

HCLSoftware

HCL iAutomate

Ansible Inside Integration Guide

Version 6.5



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Document Revision History

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

This table provides the revision history of this Ansible Inside Integration Guide.

Version No.	Version Date
December, 2023	HCL_iAutomate_v6.3.2_Ansible_Inside_Integration_Guide
June, 2024	HCL_iAutomate_v6.4_Ansible_Inside_Integration_Guide
June, 2024	HCL_iAutomate_v6.4.1_Ansible_Inside_Integration_Guide
November, 2024	HCL_iAutomate_v6.4.2_Ansible_Inside_Integration_Guide
February, 2025	HCL_iAutomate_v6.5_Ansible_Inside_Integration_Guide

1 Preface

This section provides information about Ansible Inside Integration with iAutomate and includes the following topics.

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

1.1 Intended Audience

This guide is intended for the iAutomate end-users to integrate with Ansible SDK and working towards resolution of IT support tickets.

1.2 About this Guide

This guide describes the integration process of Ansible Inside with iAutomate.

This document includes the following topics:

- [Ansible Inside Integration with iAutomate](#)
- [Support](#)

1.3 Related Documents

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

- Introduction to HCL Integration 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</u>	Indicates cross-reference and links
<i>Italic</i>	Indicates document titles, occasional emphasis, or glossary terms
<code>Courier New (Font)</code>	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 Ansible Inside Integration with iAutomate

2.1 Installing Ansible Inside Wrapper Component

1. Run the iAutomate Installer with Admin Privileges.

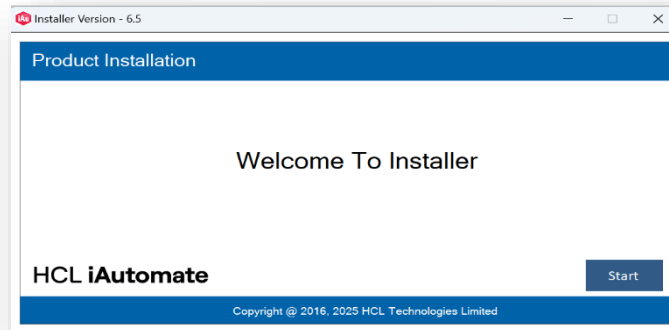


Figure 1 – Installing Ansible Inside Wrapper Component

2. Select New Installation and Click Next.

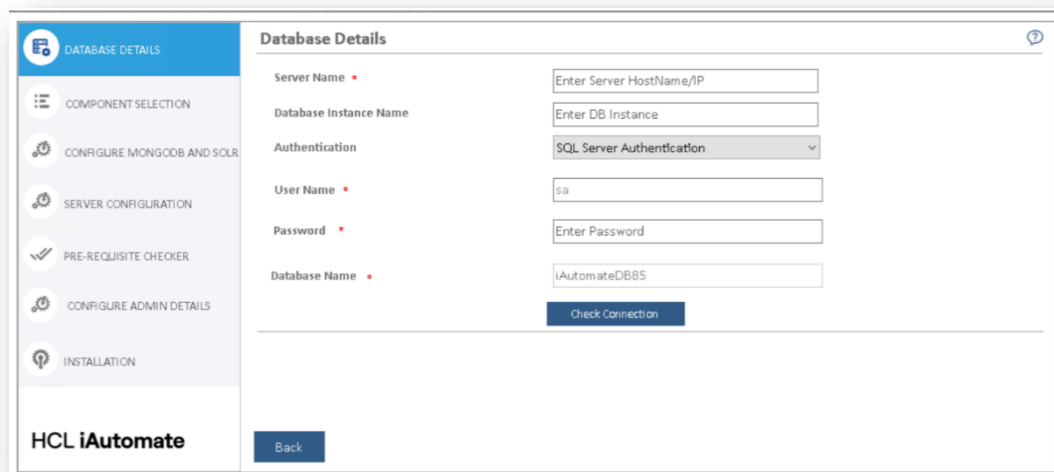


Figure 2 – Installing Ansible Inside Wrapper Component (Cont.)

3. Enter the Database Details of the iAutomate DB Server.
 - a. Enter Server Name
 - b. Choose authentication type and Enter Username and Password.
 - c. Click on the **Check Connection** Button to verify the Details Entered.
4. Once it's verified click on Next.

