



# EMC<sup>®</sup> Ionix<sup>™</sup> ControlCenter<sup>®</sup>

6.1

## Upgrade Guide

P/N 300-006-387

REV 23

USE THIS DOCUMENT TO UPGRADE YOUR 5.2 SP4, SP5, OR 6.0  
SOFTWARE TO IONIX CONTROLCENTER 6.1



EMC<sup>2</sup>

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# PREFACE

*As part of an effort to improve its product lines, EMC periodically releases revisions of its software and hardware. Therefore, some functions described in this document might not be supported by all versions of the software or hardware currently in use. The product release notes provide the most up-to-date information on product features.*

*Contact your EMC representative if a product does not function properly or does not function as described in this document.*

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**Note:** This document was accurate at publication time. New versions of this document might be released on the EMC online support website. Check the EMC online support website to ensure that you are using the latest version of this document.

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## Purpose

Use this document to upgrade your existing EMC Ionix ControlCenter 5.2 SP4, SP5, or 6.0 installation to EMC Ionix ControlCenter 6.1. If you are upgrading a pre-5.2.0 version of Ionix ControlCenter, refer to the *ControlCenter 5.2 Upgrade Guide* available at EMC Online Support site.

### CAUTION

You cannot apply the CD's provided in the Ionix ControlCenter 6.1 (Rev A02) kit on top of an existing Ionix ControlCenter 6.1 GA (Rev A01) infrastructure, or on top of an infrastructure which has Update Bundles 1, 2, and/or 3.

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### CAUTION

Immediately following the upgrade to Ionix ControlCenter 6.1, you MUST APPLY the latest Ionix ControlCenter 6.1 Update Bundle available on EMC online support site.

On EMC online support website, navigate to Ionix ControlCenter v 6.x Software Downloads, Ionix ControlCenter 6.1 Patches, for the latest 6.1 Update Bundle.

Carefully review the Update Bundle ReadMe for instructions on applying the patch.

Apply the latest available Oracle 10g OCPU patch before upgrading to the latest Update Bundle.

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## Audience

This guide is part of the Ionix ControlCenter documentation set and is intended for use by ControlCenter system, database, server, and operation administrators.

Readers of this guide should be familiar with the following topics:

- ◆ Storage-array operation
- ◆ Storage area networks (SANs)

## Related documentation

Ionix ControlCenter documentation is available in the following locations:

- ◆ Your Ionix ControlCenter installation kit installs a documentation library as part of the software.
- ◆ You can install an independent documentation library by running ControlCenterLibrary.exe from the last CD.
- ◆ EMC Online Support site supplies updated versions of each document, as well as hosting the Doc Updater executable which can install a new documentation library independent of the software installation or refresh all existing documentation libraries on your host.
- ◆ After installation or updating, the Ionix ControlCenter Documentation Library is available from a desktop icon and the Ionix ControlCenter Console's help menu.

## Conventions used in this document

EMC uses the following conventions for special notices:

### CAUTION

**CAUTION**, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

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### NOTICE

**NOTICE** is used to address practices not related to personal injury.

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**Note:** A note presents information that is important, but not hazard-related.

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## **IMPORTANT**

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An important notice contains information essential to software or hardware operation.

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## Typographical conventions

EMC uses the following type style conventions in this document:

Normal	Used in running (nonprocedural) text for: <ul style="list-style-type: none"> <li>Names of interface elements, such as names of windows, dialog boxes, buttons, fields, and menus</li> <li>Names of resources, attributes, pools, Boolean expressions, buttons, DQL statements, keywords, clauses, environment variables, functions, and utilities</li> <li>URLs, pathnames, filenames, directory names, computer names, links, groups, service keys, file systems, and notifications</li> </ul>
<b>Bold</b>	Used in running (nonprocedural) text for names of commands, daemons, options, programs, processes, services, applications, utilities, kernels, notifications, system calls, and man pages Used in procedures for: <ul style="list-style-type: none"> <li>Names of interface elements, such as names of windows, dialog boxes, buttons, fields, and menus</li> <li>What the user specifically selects, clicks, presses, or types</li> </ul>
<i>Italic</i>	Used in all text (including procedures) for: <ul style="list-style-type: none"> <li>Full titles of publications referenced in text</li> <li>Emphasis, for example, a new term</li> <li>Variables</li> </ul>
Courier	Used for: <ul style="list-style-type: none"> <li>System output, such as an error message or script</li> <li>URLs, complete paths, filenames, prompts, and syntax when shown outside of running text</li> </ul>
<b>Courier bold</b>	Used for specific user input, such as commands
<i>Courier italic</i>	Used in procedures for: <ul style="list-style-type: none"> <li>Variables on the command line</li> <li>User input variables</li> </ul>
< >	Angle brackets enclose parameter or variable values supplied by the user
[ ]	Square brackets enclose optional values
	Vertical bar indicates alternate selections — the bar means “or”
{ }	Braces enclose content that the user must specify, such as x or y or z
...	Ellipses indicate nonessential information omitted from the example

## Where to get help

EMC support, product, and licensing information can be obtained as follows:

**Product information.** For documentation, release notes, software updates, or information about EMC products, licensing, and service, go to the EMC online support website (registration required) at:

<http://support.EMC.com>

**Technical support** — For technical support, go to EMC online support and select Support. On the Support page, you will see several options, including one to create a service request. Note that to open a service request, you must have a valid support agreement. Contact your EMC sales representative for details about obtaining a valid support agreement or with questions about your account.

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Your suggestions will help us continue to improve the accuracy, organization, and overall quality of the user publications. Send your opinions of this document to:

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# CHAPTER 1

## Upgrading Ionix ControlCenter 5.2 to 6.1

This chapter shows you how to upgrade your version 5.2 SP4 or SP5 EMC Ionix ControlCenter installation to version 6.1.

**⚠ CAUTION**

Immediately following the upgrade to Ionix ControlCenter 6.1, you **MUST APPLY** the latest Ionix ControlCenter 6.1 Update Bundle available on EMC online support site.

On EMC online support website, navigate to Ionix ControlCenter v 6.x Software Downloads, Ionix ControlCenter 6.1 Patches, for the latest 6.1 Update Bundle.

Carefully review the Update Bundle ReadMe for instructions on applying the patch.

Apply the latest available Oracle 10g OCPU patch before upgrading to the latest Update Bundle.

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Section Contents:

- ◆ ["Step 1 5.2.x to 6.1 Upgrade Planning and Introduction" on page 13](#)
- ◆ ["Step 2 5.2.x to 6.1 Upgrade Prerequisites and Preparation" on page 26](#)
- ◆ ["Step 3 5.2.x to 6.1 Upgrade" on page 33](#)

### Step 1 5.2.x to 6.1 Upgrade Planning and Introduction

Ionix ControlCenter 6.1 supports a direct upgrade path from 5.2 SP4 and SP5. However, over the life of the product, agents have been deprecated, alerts have been added, removed, and modified, default data collection policies (DCPs) have changed, and some historical data may no longer be relevant or supported.

The following upgrade paths are supported from 5.2.x to 6.1:

- ◆ 5.2 SP4 and SP5 Service Packs

- ◆ The upgrade paths for 5.2 pre-SP4 versions of Ionix ControlCenter are not supported as a *direct* upgrade to 6.1. You must first upgrade to 6.0 and then to 6.1. Refer to the *EMC Ionix ControlCenter 6.0 Upgrade Guide* available on EMC online support site for details on upgrading from pre-5.2 SP4 versions.
- ◆ You can upgrade a 5.2 SP4 or SP5 cluster to a 6.1 cluster. The steps are detailed during the upgrade.

## Upgrading pre-6.1 agents after a fresh installation

EMC recommends upgrading your existing pre-6.1 Ionix ControlCenter environment as opposed to completing a fresh installation. However, if you choose to do a fresh install of a Ionix ControlCenter 6.1 infrastructure in your existing Ionix ControlCenter environment, and then intend to upgrade your pre-6.1 agents, there are additional steps required to enable the discovery and upgrading of the existing agents. These steps are provided in the “*Upgrading Agents after a New Installation*” appendix of the *ControlCenter 6.1 Planning and Installation Guide, Vol. 1*.



**If you do a fresh installation, your StorageScope history and trending data will be lost. If you want to preserve this data, you must do an Upgrade.**

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## 1.1 Understand New Features in Ionix ControlCenter 6.1

This section provides only a brief overview of the new features implemented in Ionix ControlCenter 6.1.

Review the *EMC Ionix ControlCenter 6.1 Release Notes* for a discussion of new features and the *EMC Ionix ControlCenter 6.1 Support Matrix* on the EMC online support site for supported models, versions, and required software. This information is important for the planning of the upgrade process. After you have reviewed the new features, return to this document to upgrade.

---

**Note:** Ionix ControlCenter 6.0 introduced new features that are not documented in this Upgrade Guide. Refer the *EMC Ionix ControlCenter 6.0 Release Notes*, available on EMC Online Support site, for a complete list of the features introduced in that version. All features introduced in 6.0 are included in 6.1.

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**Note:** The *EMC Ionix ControlCenter 6.1 Alerts Matrix*, available on EMC Online Support site provides detailed information about alert and DCP changes since Ionix ControlCenter 6.0.

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### New Licensing in Ionix ControlCenter 6.1

Ionix ControlCenter 6.1 has several new licenses and new licensing packages. Refer to the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1* for details.

The following licenses are new since 5.2.x:

- ◆ **Storage Agent for HDS** — enables installation of the HDS agent.
- ◆ **Storage Agent for SMI-S** — enables installation of the ESS agent, HP StorageWorks agent, and the SMI-S agent for storage functionality.
- ◆ **Invista Agent** — enables installation of the Invista agent.
- ◆ **Application Agents** — enables installation of the Oracle agent, CMA agent and Backup agents.
- ◆ **Virtual Provisioning** — enables virtual provisioning capability.
- ◆ **File Level Reporting** — (added in Ionix ControlCenter 6.0) enables file level reporting (a StorageScope license is also required to enable this feature).

## New SAN Manager Features in Ionix ControlCenter 6.1

Ionix ControlCenter 6.1 now discovers Brocade and McDATA switches *only* through SMI-S and supports SNMPv3 trap collection methods for Brocade (in addition to Cisco) switches.

- ◆ Brocade and McDATA discovery is now through the FCC Agent using SMI-S and no longer utilizes FAL, SWAPI, nor the FibreZoneBridge/ConnectrixBridge (for McDATA).
- ◆ Brocade and McDATA alerts are now collected via SNMP traps.
- ◆ Ionix ControlCenter 6.1 now provides SNMPv3 support (in addition to SNMPv1/2) for Cisco and Brocade (traps only) switches.

## Enginuity Support in Ionix ControlCenter 6.1

Active-management of some Enginuity features is supported through Symmetrix Management Console (SMC) which is integrated with Ionix ControlCenter through right-click menu options. You will need to install and configure SMC in order to make full use of Enginuity features.

Refer to the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1 for details*.

## New Security Features in Ionix ControlCenter 6.1

Ionix ControlCenter 6.1 introduces support for new security features including:

- ◆ **SSL** (secure HTTP) communication between Ionix ControlCenter 6.1 agents and the infrastructure.

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**Note:** You must upgrade your 5.2.x agents to 6.1 in order to utilize secure communication between agents and the infrastructure.

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- ◆ **SNMPv3** support (see SAN Manager Features listed above)
- ◆ Secure login for web applications such as Performance Manager and StorageScope

Refer to the *EMC Ionix ControlCenter 6.1 Security Configuration Guide* for a complete list of security updates.



## Services Changes in Ionix ControlCenter 6.1

The following table provides a comparison between Ionix ControlCenter 5.2.x services and Ionix ControlCenter 6.1 services including a note explaining any differences.

**Table 1 Ionix ControlCenter 5.2.x to 6.1 Services Comparison**

Ionix ControlCenter 5.2.x	Ionix ControlCenter 6.1	Notes
EMC ControlCenter Server	EMC ControlCenter Server	Same Service / No Change
EMC ControlCenter Store	EMC ControlCenter Store	Same Service / No Change
NONE	EMC ControlCenter Key Management Server	Added in 6.1 for new Key Management Service
NONE	EMC ControlCenter Repository	Added in 6.1 to start the OracleServiceRAMBDB service on re-boot if it doesn't start itself
OracleECCREP_HOMETNSListener	OracleECCREP_HOMETNSListener	Same Service / No Change
OracleServiceRAMBDB	OracleServiceRAMBDB	Same Service / No Change
NONE	OracleServiceEMCSTSDB	Added in 6.0 for new StorageScope Repository
NONE	EMC StorageScope Server	Added in 6.0 for new StorageScope Server Service
NONE	EMC ControlCenter Web Server	Added in 6.0 to consolidate TomCat Services
EMC ControlCenter StorageScope	EMC ControlCenter Web Server	Consolidated ControlCenter StorageScope into Web Server Service in 6.0
EMC ControlCenter Performance Manager Reports	EMC ControlCenter Web Server	Consolidated Performance Manager Reports into Web Server Service in 6.0
EMC ControlCenter WebApplications Server	EMC ControlCenter Web Server	Consolidated WebApplications Server into Web Server Service in 6.0
EMC ControlCenter WebConsole Server	EMC ControlCenter Web Server	Consolidated WebConsole Server into Web Server Service in 6.1

**Table 1** Ionix ControlCenter 5.2.x to 6.1 Services Comparison

Ionix ControlCenter 5.2.x	Ionix ControlCenter 6.1	Notes
EMC ControlCenter ECCAPI Server	EMC ControlCenter API Server	Same Service / Just a name change in 6.0
EMC ControlCenter Master Agent	EMC ControlCenter Master Agent	Same Service / No Change
NONE	EMC StorageScope MSA	Added in 6.1 to expose the EMC ControlCenter 6.x data to the Data Center Insight application to give a storage-focused view of the data center

## 1.2 Understand Upgrade Considerations for Ionix ControlCenter 6.1

This section identifies important issues to consider before making an upgrade decision.

### Infrastructure Upgrade Considerations

Note the following considerations regarding infrastructure upgrade:

- ◆ During Installation or Upgrade, Ionix ControlCenter requires a minimum of 120 MB in the %TEMP% folder (by default this is located in the user's local settings folder)
- ◆ Ionix ControlCenter 6.1 uses an InstallShield wizard accessed from disk #1 (**setup.exe**) to install components.
- ◆ The Ionix ControlCenter Repository upgrade now includes an upgrade to Oracle *10g R2*.

### StorageScope Upgrade Considerations

Note the following considerations regarding StorageScope upgrade:

- ◆ Before beginning a 5.2.x to 6.1 StorageScope upgrade you must:
  - Backup the **StorageScope 5.2.x XML Repository:** (%ECC\_INSTALL\_ROOT%\StorageScope\xmlrepository\\*.\*) located on the host where the *EMC ControlCenter StorageScope* service is installed.
  - Backup the **StorageScope 5.2.x Custom Layouts and Custom Reports folder structure:** (%ECC\_INSTALL\_ROOT%\StorageScope\config\\*.\*) located on the host where the *EMC ControlCenter StorageScope* service is installed.
  - Uninstall the **5.2.x StorageScope** and **StorageScopeAPI** components via the **5.2.0 Uninstaller** located under **Add/Remove Programs**.
  - Refer to [“Uninstall 5.2.x StorageScope and StorageScopeAPI Prior to Upgrade” on page 38](#) for details.
- ◆ StorageScope 6.1 has changed significantly from the 5.2.x version. StorageScope now requires the installation of a *StorageScope Repository*. The StorageScope Repository is installed as part of the infrastructure components during the Ionix ControlCenter 6.1 upgrade.

- ◆ Steps to migrate report data from the StorageScope 5.2.x XML Repository to the StorageScope 6.1 Repository are provided in [Appendix Appendix C, “StorageScope Data Migration Utility”](#).

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**Note:** If you are using the EMC supplied Oracle Database for the StorageScope Repository, it must be an Oracle 10g *R2* database.

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- ◆ Another new optional component is *StorageScope File Level Reporting*. Refer to the *ControlCenter 6.1 Performance and Scalability Guidelines* to determine if your current Infrastructure architecture can support this new feature.

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**Note:** Refer to the *EMC Ionix ControlCenter StorageScope API and Repository Reference Guide* for more information about the StorageScope Repository.

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## Agent Upgrade Considerations

Note the following considerations regarding agent upgrade:

### Agents No Longer Supported in 6.1

The following agents are no longer supported and will not run in Ionix ControlCenter 6.x. If these agents were installed in previous versions of Ionix ControlCenter, you can uninstall them from the host if you do not want them appearing (even though they are not functioning) in the Ionix ControlCenter Console.

---

**Note:** Start the Agent Administration Wizard (Uninstall) by right-clicking the Hosts Folder in the Console tree and selecting **Agents>Uninstall**. Refer to the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1* for details.

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**Note:** Some of these agents were generally unavailable but still supported in Ionix ControlCenter 5.2 SP4 or SP5. For Ionix ControlCenter 6.1 and higher, none of these agents will function at all, although some will appear in the Console until you uninstall them.

---

- ◆ Backup Agent for TSM (mainframe agent only)
- ◆ Logical Agent for MVS
- ◆ Storage Agent for IBM ESS — moved to Open Systems at 5.2.0 and now called Storage Agent for ESS (Windows 2000 only). The Storage Agent for IBM ESS cache alerts were moved under the Physical Agent for MVS at that time.

- ◆ Storage Agent for RVA/SVA
- ◆ Tape Agent for MVS
- ◆ Host Agent for Active directory
- ◆ Host Agent for MVS HSM
- ◆ Host Agent for MVS SMS
- ◆ Database Agent for DB2

---

**Note:** Ionix ControlCenter 6.1 Mainframe support is provided by the Master Agent and the Physical Agent for MVS.

---

## Agent Backwards Compatibility

Immediately after upgrading your Infrastructure to Ionix ControlCenter 6.1, and *before* upgrading your agents, you must install the latest Ionix ControlCenter Update Bundle from EMC online support.

Ionix ControlCenter Update Bundles provide agent backwards compatibility for Master and Host agents and Database Agent for Oracle only. Common Mapper Agent, backwards compatibility is supported 6.1 GA onwards. All other agents must be upgraded to the same version as the Update Bundle.

Backwards compatibility means that the 5.2. SP4 or SP5, 6.0, or 6.1 (any version) Master, Host, and Database Agent for Oracle will continue to function as designed. However, you must update them to your current Update Bundle version to make use of the features and fixes provided in the Bundle.

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**Note:** The Physical Agent for MVS was not modified for 6.1 and does not provide secure (SSL) communication between agent and infrastructure.

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**Note:** The agent upgrade wizard automatically sends upgrades for each agent installed on an agent host when you select that host for upgrade. You need not take individual action for each agent on a host.

---

## Plan for Agent Upgrade Disk Space Requirements

EMC recommends that you determine the total required disk space to upgrade all agents (including the Master Agent) and ensure that the total amount of required disk space is available on the host. If the required disk space for upgrading all desired agents is not available, the upgrade task will fail.

---

**Note:** The amount of disk space needed for a fresh installation is not enough for an upgrade. You need twice as much free disk space for the upgrade since both the original installation and the upgrade will reside on the file system during the upgrade process.

---

Determine the amount of required disk space as follows:

1. Refer to *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1* for the required disk space for all agents to be upgraded (including the Master Agent).
2. Add the disk space for those agents to obtain a total for all agents to be upgraded (including the Master Agent).
3. The disk space requirements do not account for the unused space on the disk, so add in a suitable margin.

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**Note:** If the upgrade fails because of the lack of disk space, then increase the disk space, and rerun the Agent Upgrade Wizard.

