



IBM Systems  
IBM Director z/VM Center  
Release Notes

*Version 5.10 Update 1*

January 2006







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## Chapter 1. About this release

This document contains the release notes for the z/VM<sup>®</sup> Center extension that operates with IBM<sup>®</sup> Director Version Version 5.10 Update 1.

The z/VM Center extension provides a user interface for deploying and configuring Linux<sup>®</sup> systems on virtual hardware that is based on real IBM System z9 and zSeries<sup>®</sup> hardware and the z/VM hypervisor. For details, see [publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0\\_c\\_vsd\\_and\\_sc.html](http://publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0_c_vsd_and_sc.html) in the IBM Systems Software Information Center.

For possible updates to these release notes, complete the following steps:

1. Navigate to the IBM Director Downloads Web Site at [www.ibm.com/servers/eserver/xseries/systems\\_management/xseries\\_sm/dwnl.html](http://www.ibm.com/servers/eserver/xseries/systems_management/xseries_sm/dwnl.html).
2. Select **IBM Director 5.10 for xSeries<sup>®</sup> and BladeCenter<sup>®</sup>** from the list, complete the requested information, and click **Submit**.
3. Under the Current version heading, click **IBM Director 5.10 Update 1**.

This release of the z/VM Center extension for IBM Director fixes the following problems in z/VM Center for IBM Director Version 5.10:

- Missing error message if the partition in which the vmapi cache resides (by default /root/.vmapi/cache) is full.
- z/VM Center managed-object association error: zvmvinfo cannot handle alphabetic sequence code.
- Version mismatch in RPC client / server interface.





## Chapter 2. Installation and upgrade information

This section provides information about installing the z/VM Center extension for IBM Director Version 5.10 Update 1. Upgrading procedures for the z/VM Center extension are the same as for installation.

Also refer to the following topics in the IBM Systems Software Information Center:

- For information about preparing your z/VM environment for z/VM Center, including setting up a z/VM manageability access point, see [publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0\\_t\\_prepare.html](http://publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0_t_prepare.html). Additional information is provided in the *IBM Director Version 5.10 Update 1 Release Notes*, on the IBM Director Web site at [www.ibm.com/servers/eserver/xseries/systems\\_management/ibm\\_director/resources/](http://www.ibm.com/servers/eserver/xseries/systems_management/ibm_director/resources/).
- For information about installing the z/VM Center server and console extensions, see [publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0\\_t\\_installing\\_zvmctr.html](http://publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0_t_installing_zvmctr.html).
- For information about installing the required license key see [publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0\\_t\\_install\\_key.html](http://publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0_t_install_key.html).
- For information about installing the z/VM CIM instrumentation on the z/VM manageability access point, see [publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0\\_t\\_install\\_map\\_rpm.html](http://publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0_t_install_map_rpm.html). To obtain an RPM for installing or upgrading the z/VM CIM instrumentation, complete the following steps:
  1. Navigate to the IBM Director Downloads Web Site at [www.ibm.com/servers/eserver/xseries/systems\\_management/xseries\\_sm/dwnl.html](http://www.ibm.com/servers/eserver/xseries/systems_management/xseries_sm/dwnl.html).
  2. Select **IBM Director 5.10 for xSeries and BladeCenter** from the list, complete the requested information, and click **Submit**.
  3. Under the Current version heading, click **IBM Director 5.10 Update 1**. The download package is named `dir5.10.1_zvmmmap-agent-linux-s390.tar`.

---

### Installation notes

This section provides additional information about installing z/VM Center extension components for IBM Director Version 5.10 Update 1 on the management server and the management console.

You can run z/VM Center extension components on Linux, AIX®, Windows®, and i5/OS®.

**Note:** On i5/OS, the z/VM Center extension components are automatically installed with IBM Director Version 5.10 Update 1. A separate installation of z/VM Center extension components is not required.

Complete the following steps to obtain the z/VM Center extension components for AIX, Linux, and Windows:

1. Navigate to the IBM Director Downloads Web Site at [www.ibm.com/servers/eserver/xseries/systems\\_management/xseries\\_sm/dwnl.html](http://www.ibm.com/servers/eserver/xseries/systems_management/xseries_sm/dwnl.html).