Parameter	Value	Port
Web UI Name	HCLiAutomateBaseUI	80
Web API Name	HCLiAutomateWEBAPI	8080
KRS Name	HCLiAutomateKRS	8085
iRecommend Name	HCLiAutomate.iRecomm	9000
Entity Name	HCLiAutomate.EntityMc	9003
iParse Name	HCLiAutomate.iParse	8006
iUnique Name	HCLiAutomate.iUnique	8009
Data Collector Name	HCLiAutomate.DC	8012
Generic Executor Name	HCLiAutomate.GenericE	8015
RBA Executor Name	HCLiAutomate.RBACom	8018
Release Name	HCLiAutomate.Releases	8021
AD Sync Name	HCLiAutomate.ADSyncs	9022
Email Service Name	HCLiAutomate.EmailSer	9025

Figure 3 – Installing Ansible Inside Wrapper Component (Cont.)

- Choose the Ansible Inside Wrapper Component and Click Next.

Figure 4 – Installing Ansible Inside Wrapper Component (Cont.)

- Enter the Server Details on which the Ansible will be configured.
- Click on Validate and After Successful verification click Next.

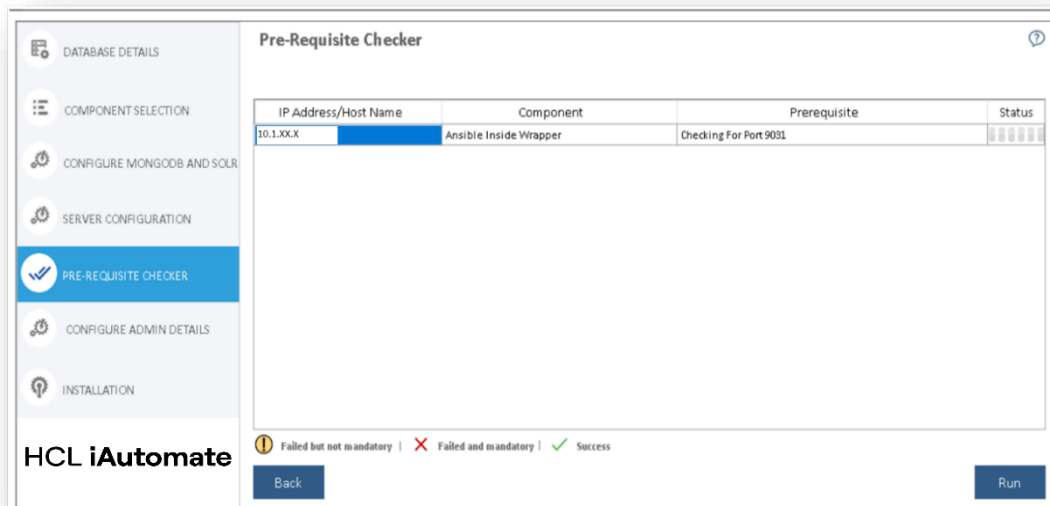


Figure 5 – Installing Ansible Inside Wrapper Component (Cont.)

8. Run the Prerequisite Checker and Click Next after it is successful.

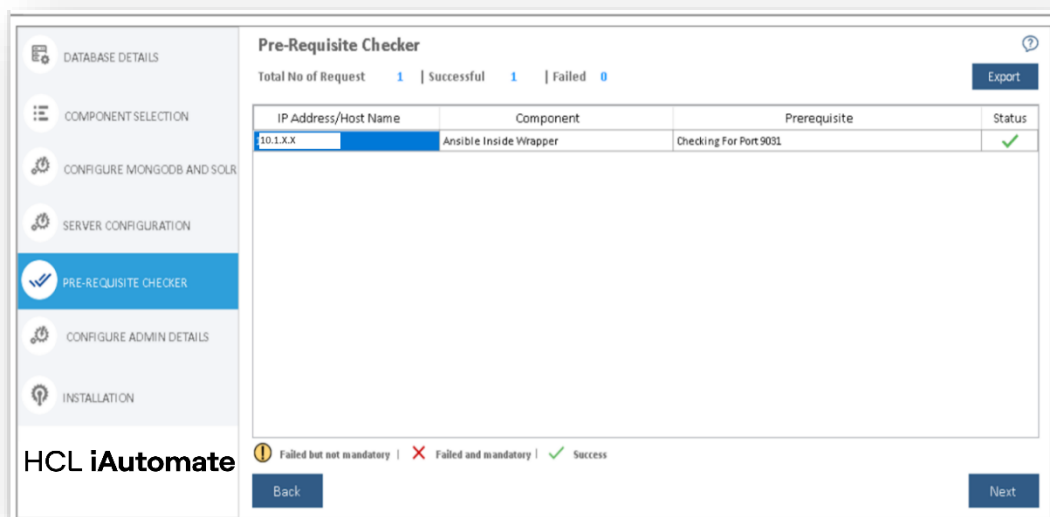


Figure 6 – Installing Ansible Inside Wrapper Component (Cont.)

