User Guide - English

FUJITSU Software ServerView Suite

ServerView PrimeCollect

Edition March 2016

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Certified documentation according to DIN EN ISO 9001:2008

To ensure a consistently high quality standard and user-friendliness, this documentation was created to meet the regulations of a quality management system which complies with the requirements of the standard DIN EN ISO 9001:2008.

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Contents

1 Introduction

This manual describes the product **PrimeCollect** which enables you to collect and store information about the hardware and software of PRIMERGY servers. For example, it determines information about the system, the operating system, BIOS version, RAID configurations, sensor values (e.g. temperature values) or various log entries (e.g. System Event Log). The data determined is collected in a zip archive, which you can then send to the Technical Support of Fujitsu. When a problem occurs, PrimeCollect facilitates analysis by the Technical Support of Fujitsu and therefore helps to solve problems more quickly. PrimeCollect data is only collected for analysis by Technical Support. Therefore, details of PrimeCollect data will not published.

The PrimeCollect function is provided either via the ServerView Agents or via the eLCM (embedded Life Cycle Management) of PRIMERGY servers (see overview of "ServerView embedded Lifecycle Management (eLCM)").

eLCM is largely integrated into the iRMC S4 and contains the eLCM PrimeCollect function for creating PrimeCollect archive files.

When using PrimeCollect via the ServerView Agents, you must start PrimeCollect manually on one of your systems in order to record log data.

In the case of eLCM PrimeCollect, the creation of PrimeCollect archive files is based on the interaction between the iRMC S4 and the ServerView Agents or the ServerView Agentless Service. The ServerView Agents or the ServerView Agentless Service are required for using the eLCM PrimeCollect function.

Even in cases where ServerView Agents or the ServerView Agentless Service are not running, a subset of hardware and software information, comprising mainly service incidents, can be made available directly out-of-band from the iRMC. This information is provided by the **System Report**. For a detailed description of the **System Report**, see the manual "iRMC S4 - integrated Remote Management Controller ".

eLCM PrimeCollect extends and supports ServerView PrimeCollect, since you can use it to create PrimeCollect archives and save them to the SD card of the iRMC S4, for example.

Security

Before sending the archive created with PrimeCollect, you can review its contents and – if your security strategy requires this – you can delete individual files from the archive before sending the archive to Support. You can also decide not to send the archive at all.

1.1 Target groups

This manual is intended for system administrators, network administrators and service technicians who have a thorough knowledge of hardware and software.

1.2 Changes since the previous manual

This edition is valid for ServerView PrimeCollect as of ServerView V7.10 and replaces the online manual: “ServerView Suite, PrimeCollect“, February 2015 edition.

The manual features the following changes and enhancements:

- Update for the new version.
- New chapter "iRMC system report for VMware" on page 20.
- VMware ESX is no longer supported.

1.3 ServerView Suite link collection

Via the ServerView Suite link collection, Fujitsu provides you with numerous downloads and further information on the ServerView Suite and PRIMERGY servers.

For ServerView Suite, links are offered on the following topics:

- Forum
- Service Desk
- Manuals
- Product information
- Security information
- Software downloads
- Training

The downloads include the following:

- Current software statuses for the ServerView Suite as well as additional Readme files.
- Information files and update sets for system software components (BIOS, firmware, drivers, ServerView Agents and ServerView Update Agents) for updating the PRIMERGY servers via ServerView Update Manager or for locally updating individual servers via ServerView Update Manager Express.
- The current versions of all documentation on the ServerView Suite.

You can retrieve the downloads free of charge from the Fujitsu web server.

For PRIMERGY servers, links are offered on the following topics:

- Service Desk
- Manuals
- Product information
- Spare parts catalogue

Access to the ServerView Suite link collection

You can reach the link collection of the ServerView Suite in various ways:

1. Via ServerView Operations Manager.
   - Select **Help** – **Links** on the start page or the menu bar.

This opens the start page of the ServerView Suite link collection.

2. Via the start page of the online documentation for the ServerView Suite on the Fujitsu manual server.

You access the start page of the online documentation via the following link:

http://manuals.ts.fujitsu.com

   - In the selection list on the left, select **x86 Servers**.
   - On the right, click **PRIMERGY ServerView Links** under **Selected documents**.

This opens the start page of the ServerView Suite link collection.

3. Via the ServerView Suite DVD 2.
   - In the start window of the ServerView Suite DVD 2, select the option **ServerView Software Products**.
   - On the menu bar select **Links**.

This opens the start page of the ServerView Suite link collection.

1.4 Documentation for the ServerView Suite

The documentation can be downloaded free of charge from the Internet. You will find the online documentation at http://manuals.ts.fujitsu.com under the link **x86 Servers**.

For an overview of the documentation to be found under **ServerView Suite** as well as the filing structure, see the ServerView Suite sitemap (**ServerView Suite** – **Site Overview**).