2. Select **IBM Director 5.10 for xSeries and BladeCenter** from the list, complete the requested information, and click **Submit**.
3. Under the Current version heading, click **IBM Director 5.10 Update 1**.

The z/VM Center extension components for Linux can be installed on Linux on System z9 and zSeries, Linux on System p5 and pSeries®, or Linux on xSeries.

There is a separate package for each operating system. Each package contains the installation files for both the server extension and the console extension for that operating system. Table 1 provides an overview of the available download packages.

Table 1. Download packages and content

Target operating system	Name of the download package	Contents of package
AIX	dir5.10.1_zvmcenterext-aix.tar	<ul style="list-style-type: none"> <li>• IBM.Director.zVMCenterServerExt</li> <li>• IBM.Director.zVMCenterConsoleExt</li> </ul>
Linux	dir5.10.1_zvmcenterext-linux.tar	<ul style="list-style-type: none"> <li>• zVMCenterServerExt-<i>version</i>.noarch.rpm</li> <li>• zVMCenterConsoleExt-<i>version</i>.noarch.rpm</li> </ul>
Windows	dir5.10.1_zvmcenterext-windows.zip	<ul style="list-style-type: none"> <li>• zVMCenterServerExt_<i>version</i>_windows.exe</li> <li>• zVMCenterConsoleExt_<i>version</i>_windows.exe</li> </ul>

In the file names, *version* indicates a version string.

You can download the z/VM Center extension code for free. However, to be able to use z/VM Center, you must purchase the IBM Director Extensions, V5.10 feature of IBM Virtualization Engine™ and Infrastructure Services for Linux on System z9 and zSeries, V2.1 and install a license key. For details, see [publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0\\_t\\_install\\_key.html](http://publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0_t_install_key.html) in the IBM Systems Software Information Center.

The following sections provide separate installation information for the z/VM Center server and console extensions. You can, but need not, install the server and console extension on the same system.

## Management server

Consider the following information when installing z/VM Center extension components for IBM Director Version 5.10 Update 1 on your management server.

You must have installed IBM Director Server before you start installing the z/VM Center server extension. Perform these steps:

1. Download the installation package to a temporary directory on the system where you want to install the extension. Refer to Table 1 to identify the correct package for your operating system.
2. Extract the installation files from the installation package using one of the commands in Table 2.

Table 2. Commands for extracting the installation files from the installation package

For	Type the following command and press Enter
AIX	tar -xf dir5.10.1_zvmcenterext-aix.tar
Linux	tar -xf dir5.10.1_zvmcenterext-linux.tar

*Table 2. Commands for extracting the installation files from the installation package (continued)*

For	Type the following command and press Enter
Windows	unzip dir5.10.1_zvmcenterext-windows.zip

- Proceed with the installation according to the instructions in [publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0\\_t\\_installing\\_zvmctr.html](http://publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0_t_installing_zvmctr.html) in the IBM Systems Software Information Center.

**Windows only:**

- Reboot Windows after installing or uninstalling z/VM Center.
- Uninstall z/VM Center before you uninstall IBM Director Server.

---

## Management console

Consider the following information when installing z/VM Center components for IBM Director Version 5.10 Update 1 on your management console.

You must have installed IBM Director Console before you start installing the z/VM Center console extension. Perform these steps:

- Download the installation package to a temporary directory on the system on which you want to install the extension. Refer to Table 1 on page 4 to identify the correct package for your operating system.
- Extract the installation files from the installation package using one of the commands in Table 3..

*Table 3. Commands for extracting the installation files from the installation package*

For	Type the following command and press Enter
AIX	tar -xf dir5.10.1_zvmcenterext-aix.tar
Linux	tar -xf dir5.10.1_zvmcenterext-linux.tar
Windows	unzip dir5.10.1_zvmcenterext-windows.zip

- Proceed with the installation according to the instructions in [publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0\\_t\\_installing\\_zvmctr.html](http://publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/vsd0_t_installing_zvmctr.html) in the IBM Systems Software Information Center.



## Chapter 3. Known problems and workarounds

This section provides information about known problems and workarounds.