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## SolutionsEnabler RemoteDeployment Considerations

For Ionix ControlCenter 6.1, you must download the Solutions Enabler Media Repository Load Kit (MRLK) (7.1.1 or higher) from EMC online support to make Solutions Enabler available for deployment to remote hosts. Previous versions of Ionix ControlCenter used the Solutions Enabler installation disks, but for Ionix ControlCenter 6.1 the MRLK is the only way to load Solutions Enabler into the Ionix ControlCenter media repository.

---

**Note:** If the correct version of MRLK is not loaded in the Ionix ControlCenter media repository, you will be unable to install or upgrade agents that require Solutions Enabler as a prerequisite.

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**Note:** Previous versions of the SMI-S Provider libraries for Symmetrix and CLARiiON were packaged with Solutions Enabler, but are now only available as a separate downloadable from EMC online support.

## Plan for Disk Space Requirements for Solutions Enabler

These disk space requirements include 25 MB allocated for log files.

**Table 2** Disk space requirements

	Windows	AIX	HP-UX	Solaris
Solutions Enabler	43 MB	106.1 MB	149 MB	112 MB

This space is required in the Ionix ControlCenter Agent file system where the Solutions Enabler kit is first downloaded.

## Multi-NIC and Cluster Support Considerations

If you currently have a multihome or cluster configuration, it is supported during the upgrade. Note the following:

- ◆ After upgrading a cluster configuration, you must re-enter the IP aliases in the `ecc_server.ini` file.
- ◆ The Ionix ControlCenter service names change when upgrading to 6.1. You need to recreate the cluster resource groups after upgrade.
- ◆ You cannot implement a new multihome or cluster configuration during the upgrade process. Rather, you must perform a clean installation. Refer to *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1*.

## Migrating a Ionix ControlCenter Infrastructure to a New Server

If your Ionix ControlCenter infrastructure components are on an older server (or servers), you may choose to migrate the infrastructure to a new server(s) based on the Ionix ControlCenter Performance and Scalability Guidelines *before* beginning your upgrade to 6.1.

- ◆ The procedure for migrating a 5.2 SP4 or SP5 infrastructure to another server (or servers), is documented in [Appendix B, “Migrating a 5.2.x Ionix ControlCenter Infrastructure,”](#) and requires **Patch3322.zip**. The patch is available on the EMC online support site.

The steps to upgrade a 5.2 SP4 or SP5 infrastructure that also needs to be migrated are as follows:

- Perform the procedure outlined in [Appendix Appendix B](#) to migrate the 5.2 SP4 or SP5 infrastructure to a different server
- Perform the upgrade to 6.1 as defined in this document



# Upgrade Flowchart

Use this flowchart to help guide you through the upgrade.

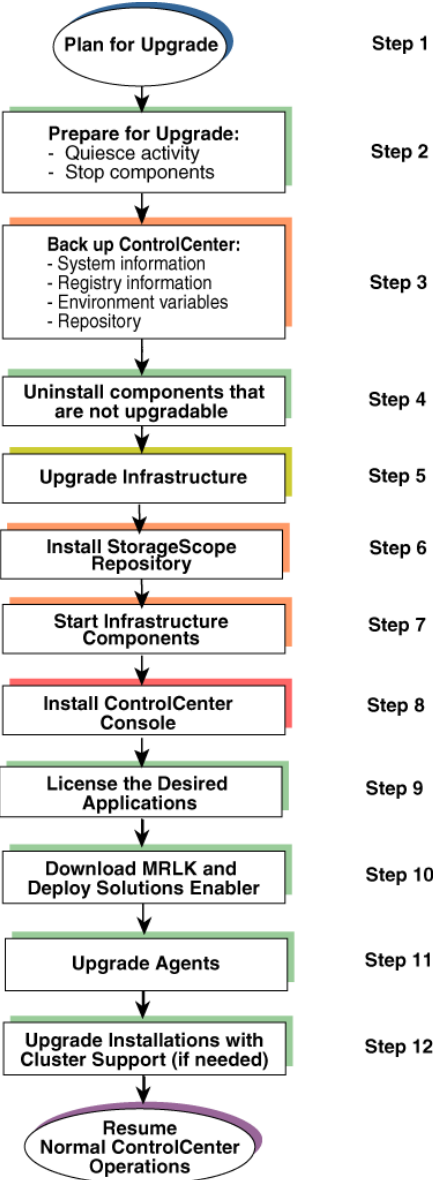


Figure 1 5.2.x to 6.1 Upgrade process

## Step 2 5.2.x to 6.1 Upgrade Prerequisites and Preparation

Please perform all necessary prerequisite steps and prepare your existing system appropriately for upgrade from 5.2.x to 6.1.

---

### 2.1 Upgrade Prerequisites

Some features outlined in the previous sections require setup and configuration changes so that the various components in your SAN can communicate with and be managed by Ionix ControlCenter 6.1.

#### Verify Disk Space for Ionix ControlCenter Repository Backup

Verify that you have enough disk space available for the Ionix ControlCenter Repository backup. To calculate the amount of disk space needed, add 5 GB to the size of your `%ECC_INSTALL_ROOT%` directory + the size of your database. Consider using a different disk drive if you need additional space.

---

**Note:** Ionix ControlCenter 6.1 Update Bundle 9 requires a minimum of 9 GB free disk space.

---

#### Verify Ionix ControlCenter Server Secure Listening Port 10799 is Open

The Ionix ControlCenter Server Secure Listening Port 10799 must be open to ensure proper communications between agents and the infrastructure.

#### Solutions Enabler 7.1.1 or Higher MRLK is Required

A Solutions Enabler 7.1.1 or higher Media Repository Load Kit (MRLK) must be loaded in the Ionix ControlCenter 6.1 Media Repository before attempting to upgrade or install the agents listed above.

---

**Note:** For Ionix ControlCenter 6.1, you must download the Solutions Enabler Media Repository Load Kit (MRLK) (7.1.1 or higher) from EMC online support to make Solutions Enabler available for deployment to remote hosts. Pre-6.0 versions of Ionix ControlCenter used the Solutions Enabler disks, but for Ionix ControlCenter 6.0 and higher, the MRLK is the only way to load Solutions Enabler into the Ionix ControlCenter Media Repository.

---

**IMPORTANT**

Even if you loaded the Solutions Enabler 7.1.1 or higher MRLK in a previous version of Ionix ControlCenter, you must still re-load the same (or higher) MRLK into the Ionix ControlCenter Media Repository after upgrading to Ionix ControlCenter 6.1.

**Note:** If you intend to use the Storage Agent for SMI to discover Symmetrix or CLARiiON arrays, you can download the Providers from the SMI-S Provider download location on EMC online support.

### Switch Setup for Discovery Brocade and McDATA

Brocade and McDATA switches are discovered through the FCC Agent using SMI-S in 6.1.

- ◆ The existing FCC Agent must be upgraded to 6.1.
- ◆ Ensure that the SMI-S Providers for each switch are setup and configured correctly.
- ◆ All connection details for Brocade and McDATA switches, and Connectrix Manager implementations discovered prior to the upgrade (such as connection details including Username/Password and IP Address) must be specified in the SMI Provider files.
- ◆ Review the *Brocade SMI Agent Installation and User Guides* for specifics about how to set up the switches to work with SMI-S.
- ◆ A Brocade or McDATA switch will not be fully discovered (DCPs will not work correctly) until you discover it after upgrade using Assisted Discovery.

### Switch Setup for SNMPv3 Brocade and Cisco

Ionix ControlCenter 6.1 supports SNMPv3 on Brocade (traps only) and Cisco.

- ◆ Refer to the *ControlCenter Planning and Installation Guide, Volume 1* for a list of the prerequisite settings if you intend to implement SNMPv3.

**Note:** if you are implementing SNMPv3 you must rediscover the switch after upgrade to fully implement the SNMPv3 features.

## Prevent Possible Upgrade Failure

The Ionix ControlCenter Repository upgrade executable requires the use of two DLLs related to Secure Sockets Layer (SSL) functionality, libeay32.dll and ssleay32.dll. The versions of these two DLLs required by the Ionix ControlCenter upgrade executable are shipped with the Ionix ControlCenter upgrade software. However, other applications may also use their own versions of these same DLLs to implement SSL, which can conflict with the Ionix ControlCenter upgrade operation.

- ◆ The conflict occurs because the other applications that use these DLLs are putting their application paths in the system %PATH% variable. If the other application path is listed in the system %PATH% variable before the Ionix ControlCenter entry for the ramb\_scripts folder (where the Ionix ControlCenter version of the DLLs are shipped), then the Ionix ControlCenter upgrade executable will use the other application DLLs instead of the libraries shipped with Ionix ControlCenter .
- ◆ The versions of the DLLs that are used by other applications are usually different from the ones shipped with Ionix ControlCenter (and required by the upgrade executable), which causes the Ionix ControlCenter upgrade to abort.
- ◆ Note and record the existing settings for the system %PATH% variable (see IMPORTANT Note below).
- ◆ At the beginning of the %PATH% variable list, add the following path to the Ramb\_scripts directory:

```
<ECC_INSTALL_ROOT>\Repository\admin\Ramb_scripts;
```

---

**Note:** Replace <ECC\_INSTALL\_ROOT> with the actual Ionix ControlCenter installation directory, and be sure to include the semicolon (;) at the end of the path (the semicolon is used as the separator for multiple paths).

---

- ◆ Run the Ionix ControlCenter upgrade executable and complete the upgrade operation.
- ◆ Once the upgrade has completed successfully, restore the settings for the system %PATH% variable to the settings that existed before the upgrade.

### **IMPORTANT**

---

Once you change the %PATH% variable to list the Ramb\_scripts directory path first as described above, any other applications that also use the libeay32.dll and ssleay32.dll DLLs will have issues. Therefore, after you have successfully upgraded Ionix ControlCenter , you must restore the path to the previous settings as mentioned

in the last bullet above to allow normal operation of the other applications to resume.  
See [ETA Solution ID emc197536](#) for details.

---

## 2.2 Upgrade Preparations

If you decide to perform a fresh installation of ControlCenter 6.1, please refer to *EMC Ionix ControlCenter 6.1 Planning and Installation Guide Volume 1*.

If you decide to perform an upgrade from Ionix ControlCenter 5.2.x to 6.1, please keep in mind the following important notes and cautions as you prepare for upgrade:

### Upgrade Notes

Please review the following notes in preparation for upgrade.

- ◆ Before beginning the upgrade, **verify that all hosts containing ControlCenter components use network names only**, IP addresses are not supported. Use of network names avoids the need to reconfigure Ionix ControlCenter if IP address assignments change (*a common security practice*).
- ◆ Always use the host **Fully Qualified Domain Name (FQDN)** to avoid ambiguity. Ensure that hostnames and FQDNs do not contain underscores and that they are added to DNS. Contact the network administrator to ensure that the IP addresses for each NIC on each Ionix ControlCenter host are registered with DNS.
- ◆ Verify that both forward and reverse DNS lookup is properly configured and active. If necessary, consult your network administrator or the DNS documentation. Utilize **nslookup** and **ping** commands to verify forward and backward communications exist between Ionix ControlCenter component hosts.
- ◆ When the Ionix ControlCenter 6.1 Upgrade is applied to a 5.2.x or 6.0 environment the **connectemc\_service.ini** file is backed up to **connectemc\_service.ini.6.1** and replaced with a default connectemc\_service.ini file. Any site where the connectemc\_service.ini file has been updated for **ConnectEMC** call home will have its call home config overwritten by the upgrade. Locate the backup connectemc\_service.ini.6.1 file, retrieve the call home phone number, and add it to the new default connectemc\_service.ini file.
- ◆ Ensure that the Ionix ControlCenter Repository daily **database export** and **database hot backup** completed without error prior to doing the upgrade.
- ◆ Backup the %USERPROFILE%\Application Data\WLA\WLA.ini file, where %USERPROFILE% is the user's working environment.
- ◆ If EMC has worked with you to increase the memory sizes of the server or store(s), please contact EMC before beginning the upgrade.

- ◆ Refer to “[Upgrade Ionix ControlCenter MVS Agents](#)” on page 57 for information about upgrading MVS agents. Ionix ControlCenter 6.1 only supports the Master and Physical Agents for MVS. No other MVS agents used in previous versions of Ionix ControlCenter are supported. Refer to “[Agent Backwards Compatibility](#)” on page 21.
- ◆ Refer to *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1* for additional information on disk space required by agent and component hosts for this upgrade.
- ◆ All Ionix ControlCenter components on a host (with the exception of the database backup file) must be installed in the same directory tree, for example in the ecc\_install\_root directory.
- ◆ When upgrading the infrastructure, the upgraded database contains pre-upgrade customized data collection policies (DCPs) as well as the default DCPs. You can delete the default DCPs and work with only your customized DCPs. Refer to the *EMC Ionix ControlCenter 6.1 Release Notes and the EMC Ionix ControlCenter 6.1 Alerts Matrix* for the latest information on DCPs.
- ◆ Disable any virus-checking software. Some antivirus software may be monitored by Services and restarted automatically. Refer to your antivirus vendor documentation to determine if additional Services need to be stopped.
- ◆ If you are upgrading a 5.2.x cluster to a 6.1 cluster, run the upgrade from the original node where you did your first install.

If you do not know the original node where the first install was done, check the **Start Menu**. If an entry exists for **EMC > EMC Ionix ControlCenter > Start ECC Install** then you are on the original node. If it doesn't exist, then you are on the secondary host.

- ◆ The EMC FibreZoneBridge/Connectrix Bridge is no longer used in Ionix ControlCenter 6.1. The switch information is instead collected via the 6.1 FCC Agent using SMI-S. You can uninstall the EMC FibreZoneBridge/Connectrix Bridge using the instructions provided with the utility on EMC online support.
- ◆ Before beginning a 5.2.x to 6.1 StorageScope upgrade you must:
  - Backup the **StorageScope XML Repository** (%ECC\_INSTALL\_ROOT%\StorageScope\xmlrepository\\*.\*) located on the host where the *EMC ControlCenter StorageScope* service is installed.

- Backup the **StorageScope Custom Layouts and Custom Reports folder structure** (%ECC\_INSTALL\_ROOT%\StorageScope\config\\*.\*) located on the host where the *EMC ControlCenter StorageScope* service is installed.
- Uninstall the **5.2.x StorageScope** and **StorageScopeAPI** components via the **5.2.0 Uninstaller** located under **Add/Remove Programs**.
- Refer to [“Uninstall 5.2.x StorageScope and StorageScopeAPI Prior to Upgrade” on page 38](#) for details.

## Upgrade Cautions

Please review the following cautions in preparation for upgrade.

### CAUTION

Ensure that all Ionix ControlCenter Repository maintenance tasks are stopped prior to starting the Ionix ControlCenter Repository upgrade. The Ionix ControlCenter Repository upgrade will fail if a Ionix ControlCenter Repository maintenance task is running.

Update of the registry utility scripts (`regutil.exe` and `regutil.pl`) for Ionix ControlCenter 5.2 SP5 and SP4 as well as Ionix ControlCenter 6.0, is required to enable rollback functionality. The new scripts have been included on your Ionix ControlCenter 6.1 installation disk #4. Please copy the new registry utility scripts from the installation disk #4 `regutil520` directory into the Ionix ControlCenter installation directory `%ECC_Install_Root%\tools\utils` folder. This must be done on all infrastructure hosts.

### CAUTION

Verify that there are no open connections to the Ionix ControlCenter Repository by running: `netstat -an`. Open the `listener.log` file located in: `%ECC_INSTALL_ROOT%\Repository\network\log` to verify no processes are connected to the Ionix ControlCenter Repository. If you can open the `listener.log` file then there are no open connections to the Ionix ControlCenter Repository. If you cannot open the `listener.log` file, then there is an open connection to the Ionix ControlCenter Repository. Make a copy of the `listener.log` file and open the copy to see which connections are still open, then go close those connections.



**⚠ CAUTION**

You cannot install Ionix ControlCenter 6.1 components (such as the infrastructure) on a host that only has agents on it. You must first uninstall the agents (including the Master Agent) before installing the Ionix ControlCenter 6.1 components."

## Step 3 5.2.x to 6.1 Upgrade

This section describes the steps necessary to perform the actual upgrade of Ionix ControlCenter from 5.2.x to 6.1.

### Quiesce Ionix ControlCenter Activity

The following are the scheduled Ionix ControlCenter Repository maintenance jobs:

**Table 3** Ionix ControlCenter Repository Maintenance Jobs Schedule

Job	Job Name	Time	Frequency
Database Export	ramb_export_db.bat	10 p.m.	Daily
Database Hot Backup	ramb_hotback.bat	2 a.m.	Daily
Database Analyze	ramb_analyze_table.bat	9 p.m.	Every Sunday
Index Rebuild	ramb_rebuild_index.bat	12:05 a.m.	Every Saturday
Recompile Invalid Objects	ramb_recomp_invalid.bat	9:30 p.m.	Every Sunday
Freespace Analysis Report	ramb_freespace.bat	9 p.m.	Daily
Monitor the status of automated tasks	ramb_jobstatus.bat	8:30 a.m.	Daily
Installed Ionix ControlCenter Components sorted by component type	InstalledECCCompByComp.bat	7:00 a.m.	Daily
Installed Ionix ControlCenter Components sorted by version	InstalledECCCompByVer.bat	7:10 a.m.	Daily
Installed Ionix ControlCenter Components sorted by host	InstalledECCCompByHost.bat	7:20 a.m.	Daily

Ensure that the scheduled ControlCenter Repository maintenance jobs are disabled or stopped before you upgrade Ionix ControlCenter.

## Run Job Status

Run the `ramb_jobstatus.bat` job located in `%ECC_Install_Root%\Repository\admin\Ramb_scripts` folder to determine which maintenance jobs have already been run. Open the `ramb_jobstatus.log` file located in the same folder as the batch file, to check for any maintenance jobs that have not been run yet and run any additional maintenance jobs you feel are necessary.

## Disable all existing Workload Analyzer Archiver Data Collection Policies

Disable all WLA DCPs as follows:

1. Go to the Ionix ControlCenter Console.
2. Set the View to *Policies View* by clicking the **blue ECC Administration** task button drop-down-list-arrow and selecting **Policies**.
3. Put a checkmark next to all Storage Systems, Hosts, and Connectivity Devices in the Tree Panel.
4. Sort the view by the Policy Column.
5. Select any Enabled WLA collection policies, right-click, select **Disable**.
6. Repeat step 5 until all WLA DCPs are Disabled.

## Uninstall Ionix ControlCenter Console

The previous version of the Ionix ControlCenter Console is not upgradable and must be removed before you start the upgrade. You need to remove the old Console from all locations where it is installed using the following steps for each host.

### Ensure the Ionix ControlCenter Console is not running

In the Ionix ControlCenter Console menu, select **File, Exit**, or click the Close box on the Ionix ControlCenter Console window.

### Remove the Ionix ControlCenter Console files

---

**Note:** Be aware that when you launch the InstallShield to remove the Ionix ControlCenter Console files, InstallShield closes all Internet Explorer windows that are currently open on the desktop.

---

1. From the **Start** menu, select **Settings>Control Panel**.

2. Open **Add/Remove Programs**.
3. Select **EMC ControlCenter Console 5.2.0 Service Pack 5 (or Service Pack 4)**, and follow the uninstall commands.
4. Once the uninstall completes, click **Finish** to exit InstallShield.
5. Select **EMC ControlCenter Console 5.2.0**, and follow the uninstall commands.
6. Once the uninstall completes, click **Finish** to exit InstallShield.
7. **EMC ControlCenter Console** is removed from the **Add/Remove Programs** list.