1.5 Notational conventions

The following notational conventions are used in this manual:

Notational conventions	Indicates
	Indicates various types of risks, namely health risks, risk of data loss and risk of damage to devices.
	Indicates additional relevant information and tips.
Bold	Indicates references to names of interface elements.
`monospace`	Indicates system output and system elements, for example file names and paths.
`monospace semibold`	Indicates statements that are to be entered using the keyboard.
blue continuous text	Indicates a link to a related topic.
purple continuous text	Indicates a link to a location you have already visited.
<abc>	Indicates variables which must be replaced with real values.
[abc]	Indicates options that can be specified (syntax).
[key]	Indicates a key on your keyboard. If you need to explicitly enter text in uppercase, the Shift key is specified, for example [SHIFT] + [A] for A. If you need to press two keys at the same time, this is indicated by a plus sign between the two key symbols.

Screenshots

The screenshots are to some degree system-dependent and consequently will not necessarily match the output on your system in all the details. The menus and their commands can also contain system-dependent differences.

2 PrimeCollect under Windows

2.1 Starting PrimeCollect

Various options are available to you for starting PrimeCollect which entail particular software requirements.

2.1.1 Online start on the management station

Requirements for the management station:

- Windows-based management station:
  - Windows Server 2008/2008 R2/2012/2012 R2
  - ServerView Operations Manager as of version 4.91
- Linux-based management station:
  - Linux (Red Hat/SUSE)
  - ServerView Operations Manager as of version 4.91

Requirements for the PRIMERGY servers:

- Windows Server 2008/2008 R2/2012/2012 R2
- ServerView Agents as of version 4.91

  You will find the ServerView Agents for your operating system on the ServerView Suite DVD 2 or on the Web server under:

  http://support.ts.fujitsu.com/prim_supportcd/start.html

  You will find the ServerView Agents on the ServerView Suite DVD 2 under **ServerView Software Products – Start**. Select **ServerView – Agents and Providers** and start the appropriate program.

  On the Web server change to **Software Products - ServerView - Agents and Providers** directory.

  When the ServerView Agents are installed, PrimeCollect is automatically installed, too. In the case of an update installation, you must select PrimeCollect manually.

- To collect RAID information:
  - ServerView RAID as of version 5.0

Online start on the management station

To start PrimeCollect from ServerView Operations Manager:

1. Select the required PRIMERGY server in the server list.
2. Select the **PrimeCollect** entry in the **Maintenance** menu.

This entry only appears if the ServerView Agents are installed on the server to be searched.

2.1.2 Online start on a PRIMERGY server

If a Windows full memory dump is found, this can be stored in a separate zip file (only necessary if instructed by support). To store a memory dump, you must start PrimeCollect with the administrative user account.

Requirements for the PRIMERGY server:

- For a start from the Windows Start menu:
  - Windows Server 2008/2008 R2/2012/2012 R2
  - ServerView Agents as of version 4.91

  You will find the ServerView Agents for your operating system on the Server-View Suite DVD 2 or on the Web server under:

  http://support.ts.fujitsu.com/prim_supportcd/start.html

  You will find the ServerView Agents on the ServerView Suite DVD 2 under **ServerView Software Products – Start**. Select **ServerView – Agents and Providers** and start the appropriate program.

  On the Web server change to **Software Products - ServerView - Agents and Providers** directory.

  When the ServerView Agents are installed, PrimeCollect is automatically installed, too.

- Administrator rights are required for an online start on a PRIMERGY server.
- For a start from the ServerView Suite DVD 2 or via the Web server:
  - DVD 2 as of Version 11.14.11
  - Windows Server 2008/2008 R2/2012/2012 R2

  With this method the agents do not need to be installed.
- To collect RAID information:
  - ServerView RAID as of version 5.0

Online start on a PRIMERGY server

There are two ways of starting PrimeCollect using the **PrimeCollect.exe** program:

- via the Windows Start menu:

  Start – Programs – Fujitsu ServerView Suite – Agents – PrimeCollect

- via the ServerView Suite DVD 2 or the Web server in the directory:

  ServerView - Maintenance & Update

2.1.3 Offline start on a PRIMERGY server

Requirements for the PRIMERGY server:

- ServerView Suite DVD 1 as of version 11.14.11.

  The operating system on the PRIMERGY server is irrelevant here as Windows PE is loaded from the DVD.

  With this method PrimeCollect obtains no information about the operating system which is installed, e.g. operating system version or installed drivers. You must provide this information separately for Support.