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### Problems

The z/VM Center extension for IBM Director Version 5.10 Update 1 has the following known problems:

**Installing the z/VM Center server extension on Windows results in a completion message but the extension is not available.**

Reboot Windows to complete the installation.

**Upgrading the z/VM Center server extension on Windows from version 5.10 to version 5.10 Update 1 results in two entries in the Windows Add or Remove Programs utility.**

If you want to remove the extension, you can use either entry. The removal process reboots Windows and uninstalls all components of the extension, but the Add or Remove Programs utility still shows one of the entries. To remove the remaining entry, run the remove process for this entry.

**Uninstalling the z/VM Center console extension on Windows while IBM Director Console is running causes a reboot of Windows.**

The reboot does not occur if you stop all instances of IBM Director Console before uninstalling the extension.

**Querying the disk pools may result in errors if the z/VM DIRMAINT diskpool specification in the EXTENT CONTROL file includes volume IDs which are not valid.** If you have specified more than one volume ID in the EXTENT CONTROL files diskpool section of the DIRMAINT facility that is not valid, you might encounter errors or even stop the CIM Server. To prevent this, ask your z/VM administrator to avoid volume IDs that are not valid in disk pool specifications.

**Specifying a new domain name results in a global domain change in /etc/hosts during personalization.**

The personalization that runs after an operating system template was deployed might change all entries in the /etc/hosts file.

This occurs only if a fully qualified domain name has been given during the operator station task (OST) wizard and the new domain name is not equal to the old domain name.

**Performing Level-1 discovery might not work if Level-1 systems have multiple network interfaces.**

The Level-1 discovery might not find systems that have multiple network interfaces when IBM Director Server is unable to talk to the system on the primary network interface. Typically, the primary network interface is that one on which the default route is set.

The problem does not occur if the Level-1 systems are discovered as Level-0 systems first. Later, these Level-0 systems are promoted to Level-1.

**Deleting an Operating System Template might result in an error message.**

When deleting an operating system the following message might appear:

```
DNZZSM365E: The method DeleteInstallImage was called on 'root/cimv2:IBM_ZvmCbcProvisioningService.CreationClassName="IBM_ZvmCbcProvisioningService",Name="EPP4Z", SystemCreationClassName="IBM_ZvmComputerSystem",SystemName="000000000009980402.VMID2"' and returned with error.
```

This message can be ignored. The action is completed successfully.

**The capacity of IBM 3390 Direct Access Storage Device (DASD) Model 9 is not displayed correctly.**

When a DASD 3390-9 is defined in a file pool, a display of the DASD capacity in the file pool shows a capacity of 4020 MB instead of almost 8 GB.

---

## Workaround

This section includes a solution to a problem you might encounter when using the z/VM Center extension for IBM Director Version 5.10 Update 1.

**If your system load is very high, you might encounter timeout problems.**

You can change timeout values according to your needs for almost all virtual shared disk (VSD) operations in the following file:

```
/opt/ibm/director/data/ZvmCenterVSDConfig.properties
```

## Chapter 4. Documentation update

This section includes a documentation update that might not appear in the IBM Director 5.10 online help or the version of an online or printed IBM Director 5.10 publication that you might receive or access.

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### Troubleshooting: Actions that read data from z/VM perform poorly

This problem affects the Server Complexes task and the Virtual Server Deployment task.

#### Problem

There is a performance degradation for actions for which z/VM Center needs to read data from z/VM.

#### Investigation

Performance can degrade if there is not enough free space on the file system on which data from z/VM is cached. Check the amount of free space on the file system and, if necessary, create free space by moving or deleting data as appropriate.

To locate the cache on your system, examine `/var/log/messages` and look for entries of this form:

```
contextGetCacheFilename: Filename=>cache<
```

*cache* specifies the path and name of the cache.

By default, the cache is located at `/root/.vmapi/cache/localhost`.





## Appendix A. Related information

This topic provides links to additional information related to IBM Director.

### IBM Director resources on the World Wide Web

The following Web pages provide resources for understanding, using, and troubleshooting IBM Director and other system-management tools.

#### IBM Director information center


[publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/fqm0\\_main.html](http://publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/fqm0_main.html)

Updated periodically, the IBM Director information center contains the most recent documentation on a wide range of topics.