### Remove log and .ini files

The Ionix ControlCenter Console uninstall does not remove the log and `.ini` files in the directory. It is helpful to preserve the `.ini` file after upgrade so you don't lose any custom settings you might have added. If you want to remove the Ionix ControlCenter Console file structure, do the following:

Delete these directories if you have no need for the Console log files and configuration data for this Console user:

- `%USERPROFILE%\ecc\console\data`
- `<Install_Root>\ecc\console`

(the default is: `%Program Files%\ecc\console\data`)

where `<Install_Root>` is the Ionix ControlCenter infrastructure install directory.

Repeat the above steps for each host with a Ionix ControlCenter Console installed.

## Backup Ionix ControlCenter Components

5.2.x Ionix ControlCenter components should be backed up before upgrade to allow you to rollback anytime during the upgrade process.

---

**Note:** Do the backup procedure from the `eccadmin` account that was used to perform the original installation.

---



---

**Note:** Refer to the *EMC ControlCenter 5.2 Patch 3322 Readme* available on EMC online support for a very detailed backup process.

---

On each host that has Ionix ControlCenter components (in both clustered and non-clustered environments) installed, do the following:

---

**Note:** Verify that you have enough disk space available for the Ionix ControlCenter Repository backup. To calculate the amount of disk space needed, add 5 GB to the size of your %ECC\_INSTALL\_ROOT% directory + the size of your database. Consider using a different disk drive if you need additional space.

---

**⚠ CAUTION**

Ensure that all Ionix ControlCenter Repository maintenance tasks are stopped prior to starting the Ionix ControlCenter Repository upgrade. The Ionix ControlCenter Repository upgrade will fail if a Ionix ControlCenter Repository maintenance task is running.

Update of the registry utility scripts (`regutil.exe` and `regutil.pl`) for Ionix ControlCenter 5.2 SP5 and SP4 as well as Ionix ControlCenter 6.0, is required to enable rollback functionality. The new scripts have been included on your Ionix ControlCenter 6.1 installation disk #4. Please copy the new registry utility scripts from the installation disk #4 `regutil520` directory into the Ionix ControlCenter installation directory `%ECC_Install_Root%\tools\utils` folder. This must be done on all infrastructure hosts.

---

**⚠ CAUTION**

Go to the `%ECC_INSTALL_ROOT%\tools\utils` directory and from the command line run `clustersave.bat`.

---

- ◆ Copy the original Ionix ControlCenter installation directory (`%ECC_INSTALL_ROOT%`) to the backup directory `<Drive>:\rollback` do not change the directory name.
- ◆ Backup any backup data you might need. For example, the `eccsys.backup*` tables will be cleaned of entries after upgrade.
- ◆ If you haven't done so already, backup the **StorageScope XML Repository** (`%ECC_INSTALL_ROOT%\StorageScope\xmlrepository\*.*`) located on the host where the **EMC ControlCenter StorageScope** service is installed.
- ◆ EMC highly recommends that you move all backup directories to external storage to free up space on the local drive and ensure the safety of the backup files.

The backup of Ionix ControlCenter is now complete.

## Stop Terminal Services

When the Ionix ControlCenter Console is installed on a server that is running Terminal Services, the Console application is transmitted over the network and displayed on a Terminal Services client host.

When running Terminal Services on a host where Ionix ControlCenter infrastructure components (ControlCenter Server, ControlCenter Repository, and Store) reside, bear the following in mind:

- ◆ You cannot install or upgrade Ionix ControlCenter , nor deploy Ionix ControlCenter hotfixes, from a Terminal Services session.
- ◆ You cannot use Terminal Services to access the Ionix ControlCenter Console on the Ionix ControlCenter Server, Ionix ControlCenter Repository, and Store hosts (because the Console sessions might impact the performance of infrastructure components).

---

**Note:** Due to reported issues with installing or upgrading the Ionix ControlCenter Repository on Windows 2000 hosts configured with Terminal Services, EMC requires that you *Disable Terminal Services (an action that requires a reboot)* before installing or upgrading the Ionix ControlCenter Repository. Restart Terminal Services after the install or upgrade is complete.

---

## Prepare Ionix ControlCenter Services and Other Components for Upgrade

From the Infrastructure host(s) Services window, Stop and set to Manual:

---

**Note:** Ionix ControlCenter services will already be set to manual if the *clustersave.bat* file has been run, as described in [“Backup Ionix ControlCenter Components” on page 35.](#)

---

- Distributed Transaction Coordinator service
- Anti-Virus Software service(s)
- EMC ControlCenter ECCAPI Server service
- EMC ControlCenter Master Agent service
- EMC ControlCenter Performance Manager Reports service
- EMC ControlCenter StorageScope service
- EMC ControlCenter WebApplications Server service

- EMC ControlCenter WebConsole Server service
- EMC ControlCenter Store service (*wait 3 minutes for it to stop*)
- EMC ControlCenter Server service (*wait 3 minutes for it to stop*)

---

**Note:** Wait 3 minutes to ensure that shutdown is complete for the **EMC ControlCenter Server** and **EMC ControlCenter Store** services, although each service might indicate a status of *Stopped* during that shutdown time.

---

From Task Manager verify that all the Ionix ControlCenter processes listed on the previous page have stopped.

From the MVS Console Stop all MVS Agents:

- Use the following command from the MVS Console:

F CSMAGENT,SHUTDOWN EOD

From the Ionix ControlCenter Repository host Services window, Stop and Restart:

- OracleECCREP\_HOMETNSListener
- OracleServiceRAMBDB

---

**Note:** Stop both the **OracleECCREP\_HOMETNSListener** service and the **OracleServiceRAMBDB** service. **After both services are listed as stopped**, re-start the **OracleECCREP\_HOMETNSListener** service and the **OracleServiceRAMBDB** service in that order.

---

---

**Note:** Be sure to always close the Windows Services window before trying to install or upgrade Ionix ControlCenter components.

---

## Uninstall 5.2.x StorageScope and StorageScopeAPI Prior to Upgrade

Before beginning the upgrade from 5.2.x to 6.1 you must uninstall the **5.2.x StorageScope** and **StorageScopeAPI** components via the **5.2.0 Uninstaller** located under **Add/Remove Programs**.

1. If you haven't done so already, on the host where the *EMC ControlCenter StorageScope* service is installed, backup the StorageScope XML Repository folder structure `%ECC_INSTALL_ROOT%\StorageScope\xmlrepository\*.*` to a location not involved in the upgrade.

2. If you haven't done so already, on the host where the *EMC ControlCenter StorageScope* service is installed, backup the StorageScope Custom Layouts and Custom Reports folder structure  
`%ECC_INSTALL_ROOT%\StorageScope\config\*.*` to a location not involved in the upgrade.
3. From the **Start** menu, select **Settings>Control Panel**.
4. Open **Add/Remove Programs**.
5. Select **EMC ControlCenter 5.2.0 Uninstall**, click **Change/Remove**.
6. Select **StorageScope** and **StorageScopeAPI** from the list of available components to uninstall, click **Next**.
7. The uninstaller removes the selected components.
8. Once the uninstall completes, click **Exit** to exit the uninstaller.

You are now ready to begin upgrading components.

## Upgrade Ionix ControlCenter Infrastructure and Optional Components

Beginning with Ionix ControlCenter 6.0 a new InstallShield is utilized to install and upgrade the Ionix ControlCenter application. This section provides procedures for upgrading the Ionix ControlCenter infrastructure and optional components. If your Ionix ControlCenter infrastructure is distributed, repeat these procedures on each host containing infrastructure components.

---

**Note:** During UB9 upgradation, various repository backup folders are created under different upgrade directories. To reclaim the disk space, you can remove these folders after successful upgradation. For more information on backup folders, refer to [“Backup folder created during UB9 Upgrade” on page 89](#).

---

1. On the host you are applying the upgrade to, insert Ionix ControlCenter 6.1 installation disk #1 or map to the share where the Ionix ControlCenter 6.1 installation disks have been loaded.  
  
 If upgrading from disks, the InstallShield starts automatically, if upgrading from a share, you may need to run **setup.exe** to start the InstallShield.
2. If you are presented with an *Open File - Security* screen, click **Run**. The *Preparing Setup* screen appears briefly.

3. *InstallShield Warning* dialog appears, warning to close all other applications, click **OK**.
4. *InstallShield Warning* dialog appears, warning to turn anti-virus software off, click **OK**.
5. *Welcome* screen appears, click **Next**.
6. *License Agreement* screen appears, (if no other ControlCenter components are installed on this host, otherwise this screen is skipped). Review License Agreement, select **I accept the terms of the license agreement**, click **Next**.
7. *Evaluating Network Configuration* message appears, wait for it to clear.
8. Primary Network Name screen appears, select the **Primary Network Name** for this host from the drop-down-list-box, click **Next**.

---

**Note: Note:** During upgrade, use Network Names only, IP addresses are not supported. Use of Network Names avoids the need to reconfigure Ionix ControlCenter if IP address assignments change (*a common security practice*).

---

9. *Choose Destination Location* screen appears, click **Change** to enter a different install location, otherwise click **Next**.
10. *ControlCenter Repository Options* screen appears, select **Specify existing ControlCenter Repository**, click **Next**.
11. *ControlCenter Repository Data* screen appears, enter the **Hostname** and **Port Number** of the ControlCenter Repository Host, click **Next**.
12. An information box appears informing you to please wait while the installer detects Ionix ControlCenter components on this host.
13. If this is the first host you are upgrading, a dialog appears stating that StorageScope will not be updated at this time, click **OK**.
14. Ready to Upgrade Ionix ControlCenter screen appears listing all components on this host that will be upgraded, click **Install**.
15. The upgrade begins and the InstallShield shows various progress bars as the upgrade continues.
16. When the upgrade completes, Click **Finish**. The system will reboot at this point to complete the upgrade on this host.



---

**Note:** The following warning message appears before the install finish dialog box appears if there are post upgrade validation issues in Ionix ControlCenter Repository. **ControlCenter Repository upgrade completed, but post-upgrade validation found few minor discrepancies. you can continue to use ControlCenter. Please review the post-upgrade validation report for ControlCenter Repository at location `%ECC_INSTALL_ROOT%\Repository\admin\Ramb_scripts\upgrade\schema_reports\ramb_reports_summary.log` and contact EMC Customer service if you have concerns.**

---



---

**Note:** The following warning message appears before the install finish dialog box appears if there are post upgrade validation issues in Ionix ControlCenter StorageScope Repository. **ControlCenter StorageScope Repository upgrade completed, but post-upgrade validation found few minor discrepancies. you can continue to use ControlCenter. Please review the post-upgrade validation report for ControlCenter StorageScope Repository at location `%ECC_INSTALL_ROOT%\Repository\admin\emcsts_scripts\upgrade\schema_reports\emcsts_reports_summary.log` and contact EMC Customer service if you have concerns.**

---

## Upgrade StorageScope

### Install New StorageScope Repository and StorageScope Server

---

**Note:** EMC does not recommend that you install the StorageScope Repository on the same host as other infrastructure components, particularly if you intend to use StorageScope FLR. Best practice is to install the StorageScope Repository and StorageScope Server together on a dedicated host without any other infrastructure components. If this is not possible, at a minimum, install them on a host other than the Ionix ControlCenter Repository and Ionix ControlCenter Server host.

---

1. On the host where you will install the StorageScope Repository, insert Ionix ControlCenter 6.1 installation disk #1 or map to a share where the Ionix ControlCenter 6.1 installation disks have been loaded.
2. If installing from disk, the InstallShield starts automatically, if installing from a share, you may need to run **setup.exe** to start the InstallShield.

3. If you are presented with an *Open File - Security* screen, click **Run**.
4. *Preparing Setup* screen appears briefly.
5. *InstallShield Warning* dialog appears, warning to close all other applications, click **OK**.
6. *InstallShield Warning* dialog appears, warning to turn anti-virus software off, click **OK**.
7. *Welcome* screen appears, click **Next**.
8. *License Agreement* screen appears, (*if no other ControlCenter components are installed on this host, otherwise this screen is skipped*). Review License Agreement, select **I accept the terms of the license agreement**, click **Next**.
9. *Evaluating Network Configuration* message appears, wait for it to clear.
10. *Choose Destination Location* screen appears, click **Change** to enter a different install location, otherwise click **Next**.
11. *ControlCenter Repository Options* screen appears, select **Specify existing ControlCenter Repository**, click **Next**.
12. *ControlCenter Repository Data* screen appears, enter the **Hostname** and **Port Number** of the Ionix ControlCenter Repository host, click **Next**.
13. *Contacting the ControlCenter Repository on Hostname* message appears, wait for it to clear.
14. *StorageScope Repository* screen appears, Do you want to install the StorageScope Repository? Yes or No, select **Yes**, click **Next**.

---

**Note:** In some situations, the 5.2.x uninstaller may not completely uninstall StorageScope. If, after starting the 6.1 StorageScope installation, you receive the following message: “*StorageScope upgrade cannot continue. Please upgrade\install your StorageScope Repository first. Upgrade will now abort*” go to the EMC Online Support site to download and run Hot Fix **Patch 4303** which will completely uninstall the old version of StorageScope. After running Patch 4303 re-start the upgrade of StorageScope with Step "a".

---

15. *Dialog* appears, warning that EMC does not recommend installing the StorageScope Repository on the same host as other infrastructure components, please see the *Performance and Scalability Guidelines* for more information, click **OK**.

---

**Note:** If you are using the **EMC supplied Oracle database** for the StorageScope Repository, it must be an **Oracle 10g R2** database.

---

16. *Choose StorageScope Repository Backup Location* screen appears, click **Change** to enter a different backup location, otherwise click **Next**.
17. *Select Features* screen appears, select *StorageScope* from the list of optional features by placing a checkmark next to it. This selection instructs the *InstallShield* to install the *StorageScope Server* optional feature on this host, click **Next**.
18. *StorageScope License Key Screen* appears, enter the *StorageScope License*, click **Next**.
19. *StorageScope Repository User Creation* screen appears, create a **Username** and **Password** for the **StorageScope Repository**, click **Next**. (*This Username and Password is used by third party applications to access the StorageScope Repository*).
20. *Ready to Install the Program* screen appears, click **Install**.
21. *InstallShield* proceeds to install the selected Ionix ControlCenter components.
22. *Install Complete* screen appears, click **Finish**. The system will reboot at this point to complete the installation on this host.

Once the installation is complete, you can migrate the report data from the StorageScope 5.2.x XML Repository to the StorageScope 6.1 Repository anytime using the StorageScope Repository Data Migration tool. This process is detailed in [Appendix C, “StorageScope Data Migration Utility,”](#).

---

**Note:** You must manually copy any custom 5.2.x StorageScope reports **from** `<ECC_INSTALL_ROOT_BACKUP>\StorageScope\config\report` **to** `%ECC_INSTALL_ROOT%\STS610\SrmConsole\reports\Oracle`

---

## Post StorageScope Install/Upgrade Steps

1. After installing the new StorageScope Repository and StorageScope Server, configure SSL for communications between the StorageScope Repository and StorageScope Server. For more information, see the *EMC Ionix ControlCenter@ 6.1 Enabling/Disabling SSL Technical Notes*.

---

**Note:** In the default installation, SSL is configured automatically for all Ionix ControlCenter components.

---

2. Verify that there is communication between the StorageScope Server and StorageScope Repository and also between the StorageScope Repository and the Ionix ControlCenter Repository, respectively, by logging into the StorageScope application and running ETL. If the “Last Successful Runtime “ column in ETL updates with the time you ran it, then you have verified proper communication between the 3 components.

---

**Note:** The **StorageScope Server** will not launch the **StorageScope application** unless it can communicate with the **StorageScope Repository**. The fact that you can run **ETL** from the StorageScope application confirms **StorageScope Server** to **StorageScope Repository** communication.

The **StorageScope Repository** updates the “*Last Successful Runtime*” column in ETL, in the StorageScope application, following a successful upload of data to the StorageScope Repository from the **ControlCenter Repository**, via ETL. If you run ETL and the “*Last Successful Runtime*” column updates to the time of your run, you have confirmed successful **StorageScope Repository** to **ControlCenter Repository** communications.

---

## Start Infrastructure Components

Complete the steps in this section to start the Ionix ControlCenter infrastructure components following upgrade.

### CAUTION

Immediately following the upgrade to Ionix ControlCenter 6.1, you **MUST APPLY** the latest Ionix ControlCenter 6.1 Update Bundle available on the EMC online support site. Ensure Ionix ControlCenter services are stopped before proceeding with installing the Update Bundle.

On the EMC online support website, navigate to Ionix ControlCenter v 6.x Software Downloads, Ionix ControlCenter 6.1 Patches, for the latest 6.1 Update Bundle.

Carefully review the Update Bundle ReadMe for instructions on applying the patch.

**Apply the latest available Oracle 10g OCPU patch before upgrading to the latest Update Bundle.**

---

## Verify that the Ionix ControlCenter Repository has Started

The Ionix ControlCenter Repository starts up automatically as a service. The Ionix ControlCenter Repository must be running to continue upgrading other components.

To verify that the Ionix ControlCenter Repository is running:

1. Select **Start, Settings, Control Panel**, and then open **Administrative Tools**.
2. Open **Services** and then scroll to locate and verify that Oracle database services have started.

The following services are configured to start automatically during install time (it might take 2 to 5 minutes for them to start).

```
OracleECCREP_HOMETNSListener
OracleServiceRAMBDB
```

---

**Note:** There is a new service in Ionix ControlCenter 6.1 called ***EMC ControlCenter Repository***. This service monitors the **OracleServiceRAMBDB** service following a re-boot, and will start the OracleServiceRAMBDB service after a few minutes if it doesn't start itself.

---

## Start Ionix ControlCenter Services

Do the following to verify a service is running or to start a service if it is not running:

1. Select **Start, Settings, Control Panel**, then **Administrative Tools**.
2. Open **Services**. If the service is not running, right-click the service and select **Start** and set to **Automatic**.
  - EMC ControlCenter Key Management Server
  - EMC ControlCenter Repository
  - EMC ControlCenter Server
  - EMC ControlCenter Store
  - EMC ControlCenter Web Server
  - EMC ControlCenter API Server

- ❑ EMC StorageScope Server

## Starting Performance Manager After Upgrade

---

**Note:** DO NOT try to launch your upgraded Performance Manager before upgrading the Master Agent on the Performance Manager host. This is a required step for Performance Manager to obtain a valid certificate.

---

*Performance Manager Upgrade and Launch Summary:*

- Upgrade Performance Manager 5.2.x or 6.0 to 6.1.
- Install a 6.1 ControlCenter Console. See ” [Install the Ionix ControlCenter 6.1 Console](#)” on page 46
- Via a 6.1 Console verify there is a Master Agent installed and running on the host where Performance Manager is installed.
- If necessary, upgrade the Master Agent on the host where Performance Manager is installed.
- Launch Performance Manager.

---

**Note:** If you shut down Terminal Services for the upgrade process, you can restart the server and client.

---

The procedure for starting Ionix ControlCenter infrastructure components and optional components is now complete. You can now go on to the next section, installing the Ionix ControlCenter 6.1 Console.

## Install the Ionix ControlCenter 6.1 Console

This section explains how to install, launch, and login to the Ionix ControlCenter 6.1 Console.

### Download the Ionix ControlCenter 6.1 Console Install Program

Ensure that you uninstalled all instances of the previous version of the Ionix ControlCenter Console before proceeding to install the Ionix ControlCenter 6.1 Console.

