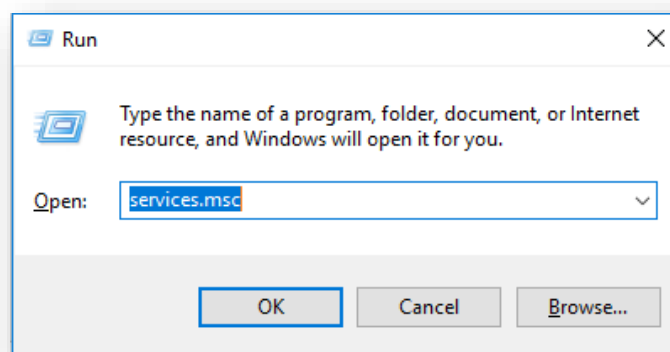


Figure 98 – ADSync – Scenario 3

2. Locate service '**HCL.iAutomate.ADSyncService**' and check the status whether it is in running or stopped state.

HCLiAutomate.ADSyncService	Name	Description	Status	Startup Type
Find the service	HCLiAutomate.ADSyncService	Service for ADSync		Automatic

Figure 99 - ADSync – Scenario 3

3. If the service is not running, start the service.

HCLiAutomate.ADSyncService	Name	Description	Status	Startup Type
Stop the service Restart the service	HCLiAutomate.ADSyncService	Service for ADSync	Running	Automatic
	HCLiAutomate.DC	Service for DataCollection	Running	Automatic

Figure 100 - ADSync – Scenario 3

4. To check if **ADSyncService** is running properly, load the WSDL file of ADSyncService. To load the WSDL file of the ADSync, enter the Heartbeat URL (http://serverip:port_for_ADSync/ADService/) for ADSyncService on browser. You can find this URL in the config file of ADSyncService by performing below steps:
 - a. Click **Win+R**. Type **services.msc** and click **OK**.

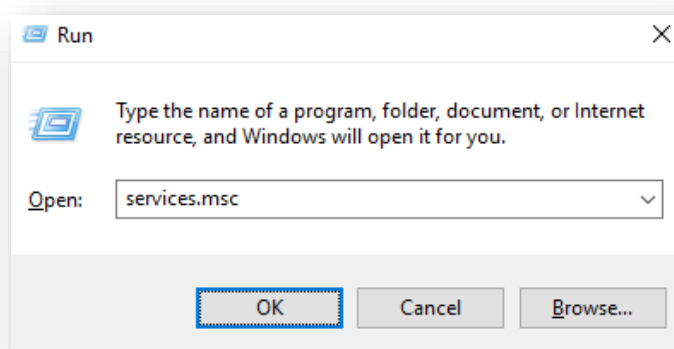


Figure 101 - ADSync – Scenario 3

- b. Locate HCLiAutomate.ADSyncService. Right Click on service (HCLiAutomate.ADSyncService), and click on Properties. Copy Path to Executable as shown below.

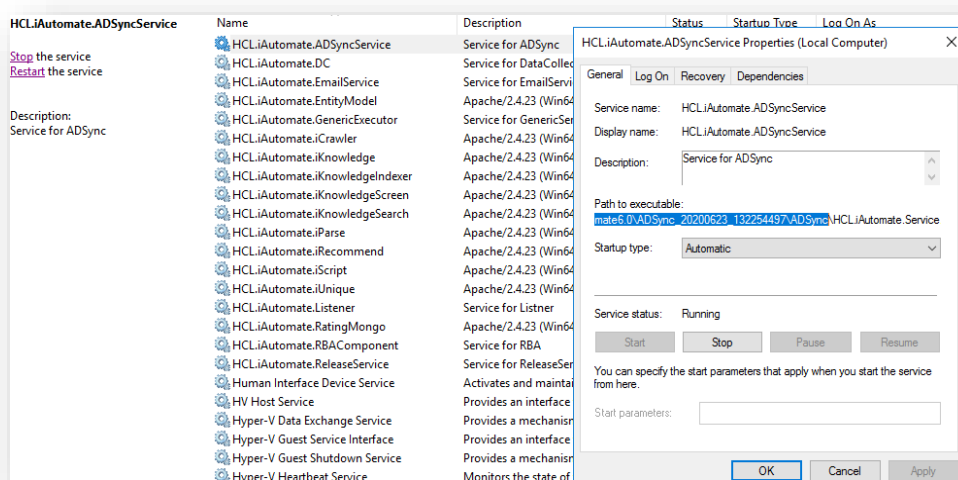


Figure 102 - ADSync – Scenario 3

- c. Open the selected folder. Locate HCLiAutomate.Service.AD.exe file.
 - d. Open this config file in Notepad and search for key 'ServiceHostURL'. The value corresponding to this key is the heartbeat URL.
5. Paste the URL on the browser. If the following page appears, it means the service is not running or there is some issue with ADSyncService.

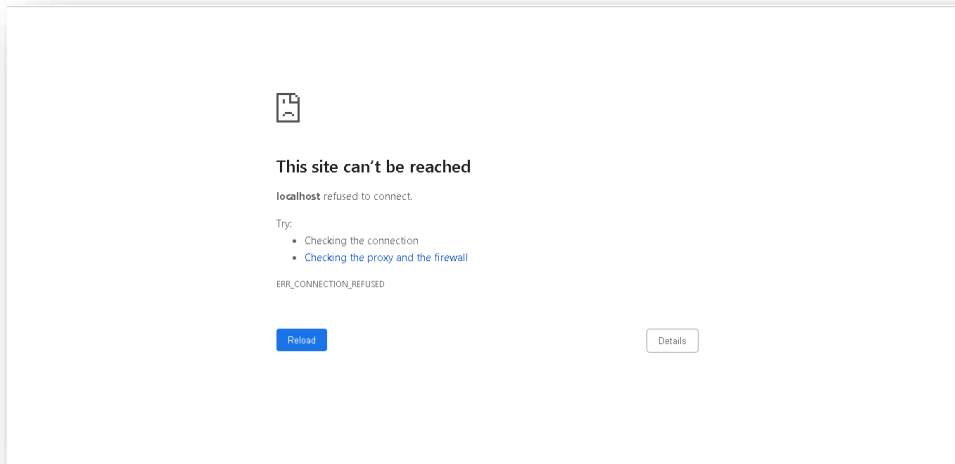


Figure 103 - ADSync – Scenario 3

6. If the following WSDL gets loaded, it means that the service is running as expected.



Figure 104 - ADSync – Scenario 3

2.10.4 The status of 'AdSyncservice' job is FAILED

Table 70 - ADSync: Scenario 4

Issue Description	'Active directory job is enabled, the AdSyncservice is running fine still status of job is FAILED
Modules Impacted	ADSync

Resolution Steps:

1. Go to page Reports → Component Log.
2. Check the log corresponding to component name '**Active Directory**' for the particular time interval when the job is running.

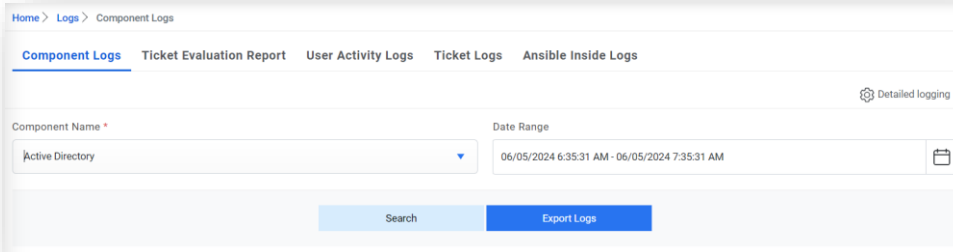


Figure 105 – ADSync – Scenario 4

3. If log mentions '**Username and Password is Incorrect**' then verify the Username and Password entered in LDAP details under **Create Organization** Screen.
4. If log mentions '**Cannot find Group details for 'LDAP:\\Domain Name'**', then go to **View Organization** screen and click on group icon against configured LDAP based organization and verify that group is configured against LDAP based organization or not, if not then add group details.
5. If log mentions '**Cannot connect to LDAP Server**' then verify that LDAP Connection string is correct.
6. If you are using LDAPs Connection string, then ensure that the '**Is SSL Required**' field under **Create Organization** screen is checked.

2.11 Troubleshooting Steps for EmailService

2.11.1 Not able to reach the component

Table 71 – EmailService: Scenario 1

Issue Description	Error message " Not able to reach the component " appears in Manage Jobs → job Log screen of respective Job
Modules Impacted	EmailService

Resolution Steps:

1. Go to **Manage Jobs** and check if the Email Job is enabled and successful. If not, enable it.

Yes	EmailProcessing	NA	Successful	NA	NA	Email Service	🔍 ⚙️ ↻
-----	-----------------	----	------------	----	----	---------------	--------

Figure 106 – EmailService Troubleshooting

2. For e.g. –
 - Organization name - NA
 - **Job Name** - EmailProcessing
 - **Component Name** - Email Service
3. Ensure that Email service is up on component server.
4. Ensure that Listener service is up on component server.

If Listener is not picking up **Email** service, then troubleshoot the service. Refer to [Troubleshooting Steps for Listener](#).

2.11.2 The status of 'EmailProcessing' job is FAILED

Table 72 - EmailService: Scenario 2

Issue Description	'EmailProcessing' job is enabled, and status of job is FAILED
Modules Impacted	EmailService

Resolution Steps

1. If root cause is '**Not able to reach the component**' then check if the **EmailService** service is up or not. For that, go to server where services are installed. Open '**services**' by pressing **win+R**, type '**services.msc**'.

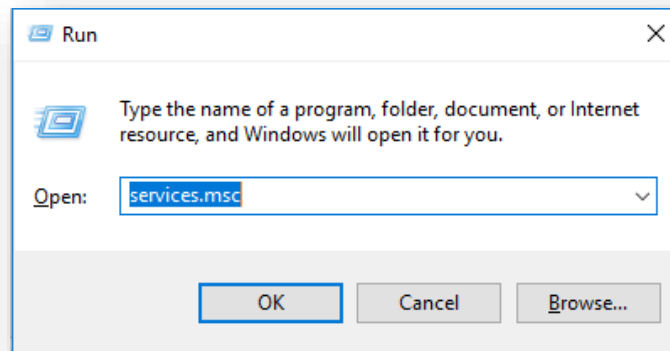


Figure 107 – EmailService – Scenario 2

2. Locate service 'HCLiAutomate.EmailService' and check the status whether it is in running or stopped state.

HCLiAutomate.EmailService				
	Name	Description	Status	Startup Type
	 HCLiAutomate.EmailService	Service for E...		Automatic

Figure 108 - EmailService: Scenario 2

3. If the service is not running, start the service.
4. To check if **EmailService** is running properly, load the WSDL file of **EmailService**. To load the WSDL file of the EmailService, enter the Heartbeat URL (http://serverip:port_for_EmailService/EmailService/) for EmailService on browser. You can find this URL in the config file of EmailService by performing the following steps:

-
- a. Click Win+R. Type services.msc and click OK.

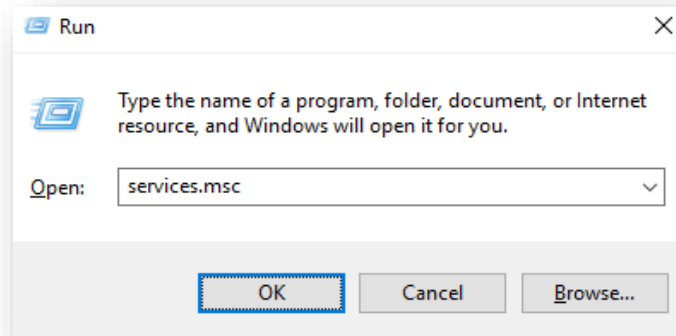


Figure 109 - EmailService: Scenario 2

- b. Locate HCL.iAutomate.EmailService. Right Click on service (HCL.iAutomate.EmailService), and click on Properties. Copy Path to Executable as shown below.

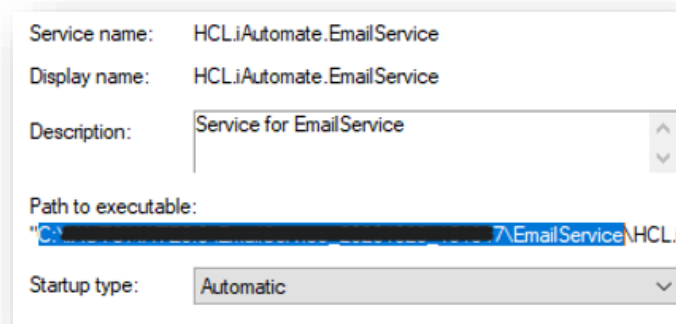


Figure 110 - EmailService: Scenario 2

- c. Open the selected folder. Locate HCL.iAutomate.EmailService.Service.Host.exe.config file.
- d. Open this config file in Notepad and search for key 'ServiceHostURL'. The value corresponding to this key is the heartbeat URL.
5. Paste the URL on the browser. If the following page appears, it means the service is not running or there is some issue with EmailService.

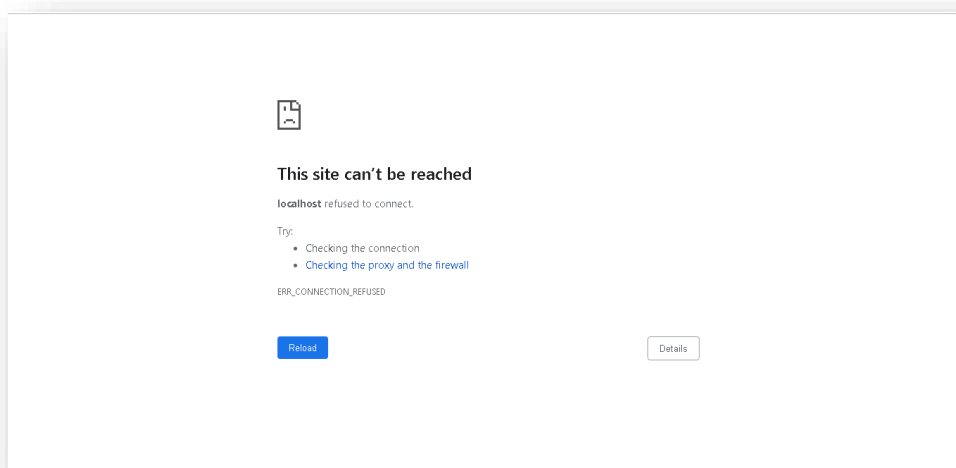


Figure 111 - EmailService: Scenario 2

6. If the following WSDL gets loaded, it means that the service is running as expected.

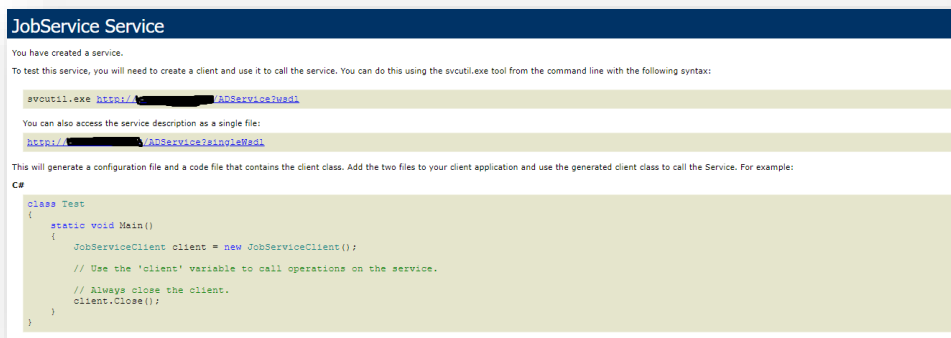


Figure 112 - EmailService: Scenario 2

2.12 Troubleshooting Steps for Entity Model (iRecommend Components)

EntityModel is an iRecommend component used to identify entities by leveraging domain-specific knowledge. It is used to increase weightage for specific entities that may seem to be of less weightage in general scenarios. It is a component developed in python and is hosted on Apache Web Server as a service by the name HCL.iAutomate.EntityModel.