#### IBM Director Web site on [ibm.com](http://ibm.com)<sup>®</sup>

[www.ibm.com/servers/eserver/xseries/systems\\_management/ibm\\_director/](http://www.ibm.com/servers/eserver/xseries/systems_management/ibm_director/)

The IBM Director Web site on [ibm.com](http://ibm.com) has links to downloads and documentation for all currently supported versions of IBM Director. Information on this site includes:

- Downloads and documentation for the following IBM Director releases:
  - IBM Director 5.10 Update 1
  - IBM Director 5.10
  - IBM Director 4.22
  - IBM Director 4.22 Upward Integration Modules (UIMs)
  - IBM Director 4.21
  - IBM Director 4.20
- IBM Director Hardware and Software Compatibility document, which lists supported  and IBM xSeries systems, as well as all supported operating systems. It is updated every 6 to 8 weeks.
- Printable documentation for IBM Director available in Portable Document Format (PDF) in several languages

#### IBM Systems Software information center

[www.ibm.com/servers/library/infocenter/](http://www.ibm.com/servers/library/infocenter/)

This Web page provides information about IBM Virtualization Engine, IBM Director, and other topics.

#### IBM ServerProven<sup>®</sup> page

[www.ibm.com/pc/us/compat/index.html](http://www.ibm.com/pc/us/compat/index.html)

This Web page provides information about IBM xSeries, BladeCenter, and IntelliStation<sup>®</sup> hardware compatibility with IBM Director.

#### IBM Systems Management Software: Download/Electronic Support page

[www.ibm.com/servers/eserver/xseries/systems\\_management/ibm\\_director/](http://www.ibm.com/servers/eserver/xseries/systems_management/ibm_director/)

Use this Web page to download IBM system-management software, including IBM Director. Check this Web page regularly for new IBM Director releases and updates.

**IBM Servers**

[www.ibm.com/servers/](http://www.ibm.com/servers/)

This Web page on ibm.com links to information, downloads, and IBM Director extensions such as Remote Deployment Manager, Capacity Manager, Systems Availability and Software Distribution (Premium Edition) for the following IBM servers:

- IBM BladeCenter
- IBM iSeries™
- IBM pSeries
- IBM xSeries
- IBM System z9 and **@server** zSeries

**IBM Virtualization Engine systems services fixes**

[techsupport.services.ibm.com/server/VirtualizationEngine](http://techsupport.services.ibm.com/server/VirtualizationEngine)

This Web page provides information about the required fixes for the Virtualization Engine system services. The fixes include operating system fixes that are required for each system service as well as application-level fixes that are required for each system service to function properly.

**IBM @server forums**

[www.ibm.com/developerworks/forums/dw\\_esforums.jsp](http://www.ibm.com/developerworks/forums/dw_esforums.jsp)

This Web page on ibm.com links to several forums, available as Web pages or using rich site summary (RSS) feeds, in which users can discuss technology issues relating to IBM **@server** servers.

Two of these forums are of particular interest to IBM Director users:

**xSeries IBM Director forum**

[www.ibm.com/developerworks/forums/dw\\_forum.jsp?forum=759&cat=53](http://www.ibm.com/developerworks/forums/dw_forum.jsp?forum=759&cat=53)

A forum for discussing any IBM Director topics. This Web page includes link for obtaining the forum using an RSS feed.

**xSeries Server forum**

[www.ibm.com/developerworks/forums/dw\\_forum.jsp?forum=740&cat=53](http://www.ibm.com/developerworks/forums/dw_forum.jsp?forum=740&cat=53)

A forum for discussing xSeries server topics, including questions related to drivers, firmware, operating systems, clustering, and storage. The Web page includes a link for obtaining forum using an RSS feed.

**IBM Redbooks™**

[www.ibm.com/redbooks/](http://www.ibm.com/redbooks/)

You can download the following documents from the IBM Redbooks Web page. You can also search this Web page for documents that focus on specific IBM hardware; such documents often contain system-management material.

**Note:** Be sure to note the date of publication and to determine the level of IBM Director software to which the Redbooks publication refers.

