



SupportAssist Collections on Dell EMC's 14th generation of PowerEdge servers

ABSTRACT

This white paper describes the various options available in the 14th generation of PowerEdge servers for generating and accessing SupportAssist collections across all iDRAC and Lifecycle Controller interfaces. It also provides resources and information required to use the available options in iDRAC and Lifecycle Controller.

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	4
AUDIENCE	4
INTRODUCTION	4
SUPPORTASSIST COLLECTION OVERVIEW	4
SUPPORTASSIST COLLECTION PREREQUISITES	4
IDRAC GUI	5
WSMAN	9
DCIM_LCService.SupportAssistAcceptEULA()	9
DCIM_LCService.SupportAssistGetEULAStatus()	10
DCIM_LCService.SupportAssistCollection()	11
DCIM_LCService.SupportAssistExportLastCollection()	13
DCIM_LCService.SupportAssistUploadLastCollection()	15
Job Status	16
RACADM	18
racadm supportassist accepteula	18
racadm supportassist geteulastatus	18
racadm supportassist collect	18
racadm supportassist exportlastcollection	19
racadm supportassist uploadlastcollection	19
Job status	19
LIFECYCLE CONTROLLER	20
IPMI (HOST OS)	28
IDRAC SERVICE MODULE (ISM) SERVICE IN HOST OS	30
Starting a collection on Windows	30
Starting a collection on Linux or ESXi	30
COLLECTION VIEWER	31
SETTING DEFAULT NETWORK SHARE FOR SAVING COLLECTIONS	35
iDRAC GUI	35
WSMAN	35
RACADM	37
FILTERED VS NON-FILTERED COLLECTION	38
APPENDIX	39

EXECUTIVE SUMMARY

The white paper describes the SupportAssist collection capabilities across various iDRAC interfaces. iDRAC provides the customer and application interfaces for gathering information that enables Dell EMC Technical Support to resolve issues that may occur on your server.

AUDIENCE

This white paper is intended for a system administrator or a technical support personnel who wants to generate a SupportAssist collection from a 14th generation PowerEdge server for gathering information about the system and system peripherals.

INTRODUCTION

When you call Dell EMC Technical Support for an issue with your server, you would be requested to gather information from the system and send it to Dell EMC for diagnosing and troubleshooting the issue. The SupportAssist feature available on the 14th generation of PowerEdge servers provides the capability to collect system information quickly. As a result, the Technical Support personnel can spend more time on the critical task of analyzing the data to identify a resolution for the issue. This in turn also reduces the average time required for resolving the issue and also the cost of services and support.

The SupportAssist feature is built using the embedded management technologies that were introduced in the 11th generation of PowerEdge servers, and further enhanced in the 12th and 13th generation of PowerEdge servers. Technical Support Report (TSR) introduced in the 12th generation and enhanced in the 13th generation of PowerEdge servers, was the embedded solution that enabled gathering useful system and device information.

In the 14th generation of PowerEdge servers, the TSR solution is re-branded as SupportAssist, and the TSR collection is rebranded as SupportAssist collection. Additionally, features of the SupportAssist Enterprise application such as automated periodic collection, event monitoring, and case creation are also integrated in the SupportAssist feature available on the server.

SUPPORTASSIST COLLECTION OVERVIEW

SupportAssist Collection contains the following categories of information that are collected from the server, host operating system, and devices that are present on the server.

- System Information (hardware and firmware data, Lifecycle Logs, and chassis logs on modular systems)
- Operating system (OS) logs and application data
- Storage controller logs
- Debug logs

SUPPORTASSIST COLLECTION PREREQUISITES

- To access any of the iDRAC interfaces, you must have operator or higher-level privileges.
- For collecting OS logs and application data, the following prerequisites must be met:
 - The server must be turned on and running an operating system that is supported by iDRAC Service Module (iSM).
 - iSM must be installed and running on the host operating system (OS). iSM can be installed by using one of the following:
 - Dell Update Package (DUP) available in iDRAC – The iSM DUP is factory installed on the iDRAC starting from the 14th generation of PowerEdge servers. The iSM DUP should be present in iDRAC unless LC Wipe or System erase has been performed.
 - Downloading the iSM DUP available at Dell.com/support and installing it on the host OS.
 - OS Collector (OSC) package must be available in iDRAC. The OSC package is factory installed on the iDRAC. The OSC package should be on the iDRAC unless LC Wipe or System erase has been performed.
 - If necessary, you can download and install the OSC DUP available at Dell.com/Support.

After the pre-requisites are installed, SupportAssist collection that includes OS logs and application data can be generated and accessed through any of the iDRAC interfaces that are specified in the following sections. For information on specific commands for generating the SupportAssist collection, see the respective interface sections in this white paper.

Note: The SupportAssist feature on the server does not have license restrictions. It is available with a base license.

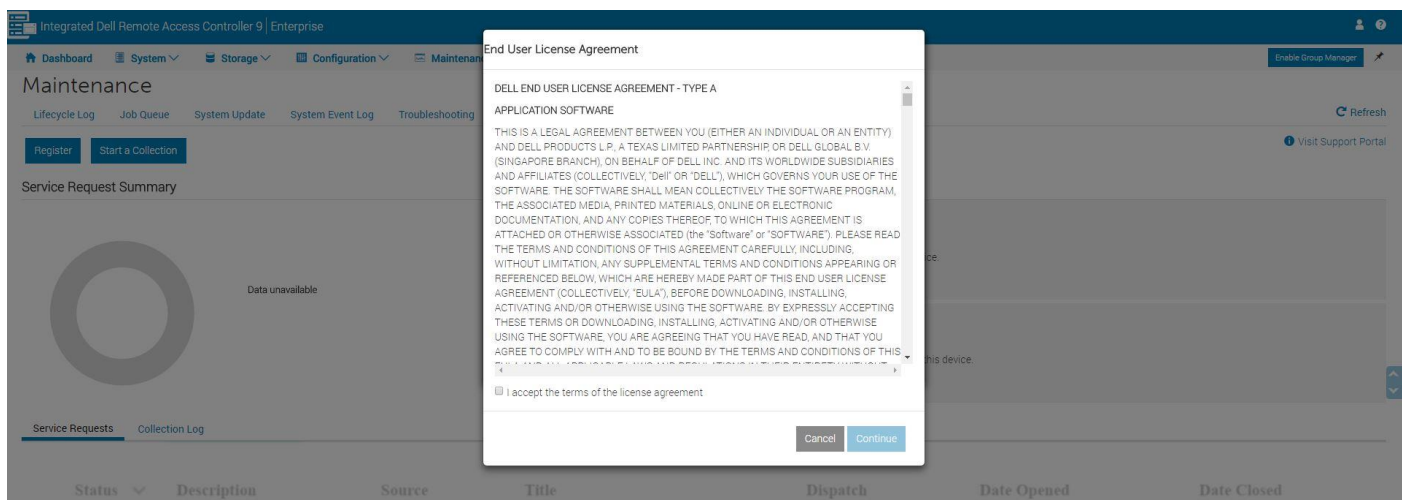
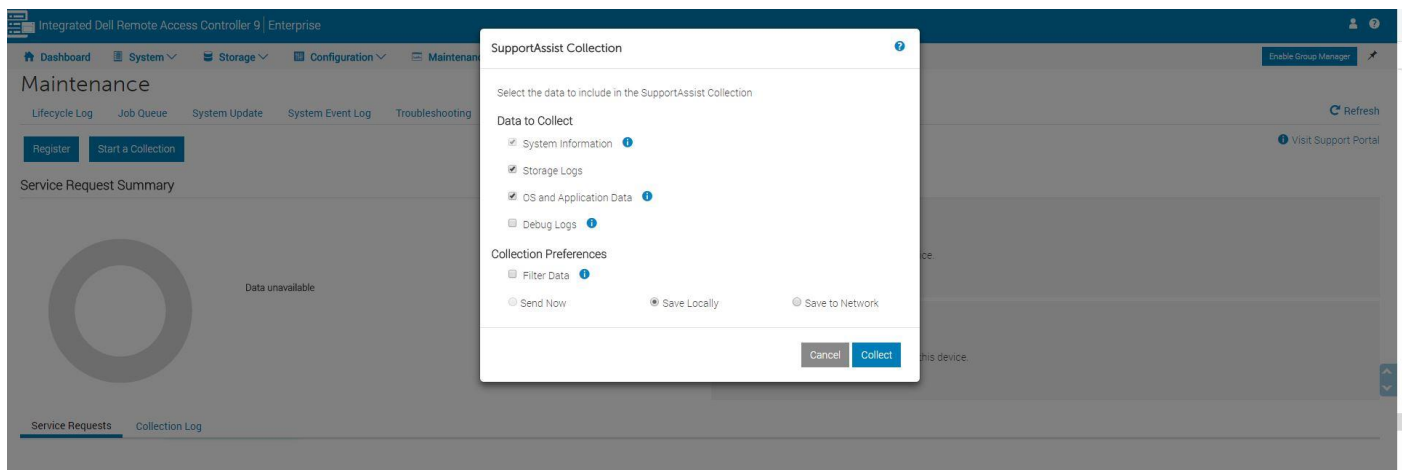
IDRAC GUI

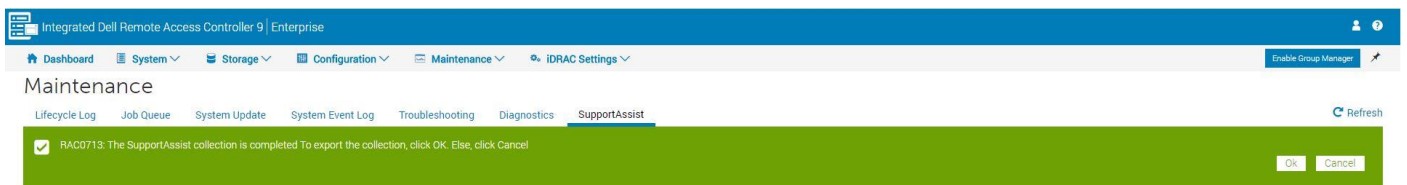
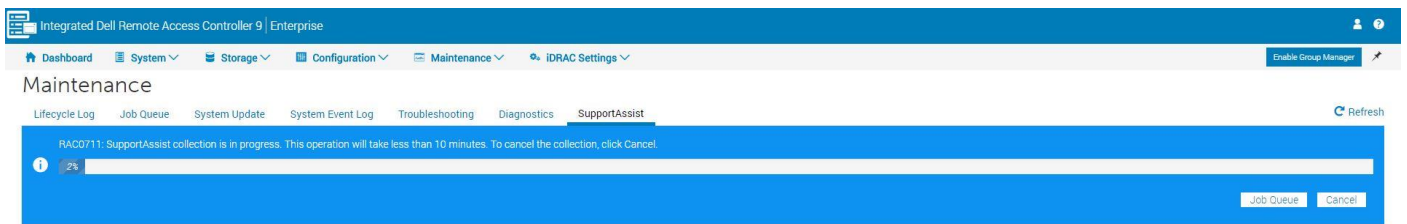
For generating a SupportAssist collection through the iDRAC GUI:

1. Log in to the iDRAC GUI
2. Click **Maintenance**→ **SupportAssist**.
If the server is not registered for SupportAssist, the **SupportAssist Registration** wizard is displayed.
3. Click **Cancel**→ **Cancel Registration**.
4. Click **Start a Collection**.
5. Select the data sets that you want to include in the collection. Optionally, proceed with the default selections.
6. Optionally, select if the data sets need to be filtered for Personally Identifiable Information (PII).
7. Select the destination where you want to save the collection.
 - If the server is registered for SupportAssist, the **Send Now** option is enabled. If you select **Send Now**, the generated collection will be uploaded to Dell EMC.
 - To save the collection on the local system, select **Save Locally**.
 - To save the collection on a CIFS or NFS share, select **Save to Network**.

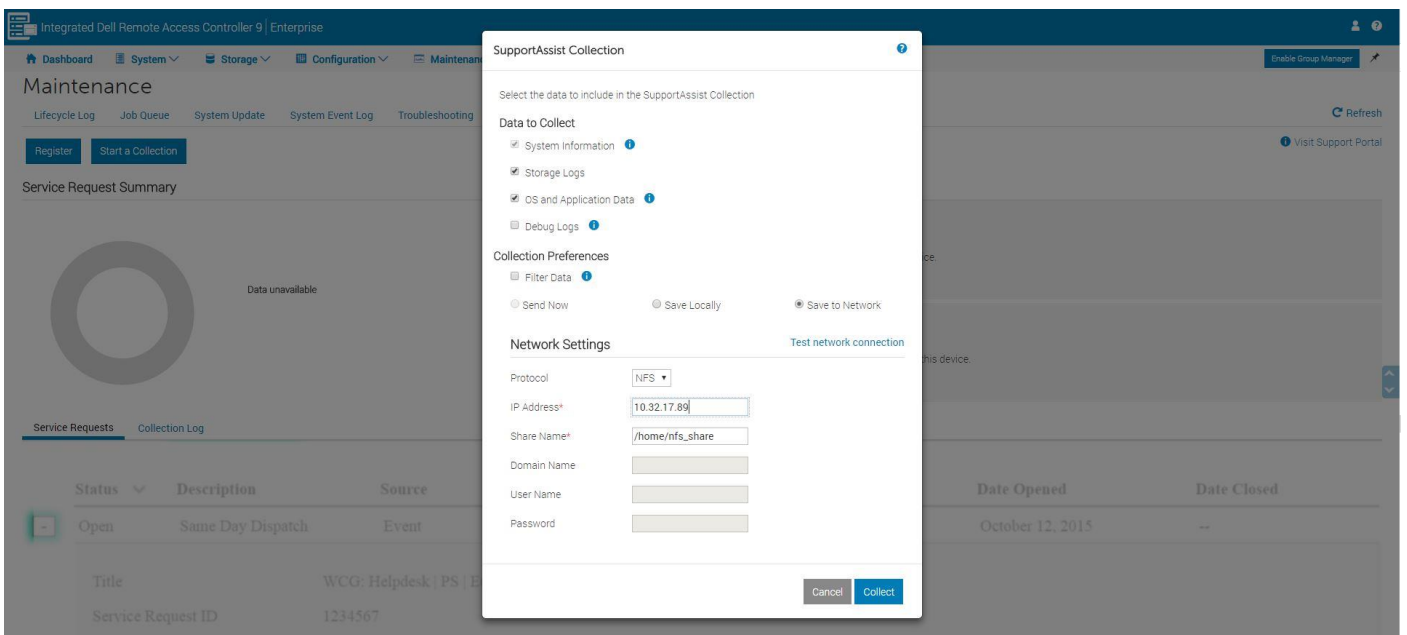
If you select **Save to Network**, the network details that you provided are saved as defaults (if no prior network share location has been saved) for any collections that are generated later.