9. To Begin the final Installation, Click on Run.

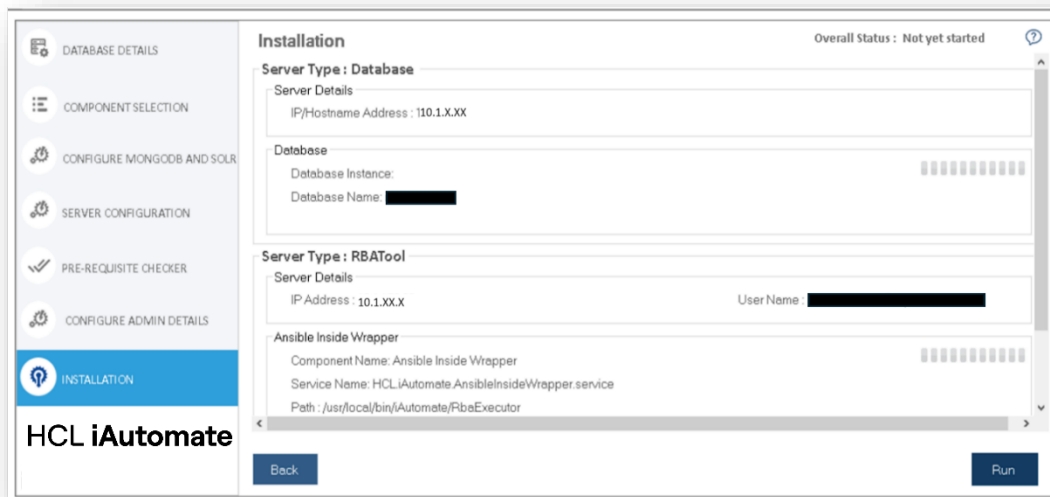


Figure 7 – Installing Ansible Inside Wrapper Component (Cont.)

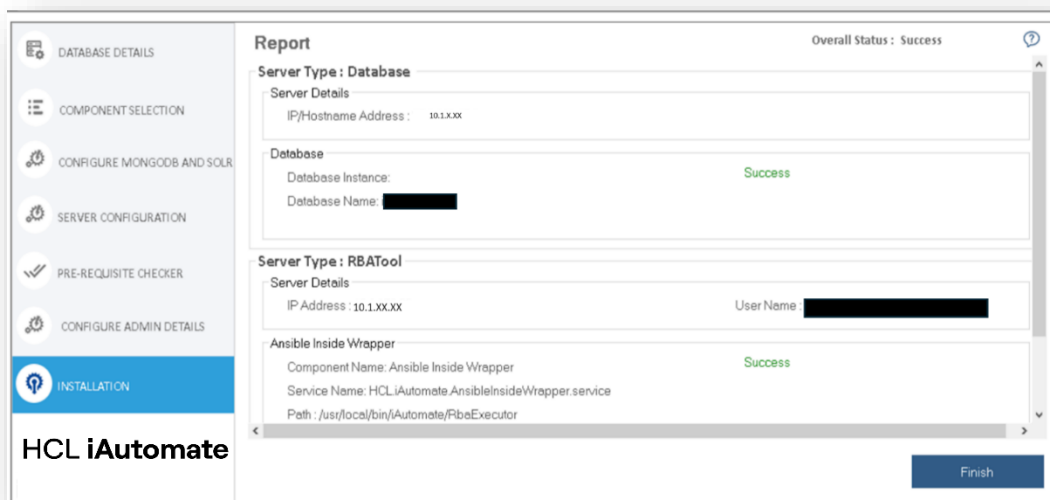


Figure 8 – Installing Ansible Inside Wrapper Component (Cont.)