- *Creating a Report of the Tables in the IBM Director 4.1 Database* (TIPS0185)
- *IBM Director Security* (REDP-0417)

- *IBM eServer™ BladeCenter Systems Management with IBM Director V4.1 and Remote Deployment Manager V4.1* (REDP-3776)
- *Implementing Systems Management Solutions using IBM Director* (SG24-6188)
- *Integrating IBM Director with Enterprise Management Solutions* (SG24-5388)
- *Managing IBM TotalStorage® NAS with IBM Director* (SG24-6830)
- *Monitoring Redundant Uninterruptible Power Supplies Using IBM Director* (REDP-3827)

## **Remote Supervisor Adapter**

### **Remote Supervisor Adapter overview**

[www.ibm.com/support/docview.wss?uid=psg1MIGR-4UKSML](http://www.ibm.com/support/docview.wss?uid=psg1MIGR-4UKSML)

This Web page includes links to the *Remote Supervisor Adapter User's Guide* and the *Remote Supervisor Adapter Installation Guide*.

### **Remote Supervisor Adapter II overview**

[www.ibm.com/support/docview.wss?uid=psg1MIGR-50116](http://www.ibm.com/support/docview.wss?uid=psg1MIGR-50116)

This Web page includes information about the Remote Supervisor Adapter II.

## **Other documents**

For planning purposes, the following documents might be of interest:

- *Planning and Installation Guide - IBM eServer BladeCenter (Type 8677)*
- *IBM Management Processor Command-Line Utility User's Guide version 3.00*



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## Appendix B. Contacting customer support

If you need help, service, technical assistance, or just want more information about IBM products, you can find a wide variety of sources available from IBM to assist you. This section contains information about sources for additional information about IBM and IBM products, what to do if you experience a problem with your system, and whom to call for service, if it is necessary.

Services available and telephone numbers listed are subject to change without notice.

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### Before you call for assistance

Some problems can be solved without outside assistance. Look in the online or printed documentation that is included with IBM Director, or consult the IBM Support home Web site. Also, be sure to read the information in any release notes and README files that accompany IBM Director.

You can solve many problems by following the troubleshooting procedures that IBM provides in the online help or in the publications that are provided with your system and software.

The information that comes with your system also describes the diagnostic tests that you can perform. Most hardware systems, operating systems, and programs come with information that contains troubleshooting procedures and explanations of error messages and error codes. If you suspect a software problem, refer to the information for the operating system or program.

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### Getting help online

IBM maintains pages on the World Wide Web containing information about IBM products and services. These pages also provide the most recent technical information. Table 4 lists some of these pages.

*Table 4. Support Web sites*

<a href="http://www.ibm.com/">www.ibm.com/</a>	Main IBM home page
<a href="http://www.ibm.com/servers/">www.ibm.com/servers/</a>	IBM eServer home page
<a href="http://www.ibm.com/pc/support/">www.ibm.com/pc/support/</a>	IBM Support page
<a href="http://www.ibm.com/servers/eserver/xseries/systems_management/ibm_director/">www.ibm.com/servers/eserver/xseries/systems_management/ibm_director/</a>	IBM Director home page with links to user support and the technical forum
<a href="http://publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/fqm0_main.html">publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo/fqm0_main.html</a>	IBM Director information center

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### Getting help by telephone

Through IBMSupport Line, you can obtain telephone assistance, for a fee, with usage, configuration, and software problems with xSeries servers, IntelliStation workstations, and appliances. For information about the products supported by Support Line in your country or region, go to [www.ibm.com/services/sl/products/](http://www.ibm.com/services/sl/products/).

For more information about Support Line and other IBM services, go to [www.ibm.com/services/](http://www.ibm.com/services/), or to [www.ibm.com/planetwide/](http://www.ibm.com/planetwide/) for support telephone numbers. In the U.S. and Canada, call 1-800-IBM-SERV (1-800-426-7378).

## Appendix C. Notices and Trademarks

This section provides legal notices and trademark information.

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System z9™  
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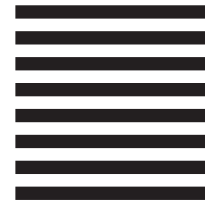
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