The following screen captures illustrate the steps to save the collection on the local system.





The following screen captures illustrate the steps to save the collection on a network share.



Integrated Dell Remote Access Controller 9 | Enterprise

Dashboard System Storage Configuration Maintenance

Maintenance

Lifecycle Log Job Queue System Update System Event Log Troubleshooting

Register Start a Collection

Service Request Summary

Data unavailable

SupportAssist Collection Location

Instructions: SupportAssist will save a copy of your manual, scheduled and event based collections to the network location below. You can change this location from the SupportAssist settings section.

Protocol NFS

IP Address 10.82.17.89

Share Name /home/nfs_share

Domain Name

User Name

Password

Cancel Collect

Refresh Visit Support Portal

Status	Description	Source	Title	Dispatch	Date Opened	Date Closed
Open	Same Day Dispatch	Event	WCG: Helpdesk PS E6410...	Yes	October 12, 2015	--

Service Requests Collection Log

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Dashboard System Storage Configuration Maintenance

Maintenance

Lifecycle Log Job Queue System Update System Event Log Troubleshooting

RAC0679: A job operation is already running. Retry the operation after the existing job is completed.

Information

RAC0609: The job has been successfully added to the job queue. The status of jobs can be viewed on the Job Queue page.

Job Queue Ok

Refresh Visit Support Portal

Service Request Summary SupportAssist Overview

Service Contract

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Dashboard System Storage Configuration Maintenance IDRAC Settings

Maintenance

Lifecycle Log Job Queue System Update System Event Log Troubleshooting Diagnostics SupportAssist

Refresh

Job Queue

Delete

ID	Job	Status
JID_985712871904	SupportAssist Collection	Running (2%)

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Dashboard System Storage Configuration Maintenance IDRAC Settings

Maintenance

Lifecycle Log Job Queue System Update System Event Log Troubleshooting Diagnostics SupportAssist

Refresh

Job Queue

Delete

ID	Job	Status
JID_985712871904	SupportAssist Collection	Completed (100%)

Maintenance

Lifecycle Log
Job Queue
System Update
System Event Log
Troubleshooting
Diagnostics
SupportAssist
Refresh

Lifecycle Log					Filter Export
Severity	Date and Time	Message ID	Description	Comments	
+ ✔	2017-06-27 08:52:48	SRV108	The SupportAssist job JID_985712871904 is completed.	🔗	
+ ✔	2017-06-27 08:52:48	SRV088	The SupportAssist Collection and Export to Network operation is successfully completed.	🔗	
+ ✔	2017-06-27 08:52:46	SRV092	The SupportAssist Collection TSR20170627085235_FZM10Z1.zip is successfully exported to the specified network share.	🔗	
+ ✔	2017-06-27 08:52:40	SRV098	The SupportAssist Collection operation is completed and the export operation is started.	🔗	
+ ✔	2017-06-27 08:52:39	SRV096	The SupportAssist Collection TSR20170627085235_FZM10Z1.zip is successfully created.	🔗	
+ ✔	2017-06-27 08:52:32	SRV007	The SupportAssist System information collection operation is successfully completed.	🔗	
+ ✔	2017-06-27 08:52:31	LOG008	The complete Lifecycle Log was successfully created for an export operation.	🔗	
+ ✔	2017-06-27 08:52:26	SRV022	The SupportAssist OS and Application data collection operation is successfully completed.	🔗	
+ ✖	2017-06-27 08:51:53	RAC0401	iDRAC monitor: iDRAC service dsm-sa-snmp.service failed to respond, recovering from hung state.	🔗	
+ ✔	2017-06-27 08:48:48	SRV011	The SupportAssist Storage Controller Logs collection operation is completed.	🔗	
+ ⚠	2017-06-27 08:48:48	SRV014	Unable to export Storage Controller Log because the storage controller AHCI Embedded 2-1 present in the server does not support the feature.	🔗	
+ ⚠	2017-06-27 08:48:48	SRV014	Unable to export Storage Controller Log because the storage controller AHCI Embedded 1-1 present in the server does not support the feature.	🔗	
+ ✔	2017-06-27 08:48:20	LOG008	The complete Lifecycle Log was successfully created for an export operation.	🔗	
+ ✔	2017-06-27 08:48:08	SRV010	The SupportAssist Storage Controller Logs collection operation is started.	🔗	
+ ✔	2017-06-27 08:48:08	SRV021	The SupportAssist OS and Application data collection operation is started.	🔗	
+ ✔	2017-06-27 08:48:07	SRV006	The SupportAssist System information collection operation is started.	🔗	
+ ✔	2017-06-27 08:48:07	SRV001	The SupportAssist Collection operation is started by IDRAC_GUI.	🔗	
+ ✔	2017-06-27 08:48:07	SRV087	The SupportAssist Collection Job JID_985712871904 is successfully created.	🔗	

WSMAN

This section describes the packets that you can use for generating and retrieving SupportAssist Collections through WSMAN.

DCIM_LCService.SupportAssistAcceptEULA()

Note: The End User License Agreement (EULA) must be accepted before you generate a SupportAssist Collection.

To accept the EULA, send the following SOAP packet to the WSMAN service.

WSMAN SOAP packet:

```
<?xml version="1.0" encoding="UTF-8"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:wsmn="http://schemas.dmtf.org/wbem/wsmn/1/wsmn.xsd"
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/DCIM_LCService">
  <s:Header>
    <wsa:To s:mustUnderstand="true">https://10.94.225.31:443/wsmn</wsa:To>
    <wsmn:ResourceURI s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/DCIM_LCService</wsmn:ResourceURI>
    <wsa:ReplyTo>
      <wsa:Address
s:mustUnderstand="true">http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:A
ddress>
      </wsa:ReplyTo>
    <wsa:Action s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/DCIM_LCService/SupportAssistAcceptEULA</wsa:Action>
    <wsmn:MaxEnvelopeSize s:mustUnderstand="true">512000</wsmn:MaxEnvelopeSize>
    <wsa:MessageID s:mustUnderstand="true">urn:uuid:699156c1-33db-11e7-8542-
64006a57bb6c</wsa:MessageID>
    <wsmn:OperationTimeout>PT120.0S</wsmn:OperationTimeout>
    <wsmn:SelectorSet>
      <wsmn:Selector Name="__cimnamespace">root/dcim</wsmn:Selector>
      <wsmn:Selector Name="SystemCreationClassName">DCIM_ComputerSystem</wsmn:Selector>
      <wsmn:Selector Name="SystemName">DCIM:ComputerSystem</wsmn:Selector>
      <wsmn:Selector Name="CreationClassName">DCIM_LCService</wsmn:Selector>
      <wsmn:Selector Name="Name">DCIM:LCService</wsmn:Selector>
    </wsmn:SelectorSet>
  </s:Header>
  <s:Body>
    <n1:SupportAssistAcceptEULA_INPUT/>
  </s:Body>
</s:Envelope>
```

Output WSMAN SOAP packet:

```
<?xml version="1.0" encoding="UTF-8"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_LCService">
  <s:Header>
    <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
    <wsa:Action>http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService/SupportAssistAcceptEULAResponse</wsa:Action>
    <wsa:RelatesTo>uuid:381c73e9-4fdb-1fdb-8002-6cbb576a0064</wsa:RelatesTo>
    <wsa:MessageID>uuid:0284b730-f672-1672-800a-2403d5eb7b84</wsa:MessageID>
  </s:Header>
  <s:Body>
    <n1:SupportAssistAcceptEULA_OUTPUT>
      <n1:Message>The SupportAssist End User License Agreement (EULA) is accepted by iDRAC user
root via iDRAC interface wSMan.</n1:Message>
      <n1:MessageArguments>root</n1:MessageArguments>
      <n1:MessageArguments>WSMan</n1:MessageArguments>
      <n1:MessageID>SRV074</n1:MessageID>
      <n1:ReturnValue>0</n1:ReturnValue>
    </n1:SupportAssistAcceptEULA_OUTPUT>
  </s:Body>
</s:Envelope>
```

DCIM_LCService.SupportAssistGetEULAStatus()

To get information about the EULA acceptance, send the following SOAP packet to the WSMAN service.

WSMAN SOAP packet:

```
<?xml version="1.0" encoding="UTF-8"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:wsman="http://schemas.dmtf.org/wbem/wsman/1/wsman.xsd"
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/DCIM_LCService">
  <s:Header>
    <wsa:To s:mustUnderstand="true">https://10.94.225.31:443/wsman</wsa:To>
    <wsman:ResourceURI s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/DCIM_LCService</wsman:ResourceURI>
    <wsa:ReplyTo>
      <wsa:Address
s:mustUnderstand="true">http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:A
ddress>
      </wsa:ReplyTo>
    <wsa:Action s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/DCIM_LCService/SupportAssistGetEULAStatus</wsa:Action>
    <wsman:MaxEnvelopeSize s:mustUnderstand="true">512000</wsman:MaxEnvelopeSize>
    <wsa:MessageID s:mustUnderstand="true">urn:uuid:ecc265c1-33db-11e7-8542-
64006a57bb6c</wsa:MessageID>
    <wsman:OperationTimeout>PT120.0S</wsman:OperationTimeout>
    <wsman:SelectorSet>
      <wsman:Selector Name="__cimnamespace">root/dcim</wsman:Selector>
      <wsman:Selector Name="SystemCreationClassName">DCIM_ComputerSystem</wsman:Selector>
      <wsman:Selector Name="SystemName">DCIM:ComputerSystem</wsman:Selector>
      <wsman:Selector Name="CreationClassName">DCIM_LCService</wsman:Selector>
      <wsman:Selector Name="Name">DCIM:LCService</wsman:Selector>
    </wsman:SelectorSet>
  </s:Header>
  <s:Body>
    <n1:SupportAssistGetEULAStatus_INPUT/>
  </s:Body>
</s:Envelope>
```

Output WSMAN SOAP packet:

```
<?xml version="1.0" encoding="UTF-8"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/DCIM_LCService">
  <s:Header>
    <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
    <wsa:Action>http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/DCIM_LCService/SupportAssistGetEULAStatusResponse</wsa:Action>
    <wsa:RelatesTo>urn:uuid:ecc265c1-33db-11e7-8542-64006a57bb6c</wsa:RelatesTo>
    <wsa:MessageID>uuid:c6827ae0-f597-1597-8549-2403d5eb7b84</wsa:MessageID>
  </s:Header>
  <s:Body>
    <n1:SupportAssistGetEULAStatus_OUTPUT>
      <n1:Interface>2</n1:Interface>
      <n1:IsRegistered>1</n1:IsRegistered>
      <n1:Message>The SupportAssist End User License Agreement (EULA) is accepted by iDRAC user
root via iDRAC interface RACADM.</n1:Message>
      <n1:MessageArguments>root</n1:MessageArguments>
      <n1:MessageArguments>RACADM</n1:MessageArguments>
      <n1:MessageID>SRV074</n1:MessageID>
      <n1:ReturnValue>0</n1:ReturnValue>
      <n1:Time>Tue Feb 21 02:57:07 CST 2023</n1:Time>
      <n1>User>root</n1>User>
    </n1:SupportAssistGetEULAStatus_OUTPUT>
  </s:Body>
</s:Envelope>
```

Note:

- The IsRegistered parameter will be 0 if server is registered or 1 if the SupportAssist solution on the server is not registered.
- The iDRAC username in the Message and MessageArguments parameter is the iDRAC username that has accepted the EULA. The iDRAC username that accepted the EULA may be different from the iDRAC username of the user who ran the SupportAssistGetEULAStatus method.

DCIM_LCService.SupportAssistCollection()

To trigger a SupportAssist Collection and optionally send the collection to a network share or to Dell EMC (on registered servers), use the following method.