10. The Ansible Insider Wrapper has been Installed on the Server.

2.2 Configuring the Ansible Insider Wrapper on Ansible Server

1. Connect to the Ansible server using any ssh Client (PuTTY) on port 22.

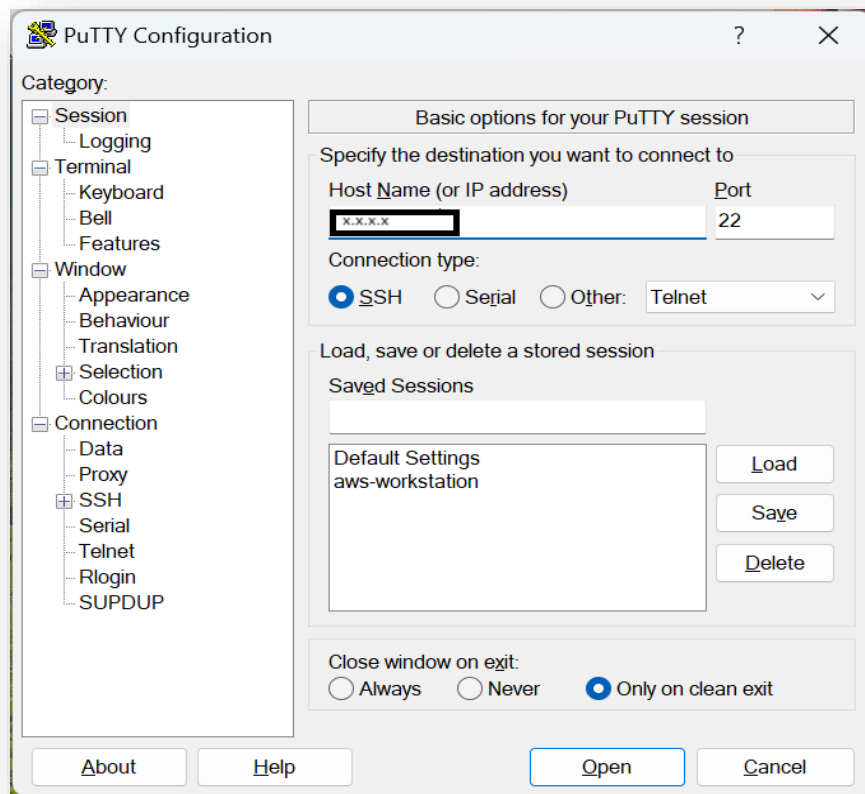


Figure 9 – Configuring Ansible Inside Wrapper on Ansible Server

2. Login using the username and password.

```
login as: [redacted]@dryicelabs.com
Pre-authentication banner message from server:
| HCL SOFTWARE IT - Legal Notice
| Warning
| This system is restricted to HCL Technologies authorized users for business p
> urposes only.
| Unauthorized access or use is a violation of company policy and the law. This
> system may be monitored for administrative and security reasons.
| By proceeding you acknowledge that:
| (1) You have read and understood this notice.
| (2) You consent for system monitoring.
| (3) Local Administrator password will be secured & changed every 45 days as p
> er company policy.
End of banner message from server
[redacted]@dryicelabs.com@10.10.10.10 password: [redacted]
```

Figure 10 – Configuring Ansible Inside Wrapper on Ansible Server (Cot.)

3. Enter Command

```
sudo su -
```

4. Enter the password if asked. Now you are logged in as the root user.

```
[root@ansible001 ~]# yum install python39
Updating Subscription Management repositories.
Last metadata expiration check: 0:35:56 ago on Thu 16 May 2024 01:17:13 PM IST.
Package python3-3.9.18-3.el9.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[root@ansible001 ~]#
```

Figure 11 – Configuring Ansible Inside Wrapper on Ansible Server (Cot.)

5. Below are the installation steps, Enter the following commands in terminal:

```
- yum install python39
- python3 -m pip install --upgrade pip
- pip3 install virtualenv
- git clone https://github.com/ansible/ansible-sdk.git
- cd ansible-sdk
```

```
[root@ansible001 ansible-sdk]# vi setup.py
[root@ansible001 ansible-sdk]# cat setup.py
#!/usr/bin/env python
from setuptools import setup
setup()
```

Figure 12 – Configuring Ansible Inside Wrapper on Ansible Server (Cot.)

6. Create a new file setup.py using vim or cat and paste the following lines of code.

```
#!/usr/bin/env python
from setuptools import setup
setup ()
```

```

[root@server ansible-sdk]# vi setup.cfg
[root@server ansible-sdk]# cat setup.cfg
[metadata]
name = ansible-sdk
author = Ansible, Inc.
author_email = info@ansible.com
summary = "Consistent Ansible SDK for Python"
home_page = https://ansible-sdk.readthedocs.io
project_urls =
    Source = https://github.com/ansible/ansible-sdk
description_file = README.md
description_content_type = text/markdown
license_files = LICENSE.md
version = attr: ansible_sdk.__version__

[options]
install_requires =
    ansible-core
    ansible-runner
    receptorctl
python_requires = >=3.9

[files]
packages = ansible_sdk

[flake8]
# W503 - Line break occurred before a binary operator
ignore=W503
max-line-length=160
[root@server ansible-sdk]# █

```

Figure 13 – Configuring Ansible Inside Wrapper on Ansible Server (Cot.)