---

**Note:** It is not recommended that you install the Ionix ControlCenter Console on an infrastructure host.

---

1. Open your Web browser. Enter the URL for Ionix ControlCenter Console download:

**https://<ECCServerHostname\_or\_IP\_address>:30002/webinstall**

- If your browser *has* a Java virtual machine (JVM) that can run the installation program, the installation program displays the *Console installation* home page. Continue with [Step 3](#).
  - If your browser *does not have* a JVM that can run the installation wizard, the page displays a message that explains how to download and install a valid JVM.  
Continue with [Step 2](#).
2. Download a JVM from <http://java.sun.com> by clicking on the *Sun's Java website* link in the message panel. EMC recommends that you install the latest version of a generally available JVM (in other words, *not* a beta version).
  3. After the JVM is installed, do one of the following:
    - If using Internet Explorer, click on *EMC ControlCenter Download* in the message panel. Then continue with [step 4](#).
    - If using other browsers, stop and restart the Web browser session. Then enter the URL for Console download again (as described in [step 1](#) at the beginning of this section).
  4. Click the **Installation** option. Then click **Console 6.1**.

---

**Note:** If desired, click the **Documentation Library** link to view documentation that can help with Ionix ControlCenter Console installation.

---

If this is the first time you have installed the Ionix ControlCenter Console on this host, the **Security Warning** dialog box appears.

5. Click **Yes** to continue.

A progress bar indicates that the Console installation application is downloading to the host. When the progress bar reaches 100 percent, the Ionix ControlCenter Console installation application launches automatically (this may take a few moments).

## Run the Ionix ControlCenter 6.1 Console Install Program

1. Click **Next** in the Ionix ControlCenter Console Installation Welcome message screen.

---

**Note:** If the Welcome screen does not open, minimize other open windows and wait for the screen to appear.

---

---

**Note:** If you receive a warning that the InstallShield Certificate has expired, you can safely ignore this message and continue the download.

---

2. Select the destination directory where you want to install the Console application (the default is C:\Program Files\ecc\console). Then click **Next**.

If the installation program detects a previous version of the Ionix ControlCenter Console on the host, it displays a message asking you to rename the location for the destination directory. After resolving the issues, click **Next** again to continue.

A progress bar appears indicating that the Ionix ControlCenter Console installation is taking place. When the progress bar reaches 100 percent, the Installation Summary message appears, indicating that the installation was successful.

3. Click **Finish** to exit the Console installation and close any unneeded Web browser windows.

---

**Note:** If the Console installation fails, refer to the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1* for instructions on uninstalling the Console, deleting unnecessary files, and reinstalling the Console.

---

**⚠ CAUTION**

**Before Launching the Ionix ControlCenter 6.1 Console:**

**If you ever changed the Ionix ControlCenter Server Port default value of 5799 to a customized value, you must edit the "old server port" setting in C:\Program Files\ecc\console\data\ecc\_console.ini to that of your old Ionix ControlCenter Server Port customized value.**

**In the event that your Ionix ControlCenter 6.1 Console does not launch because of an "offline" or "host is unknown" error:**

**You must first edit the "old server port" setting in C:\Program Files\ecc\console\data\ecc\_console.ini to whatever the Ionix ControlCenter Server Port customized value was prior to upgrade, and delete the ecc\_console.ini file in %USERPROFILE%\ecc\data\<servername>\ecc\_console.ini.**

---



## Launch the Ionix ControlCenter 6.1 Console

This section describes how to launch the Ionix ControlCenter 6.1 Console.

1. Click the **Start ECC Console** icon on the desktop, the Client Install Configuration screen appears.
2. Enter the server `host name` and port number (10799 by default in 6.1), enable Console Logging if you want to collect log files, and click **Submit**.

---

**Note: Enable Console Logging:** Selecting this option for Windows saves all Console log files to  
`%USERPROFILE%\ecc\data\<serverhostname>\data.`

---

3. The Ionix ControlCenter Console launches.

## Log in To the Ionix ControlCenter Console

To log in to the Ionix ControlCenter Console application:

1. Enter your Ionix ControlCenter **username**.
2. Enter your **password**.
3. Click **OK**.

The Ionix ControlCenter Console user interface appears.

---

**Note:** When you log into the Ionix ControlCenter Console after upgrading to Ionix ControlCenter 6.1, and the Ionix ControlCenter configuration contains agents that are not supported for 6.1, the Unsupported Agent Notification dialog box appears listing the unsupported agents. You can upgrade the unsupported agents directly from this dialog box. Refer to the *EMC Ionix ControlCenter Console Help* for more information.

---

## If you are unable to login to Ionix ControlCenter as a Domain User (or Add Domain Users to Ionix ControlCenter) after an Upgrade

If you are unable to login as a domain user to Ionix ControlCenter after you upgrade, or are unable to add new domain users, ask your Windows Domain Administrator to complete the following steps to create a new domain account for the Ionix ControlCenter Server service:

1. On the Domain Controller create or select an existing domain account.

---

**Note:** This account will be used exclusively as a service account for the Ionix ControlCenter Server service.

---

2. On the Ionix ControlCenter Server host grant this account the “act as part of the operating system” user right.
3. On the Ionix ControlCenter Server host add this account to the local Administrators group.

---

**Note:** If steps 2 and 3 are not done you will not be able to connect to the server from the Ionix ControlCenter Console and authentication failures will result.

---

4. Make this account the service account for the ControlCenter Server service.
5. Stop the EMC Web Server, Store, and ControlCenter Server services (in that order).
6. Start them in the reverse order (Ionix ControlCenter Server, Store, Web Server).
7. Bring up the Ionix ControlCenter console and add the domain users you wish to have access to Ionix ControlCenter .

The procedure for installing, launching, and logging into the Ionix ControlCenter 6.1 Console is now complete.

The next step in the upgrade is to license the desired applications.

## License the Desired Applications

You need to license each application only once from only one Console. Subsequent Console launches on other hosts will have all licenses enabled (so there is no need to enter the licenses more than once).

- ◆ There are several new licenses for 6.1, and some license packages have changed. Refer to the *ControlCenter Planning and Installation Guide, Volume 1* for details about the 6.1 licensing changes.
- ◆ License keys may be added after agent upgrades are complete.
- ◆ License keys are case sensitive.

**Note:** All purchased 6.1 license keys must be entered into the Console Edit Licenses dialog box.

5.2.x license keys will not be migrated. Enter the new 6.1 license keys following a Ionix ControlCenter 6.1 upgrade.

Table 4 provides a list of all 6.1 licenses.

**Table 4** Ionix ControlCenter 6.1 licensing

6.1 License Keys
Storage Agent for Centera
SAN Manager
Symmetrix Manager
Storage Agent for NAS
Storage Agent for CLARiiON
Performance Manager
Symmetrix Optimizer
StorageScope File Level Reporting
StorageScope
Storage Agent for HDS
Storage Agent for SMI-S
Storage Agent for Invista
Virtual Provisioning
Application Agents

Add the license keys as follows:

1. From the Ionix ControlCenter Console, select **ECC Administration**›**Install**›**Edit Licenses**.
2. Enter the appropriate license keys from your license key cards into the text fields and click **OK**.
3. Exit the Ionix ControlCenter Console.

4. Restart this Ionix ControlCenter Console to enable the licenses.

---

**Note:** Refer to *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1* for additional licensing information.

---

The procedure for licensing the applications is complete.

## Activate StorageScope Model Services Adapter (MSA)

By default, the StorageScope MSA gets installed with StorageScope during the EMC Ionix ControlCenter UB8 or higher upgrades. Additional installation or pre-installation steps are not required. The StorageScope MSA is deactivated after installation, by default. It requires a manual activation.

If you are using StorageScope Repository as your current repository, then you can activate StorageScope MSA.

To activate the StorageScope MSA from the Start menu:

1. Select **Start > Programs > EMC > EMC ControlCenter > StorageScope > Configure STS MSA**. A command window is launched.
2. Enter your choice as **1** to activate the StorageScope MSA. You will be prompted for a confirmation.
3. Enter **Y** to confirm. You will be prompted for a DCI hostname.
4. Enter a **DCI fully qualified hostname** for the settings to be configured. Wait for the successful activation and exit message to appear.
5. Press any key to exit the command window.
6. Reboot StorageScope MSA installed host for the changes to take effect.

The *EMC Ionix ControlCenter 6.1 Administrators Guide* or *StorageScope Online Help* on EMC online support provides details relating to StorageScope MSA activation and deactivation.

## Deploy Solutions Enabler to Remote Hosts

Solutions Enabler 7.1.1 MRLK or higher must be loaded in the Ionix ControlCenter media repository (see following paragraphs) *before* attempting to upgrade the agent. If not, the agent upgrade will fail with the error *No Solutions Enabler Product in Media Repository*.

Ionix ControlCenter automatically pushes Solutions Enabler out to a host as part of the agent upgrade *if* the Solutions Enabler Media Repository Load Kit (MRLK) (7.1.1 or higher) is loaded in Ionix ControlCenter .

---

**Note:** For Ionix ControlCenter 6.1, you must download the Solutions Enabler Media Repository Load Kit (MRLK) (7.1.1 or higher) from EMC online support to make Solutions Enabler available for deployment to remote hosts. Pre-6.0 versions of Ionix ControlCenter used the Solutions Enabler disks, but for Ionix ControlCenter 6.0 and higher, the MRLK is the only way to load Solutions Enabler into the Ionix ControlCenter media repository.

---

### **IMPORTANT**

---

Even if you loaded the Solutions Enabler 7.1.1 or higher MRLK in a previous version of Ionix ControlCenter , you must still re-load the same (or higher) MRLK into the Ionix ControlCenter Media Repository after upgrading to Ionix ControlCenter 6.1.

---

---

**Note:** If you intend to use the Storage Agent for SMI to discover Symmetrix or CLARiiON arrays, you can download the Providers from the SMI-S Provider download location on EMC online support.

---

## Loading the MRLK in the Ionix ControlCenter Media Repository

---

**Note:** Before loading the MRLK, the Ionix ControlCenter Server service must be stopped.

---

Load Solutions Enabler into the Ionix ControlCenter Media Repository as follows:

1. Download the latest Solutions Enabler (7.1.1 or higher) MRLK zip file to a temporary directory on the Ionix ControlCenter Server host.
2. Unzip the file.
3. Start the executable (Wait for the install wizard to start).
4. Solutions Enabler is loaded into the Media Repository and available for pushing out to remote hosts.
5. Start the ControlCenter Server and ControlCenter Store services.
6. Verify that all other Ionix ControlCenter services are started.

You can specify the root deployment directory for Solutions Enabler during its deployment, as follows:

- ◆ If Solutions Enabler was previously deployed on the target host, you should specify the same root directory as the previous version to minimize the impact on existing SYMCLI scripts. You do not need to modify the PATH to reference the new location.
- ◆ If Solutions Enabler was not previously deployed on the target host, specify the directory or accept the default, which is:  
Windows: %Install\_root%\Program Files\EMC\SYMCLI\bin  
UNIX: /opt/emc
- ◆ Keep in mind that when upgrading Solutions Enabler from a previous version, you might still have to modify existing SYMCLI scripts to account for changes in the product resulting from the upgrade. Refer to the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1*.

## Installing Solutions Enabler on Proxy Hosts

In some situations you may have Solutions Enabler installed on a database host or a host connected to your CLARiiON or Symmetrix array while your Ionix ControlCenter agents operate in proxy mode on a separate host. In this case, where there is no Master Agent on the Solutions Enabler host, the only way you can install the latest Solutions Enabler version is to install it manually.

If Solutions Enabler is not upgraded to the correct version (7.1.1 or higher) the upgraded agent will not be able to manage any of the objects discovered before the upgrade.

## Upgrade Agents

This section describes how to upgrade Ionix ControlCenter agents. Complete the following steps for all existing agent hosts before attempting any new remote agent installs.

---

**Note:** Several Ionix ControlCenter agents require that Solutions Enabler be installed before the agents can be installed or upgraded. The Solutions Enabler upgrade may fail if Ionix ControlCenter agents are running on the host during the Solutions Enabler upgrade process. Use the Ionix ControlCenter Console Agent Administration Wizard to stop all agents that are running on the agent hosts where Solutions Enabler is to be deployed.

---

---

**Note:** Some alerts and alert templates for generally unavailable agents may remain in the Console following an upgrade to 6.1.

---

## Begin Agent Upgrade

Multiple-host and single-host agent upgrades are performed the same way.

Use the following steps to upgrade agents:

1. Verify that the necessary licenses are installed.
2. In the tree panel, expand **Hosts**, and then select a host or group of hosts where you want the agent upgraded.
3. With the host(s) selected, right-click, and then select **Agents, Upgrade**.

---

**Note:** You can also select one or more hosts from the tree individually, or you can select any folder or group that contains objects.

---

The wizard launches and displays the **Platform Type Selection** dialog box.

---

**Note:** The Platform Type Selection dialog box appears only if there are agents on multiple platforms. Otherwise, the Host Selection dialog box appears.

---

4. Select a platform from the Platform list.

---

**Note:** For example, to upgrade hosts running Windows, select **Windows**.

---

5. Click **Next**. The **Host Selection** dialog box appears.

The Master Agent status of the selected host(s) appears. If there are no hosts available, then the only options available are **Cancel** or **Back** to return to the previous dialog box.

6. Select one or more available host(s).
7. Click **Next**. The **Agent Upgrade** dialog box appears.

A list of agents selected for upgrade appears.

8. Review the list of agents. Click **Next**.
9. One of the following appears:

- **Upgrade for HP-UX and Solaris** dialog box.  
This asks about autostart on reboot for Master Agents only.  
Review your selections, click **Finish**, and goto step [10](#).
- **Review Upgrade Task** dialog box.  
Review the information, click **Next**, and goto step [12](#).

10. The following warning message may appear:

Warning: Upgrading or installing EMC Solutions Enabler can negatively impact existing SYMCLI-based customized scripts. Do you still want to upgrade or install EMC Solutions Enabler on the host(s) listed below?

11. Click **Yes** if you acknowledge the message. The **Execute Now** dialog box appears.
12. Create a new task list or select an existing task list. If the **View progress/status of Tasks** checkbox is selected, then the execution progress appears. Click **OK** and the task executes immediately.

You will see the status of the task execution and the agents will restart on the Console.

### If Agent Upgrade Fails

If the agent upgrade failed, and indicates that one or more agents did not shut down in a timely manner, it is necessary to retry the agent upgrade because one or more agents were busy:

1. Wait 5 minutes and retry the agent upgrade.
2. If the agent upgrade fails for a second time:
  - **Windows host:** Reboot the agent host and retry the agent upgrade.  
The initial upgrade attempt has already renamed the application agent executables to prevent them from restarting upon reboot. This ensures that the retry of the agent upgrade will not encounter another busy condition.
  - **UNIX host:** Kill all application agent processes, leaving the Master Agent process running, and retry the agent upgrade. Refer to the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1* for a list of agent processes.

### If Solutions Enabler Upgrade Fails

The Solutions Enabler Upgrade may fail if Ionix ControlCenter agents are using Solutions Enabler or if a DOS command window or Windows Explorer is viewing the Solutions Enabler folder:



- ◆ If a DOS command window or Windows Explorer is viewing the Solutions Enabler folder, then the folder locks and cannot be deleted, causing the upgrade to fail. Verify there are no open DOS windows in the Solutions Enabler folder and retry the Solutions Enabler upgrade.
- ◆ Use the Ionix ControlCenter Console Agent Administration Wizard (right-click on host, select Agents, select Stop) to stop all agents that are running on the agent hosts where Solutions Enabler is to be deployed and retry the Solutions Enabler Upgrade.

The procedure for upgrading open systems agents is now complete. You can now proceed to upgrade MVS agents or resume normal operations ([page 59](#)).

## Upgrade Ionix ControlCenter MVS Agents

Ionix ControlCenter 6.1 supports the Master Agent and the Physical Agent for MVS only.

Upgrade the Mainframe Master Agent and Physical Agent for MVS using the procedures outlined in *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 2 (MVS Agents)*.

---

**Note:** Upgrading 5.2.x MVS Master Agents and MVS Physical Agents to Ionix ControlCenter 6.1 provides no additional MVS support functionality. The 6.1 Physical Agent for MVS does *not* provide SSL secure HTTP communication between host and infrastructure.

---

## Upgrade Installations with Cluster Support

Execute the following procedure on the cluster node where the original Ionix ControlCenter installation was done.

**⚠ CAUTION**

**Do not do this step if you think you might need to rollback your upgrade. Once this step is completed you will not be able to rollback.**

---

From each cluster host where Ionix ControlCenter components have been upgraded, do the following:

### **IMPORTANT**

---

The Master Agent must be at the Ionix ControlCenter 6.1 level before beginning this procedure.

---

1. Change directory to `%ECC_INSTALL_ROOT%\tools\utils`
2. Run `clustersave.bat`.
3. If not running, start the Cluster Administrator. Select Start, Programs, Administrative Tools, Cluster Administrator.
4. From the cluster monitor console, initiate a manual failover of the EMC Ionix ControlCenter resource group to the backup node. Right-click EMC ControlCenter resource group and choose Move Group.

From the secondary node, do the following:

1. Change directory to `%ECC_INSTALL_ROOT%\tools\utils`
2. Run `clusterupgrade.bat`.
3. Reboot the secondary node for the upgrade to take effect.

Now you need to recreate resources in your Ionix ControlCenter Group. Refer to the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1* for instructions on creating resources in your Ionix ControlCenter Group. You do not need to recreate:

- ◆ ECCRGPhysicalDisk
- ◆ ECCRGIPAddress
- ◆ ECCRGNetworkName

### **Re-enter IP Aliases and Update Resource Groups (for a Cluster configuration only)**

After upgrading a cluster configuration, you must re-enter the IP aliases in the `ecc_server.ini` file. Failure to do so results in communication problems between the Ionix ControlCenter Console interfaces and the infrastructure. Do the following:

1. Copy the `ecc_server.ini` file to a backup location:

The `ecc_server.ini` file is located in the `%ECC_Install_Root%\ecc_inf\data\\data` directory.

2. Open `ecc_server.ini` (the original file, not the backup) with a text editor.

3. In `ecc_server.ini`, search for the line that contains the string:  

```
name server aliases
```
4. Add a comma-separated list of hostnames to the name server aliases line. These hostnames correspond to the physical IP addresses that are bound to the same network adapter as the server's virtual IP address. The hostnames must be the appropriate hostnames from both nodes of the cluster. Ensure that hostnames in name server aliases do not contain the server's virtual name since it is already included in name server URL property.

---

**Note:** The Ionix ControlCenter service names will change when upgrading to 6.1. You will need to recreate the Cluster Resource Groups after upgrade.

---

## Resume Normal Ionix ControlCenter Operations

You can now resume normal Ionix ControlCenter operations and start all DCPs.

After applying 6.1 to the Ionix ControlCenter Server host, any agents subsequently installed will be version 6.1.

---

**Note:** Once you have installed the FCC Agent, you must re-discover your Brocade and McDATA switches to ensure that all DCPs are working correctly and to fully discover the switches through SMI-S.

---

## Cleanup Rollback Files

If you will not be doing a Rollback procedure, you can relocate or delete the following files to free up disk space. They are only necessary if you are doing a Rollback.

---

**Note:** You may have moved the `ECC610_BAK` file from the local host to an external server when you completed the Infrastructure upgrade.

---

```
%Install Root%\ECC\pre61upgraderambdb_exp_dmp.zip
%Install Root%\ECC\rambdb_exp.dmp
%Install Root%\ECC\rambdb_exp_dmp.zip
%Install Root%\ECC610_BAK
%Install Root%\ECC\Repository\admin\Ramb_scripts\upgrade\afterupgradeExp.dmp
```

## Rolling Back the 5.2.x to 6.1 Upgrade (optional)

The following steps describe how to uninstall your 6.1 upgrade and roll back your installation to 5.2.x, if necessary.