WSMAN SOAP packet:

```
<?xml version="1.0"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:wsmn="http://schemas.dmtf.org/wbem/wsmn/1/wsmn.xsd"
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_LCService">
  <s:Header>
    <wsa:Action s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService/SupportAssistCollection</wsa:Action>
    <wsa:To s:mustUnderstand="true">https://10.94.225.31:443/wsmn</wsa:To>
    <wsmn:ResourceURI
s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService</wsmn:ResourceURI>
    <wsa:MessageID s:mustUnderstand="true">uuid:681bdfa8-4f01-1f01-8002-
6cbb576a0064</wsa:MessageID>
    <wsa:ReplyTo>

<wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
  </s:Header>
  <s:Body>
    <n1:SupportAssistCollection_INPUT>
      <n1:DataSelectorArrayIn>0</n1:DataSelectorArrayIn>
      <n1:DataSelectorArrayIn>1</n1:DataSelectorArrayIn>
      <n1:DataSelectorArrayIn>2</n1:DataSelectorArrayIn>
      <n1:DataSelectorArrayIn>3</n1:DataSelectorArrayIn>
      <n1:IPAddress>10.94.224.124</n1:IPAddress>
      <n1:ShareName>/home/ki ran_k2/nfsshare</n1:ShareName>
      <n1:ShareType>2</n1:ShareType>
      <n1:Filter>0</n1:Filter>
      <n1:Username>root</n1:Username>
      <n1>Password>dell123</n1>Password>
      <n1:Transmit>0</n1:Transmit>
    </n1:SupportAssistCollection_INPUT>
  </s:Body>
</s:Envelope>
```

To generate a collection with all data sets included and to export it to a CIFS network share, use the following input parameters.

Note: Replace Server IP Address, Share Name, Share UserName, and Share Password with the actual values.

```
<p:SupportAssistCollection_INPUT xmlns:p="http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService">
<!-- 0 = System Information, 1 = OSApp Data, 2 = Storage Logs, 3 = Debug logs -->
  <p:DataSelectorArrayIn>0</p:DataSelectorArrayIn>
  <p:DataSelectorArrayIn>1</p:DataSelectorArrayIn>
  <p:DataSelectorArrayIn>2</p:DataSelectorArrayIn>
  <p:DataSelectorArrayIn>3</p:DataSelectorArrayIn>
  <p:IPAddress>Server IP Address</p:IPAddress>
  <p:ShareName>Share Name</p:ShareName>
  <p:ShareType>2</p:ShareType>
  <p:Filter>0</p:Filter>
```

```
<p:Username>Share UserName</p:Username>
<p>Password>Share Password</p>Password>
<!--p:Workgroup></p:Workgroup-->
<p:Transmit>0</p:Transmit>
</p:SupportAssistCollection_INPUT>
```

To generate a collection with all data sets included and to export it to NFS network share, use the following as sa_collection.xml.

Note: Replace Server IP Address and Share Name with the actual values.

```
<p:SupportAssistCollection_INPUT xmlns:p="http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService">
<!-- 0 = System Information, 1 = OSApp Data, 2 = Storage Logs, 3 = Debug logs -->
<p>DataSelectorArrayIn>0</p>DataSelectorArrayIn>
<p>DataSelectorArrayIn>1</p>DataSelectorArrayIn>
<p>DataSelectorArrayIn>2</p>DataSelectorArrayIn>
<p>DataSelectorArrayIn>3</p>DataSelectorArrayIn>
<p:IPAddress>Server IP Address</p:IPAddress>
<p:ShareName>Share Name</p:ShareName>
<p:ShareType>0</p:ShareType>
<p:Filter>0</p:Filter>
<!--p:Username></p:Username-->
<!--p>Password></p>Password-->
<!--p:Workgroup></p:Workgroup-->
<p:Transmit>0</p:Transmit>
</p:SupportAssistCollection_INPUT>
```

To generate a collection and to send it to Dell EMC (when iDRAC is registered for SupportAssist), set the transmit option in the input XML:

```
<p:Transmit>1</p:Transmit>
```

Note: For information on registering for SupportAssist, see the *SupportAssist on Dell EMC's 14th generation of PowerEdge servers* technical white paper.

To generate a collection on the local system, set ShareType as 4 in the input XML:

```
<p:ShareType>4</p:ShareType>
<p:Transmit>0</p:Transmit>
```

Output WSMAN SOAP packet:

```
<?xml version="1.0" encoding="UTF-8"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_LCService"
xmlns:wsman="http://schemas.dmtf.org/wbem/wsman/1/wsman.xsd">
  <s:Header>
    <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
    <wsa:Action>http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService/SupportAssistCollectionResponse</wsa:Action>
    <wsa:RelatesTo>uuid:681bdfa8-4f01-1f01-8002-6cbb576a0064</wsa:RelatesTo>
    <wsa:MessageID>uuid:3269ec70-f598-1598-85c8-2403d5eb7b84</wsa:MessageID>
  </s:Header>
  <s:Body>
    <n1:SupportAssistCollection_OUTPUT>
      <n1:Job>
        <wsa:EndpointReference>
          <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
          <wsa:ReferenceParameters>
            <wsman:ResourceURI>http://schemas.dell.com/wbem/wscim/1/cim-
schema/2/DCIM_LifecycleJob</wsman:ResourceURI>
            <wsman:SelectorSet>
              <wsman:Selector Name="InstanceID">JID_774089131508</wsman:Selector>
              <wsman:Selector Name="__cimnamespace">root/dcim</wsman:Selector>
            </wsman:SelectorSet>
          </wsa:ReferenceParameters>
        </wsa:EndpointReference>
      </n1:Job>
      <n1:ReturnValue>4096</n1:ReturnValue>
    </n1:SupportAssistCollection_OUTPUT>
  </s:Body>
</s:Envelope>
```

DCIM_LCService.SupportAssistExportLastCollection()

To export an existing SupportAssist Collection to a network share or to the default network share, if set (See [Setting Default Network](#)), use the following method.

WSMAN SOAP packet:

To export the existing collection to a default network share (See [Setting Default Network](#))

```
<?xml version="1.0"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:wsman="http://schemas.dmtf.org/wbem/wsman/1/wsman.xsd"
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_LCService">
  <s:Header>
    <wsa:Action s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService/SupportAssistExportLastCollection</wsa:Action>
    <wsa:To s:mustUnderstand="true">https://100.97.151.51:443/wsman</wsa:To>
    <wsman:ResourceURI s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService</wsman:ResourceURI>
    <wsa:MessageID s:mustUnderstand="true">uuid:7d617e54-4fdb-1fdb-8002-
6cbb576a0064</wsa:MessageID>
    <wsa:ReplyTo>
  </s:Header>
  <s:Body>
    <n1:SupportAssistExportLastCollection_INPUT/>
  </s:Body>
</s:Envelope>
```

To export the existing collection to a specific network share (non-default location)

```
<?xml version="1.0"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:wsman="http://schemas.dmtf.org/wbem/wsman/1/wsman.xsd"
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_LCService">
  <s:Header>
    <wsa:Action s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService/SupportAssistExportLastCollection</wsa:Action>
    <wsa:To s:mustUnderstand="true">https://100.97.151.51:443/wsman</wsa:To>
    <wsman:ResourceURI s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService</wsman:ResourceURI>
    <wsa:MessageID s:mustUnderstand="true">uuid:726ab95a-4fdb-1fdb-8002-
6cbb576a0064</wsa:MessageID>
    <wsa:ReplyTo>
  </s:Header>
  <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
  </wsa:ReplyTo>
  <wsman:SelectorSet>
    <wsman:Selector Name="Name">DCIM:LCService</wsman:Selector>
    <wsman:Selector Name="SystemName">DCIM:ComputerSystem</wsman:Selector>
    <wsman:Selector Name="CreationClassName">DCIM_LCService</wsman:Selector>
    <wsman:Selector Name="SystemCreationClassName">DCIM_ComputerSystem</wsman:Selector>
  </wsman:SelectorSet>
</s:Header>
<s:Body>
  <n1:SupportAssistExportLastCollection_INPUT>
    <n1:IPAddress>172.31.166.57</n1:IPAddress>
    <n1:ShareName>nfs_vm1</n1:ShareName>
    <n1:ShareType>0</n1:ShareType>
  </n1:SupportAssistExportLastCollection_INPUT>
</s:Body>
</s:Envelope>
```

To export the collection to a specific CIFS share other than the default network share, use the following the configuration for input parameters

```
<p:SupportAssistExportLastCollection_INPUT xmlns:p="http://schemas.dell.com/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService">
  <p:ShareType>2</p:ShareType>
  <p:ShareName> Server ShareName </p:ShareName>
  <p:IPAddress> Server IP Address </p:IPAddress>
  <p:Username> CIFS UserName </p:Username>
  <p>Password> CIFS Password</p>Password>
</p:SupportAssistExportLastCollection_INPUT>
```

To export to a specific NFS share other than default network share, use the following as sa_export.xml

```
<p:SupportAssistExportLastCollection_INPUT xmlns:p="http://schemas.dell.com/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService">
  <p:ShareType>0</p:ShareType>
  <p:ShareName> Server ShareName </p:ShareName>
  <p:IPAddress> Server IP Address </p:IPAddress>
  <!--p:Username> </p:Username-->
  <!--p>Password></p>Password-->
</p:SupportAssistExportLastCollection_INPUT>
```

Output:

```
<?xml version="1.0" encoding="UTF-8"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_LCService"
xmlns:wsman="http://schemas.dmtf.org/wbem/wsman/1/wsman.xsd">
  <s:Header>
    <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
    <wsa:Action>http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService/SupportAssistExportLastCollectionResponse</wsa:Action>
    <wsa:RelatesTo>uuid:8818051b-4f01-1f01-8002-6cbb576a0064</wsa:RelatesTo>
    <wsa:MessageID>uuid:52666670-f598-1598-85f0-2403d5eb7b84</wsa:MessageID>
  </s:Header>
  <s:Body>
    <n1:SupportAssistExportLastCollection_OUTPUT>
      <n1:Job>
        <wsa:EndpointReference>
          <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
          <wsa:ReferenceParameters>
            <wsman:ResourceURI>http://schemas.dell.com/wbem/wscim/1/cim-
schema/2/DCIM_LifecycleJob</wsman:ResourceURI>
            <wsman:SelectorSet>
              <wsman:Selector Name="InstanceID">JID_774094497951</wsman:Selector>
              <wsman:Selector Name="__cimnamespace">root/dcim</wsman:Selector>
            </wsman:SelectorSet>
          </wsa:ReferenceParameters>
        </wsa:EndpointReference>
      </n1:Job>
      <n1:ReturnValue>4096</n1:ReturnValue>
    </n1:SupportAssistExportLastCollection_OUTPUT>
  </s:Body>
</s:Envelope>
```

DCIM_LCService.SupportAssistUploadLastCollection()

To export an existing SupportAssist collection to Dell (*on registered servers*), use the following method.

Note: For information on registering for SupportAssist, see the *SupportAssist on Dell EMC's 14th generation of PowerEdge servers* technical white paper.

```
<?xml version="1.0"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:wsman="http://schemas.dmtf.org/wbem/wsman/1/wsman.xsd"
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_LCService">
  <s:Header>
    <wsa:Action s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService/SupportAssistUploadLastCollection</wsa:Action>
    <wsa:To s:mustUnderstand="true">https://10.94.225.31:443/wsman</wsa:To>
    <wsman:ResourceURI s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService</wsman:ResourceURI>
    <wsa:MessageID s:mustUnderstand="true">uuid:a83761cc-4f01-1f01-8002-
6cbb576a0064</wsa:MessageID>
    <wsa:ReplyTo>
  </s:Header>
  <s:Body>
    <n1:SupportAssistUploadLastCollection_INPUT/>
  </s:Body>
</s:Envelope>
```

Output:

```
<?xml version="1.0" encoding="UTF-8"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_LCService"
xmlns:wsman="http://schemas.dmtf.org/wbem/wsman/1/wsman.xsd">
  <s:Header>
    <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
    <wsa:Action>http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LCService/SupportAssistUploadLastCollectionResponse</wsa:Action>
    <wsa:RelatesTo>uuid:8818051b-4f01-1f01-8002-6cbb576a0064</wsa:RelatesTo>
    <wsa:MessageID>uuid:52666670-f598-1598-85f0-2403d5eb7b84</wsa:MessageID>
  </s:Header>
  <s:Body>
    <n1:SupportAssistUploadLastCollection_OUTPUT>
      <n1:Job>
        <wsa:EndpointReference>
          <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
          <wsa:ReferenceParameters>
            <wsman:ResourceURI>http://schemas.dell.com/wbem/wscim/1/cim-
schema/2/DCIM_LifecycleJob</wsman:ResourceURI>
            <wsman:SelectorSet>
              <wsman:Selector Name="InstanceID">JID_774094497953</wsman:Selector>
              <wsman:Selector Name="__cimnamespace">root/dcim</wsman:Selector>
            </wsman:SelectorSet>
          </wsa:ReferenceParameters>
        </wsa:EndpointReference>
      </n1:Job>
      <n1:ReturnValue>4096</n1:ReturnValue>
    </n1:SupportAssistUploadLastCollection_OUTPUT>
  </s:Body>
</s:Envelope>
```

Job Status

To check the status of a job, use the following packet with the correct JOBID

```
<?xml version="1.0"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:wsman="http://schemas.dmtf.org/wbem/wsman/1/wsman.xsd">
  <s:Header>
    <wsa:Action>
s:mustUnderstand="true">http://schemas.xmlsoap.org/ws/2004/09/transfer/Get</wsa:Action>
    <wsa:To s:mustUnderstand="true">https://10.94.225.31:443/wsman</wsa:To>
    <wsman:ResourceURI s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_LifecycleJob</wsman:ResourceURI>
    <wsa:MessageID s:mustUnderstand="true">uuid:c0c3195c-4f16-1f16-8002-
6cbb576a0064</wsa:MessageID>
    <wsa:ReplyTo>
  </s:Header>
  <s:Body/>
</s:Envelope>
```


Output WSMAN SOAP packet:

```
<?xml version="1.0" encoding="UTF-8"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_LifeCycleJob">
  <s:Header>
    <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
    <wsa:Action>http://schemas.xmlsoap.org/ws/2004/09/transfer/GetResponse</wsa:Action>
    <wsa:RelatesTo>uuid:959628f3-4fdb-1fdb-8002-6cbb576a0064</wsa:RelatesTo>
    <wsa:MessageID>uuid:0a665b50-4fad-1fad-80e9-96ffd5eb7b84</wsa:MessageID>
  </s:Header>
  <s:Body>
    <n1:DCIM_LifeCycleJob>
      <n1:ElapsedTimeSinceCompletion>1</n1:ElapsedTimeSinceCompletion>
      <n1:InstanceID>JID_949794202321</n1:InstanceID>
      <n1:JobStartTime>NA</n1:JobStartTime>
      <n1:JobStatus>Completed</n1:JobStatus>
      <n1:JobUntilTime>NA</n1:JobUntilTime>
      <n1:Message>The SupportAssist Transmission Operation is completed
successfully.</n1:Message>
      <n1:MessageArguments>NA</n1:MessageArguments>
      <n1:MessageID>SRV088</n1:MessageID>
      <n1:Name>SupportAssist Collection</n1:Name>
      <n1:PercentComplete>100</n1:PercentComplete>
    </n1:DCIM_LifeCycleJob>
  </s:Body>
</s:Envelope>
```

RACADM

This section describes the RACADM commands that you can use for generating and retrieving SupportAssist Collections.

racadm supportassist accepteula

Note: The End User License Agreement (EULA) must be accepted before you register SupportAssist.