7. Create a new file setup.cfg using vim or cat and paste the following lines of code:

```

[metadata]
name = ansible-sdk
author = Ansible, Inc.
author_email = info@ansible.com
summary = "Consistent Ansible SDK for Python"
home_page = https://ansible-sdk.readthedocs.io
project_urls =
    Source = https://github.com/ansible/ansible-sdk
description_file = README.md
description_content_type = text/markdown
license_files = LICENSE.md
version = attr: ansible_sdk.__version__

[options]
install_requires =
    ansible-core
    ansible-runner
    receptorctl
python_requires = >=3.9

[files]
packages = ansible_sdk

[flake8]
# W503 - Line break occurred before a binary operator
ignore=W503

```

```
max-line-length=160
```

```
[root@ansible-sdk]# virtualenv env
created virtual environment CPython3.9.18.final.0-64 in 597ms
creator CPython3Posix(dest=/root/ansible-sdk/env, clear=False, no_vcs_ignore=False, g
seeder FromAppData(download=False, pip=bundle, setuptools=bundle, wheel=bundle, via=c
added seed packages: pip==24.0, setuptools==69.5.1, wheel==0.43.0
activators BashActivator, CShellActivator, FishActivator, NushellActivator, PowerShellAct
[root@ansible-sdk]# source env/bin/activate
(env) [root@ansible-sdk]# pip3.9 install ansible-core
```

Figure 14 – Configuring Ansible Inside Wrapper on Ansible Server (Cot.)

8. Enter the below Commands to setup the Python virtual environment.

```
virtualenv env
source env/bin/activate
```

9. To Install the ansible dependencies, use the following in the same env:

```
pip3.9 install ansible-core
pip3.9 install ansible-runner
pip3.9 install receptorctl
pip3.9 install -e .
```

2.3 End to End Execution

1. Create a new Incident in Service now in iAutomate Assignment group. Fill in the details as Required. If runbook parameters are not found in the ticket description, iAutomate will use the default values stored in runbook configuration. The Assignment Group should be the same as configured in iAutomate.

Incident New record

Submit Save

New Assigned In Progress Pending Resolved Closed

Number INC0878519

* Requester iAuto BigFix Integration

Company

Location

* Contact Number 1234567890

* Category Server

* Subcategory Linux

Business service

* Affected CI ASM0002502

* Short Description check the status of the given service mgd

Description check the status of the given service mgd

* Source Phone

Status New

Impact 3 - Low

Urgency 3 - Low

Priority Priority 4

Time worked 00:00:00 00 00 00

* Assignment group iAuto BigFix Integration

Assigned to iAuto BigFix Integration

Figure 15 – Creating Incident

2. The tickets will now be collected by iAutomate and added to the queue for recommendation.

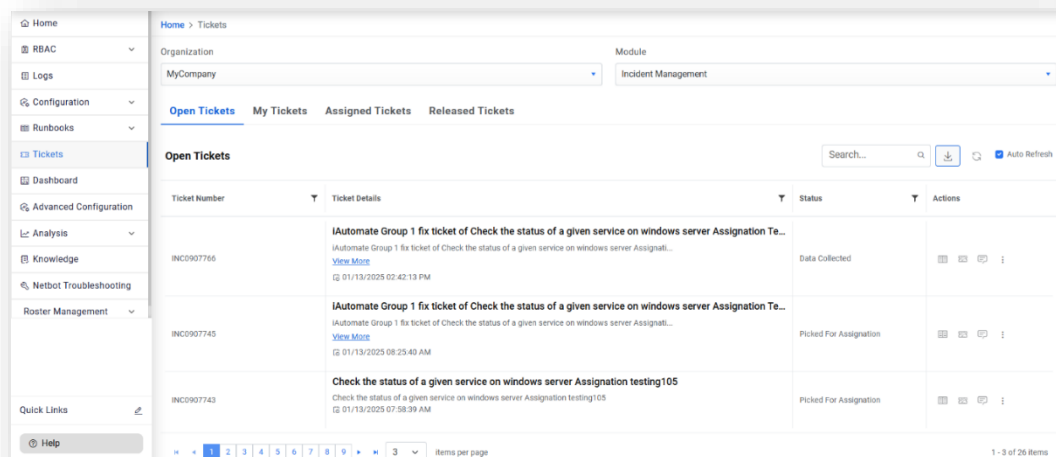


Figure 16 – Ticket Added for Recommendation

3. The Recommended Runbooks which have a confidence score above the threshold will be displayed when clicking Select Runbook. Select the suitable runbook to execute.