**⚠ CAUTION**

**Version mismatch of any Ionix ControlCenter infrastructure component is not supported.**

---

You must perform the following tasks to roll back your Ionix ControlCenter 6.1 upgrade to 5.2.x:

1. From a Ionix ControlCenter Console, stop all Ionix ControlCenter agents, if any are running.
2. Uninstall any agents that have been upgraded to 6.1.
3. For each host with a 6.1 Master Agent, uninstall the Master Agent.

---

**Note:** Be sure to stop any enabled virus-checking software. If your site policy does not allow this, the roll-back will proceed but take an extremely long time. Some antivirus software may be monitored by Services and restarted automatically. Refer to your antivirus vendor documentation to determine if additional Services need to be stopped.

Ensure your system is in a quiesced state before proceeding.

---

4. Close the Ionix ControlCenter Console on all hosts where it is running and then uninstall it.

---

**Note:** Perform the following steps (5 through 16) on all hosts where any Ionix ControlCenter infrastructure components were upgraded.

---

5. Go to **Administrative Tools > Services**, stop the following Services if they are present, and set them to **Manual Startup**:

- ◆ Any Ionix ControlCenter Services:
  - EMC ControlCenter API Server
  - EMC Key Management Server
  - EMC ControlCenter Master Agent
  - EMC ControlCenter Web Server
  - EMC ControlCenter Server
  - EMC ControlCenter Store

- EMC StorageScope Server
  - ◆ Distributed Transaction Coordinator Service
  - ◆ Terminal Services Service
  - ◆ Terminal Server Licensing Service
  - ◆ Anti-Virus Services
6. Close the Services window.
  7. Go to Add or Remove Programs, select EMC ControlCenter 6.1.0, and click **Remove**.

The EMC ControlCenter 6.1.0 InstallShield Wizard starts.

8. Select Uninstall ControlCenter Components.
9. Complete the Uninstall Wizard by selecting all Ionix ControlCenter Components to uninstall and accepting all defaults.
10. Uninstall the Master Agent if there is one on this host.
11. Delete %ECC\_INSTALL\_ROOT%.
12. Copy the installation folder from the backup directory <drive>:\rollback to its original location.
13. Go to **Administrative Tools > Services**, and set the following Services, if they are present, to Automatic Startup Type:
  - ◆ Distributed Transaction Coordinator Service
  - ◆ Terminal Services Service
  - ◆ Terminal Server Licensing Service
  - ◆ Anti-Virus Services
14. Close the Services window.
15. Go to %ECC\_INSTALL\_ROOT%\tools\utils and from the command line run **clusterload.bat**.
16. Reboot the host.

## Recover the 5.2.x Infrastructure

1. Go to **Administrative Tools > Services** on the Repository host, start the following Ionix ControlCenter components, and then set them to **Automatic Startup Type**:

- OracleECCREP\_HOMETNSListener
  - OracleServiceRAMBDB
2. Open a command prompt (DOS window).
  3. Run `%RAMBOH%\admin\ramb_scripts\ramb_mediarecovery.bat`
  4. Enter **Y** at the prompt to proceed. This resets the database and puts it into a usable state.

If the Repository recovery fails, contact Customer Support.

## Restart Infrastructure

For the necessary hosts, do the following:

1. Select **Start, Settings, Control Panel, Administrative Tools, Services** on the infrastructure hosts. Start the following Ionix ControlCenter components, and then set them to **Automatic Startup Type**:
  - EMC ControlCenter Server service
  - EMC ControlCenter Store service
  - EMC ControlCenter StorageScope service
  - EMC ControlCenter ECCAPI Server service
  - EMC ControlCenter Master Agent service
  - EMC ControlCenter Performance Manager Reports service
  - EMC ControlCenter WebApplications Server service
  - EMC ControlCenter WebConsole Server service
2. Reinstall your 5.2.x ControlCenter Console. Refer to your existing 5.2.x installation documentation for more information.

---

**Note:** If the Ionix ControlCenter Console shows any agents as inactive, then those agents need to be reinstalled. They are not functional until you reinstall them.

---

3. Reinstall 5.2.x Master Agents.
4. From a host with a Ionix ControlCenter Console installed, reinstall and restart any agents that were uninstalled in [step 2 on page 60](#) .

## Remove Backup Files

If the results of the rollback are satisfactory, remove the backup folder.

For the hosts that a restore has been performed, do the following:

- a. Delete the folder:

```
%ECC_INSTALL_ROOT%\tools\utils\BackupFiles
```





# CHAPTER 2

## Upgrading Ionix ControlCenter 6.0 to 6.1

This chapter shows you how to upgrade your version 6.0 Ionix ControlCenter installation to version 6.1.

Refer to [Chapter 1, “Upgrading Ionix ControlCenter 5.2 to 6.1,”](#) if you are upgrading a pre-6.0 installation.



Immediately following the upgrade to Ionix ControlCenter 6.1, you **MUST APPLY** the latest Ionix ControlCenter 6.1 Update Bundle available on EMC online support site.

On EMC online support website, navigate to Ionix ControlCenter v 6.x Software Downloads, Ionix ControlCenter 6.1 Patches, for the latest 6.1 Update Bundle.

Carefully review the Update Bundle ReadMe for instructions on applying the patch.

Apply the latest available Oracle 10g OCPU patch before upgrading to the latest Update Bundle.

---

Section Contents:

- ◆ [”Step 1 6.0 to 6.1 Upgrade Planning and Introduction” on page 65](#)
- ◆ [”Step 2 6.0 to 6.1 Upgrade Prerequisites and Preparation” on page 74](#)
- ◆ [”Step 3 6.0 to 6.1 Upgrade” on page 81](#)

### Step 1 6.0 to 6.1 Upgrade Planning and Introduction

Ionix ControlCenter 6.1 supports a direct upgrade path from 6.0. However, some agents have been deprecated, alerts have been added, removed, and modified, default data collection policies (DCPs) have changed, and some historical data may no longer be relevant or supported.

## Upgrading pre-6.1 agents after a fresh installation

EMC recommends upgrading your existing pre-6.1 Ionix ControlCenter environment as opposed to completing a fresh installation. However, if you choose to do a fresh install of a Ionix ControlCenter 6.1 infrastructure in your existing Ionix ControlCenter environment, and then intend to upgrade your pre-6.1 agents, there are additional steps required to enable the discovery and upgrading of the existing agents. These steps are provided in the “*Upgrading Agents after a New Installation*” appendix of the *ControlCenter 6.1 Planning and Installation Guide, Vol. 1*.



**If you do a fresh installation, your StorageScope history and trending data will be lost. If you want to preserve this data, you must do an Upgrade.**

---

---

### 0.1 Understand New Features in Ionix ControlCenter 6.1

This section provides only a brief overview of the new features implemented in Ionix ControlCenter 6.1.

Review the *EMC Ionix ControlCenter 6.1 Release Notes* for a discussion of new features and the *EMC Ionix ControlCenter 6.1 Support Matrix* on the EMC online support site for supported models, versions, and required software. This information is important for the planning of the upgrade process. After you have reviewed the new features, return to this document to upgrade.

---

**Note:** The *EMC Ionix ControlCenter 6.1 Alerts Matrix*, available on EMC Online Support site provides detailed information about alert and DCP changes since Ionix ControlCenter 6.0.

---

### New Licensing in Ionix ControlCenter 6.1

Ionix ControlCenter 6.1 has several new licenses and new licensing packages. Refer to the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1* for details.

The following licenses are new for 6.1:

- ◆ **Storage Agent for HDS** — enables installation of the HDS agent.
- ◆ **Storage Agent for SMI-S** — enables installation of the ESS agent, HP StorageWorks agent, and the SMI-S agent for storage functionality.
- ◆ **Invista Agent** — enables installation of the Invista agent.

- ◆ **Application Agents** — enables installation of the Oracle agent, Common Mapping agent (CMA), and Backup agents.
- ◆ **Virtual Provisioning** — enables virtual provisioning capability

## New SAN Manager Features in Ionix ControlCenter 6.1

Ionix ControlCenter 6.1 now discovers Brocade and McDATA switches through SMI-S and supports SNMPv3 trap collection methods for Brocade (in addition to Cisco) switches.

- ◆ Brocade and McDATA discovery is now through the FCC Agent using SMI-S and no longer utilizes FAL, SWAPI, nor the FibreZoneBridge/ConnectrixBridge (for McDATA).
- ◆ Brocade and McDATA alerts are now collected via SNMP traps.
- ◆ Ionix ControlCenter 6.1 now provides SNMPv3 support (in addition to SNMPv1/2) for Cisco and Brocade (traps only) switches.

## Enginuity Support in Ionix ControlCenter 6.1

Active-management of some Enginuity features is supported through Symmetrix Management Console (SMC) which is integrated with Ionix ControlCenter through right-click menu options. You will need to install and configure SMC in order to make full use of Enginuity features.

Refer to the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1 for details*.

## New Security Features in Ionix ControlCenter 6.1

Ionix ControlCenter 6.1 introduces support for new security features including:

- ◆ **SSL** (secure HTTP) communication between agents and managed objects

---

**Note:** You must upgrade agents to 6.1 in order to utilize secure communication between agents and the infrastructure.

---

- ◆ **SNMPv3** support (see SAN Manager Features listed above)
- ◆ Secure login for web applications such as Performance Manager and StorageScope

Refer to the *EMC Ionix ControlCenter 6.1 Security Configuration Guide* for a complete list of security updates.

## Services Changes in Ionix ControlCenter 6.1

The following table provides a comparison between Ionix ControlCenter 6.0 services and Ionix ControlCenter 6.1 services including a note explaining any differences.

**Table 5 Ionix ControlCenter 6.0 to 6.1 Services Comparison**

Ionix ControlCenter 6.0	Ionix ControlCenter 6.1	Notes
EMC ControlCenter Server	EMC ControlCenter Server	Same Service / No Change
EMC ControlCenter Store	EMC ControlCenter Store	Same Service / No Change
NONE	EMC ControlCenter Key Management Server	Added in 6.1 for new Key Management Service
NONE	EMC ControlCenter Repository	Added in 6.1 to start the OracleServiceRAMBDB service on reboot if it doesn't start itself
OracleECCREP_HOMETNSListener	OracleECCREP_HOMETNSListener	Same Service / No Change
OracleServiceRAMBDB	OracleServiceRAMBDB	Same Service / No Change
OracleServiceEMCSTSDB	OracleServiceEMCSTSDB	Same Service / No Change
EMC StorageScope Server	EMC StorageScope Server	Same Service / No Change
EMC ControlCenter Web Server	EMC ControlCenter Web Server	Same Service / No Change
EMC ControlCenter WebConsole Server	EMC ControlCenter Web Server	Consolidated WebConsole Tomcat service in 6.1
EMC ControlCenter API Server	EMC ControlCenter API Server	Same Service / No Change
EMC ControlCenter Master Agent	EMC ControlCenter Master Agent	Same Service / No Change
NONE	EMC StorageScope MSA	Added in 6.1 to expose the EMC ControlCenter 6.x data to the Data Center Insight application to give a storage-focused view of the data center

---

## 0.2 Upgrade Considerations for Ionix ControlCenter 6.1

This section identifies important issues to consider before making an upgrade decision.

### Infrastructure Upgrade Considerations

Note the following considerations regarding infrastructure upgrade:

- ◆ During Installation or Upgrade, Ionix ControlCenter requires a minimum of 120 MB in the `%TEMP%` folder (by default this is located in the user's local settings folder).
- ◆ Ionix ControlCenter 6.1 uses an InstallShield wizard accessed from disk #1 (setup.exe) to install components.
- ◆ In some cases you may choose to migrate your 6.0 infrastructure to a new server(s) based on the Ionix ControlCenter Performance and Scalability Guidelines *before* beginning your upgrade to 6.1. The procedure for migrating a Ionix ControlCenter 6.0 infrastructure is provided in **Patch3928.zip** provided on EMC online support. Once you complete the procedure, perform the upgrade as detailed in this chapter.

### StorageScope Upgrade Considerations

Note the following considerations regarding StorageScope upgrade:

---

**Note:** If you are using the EMC supplied Oracle Database, it must be an Oracle 10g *R2* database.

---

- ◆ Customer-created database objects, maintenance scripts, stored procedures, tables, views, etc. in a StorageScope Repository will not be removed as part of the upgrade process, provided that they were created using the user-defined database user. If any custom database objects were created using the emcsts database user, they may be modified or dropped.

If any of those customer-created objects refer to EMC-created objects that are dropped or changed during the upgrade, you will have to modify your custom objects to account for these changes. The *EMC Ionix ControlCenter StorageScope API & Repository Reference Guide* provides a listing of columns in the StorageScope Repository that have been changed from version 6.0 to version 6.1.

- ◆ If you did not implement *StorageScope File Level Reporting*, in 6.0, but wish to implement it in 6.1, refer to the *ControlCenter 6.1 Performance and Scalability Guidelines* to determine if your current Infrastructure architecture can support this feature.

---

**Note:** Refer to the *EMC Ionix ControlCenter StorageScope API and Repository Reference Guide* for more information about the StorageScope Repository.

---

## Agent Upgrade Considerations

Note the following considerations regarding agent upgrade:

### Agents No Longer Available in 6.1

The following 6.0 agents are no longer available in 6.1 and are only supported through backwards compatibility:

- ◆ Host Agent for Novell
- ◆ Backup Agent for EDM

### Agent Backwards Compatibility

Immediately after upgrading your Infrastructure to Ionix ControlCenter 6.1, and *before* upgrading your agents, you must install the latest Ionix ControlCenter Update Bundle from EMC online support.

Ionix ControlCenter Update Bundles provide agent backwards compatibility for Master and Host agents and Database Agent for Oracle only. Common Mapper Agent, backwards compatibility is supported 6.1 GA onwards. All other agents must be upgraded to the same version as the Update Bundle.

Backwards compatibility means that the 6.0 or 6.1 (any version) Master, Host, and Database Agent for Oracle will continue to function as designed. However, you must update them to your current Update Bundle version to make use of the features and fixes provided in the Bundle.

---

**Note:** The Physical Agent for MVS was not modified for 6.1 and does not provide secure (SSL) communication between agent and infrastructure.

---

---

**Note:** The agent upgrade wizard automatically sends upgrades for each agent installed on an agent host when you select that host for upgrade. You need not take individual action for each agent on a host.

---

## Required Agent Upgrades

After you upgrade the Ionix ControlCenter Server and other infrastructure components, you must:

- ◆ Upgrade pre-6.1 versions of the Fibre Channel Connectivity (FCC) agent. Only the 6.1 version of the FCC agent can run on the 6.1 infrastructure.

---

**Note:** The agent upgrade wizard automatically sends upgrades for each agent installed on an agent host when you select that host for upgrade. You need not take individual action for each agent on a host.

---

## Plan for Agent Upgrade Disk Space Requirements

EMC recommends that you determine the total required disk space to upgrade all agents (including the Master Agent) and ensure that the total amount of required disk space is available on the host. If the required disk space for upgrading all desired agents is not available, the upgrade task will fail.

---

**Note:** The amount of disk space needed for a fresh installation is not enough for an upgrade. You need twice as much free disk space for the upgrade since both the original installation and the upgrade will reside on the file system during the upgrade process.

---

Determine the amount of required disk space as follows:

1. Refer to *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1* for the required disk space for all agents to be upgraded (including the Master Agent).
2. Add the disk space for those agents to obtain a total for all agents to be upgraded (including the Master Agent).
3. The disk space requirements do not account for the unused space on the disk, so add in a suitable margin.

---

**Note:** If the upgrade fails because of the lack of disk space, then increase the disk space, and rerun the Agent Upgrade Wizard.

---

## Solutions Enabler Remote Deployment Considerations

For Ionix ControlCenter 6.1, you must download the Solutions Enabler Media Repository Load Kit (MRLK) (7.1.1 or higher) from EMC online support to make Solutions Enabler available for deployment to remote hosts.

---

**Note:** If the correct version of MRLK is not loaded in the Ionix ControlCenter media repository, you will be unable to install or upgrade agents that require Solutions Enabler as a prerequisite.

---



---

**Note:** The SMI-S Provider libraries for Symmetrix and CLARiiON are available as a separate downloadable from EMC online support.

---

### Plan for Disk Space Requirements for Solutions Enabler

These disk space requirements include 25 MB allocated for log files.

**Table 6** Solutions Enabler Disk space requirements

	Windows	AIX	HP-UX	Solaris
Solutions Enabler	43 MB	106.1 MB	149 MB	112 MB

This space is required in the Ionix ControlCenter Agent file system where the Solutions Enabler kit is first downloaded.

## Multi-NIC and Cluster Support Upgrade Considerations

If you currently have a multihome or cluster configuration, it is supported during the upgrade. Note the following:

- ◆ After upgrading a cluster configuration, you must re-enter the IP aliases in the `ecc_server.ini` file.
- ◆ The Ionix ControlCenter service names change when upgrading to 6.1. You need to recreate the cluster resource groups after upgrade.
- ◆ You cannot implement a new multihome or cluster configuration during the upgrade process. Rather, you must perform a clean installation. Refer to *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1*.



# Upgrade Flowchart

Use this flowchart to help guide you through the upgrade.

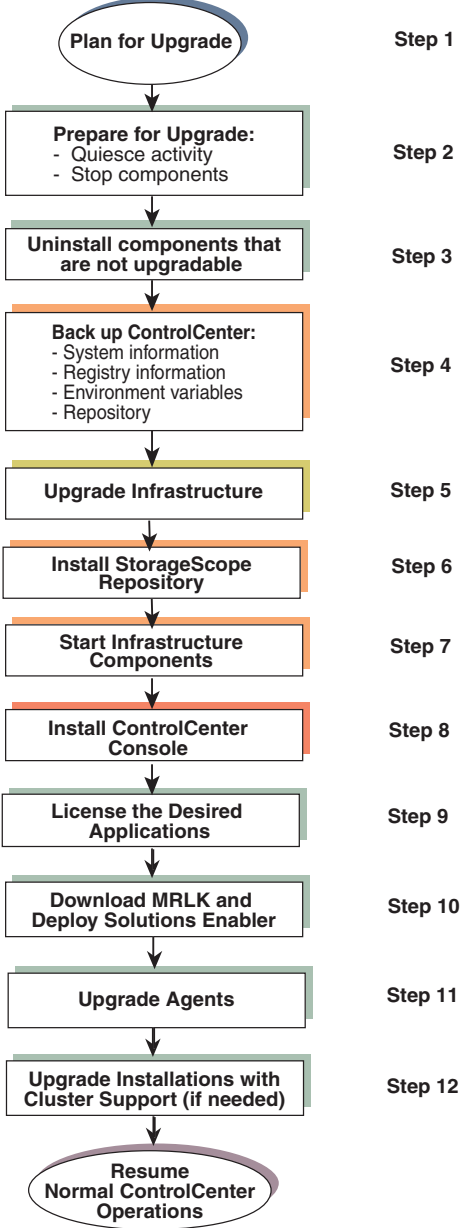


Figure 2 6.0 to 6.1 Upgrade process

## Step 2 6.0 to 6.1 Upgrade Prerequisites and Preparation

It is extremely important that you perform all necessary prerequisite steps and prepare your existing system appropriately for upgrade from 6.0 to 6.1.

---

### 0.3 Upgrade Prerequisites

Some Ionix ControlCenter features require setup and configuration changes so that the various components in your SAN can communicate with and be managed by Ionix ControlCenter 6.1.