To accept the EULA, use the **supportassist accepteula** command.

Output:

```
SRV074: The SupportAssist End User License Agreement (EULA) is accepted by iDRAC user <iDRAC username> via iDRAC RACADM interface
```

racadm supportassist geteulastatus

To get the information about EULA acceptance, use the **supportassist geteulastatus** command.

Output:

```
SRV074: The SupportAssist End User License Agreement (EULA) is accepted by iDRAC user <iDRAC username> via iDRAC RACADM interface
```

racadm supportassist collect

To start a SupportAssist Collection and optionally export the collection to network share and/or send it to Dell EMC, run the **supportassist collect** command. It also supports an option to filter the report for Personally Identifiable Information. The supported options are as follows:

-t: <logtype> : The supported log types are:

SysInfo – System Information
OSAppAll – OS and Application data
TTYLog – TTYLog data
Debug – Debug logs and core files

If –t option is not specified, System Information Data is collected.
Multiple options can be given by using a comma as a delimiter.
The options are case-insensitive.

-l: <CIFS/NFS share> : Network share location where the collection must be exported.
-u: <username> : Username for the remote share where the collection must be exported.
-p: <password> : Password for the remote share where the collection must be exported.
--filter : The collection will be filtered for Personally Identifiable Information.
--upload : To send Collection to Dell

- To generate a collection with all data sets included, and to export it to a CIFS network share, use the following command:

```
racadm supportassist collect -t SysInfo, OSAppAll, TTYLog,Debug -l //192.168.10.24/share -u username -p passwd
```
- To generate a collection with all data sets included, and to export it to a NFS network share, use the following command:

```
racadm supportassist collect -t SysInfo, OSAppAll, TTYLog,Debug -l 10.94.161.103:/supportassist_share
```
- To generate a collection and to send it to Dell EMC (when iDRAC is registered for SupportAssist), use the following command.
Note: For information on registering for SupportAssist, see the *SupportAssist on Dell EMC's 14th generation of PowerEdge servers* technical white paper.

```
racadm supportassist collect -t SysInfo, OSAppAll, TTYLog,Debug --upload
```

Note:

- Export to network share and upload to Dell EMC can be combined in a single collect command.
- If none of the export or upload options are specified, the Collection is generated and persisted in iDRAC.

Output:

```
Job ID = JID_123456789012
RAC1154: The requested operation is initiated.
Run the RACADM jobqueue sub-command, using the job id to check the status of the requested operation.
```

racadm supportassist exportlastcollection

To export an existing SupportAssist Collection to a specific network share or to a default network share (See [Setting Default Network](#)).

- To export an existing collection to the default network share (See [Setting Default Network](#)), use the following command:
racadm supportassist exportlastcollection
- To export an existing collection to a specific CIFS share other than the default network share, use the following command:
racadm supportassist exportlastcollection -l //192.168.10.24/share -u username -p passwd
- To export an existing collection to a specific NFS share other than the default network share, use the following command:
racadm supportassist exportlastcollection -l 10.94.161.103:/supportassist_share

Output:

```
Job ID = JID_123456789012
RAC1154: The requested operation is initiated.
Run the RACADM jobqueue sub-command, using the job id to check the status of the requested operation.
```

racadm supportassist uploadlastcollection

To export an existing SupportAssist Collection to Dell EMC (on registered servers), use the **supportassist uploadlastcollection** command.

Note: For information on registering for SupportAssist, see the *SupportAssist on Dell EMC's 14th generation of PowerEdge servers* technical white paper.

Output:

```
Job ID = JID_123456789012
RAC1154: The requested operation is initiated.
Run the RACADM jobqueue sub-command, using the job id to check the status of the requested operation.
```

Job status

To check the status of a job, use the following command:

```
racadm jobqueue view -i JID_123456789012
```

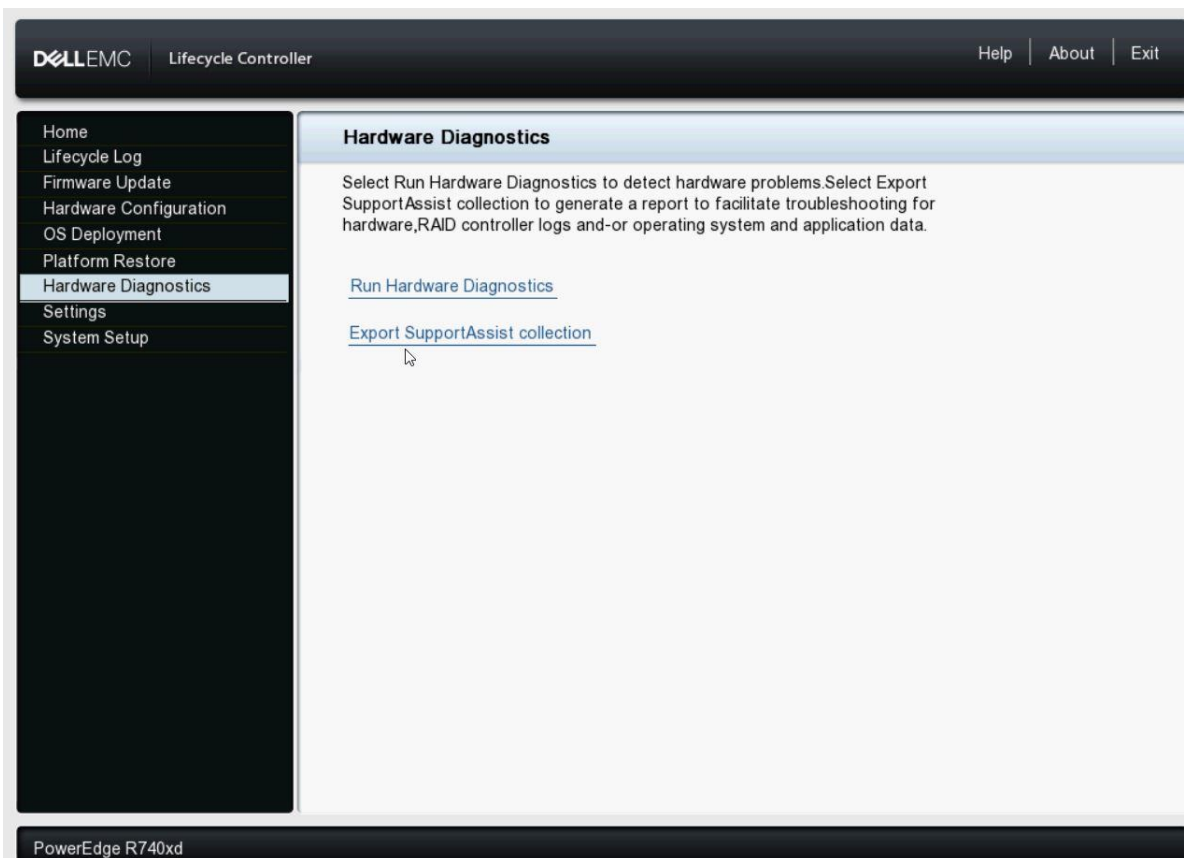
```
[Job ID=JID_123456789012]
Job Name=SupportAssist Collection
Status=Completed
Start Time=[Not Applicable]
Expiration Time=[Not Applicable]
Message=[SRV088: The SupportAssist Collection and Transmission Operation is completed successfully.]
Percent Complete=[100]
```

LIFECYCLE CONTROLLER

For generating a SupportAssist Collection through the Lifecycle Controller User Interface in a pre-boot environment:

1. Reboot server and boot to Lifecycle Controller (F10).
2. Click **Hardware Diagnostics**→ **Export SupportAssist Collection**.
3. Accept the Terms and Conditions and click **Next**.
4. Select the desired data sets to be included in the collection and click **Next**.
Note: Previous collected and cached operating system logs and application data will be included in the collection, if available and selected.
5. Select the destination where the collection has to be sent. The available options are USB Drive or Network share (CIFS/NFS/HTTPs are supported in 14th generation of PowerEdge servers)
6. Review the Summary and click **Finish** to start generating the collection.

The following screen captures illustrate the steps to save the collection to a USB drive.



DELL EMC Lifecycle Controller Help | About | Exit

- Terms and Conditions
- Select Report Data
- Select Export Settings
- Summary

Hardware Diagnostics: Export SupportAssist collection

Step 1 of 4: Terms and Conditions

Select the checkbox to allow Technical Support to collect and use the SupportAssist collection information.

I agree to allow Technical Support to use the SupportAssist collection information.

i Full Terms and Conditions

By using SupportAssist, you allow Dell to save your contact information (e.g. name, phone number, and/or email address) which would be used to provide technical support for your Dell products and services. Dell may use the information for providing recommendations to improve your IT infrastructure.

SupportAssist is a feature that collects information about your computer hardware and software, providing you with an enhanced, personalized and efficient support experience.

How does it work?

SupportAssist collects diagnostic logs and configuration information from monitored systems. This information allows Dell to provide an enhanced support experience and monitor configuration status.

What data is collected?