2.12.1 HCL.iAutomate.EntityModel service is not starting

Table 73 - iRecommend Components: Scenario 1

Issue Description	HCL.iAutomate.EntityModel service is not starting
Modules Impacted	EntityModel
Probable Root Cause	- Service created through Local account. - Invalid "Entity.conf" file content

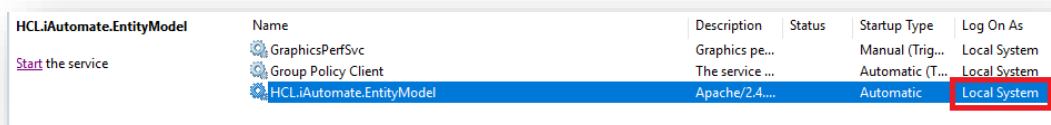
Resolution Steps:

1. Check for existence of the file **Entity.conf** at location *<Apache_Root_Folder_Path>/conf*.
2. For e.g. - *"C:/Apache24/conf"* has *<Apache_Root_Folder_Path>* as *"C:/Apache24"*

3. Verify the contents of file **Entity.conf** by checking the snippet with paths to << **EntityModel_Directory**>>. Verify and change the <**VirtualHost ***> tag with correct path entries to <<**EntityModel_Directory**>> as shown below. Where <<**EntityModel_Directory**>> is "**C:/HCL.iAutomate.iRecommend**" in the snippet from Entity.conf.
4. Ensure that service was created through Service Account and not through Local account. Refer to the figure

```
<VirtualHost *>
    WSGIScriptAlias /iAutomate
    C:/HCL.iAutomate.iRecommend/entityservice.wsgi
    SSLVerifyClient require
    SSLVerifyDepth 10
    <Directory C:/HCL.iAutomate.iRecommend>
    WSGIApplicationGroup %{GLOBAL}
    Require all granted
    </Directory>
</VirtualHost>
```

below to check the status.



Name	Description	Status	Startup Type	Log On As
GraphicsPerfSvc	Graphics pe...		Manual (Trig...	Local System
Group Policy Client	The service ...		Automatic (T...	Local System
HCLiAutomate.EntityModel	Apache/2.4...		Automatic	Local System

Figure 113 - HCL.iAutomate.EntityModel service is not starting

5. If not, open **Windows Command Prompt** in Administrator mode and run the below command:

```
sc config HCL.iAutomate.EntityModel obj= "ID" password= "PSWD"
```

where ID is the [Domain\SA ID] and PSWD is the [Password of SA] and SA is [Service Account].

6. 'Log On As' field corresponding to the service **HCL.iAutomate.EntityModel** should be changed to 'Service Account'. Click **Start** to start the service.

2.12.2 Service returns Internal Server Error - status code 500

Table 74 - iRecommend Components: Scenario 2

Issue Description	Service is reachable but returns Internal Server Error with status code 500.
Modules Impacted	EntityModel
Probable Root Cause	Library is missing

Resolution Steps

1. Check the Apache error log at <Apache_Root_Folder_Path>/logs/error.log.
2. If the error is because of the missing library, perform the following steps:

- Open Windows Command Prompt in Administrative mode in Apache_Root_Folder_Path:
- If open internet access is available, run the below command:

```
pip install package_name
```

- If open internet access is not available, download wheel file for package from where user has internet connectivity and move onto server at same location where it needs to be installed. E.g. <https://pypi.org> has a repository of most used wheel files, else other sources are available as well. Subsequently, run the below command:

```
pip install package_name.whl
```

If the issue pertains due to problem in the code, contact the **System Administrator**.

2.12.3 404 Resource Not Found

Table 75 - iRecommend Components: Scenario 3

Issue Description	Error message ' 404 Resource Not Found ' when EntityModel is hit
Modules Impacted	EntityModel
Probable Root Cause	• Paths are not correct in Entity.conf • Port is not correct

Resolution Steps

1. If the issue is due to the incorrect paths, refer to resolution steps mentioned for issue in [Table 73 - iRecommend Components: Scenario 1](#).
2. Also, check if correct port is being used. To identify the correct port, perform the following steps:
 - Open Entity.conf
 - Search for **Listen xxxx**

e.g. – Here the image below shows the port set for EntityModel component is 9000.

```
#
Listen 9000
# ports, instead of the default. See also the <VirtualHost>
# directive
```

3. The set port is one where **EntityModel** is deployed.

2.12.4 Could not get any response

Table 76 - iRecommend Components: Scenario 4

Issue Description	Error message ' Could not get any response ' appears when EntityModel is being hit.
Modules Impacted	EntityModel
Probable Root Cause	Service is not running

Resolution Steps

1. Press **Win+R**, type **services.msc** and press Enter to open Windows Services.

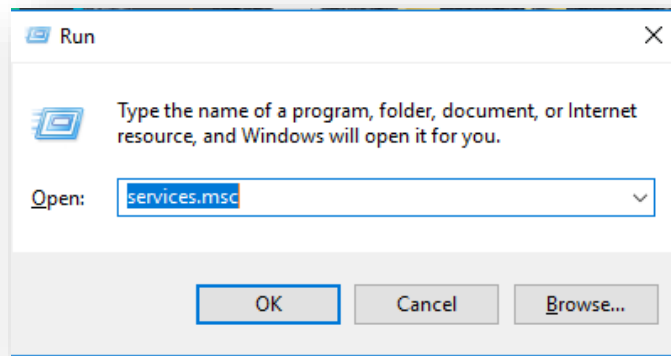


Figure 114 – EntityModel Troubleshooting

2. Find service **HCL.iAutomate.EntityModel** and select it.
3. Click **Start** to start the service if it's not running already.

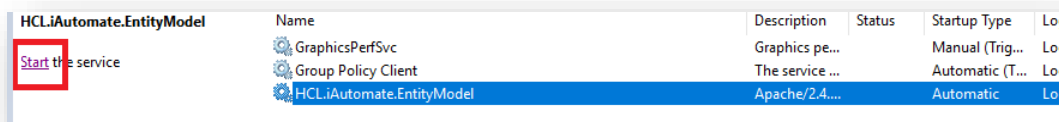


Figure 115 - EntityModel Troubleshooting (cont.)

2.12.5 'Not able to reach the component'

Table 77 - iRecommend Components: Scenario 5

Issue Description	Error message ' Not able to reach the component ' appears in job log details
Modules Impacted	EntityModel
Probable Root Cause	Duplication of keys in .cfg files present in python files

Resolution Steps:

1. Check for existence of the file Entity.conf at location `<APACHE_ROOT_FOLDER_PATH>/CONF`.
2. At the bottom of Entity.conf file you will find the path to the python files as highlighted in the below figure.

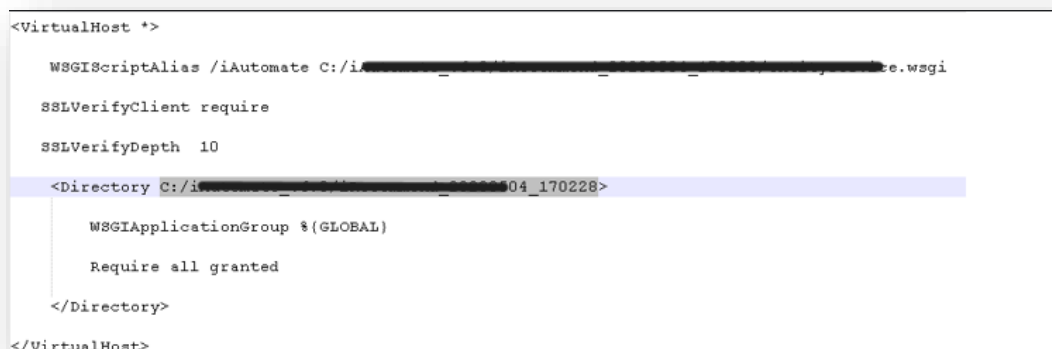


Figure 116 - EntityModel (cont.)

3. Open the file entity.cfg from the location [<highlighted_path_in_fig_112>/config](#) and search for any duplicate keys present in the file. You can refer below keys for reference:

```
[MISC]
Certificate_Name=HclTech.iAutomate.Web
KEY_SALT = 
Certificate_Name = HclTech.iAutomate.Web
isSelfSigned=Y
enableCertificate=Y
retryCount = 1
retrySleepTime = 2000
retryCounter = 0
hashAlgorithm = SHA256
establishSecurityContext = N
certificateStoreLocation = 2
certificateStoreName = 7
certificateFindType = 1
```

Figure 117 - EntityModel (cont.)

4. Remove the last entry that is duplicate for each key. In the above case delete the second entry of **Certificate_Name = HclTech.iAutomate.Web** Similarly check for any other duplicate keys and remove the last entry and save the file.
5. Finally **restart** the service named **HCL.iAutomate.EntityModel**

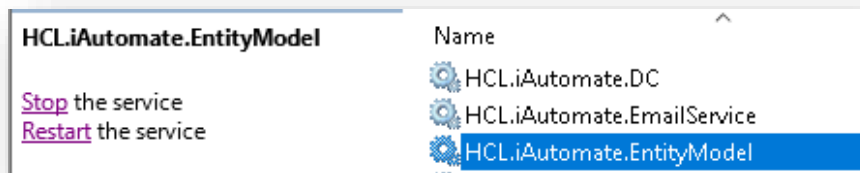


Figure 118 - EntityModel (cont.)

2.13 Troubleshooting Steps for iRecommend

iRecommend is the component responsible for providing the relevant recommendations of a list of runbooks for a particular ticket that is picked up by iAutomate for automation. It is a component developed using python and is hosted on Apache Web server as a service under the name **HCL.iAutomate.iRecommend**.

2.13.1 HCL.iAutomate.iRecommend service is not starting

Table 78 – iRecommend: Scenario 1

Issue Description	HCL.iAutomate.iRecommend service is not starting
Modules Impacted	iRecommend
Probable Root Cause	Invalid "iRecommend.conf" file content

Resolution Steps:

1. Check for existence of the file iRecommend.conf at location <Apache_Root_Folder_Path>/conf.
2. For e.g. - “C:/Apache24/conf” has <Apache_Root_Folder_Path> as “C:/Apache24”
3. Verify the contents of file **iRecommend.conf** by checking the snippet with paths to << iRecommend_Directory>>. Verify and change the <VirtualHost *> tag with correct path entries to << iRecommend_Directory>> as shown below. Where << iRecommend_Directory>> is “C:/iAutomate/Middleware/iRecommend” in the snippet from iRecommend.conf

```
<VirtualHost *>
    WSGIScriptAlias /iRecommend C:/iAutomate/Middleware/iRecommend/main.wsgi
    SSLVerifyClient require
    SSLVerifyDepth 10
    <Directory C:/iAutomate/Middleware/iRecommend>
        WSGIApplicationGroup %{GLOBAL}
        Require all granted
    </Directory>
</VirtualHost>
```

4. Ensure that service was created through **Service Account** and not through Local account. Refer to below figure to check the status.

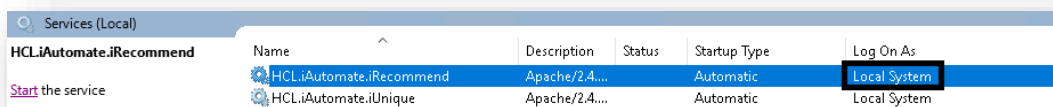


Figure 119 - HCL.iAutomate.iRecommend service is not starting

5. If not, open **Windows Command Prompt** in Administrator mode and run the below command:

```
sc config HCL.iAutomate.iRecommend obj= "ID" password= "PSWD"
```

where ID is the [Domain\SA ID] and PSWD is the [Password of SA] and SA is [Service Account].

‘Log On As’ field corresponding to the service **HCL.iAutomate.iRecommend** should be changed to ‘Service Account’. Click **Start** to start the service.

2.13.2 Service returns Internal Server Error - status code 500

Table 79 – iRecommend: Scenario 2

Issue Description	Service is reachable but returns to Internal Server Error with status code 500.
Modules Impacted	iRecommend
Probable Root Cause	Python package not available

Resolution Steps:

1. Check the Apache error log at `<Apache_Root_Folder_Path>/logs/error.log`
2. If the error is because of the missing package, perform the following steps:
 - a. Open Windows Command Prompt in Administrative mode in `Apache_Root_Folder_Path`.
 - b. If open internet access is available, run the below command:

```
pip install package_name
```

3. If open internet access is not available, download the wheel file for package from where user has internet connectivity and move onto server at same location where it needs to be installed. E.g. <https://pypi.org> has a repository of most used wheel files, else other sources are available as well. Subsequently, run the below command:

```
pip install package_name.whl
```

If the issue pertains due to a problem in the code, contact the **System Administrator**.

2.13.3 '404 Resource Not Found'

Table 80 - iRecommend: Scenario 3

Issue Description	Error message ' 404 Resource Not Found ' when iRecommend is hit
Modules Impacted	iRecommend
Probable Root Cause	• Paths are not correct in iRecommend.conf • Port is not correct

Resolution Steps:

1. If the issue is due to the incorrect paths, refer to resolution steps mentioned for issue in [Table 78 – iRecommend: Scenario 1](#).
2. Also, check if the correct port is being used. To identify the correct port, perform the following steps:
 - **Open iRecommend.conf**
 - **Search for Listen xxxx**

e.g. – Here the image below shows the port set for iRecommend component is 9000

```
#  
Listen 9000  
# ports, instead of the default. See also the <VirtualHost>  
# directive
```

3. The set port is one where **iRecommend** is deployed.

2.13.4 Could not get any response

Table 81 - iRecommend: Scenario 4

Issue Description	Error message ' Could not get any response ' appears when iRecommend is being hit.
Modules Impacted	iRecommend
Probable Root Cause	HCL.iAutomate.iRecommend service is not running

Resolution Steps:

- 1. Press Win+R, type services.msc and press Enter to open Windows Services.

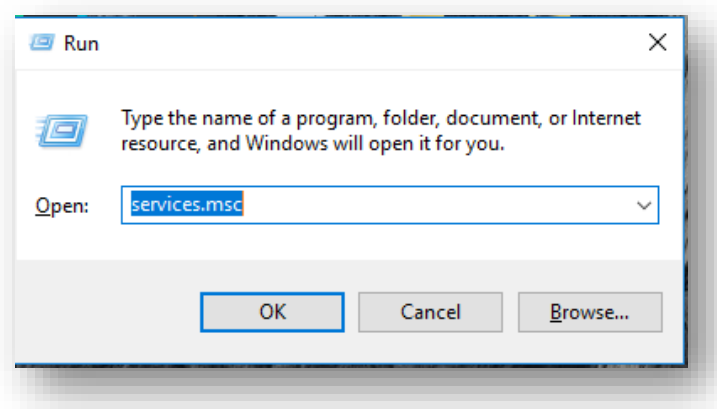


Figure 120 – iRecommend Troubleshooting

- 2. Find service **HCL.iAutomate.iRecommend** and select it.
- 3. Click **Start** to start the service if it's not running already.

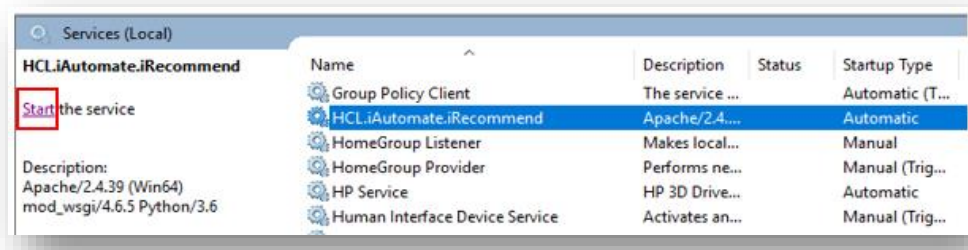


Figure 121 - iRecommend Troubleshooting (cont.)

2.13.5 Model Not Found’/’Model is empty

Table 82 - iRecommend: Scenario 5

Issue Description	Error message: “ Model Not Found ’ or ‘ Model is empty ’ are logged.
Modules Impacted	iRecommend
Probable Root Cause	Runbooks are not mapped

Resolution Steps:

- 1. If the model is not found, the following scenarios need to be checked:

- Open Build Model tab and check if model building is triggered. If not, trigger Build Model else check the other scenarios.
- In Map Runbook tab, check if any runbooks mapped against respective organization and module. If not, map the runbooks and rebuild the model.