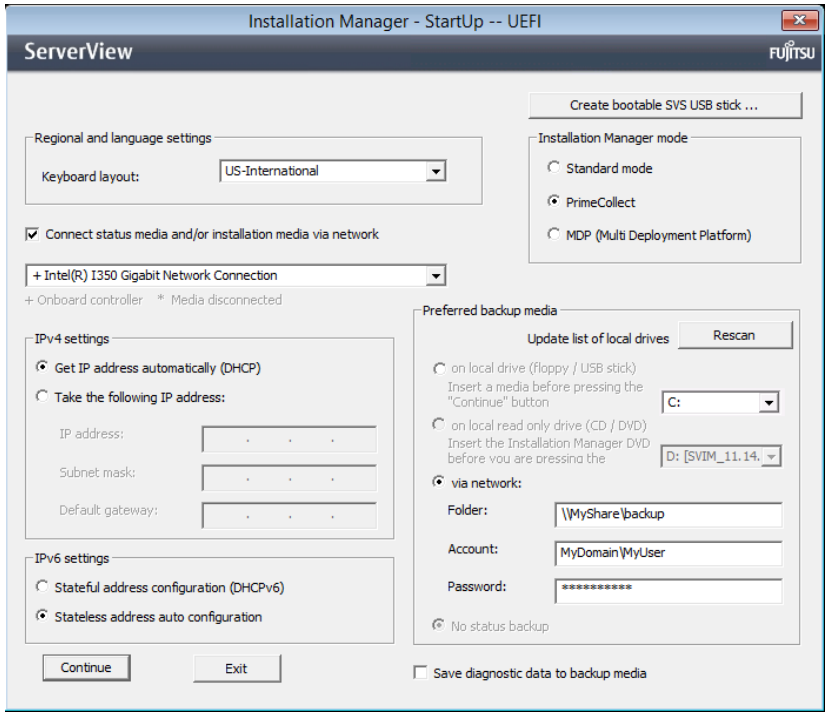
- To collect RAID information:
  - ServerView RAID as of version 5.0

Offline start on a PRIMERGY server

To start PrimeCollect offline on a PRIMERGY server:

1. Boot the server from the ServerView Suite DVD 1 as of version 11.14.11.
2. Select **PrimeCollect** in the first dialog box.
3. Select an appropriate **Keyboard layout**.
4. Enter either a removable medium or a network drive as the backup medium to save the PrimeCollect result files.

5. Click **Continue**.



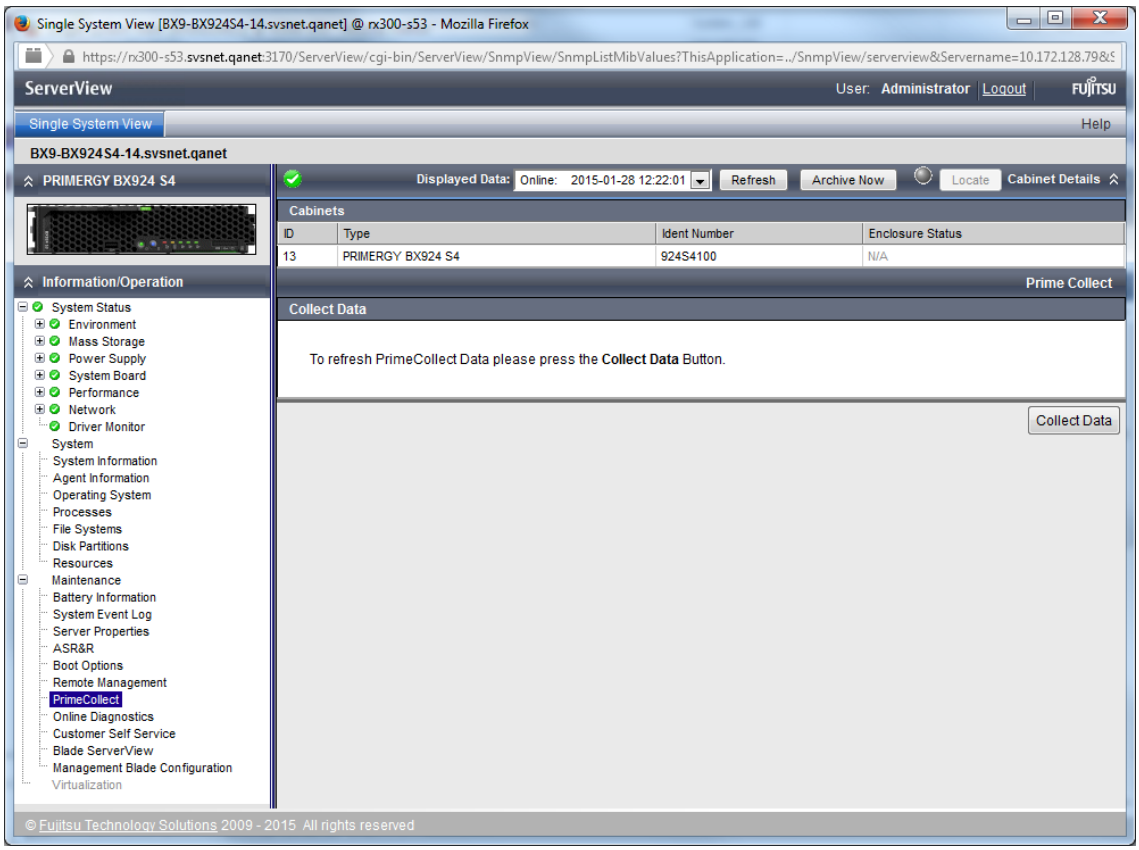
2.2 Executing PrimeCollect

Working with PrimeCollect consists of two interlinked steps, namely collecting hardware and software data and combining the result files in one or two zip files.