Ticket ID : INC0878519

[Select Runbook](#) [View Logs](#) [Related Tickets](#) [Knowledge Guide](#)

	Runbook Name	Description	Confidence Score %	SME Approved	Action
▶	Check_Service_Linux	This playbook will check the status the given service.	100	N	View SOP
▼	check_service	Check the status of given service.	100	N	View SOP

Parameter Name Value

TicketNumber:

service_name:

target_host:

job_id:

[Execute](#)

▶	Check_Service_Windows	This playbook will check the status the given service.	52	N	View SOP
---	-----------------------	--	----	---	--------------------------

Figure 17 – Selecting Runbook

4. After selecting the runbook execution will start and the interaction id will be generated by the ansible inside tool.

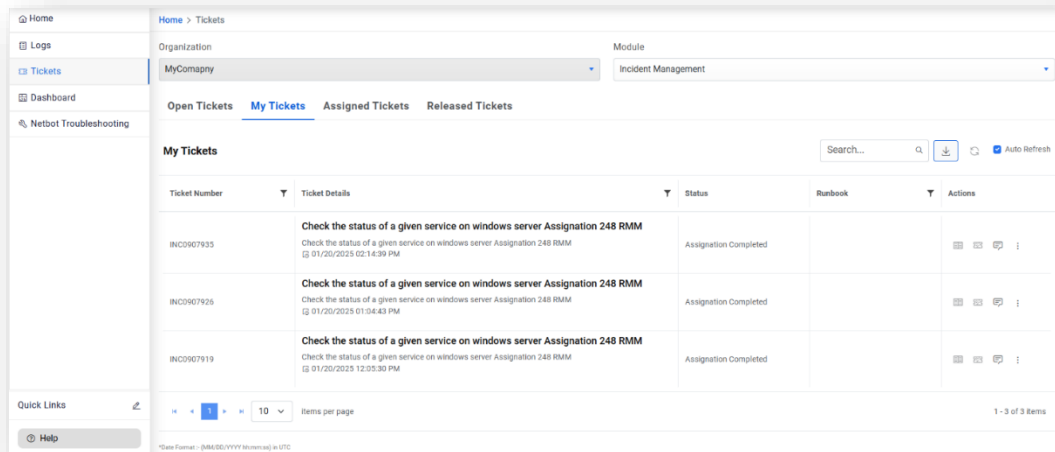


Figure 18 - Interaction ID Generation by Ansible Inside Tool

5. Check the logs by clicking the log button on the right side of the ticket. The ticket is now set to InProgress state.

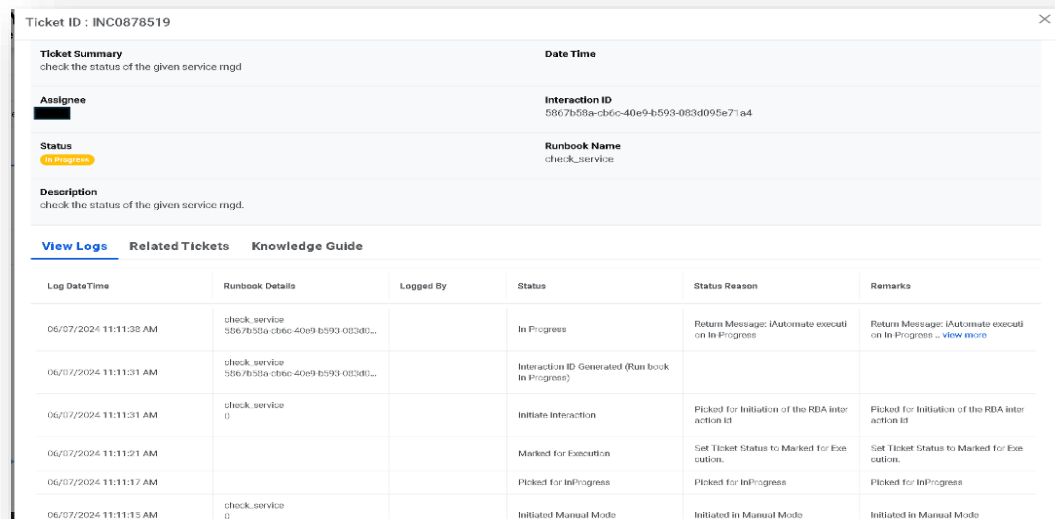


Figure 19 – Viewing Logs

6. iAutomate will update the Incident Ticket on ServiceNow to InProgress Mode.