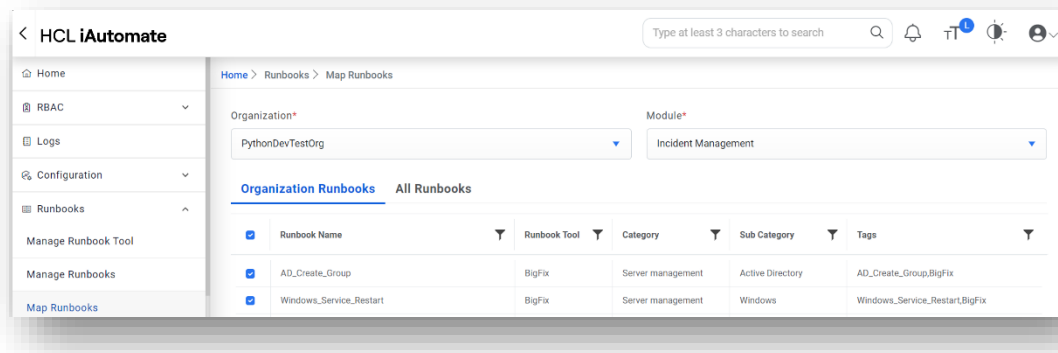


Figure 122 - Error message 'Model Not Found'

- User can also save the model on disk with settings fetched from "iRecommend.cfg" by setting "PROPERTY_LOCATION=FILE". If model is created, then there is a settings mismatch w.r.t organization; so cross check the properties.

2.13.6 Incorrect recommendations /an empty set is returned

Table 83 – iRecommend: Scenario 7

Issue Description	For a given test case, the recommendation is incorrect and at times an empty set is returned
Modules Impacted	iRecommend
Probable Root Cause	Wrong configuration of model parameters

Resolution Steps:

For a test case, if the recommendations are incorrect or empty sets are returned, following scenarios need to be checked:

- Check if any "**Discriminators**" or "**Named Entities**" are set in a manner which are filtering out the appropriate runbook wrongly. Either correct these entries if wrongly marked with values or weigh down the best options respective to the case and add these parameters accordingly.

Discriminators and Named Entities should always be thoughtfully identified in an environment to avoid any clashes between the use cases.

- Check if the important words of the ticket description exist in your model. If not, then the model is not aware of such content and hence cannot recommend properly for such a case. Enrich the vocabulary via Runbook Meta-Data, Description, etc.
- If user has the '**Expected Runbook**', check if the 'Expected Runbook' has enriched tags and content sufficient to cover the domain of the ticket.

4. If the ticket contains information which is domain specific and isn't getting priority, addition of new Entities should be done to the Entity Module, so that due weightage can be given to the specific entities.

2.13.7 Failed to Build Model

Table 84 – iRecommend: Scenario 7

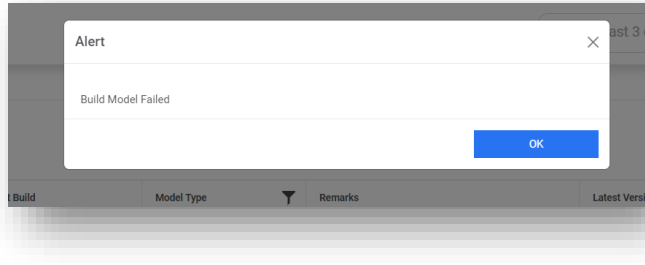
Issue description	Failed to build model due to incorrect URL of the server running IRecommend service.
Modules Impacted	IRecommend
Probable root cause	Incorrect URL provided for the server running IRecommend service. 

Figure 123 - Failed to build model

Resolution Steps:

1. Go to iAutomate -> iAutomate configuration -> Check the load balancer URL.
2. Check whether the connection is successful.

2.13.8 Failed to Recommend Jobs

Table 85 – iRecommend: Scenario 8

Issue description	Failed to recommend jobs after setting configuration												
Module impacted	IRecommend												
Probable root cause	Job Log Details <table><tr><td>289A600E-CD8D-49B0-B4DE...more</td><td>06/07/2024 10:58:11:160</td><td>AHDAP3257</td><td>Failed</td><td>Not able to reach the component</td><td>Moving Job to failed</td></tr><tr><td>289A600E-CD8D-49B0-B4DE...more</td><td>06/07/2024 10:58:07:460</td><td>AHDAP3257</td><td>Success</td><td>Moving Job to Initiated</td><td>Moving Job to Initiated</td></tr></table>	289A600E-CD8D-49B0-B4DE... more	06/07/2024 10:58:11:160	AHDAP3257	Failed	Not able to reach the component	Moving Job to failed	289A600E-CD8D-49B0-B4DE... more	06/07/2024 10:58:07:460	AHDAP3257	Success	Moving Job to Initiated	Moving Job to Initiated
289A600E-CD8D-49B0-B4DE... more	06/07/2024 10:58:11:160	AHDAP3257	Failed	Not able to reach the component	Moving Job to failed								
289A600E-CD8D-49B0-B4DE... more	06/07/2024 10:58:07:460	AHDAP3257	Success	Moving Job to Initiated	Moving Job to Initiated								

Figure 124 - Failed to Recommend Jobs

Figure 124 - Failed to Recommend Jobs

Resolution steps:

1. Check whether the IRecommend service is running in the app server.
2. Start the IRecommend service if not started.
3. Go to iAutomate configuration → Check the load balancer URL and check whether the connection is successful.

2.13.9 Failed to create feedback model

Table 86 – iRecommend: Scenario 9

Issue description	Failed to create Feedback Model									
Module impacted	iRecommend									
Probable root cause	Either the iRecommend Model is not build for the corresponding Runbook Tool Type or sufficient feedback are not given for the corresponding Runbook Tool Type.									
	<table><tr><td>ITPAM</td><td>Failed</td><td>07/16/2024 02:47:31 PM</td><td>Feedback Model</td><td>Error Creating Model: Insufficient training data, Current feedbacks in system 0 does not meet the criteria 1000 feedbacks.</td></tr></table>					ITPAM	Failed	07/16/2024 02:47:31 PM	Feedback Model	Error Creating Model: Insufficient training data, Current feedbacks in system 0 does not meet the criteria 1000 feedbacks.
ITPAM	Failed	07/16/2024 02:47:31 PM	Feedback Model	Error Creating Model: Insufficient training data, Current feedbacks in system 0 does not meet the criteria 1000 feedbacks.						

Figure 125 - Failed to create Feedback Model

Resolution steps:

1. If iRecommend Model is not yet created for corresponding iRecommend model, create one. If it's already created, skip to step 2.
2. The feedback model expects enough feedback to be present in the DB before the model can be build. So, give feedback using SAAS SME user feedback screen for the present analysis. If you have already given the feedbacks for all the ticket summaries, then start new analysis jobs and give feedbacks for those. Keep doing this unless you have given about 3000 to 5000 feedback.

2.14 Troubleshooting Steps for iParse

iParse is the component responsible to parse or extract various parameters from any ticket runbook pair, that is picked up by iAutomate for automation. It is a component developed using python and is hosted on Apache Web Server as a service under the name **HCL.iAutomate.iParse**.

2.14.1 HCL.iAutomate.iParse service is not starting

Table 87 - iParse: Scenario 1

Issue Description	HCL.iAutomate.iParse service is not starting
Modules Impacted	iParse
Probable Root Cause	Invalid " iParse.conf " file content

Resolution Steps:

1. Check for existence of the file iParse.conf at location <Apache_Root_Folder_Path>/conf.
2. For e.g. - "C:/Apache24/conf" has <Apache_Root_Folder_Path> as "C:/Apache24"
3. Verify the contents of file **iParse.conf** by checking the snippet with paths to << iParse_Directory>>. Verify and change the <VirtualHost *> tag with correct path entries to << iParse_Directory>> as shown below, where << iParse_Directory>> is "C:/iAutomate/Comp/HCL.iAutomate.iParse" in the snippet from iParse.conf.

```
<VirtualHost *>
    WSGIScriptAlias /iAutomate C:/iAutomate/Comp/HCL.iAutomate.iParse
    /IParse/iparse/app.wsgi
    SSLVerifyClient require
    SSLVerifyDepth 10
    <Directory C:/iAutomate/Comp/HCL.iAutomate.iParse/IParse/iparse>
        WSGIApplicationGroup %{GLOBAL}
        Require all granted
    </Directory>
</VirtualHost>
```

4. Ensure that service was created through **Service Account** and not through Local account. Refer to below figure to check the status.

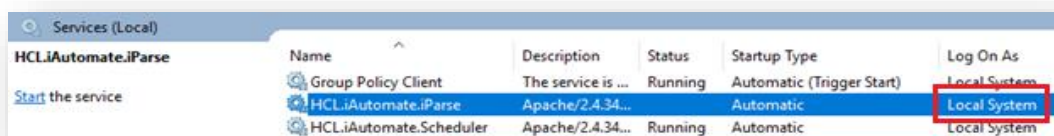


Figure 126 - HCL.iAutomate.iParse service is not starting

5. If not, open **Windows Command Prompt** in Administrator mode and run the below command:

```
sc config HCL.iAutomate.iParse obj= "ID" password= "PSWD"
```

where ID is the [Domain\SA ID] and PSWD is the [Password of SA] and SA is [Service Account].

6. 'Log On As' field corresponding to the service HCL.iAutomate.iParse should be changed to '**Service Account**'. Click **Start** to start the service.

2.14.2 Service returns Internal Server Error - status code 500

Table 88 - iParse: Scenario 2

Issue Description	Service is reachable but returns to Internal Server Error with status code 500.
Modules Impacted	iParse
Probable Root Cause	Python package not available

2.14.3 404 Resource Not Found

Table 89 - iParse: Scenario 3

Issue Description	Error message ' 404 Resource Not Found ' when iParse is hit
Modules Impacted	iParse
Probable Root Cause	• Paths are not correct in iParse.conf • Port is not correct

Resolution Steps:

1. If the issue is due to the incorrect paths, refer to the resolution steps mentioned for issue a.
2. Also, check if the correct port is being used. To identify the correct port, perform the following steps:
 - **Open iParse.conf**
 - **Search for Listen xxxx**

e.g. – Here the image below shows the port set for iParse component is 9000.

```
#  
Listen 9000  
# ports, instead of the default. See also the <VirtualHost>  
# directive
```

The set port is one where **iParse** is deployed.

2.14.4 Could not get any response

Table 90- iParse: Scenario 4

Issue Description	Error message ' Could not get any response ' appears when iParse is being hit.
Modules Impacted	iParse
Probable Root Cause	HCL.iAutomate.iParse service is not running

Resolution Steps:

- 1. Press **Win+R**, type **services.msc** and press Enter to open Windows Services.

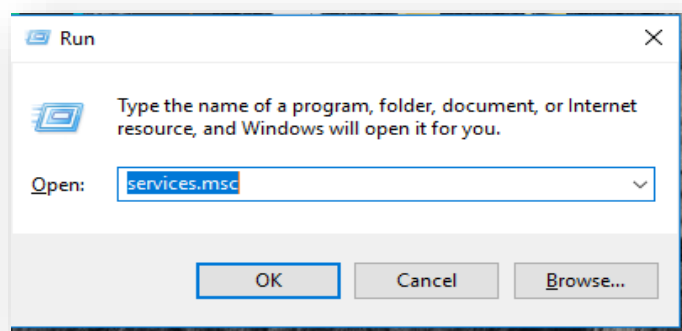


Figure 127 - HCL.iAutomate.iParse

- 2. Find service **HCL.iAutomate.iParse** and select it.
- 3. Click **Start** to start the service, if it's not running already.

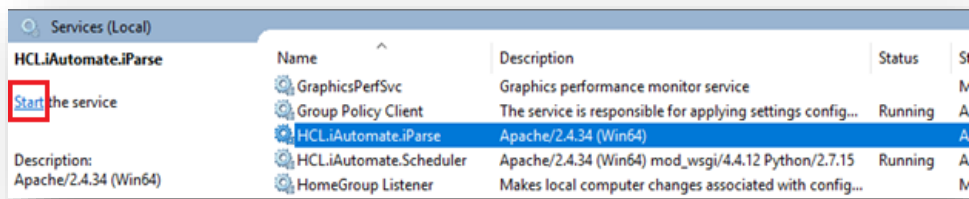


Figure 128 - HCL.iAutomate.iParse (cont.)

2.14.5 Failed to Execute Job

Table 91- iParse: Scenario 5

Issue Description	Failed job execution due to parameter mismatch between iautomate and RBA tool																														
Modules Impacted	ExecuteRunbook Job																														
Probable root cause	Parameter mismatch between iAutomate and RBA Tool																														
	Job Log Details																														
	<table><tr><th>Request Id</th><th>Date Time</th><th>Listener Node</th><th>Current Sta...</th><th>Step Remarks</th><th>Message</th></tr><tr><td>AE452100-F886-4234-8901...more</td><td>06/07/2024 10:58:47:930</td><td>AHDAP3257more</td><td>Failed</td><td>Execution Failed --> Due to parameter mismatch between iAutomate and Scorch Runbook.</td><td></td></tr><tr><td>4CB733F1-8FA4-4994-99B6...more</td><td>06/07/2024 10:58:29:493</td><td>AHDAP3257more</td><td>Success</td><td>Total : 1 ticket relieved</td><td></td></tr><tr><td>4CB733F1-8FA4-4994-99B6...more</td><td>06/07/2024 10:58:29:400</td><td>AHDAP3257more</td><td>Success</td><td>Executing get tickets</td><td></td></tr></table>							Request Id	Date Time	Listener Node	Current Sta...	Step Remarks	Message	AE452100-F886-4234-8901...more	06/07/2024 10:58:47:930	AHDAP3257more	Failed	Execution Failed --> Due to parameter mismatch between iAutomate and Scorch Runbook.		4CB733F1-8FA4-4994-99B6...more	06/07/2024 10:58:29:493	AHDAP3257more	Success	Total : 1 ticket relieved		4CB733F1-8FA4-4994-99B6...more	06/07/2024 10:58:29:400	AHDAP3257more	Success	Executing get tickets	
	Request Id	Date Time	Listener Node	Current Sta...	Step Remarks	Message																									
	AE452100-F886-4234-8901...more	06/07/2024 10:58:47:930	AHDAP3257more	Failed	Execution Failed --> Due to parameter mismatch between iAutomate and Scorch Runbook.																										
4CB733F1-8FA4-4994-99B6...more	06/07/2024 10:58:29:493	AHDAP3257more	Success	Total : 1 ticket relieved																											
4CB733F1-8FA4-4994-99B6...more	06/07/2024 10:58:29:400	AHDAP3257more	Success	Executing get tickets																											
Figure 129 – Error for parameter mismatch																															

Figure 129 – Error for parameter mismatch

Resolution Steps:

1. Check the parameter names with the RBA Team.
 2. Parameter names should be the same as in RBA runbook.
-

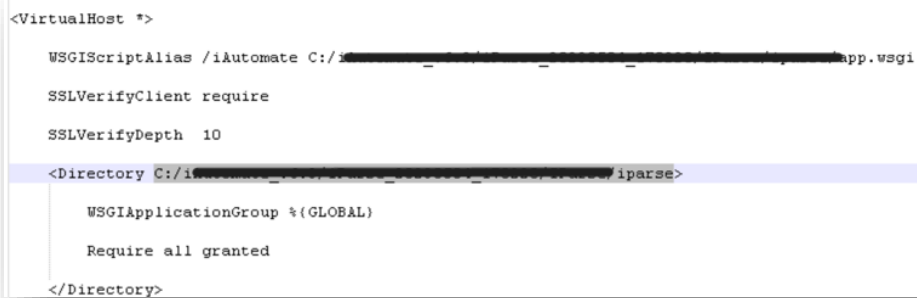
2.14.6 Not able to reach the component

Table 92- iParse: Scenario 6

Issue Description	Error message ' Not able to reach the component ' appears in job log details-step remarks column for IPARSE job in manage jobs page, also the status is in ' failed ' state
Modules Impacted	iParse
Probable Root Cause	Duplication of keys in .cfg files present in python files

Resolution Steps:

1. Check for existence of the file iParse.conf at location [<Apache_Root_Folder_Path>/conf](#).
2. At the bottom of iParse.conf file you will find the path to the python files as highlighted in the below figure.



```
<VirtualHost *>
    WSGIScriptAlias /iAutomate C:/[redacted]app.wsgi
    SSLVerifyClient require
    SSLVerifyDepth 10
    <Directory C:/i[redacted]iparse>
        WSGIApplicationGroup %{GLOBAL}
        Require all granted
    </Directory>
```

Figure 130 - HCL.iAutomate.iParse(cont.)