PowerEdge R740xd
Cancel
Back
Next

DELL EMC Lifecycle Controller Help | About | Exit

- ✓ Terms and Conditions
- Select Report Data
- Select Export Settings
- Summary

Hardware Diagnostics: Export SupportAssist collection

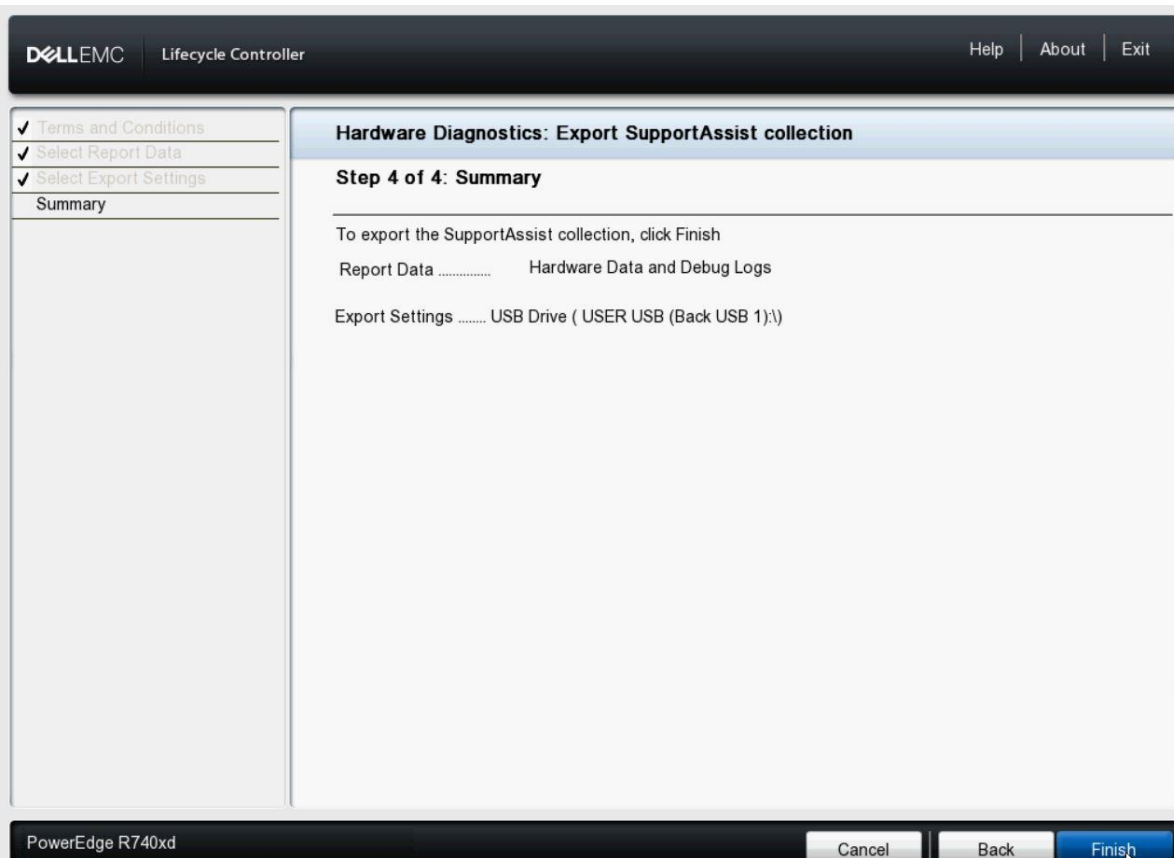
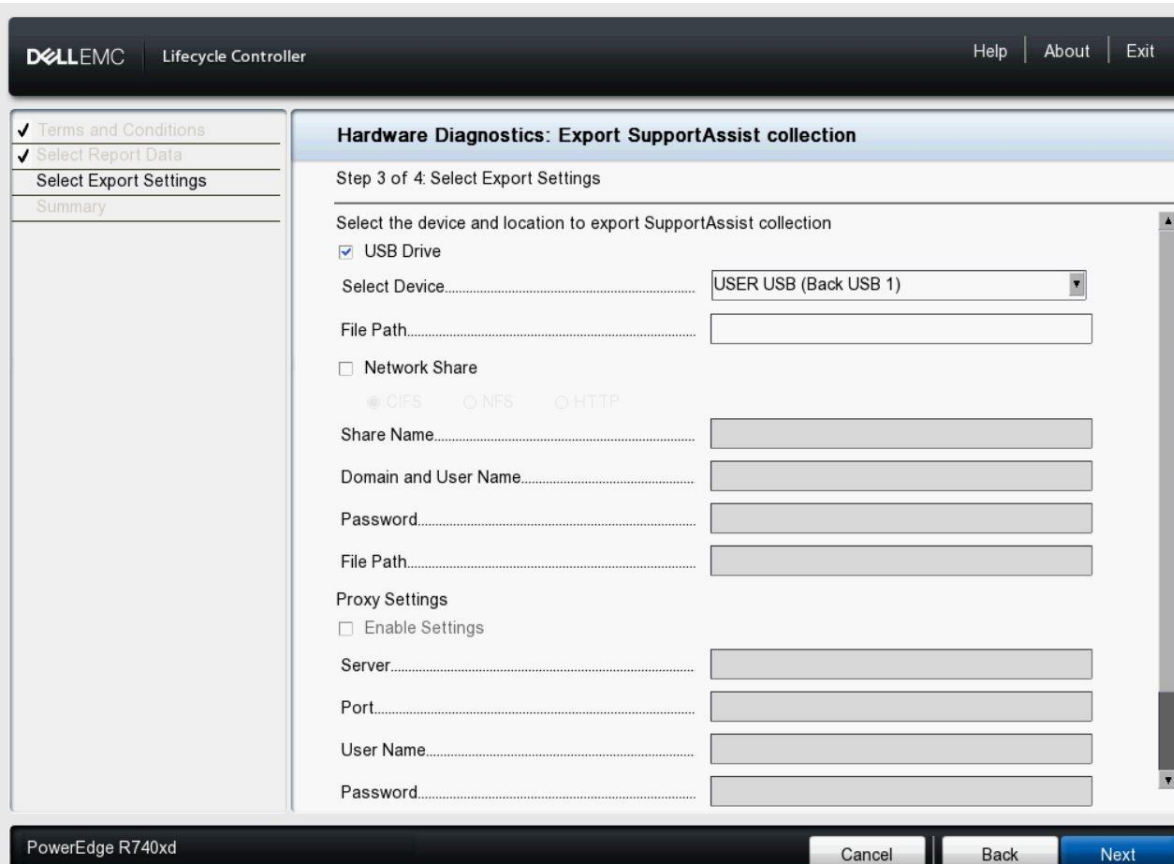
Step 2 of 4: Select Report Data

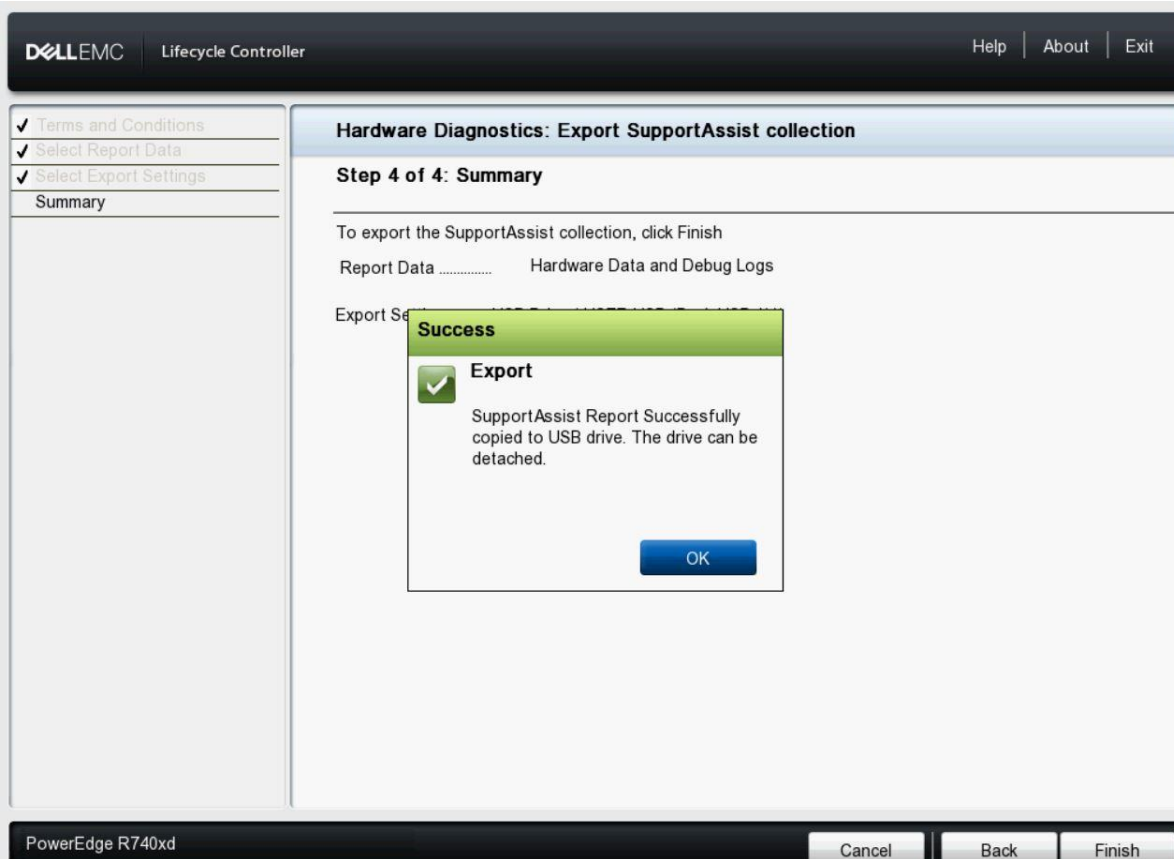
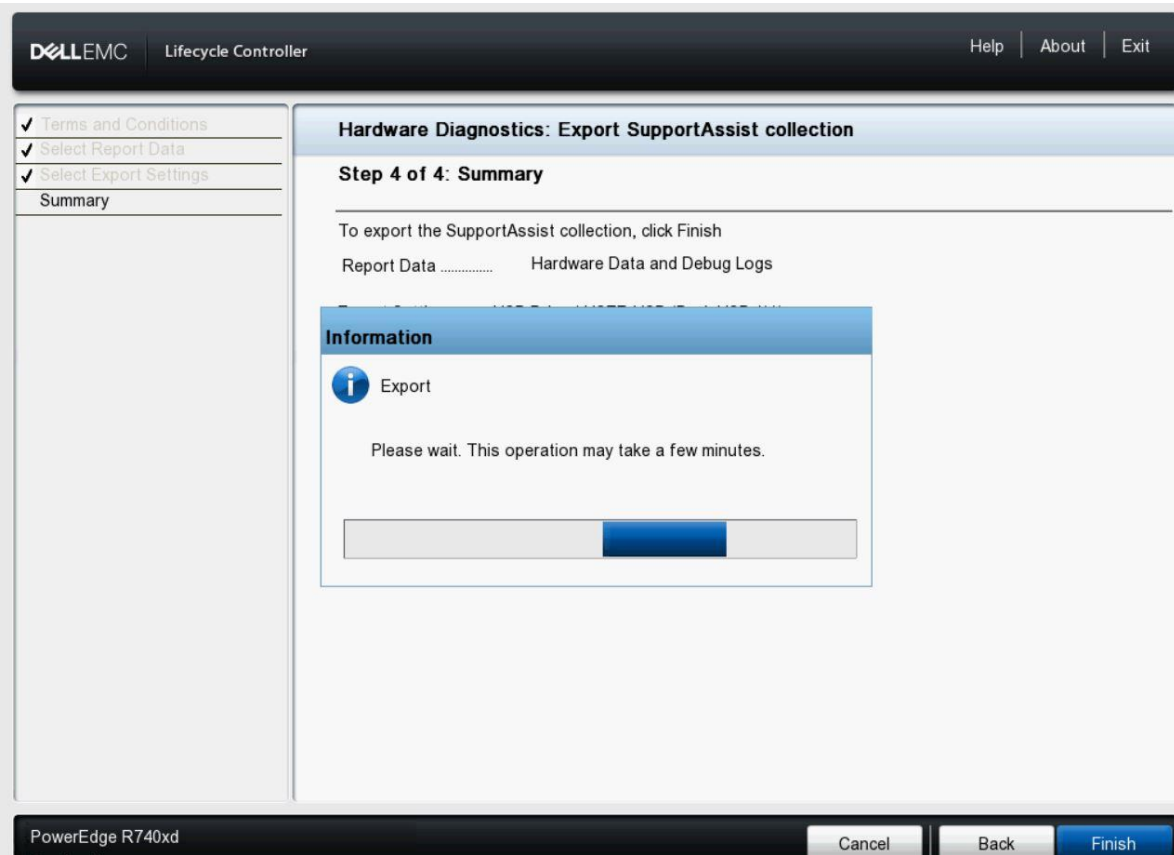
Select the SupportAssist information you would like to export.

- Hardware
- RAID Controller Logs
- Operating System and Application Data
- Debug Logs

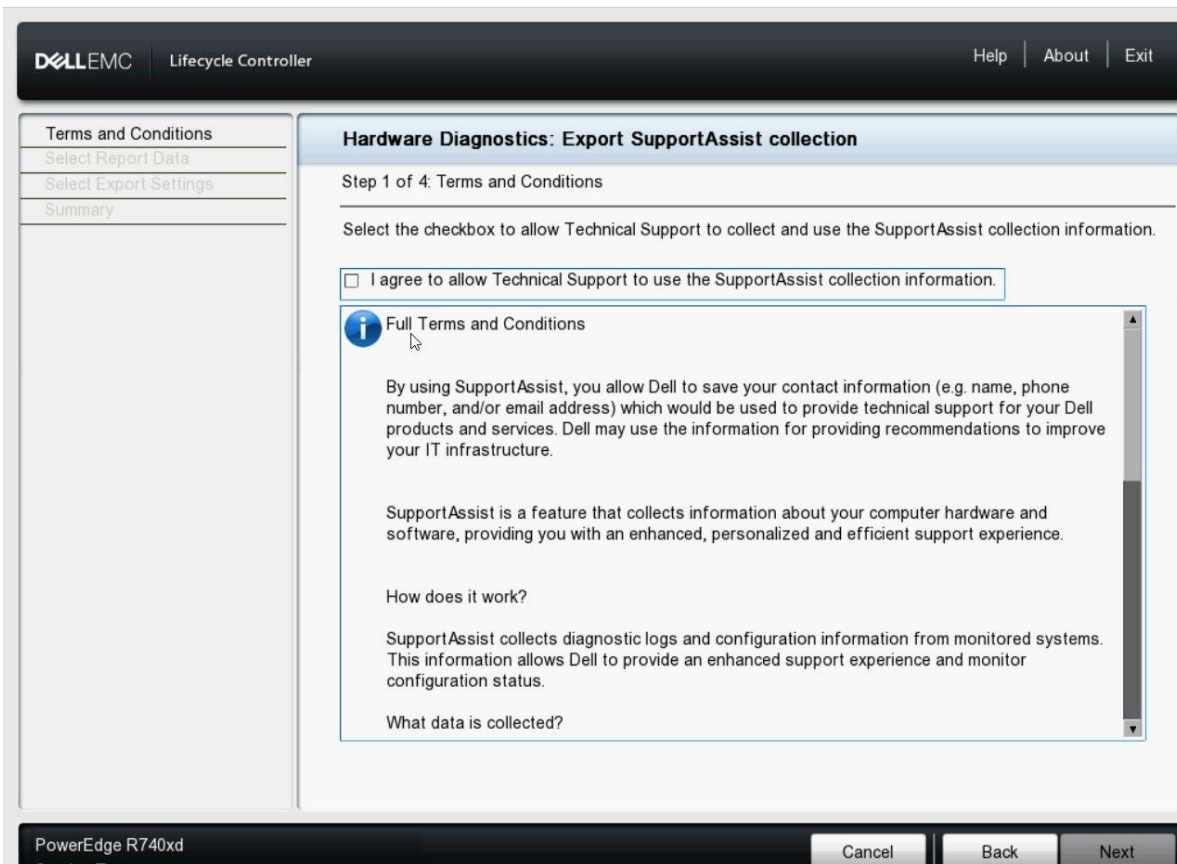
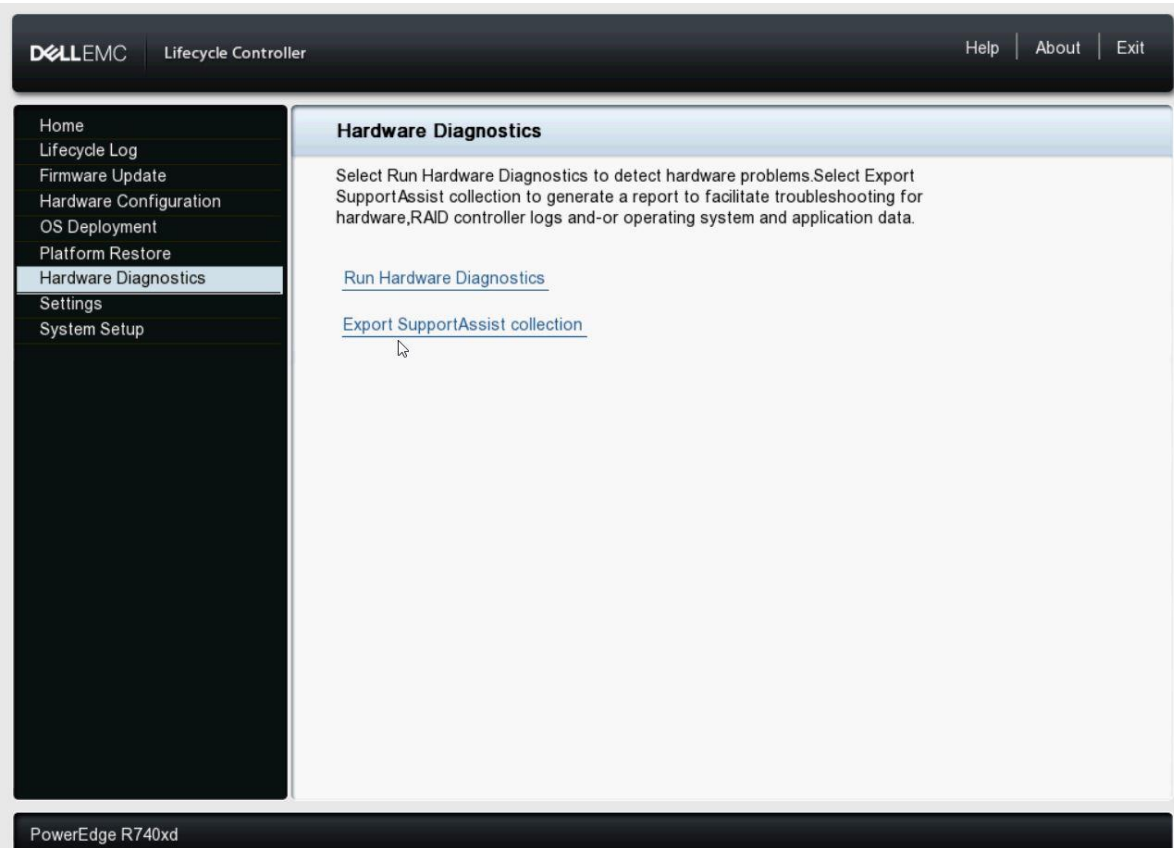
Available Data : Wed Apr 26 16:33:19 2017