In the case of a local online start, the option is available of storing a founded Windows full memory dump in a separate second zip file (only necessary if instructed by support). To store a memory dump, you must start PrimeCollect with the administrative user account.

2.2.1 Collecting and storing data

Display when PrimeCollect is started on the management station

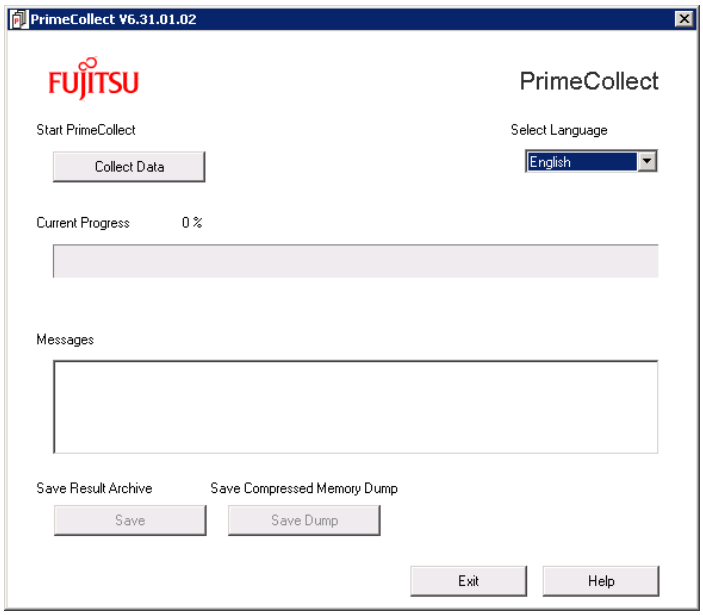


1. To collect data, click on the **Collect Data** button after you have selected PrimeCollect.

   After this action has been completed, a link is displayed.
2. Click on the link displayed in order to save the result files.

Up to seven PrimeCollect archives can be created. You can define one special "reference image" which will not be overwritten by the ring buffer principle.

Display in the event of a local start



1. To collect data, click the **Collect Data** button after you have started PrimeCollect.

   If PrimeCollect was started offline, please use an external data medium (e.g. USB stick) to save the data.

   In the case of a local online start, the option is available of storing a founded Windows full memory dump in a separate second zip file (only necessary if instructed by support). To store a memory dump, you must start PrimeCollect with the administrative user account.

   In the case of an offline start there is no possibility to draw-off a full memory dump because the customer operating system is not accessed.

2. After this action has been completed, please click Save or Save Dump in order to save the result files.

   Up to seven PrimeCollect archives can be created. You can define one special "reference image" which will not be overwritten by the ring buffer principle.

3 PrimeCollect under Linux

3.1 Starting PrimeCollect

Various options are available to you for starting PrimeCollect which entail particular software requirements.

3.1.1 Online start on the management station

Requirements for the management station:

- Windows-based management station:
  - Windows Server 2008/2008 R2/2012/2012 R2
  - ServerView Operations Manager as of version 4.91
- Linux-based management station:
  - Linux (Red Hat/SUSE)
  - ServerView Operations Manager as of version 4.91

Requirements for the PRIMERGY servers:

- Linux (Red Hat/SUSE) and ServerView Agents as of version 4.91

You will find the ServerView Agents for your operating system on the ServerView Suite DVD 2 or on the Web server under:

http://support.ts.fujitsu.com/prim_supportcd/start.html

You will find the ServerView Agents on the ServerView Suite DVD 2 under **ServerView Software Products – Start**. Select **ServerView – Agents and Providers** and start the appropriate program.

On the Web server change to **Software Products - ServerView - Agents and Providers** directory.

When the ServerView Agents are installed, PrimeCollect is automatically installed, too. In the case of an update installation, you must select PrimeCollect manually.

- To collect RAID information:
  - ServerView RAID as of version 5.0

Online start on the management station

To start PrimeCollect from ServerView Operations Manager:

1. Select the required PRIMERGY server in the server list.
2. Select the **PrimeCollect** entry in the **Maintenance** menu.

   This entry only appears if the ServerView Agents are installed on the server to be searched.

3.1.2 Online start on a PRIMERGY server

Requirements for the PRIMERGY server:

- Linux (Red Hat/SUSE) and ServerView Agents as of version 4.91

  You will find the ServerView Agents for your operating system on the Server-View Suite DVD 2 or on the Web server under:

  http://support.ts.fujitsu.com/prim_supportcd/start.html

  You will find the ServerView Agents on the ServerView Suite DVD 2 under **ServerView Software Products – Start**. Select **ServerView – Agents and Providers** and start the appropriate program.

  On the Web server change to **Software Products - ServerView - Agents and Providers** directory.

  When the ServerView Agents are installed, PrimeCollect is automatically installed, too.