3. Open the file Parse_data.cfg from the location [<highlighted_path_in_fig_000>/config](#) and search for any duplicate keys present in the file. You can refer below keys for reference:
-

```
[MISC]
KEY=150
loggerState=1
SUCCESS_STATUS=0
FAIL_STATUS=1
KEY_SALT=
Certificate_Name=HclTech.iautomate.Web
IsSelfSigned=Y
enableCertificate=Y
IsJobupdateError=Y
retryCount=1
retrySleepTime=2000
hashAlgorithm = SHA256
retryCounter = 0
establishSecurityContext = N
certificateStoreLocation = 2
certificateStoreName = 7
certificateFindType = 1
EncryptionAlgorithm=aesgcm
EncryptionAlgorithm = aesgcm
```

Figure 131 - HCL.iAutomate.iParse(cont.)

4. Remove the last entry that is duplicate for each key. In the above case delete the second entry of **EncryptionAlgorithm = aesgcm**. Similarly check for any other duplicate keys, remove the last entry, and save the file.
5. Finally **restart** the service named **HCL.iAutomate.iParse**

HCL.iAutomate.iParse	Name	Description	Status	Startup Type
Stop the service	HCL.iAutomate.iParse	Apache/2.4...	Running	Automatic
Restart the service	HCL.iAutomate.iRecommend	Apache/2.4...	Running	Automatic
	HCL.iAutomate.iScript	Apache/2.4...	Running	Automatic

Figure 132 - HCL.iAutomate.iParse(cont.)

2.15 Troubleshooting Steps for iScrape

iScrape is the component responsible to search, extract, and download scripts from open sources to create runbooks which are not available within iAutomate repository for automation. It is a component developed using python and is hosted on Apache Web Server as a service under the name **HCL.iAutomate.iScript**.

2.15.1 HCL.iAutomate.iScript service is not starting

Table 93- iScrape: Scenario 1

Issue Description	HCL.iAutomate.iScript service is not starting
Modules Impacted	iScript
Probable Root Cause	Invalid "iScript.conf" file content

Resolution Steps:

1. Check for existence of the file **iScript.conf** at location *<Apache_Root_Folder_Path>/conf*.
For e.g. - "C:/Apache24/conf" has <Apache_Root_Folder_Path> as "C:/Apache24"
2. Verify the contents of file **iScript.conf** by checking the snippet with paths to **<< iScript_Directory>>**. Verify and change the **<VirtualHost *>** tag with correct path entries to **<< iScript_Directory>>** as shown below. Where **<< iScript_Directory>>** is *"C:/iAutomate/Comp/HCL.iAutomate.iScript"* in the snippet from iScript.conf

```
<VirtualHost *>
    WSGIScriptAlias /iAutomate
    C:/iAutomate/Comp/HCL.iAutomate.iScript/iScript/app.wsgi
    SSLVerifyClient require
    SSLVerifyDepth 10
    <Directory C:/iAutomate/Comp/HCL.iAutomate.iScript/ iScript>
        WSGIApplicationGroup %{GLOBAL}
        Require all granted
    </Directory>
</VirtualHost>
```

3. Ensure that service was created through **Service Account** and not through Local Account. Refer to the figure below to check the status.

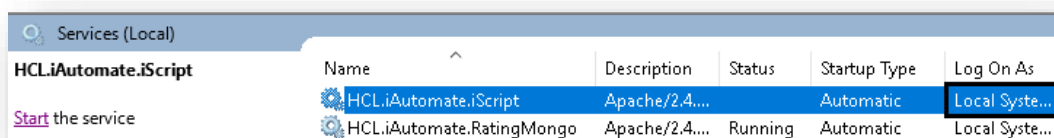


Figure 133 - HCL.iAutomate.iScript service is not starting

4. If not, open **Windows Command Prompt** in Administrator mode and run the below command:

```
sc config HCL.iAutomate.iScript obj= "ID" password= "PSWD"
```

where ID is the [Domain\SA ID] and PSWD is the [Password of SA] and SA is [Service Account].

'Log On As' field corresponding to the service **HCL.iAutomate.iScript** should be changed to '**Service Account**'. Click **Start** to start the service.

2.15.2 Service returns Internal Server Error - status code 500

Table 94 - iScrape: Scenario 2

Issue Description	Service is reachable but returns to Internal Server Error with status code 500.
Modules Impacted	iScript
Probable Root Cause	Python package not available

Resolution Steps:

1. Check the Apache error log at <Apache_Root_Folder_Path>/logs/error.log.

If the error is because of the missing package, perform the following steps:

- a. Open Windows Command Prompt in Administrative mode in Apache_Root_Folder_Path:
- b. If open internet access is available, run the below command:

```
pip install package_name
```

- c. If open internet access is not available, download wheel file for the package from where user has internet connectivity and move onto the server at same location where it needs to be installed. E.g. <https://pypi.org> has a repository of most used wheel files, else other sources are available as well. Subsequently, run the below command:

```
pip install package_name.whl
```

2.15.3 404 Resource Not Found

Table 95 - iScape: Scenario 3

Issue Description	Error message ' 404 Resource Not Found ' when iScript is hit
Modules Impacted	iScript
Probable Root Cause	• Paths are not correct in iScript.conf • Port is not correct

Resolution Steps:

1. If the issue is due to the incorrect paths, refer to resolution steps mentioned for issue in <Table 93- iScape: Scenario 1>.
2. Also, check if the correct port is being used. To identify the correct port, perform the following steps:

- **Open iScript.conf**
- **Search for Listen xxxx**

e.g. – Here the image below shows the port set for iScript component is 9000.

```
#  
Listen 9000  
# ports, instead of the default. See also the <VirtualHost>  
# directive
```

3. The set port is one where iScript is deployed.

2.15.4 Could not get any response

Table 96 - iScape: Scenario 4

Issue Description	Error message ' Could not get any response ' appears when iScript is being hit.
Modules Impacted	iScript
Probable Root Cause	HCL.iAutomate.iScript service is not running

Resolution Steps:

1. Press Win+R, type services.msc and press Enter to open Windows Services.

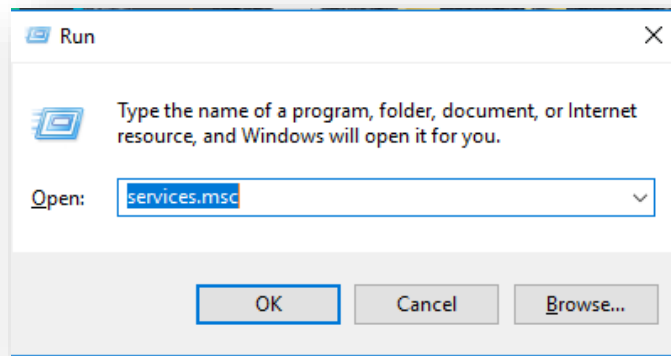


Figure 134 - HCL.iAutomate.iScript

2. Find service **HCL.iAutomate.iScript** and select it.
3. Click **Start** to start the service if it's not running already.

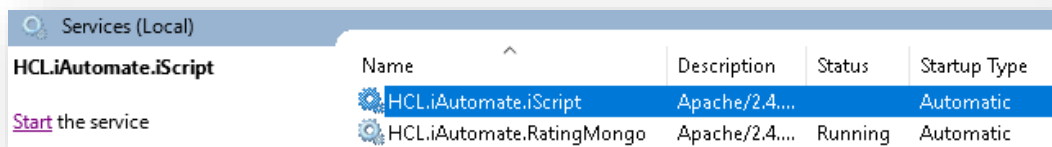


Figure 135 - HCL.iAutomate.iScript (Cont.)

2.16 Troubleshooting Steps for iUnique

iUnique helps in clustering of tickets with similar ticket descriptions. This helps in identifying resolutions over a group rather than catering to individual tickets. It is a component developed using python and is hosted on Apache Web Server as a service under the name **HCL.iAutomate.iUnique**

2.16.1 HCL.iAutomate.iUnique service is not starting

Table 97 - iUnique: Scenario 1

Issue Description	HCL.iAutomate.iUnique service is not starting
Modules Impacted	iUnique
Probable Root Cause	Invalid "iUnique.conf" file content

Resolution Steps:

1. Check for existence of the file iUnique.conf at location `<Apache_Root_Folder_Path>/conf`.
For e.g. - `"C:/Apache24/conf"` has `<Apache_Root_Folder_Path>` as `"C:/Apache24"`.
2. Verify the contents of file **iUnique.conf** by checking the snippet with paths to `<< iUnique_Directory>>`. Verify and change the `<VirtualHost *>` tag with correct path entries to `<< iUnique_Directory>>` as shown below. Where `<< iUnique_Directory>>` is `"C:/iAutomate/Comp/HCL.iAutomate.iUnique"` in the snippet from iUnique.conf.

```
<VirtualHost *>
    WSGIScriptAlias /iAutomate
    C:/iAutomate/Comp/HCL.iAutomate.iUnique/iUnique/app.wsgi
```

```

SSLVerifyClient require
SSLVerifyDepth 10
<Directory C:/iAutomate/Comp/HCL.iAutomate.iUnique/ iUnique>
    WSGIApplicationGroup %{GLOBAL}
    Require all granted
</Directory>
</VirtualHost>

```

3. Ensure that service was created through Service Account and not through Local account. Refer to below figure to check the status.

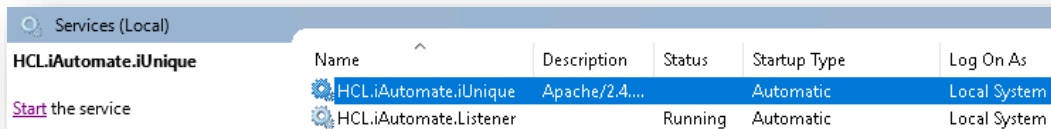


Figure 136 - HCL.iAutomate.iUnique service is not starting

4. If not, open **Windows Command Prompt** in Administrator mode and run the below command:

```
sc config HCL.iAutomate.iUnique obj= "ID" password= "PSWD"
```

where ID is the [Domain\SA ID] and PSWD is the [Password of SA] and SA is [Service Account].

5. 'Log On As' field corresponding to the service **HCL.iAutomate.iUnique** should be changed to 'Service Account'. Click **Start** to start the service.

2.16.2 Service returns Internal Server Error - status code 500

Table 98 - iUnique: Scenario 2

Issue Description	Service is reachable but returns Internal Server Error with status code 500
Modules Impacted	iUnique
Probable Root Cause	Python package not available

Resolution Steps:

1. Check the Apache error log at [<Apache_Root_Folder_Path>/logs/error.log](#).
2. If the error is because of the missing package, perform the following steps:
 - a. Open Windows Command Prompt in Administrative mode in [Apache_Root_Folder_Path](#).
 - b. If open internet access is available, run the below command:

```
pip install package_name
```

- c. If open internet access is not available, download wheel file for the package from where user has internet connectivity and move onto server at same location where it needs to be installed. E.g. <https://pypi.org> has

a repository of most used wheel files, else other sources are available as well. Subsequently, run the below commend:

```
pip install package_name.whl
```

2.16.3 404 Resource Not Found

Table 99 - iUnique: Scenario 3

Issue Description	Error message ' 404 Resource Not Found ' when iUnique is hit
Modules Impacted	iUnique
Probable Root Cause	• Paths are not correct in iUnique.conf • Port is not correct

Resolution Steps:

1. If the issue is due to the incorrect paths, refer to the resolution steps mentioned for issue.
2. Also, check if the correct port is being used. To identify the correct port, perform the following steps:
 - **Open iUnique.conf**
 - **Search for Listen xxxx**

e.g. – Here the image below shows the port set for iUnique component is 9000.

```
#  
Listen 9000  
# ports, instead of the default. See also the <VirtualHost>  
# directive
```

3. The set port is one where iUnique is deployed.

2.16.4 Could not get any response

Table 100 - iUnique: Scenario 4

Issue Description	Error message ' Could not get any response ' appears when iUnique is being hit
Modules Impacted	iUnique
Probable Root Cause	HCL.iAutomate.iUnique service is not running

Resolution Steps:

1. Press **Win+R**, type **services.msc** and press **Enter** to open Windows Services.

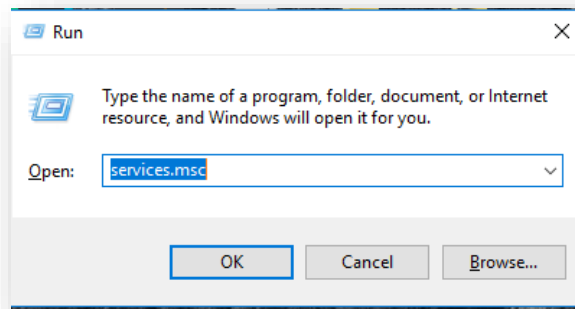


Figure 137 - HCL.iAutomate.iUnique

2. Find service **HCL.iAutomate.iUnique** and select it.
3. Click **Start** to start the service, if it's not running already.

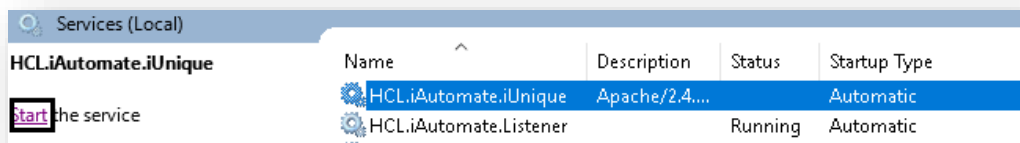


Figure 138 - HCL.iAutomate.iUnique (cont.)

2.16.5 Not able to reach the component

Table 101 - iUnique: Scenario 5

Issue Description	Error message ' Not able to reach the component ' appears in job log details-step remarks column for iUnique job in manage jobs page, also the status is in ' failed ' state
Modules Impacted	iUnique
Probable Root Cause	Duplication of keys in .cfg files present in python files

Resolution Steps:

1. Check for Existence of the file iUnique.conf at location `<APACHE_ROOT_FOLDER_PATH>/CONF`.
2. At the bottom of iUnique.conf file you will find the path to the python files as highlighted in the below figure.



Figure 139 - HCL.iAutomate.iUnique(cont.)

3. Open the file iUnique.cfg from the location `<highlighted_path_in_fig_000>/config` and search for any duplicate keys present in the file. You can refer below keys for reference:

```
[SIZE]
VALUE=20000
VALUE = 2000
VALUES=200000
Values = 200000
```

```
[MISC]
KEY=150
loggerState=1
SUCCESS_STATUS=0
FAIL_STATUS=1
KEY_SALT=[REDACTED]
Certificate_Name=HclTech.iautomate.Web
IsSelfSigned=Y
enableCertificate=Y
IsJobupdateError=Y
retryCount=1
retrySleepTime=2000
hashAlgorithm = SHA256
retryCounter = 0
establishSecurityContext = N
certificateStoreLocation = 2
certificateStoreName = 7
certificateFindType = 1
EncryptionAlgorithm=aesgcm
EncryptionAlgorithm = aesgcm
```

Figure 140 - HCL.iAutomate.iUnique(cont.)

4. Remove the last entry that is duplicate for each key. In the above case delete the second entry of **VALUE = 20000**, **VALUES = 200000**, **EncryptionAlgorithm = aesgcm**. Similarly check for any other duplicate keys and remove the **last entry** and save the file.
5. Finally **restart** the service named **HCL.iAutomate.iUnique**

HCL.iAutomate.iUnique				
	Name	Description	Status	Startup Type
Stop the service Restart the service	HCL.iAutomate.iScript	Apache/2.4...	Running	Automatic
	HCL.iAutomate.iUnique	Apache/2.4...	Running	Automatic
	HCL.iAutomate.Listener	Service for L...	Running	Automatic

Figure 141 - HCL.iAutomate.iUnique(cont.)