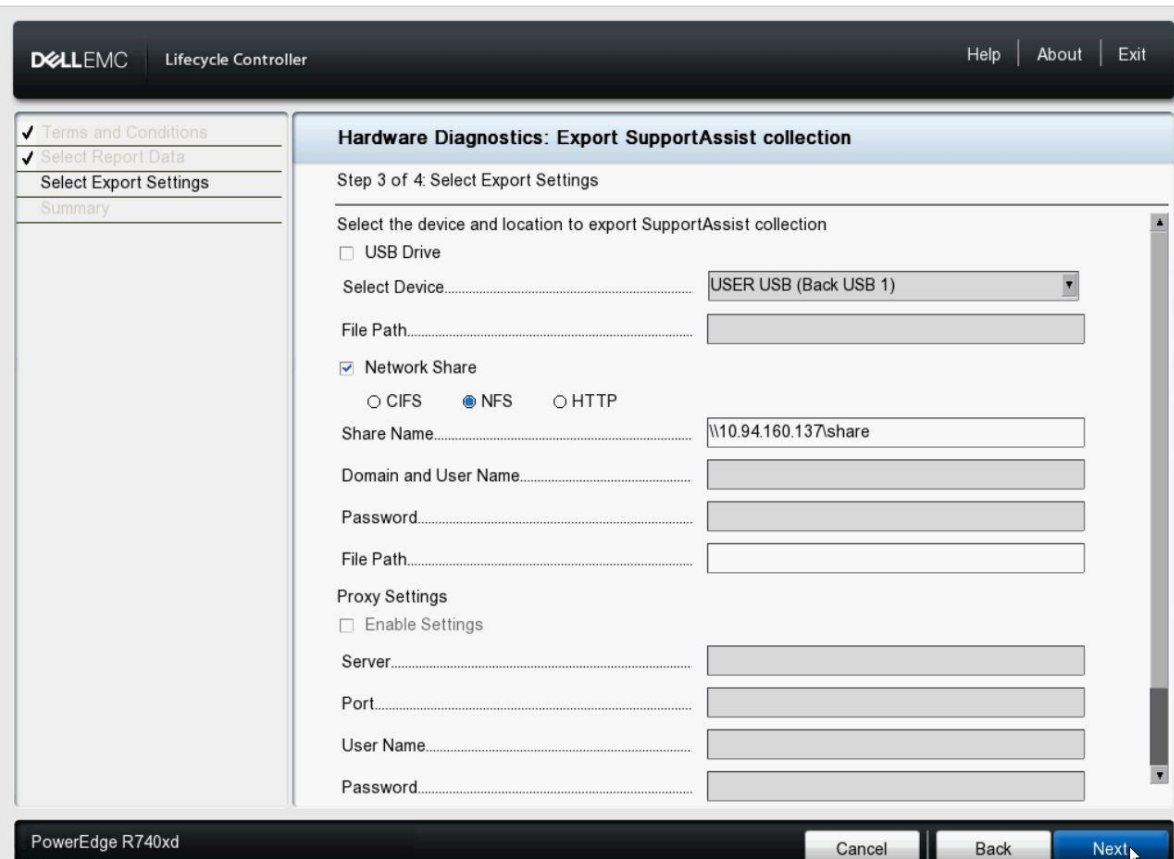
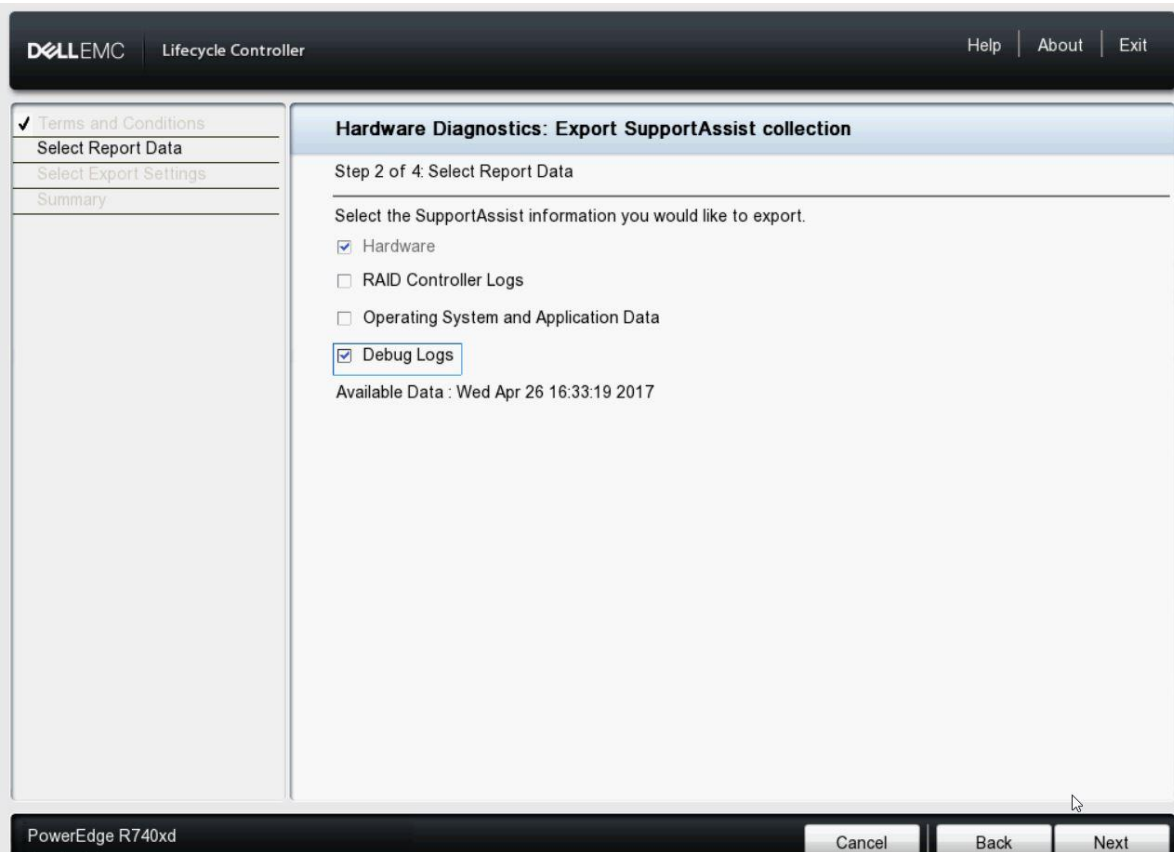
PowerEdge R740xd
Cancel
Back
Next

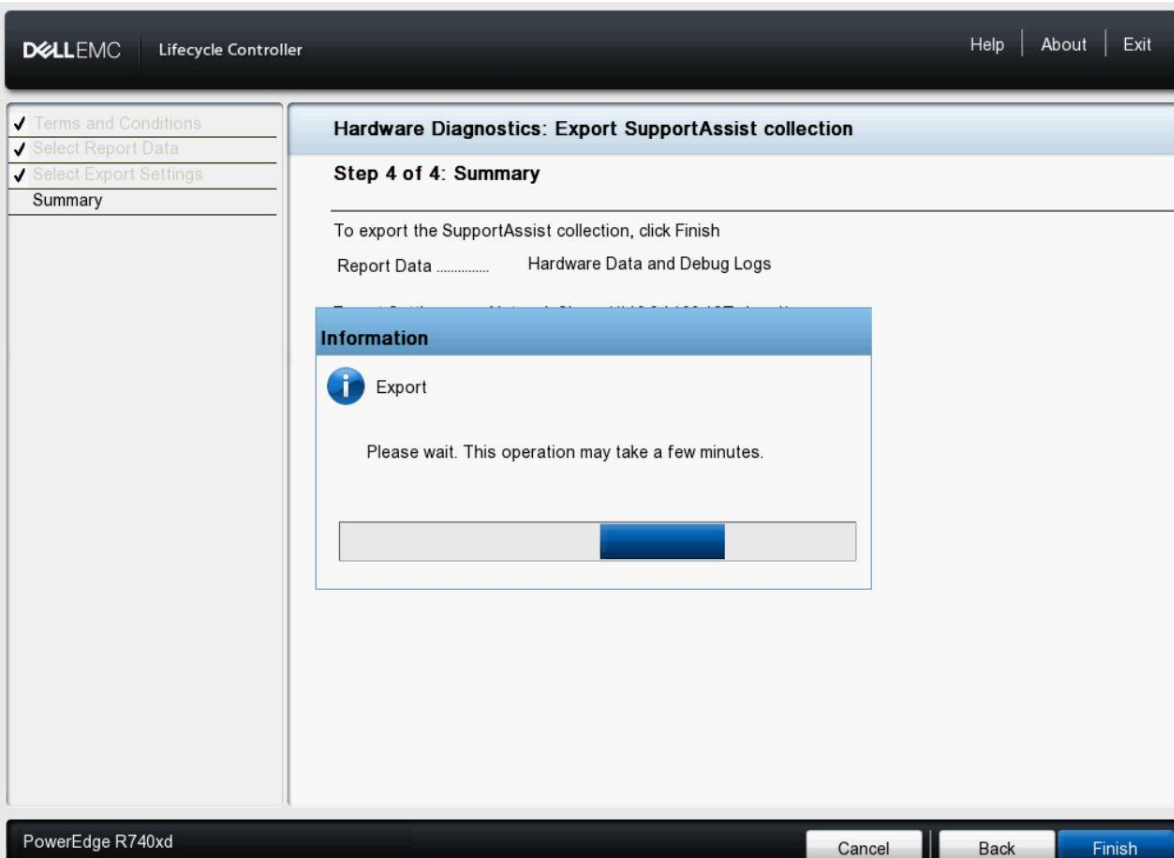
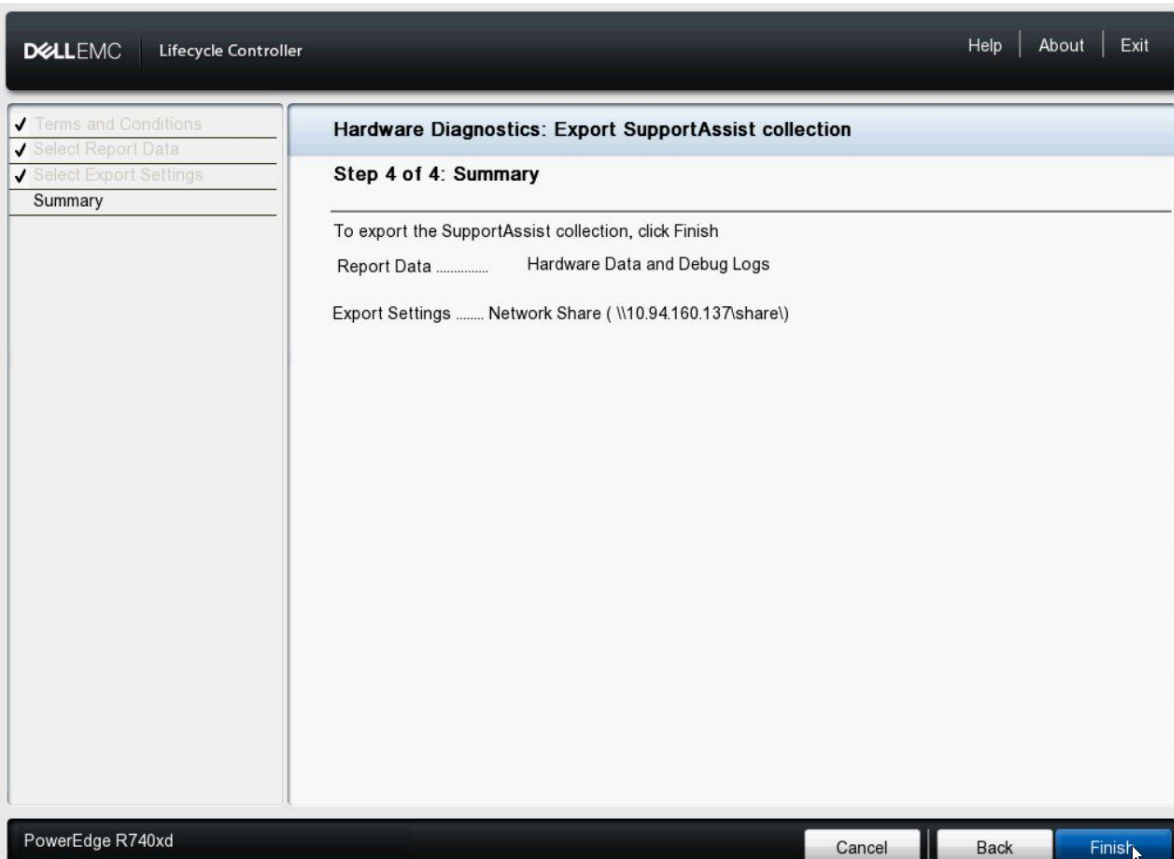




The following screen captures illustrate the steps to save the collection to a NFS share.