Incident INC0878519

Follow Update Save Cancel Transaction Map

New ✓ Assigned ✓ **In Progress** Pending Resolved Closed

Number: INC0878519

Requester: iAuto BigFix Integration

Company:

Location:

* Contact Number: 1234567890

* Category: Server

* Subcategory: Linux

Business service:

* Affected CI: ASM0002502

* Short Description: check the status of the given service rngd

Description: check the status of the given service rngd.

Source: Phone

Status: In Progress

Impact: 3 - Low

Urgency: 3 - Low

Priority: Priority 4

Time worked: 00:00:00 00 00 00

* Assignment group: iAuto BigFix Integration

* Assigned to: iAuto BigFix Integration

Related Search Results >

Percentage Wait Time:

Figure 20 – Incident Ticket – In Progress Mode

7. Work notes will be updated by iAutomate.

Incident INC0878519

Follow Update Save Cancel Transaction Map

Notes Related Records Resolution Information

Watch list

Work notes list

Additional comments (Customer visible):

Work notes Post

Activities: 3

- iAuto BigFix Integration: SWO has started working on the ticket. (Work notes • 2024-06-07 16:41:18)
- iAuto BigFix Integration: Incident state In Progress was Assigned (Field changes • 2024-06-07 16:41:18)
- iAuto BigFix Integration: Field changes 2024-06-07 16:34:15
 - Affected CI: ASM0002502
 - Assigned to: iAuto BigFix Integration
 - Impact: 3 - Low
 - Incident state: Assigned
 - Opened By: iAuto BigFix Integration
 - Priority: Priority 4
 - Reopen count: 0
 - Urgency: 3 - Low

Figure 21 – Work Notes updated by iAutomate

8. Check the Ticket logs again to see if the execution is successful.

Ticket ID : INC0878519

Status

Marked for Delete

Runbook Name

check_service

Description

check the status of the given service rngd.

View Logs

Related Tickets

Knowledge Guide

Log DateTime	Runbook Details	Logged By	Status	Status Reason	Remarks
06/07/2024 11:12:25 AM			Marked for Delete	Ticket Close successfully, Mark for Movement to History Table	Ticket Close successfully, Mark for Movement to HL. view more
06/07/2024 11:12:22 AM			Execution Successful and Marked f	Picked for Close	Picked for Close
iAutomate successfully performed the remediation steps on 10.1.1.1 server. Response is Ansible fetched details of the service give, details: ? rngd.service - Hardware RNG Entropy loaded: loaded (/usr/lib/systemd/system/rngd.service; enabled; vendor preset: enabled) Active: active (running) since Sat 2024-06-01 00:21:20 IST; 6 days ago Main PID: 889 (rngd) 9) Memory: 1.5M CGroup: /system.slice/rngd.service +889 /usr/sbin/rngd -f --fill-watermark=0 -x pkcs11 -x nist -x crypt -D daemon:daemon					
06/07/2024 11:11:42 AM	check_service 5867b58a-cb6c-40e9-4b593-083d0...		Execution Successful, Issue Resolv ed	Return Message: iAutomate success fully performed the remediation at ops on 10.1.1.1 server, Respons e is Ansible fetched details of the s ervice give, details: ? rngd.service - Hardware RNG Entropy Gatherer Da emon Loaded: loaded (/usr/lib/syst emd/system/rngd.service; enabled; vendor preset: enabled) Active: acti ve (running) since Sat 2024-06-01 0 0:21:20 IST; 6 days ago Main PID: 889 (rngd) Tasks: 1 (limit: 45519) Memory: 1.5M CGroup: /system.sli ce/rngd.service +889 /usr/sbin/n gd -f --fill-watermark=0 -x pkcs11 -x nist -x crypt -D daemon:daemon	Return Message: iAutomate success fully performed t. view more
	check_servon			Return Message: iAutomate success	Return Message: iAutomate success

Figure 22 – View Logs

- Tickets are now successfully resolved by iAutomate and the same will be updated on ServiceNow.

Incident
INC0878519
Follow Update Save Close Incident Reopen Incident Transaction Map

New Assigned In Progress Pending Resolved Closed

Number INC0878519
Requester iAuto BigFix Integration
Company
Location
Contact Number 1234567890
Category Server
Subcategory Linux
Business service
Affected CI ASM0002502
Short Description check the status of the given service rngd
Description check the status of the given service rngd.