2.17 Troubleshooting Steps for iCrawler (Advanced Knowledge component)

2.17.1 HCL.iAutomate.iCrawler service is not starting

Table 102 - iCrawler: Scenario 1

Issue Description	HCL.iAutomate.iCrawler service is not starting
Modules Impacted	iCrawler

Probable Root Cause	Invalid "iknowledgeCrawler.conf" file content
---------------------	---

Resolution Steps:

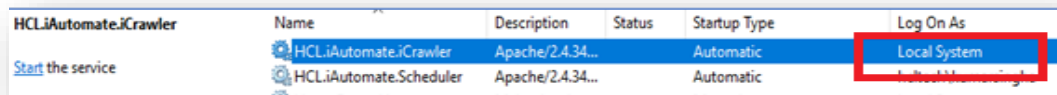
1. Check for existence of the file iknowledgeCrawler.conf at location [<Apache_Root_Folder_Path>/conf](#).
2. For e.g. - "[C:/Apache24/conf](#)" has [<Apache_Root_Folder_Path>](#) as "[C:/Apache24](#)".
3. Ensure that paths are mentioned correctly in the **iknowledgeCrawler.conf** file.
4. In the conf file, inside **<VirtualHost *>** tags, there are two lines that have path to the iCrawler directory as follows:

```
WSGIScriptAlias /iKnowledge <<Path to Crawler>>/crawler_v5/main.wsgi
<Directory <<Path to Crawler>>/crawler_v5>
```

5. Ensure that these paths are correct.

```
<VirtualHost *>
WSGIScriptAlias /iKnowledge C:/HCL.iAutomate.Crawler/crawler_v5/main.wsgi
SSLVerifyClient require
SSLVerifyDepth 10
<Directory C:/HCL.iAutomate.Crawler/crawler_v5 >
    WSGIApplicationGroup %{GLOBAL}
    Require all granted
</Directory>
</VirtualHost>
```

6. Ensure that service was created through Service Account and not through the Local Account. Refer to below figure to check the status.



Name	Description	Status	Startup Type	Log On As
HCL.iAutomate.iCrawler	Apache/2.4.34...	Automatic	Automatic	Local System
HCL.iAutomate.Scheduler	Apache/2.4.34...	Automatic	Automatic	Local System

Figure 142 - HCL.iAutomate.iCrawler

7. If not, open **Windows Command Prompt** in Administrator mode and run the below command:

```
sc config HCL.iAutomate.iCrawler obj= "ID" password= "PSWD"
```

where ID is the [Domain\SA ID] and PSWD is the [Password of SA] and SA is [Service Account].

8. 'Log On As' field corresponding to the service **HCL.iAutomate.iCrawler** should be changed to 'Service Account'. Click **Start** to start the service.

2.17.2 Service returns Internal Server Error - status code 500

Table 103 - iCrawler: Scenario 2

Issue Description	Service is reachable but returns Internal Server Error with status code 500
Modules Impacted	iCrawler
Probable Root Cause	Python package not available

Resolution Steps:

1. Check the Apache error log at <Apache_Root_Folder_Path>/logs/error.log.
2. If the error is because of the missing package, perform the following steps:
 - a. Open the Windows Command Prompt in the Administrative mode in [Apache_Root_Folder_Path](#):
 - b. If open internet access is available, run the below command:

```
pip install package_name
```

- c. If open internet access is not available, download wheel file for package from where user has internet connectivity and move onto server at same location where it needs to be installed. E.g. <https://pypi.org> has a repository of most used wheel files, else other sources are available as well. Subsequently, run the below command:

```
pip install package_name.whl
```

2.17.3 404 Resource Not Found

Table 104 - iCrawler: Scenario 3

Issue Description	Error message ' 404 Resource Not Found ' when iCrawler is hit.
Modules Impacted	iCrawler
Probable Root Cause	• Paths are not correct in iKnowledgeCrawler.conf • Port is not correct

Resolution Steps:

1. If the issue is due to the incorrect paths, refer to the resolution steps mentioned for issue a.
2. Also, check if the correct port is being used. To identify the correct port, perform the following steps:
 - Open **iKnowledgeCrawler.conf**
 - Search for Listen xxxx

e.g. – Here the image below shows the port set for iCrawler component is 9000

```
#  
Listen 9000  
# ports, instead of the default. See also the <VirtualHost>  
# directive
```

3. The set port is one where iCrawler is deployed.

2.17.4 Could not get any response

Table 105 - iCrawler: Scenario 4

Issue Description	Error message ' Could not get any response ' appears when iCrawler is being hit.
Modules Impacted	iCrawler
Probable Root Cause	HCL.iAutomate.iCrawler service is not running

Resolution Steps:

1. Press **Win+R**, type **services.msc** and press **Enter** to open Windows Services.

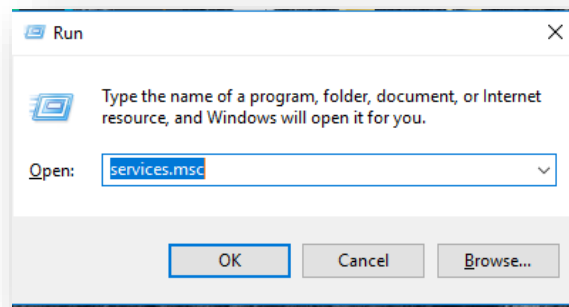


Figure 143 - HCL.iAutomate.iCrawler

2. Find service **HCL.iAutomate.iCrawler** and select it.
3. Click **Start** to start the service if it's not running already.

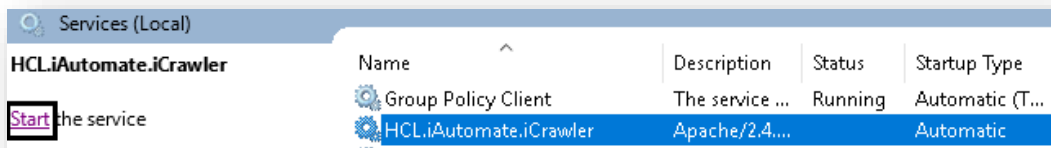


Figure 144 - HCL.iAutomate.iCrawler

2.17.5 Not able to reach the component

Table 106 - iCrawler: Scenario 5

Issue Description	Error message ' Not able to reach the component ' appears in job log details-step remarks column for crawler job in manage jobs page, also the status is in ' failed ' state
Modules Impacted	iCrawler
Probable Root Cause	Duplication of keys in .cfg files present in python files

Resolution Steps:

1. Check for existence of the file `iknowledgeCrawler.conf` at location `<APACHE_ROOT_FOLDER_PATH>/CONF`.
 2. At the bottom of `iknowledgeCrawler.conf` file you will find the path to the python files as highlighted in the below figure.
-

```

<VirtualHost *>
    WSGIScriptAlias /iKnowledge C:/i[REDACTED]main.wsgi
    SSLVerifyClient require
    SSLVerifyDepth 10
    <Directory C:/i[REDACTED]>
        WSGIApplicationGroup %{GLOBAL}
        Require all granted
    </Directory>
</VirtualHost>

```

Figure 145 - HCL.iAutomate.iCrawler (cont.)

3. Open the file icrawler.cfg from the location [<highlighted_path_in_fig_128>/config](#) and search for any duplicate keys present in the file. You can refer below keys for reference:

```

[MISC]
EncryptionAlgorithm = aesgcm
EncryptionAlgorithm=aesgcm
Certificate_Name = HclTech.iautomate.Web
Certificate_Name=HclTech.iautomate.Web

```

Figure 146 - HCL.iAutomate.iCrawler (cont.)

4. Remove the entry that is duplicate for each key. In the above case delete, the EncryptionAlgorithm = aesgcm and Certificate_Name = Hcltech.iautomate.Web, similarly, check for any other duplicate keys and remove the last entry and save the file.
5. Finally **restart** the service named **HCL.iAutomate.iCrawler**

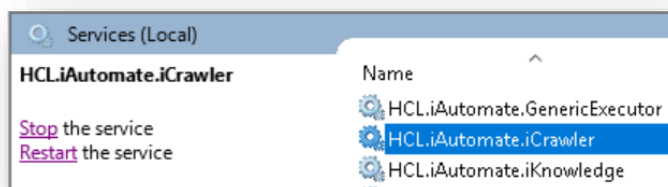


Figure 147 - HCL.iAutomate.iCrawler (cont.)

2.18 Troubleshooting Steps for iKnowledgeIndexer (Advanced Knowledge component)

iKnowledgeIndexer is an AdvancediKnowledge component that performs indexing over the data crawled by iCrawler and stores the indexed data in the database. It is a component developed using python and is hosted on Apache Web Server as a service under the name **HCL.iAutomate.iKnowledgeIndexer**.

2.18.1 HCL.iAutomate.iKnowledgeIndexer service is not starting

Table 107 – iKnowledgeIndexer: Scenario 1

Issue Description	HCL.iAutomate.iKnowledgeIndexer service is not starting
Modules Impacted	iKnowledgeIndexer
Probable Root Cause	Invalid “iKnowledgeIndexer.conf” file content

Resolution Steps:

1. Check for existence of the file **iKnowledgeIndexer.conf** at location *<Apache_Root_Folder_Path>/conf*.
2. For e.g. - “C:/Apache24/conf” has *<Apache_Root_Folder_Path>* as “C:/Apache24”
3. Verify the contents of file **iKnowledgeIndexer.conf** by checking the snippet with paths to **<< iKnowledgeIndexer_Directory>>**. Verify and change the **<VirtualHost *>** tag with correct path entries to **<< iKnowledgeIndexer_Directory>>** as shown below. Where **<< iKnowledgeIndexer_Directory>>** is “C:/HCL.iAutomate.AdvancediKnowledge/iKnowledge_Indexer” in the snippet from iKnowledgeIndexer.conf.

```
<VirtualHost *>
    WSGIScriptAlias /iAutomate C:/iAutomate/Comp/HCL.iAutomate.iParse
    /IParse/iparse/app.wsgi
    SSLVerifyClient require
    SSLVerifyDepth 10
    <Directory C:/iAutomate/Comp/HCL.iAutomate.iParse/IParse/iparse>
        WSGIApplicationGroup %{GLOBAL}
        Require all granted
    </Directory>
</VirtualHost>
```

4. Ensure that service was created through **Service Account** and not through Local account. Refer to below figure to check the status.

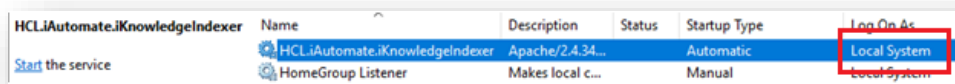


Figure 148 - HCL.iAutomate.iKnowledgeIndexer

5. If not, open **Windows Command Prompt** in Administrator mode and run the below command:

```
sc config HCL.iAutomate.iKnowledgeIndexer obj= "ID" password= "PSWD"
```

where ID is the [Domain\SA ID] and PSWD is the [Password of SA] and SA is [Service Account].

6. ‘**Log On As**’ field corresponding to the service HCL.iAutomate.iKnowledgeIndexer should be changed to ‘**Service Account**’. Click **Start** to start the service.

2.18.2 Service returns Internal Server Error - status code 500

Table 108 - iKnowledgeIndexer: Scenario 2

Issue Description	Service is reachable but returns Internal Server Error with status code 500
--------------------------	---

Modules Impacted	iKnowledgeIndexer
Probable Root Cause	Python package not available

Resolution Steps

1. Check the Apache error log at <Apache_Root_Folder_Path>/logs/error.log.
2. If the error is because of the missing package, perform the following steps:
 - a. Open Windows Command Prompt in Administrative mode in [Apache_Root_Folder_Path](#)..
 - b. If open internet access is available, run the below command:

```
pip install package_name
```

3. If open internet access is not available, download wheel file for package from where user has internet connectivity and move onto server at same location where it needs to be installed. E.g. <https://pypi.org> has a repository of most used wheel files, else other sources are available as well. Subsequently, run the below command:

```
pip install package_name.whl
```

2.18.3 'Could not get any response'

Table 109 - iKnowledgeIndexer: Scenario 3

Issue Description	Error message 'Could not get any response' appears when iKnowledgeIndexer is being hit
Modules Impacted	iKnowledgeIndexer
Probable Root Cause	HCL.iAutomate.iKnowledgeIndexer service is not running

Resolution Steps:

1. Press **Win+R**, type **services.msc** and press **Enter** to open Windows Services.

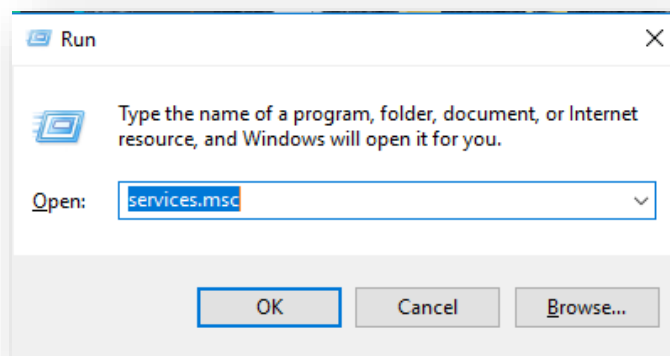


Figure 149 - HCL.iAutomate.iKnowledgeIndexer

2. Find service HCL.iAutomate.iKnowledgeIndexer and select it.
3. Click **Start** to start the service, if it's not running already.

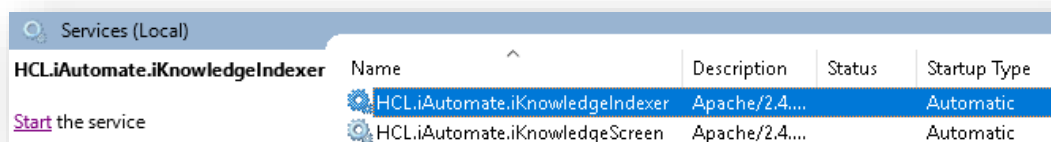


Figure 150 - HCL.iAutomate.iKnowledgeIndexer (cont.)

2.18.4 404 Resource Not Found

Table 110 - iKnowledgeIndexer: Scenario 4

Issue Description	Error message ' 404 Resource Not Found ' when iKnowledgeIndexer is hit
Modules Impacted	iKnowledgeIndexer
Probable Root Cause	• Paths are not correct in iKnowledgeIndexer.conf • Port is not correct

Resolution Steps:

1. If the issue is due to the incorrect paths, refer to the resolution steps mentioned for issue a.
2. Also, check if the correct port is being used. To identify the correct port, perform the following steps:

- **Open iKnowledgeIndexer.conf**
- **Search for Listen xxxx**

e.g. – Here the image below shows the port set for KnowledgeIndexer component is 9000.

```
#
Listen 9000
# ports, instead of the default. See also the <VirtualHost>
# directive
```

3. The set port is one where **iKnowledgeIndexer** is deployed.

2.18.5 Data not getting indexed

Table 111 - iKnowledgeIndexer: Scenario 5

Issue Description	Data is not getting indexed
Modules Impacted	iKnowledge
Probable Root Cause	Python packages are not available or having different version

Resolution Steps:

1. Check the Apache error log at <Apache_Root_Folder_Path>/logs/error.log.
2. If the error comes because of the spacy package, perform the following steps:
 - Check the spacy version in this path C:/Python310/Lib/site-packages. If the version is mismatched as mentioned in pre-requisite or more than one version of same package present in this path. Then follow the steps below.
 - First uninstall python and follow the installation steps again as mentioned in pre-requisite document and ensure that spacy folder is placed in desired location.

2.18.6 Solr task failed

Table 112 - iKnowledgeIndexer: Scenario 6

Issue Description	Error message “ Solr task failed ” comes, when iKnowledgeIndexer is hit
Modules Impacted	iKnowledge
Probable Root Cause	This might be an issue related to Solr username and password are not configured correct.