- Administrator rights are required for an online start on a PRIMERGY server.
- For a start from the ServerView Suite DVD 2 or via the Web server:
  - DVD 2 as of Version 11.14.11
  - Linux (Red Hat/SUSE)

  With this method the agent does not need to be installed.
- To collect RAID information:
  - ServerView RAID as of version 5.0

Online start on a PRIMERGY server

There are two ways of starting PrimeCollect using the **PrimeCollect.exe** program:

- via the **PrimeCollect** script:
  - Run the **PrimeCollect** script from the command line:

- Select the **/usr/sbin** directory

  You will find the **PrimeCollect** script here.
- Call the **PrimeCollect** script.

- via the **srvmagt** script:
  - Run the **srvmagt** script with the diag option:
  - Open a terminal (as root).
  - Enter the command:

    srvmagt diag

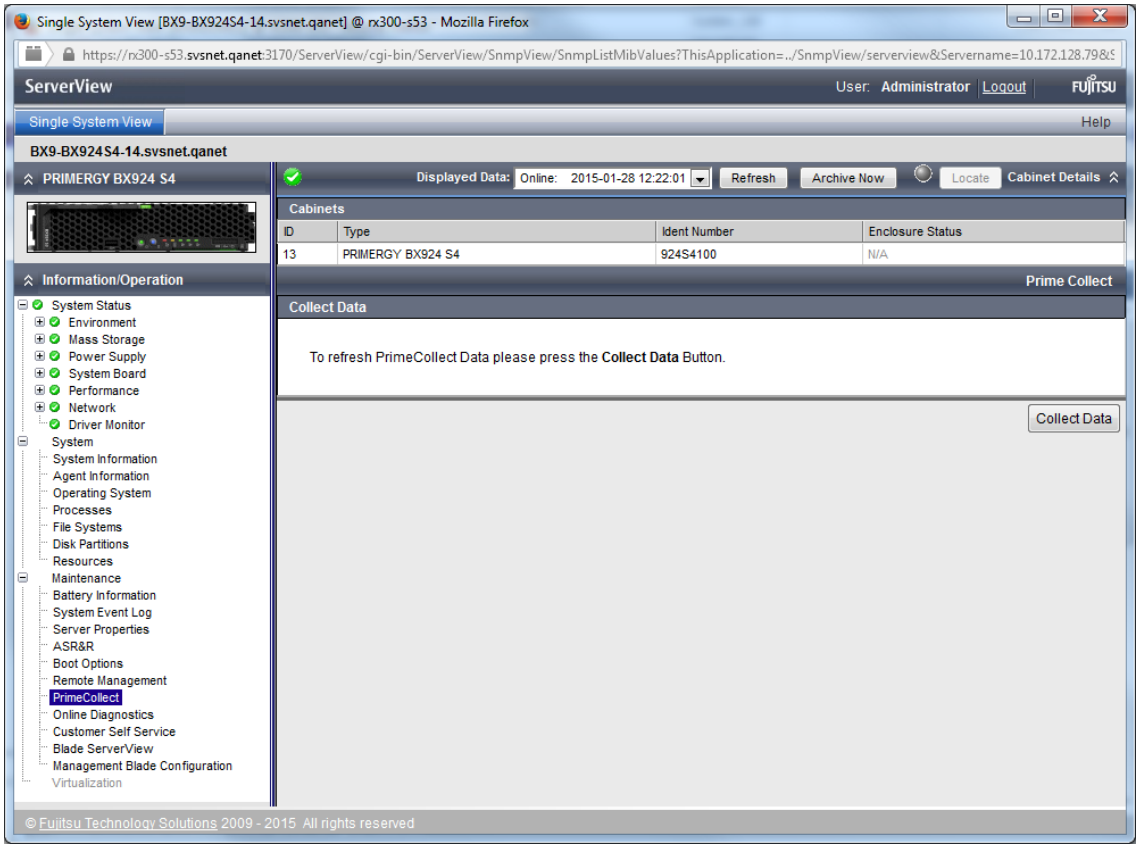
    The **diag** option collects diagnostic information via the PrimeCollect(8) call.

3.2 Executing PrimeCollect

Working with PrimeCollect consists of two interlinked steps, namely collecting hardware and software data and combining the result files in one or two zip files.