#### Verify Disk Space for Repository Backup

Verify that you have enough disk space available for the Repository backup. To calculate the amount of disk space needed, add 5 GB to the size of your `%ECC_INSTALL_ROOT%` directory + the size of your database. Consider using a different disk drive if you need additional space.

---

**Note:** EMC Ionix ControlCenter 6.1 Update Bundle 9 requires a minimum of 9 GB free disk space.

---

#### Verify Ionix ControlCenter Server Secure Listening Port 10799 is Open

Make sure the Ionix ControlCenter Server Secure Listening Port 10799 is open to ensure proper communications between agents and the infrastructure.

#### Solutions Enabler 7.1.1 or Higher MRLK is Required

A Solutions Enabler 7.1.1 or higher Media Repository Load Kit (MRLK) must be loaded in the Ionix ControlCenter 6.1 Media Repository before attempting to upgrade or install agents.

---

**Note:** For Ionix ControlCenter 6.1, you must download the Solutions Enabler Media Repository Load Kit (MRLK) (7.1.1 or higher) from EMC online support to make Solutions Enabler available for deployment to remote hosts. Pre-6.0 versions of Ionix ControlCenter used the Solutions Enabler disks, but for Ionix ControlCenter 6.0 and higher, the MRLK is the only way to load Solutions Enabler into the Ionix ControlCenter Media Repository.

---

**IMPORTANT**

Even if you loaded the Solutions Enabler 7.1.1 or higher MRLK in a previous version of Ionix ControlCenter, you must still re-load the same (or higher) MRLK into the Ionix ControlCenter Media Repository after upgrading to Ionix ControlCenter 6.1.

**Note:** If you intend to use the Storage Agent for SMI to discover Symmetrix or CLARiiON arrays, you can download the Providers from the SMI-S Provider download location on EMC online support.

### Switch Setup for Discovery Brocade and McDATA

Brocade and McDATA switches are discovered through the FCC Agent using SMI-S in 6.1.

- ◆ The existing FCC Agent must be upgraded to 6.1.
- ◆ Ensure that the SMI-S Providers for each switch are setup and configured correctly.
- ◆ All connection details for Brocade and McDATA switches, and Connectrix Manager implementations discovered prior to the upgrade (such as connection details including Username/Password and IP Address) must be specified in the SMI Provider files.
- ◆ Review the *Brocade SMI Agent Installation and User Guides* for specifics about how to set up the switches to work with SMI-S.
- ◆ A Brocade or McDATA switch will not be fully discovered (DCPs will not work correctly) until you discover it after upgrade using Assisted Discovery.

### Switch Setup for SNMP v3 Brocade and Cisco

Ionix ControlCenter 6.1 supports SNMP v3 on Brocade (traps only) and Cisco.

- ◆ Refer to the *ControlCenter Planning and Installation Guide, Volume 1* for a list of the prerequisite settings if you intend to implement SNMP v3.

**Note:** if you are implementing SNMP v3 you must rediscover the switch after upgrade to fully implement the SNMP v3 features.

## Prevent Possible Upgrade Failure

The Ionix ControlCenter Repository upgrade executable requires the use of two DLLs related to Secure Sockets Layer (SSL) functionality, libeay32.dll and ssleay32.dll. The versions of these two DLLs required by the Ionix ControlCenter upgrade executable are shipped with the Ionix ControlCenter upgrade software. However, other applications may also use their own versions of these same DLLs to implement SSL, which can conflict with the Ionix ControlCenter upgrade operation.

- ◆ The conflict occurs because the other applications that use these DLLs are putting their application paths in the system %PATH% variable. If the other application path is listed in the system %PATH% variable before the Ionix ControlCenter entry for the ramb\_scripts folder (where the Ionix ControlCenter version of the DLLs are shipped), then the Ionix ControlCenter upgrade executable will use the other application DLLs instead of the libraries shipped with Ionix ControlCenter .
- ◆ The versions of the DLLs that are used by other applications are usually different from the ones shipped with Ionix ControlCenter (and required by the upgrade executable), which causes the Ionix ControlCenter upgrade to abort.
- ◆ Note and record the existing settings for the system %PATH% variable (see IMPORTANT Note below).
- ◆ At the beginning of the %PATH% variable list, add the following path to the Ramb\_scripts directory:

```
<ECC_INSTALL_ROOT>\Repository\admin\Ramb_scripts;
```

---

**Note:** Replace <ECC\_INSTALL\_ROOT> with the actual Ionix ControlCenter installation directory, and be sure to include the semicolon (;) at the end of the path (the semicolon is used as the separator for multiple paths).

---

- ◆ Run the Ionix ControlCenter upgrade executable and complete the upgrade operation.
- ◆ Once the upgrade has completed successfully, restore the settings for the system %PATH% variable to the settings that existed before the upgrade.

### **IMPORTANT**

---

Once you change the %PATH% variable to list the Ramb\_scripts directory path first as described above, any other applications that also use the libeay32.dll and ssleay32.dll DLLs will have issues. Therefore, after you have successfully upgraded

Ionix ControlCenter , you must restore the path to the previous settings as mentioned in the last bullet above to allow normal operation of the other applications to resume. See [ETA Solution ID emc197536](#) for details.

## Verify the installed patch

EMC has released several patches for resolving Ionix ControlCenter environment issues. You can avoid upgradation failure to a great extent by ensuring that these patches are installed before the upgradation.

Ensure that the following patches are installed before upgrading to Ionix ControlCenter 6.1:

1. **Patch 4378:** The patch 4378 checks and purges multiple (stale) defined-user accounts in both Embedded and Stand-alone StorageScope repository databases before proceeding with the Ionix ControlCenter 6.1 upgrade. This patch is not available in the EMC online support but it can be obtained from the EMC customer support.
2. **Patch 4399:** The patch 4399 checks the temp directories. The patch is not available in the EMC online support but it can be obtained from the EMC customer support.
3. **Patch 4645:** The patch 4645 addresses the issue with the `single_post_upgrade.sql` that causes failure with StorageScope. The patch is available in the EMC online support website.

## Run the Environment Checker utility

Ionix ControlCenter Environment Checker is a diagnostic tool for determining whether the existing Ionix ControlCenter is ready to be upgraded to the next higher version. The purpose of this tool is to list out any potential issues that could occur while upgrading Ionix ControlCenter.

From UB9 onwards, EMC Ionix ControlCenter Environment Checker is bundled with UB9 downloadable file. It is recommended to run the Ionix ControlCenter Environment Checker tool before upgrading to Ionix ControlCenter 6.1 UB9.

Perform the following to install and use the Ionix ControlCenter Environment Checker tool:

1. Execute the `Ionix_CEC_1.0.3.4.exe` file distributed with the EMC Ionix ControlCenter 6.1 Update Bundle 9 (patch 4873).

2. By default, the WinZip self-extraction utility installs the Environment Checker on the local drive. You can also deploy the tool to a non-default location.
3. Start the tool by double-clicking the Ionix\_CEC.exe file in the `<CEC_INSTALL_FOLDER>`.
  1. Launch the Ionix ControlCenter Environment Checker tool.
  2. Click **Help** -> **Check for Updates**.

Update the Ionix ControlCenter Environment Checker to the latest version.

For more information on using the tool, refer to Ionix ControlCenter Environment Checker Online Help.

---

**Note:** The Ionix ControlCenter Environment Checker tool is updated periodically. The next time you choose to run this tool, it is recommended that you check for any latest updates.

---

---

**Note:** In a distributed Ionix ControlCenter deployment, install and run the Ionix ControlCenter Environment Checker tool on each of the infrastructure component servers to verify their upgradability.

---

---

## 2.1 Upgrade Preparations

If you decide to perform a fresh installation of Ionix ControlCenter 6.1, please refer to *EMC Ionix ControlCenter 6.1 Planning and Installation Guide Volume 1*.

If you decide to perform an upgrade from Ionix ControlCenter 6.0 to 6.1, please keep in mind the following important notes and cautions as you prepare for upgrade:

### Upgrade Notes

Please review the following notes in preparation for upgrade.

- ◆ Before beginning the upgrade, **verify that all hosts containing ControlCenter components use network names only**, IP addresses are not supported. Use of network names avoids the need to reconfigure Ionix ControlCenter if IP address assignments change (*a common security practice*).

- ◆ Always use the host **Fully Qualified Domain Name (FQDN)** to avoid ambiguity. Ensure that hostnames and FQDNs do not contain underscores and that they are added to DNS. Contact the network administrator to ensure that the IP addresses for each NIC on each Ionix ControlCenter host are registered with DNS.
- ◆ Verify that both forward and reverse DNS lookup is properly configured and active. If necessary, consult your network administrator or the DNS documentation. Utilize **nslookup** and **ping** commands to verify forward and backward communications exist between Ionix ControlCenter component hosts.
- ◆ When the Ionix ControlCenter 6.1 Upgrade is applied to a 5.2.x or 6.0 environment the **connectemc\_service.ini** file is backed up to **connectemc\_service.ini.6.1** and replaced with a default connectemc\_service.ini file. Any site where the connectemc\_service.ini file has been updated for **ConnectEMC** call home will have its call home config overwritten by the upgrade. Locate the backup connectemc\_service.ini.6.1 file, retrieve the call home phone number, and add it to the new default connectemc\_service.ini file.
- ◆ Ensure that the repository daily **database export** and **database hot backup** completed without error prior to doing the upgrade.
- ◆ Backup the %USERPROFILE%\Application Data\WLA\WLA.ini file.
- ◆ If EMC has worked with you to increase the memory sizes of the server or store(s), please contact EMC before beginning the upgrade.
- ◆ Refer to [“Upgrade Ionix ControlCenter MVS Agents” on page 108](#) for information about upgrading MVS agents. Ionix ControlCenter 6.1 only supports the Master and Physical Agents for MVS. No other MVS agents used in previous versions of Ionix ControlCenter are supported. Refer to [“Agent Backwards Compatibility” on page 70](#).
- ◆ Refer to *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1* for additional information on disk space required by agent and component hosts for this upgrade.
- ◆ All Ionix ControlCenter components on a host (with the exception of the database backup file) must be installed in the same directory tree, for example in the ecc\_install\_root directory.

- ◆ When upgrading the infrastructure, the upgraded database contains pre-upgrade customized data collection policies (DCPs) as well as the default DCPs. You can delete the default DCPs and work with only your customized DCPs. Refer to the *EMC Ionix ControlCenter 6.1 Release Notes and the EMC Ionix ControlCenter 6.1 Alerts Matrix* for the latest information on DCPs.
- ◆ Disable any virus-checking software. Some antivirus software may be monitored by Services and restarted automatically. Refer to your antivirus vendor documentation to determine if additional Services need to be stopped.
- ◆ If you are upgrading a 6.0 cluster to a 6.1 cluster, run the upgrade from the original node where you did your first install.

If you do not know the original node where the first install was done, check the **Start Menu**. If an entry exists for **EMC > EMC Ionix ControlCenter > Start ECC Install** then you are on the original node. If it doesn't exist, then you are on the secondary host.

- ◆ The EMC FibreZoneBridge/Connectrix Bridge is no longer used in Ionix ControlCenter 6.1. The switch information is instead collected via the 6.1 FCC Agent using SMI-S. You can uninstall the EMC FibreZoneBridge/Connectrix Bridge using the instructions provided with the utility on EMC online support.

## Upgrade Cautions

Review the following cautions in preparation for upgrade.



**Ensure that all Ionix ControlCenter Repository maintenance tasks are stopped prior to starting the Ionix ControlCenter Repository upgrade. The Ionix ControlCenter Repository upgrade will fail if a Ionix ControlCenter Repository maintenance task is running.**

**Update of the registry utility scripts (`regutil.exe` and `regutil.pl`) for Ionix ControlCenter 5.2 SP5 and SP4 as well as Ionix ControlCenter 6.0, is required to enable rollback functionality. The new scripts have been included on your Ionix ControlCenter 6.1 installation disk #4. Please copy the new registry utility scripts from the installation disk #4 `regutil600` directory into the Ionix ControlCenter installation directory `%ECC_Install_Root%\tools\utils` folder. This must be done on all infrastructure hosts.**



For rollback to Ionix ControlCenter 6.0 an additional step is required for preparation. Please check the %ECC\_Install\_Root%\tools\utils folder for a CLUSTER FILES folder. If you find a CLUSTER FILES folder, rename it to CLUSTER FILES\_OLD.

**⚠ CAUTION**

You cannot install Ionix ControlCenter 6.1 components (such as the infrastructure) on a host that only has agents on it. You must first uninstall the agents (including the Master Agent) before installing the Ionix ControlCenter 6.1 components."

## Step 3 6.0 to 6.1 Upgrade

This section describes the steps necessary to perform the actual upgrade of Ionix ControlCenter from 6.0 to 6.1.

### Quiesce Ionix ControlCenter Activity

Following are the scheduled Repository maintenance jobs:

**Table 7** Repository Maintenance Jobs Schedule

Job	Job Name	Time	Frequency
Database Export	ramb_export_db.bat	10 p.m.	Daily
Database Hot Backup	ramb_hotback.bat	2 a.m.	Daily
Database Analyze	ramb_analyze_table.bat	9 p.m.	Every Sunday
Index Rebuild	ramb_rebuild_index.bat	12:05 a.m.	Every Saturday
Recompile Invalid Objects	ramb_recomp_invalid.bat	9:30 p.m.	Every Sunday
Freespace Analysis Report	ramb_freespace.bat	9 p.m.	Daily
Monitor the status of automated tasks	ramb_jobstatus.bat	8:30 a.m.	Daily
Installed ControlCenter Components sorted by component type	InstalledECCCompByComp.bat	7:00 a.m.	Daily
Installed ControlCenter Components sorted by version	InstalledECCCompByVer.bat	7:10 a.m.	Daily
Installed ControlCenter Components sorted by host	InstalledECCCompByHost.bat	7:20 a.m.	Daily

Ensure that the scheduled ControlCenter Repository maintenance jobs are disabled or stopped before you upgrade Ionix ControlCenter.

## Run Job Status

Run the **ramb\_jobstatus.bat** job located in `<ECC_Install_Root>\Repository\admin\Ramb_scripts` folder to determine which maintenance jobs have already been run. Open the `ramb_jobstatus.log` file located in the same folder as the batch file, to check for any maintenance jobs that have not been run yet and run any additional maintenance jobs you feel are necessary.

## Disable all existing Workload Analyzer Archiver Data Collection Policies

Disable all WLA DCPs as follows:

1. Go to the Ionix ControlCenter Console.
2. Set the View to *Policies View* by clicking the **blue ECC Administration** task button drop-down-list-arrow and selecting **Policies**.
3. Put a checkmark next to all Storage Systems, Hosts, and Connectivity Devices in the Tree Panel.
4. Sort the view by the Policy Column.
5. Select any Enabled WLA collection policies, right-click, select **Disable**.
6. Repeat step 5 until all WLA DCPs are Disabled.

## Uninstall Ionix ControlCenter Console

The previous version of the Ionix ControlCenter Console is not upgradable and must be removed before you start the upgrade. You need to remove the old Console from all locations where it is installed using the following steps for each host.

### Ensure the Ionix ControlCenter Console is not running

In the Ionix ControlCenter Console menu, select **File, Exit**, or click the close box on the Ionix ControlCenter Console window.

### Remove the Ionix ControlCenter Console files

---

**Note:** Be aware that when you launch the InstallShield to remove the Ionix ControlCenter Console files, InstallShield closes all Internet Explorer windows that are currently open on the desktop.

---

1. From the **Start** menu, select **Settings>Control Panel**.
2. Open **Add/Remove Programs**.
3. Select **EMC ControlCenter Console**, and follow the uninstall commands.
4. Once the uninstall completes, click **Finish** to exit InstallShield.
5. **EMC ControlCenter Console** is removed from the **Add/Remove Programs** list.

### Remove log and .ini files

The Ionix ControlCenter Console uninstall does not remove the log and `.ini` files in the directory. It is helpful to preserve the `.ini` file after upgrade so you don't lose any custom settings you might have added. If you want to remove the Ionix ControlCenter Console file structure, do the following:

Delete these directories if you have no need for the Console log files and configuration data for this Console user:

- `%USERPROFILE%\ecc\console\data`
- `<install_root>\ecc\console`

(the default is: `%Program Files%\ecc\console\data`)

where `<install_root>` is the Ionix ControlCenter infrastructure install directory.

Repeat the above steps for each host with a Ionix ControlCenter Console installed.

## Backup the StorageScope Repository

Backup the StorageScope Repository as follows:

- ◆ Run ETL, which is documented in the StorageScope online help.
- ◆ Make a full backup of the StorageScope Repository. If the StorageScope Repository is a Ionix ControlCenter -supplied embedded database, use the **emcsts\_export\_db.bat** database backup tool or a third-party backup tool as documented in the "Maintaining the StorageScope Repository" chapter of the StorageScope API & Repository Reference Guide."

### Backing up StorageScope Imported Reports

If your StorageScope 6.0 infrastructure uses a user supplied oracle database, you must manually back up the imported custom reports in the Ionix ControlCenter installation root directory before beginning the upgrade. After you have upgraded the StorageScope server, paste the report files back into the Ionix ControlCenter installation directory.

## Backup the Ionix ControlCenter Repository

Ionix ControlCenter 6.0 components should be backed up before upgrade to allow you to rollback anytime during the upgrade process.

---

**Note:** Do the backup procedure from the *eccadmin* account that was used to perform the original installation.

---

On each host that has Ionix ControlCenter components ( in both clustered and non-clustered environments) installed, do the following:

---

**Note:** Verify that you have enough disk space available for the Repository backup. To calculate the amount of disk space needed, add 5 GB to the size of your `<ECC_INSTALL_ROOT>` directory + the size of your database. Consider using a different disk drive if you need additional space.

---

**⚠ CAUTION**

Ensure that all Repository maintenance tasks are stopped prior to starting the Repository upgrade. The Repository upgrade will fail if a Repository maintenance task is running.

Update of the registry utility scripts (*regutil.exe* and *regutil.pl*) for Ionix ControlCenter 5.2 SP5 and SP4 as well as Ionix ControlCenter 6.0, is required to enable rollback functionality. The new scripts have been included on your Ionix ControlCenter 6.1 installation disk #4. Please copy the new registry utility scripts from the installation disk #4 into the `<ECC_Install_Root>\tools\utils` folder. This must be done on all infrastructure hosts.

For rollback to Ionix ControlCenter 6.0 an additional step is required for preparation. Please check the `<ECC_Install_Root>\tools\utils` folder for a CLUSTER FILES folder. If you find a CLUSTER FILES folder, rename it to CLUSTER FILES\_OLD.

---

- ◆ Go to the `<ECC_INSTALL_ROOT>\tools\utils` directory and from the command line run **clustersave.bat**.
- ◆ Copy the original Ionix ControlCenter installation directory (`<ECC_INSTALL_ROOT>`) to the backup directory `<Drive>:\rollback` do not change the directory name.

- ◆ Backup any backup data you might need. For example, the `eccsys.backup*` tables will be cleaned of entries after upgrade.
- ◆ EMC highly recommends that you move the backup directory to external storage to free up space on the local drive and ensure the safety of the backup file.

The backup of Ionix ControlCenter is now complete.

## Stop Terminal Services

When the Ionix ControlCenter Console is installed on a server that is running Terminal Services, the Console application is transmitted over the network and displayed on a Terminal Services client host.

When running Terminal Services on a host where Ionix ControlCenter infrastructure components (ControlCenter Server, Repository, and Store) reside, bear the following in mind:

- ◆ You cannot install or upgrade Ionix ControlCenter , nor deploy Ionix ControlCenter hotfixes, from a Terminal Services session.
- ◆ You cannot use Terminal Services to access the Ionix ControlCenter Console on the Ionix ControlCenter Server, Repository, and Store hosts (because the Console sessions might impact the performance of infrastructure components).