- ✓ Terms and Conditions
- ✓ Select Report Data
- ✓ Select Export Settings
- Summary

Hardware Diagnostics: Export SupportAssist collection

Step 4 of 4: Summary

To export the SupportAssist collection, click Finish

Report Data Hardware Data and Debug Logs

Export Se

Success

Export

SupportAssist Report copied successfully to Network Share

OK

IPMI (HOST OS)

If iDRAC is not setup for using any of the iDRAC interfaces (iDRAC GUI, WSMAN, or RACADM), SupportAssist Collection (System information logs only) can be generated from the Host Operating System by using the following IPMI commands.

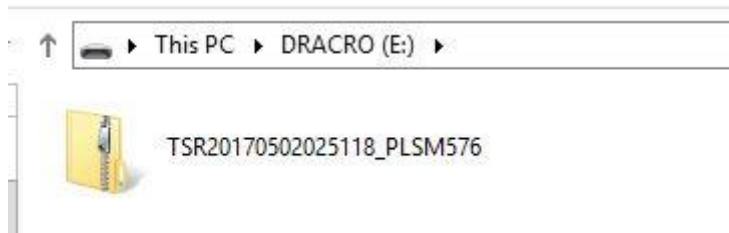
1. Initiate a SupportAssist Collection

To start a SupportAssist Collection, run the following IPMI Command. The command output status code pending (0x02) indicates that the collection has started and is running.

```
C:\>ipmitool -I wmi raw 0x30 0xa8 0x06 0x00 0x00
02 00 00
```

Successful completion of the collection can be verified by using [Get Command Status](#). This command returns pending (0x02) when the operation is running, and success (0x00) when the operation is complete.

After the SupportAssist Collection operation is complete, the user (Host) displays a removable drive that contains the SupportAssist Collection.



2. Close SupportAssist Collection Results

You can save the SupportAssist Collection results to a desired location for viewing at a later time. After the results are saved, you can choose to close the removable drive. If the drive is not explicitly closed, it will be closed automatically by iDRAC after approximately 30 minutes from the time that it was created.

The following IPMI command can be used to close the drive containing the results.

```
C:\>ipmitool -I wmi raw 0x30 0xa8 0x08 0x00 0x00
02 00 00
```

Successful completion of the collection can be verified by using [Get Command Status](#). This command returns pending (0x02) when the operation is running, and success (0x00) when the operation is complete.

3. Get Command Status

The SupportAssist Collection start and Close Results operation status can be checked by using the following status command. The output returned would be the status of last triggered SupportAssist IPMI command. Some of the key return values of the Status command are as follows:

0x00 – Success
0x01 – Failure
0x02 – Pending

Operation in running state:

```
C:\>ipmitool -I wmi raw 0x30 0xa8 0x07 0x00 0x00
02 00 00
```

Operation in successfully completed:

```
C:\>ipmitool -I wmi raw 0x30 0xa8 0x07 0x00 0x00
00 00 00
```

4. Cancel SupportAssist Collection operation

While the SupportAssist Collection is running, if necessary, you can cancel the collection. The following IPMI command stops the SupportAssist Collection process.

```
C:\>ipmitool.exe -I wmi raw 0x30 0xa8 0x09 0x00 0x00  
02 00 00
```

The status of the cancel request can be verified by using [Get Command Status](#). After the operation is canceled, the status command will return 0x07 indicating that you had requested to cancel the collection.

IDRAC SERVICE MODULE (ISM) SERVICE IN HOST OS

If iDRAC is not setup for using any of the iDRAC interfaces (iDRAC GUI, WSMAN, or RACADM), SupportAssist Collection can be generated from the Host Operating System by using iSM.

A collection generated through iSM will include System Information, OS logs, and application data. A collection generated through iSM can also be filtered for Personally Identifiable Information. For more information on filtering, see the [Filtered Vs Non-Filtered Collection](#) section.

Pre-requisites:


- iSM should be installed and running in the Host OS.
- Host OS user must have administrator privileges to generate a SupportAssist Collection.

To generate a SupportAssist Collection through iSM, use the following command.

Starting a collection on Windows

1. Open a Command Prompt.
2. Type `cd C:\Program Files\Dell\SysMgt\iSM\shared\bin` and press Enter.
3. Type `Invoke-SupportAssistCollection.exe` and press Enter.

The SupportAssist Collection will be downloaded to the default location. On Windows, the default download location is the user's Downloads folder.



```
Administrator: C:\Windows\System32\cmd.exe
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.
C:\Program Files\Dell\SysMgt\iSM\shared\bin>Invoke-SupportAssistCollection.exe
SupportAssist log Collection is in progress..
[|||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||]100%
Downloading the collected log file is in progress..
SupportAssist Collection logs can be found in path C:\Users\Administrator\Downloads\ISR20170404160110_R740PT6.zip
C:\Program Files\Dell\SysMgt\iSM\shared\bin>
```

Starting a collection on Linux or ESXi

1. Open the terminal window.
2. Type `cd /opt/dell/srvadmin/iSM/bin/` and press Enter.
3. Type `Invoke-SupportAssistCollection` and press Enter.

The SupportAssist Collection will be downloaded at the default location. On Linux, the default download location is the user's Downloads directory. If the directory is not present, the collection is downloaded to the user's home directory.

On ESXi, the default download location is the temp directory.

Command Usage

Invoke-SupportAssistCollection [options]

options:

- `--help/-h`
To display the help content.
- `--filepath/-f <Destination directory>`
Use this option to download SupportAssist logs to the user specified directory.

You can specify the destination path by using the `-f` command line option.

COLLECTION VIEWER

The SupportAssist Collection Viewer is a HTML file that is bundled along with the SupportAssist Collection. The Collection Viewer file can be found in the collection directory under /tsr.

The Collection Viewer displays the inventory, configuration, and LC-related information of the iDRAC.

The screenshot shows the SupportAssist Collection Viewer interface with the following sections:

- System:**
 - Model: PowerEdge R740xd
 - OS: Microsoft Windows Server 2012 R2 Standard
 - Host: WIN-02GODDHDJTC
 - Report Generated: 2017-04-13 02:37:37
- Inventory:**
 - CPUs:** 1 & 2, Xeon Gold 6130 (16 cores each)
 - DIMMs:** A1-B1, Micron Technology 9ASF1G72PZ-2G6D1 8 GB Single-Rank DDR4 2.67 GHz
 - NICs:** Integrated 1, Broadcom Limited NetXtreme BCM5720 Gigabit Ethernet PCIe
 - Storage:** Slot 6, PERC H730P Adapter
 - Disks:** Internal 0-1, SEAGATE 600 GB; Slot 0, ST600MM0238
- Firmware:**
 - BIOS: 0.5.0
 - CPLD: 0.4.0
 - DRAC & LC: 3.20.20.20
- Historic SEL Entries:**
 - 2017-04-12 21:26:39: The system board VGA cable or interconnect is not connected, or is improperly connected.
 - 2017-04-12 21:04:54: The system board VGA cable or interconnect is not connected, or is improperly connected.
 - 2017-04-12 18:50:05: An OEM diagnostic event occurred.
 - 2017-04-12 18:50:05: An OEM diagnostic event occurred.
 - 2017-04-12 18:50:05: An OEM diagnostic event occurred.
 - 2017-04-12 18:50:04: An OEM diagnostic event occurred.
 - 2017-04-12 18:50:04: An OEM diagnostic event occurred.
 - 2017-04-12 18:50:04: An OEM diagnostic event occurred.
 - 2017-04-12 18:50:04: An OEM diagnostic event occurred.
 - 2017-04-12 18:50:04: An OEM diagnostic event occurred.
 - 2017-04-12 18:50:04: An OEM diagnostic event occurred.
 - 2017-04-12 18:50:03: Correctable Machine Check Exception detected on CPU 1.
 - 2017-04-12 18:33:36: An OEM diagnostic event occurred.
 - 2017-04-12 18:33:35: An OEM diagnostic event occurred.
 - 2017-04-12 18:33:35: An OEM diagnostic event occurred.
 - 2017-04-12 18:33:35: An OEM diagnostic event occurred.
 - 2017-04-12 18:33:35: An OEM diagnostic event occurred.
 - 2017-04-12 18:33:34: An OEM diagnostic event occurred.
 - 2017-04-12 18:33:34: An OEM diagnostic event occurred.
 - 2017-04-12 18:33:34: An OEM diagnostic event occurred.
 - 2017-04-12 17:50:21: An OEM diagnostic event occurred.
 - 2017-04-12 17:50:20: An OEM diagnostic event occurred.
 - 2017-04-12 17:50:20: An OEM diagnostic event occurred.
 - 2017-04-12 17:50:20: An OEM diagnostic event occurred.
 - 2017-04-12 17:50:19: An OEM diagnostic event occurred.
 - 2017-04-12 17:50:19: An OEM diagnostic event occurred.

You can navigate the page for overview of the system info, SEL entries, board, CPU, Memory, Power, PCI devices, Network (Ethernet and Fibre), Storage (Controllers, Enclosures, Batteries, and Disks), and Sensors. The following are some examples of the categories of information that are collected.

Ethernet							
Location	Bus:Dev:Func	Model	Speed	Link	MAC Address	VLAN	Firmware
Integrated 1, Port 1	024:00:00	NetXtreme BCM5720 Gigabit Ethernet PCIe	1 Gbps	Connected	18:66:DA:F0:DA:5C	Disabled	7.10.0
Integrated 1, Port 2	024:00:01	NetXtreme BCM5720 Gigabit Ethernet PCIe	Unknown	Disconnected	18:66:DA:F0:DA:5D	Disabled	7.10.0
Integrated 1, Port 3	025:00:00	NetXtreme BCM5720 Gigabit Ethernet PCIe	Unknown	Disconnected	18:66:DA:F0:DA:5E	Disabled	7.10.0
Integrated 1, Port 4	025:00:01	NetXtreme BCM5720 Gigabit Ethernet PCIe	Unknown	Disconnected	18:66:DA:F0:DA:5F	Disabled	7.10.0

PCI Devices

Bus:Dev:Func	Vendor	Description	Location
000:00:00	Intel Corporation	Intel Corporation	HostBridge.Embedded.1-1
000:17:05	Intel Corporation	Lewisburg SSATA Controller [AHCI mode]	AHCI.Embedded.1-1
000:23:00	Intel Corporation	Lewisburg SATA Controller [AHCI mode]	AHCI.Embedded.2-1
000:28:00	Intel Corporation	Lewisburg PCI Express Root Port #1	P2PBridge.Embedded.1-1
000:28:04	Intel Corporation	Lewisburg PCI Express Root Port #5	P2PBridge.Embedded.2-1
000:31:00	Intel Corporation	Lewisburg LPC Controller	ISABridge.Embedded.1-1
000:31:04	Intel Corporation	Lewisburg SMBus	SMBus.Embedded.3-1
003:00:00	Matrox Electronics Systems Ltd.	Matrox Electronics Systems Ltd.	Video.Embedded.1-1
024:00:00	Broadcom Limited	NetXtreme BCM5720 Gigabit Ethernet PCIe	NIC.Integrated.1-1-1
024:00:01	Broadcom Limited	NetXtreme BCM5720 Gigabit Ethernet PCIe	NIC.Integrated.1-2-1
025:00:00	Broadcom Limited	NetXtreme BCM5720 Gigabit Ethernet PCIe	NIC.Integrated.1-3-1
025:00:01	Broadcom Limited	NetXtreme BCM5720 Gigabit Ethernet PCIe	NIC.Integrated.1-4-1
026:00:00	LSI Logic / Symbios Logic	PERC H730P Adapter	RAID.Slot.6-1

Power Supplies

Index	Vendor	Output	Input	Redundancy	Part	PPID	Firmware
1	Delta	750W	212V	Redundancy Capable	5NF18	CN05NF18179723595PI6A01	07.2B.80
2	Delta	750W	212V	Redundancy Capable	5NF18	CN05NF18179723595PIGA01	07.2B.80

The Config tab displays all the configuration related information of the system. It also provides a search option that you can use to filter by keywords for faster lookup.