3.2.1 Collecting and storing data

Display when PrimeCollect is started on the management station



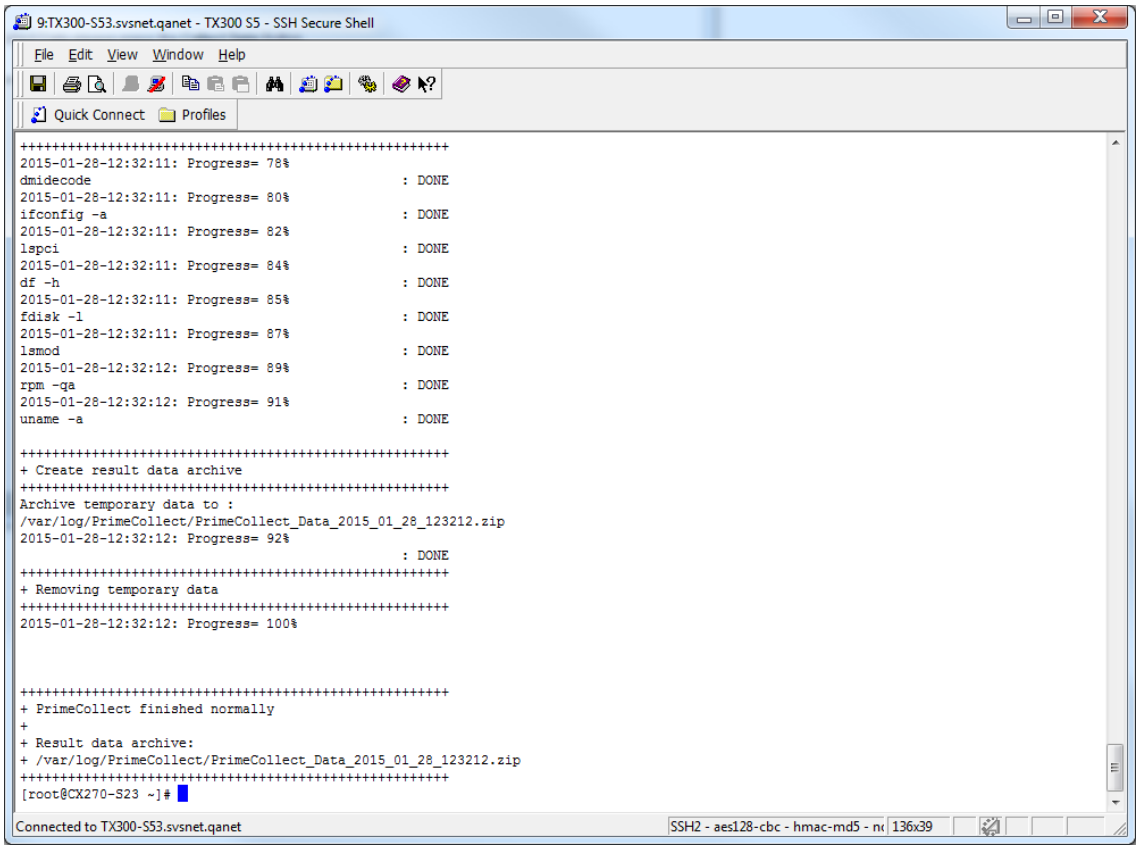
1. To collect data, click on the **Collect Data** button after you have selected PrimeCollect.

   After this action has been completed, a link is displayed.

2. Click on the link displayed in order to save the result files.

Up to seven PrimeCollect archives can be created. You can define one special "reference image" which will not be overwritten by the ring buffer principle.

Display in the event of a local start



After starting the script, the data is collected and saved automatically in a zip or tar.gz file (see figure above).

Up to seven PrimeCollect archives can be created. You can define one special "reference image" which will not be overwritten by the ring buffer principle.

4 iRMC system report for VMware

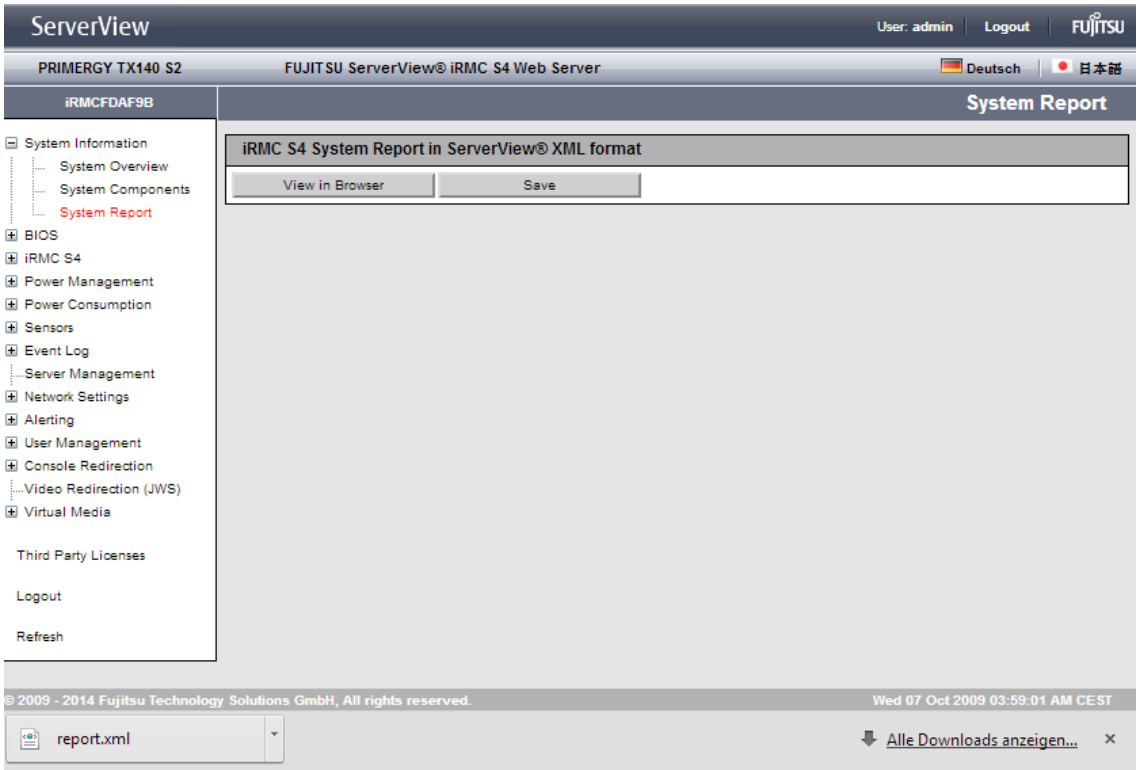
Typically, the hardware and software information is collected by the ServerView Agents or the ServerView Agentless Service running on the host operating system. Even in cases where ServerView Agents or the ServerView Agentless Service are not running, a subset of hardware and software information, comprising mainly service incidents, can be made available directly out-of-band from the iRMC. The collected information is displayed in the iRMC **System Report**.