---

**Note:** Be aware that some issues have been reported with installing or upgrading the Ionix ControlCenter Repository on Windows 2000 hosts that are configured with Terminal Services. EMC requires that you disable Terminal Services (an action that requires a reboot) before installing or upgrading the Repository. You can restart Terminal Services after the install or upgrade is complete.

---

## Prepare Ionix ControlCenter Services and other Components for Upgrade

From the Infrastructure host(s) Services window, Stop and set to Manual:

---

**Note:** Ionix ControlCenter services will already be set to manual if the `clustersave.bat` file has been run, as described in [“Backup the Ionix ControlCenter Repository” on page 84](#).

---

- Distributed Transaction Coordinator service
- Anti-Virus Software service(s)
- EMC ControlCenter API Server service

- EMC ControlCenter Master Agent service
- EMC ControlCenter StorageScope Server service
- EMC ControlCenter Web Server service
- EMC ControlCenter WebConsole Server service
- EMC ControlCenter Store service (*wait 3 minutes for it to stop*)
- EMC ControlCenter Server service (*wait 3 minutes for it to stop*)

---

**Note:** Wait 3 minutes to ensure that shutdown is complete for the **EMC ControlCenter Server** and **EMC ControlCenter Store** services, although each service might indicate a status of *Stopped* during that shutdown time.

---

From the MVS Console Stop all MVS Agents:

- Use the following command from the MVS Console:  
F CSMAGENT,SHUTDOWN EOD

From the Ionix ControlCenter Repository host Services window, Stop and Restart:

- OracleECCREP\_HOMETNSListener
- OracleServiceRAMBDB

---

**Note:** Stop both the OracleECCREP\_HOMETNSListener service and the OracleServiceRAMBDB service. After both services are listed as stopped, then re-start the OracleECCREP\_HOMETNSListener service and the OracleServiceRAMBDB service in that order.

---

From Task Manager verify that all the Ionix ControlCenter processes listed on the previous page have stopped.

From the StorageScope Repository host Services window, Stop and Restart:

- OracleECCREP\_HOMETNSListener
- OracleServiceEMCSTSDB

---

**Note:** Stop both the OracleECCREP\_HOMETNSListener service and the OracleServiceEMCSTSDB service. After both services are listed as stopped, then re-start the OracleECCREP\_HOMETNSListener service and the OracleServiceEMCSTSDB service in that order.

---

**⚠ CAUTION**

Verify that there are no open connections to the Ionix ControlCenter Repository by running: `netstat -an`. Open the `listener.log` file located in: `%ECC_INSTALL_ROOT%\Repository\network\log` to verify no processes are connected to the Ionix ControlCenter Repository. If you can open the *listener.log* file then there are no open connections to the Repository. If you cannot open the *listener.log* file, then there is an open connection to the Repository. Make a copy of the *listener.log* file and open the copy to see which connections are still open, then go close those connections.

---

**Note:** Be sure to always close the Windows Services window before trying to install or upgrade Ionix ControlCenter components.

---

## Upgrade Ionix ControlCenter Infrastructure and Optional Components

Beginning with Ionix ControlCenter 6.0 a new InstallShield is utilized to install and upgrade the Ionix ControlCenter application. This section provides procedures for upgrading the Ionix ControlCenter infrastructure and optional components. If your Ionix ControlCenter infrastructure is distributed, repeat these procedures on each host containing infrastructure components.

---

**Note:** During UB9 upgradation, various repository backup folders are created under different upgrade directories. To reclaim the disk space, you can remove these folders after successful upgradation. For more information on backup folders, refer to [“Backup folder created during UB9 Upgrade” on page 89](#).

---

1. On the host you are applying the upgrade to, insert Ionix ControlCenter 6.1 installation disk #1 or map to the share where the Ionix ControlCenter 6.1 installation disks have been loaded.  
If upgrading from disks, the InstallShield starts automatically, if upgrading from a share, you may need to run **setup.exe** to start the InstallShield.
2. If you are presented with an *Open File - Security* screen, click **Run**. The *Preparing Setup* screen appears briefly.
3. *InstallShield Warning* dialog appears, warning to close all other applications, click **OK**.

4. *InstallShield Warning* dialog appears, warning to turn anti-virus software off, click **OK**.
5. *Welcome* screen appears, click **Next**.
6. *License Agreement* screen appears, (if no other Ionix ControlCenter components are installed on this host, otherwise this screen is skipped). Review License Agreement, select **I accept the terms of the license agreement**, click **Next**.
7. *Evaluating Network Configuration* message appears, wait for it to clear.
8. Primary Network Name screen appears, select the **Primary Network Name** for this host from the drop-down-list-box, click **Next**.

---

**Note: Note:** During upgrade, use Network Names only, IP addresses are not supported. Use of Network Names avoids the need to reconfigure Ionix ControlCenter if IP address assignments change (*a common security practice*).

---

9. *ControlCenter Repository Options* screen appears, select **Specify existing ControlCenter Repository**, click **Next**.
10. *ControlCenter Repository Data* screen appears, enter the **Hostname** and **Port Number** of the ControlCenter Repository Host, click **Next**.
11. An information box appears informing you to please wait while the installer detects Ionix ControlCenter components on this host.
12. If this is the first host you are upgrading, a dialog appears stating that StorageScope will not be updated at this time, click **OK**.
13. Ready to Upgrade ControlCenter screen appears listing all components on this host that will be upgraded, click **Install**.
14. The upgrade begins and the InstallShield shows various progress bars as the upgrade continues.
15. When the upgrade completes, Click **Finish**. The system will reboot at this point to complete the upgrade on this host.

---

**Note:** The following warning message appears before the install finish dialog box appears if there are post upgrade validation issues in Ionix ControlCenter Repository. **ControlCenter Repository upgrade completed, but post-upgrade validation found few minor discrepancies. you can continue to use ControlCenter. Please review the post-upgrade validation report for ControlCenter Repository at location**



**%ECC\_INSTALL\_ROOT%\Repository\admin\Ramb\_scripts\upgrade\schema\_reports\ramb\_reports\_summary.log and contact EMC Customer service if you have concerns.**

**Note:** The following warning message appears before the install finish dialog box appears if there are post upgrade validation issues in Ionix ControlCenter StorageScope Repository

**ControlCenter StorageScope Repository upgrade completed, but post-upgrade validation found few minor discrepancies. you can continue to use ControlCenter. Please review the post-upgrade validation report for ControlCenter StorageScope Repository at location**

**%ECC\_INSTALL\_ROOT%\Repository\admin\emcsts\_scripts\upgrade\schema\_reports\emcsts\_reports\_summary.log and contact EMC Customer service if you have concerns.**

## Backup folder created during UB9 Upgrade

This section provides information on the backup folders created during UB9 upgradation to ensure that all the appropriate log files are saved for troubleshooting the schema or database errors. These folders can be removed after successful upgrade to claim the used disk space.

### Ionix ControlCenter backup folders created during UB9 upgrade

The following are the Ionix ControlCenter backup folders created during UB9 upgrade:

1. For upgrades starting with 6.1 A01, the following backup directories will be created under %ECC\_INSTALL\_ROOT%\Repository\admin:
  - Ramb\_Scripts\_610
  - Ramb\_Scripts\_610\_Invista
  - Ramb\_Scripts\_610\_Tigon
  - Ramb\_Scripts\_610\_UB7
  - Ramb\_Scripts\_610\_UB8
2. For upgrades starting with 6.1 A04, the following backup directories will be created under %ECC\_INSTALL\_ROOT%\Repository\admin:
  - Ramb\_Scripts\_Invista
  - Ramb\_Scripts\_610\_Tigon

- Ramb\_Scripts\_610\_UB7
  - Ramb\_Scripts\_610\_UB8
3. For upgrades starting with UB5, the following backup directories will be created under %ECC\_INSTALL\_ROOT%\Repository\admin:
    - Ramb\_Scripts\_Tigon
    - Ramb\_Scripts\_610\_UB7
    - Ramb\_Scripts\_610\_UB8
  4. For upgrades starting with UB7, the following backup directories will be created under %ECC\_INSTALL\_ROOT%\Repository\admin:
    - Ramb\_Scripts\_UB7
    - Ramb\_Scripts\_610\_UB8
  5. For upgrades starting with UB8, the following backup directory is created under %ECC\_INSTALL\_ROOT%\Repository\admin:
    - Ramb\_Scripts\_610\_UB8
  6. For upgrades starting with UB9, the following backup directory is created under %ECC\_INSTALL\_ROOT%\Repository\admin:
    - Ramb\_Scripts\_610\_UB9
  7. For upgrades starting with UB11, the following backup directory is created under %ECC\_INSTALL\_ROOT%\Repository\admin:
    - Ramb\_Scripts\_610\_UB11

### **StorageScope backup folders created during UB9 upgrade**

The following are the StorageScope backup folders created during UB9 upgrade:

1. For upgrades starting with 6.1 A01, the following backup directories will be created under %ECC\_INSTALL\_ROOT%\Repository\admin:
  - emcsts\_scripts\_610
  - emcsts\_scripts\_610\_Invista
  - emcsts\_scripts\_610\_Tigon
  - emcsts\_scripts\_610\_UB7
  - emcsts\_scripts\_610\_UB8

2. For upgrades starting with 6.1 A04, the following backup directories will be created under %ECC\_INSTALL\_ROOT%\Repository\admin:
  - emcsts\_scripts\_Invista
  - emcsts\_scripts\_610\_Tigon
  - emcsts\_scripts\_610\_UB7
  - emcsts\_scripts\_610\_UB8
3. For upgrades starting with UB5, the following backup directories will be created under %ECC\_INSTALL\_ROOT%\Repository\admin:
  - emcsts\_scripts\_Tigon
  - emcsts\_scripts\_610\_UB7
  - emcsts\_scripts\_610\_UB8
4. For upgrades starting with UB7, the following backup directories will be created under %ECC\_INSTALL\_ROOT%\Repository\admin:
  - emcsts\_scripts\_UB7
  - emcsts\_scripts\_610\_UB8
5. For upgrades starting with UB8, the following backup directory is created under %ECC\_INSTALL\_ROOT%\Repository\admin:
  - emcsts\_scripts\_610\_UB8
6. For upgrades starting with UB9, the following backup directory is created under %ECC\_INSTALL\_ROOT%\Repository\admin:
  - emcsts\_scripts\_610\_UB9
7. For upgrades starting with UB11, the following backup directory is created under %ECC\_INSTALL\_ROOT%\Repository\admin:
  - emcsts\_scripts\_610\_UB11

## Upgrade StorageScope Repository

### Upgrading an EMC supplied Oracle database StorageScope Repository

1. On the host you are applying the upgrade to, insert Ionix ControlCenter 6.1 installation disk #1 or map to the share where the Ionix ControlCenter 6.1 installation disks have been loaded.

If upgrading from disks, the InstallShield starts automatically, if upgrading from a share, you may need to run **setup.exe** to start the InstallShield.

2. If you are presented with an *Open File - Security* screen, click **Run**. The *Preparing Setup* screen appears briefly.
3. *InstallShield Warning* dialog appears, warning to close all other applications, click **OK**.
4. *InstallShield Warning* dialog appears, warning to turn anti-virus software off, click **OK**.
5. *Welcome* screen appears, click **Next**.
6. *License Agreement* screen appears, (*if no other ControlCenter components are installed on this host, otherwise this screen is skipped*). Review License Agreement, select **I accept the terms of the license agreement**, click **Next**.
7. *Evaluating Network Configuration* message appears, wait for it to clear.
8. Primary Network Name screen appears, select the **Primary Network Name** for this host from the drop-down-list-box, click **Next**.

---

**Note: Note:** During upgrade, use Network Names only, IP addresses are not supported. Use of Network Names avoids the need to reconfigure Ionix ControlCenter if IP address assignments change (*a common security practice*).

---

9. *Choose Destination Location* screen appears, click **Change** to enter a different install location, otherwise click **Next**.
10. *ControlCenter Repository Options* screen appears, select **Specify existing ControlCenter Repository**, click **Next**.
11. *ControlCenter Repository Data* screen appears, enter the **Hostname** and **Port Number** of the Ionix ControlCenter Repository Host, click **Next**.
12. An information box appears informing you to please wait while the installer detects Ionix ControlCenter components on this host.
13. Ready to Upgrade ControlCenter screen appears listing all components on this host that will be upgraded, click **Install**.
14. The upgrade begins and the InstallShield shows various progress bars as the upgrade continues.

15. When the upgrade completes, Click **Finish**. The system will reboot at this point to complete the upgrade on this host.

## Upgrading the StorageScope Server

After upgrading the StorageScope Repository, upgrade the StorageScope Server:

1. Run **setup.exe** on Disk #1 from the StorageScope Server. The Preparing Setup Screen appears, including a reminder to disable anti-virus before upgrading, click **OK**.
2. The Welcome to the InstallShield Wizard for EMC ControlCenter 6.1.0 screen appears.
3. Click **Next to go to the License Agreement screen**.
4. Accept the License Agreement and click **Next** to go to the Choose Installation folder screen.

---

**Note:** If you already upgraded components on this host, Ionix ControlCenter will know the location of the upgraded 6.1 infrastructure components and will ask if you wish to install or uninstall components. If you select **Install**, the wizard skips to the StorageScope Repository screen ([step 7](#)).

---

5. Click **Next** to accept the default destination (C:\ECC) or click **Change** to assign a different destination. The ControlCenter Repository Options screen appears.
6. Select Specify Existing Repository and click **Next**. The ControlCenter Repository Data screen appears.
7. Enter the host name and SSL port number for the existing Ionix ControlCenter Repository and click **Next**. A connection is established with the Ionix ControlCenter Repository and the Select Features screen appears.

---

**Note:** The default SSL port number is 1575, but if that port is being used by another database in your Oracle installation, you must use a different port number.

---

8. Select StorageScope and click **Next** to go to the StorageScope License Key screen.
9. Enter your StorageScope license key and click **Next**. The wizard will upgrade the StorageScope Server.
10. After the upgrade is complete, click **Finish** to complete the wizard.

## Post StorageScope Upgrade Steps

1. After upgrading the StorageScope Repository and StorageScope Server, configure SSL for communications between the StorageScope Repository and StorageScope Server. For more information, see the *EMC Ionix ControlCenter® 6.1 Enabling/Disabling SSL Technical Notes*.

---

**Note:** In the default installation, SSL is configured automatically for all Ionix ControlCenter components.

---

2. Verify that there is communication between the StorageScope Server and StorageScope Repository and also between the StorageScope Repository and the Ionix ControlCenter Repository, respectively, by logging into the StorageScope application and running ETL. If the “*Last Successful Runtime*” column in ETL updates with the time you ran it, then you have verified proper communication between the 3 components.

---

**Note:** The **StorageScope Server** will not launch the **StorageScope application** unless it can communicate with the **StorageScope Repository**. The fact that you can run **ETL** from the StorageScope application confirms **StorageScope Server** to **StorageScope Repository** communication.

The **StorageScope Repository** updates the “*Last Successful Runtime*” column in ETL, in the StorageScope application, following a successful upload of data to the StorageScope Repository from the **ControlCenter Repository**, via ETL. If you run ETL and the “*Last Successful Runtime*” column updates to the time of your run, you have confirmed successful **StorageScope Repository** to **ControlCenter Repository** communications.

---

## Start Infrastructure Components

Follow the steps in this section to start the Ionix ControlCenter infrastructure components following upgrade.



Immediately following the upgrade to Ionix ControlCenter 6.1, you **MUST APPLY** the Ionix ControlCenter 6.1 Update Bundle 12 or later available on the EMC online support site.

On the EMC online support website, navigate to Ionix ControlCenter v 6.x Software

**Downloads, Ionix ControlCenter 6.1 Patches, for the latest 6.1 Update Bundle.**

Carefully review the Update Bundle ReadMe for instructions on applying the patch.

**Apply the latest available Oracle 10g OCPU patch before upgrading to the latest Update Bundle.**

---

## **Validate Access to the Ionix ControlCenter Repository and StorageScope Repository databases**

1. From the Infrastructure Server where the Ionix ControlCenter Repository is installed, run `ECC_GETVERSION` from the command prompt.
2. From the StorageScope Server where the StorageScope Repository is installed, run `EMCSTS_GETVERSION` from the command prompt.
3. Both steps should return the current installed version of Ionix ControlCenter with no error messages.

Should any errors be observed, do not proceed with applying any update bundles until the problem is resolved. This step validates that the databases can be opened and that the lockboxes are working correctly.

## **Verify that the Ionix ControlCenter Repository has Started**

The Ionix ControlCenter Repository starts up automatically as a service. The Ionix ControlCenter Repository must be running to continue upgrading other components.

To verify that the Ionix ControlCenter Repository is running:

1. Select **Start, Settings, Control Panel**, and then open **Administrative Tools**.
2. Open **Services** and then scroll to locate and verify that Oracle database services have started.

The following services are configured to start automatically during install time (it might take 2 to 5 minutes for them to start).

```
OracleECCREP_HOMETNSListener
OracleServiceRAMBDB
```

---

**Note:** There is a new service in Ionix ControlCenter 6.1 called ***EMC ControlCenter Repository***. This service monitors the **OracleServiceRAMBDB** service following a re-boot, and will start the OracleServiceRAMBDB service after a few minutes if it doesn't start itself.

---

## Start Ionix ControlCenter Services

Do the following to verify a service is running or to start a service:

1. Select **Start, Settings, Control Panel**, then **Administrative Tools**.
2. Open **Services**. If the service is not running, right-click the service and select **Start** and set to **Automatic**.
  - EMC ControlCenter Key Management Server
  - EMC ControlCenter Repository
  - EMC ControlCenter Server
  - EMC ControlCenter Store
  - EMC ControlCenter Web Server
  - EMC ControlCenter API Server
  - EMC StorageScope Server

## Starting Performance Manager After Upgrade

---

**Note:** DO NOT try to launch your upgraded Performance Manager before upgrading the Master Agent on the Performance Manager host. This is a required step for Performance Manager to obtain a valid certificate.

---

*Performance Manager Upgrade and Launch Summary:*

- Upgrade Performance Manager 5.2.x or 6.0 to 6.1.
- Install a 6.1 Ionix ControlCenter Console. See [” Install the Ionix ControlCenter 6.1 Console” on page 97](#)
- Via a 6.1 Console verify there is a Master Agent installed and running on the host where Performance Manager is installed.
- If necessary, upgrade the Master Agent on the host where Performance Manager is installed.
- Launch Performance Manager.

---

**Note:** If you shut down Terminal Services for the upgrade process, you can restart the server and client.

---



The procedure for starting Ionix ControlCenter infrastructure components and optional components is now complete. You can now go on to the next section, installing the Ionix ControlCenter 6.1 Console.

## Install the Ionix ControlCenter 6.1 Console

This section explains how to install, launch, and login to the Ionix ControlCenter 6.1 Console.

### Download the Ionix ControlCenter 6.1 Console Install Program

Ensure that you uninstalled all instances of the previous version of the Ionix ControlCenter Console before proceeding to install the Ionix ControlCenter 6.1 Console.