Resolution Steps

1. Check the Solr username and password in the database and change it with correct one.

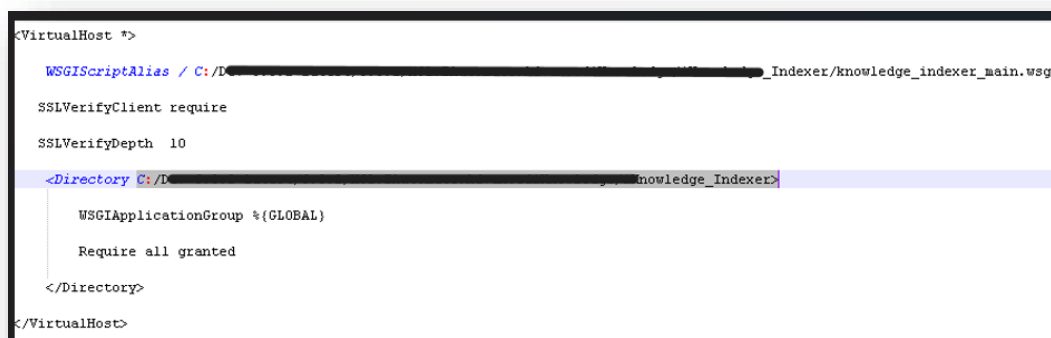
2.18.7 Not able to reach the component

Table 113 - iKnowledgeIndexer: Scenario 7

Issue Description	Error message ‘ Not able to reach the component ’ appears in job log details - step remarks column for Indexer job in manage jobs page, also the status is in ‘ failed ’ state
Modules Impacted	iKnowledge Indexer
Probable Root Cause	Duplication of keys in .cfg files present in python files

Resolution Steps:

1. Check for existence of the file iKnowledgeIndexer.conf at location *<Apache_Root_Folder_Path>/conf*.
2. At the bottom of iKnowledgeIndexer.conf file you will find the path to the python files as highlighted in the below figure.



```
<VirtualHost *>
    WSGIScriptAlias / C:/D:/[redacted]_Indexer/knowledge_indexer_main.wsgi
    SSLVerifyClient require
    SSLVerifyDepth 10
    <Directory C:/D:/[redacted]_Indexer/knowledge_indexer>
        WSGIApplicationGroup %{GLOBAL}
        Require all granted
    </Directory>
</VirtualHost>
```

Figure 151 - HCL.iAutomate.iKnowledgeIndexer(cont.)

3. Open the file INDEXER.cfg from the location *<highlighted_path_in_fig_128>* and search for any duplicate keys present in the file. You can refer to the keys below for reference:

```
[MISC]
EncryptionAlgorithm=aesgcm
Certificate_Name=HclItech.iAutomate.Web
IsSelfSigned = Y
enableCertificate = Y
retryCount = 1
retrySleepTime = 2000
retryCounter = 0
hashAlgorithm = SHA256
establishSecurityContext = N
certificateStoreLocation = 2
certificateStoreName = 7
certificateFindType = 1
EncryptionAlgorithm = aesgcm
```

Figure 152 - HCL.iAutomate.iKnowledgeIndexer (cont.)

4. Remove the last entry that is duplicate for each key. In the above case delete the second entry of **EncryptionAlgorithm = aesgcm**. Similarly check for any other duplicate keys and remove the last entry and save the file.
5. Finally **restart** the service named **HCL.iAutomate.iKnowledgeIndexer**

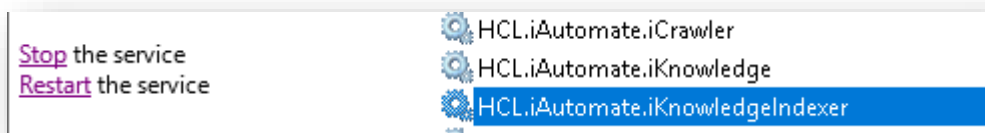


Figure 153 - HCL.iAutomate.iKnowledgeIndexer (cont.)

2.19 Troubleshooting Steps for iKnowledgeSearch (Advanced Knowledge component)

iKnowledgeSearch is an AdvancediKnowledge component that enables a user to perform document search based on search query. It is a component developed using python and is hosted on Apache Web Service as a service under the name **HCL.iAutomate.iKnowledgeSearch**.

2.19.1 HCL.iAutomate.iKnowledgeSearch service is not starting

Table 114 - iKnowledgeSearch: Scenario 1

Issue Description	HCL.iAutomate.iKnowledgeSearch service is not starting
Modules Impacted	iKnowledgeSearch
Probable Root Cause	Invalid "iKnowledgeSearch.conf" file content

Resolution Steps:

1. Check for existence of the file **iKnowledgeSearch.conf** at location *<Apache_Root_Folder_Path>/conf*.
For e.g. - "C:/Apache24/conf" has *<Apache_Root_Folder_Path>* as "C:/Apache24"
2. Verify the contents of file **iKnowledgeSearch.conf** by checking the snippet with paths to *<< iKnowledgeSearch_Directory>>*. Verify and change the *<VirtualHost *>* tag with correct path entries to *<<*

iKnowledgeSearch_Directory>> as shown below. Where **<< iKnowledgeSearch_Directory>>** is **"C:/HCL.iAutomate.AdvancediKnowledge/iKnowledge_Search"** in the snippet from iKnowledgeSearch.conf.

```
<VirtualHost *>
    WSGIScriptAlias /iKnowledge
    C:/HCL.iAutomate.AdvancediKnowledge/iKnowledge_Search/search_main.wsgi
    SSLVerifyClient require
    SSLVerifyDepth 10
    <Directory C:/HCL.iAutomate.AdvancediKnowledge/iKnowledge_Search>
        WSGIApplicationGroup %{GLOBAL}
        Require all granted
    </Directory>
</VirtualHost>
```

3. Ensure that service was created through **Service Account** and not through Local account. Refer to below figure to check the status.

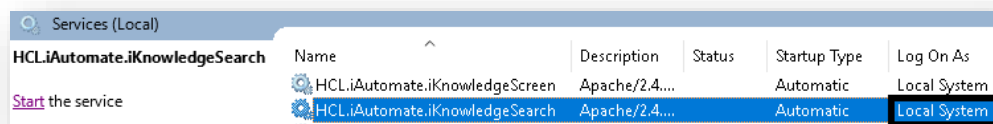


Figure 154 - HCL.iAutomate.iKnowledgeSearch

4. If not, open **Windows Command Prompt in Administrator** mode and run the below command:

```
sc config HCL.iAutomate.iKnowledgeSearch obj= "ID" password= "PSWD"
```

where ID is the [Domain\SA ID] and PSWD is the [Password of SA] and SA is [Service Account].

5. 'Log On As' field corresponding to the service **HCL.iAutomate.iKnowledgeSearch** should be changed to '**Service Account**'.
6. Click **Start** to start the service.

2.19.2 Service returns Internal Server Error - status code 500

Table 115 - iKnowledgeSearch: Scenario 2

Issue Description	Service is reachable but returns Internal Server Error with status code 500.
Modules Impacted	iScript
Probable Root Cause	Python package not available

Resolution Steps:

1. Check the Apache error log at <Apache_Root_Folder_Path>/logs/error.log.
2. If the error is because of the missing package, perform the following steps:
 - Open Windows Command Prompt in Administrative mode in *Apache_Root_Folder_Path*.
 - If open internet access is available, run the below command:

```
pip install package_name
```

- If open internet access is not available, download the wheel file for package from where user has internet connectivity and move onto server at same location where it needs to be installed. E.g. <https://pypi.org> has a repository of most used wheel files, else other sources are available as well. Subsequently, run the below command:

```
pip install package_name.whl
```

2.19.3 404 Resource Not Found

Table 116 - iKnowledgeSearch: Scenario 3

Issue Description	Error message ' 404 Resource Not Found ' when iKnowledgeSearch is hit
Modules Impacted	iKnowledgeSearch
Probable Root Cause	• Paths are not correct in iKnowledgeSearch.conf • Port is not correct

Resolution Steps:

1. If the issue is due to the incorrect paths, refer to resolution steps mentioned for Table 114 - iKnowledgeSearch: Scenario 1
2. Also, check if correct port is being used. To identify the correct port, perform the following steps:
 - **Open iKnowledgeSearch.conf**
 - **Search for Listen xxxx**

e.g. – Here the image below shows the port set for iKnowledgeSearch component is 9000.

```
#  
Listen 9000  
# ports, instead of the default. See also the <VirtualHost>  
# directive
```

3. The set port is one where iKnowledgeSearch is deployed.

2.19.4 Could not get any response

Table 117 - iKnowledgeSearch: Scenario 4

Issue Description	Error message ' Could not get any response ' appears when iKnowledgeSearch is being hit.
Modules Impacted	iKnowledgeSearch
Probable Root Cause	HCL.iAutomate. iKnowledgeSearch service is not running

Resolution Steps:

1. Press **Win+R**, type **services.msc** and press Enter to open Windows Services.

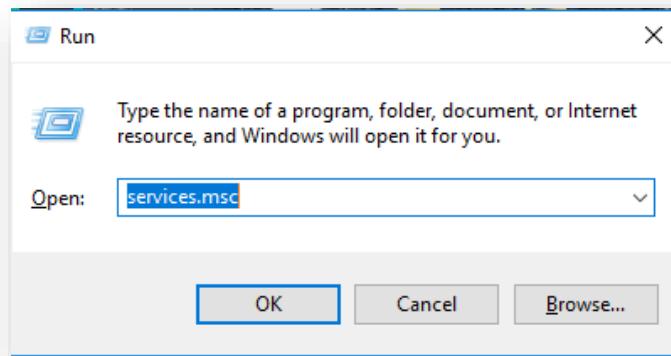


Figure 155 - HCL.iAutomate. iKnowledgeSearch

2. Find service HCL.iAutomate.iKnowledgeSearch and select it.
3. Click **Start** to start the service, if it's not running already.

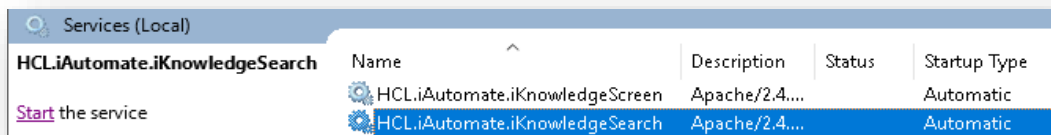


Figure 156 - HCL.iAutomate. iKnowledgeSearch (cont.)

2.19.5 Not able to reach the component

Table 118 - iKnowledgeSearch: Scenario 5

Issue Description	Error message ' Not able to reach the component ' appears in job log details. "No results found" is displayed in Knowledge Search page.
Modules Impacted	iKnowledge Search
Probable Root Cause	Duplication of keys in .cfg files present in python files

Resolution Steps:

1. Check for existence of the file iKnowledgeSearch.conf at location *<Apache_Root_Folder_Path>/conf*.
2. At the bottom of iKnowledgeSearch.conf file you will find the path to the python files as highlighted in the below figure.

```

<VirtualHost *>

    WSGIScriptAlias / C:/D:/[redacted]edge/iKnowledge_Search/search_main.wsgi

    SSLVerifyClient require

    SSLVerifyDepth 10

    <Directory C:/D/[redacted]Knowledge_Search>

        WSGIApplicationGroup %{GLOBAL}

        Require all granted

    </Directory>

</VirtualHost>

```

Figure 157 - HCL.iAutomate.iKnowledgeSearch (cont.)

- Open the file IKNOWLEDGE_SEARCH.cfg from the location [highlighted_path_in_fig_128](#) and search for any duplicate keys present in the file. You can refer below keys for reference:

```

[MISC]
EncryptionAlgorithm = aesgcm
isSelfSigned = 1
enableCertificate = Y
Certificate_Name=HclTech.iautomate.Web
CERT_API_PEM_KEY_PATH = C:\Program Files\certificate\server.pem
retryCount = 1
retrySleepTime = 2000
retryCounter = 0
hashAlgorithm = SHA256
establishSecurityContext = N
certificateStoreLocation = 2
certificateStoreName = 7
certificateFindType = 1
EncryptionAlgorithm=aesgcm

```

Figure 158 - HCL.iAutomate.iKnowledgeSearch (cont.)

- Remove the last entry that is duplicate for each key. In the above case delete the second entry of **EncryptionAlgorithm = aesgcm**. Similarly check for any other duplicate keys and remove the last entry and save the file.
- Finally **restart** the service named **HCL.iAutomate.iKnowledgeSearch**

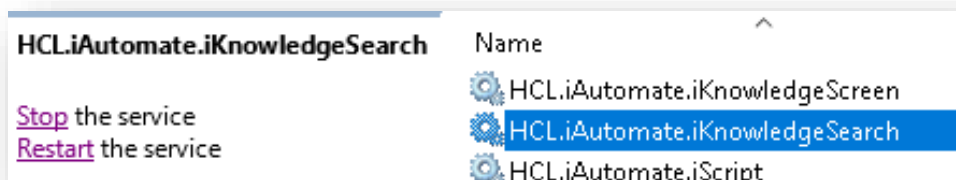


Figure 159 - HCL.iAutomate.iKnowledgeSearch (cont.)

2.20 Troubleshooting Steps for iKnowledgeScreen (Advanced Knowledge component)

iKnowledgeScreen is an AdvancediKnowledge component composing of screen APIs for the analysis of the documents indexed by the iKnowldegIndexer. It is a component developed using python and is hosted on Apache Web Server as a service under the name **HCL.iAutomate.iKnowledgeScreen**.

2.20.1 HCL.iAutomate.iKnowledgeScreen service is not starting

Table 119 - iKnowledgeScreen: Scenario 1

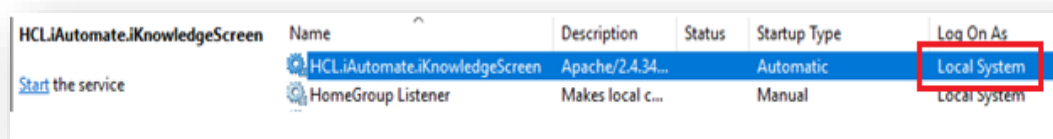
Issue Description	HCL.iAutomate.iKnowledgeScreen service is not starting
Modules Impacted	iKnowledgeScreen
Probable Root Cause	Invalid "iKnowledgeScreen.conf" file content

Resolution Steps:

1. Check for existence of the file **iKnowledgeScreen.conf** at location `<Apache_Root_Folder_Path>/conf`.
For e.g. - `"C:/Apache24/conf"` has `<Apache_Root_Folder_Path>` as `"C:/Apache24"`.
2. Verify the contents of file **iKnowledgeScreen.conf** by checking the snippet with paths to `<< iKnowledgeScreen_Directory>>`. Verify and change the `<VirtualHost *>` tag with correct path entries to `<< iKnowledgeScreen_Directory>>` as shown below. Where `<< iKnowledgeSearch_Directory>>` is `C:/HCL.iAutomate.AdvancediKnowledge/iKnowledge_Screen` in the snippet from **iKnowledgeSearch.conf**.

```
<VirtualHost *>
    WSGIScriptAlias / C:/ HCL.iAutomate.AdvancediKnowledge/iKnowledgeScreen
/knowledge_screen_main.wsgi
    SSLVerifyClient require
    SSLVerifyDepth 10
    <Directory C:/HCL.iAutomate.AdvancediKnowledg/iKnowledgeScreen>
        WSGIApplicationGroup %{GLOBAL}
        Require all granted
    </Directory>
</VirtualHost>
```

3. Ensure that service was created through **Service Account** and not through Local account. Refer to the figure below to check the status.



HCL.iAutomate.iKnowledgeScreen	Name	Description	Status	Startup Type	Log On As
Start the service	HCL.iAutomate.iKnowledgeScreen	Apache/2.4.34...		Automatic	Local System
	HomeGroup Listener	Makes local c...		Manual	Local system

Figure 160 - HCL.iAutomate.iKnowledgeScreen

4. If not, open **Windows Command Prompt** in Administrator mode and run the below command:

```
sc config HCL.iAutomate.iKnowledgeScreen obj= "ID" password= "PSWD"
```

where ID is the [Domain\SA ID] and PSWD is the [Password of SA] and SA is

```
[Service Account].
```

'Log On As' field corresponding to the service **HCL.iAutomate.iKnowledgeSearch** should be changed to 'Service Account'.