Information is provided on the following items:

- BIOS
- Processor
- Memory
- Temperature sensors
- Power supplies
- Voltage sensors
- IDPROMS
- PCI devices
- System Event Log
- Internal Event Log
- Boot status
- Management controllers

For VMware ESXi servers, only the iRMC **System Report** is available because no ServerView Agents or ServerView Agentless Service are running on them.

The **System information** entry of the iRMC web interface contains the link to the **System Report** page.



Here you can view the information in a browser or save it as a **report.xml** file in the local download directory. For each report file stored, a button **report.xml** is displayed at the bottom of the System Report page. You can open a report file by clicking the corresponding button.

Alternatively, you can download and automatically evaluate the generated XML file by using a cURL or Visual Basic script.

For a detailed description of the **System Report** and the **Scripted download and automatic evaluation of the iRMC report**, see the manual "iRMC S4 - integrated Remote Management Controller ".

5 eLCM PrimeCollect

For eLCM PrimeCollect to be used, the iRMC S4 must have integrated a comprehensive lifecycle management function in the firmware of PRIMERGY servers and must have an integrated SD card.

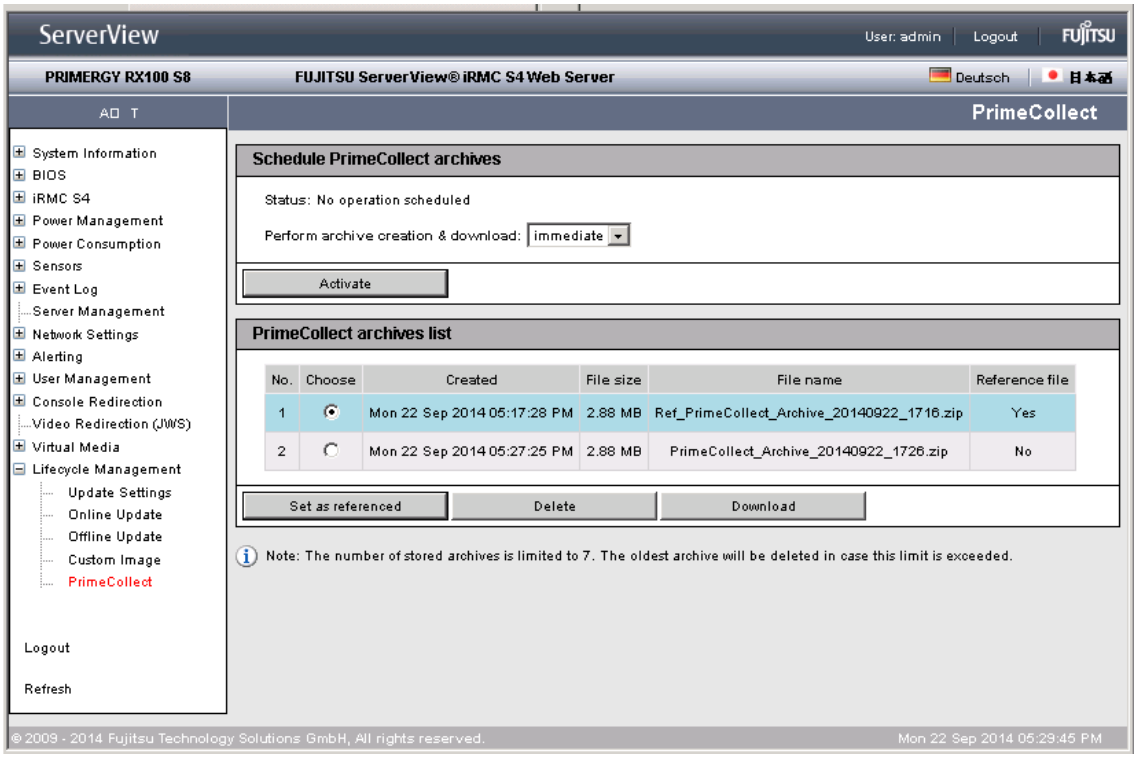
In the case of eLCM PrimeCollect, the creation of PrimeCollect archive files is based on the interaction between the iRMC S4 and the ServerView Agents or the ServerView Agentless Service. The ServerView Agents or the ServerView Agentless Service are required for using the eLCM PrimeCollect function.

eLCM PrimeCollect supports ServerView PrimeCollect.