SupportAssist Collection Viewer

[Inventory](#)
[Config](#)
[Raw](#)
[Lifecycle Log](#)

Config

- System Model Name PowerEdge R740xd
 - Logical Processor Idling Disabled
 - Configurable TDP Nominal
 - CPU Power Management SysDbpm
 - Power Saver Disabled
 - Power Button Enabled
 - AC Power Recovery Last
 - AC Power Recovery Delay Immediate
 - System Power Units Watts
 - Power Cap Policy Disabled
 - Maximum Power Cap 628
 - Minimum Power Cap 413
 - Power Cap (Watts) 32767
 - Redundancy Policy Not Redundant
 - Enable Hot Spare Enabled
 - Primary Power Supply Unit PSU1
 - Enable Power Factor Correction Disabled

The Raw tab displays the complete inventory information. You can use the options in the View menu to view the Full Inventory or Firmware Only information.

Device	Parameter	Full Inventory	Firmware Only	Value
AHCI.Embedded.1-1	AlarmState			Unknown
	Bus			0
	BusNumber			0
	CachecadeCapability			Cachecade Virtual Disk not supported
	CacheSizeInMB			0 MB
	ConnectorCount			0
	ControllerFirmwareVersion			
	DataBusWidth			Unknown
	Description			Lewisburg SSATA Controller [AHCI mode]
	Device			0
	DeviceCardDataBusWidth			Unknown
	DeviceCardManufacturer			DELL
	DeviceCardSlot.Length			Unknown
	DeviceCardSlot.Type			Unknown
	DeviceDescription			Embedded AHCI 1
	DeviceNumber			17
	DriverVersion			Not Applicable
	EncryptionCapability			None
	EncryptionMode			None
	FQDD			AHCI.Embedded.1-1
	Function			0
	FunctionNumber			5
	InstanceID			AHCI.Embedded.1-1
	KeyID			
	LastSystemInventoryTime			2017-04-05T21:04:17
	LastUpdateTime			2017-04-01T01:37:39

The Collection Viewer also enables you to compare two viewer files. With one viewer file open, you can drag and drop the second viewer file that you want to compare. This creates a compare tab that displays a comparison of all collected attributes.

Additionally, the raw data or comparison data can be exported to the local system by using the Export tab.

Device	Parameter	R740xd (2017-04-13 02:37:37)	FZM10Z1 - R640 (2017-04-13 11:43:14)
AHCI.Embedded.1-1	AlarmState	Unknown	Unknown
	Bus	0	0
	BusNumber	0	0
	CachecadeCapability	Cachecade Virtual Disk not supported	Cachecade Virtual Disk not supported
	CacheSizeInMB	0 MB	0 MB
	ConnectorCount	0	0
	ControllerFirmwareVersion		
	DataBusWidth	Unknown	Unknown
	Description	Lewisburg SSATA Controller [AHCI mode]	Lewisburg SSATA Controller [AHCI mode]
	Device	0	0
	DeviceCardDataBusWidth	Unknown	Unknown
	DeviceCardManufacturer	DELL	DELL
	DeviceCardSlot.Length	Unknown	Unknown
	DeviceCardSlot.Type	Unknown	Unknown
	DeviceDescription	Embedded AHCI 1	Embedded AHCI 1
	DeviceNumber	17	17
	DriverVersion	Not Applicable	Not Applicable
	EncryptionCapability	None	None
	EncryptionMode	None	None
	FQDD	AHCI.Embedded.1-1	AHCI.Embedded.1-1
	Function	0	0
	FunctionNumber	5	5
	InstanceID	AHCI.Embedded.1-1	AHCI.Embedded.1-1
	KeyID		
	LastSystemInventoryTime	2017-04-05T21:04:17	2017-04-06T14:48:09

The Lifecycle Logs can also be viewed based on a range of dates that you select. You can also export these logs to local system.

SupportAssist Collection Viewer Inventory Config Raw Lifecycle Log

View Severity Range Flip Page 1 of 94 Export

Date	Time	Code	Message
2017-04-12	21:36:41	LOG008	
2017-04-12	21:36:25	SRV006	
2017-04-12	21:36:25	SRV001	
2017-04-12	21:36:25	SRV087	
2017-04-12	21:33:25	USR0032	
2017-04-12	21:33:20	LOG008	
2017-04-12	21:33:11	SRV008	
2017-04-12	21:33:11	SRV005	
2017-04-12	21:33:11	SRV009	
2017-04-12	21:33:05	SRV006	
2017-04-12	21:33:05	SRV001	
2017-04-12	21:33:05	SRV087	
2017-04-12	21:32:42	LOG008	
2017-04-12	21:32:37	SRV008	
2017-04-12	21:32:37	SRV005	The SupportAssist Job JID_920507465227 is cancelled.
2017-04-12	21:32:37	SRV009	There was an issue retrieving System information for SupportAssist.
2017-04-12	21:32:26	SRV006	The SupportAssist System information collection operation is started.
2017-04-12	21:32:26	SRV001	The SupportAssist Collection operation is started by AUTO_SCHEDULER.
2017-04-12	21:32:26	SRV087	The SupportAssist Collection Job JID_920507465227 is successfully created.
2017-04-12	21:31:10	USR0030	Successfully logged in using root, from 10.30.189.6 and SSH.
2017-04-12	21:31:10	LOG007	The previous log entry was repeated 3 times.
2017-04-12	21:30:30	USR0030	Successfully logged in using root, from 10.35.224.218 and wsman.
2017-04-12	21:30:30	LOG007	The previous log entry was repeated 3 times.
2017-04-12	21:30:19	USR0030	Successfully logged in using root, from 10.32.19.203 and wsman.
2017-04-12	21:30:19	LOG007	The previous log entry was repeated 3 times.

Next Page

SETTING DEFAULT NETWORK SHARE FOR SAVING COLLECTIONS

iDRAC GUI

1. Log in to the iDRAC GUI
2. Click **Maintenance**→ **SupportAssist**.
If the server is not registered for SupportAssist, the **SupportAssist Registration** wizard is displayed.
3. Click **Cancel**→ **Cancel Registration**.
4. Scroll to the bottom of the page and click **Settings**→ **Collection Settings**→ **Set Archive Directory**.
5. Select the protocol and enter the network share details.
6. Click **Set as Default** to set it as the default share for saving collections.

WSMAN

ApplyAttributes()

To set the default attributes for network share, send the following WSMAN SOAP packet.

Request SOAP packet:

```
<?xml version="1.0"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:wsman="http://schemas.dmtf.org/wbem/wsman/1/wsman.xsd"
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_iDRACCardService">
  <s:Header>
    <wsa:Action s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_iDRACCardService/ApplyAttributes</wsa:Action>
    <wsa:To s:mustUnderstand="true">https://10.94.225.31:443/wsman</wsa:To>
    <wsman:ResourceURI s:mustUnderstand="true">http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_iDRACCardService</wsman:ResourceURI>
    <wsa:MessageID s:mustUnderstand="true">uuid:82de0cd8-4f16-1f16-8002-
6cbb576a0064</wsa:MessageID>
    <wsa:ReplyTo>
</wsa:ReplyTo>
  </s:Header>
  <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
  </wsa:ReplyTo>
  <wsman:SelectorSet>
    <wsman:Selector Name="Name">DCIM:iDRACCardService</wsman:Selector>
    <wsman:Selector Name="SystemName">DCIM:ComputerSystem</wsman:Selector>
    <wsman:Selector Name="CreationClassName">DCIM_iDRACCardService</wsman:Selector>
    <wsman:Selector Name="SystemCreationClassName">DCIM_ComputerSystem</wsman:Selector>
  </wsman:SelectorSet>
</s:Header>
<s:Body>
  <n1:ApplyAttributes_INPUT>
    <n1:Target>iDRAC.Embedded.1</n1:Target>
    <n1:AttributeName>SupportAssist.1#DefaultProtocol</n1:AttributeName>
    <n1:AttributeValue>NFS</n1:AttributeValue>
    <n1:AttributeName>SupportAssist.1#DefaultIPAddress</n1:AttributeName>
    <n1:AttributeValue>10.94.224.124</n1:AttributeValue>
    <n1:AttributeName>SupportAssist.1#DefaultShareName</n1:AttributeName>
    <n1:AttributeValue>/home/kiran_k2/nfsshare</n1:AttributeValue>
    <n1:AttributeName>SupportAssist.1#DefaultUserName</n1:AttributeName>
    <n1:AttributeValue>wsman</n1:AttributeValue>
    <n1:AttributeName>SupportAssist.1#DefaultPassword</n1:AttributeName>
    <n1:AttributeValue>password</n1:AttributeValue>
    <n1:AttributeName>SupportAssist.1#DefaultworkgroupName</n1:AttributeName>
    <n1:AttributeValue>work</n1:AttributeValue>
  </n1:ApplyAttributes_INPUT>
</s:Body>
</s:Envelope>
```

Output WSMAN SOAP packet:

```
<?xml version="1.0" encoding="UTF-8"?>
<s:Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/root/dcim/DCIM_iDRACCardService"
xmlns:wsman="http://schemas.dmtf.org/wbem/wsman/1/wsman.xsd">
  <s:Header>
    <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
    <wsa:Action>http://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/root/dcim/DCIM_iDRACCardService/ApplyAttributesResponse</wsa:Action>
    <wsa:RelatesTo>uuid:82de0cd8-4f16-1f16-8002-6cbb576a0064</wsa:RelatesTo>
    <wsa:MessageID>uuid:4d36d620-f5ad-15ad-818a-2403d5eb7b84</wsa:MessageID>
  </s:Header>
  <s:Body>
    <n1:ApplyAttributes_OUTPUT>
      <n1:Job>
        <wsa:EndpointReference>
          <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
          <wsa:ReferenceParameters>
            <wsman:ResourceURI>http://schemas.dell.com/wbem/wscim/1/cim-
schema/2/DCIM_LifecycleJob</wsman:ResourceURI>
            <wsman:SelectorSet>
              <wsman:Selector Name="InstanceID">JID_774995571198</wsman:Selector>
              <wsman:Selector Name="__cimnamespace">root/dcim</wsman:Selector>
            </wsman:SelectorSet>
          </wsa:ReferenceParameters>
        </wsa:EndpointReference>
      </n1:Job>
      <n1:ReturnValue>4096</n1:ReturnValue>
    </n1:ApplyAttributes_OUTPUT>
  </s:Body>
</s:Envelope>
```

The default network share attributes that you can set are as follows:

- SupportAssist.1#DefaultProtocol
- SupportAssist.1#DefaultIPAddress
- SupportAssist.1#DefaultShareName
- SupportAssist.1#DefaultUserName
- SupportAssist.1#DefaultPassword
- SupportAssist.1#DefaultWorkgroupName

RACADM

- To save a default protocol for network share, use the following command:

```
racadm set idrac.supportassist.DefaultProtocol 1
```

The accepted protocol are NFS (1) and CIFS (2). The default protocol is CIFS.

- To save a default sharename for network share, use the following command:

```
racadm set idrac.supportassist.DefaultShareName /home/nfs_share
```

The ShareName attribute accepts a string of 0 to 64 characters in length.

- To save a default IP Address for network share, use the following command:

```
racadm set idrac.supportassist.DefaultIPAddress 10.232.117.89
```

The IPAddress attribute accepts valid IPv4 and IPv6 address.

- To save a default User Name for network share, use the following command:

```
racadm set idrac.supportassist.DefaultUserName user1
```

The UserName attribute accepts a string of 0 to 64 characters in length.

- To save a default Password for network share, use the following command:

```
racadm set idrac.supportassist.DefaultPassword password
```

The Password attribute accepts a string of 0 to 64 characters in length.

- To save a default workgroup name for network share, use the following command:

```
racadm set idrac.supportassist.DefaultWorkgroupName workgroupname
```

The WorkgroupName attribute accepts a string of 0 to 64 characters in length.

FILTERED VS NON-FILTERED COLLECTION

If necessary, you can also filtered Personally Identifiable Information (PII) from SupportAssist Collections. The option to filter the SupportAssist Collection can be selected during a manual collection generation through all available iDRAC interfaces.

IDRAC GUI

SupportAssist Collection ?

Select the data to include in the SupportAssist Collection

Data to Collect

- System Information i
- Storage Logs
- OS and Application Data i
- Debug Logs i

Collection Preferences

- Filter Data i

Send Now Save Locally Save to Network

Cancel Collect

WSMAN

<p:Filter>1</p:Filter>

RACADM

`racadm supportassist collect - - filter`

- Filtered collections will exclude Personally Identifiable Information from System Information Data.
- Filtered collections will include filtered OS Application Data, if available on the installed Host Operating System.
- Filtered collections will exclude the entire Storage Logs and Debug logs (if these data sets were selected during collection generation).
- Filtered collections will exclude Chassis logs on Odyssey platforms.
- Filtered collections will include Chassis logs for Enclosure Controller (14th generation modular) platforms.
- By default filtering is disabled, when the filter option is not specified.
- For scheduled auto collections, the filtering option can be set in SupportAssist settings. For information on filtering automatic collections, see the *SupportAssist on Dell EMC's 14th generation of PowerEdge servers* technical white paper.

APPENDIX

1. How to build and execute wsman commands:
<http://en.community.dell.com/techcenter/systems-management/w/wiki/4374.how-to-build-and-execute-wsman-method-commands>