Click **Start** to start the service.

2.20.2 Service returns Internal Server Error - status code 500

Table 120 - iKnowledgeScreen: Scenario 2

Issue Description	Service is reachable but returns Internal Server Error with status code 500
Modules Impacted	iKnowledgeScreen
Probable Root Cause	Library is missing

Resolution Steps:

1. Check the Apache error log at `<Apache_Root_Folder_Path>/logs/error.log`.
2. If the error is because of the missing package, perform the following steps:
 - Open Windows Command Prompt in Administrative mode in `Apache_Root_Folder_Path`:
 - If open internet access is available, run the below command:

```
pip install package_name
```

- If open internet access is not available, download wheel file for package from where user has internet connectivity and move onto server at same location where it needs to be installed. E.g. <https://pypi.org> has a repository of most used wheel files, else other sources are available as well. Subsequently, run the below command:

```
pip install package_name.whl
```

2.20.3 404 Resource Not Found

Table 121 - iKnowledgeScreen: Scenario 3

Issue Description	Error message ' 404 Resource Not Found ' when iKnowledgeScreen is hit
Modules Impacted	iKnowledgeScreen
Probable Root Cause	• Paths are not correct in iKnowledgeScreen.conf • Port is not correct

Resolution Steps:

1. If the issue is due to the incorrect paths, refer to resolution steps mentioned in Table 119 - iKnowledgeScreen: Scenario 1.
2. Also, check if correct port is being used. To identify the correct port, perform the following steps:
 - Open **iKnowledgeSearch.conf**
 - Search for **Listen xxxx**

e.g. – Here the image below shows the port set for iKnowledgeSearch component is 9000.

```
#  
Listen 9000  
# ports, instead of the default. See also the <VirtualHost>
```

```
# directive
```

3. The set port is one where iKnowledgeScreen is deployed.

2.20.4 Could not get any response

Table 122 - iKnowledgeScreen: Scenario 4

Issue Description	Error message ' Could not get any response ' appears when iKnowledgeScreen is being hit.
Modules Impacted	iKnowledgeScreen
Probable Root Cause	HCL.iAutomate. iKnowledgeScreen service is not running

Resolution Steps:

1. Press **Win+R**, type **services.msc** and press **Enter** to open Windows Services.

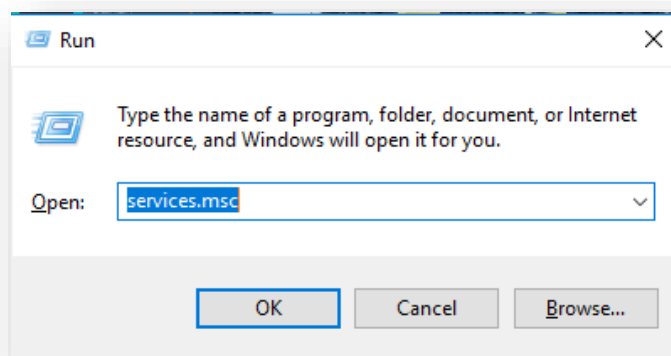


Figure 161 - HCL.iAutomate. iKnowledgeScreen

2. Find service HCL.iAutomate.iKnowledgeScreen and select it.
3. Click **Start** to start the service if it's not running already.

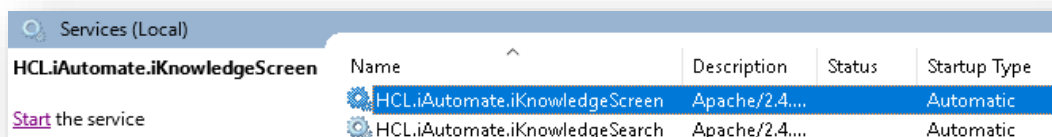


Figure 162 - HCL.iAutomate. iKnowledgeScreen

2.20.5 Not able to reach the component

Table 123 - iKnowledgeScreen: Scenario 5

Issue Description	Error message ' Not able to reach the component ' appears in job log details. "No results found" is displayed in Knowledge Analysis page.
Modules Impacted	iKnowledge Screen
Probable Root Cause	Duplication of keys in .cfg files present in python files

Resolution Steps:

1. Check for existence of the file iKnowledgeScreen.conf at location `<APACHE_ROOT_FOLDER_PATH>/CONF.`

- At the bottom of iKnowledgeScreen.conf file you will find the path to the python files as highlighted in the below figure.

```
<VirtualHost *>
    WSGIScriptAlias / C:/D:/[redacted]nowledge/iKnowledge_Screen/knowledge_screen_main.wsgi

    SSLVerifyClient require

    SSLVerifyDepth 10

    <Directory C:/D/[redacted]/iKnowledge_Screen>
        WSGIApplicationGroup %{GLOBAL}
        Require all granted
    </Directory>
</VirtualHost>
```

Figure 163 - HCL.iAutomate.iKnowledgeScreen (cont.)

- Open the file IKNOWLEDGE_SCREEN.cfg from the location [highlighted_path_in_fig_128](#) and search for any duplicate keys present in the file. You can refer below keys for reference:

```
[MISC]
EncryptionAlgorithm=aesgcm
isSelfSigned = Y
enableCertificate = Y
Certificate_Name=HclTech.iautomate.Web
retryCount = 1
retrySleepTime = 2000
retryCounter = 0
hashAlgorithm = SHA256
establishSecurityContext = N
certificateStoreLocation = 2
certificateStoreName = 7
certificateFindType = 1
EncryptionAlgorithm = aesgcm
```

Figure 164 - HCL.iAutomate.iKnowledgeScreen (cont.)

- Remove the last entry that is duplicate for each key. In the above case delete the second entry of **EncryptionAlgorithm = aesgcm**. Similarly check for any other duplicate keys and remove the last entry and save the file.
- Finally **restart** the service named **HCL.iAutomate.iKnowledgeScreen**

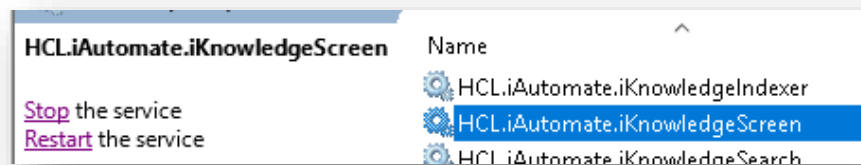


Figure 165 - HCL.iAutomate.iKnowledgeScreen (cont.)

2.21 Troubleshooting Steps for iKnowledgeRating

iKnowledgeRating is an AdvancediKnowledge component that helps in storing the document rating given by the users for a knowledge article on the GUI, in a database. It is a component developed using python and is hosted on Apache Web Server as a service under the name **HCL.iAutomate.RatingMongo**.

2.21.1 HCL.iAutomate.RatingMongo service is not starting

Table 124 - iKnowledgeRating: Scenario 1

Issue Description	HCL.iAutomate.RatingMongo service is not starting
Modules Impacted	iKnowledgeRating
Probable Root Cause	Invalid “RatingMongo.conf” file content

Resolution Steps:

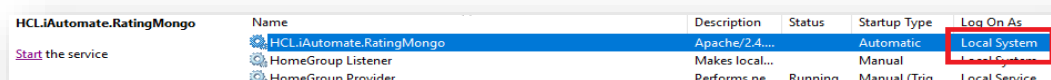
1. Check for existence of the file RatingMongo.conf at location <Apache_Root_Folder_Path>/conf.
2. For e.g. - “C:/Apache24/conf” has <Apache_Root_Folder_Path> as “C:/Apache24”
3. Verify the contents of file **RatingMongo.conf** by checking the snippet with paths to << iKnowledgeRating_Directory>>. Verify and change the <VirtualHost *> tag with correct path entries to << iKnowledgeRating_Directory>> as shown below. Where << iKnowledgeRating_Directory>> is “C:/HCL.iAutomate.iKnowledgeRating” in the snippet from RatingMongo.conf.

```
<VirtualHost *>
    WSGIScriptAlias /iKnowledge
C:/HCL.iAutomate.iKnowledgeRating/iKnowledge_Rating/app.wsgi
    SSLVerifyClient require
    SSLVerifyDepth 10
    <Directory C:/HCL.iAutomate.iKnowledgeRating/iKnowledge_Rating >

        WSGIApplicationGroup %{GLOBAL}

        Require all granted
    </Directory>
</VirtualHost>
```

4. Ensure that service was created through Service Account and not through Local account. Refer to below figure to check the status.



HCL.iAutomate.RatingMongo	Name	Description	Status	Startup Type	Log On As
Start the service	HCL.iAutomate.RatingMongo	Apache/2.4...		Automatic	Local System
	HomeGroup Listener	Makes local...		Manual	Local System
	HomeGroup Provider	Perform ne...	Running	Manual (Trin...	Local Service

Figure 166 - HCL.iAutomate.RatingMongo

5. If not, open **Windows Command Prompt** in Administrator mode and run the below command:

```
sc config HCL.iAutomate.RatingMongo obj= "ID" password= "PSWD"
```

where ID is the [Domain\SA ID] and PSWD is the [Password of SA] and SA is [Service Account].

'Log On As' field corresponding to the service **HCL.iAutomate.RatingMongo** should be changed to 'Service Account'. Click **Start** to start the service.

2.21.2 Service returns Internal Server Error - status code 500

Table 125 - iKnowledgeRating: Scenario 2

Issue Description	Service is reachable but returns Internal Server Error with status code 500.
Modules Impacted	iKnowledgeRating
Probable Root Cause	Library is missing

Resolution Steps:

1. Check the Apache error log at <Apache_Root_Folder_Path>/logs/error.log.
2. If the error is because of the missing package, perform the following steps:
 - Open Windows Command Prompt in Administrative mode in [Apache_Root_Folder_Path](#).
 - If open internet access is available, run the below command:

```
pip install package_name
```

- If open internet access is not available, download the wheel file for package from where user has internet connectivity and move onto server at same location where it needs to be installed. E.g. <https://pypi.org> has a repository of most used wheel files, else other sources are available as well. Subsequently, run the below command:

```
pip install package_name.whl
```

2.21.3 404 Resource Not Found

Table 126 - iKnowledgeRating: Scenario 3

Issue Description	Error message ' 404 Resource Not Found ' when iKnowledgeRating API is hit
Modules Impacted	iKnowledgeRating
Probable Root Cause	• Paths are not correct in RatingMongo.conf • Port is not correct

Resolution Steps:

1. If the issue is due to the incorrect paths, refer to the resolution steps mentioned for issue - [iKnowledgeRating: Scenario 1](#).
2. Also, check if the correct port is being used. To identify the correct port, perform the following steps:
 - Open RatingMongo.conf
 - Search for **Listen xxxx**e.g. – Here the image below shows the port set for iKnowledgeRating component is 9000.

```
#  
Listen 9000  
# ports, instead of the default. See also the <VirtualHost>
```

```
# directive
```

3. The set port is one where iKnowledgeRating is deployed.

2.21.4 Could not get any response

Table 127 - iKnowledgeRating: Scenario 4

Issue Description	Error message ' Could not get any response ' appears when iKnowledgeRating is being hit
Modules Impacted	iKnowledgeRating
Probable Root Cause	HCL.iAutomate. iKnowledgeRating service is not running

Resolution Steps:

1. Press **Win+R**, type **services.msc** and press **Enter** to open Windows Services.

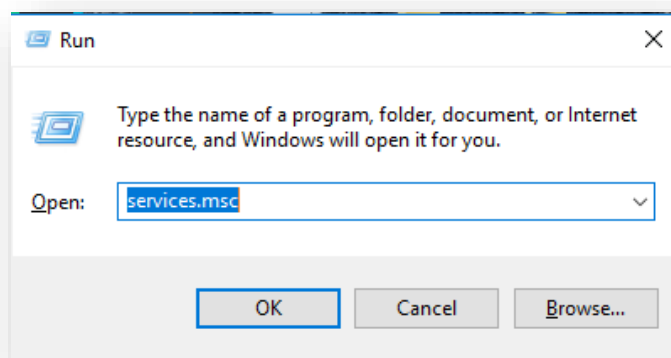


Figure 167 – iKnowledgeRating

2. Find service **HCL.iAutomate. RatingMongo** and select it.
3. Click **Start** to start the service if it's not running already.

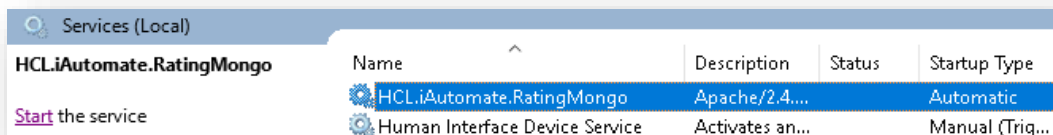


Figure 168 – iKnowledgeRating (cont.)

2.22 Troubleshooting Steps for iKnowledge

iKnowledge is the component that helps in fetching Knowledge articles based on a specific ticket context or a search query provided by the user. In a scenario where no articles are returned from existing internal repositories, iKnowledge automatically fetches the results from web-based data repositories. It is developed using python and is hosted on Apache Web Server as a service under the name **HCL.iAutomate.iKnowledge**.

2.22.1 HCL.iAutomate.iKnowledge service is not starting

Table 128 - iKnowledge: Scenario 1

Issue Description	HCL.iAutomate.iKnowledge service is not starting
Modules Impacted	iKnowledge
Probable Root Cause	Invalid “iKnowledge.conf” file content

Resolution Steps:

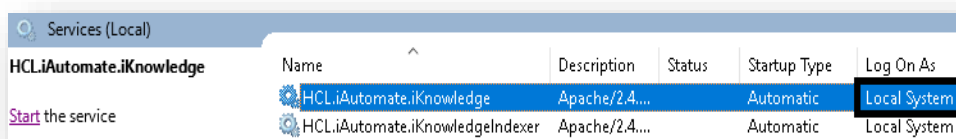
1. Check for existence of the file **iKnowledge.conf** at location <Apache_Root_Folder_Path>/conf.
2. For e.g. - “C:/Apache24/conf” has <Apache_Root_Folder_Path> as “C:/Apache24”.
3. Verify the contents of file **iKnowledge.conf** by checking the snippet with paths to << iKnowledge_Directory>>.

Verify and change the <VirtualHost *> tag with correct path entries to << iKnowledge_Directory>> as shown below. Where << iKnowledge_Directory>> is “C:/HCL.iAutomate.iKnowledge” in the snippet from iKnowledge.conf

```
<VirtualHost *>
    WSGIScriptAlias /iAutomate
    C:/iAutomate/Comp/HCL.iAutomate.iKnowledge/knowledge_v4/
    rest.wsgi
    SSLVerifyClient require
    SSLVerifyDepth 10
    <Directory C:/iAutomate/Comp/HCL.iAutomate.iKnowledge/ knowledge_v4>

    WSGIApplicationGroup %{GLOBAL}
    Require all granted
</Directory>
</VirtualHost>
```

4. Ensure that service was created through Service Account and not through Local account. Refer to below figure to check the status.



Services (Local)					
	Name	Description	Status	Startup Type	Log On As
Start the service	HCL.iAutomate.iKnowledge	Apache/2.4...		Automatic	Local System
	HCL.iAutomate.iKnowledgeIndexer	Apache/2.4...		Automatic	Local System

Figure 169 - HCL.iAutomate.iKnowledge

5. If not, open **Windows Command Prompt** in Administrator mode and run the below command:

```
sc config HCL.iAutomate.iKnowledge obj= "ID" password= "PSWD"
```

where ID is the [Domain\SA ID] and PSWD is the [Password of SA] and SA is [Service Account].

‘Log On As’ field corresponding to the service **HCL.iAutomate.iKnowledge** should be changed to ‘Service Account’. Click **Start** to start the service.