Out-of-band eLCM provided by the iRMC S4 extends and enhances the PrimeCollect functionality and usability as follows:

- Creating PrimeCollect archives automatically and scheduled
- PrimeCollect archives from ServerView Agents or the ServerView Agentless Service will also contain the iRMC System Report information
- Storing PrimeCollect archive files on the iRMC S4 SD card. In particular, you can define one special "reference image" which will not be overwritten by the ring buffer principle.
- Maintaining a history of PrimeCollect archives
- Transferring PrimeCollect archives to another server via management LAN or AIS Connect (AutoImmuneSystems©)
- Displaying PrimeCollect archives in the iRMC S4 Web interface

eLCM PrimeCollect functionality can be configured and started in the **PrimeCollect** page of the iRMC S4 web interface:



The **System Information** group in the **System Overview** page informs you whether the ServerView Agentless Service is available on the server.

Initiating PrimeCollect archive creation and download onto the iRMC S4

You have the option to start archive creation either immediately, automatically at a fixed date, or periodically. The corresponding settings can be made in the **Schedule PrimeCollect archives** group. For details, see the manual "iRMC S4 - integrated Remote Management Controller".

Depending on your settings, clicking **Activate** will start archive creation and download either immediately or scheduled by a timer.

Once PrimeCollect archive creation has been started, the iRMC S4 notifies the ServerView Agents or the ServerView Agentless Service, which subsequently creates the PrimeCollect archive. Archive creation usually takes several minutes. After archive creation has completed, the iRMC S4 transfers the newly generated archive from the managed server's file system and stores it on the iRMC S4 SD card. Up to seven PrimeCollect archives can be created.

While the archive creation and downlaod are in progress, status information is displayed in the **Schedule PrimeCollect archives** group.

List of available archives

All PrimeCollect archives (up to seven) available on the iRMC S4 SD card are displayed in the **PrimeCollect archives** list group. You can define one special "reference image" which will not be overwritten by the ring buffer principle. Furthermore, archives can be deleted from the **PrimeCollect archives list** or saved as a file.

Technical Support of Fujitsu can access PrimeCollect archives via AIS Connect

The eLCM AIS Connect feature of the iRMC S4 enables the Technical Support of Fujitsu to retrieve PrimeCollect archives from the iRMC S4 via AIS Connect (for details, see the manual "iRMC S4 - integrated Remote Management Controller").

6 Contents of the zip file

The contents of the zip file vary according to the operating system and the system configuration of the server.

They also depend on whether the ServerView Agents or the ServerView Agentless Service are available on the managed server.

The table below provides an overview of the main result files that are contained in the file. This table merely represents a snapshot and does not claim to be exhaustive.

The file may contain the following result files:

File	Description
20140903075958	ServerView archive file
Application_log.evt System_log.evt	Windows event log files
Application_log.evtx System_log.evtx	Windows event log files
APPLICATION_LOG.TXT SYSTEM_LOG.TXT	Windows event log files (in ASCII format)
Boot.ini BCD_Backup	Windows boot configuration files
cluster.log	Cluster information
CommonConfig.ccs	ServerView Server Control Configuration Space File
Getosvmco.log	Getosvmco Console Log
Hotfix_Registry.log Hotfix_WMI.log	Installed hotfixes
IdpRead.log	Log file of the creation of the file IDPROM_v1.1.bin, including the IDPROM data in ASCII format
IPConf.log	Ipconfig log file
Mini Dump 26 * .dmp	Windows Minidumps
MR0.txt	MegaRAID log files
msinfo32.nfo	Output of MSINFO32

File	Description
PCSysscan_Report.html PCSysscan_Report.xml	Output files of the **PCSysScan** program. Both files contain the same information in different formats (xml and html). This includes comprehensive hardware/software information relating to the system which was examined.
RAIDLog.xml snapshot.xml SVRAID_Config.txt SVRAID_System.txt	These files contain ServerView RAID results.
SDMI.log	Log file of the activity of the SDM32 tool
SDMI.SCD	DMI data
Threshold.cfg	ServerView Threshold configuration
VersionView.sav	VersionView snapshot
vmeDb.db	Database of VME-Agenten
vme_status.xml	Files from the log directory of the VME agent
WHEA_Err_log.evtx	Windows Hardware Error Architecture

If it exists, the complete **$SystemRoot$\MiniDump** directory is also packed into the zip file.