Source Phone
Status Resolved
Sub Status -- None --
Impact 3 - Low
Urgency 3 - Low
Priority Priority 4
Time worked 00:00:00 00 00 00
Assignment group iAuto BigFix Integration
* Assigned to iAuto BigFix Integration

Related Search Results

Percentage Wait Time

Figure 23 – Ticket Status -Resolved

- These final work notes contain the results of Runbook execution in Ansible Inside RBA tool.

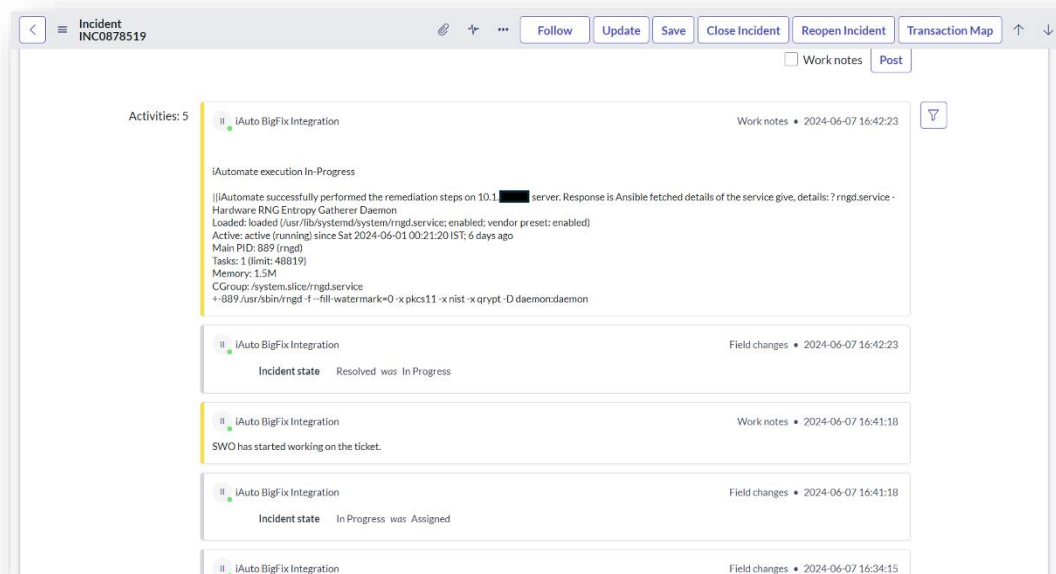


Figure 24 – Final Work Notes

11. Finally, Ansible Inside Logs can be checked in the Logs section of iAutomate.

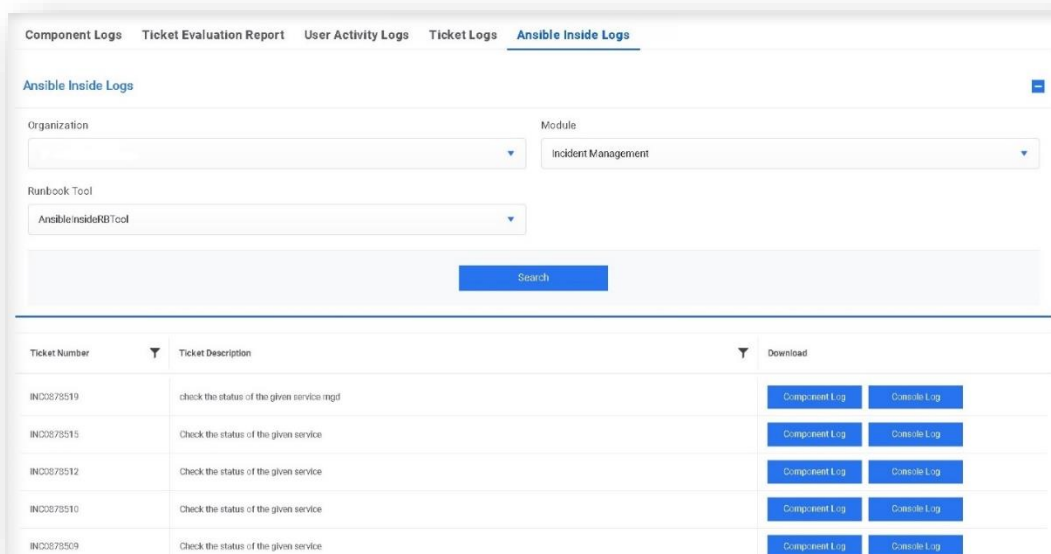


Figure 25 – Ansible Inside Logs

3 Support

To get support for this product, go to <https://support.hcl-software.com/csm>

For any additional queries, please reach out to us at aiops-pmg-team@hcl-software.com

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hcltechsw.com