2.22.2 Service returns Internal Server Error - status code 500

Table 129 - iKnowledge: Scenario 2

Issue Description	Service is reachable but returns Internal Server Error with status code 500
Modules Impacted	iKnowledge
Probable Root Cause	Python package not available

Resolution Steps:

1. Check the Apache error log at [<Apache_Root_Folder_Path>/logs/error.log](#).
2. If the error is because of the missing package, perform the following steps:
 - Open Windows Command Prompt in Administrative mode in [Apache_Root_Folder_Path](#).
 - If open internet access is available, run the below command:

```
pip install package_name
```

- If open internet access is not available, download the wheel file for package from where user has internet connectivity and move onto server at same location where it needs to be installed. E.g. <https://pypi.org> has a repository of most used wheel files, else other sources are available as well. Subsequently, run the command below:

```
pip install package_name.whl
```

2.22.3 404 Resource Not Found

Table 130 - iKnowledge: Scenario 3

Issue Description	Error message ' 404 Resource Not Found ' when iKnowledge is hit
Modules Impacted	iKnowledge
Probable Root Cause	• Paths are not correct in iKnowledge.conf • Port is not correct

Resolution Steps:

1. If the issue is due to the incorrect paths, refer to resolution steps mentioned for Table 128 - iKnowledge: Scenario 1
2. Also, check if the correct port is being used. To identify the correct port, perform the following steps:

- Open iKnowledge.conf
- Search for Listen xxxx

e.g. – Here the image below shows the port set for iKnowledge component is 9000.

```
#  
Listen 9000  
# ports, instead of the default. See also the <VirtualHost>  
# directive
```

3. The set port is one where iKnowledge is deployed.

2.22.4 Could not get any response

Table 131 - iKnowledge: Scenario 4

Issue Description	Error message ' Could not get any response ' appears when iKnowledge is being hit
Modules Impacted	iKnowledge
Probable Root Cause	HCL.iAutomate. iKnowledge service is not running

Resolution Steps:

1. Press **Win+R**., type **services.msc** and press **Enter** to open Windows Services.

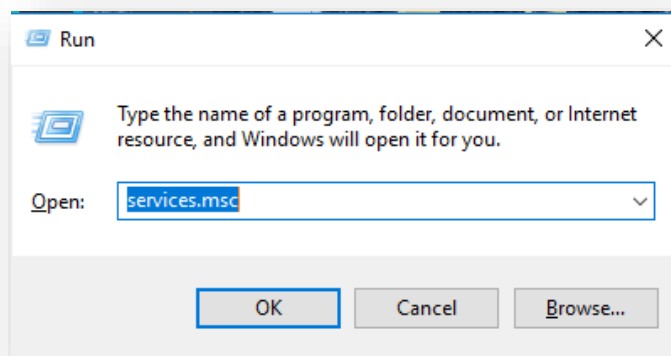


Figure 170 - HCL.iAutomate. iKnowledge service

2. Find service **HCL.iAutomate. iKnowledge** and select it.
3. Click **Start** to start the service if it's not running already.

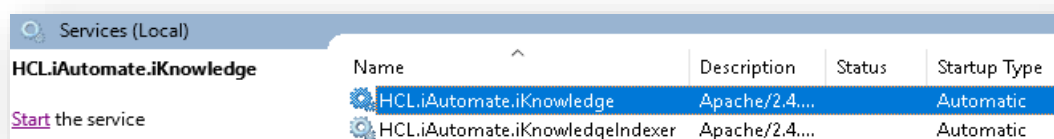


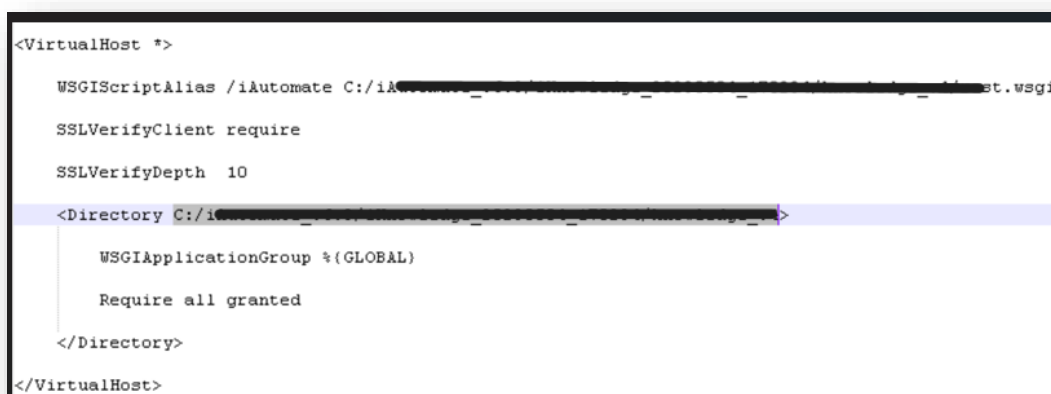
Figure 171 - HCL.iAutomate. iKnowledge service (cont.)

Table 132 - iKnowledge: Scenario 5

Issue Description	Error message ' Not able to reach the component ' appears for knowledge service in product configuration page.
Modules Impacted	Basic knowledge
Probable Root Cause	Duplication of keys in .cfg files present in python files

Resolution Steps:

1. Check for existence of the file **iKnowledge.conf** at location *<Apache_Root_Folder_Path>/Conf*
2. At the bottom of **iknowledge.conf** file, you will find the path to the python files as highlighted in the below figure.



```

<VirtualHost *>

    WSGIScriptAlias /iAutomate C:/iAutomate/Python/iknowledge.py
    SSLVerifyClient require
    SSLVerifyDepth 10

    <Directory C:/iAutomate/Python/iknowledge.py>
        WSGIApplicationGroup %{GLOBAL}
        Require all granted
    </Directory>
</VirtualHost>

```

Figure 172 - HCL.iAutomate.iKnowledge(cont.)

3. Open the file **iknowledge.cfg** from the location *<highlighted_path_in_fig_128>* and search for any duplicate keys present in the file. You can refer to the keys below for reference:



```

[GOOGLEAPI]
google_api_url=https://www.googleapis.com
google_api_url = https://www.googleapis.com

```

Figure 173 - HCL.iAutomate.iKnowledge(cont.)

4. Remove the entry that is duplicate for each key. In the above case delete, the
5. **google_api_url = https://www.googleapis.com** . Similarly check for any other duplicate keys and remove the last entry and save the file.
6. Finally **restart** the service named **HCL.iAutomate.iknowledge in services.msc**



Figure 174 - HCL.iAutomate.iKnowledge(cont.)

2.23 Troubleshooting Steps for Python

Python is a prerequisite, required to run multiple components of iAutomate. In any scenario, a persisting issue with python can impact the functioning of these modules of iAutomate. Generic troubleshooting for Python can be reached at various resources on web. Below are some specific issues listed.

2.23.1 Pip not Found

Table 133 - Python: Scenario 1

Issue Description	Error message ' Pip not found ' appears when installing/upgrading python components.
Modules Impacted	All Python modules installation/upgrade
Probable Root Cause	Python is not properly installed, or some issue is encountered

Resolution Steps:

1. Re-install Python by referring to the [Prerequisite Document](#).
2. Whenever such an issue is noticed, a fresh installation of all python components on given host is required rather than upgrade because underlying libraries and dependencies are not properly installed.

2.23.2 The underlying connection was closed: An unexpected error occurred on receive

Table 134 - Python: Scenario 2

Issue Description	The underlying connection was closed: An unexpected error occurred on receive
Modules Impacted	All Python modules installation/upgrade
Probable Root Cause	Setup tools is not properly installed

Resolution Steps:

1. Navigate to the {PythonHome}/Lib/site-packages/pkg_resources/_vendor folder.
2. Delete the below marked folders.
3. Restart all Apache/ Python component services.

2.24 Troubleshooting Steps for Database related issues

2.24.1 All Job are stuck 'in-progress'/ 'Reinitialized'

Table 135 – All jobs are in reinitialized state: Scenario 1

Issue Description	All Jobs are stuck 'inprogress/Reinitialized' state frequently
Modules Impacted	Data collector, Recommendation, iParse, Generic, RBA, Release

Probable Root Cause	Database space become full
----------------------------	----------------------------

Enabled	Name	Organization	Status	Service Name	Module Name	Component Name	Action
Yes	CollectIncidentsDemoOrg	DemoOrg	Reinitialized	ServiceNow	Incident Management	Data Collector	 
Yes	RunParsingDemoOrg	DemoOrg	Reinitialized	ServiceNow	Incident Management	Parsing	 
Yes	ProcessAutoDemoOrg	DemoOrg	Reinitialized	ServiceNow	Incident Management	Generic Service	 
Yes	ReleaseTicketsDemoOrg	DemoOrg	Reinitialized	ServiceNow	Incident Management	Release Service	 

Figure 175 – Jobs in Reinitialized State

Resolution Steps:

1. Check the space in all drives of database.
2. If the drive space is full, then clear the logs/ add additional space on drive (Needed)

2.24.2 Adaptive Server is unavailable or does not exist

Table 136 - Adaptive Server is unavailable: Scenario 1

Issue Description	iAutomate python components' jobs are failing with below error message: (20009, b'DB-Lib error message 20009, severity 9:\nUnable to connect: Adaptive Server is unavailable or does not exist (x.x.x.x)\n')
Modules Impacted	iRecommend, iParse, Entity Model, iUnique, iKnowledgeIndexer (Advanced Knowledge Component), iKnowledgeScreen (Advanced Knowledge Component), iKnowledgeSearch (Advanced Knowledge Component), iCrawler, iKnowledgeRating, iScript, iKnowledge
Probable Root Cause	Database connection string changed

Resolution Steps:

1. Go to Advanced Configuration > Connectivity > Connection Details Menu.



Figure 176 – Moving to Connection Details Screen

2. On **Connection Details** page, in the **Actions** Column, click on Edit icon of the desired organization.

Search...	
Organization	Action
MyCompany	

Figure 177 – Editing Connection String for The Desired Organization

3. Enter the new corrected connection string with instance variable removed.

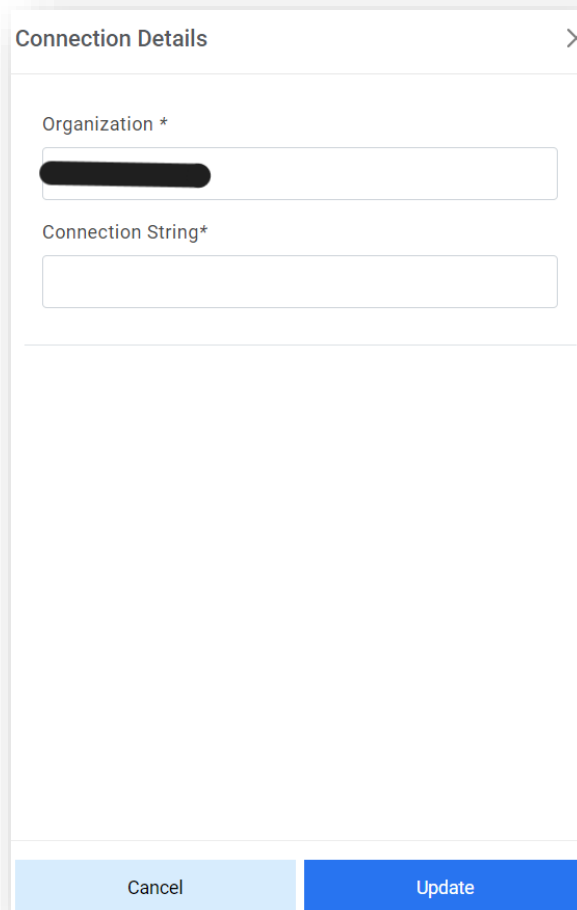


Figure 178 – Updating Connection String For A Desired Organization

- Sample existing connection string (with instance name “prod”):
`server=x.x.x.x/prod;database=DB1234;User id=username;Password=password;Min Pool Size=2;Max Pool Size=1500;Connection Timeout=30;Pooling=True;ConnectRetryCount=0;`
- `server=x.x.x.x//prod;database=DB1234;User id=username;Password=password;Min Pool Size=2;Max Pool Size=1500;Connection Timeout=30;Pooling=True;ConnectRetryCount=0;`
- Sample new updated connection string to be entered (instance name “prod” removed):
`server=x.x.x.x;database=DB1234;User id=username;Password=password;Min Pool Size=2;Max Pool Size=1500;Connection Timeout=30;Pooling=True;ConnectRetryCount=0;`

If the old connection string did not contain any instance name (“`server=x.x.x.x;`”), but it is required, you can also add the same to the connection string and update in the same manner (like “`server=x.x.x.x//prod`”, where instance name is prod).

4. Click on Update button and the problem should be resolved now.

2.25 Troubleshooting Steps for Apache related issue

All the python components of iAutomate are hosted as a service using Apache 2.4. If there is a problem in the configuration files of Python components due to which the services don't start, then the functionality corresponding to that component will not work. A scenario for the same is mentioned below.

2.25.1 Python services are not starting

Table 137 - Python Services are Not Starting: Scenario 1

Issue Description	Python components' services hosted using apache are not starting and error message like “(OS 5) Access is denied. : AH10231: httpd.exe: Failed creating pid file C:/Apache24/logs/httpd.pid.5TZums” can be seen in apache logs in environment where some kind of monitoring software is installed.
Modules Impacted	iRecommend, iParse, Entity Model, iUnique, iKnowledgeIndexer (Advanced Knowledge Component), iKnowledgeScreen (Advanced Knowledge Component), iKnowledgeSearch (Advanced Knowledge Component), iCrawler, iKnowledgeRating, iScript, iKnowledge
Probable Root Cause	Monitoring software have a file lock on the logs folder, that's why the service that needs to be started cannot overwrite a PID file there for proper functioning.

Resolution Steps:

1. Open **“services”** application from windows search bar.
2. First, stop all the installed apache 24 services (including **“Apache2.4”**) (having name like **“HCL.iAutomate.iRecommend”**) e.g., iRecommend, iParse, Entity Model, iUnique, iKnowledgeIndexer (Advanced Knowledge Component), iKnowledgeScreen (Advanced Knowledge Component), iKnowledgeSearch (Advanced Knowledge Component), iCrawler, iKnowledgeRating, iScript, iKnowledge.
3. Go to the path <Apache_Root_Folder_Path>/conf. For e.g. - **“C:/Apache24/conf”** has <Apache_Root_Folder_Path> as **“C:/Apache24”**.
4. One by one open every python component **“.conf”** file (e.g. **iRecommend.conf**) and repeat the steps 4 and 5 below for each file.
5. Go to the line as shown below.

```
35 # least PidFile.  
36 #  
37 ServerRoot "c:/Apache24"  
38 #  
39 #  
40 # Mutex: Allows you to set the mutex m
```

Figure 179 – Location in Conf File to Add Code Line In Old Apache Version

```

36 # least PidFile.
37 #
38
39 Define SRVROOT "/Apache24"
40 ServerRoot "${SRVROOT}"
41
42 #
43 # Uncomment below line to enable TLS/1.3 in server.
44 # (Requires OpenSSL 1.1.1 and up)
45
46 Define ENABLE_TLS13 "Yes"

```

Figure 180 – Location in Conf File to Add Code Line In Newer Versions Of Apache

6. Add the below line as shown in the figure:

Older version of apache:

- PidFile "c:/Apache24/httpd.pid"

```

35 # least PidFile.
36 #
37 ServerRoot "c:/Apache24"
38 PidFile "c:/Apache24/httpd.pid"
39 #
40 # Mutex: Allows you to set the mutex

```

Figure 181 – Code Line Added in Older Versions of Apache

Newer version of apache:

- PidFile "\${SRVROOT}/httpd.pid"

```

36 # least PidFile.
37 #
38
39 Define SRVROOT "/Apache24"
40 ServerRoot "${SRVROOT}"
41 PidFile "${SRVROOT}/httpd.pid"
42
43 #
44 # Uncomment below line to enable TLS/1.3 in server.
45 # (Requires OpenSSL 1.1.1 and up)
46
47 Define ENABLE_TLS13 "Yes"

```

Figure 182 – Code Line Added in Newer Versions of Apache

7. Save and close the file.
8. Start all the services that you stopped in step 2. You should be able to start all the services now.

3 Support

- To get support for this product, go to <https://support.dryice.ai>.
- For any additional queries, please reach out to us at iAuto-Product-Supp@hcl.com.

HCLSoftware

hcltechsw.com