---

**Note:** It is not recommended that you install the Ionix ControlCenter Console on an infrastructure host.

---

1. Open your Web browser. Enter the URL for Ionix ControlCenter Console download:

**https://<ECCServerHostname\_or\_IP\_address>:30002/webinstall**

- If your browser *has* a Java virtual machine (JVM) that can run the installation program, the installation program displays the *Console installation* home page. Continue with step 3.
  - If your browser *does not have* a JVM that can run the installation wizard, the page displays a message that explains how to download and install a valid JVM. Continue with step 2.
2. Download a JVM from <http://java.sun.com> by clicking on the *Sun's Java website* link in the message panel. EMC recommends that you install the latest version of a generally available JVM (in other words, *not* a beta version).
  3. After the JVM is downloaded and installed, do one of the following:
    - If using Internet Explorer, click on *EMC ControlCenter Download* in the message panel. Then continue with step 4.
    - If using other browsers, stop and restart the Web browser session. Then enter the URL for Console download again (as described in step 1 at the beginning of this section).
  4. Click the **Installation** option. Then click **Console 6.1**.

---

**Note:** If desired, click the **Documentation Library** link to view documentation that can help with Ionix ControlCenter Console installation.

---

If this is the first time you have installed the Ionix ControlCenter Console on this host, the **Security Warning** dialog box appears.

5. Click **Yes** to continue.

A progress bar indicates that the Console installation application is downloading to the host. When the progress bar reaches 100 percent, the Ionix ControlCenter Console installation application launches automatically (this may take a few moments).

## Run the Ionix ControlCenter 6.1 Console Install Program

1. Click **Next** in the Welcome message screen.

---

**Note:** If the Welcome screen does not open, minimize other open windows and wait for the screen to appear.

---

---

**Note:** If you receive a warning that the InstallShield Certificate has expired, you can safely ignore this message and continue the download.

---

2. Select the destination directory where you want to install the Console application (the default is C:\Program Files\ecc\console). Then click **Next**.

If the installation program detects a previous version of the Ionix ControlCenter Console on the host, it displays a message asking you to rename the location for the destination directory. After resolving the issues, click **Next** again to continue.

A progress bar appears indicating that the Ionix ControlCenter Console installation is taking place. When the progress bar reaches 100 percent, the Installation Summary message appears, indicating that the installation was successful.

3. Click **Finish** to exit the Console installation and close any unneeded Web browser windows.

---

**Note:** If the Console installation fails, refer to the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1* for instructions on uninstalling the Console, deleting unnecessary files, and reinstalling the Console.

---

**⚠ CAUTION***Before Launching the ControlCenter 6.1 Console:*

If you ever changed the Ionix ControlCenter 6.0 ControlCenter Server Port default value of 5799 to a customized value, edit the "old server port" setting in C:\Program Files\ecc\console\data\ecc\_console.ini to that of your old ControlCenter Server Port customized value.

*In the event that your ControlCenter 6.1 Console does not launch because of an "offline" or "host is unknown" error:*

You must first edit the "old server port" setting in C:\Program Files\ecc\console\data\ecc\_console.ini to whatever the ControlCenter Server Port customized value was prior to upgrade, and then you must delete the ecc\_console.ini file in %USERPROFILE%\ecc\data\

**Launch the Ionix ControlCenter 6.1 Console**

This section describes how to launch the Ionix ControlCenter 6.1 Console.

1. Click the **Start ECC Console** icon on the desktop, the Client Install Configuration screen appears.
2. Enter the server `host name` and port number (10799 by default in 6.1), enable Console Logging if you want to collect log files, and click **Submit**.

---

**Note: Enable Console Logging:** Selecting this option for Windows saves all Console log files to  
%USERPROFILE%\ecc\data\

3. The Ionix ControlCenter Console launches.

**Log in To the Ionix ControlCenter Console**

To log in to the Ionix ControlCenter Console application:

1. Enter your Ionix ControlCenter **username**.
2. Enter your **password**.
3. Click **OK**.

The ControlCenter Console user interface appears.

---

**Note:** When you log into the Ionix ControlCenter Console after upgrading to Ionix ControlCenter 6.1, and the Ionix ControlCenter configuration contains agents that are not supported for 6.1, the Unsupported Agent Notification dialog box appears listing the unsupported agents. You can upgrade the unsupported agents directly from this dialog box. Refer to the *EMC Ionix ControlCenter Console Help* for more information.

---

## Unable to login to Ionix ControlCenter as a Domain User (or Add Domain Users to Ionix ControlCenter) after an Upgrade

If you are unable to login as a domain user to Ionix ControlCenter after you upgrade, or are unable to add new domain users, ask your Windows Domain Administrator to complete the following steps to create a new domain account for the Ionix ControlCenter Server service:

1. On the Domain Controller create or select an existing domain account.

---

**Note:** This account will be used exclusively as a service account for the ControlCenter Server service.

---

2. On the ControlCenter Server host grant this account the “act as part of the operating system” user right.
3. On the ControlCenter Server host add this account to the local Administrators group.

---

**Note:** If steps 2 and 3 are not done you will not be able to connect to the server from the Ionix ControlCenter Console and authentication failures will result.

---

4. Make this account the service account for the ControlCenter Server service.
5. Stop the EMC Web Server, Store, and ControlCenter Server services (in that order).
6. Start them in the reverse order (ControlCenter Server, Store, Web Server).
7. Bring up the Ionix ControlCenter console and add the domain users you wish to have access to Ionix ControlCenter .

The procedure for installing, launching, and logging into the Ionix ControlCenter 6.1 Console is now complete.

The next step in the upgrade is to license the desired applications.

## License the Desired Applications

License each application only once from only one Console. Subsequent Console launches on other hosts will have all licenses enabled (so there is no need to enter the licenses more than once).

There are several new licenses for 6.1, and some license packages have changed. Refer to the *ControlCenter Planning and Installation Guide, Volume 1* for details about the 6.1 licensing changes.

License keys may be added after agent upgrades are complete.

License keys are case sensitive.

---

**Note:** All purchased 6.1 license keys must be entered into the Console Edit Licenses dialog box.

6.0 license keys will not be migrated. Enter the new 6.1 license keys following a Ionix ControlCenter 6.1 upgrade.

---

[Table 8](#) provides a list of all 6.1 licenses.

**Table 8** ionix ControlCenter 6.1 licensing

<b>6.1 License Keys</b>
Storage Agent for Centera
SAN Manager
Symmetrix Manager
Storage Agent for NAS
Storage Agent for CLARiiON
Performance Manager
Symmetrix Optimizer
StorageScope File Level Reporting
StorageScope
Storage Agent for HDS
Storage Agent for SMI-S

**Table 8** ionix ControlCenter 6.1 licensing (continued)

<b>6.1 License Keys</b>
Storage Agent for Invista
Virtual Provisioning
Application Agents

Add the license keys as follows:

1. From the Ionix ControlCenter Console, select **ECC Administration**›**Install**›**Edit Licenses**.
2. Enter the appropriate license keys from your license key cards into the text fields and click **OK**.
3. Exit the Ionix ControlCenter Console.
4. Restart this Ionix ControlCenter Console to enable the licenses.

---

**Note:** Refer to *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1* for additional licensing information.

---

The procedure for licensing the applications is complete.

## Launch StorageScope from a Web Browser or from the Ionix ControlCenter Console

To launch StorageScope from a Web Browser:

1. Enter:

`https://<servername>:30002/srm`

Where: `servername` is the name of the host on which the StorageScope Server is installed

To launch StorageScope from the Ionix ControlCenter Console:

1. Select **ECC Administration** in the Task bar.
2. On the Reports menu, select **Launch StorageScope**.

StorageScope launches in a browser window.

## Activate StorageScope Model Services Adapter (MSA)

By default, the StorageScope MSA gets installed with StorageScope during the EMC Ionix ControlCenter UB8 or higher upgrades. Additional installation or pre-installation steps are not required. The StorageScope MSA is deactivated after installation, by default. It requires a manual activation.

If you are using StorageScope Repository as your current repository, then you can activate StorageScope MSA.

To activate the StorageScope MSA from the Start menu:

1. Select **Start > Programs > EMC > EMC ControlCenter > StorageScope > Configure STS MSA**. A command window is launched.
2. Enter your choice as **1** to activate the StorageScope MSA. You will be prompted for a confirmation.
3. Enter **Y** to confirm. You will be prompted for a DCI hostname.
4. Enter a **DCI fully qualified hostname** for the settings to be configured. Wait for the successful activation and exit message to appear.
5. Press any key to exit the command window.
6. Reboot StorageScope MSA installed host for the changes to take effect.

The *EMC Ionix ControlCenter 6.1 Administrators Guide* or *StorageScope Online Help* on EMC online support provides details relating to StorageScope MSA activation and deactivation.

## Deploy Solutions Enabler to Remote Hosts

Solutions Enabler 7.1.1 MRLK or higher must be loaded in the Ionix ControlCenter media repository (see following paragraphs) *before* attempting to upgrade the agent. If not, the agent upgrade will fail with the error *No Solutions Enabler Product in Media Repository*.

Ionix ControlCenter automatically pushes Solutions Enabler out to a host as part of the agent upgrade *if* the Solutions Enabler Media Repository Load Kit (MRLK) (7.1.1 or higher) is loaded in Ionix ControlCenter .

---

**Note:** For Ionix ControlCenter 6.1, you must download the Solutions Enabler Media Repository Load Kit (MRLK) (7.1.1 or higher) from EMC online support to make Solutions Enabler available for deployment to remote hosts. Pre-6.0 versions of Ionix

ControlCenter used the Solutions Enabler disks, but for Ionix ControlCenter 6.0 and higher, the MRLK is the only way to load Solutions Enabler into the Ionix ControlCenter media repository.

---

### **IMPORTANT**

---

**Even if you loaded the Solutions Enabler 7.1.1 or higher MRLK in a previous version of Ionix ControlCenter, you must still re-load the same (or higher) MRLK into the Media Repository after upgrading to Ionix ControlCenter 6.1.**

---

**Note:** If you intend to use the Storage Agent for SMI to discover Symmetrix or CLARiiON arrays, you can download the Providers from the SMI-S Provider download location on EMC online support.

---

## **Loading the MRLK in the Ionix ControlCenter Media Repository**

---

**Note:** Before loading the MRLK, the Server service must be stopped.

---

Load Solutions Enabler into the Ionix ControlCenter Media Repository as follows:

1. Download the latest Solutions Enabler (7.1.1 or higher) MRLK zip file to a temporary directory on the Ionix ControlCenter Server host.
2. Unzip the file.
3. Start the executable (Wait for the install wizard to start).
4. Solutions Enabler is loaded into the Media Repository and available for pushing out to remote hosts.
5. Start the Ionix ControlCenter Server and Ionix ControlCenter Store services.
6. Verify that all other Ionix ControlCenter services are started.

You can specify the root deployment directory for Solutions Enabler during its deployment, as follows:

- ◆ If Solutions Enabler was previously deployed on the target host, you should specify the same root directory as the previous version to minimize the impact on existing SYMCLI scripts. You do not need to modify the PATH to reference the new location.



- ◆ If Solutions Enabler was not previously deployed on the target host, specify the directory or accept the default, which is:  
Windows: %Install\_root%\Program Files\EMC\SYMCLI\bin  
UNIX: /opt/emc
- ◆ Keep in mind that when upgrading Solutions Enabler from a previous version, you might still have to modify existing SYMCLI scripts to account for changes in the product resulting from the upgrade. Refer to the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1*.

### Installing Solutions Enabler on Proxy Hosts

In some situations you may have Solutions Enabler installed on a database host or a host connected to your CLARiiON or Symmetrix array while your Ionix ControlCenter agents operate in proxy mode on a separate host. In this case, where there is no Master Agent on the Solutions Enabler host, the only way you can install the latest Solutions Enabler version is to install it manually.

If Solutions Enabler is not upgraded to the correct version (7.1.1 or higher) the upgraded agent will not be able to manage any of the objects discovered before the upgrade.

## Upgrade Agents

This section describes how to upgrade Ionix ControlCenter agents. Complete the following steps for all existing agent hosts before attempting any new remote agent installs.

---

**Note:** Several Ionix ControlCenter agents require that Solutions Enabler be installed before the agents can be installed or upgraded. The Solutions Enabler upgrade may fail if Ionix ControlCenter agents are running on the host during the Solutions Enabler upgrade process. Use the Ionix ControlCenter Console Agent Administration Wizard to stop all agents that are running on the agent hosts where Solutions Enabler is to be deployed.

---



---

**Note:** Some alerts and alert templates for generally unavailable agents may remain in the Console following an upgrade to 6.1.

---

### Begin Agent Upgrade

Multiple-host and single-host agent upgrades are performed the same way.

Use the following steps to upgrade agents:

1. Verify that the necessary licenses are installed.
2. In the tree panel, expand **Hosts**, and then select a host or group of hosts where you want the agent upgraded.
3. With the host(s) selected, right-click, and then select **Agents, Upgrade**.

---

**Note:** You can also select one or more hosts from the tree individually, or you can select any folder or group that contains objects.

---

The wizard launches and displays the **Platform Type Selection** dialog box.

---

**Note:** The Platform Type Selection dialog box appears only if there are agents on multiple platforms. Otherwise, the Host Selection dialog box appears.

---

4. Select a platform from the Platform list.

---

**Note:** For example, to upgrade hosts running Windows, select **Windows**.

---

5. Click **Next**. The **Host Selection** dialog box appears.

The Master Agent status of the selected host(s) appears. If there are no hosts available, then the only options available are **Cancel** or **Back** to return to the previous dialog box.

6. Select one or more available host(s).
7. Click **Next**. The **Agent Upgrade** dialog box appears.

A list of agents selected for upgrade appears.

8. Review the list of agents. Click **Next**.

9. One of the following appears:

- **Upgrade for HP-UX and Solaris** dialog box. This asks about autostart on reboot for Master Agents only. Continue to step [11](#).
- **Review Upgrade Task** dialog box. Continue to step [12](#).

10. Review the information. Click **Next**.

The **Review Upgrade Task** dialog box appears.

11. Review your selections. Click **Finish**.

The following warning message may appear:

Warning: Upgrading or installing EMC Solutions Enabler can negatively impact existing SYMCLI-based customized scripts. Do you still want to upgrade or install EMC Solutions Enabler on the host(s) listed below?

12. Click **Yes** if you acknowledge the message. The **Execute Now** dialog box appears.
13. Create a new task list or select an existing task list. If the **View progress/status of Tasks** checkbox is selected, then the execution progress appears. Click **OK** and the task executes immediately.

You will see the status of the task execution and the agents will restart on the Console.

### If Agent Upgrade Fails

If the agent upgrade failed, and indicates that one or more agents did not shut down in a timely manner, it is necessary to retry the agent upgrade because one or more agents were busy:

1. Wait 5 minutes and retry the agent upgrade.
2. If the agent upgrade fails for a second time:
  - **Windows host:** Reboot the agent host and retry the agent upgrade.  
The initial upgrade attempt has already renamed the application agent executables to prevent them from restarting upon reboot. This ensures that the retry of the agent upgrade will not encounter another busy condition.
  - **UNIX host:** Kill all application agent processes, leaving the Master Agent process running, and retry the agent upgrade. Refer to the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 1* for a list of agent processes.

### If Solutions Enabler Upgrade Fails

The Solutions Enabler Upgrade may fail if Ionix ControlCenter agents are using Solutions Enabler or if a DOS command window or Windows Explorer is viewing the Solutions Enabler folder:

- ◆ If a DOS command window or Windows Explorer is viewing the Solutions Enabler folder, then the folder locks and cannot be deleted, causing the upgrade to fail. Verify there are no open DOS windows in the Solutions Enabler folder and retry the Solutions Enabler upgrade.

- ◆ Use the Ionix ControlCenter Console Agent Administration Wizard to stop all agents that are running on the agent hosts where Solutions Enabler is to be deployed and retry the Solutions Enabler Upgrade.

The procedure for upgrading open systems agents is now complete. You can now proceed to upgrade MVS agents or resume normal operations ([page 110](#)).

## Upgrade Ionix ControlCenter MVS Agents

Ionix ControlCenter 6.1 supports the Master Agent and the Physical Agent for MVS only.

Upgrade the Mainframe Master Agent and Physical Agent for MVS using the procedures outlined in *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Volume 2 (MVS Agents)*.

---

**Note:** Upgrading 6.0 MVS Master Agents and MVS Physical Agents to Ionix ControlCenter 6.1 provides no additional MVS support functionality. The 6.1 Physical Agent for MVS does *not* provide SSL secure HTTP communication between host and infrastructure.

---

## Upgrade Installations with Cluster Support

Execute the following procedure on the cluster node where the original Ionix ControlCenter installation was done.



**Do not do this step if you think you might need to rollback your upgrade. Once this step is completed you will not be able to rollback.**

---

From each cluster host where Ionix ControlCenter components have been upgraded, do the following:

### **IMPORTANT**

---

The Master Agent must be at the Ionix ControlCenter 6.0 level before beginning this procedure.

---

1. Change directory to %ECC\_INSTALL\_ROOT%\tools\utils
2. Run clustersave.bat.

3. If not running, start the Cluster Administrator. Select Start, Programs, Administrative Tools, Cluster Administrator.
4. From the cluster monitor console, initiate a manual failover of the EMC Ionix ControlCenter resource group to the backup node. Right-click EMC ControlCenter resource group and choose Move Group.

From the secondary node, do the following:

1. Change directory to %ECC\_INSTALL\_ROOT%\tools\utils
2. Run clusterupgrade.bat.
3. Reboot the secondary node for the upgrade to take effect.

Now you need to recreate resources in your Ionix ControlCenter Group. Refer to the *EMC Ionix ControlCenter 6.1 Installation and Planning Guide, Volume 1* for instructions on creating resources in your Ionix ControlCenter Group. You do not need to recreate:

- ◆ ECCRGPhysicalDisk
- ◆ ECCRGIPAddress
- ◆ ECCRGNetworkName

### Re-enter IP Aliases and Update Resource Groups (for a Cluster configuration only)

After upgrading a cluster configuration, you must re-enter the IP aliases in the **ecc\_server.ini** file. Failure to do so results in communication problems between the Ionix ControlCenter Console interfaces and the infrastructure. Do the following:

1. Copy the `ecc_server.ini` file to a backup location:

The `ecc_server.ini` file is located in the  
<Install\_Root>\ecc\_inf\data\<hostname>\data directory.

2. Open `ecc_server.ini` (the original file, not the backup) with a text editor.
3. In `ecc_server.ini`, search for the line that contains the string:

```
name server aliases
```

4. Add a comma-separated list of hostnames to the name server aliases line. These hostnames correspond to the physical IP addresses that are bound to the same network adapter as the server's virtual IP address. The hostnames must be the

appropriate hostnames from both nodes of the cluster. Ensure that hostnames in name server aliases do not contain the server's virtual name since it is already included in name server URL property.

---

**Note:** The Ionix ControlCenter service names will change when upgrading to 6.1. You will need to recreate the Cluster Resource Groups after upgrade.

---

## Resume Normal Ionix ControlCenter Operations

You can now resume normal Ionix ControlCenter operations and start all DCPs.

After applying 6.1 to the Ionix ControlCenter Server host, any agents subsequently installed will be version 6.1.

---

**Note:** Once you have installed the FCC Agent, you must re-discover your Brocade and McDATA switches to ensure that all DCPs are working correctly and to fully discover the switches through SMI-S.

---

## Cleanup Rollback Files

If you will not be doing a Rollback procedure, you can relocate or delete the following files to free up disk space. They are only necessary if you are doing a Rollback.

---

**Note:** You may have moved the ECC610\_BAK file from the local host to an external server when you completed the Infrastructure upgrade.

---

```
%Install Root%\ECC\pre61upgraderambdb_exp_dmp.zip
%Install Root%\ECC\rambdb_exp.dmp
%Install Root%\ECC\rambdb_exp_dmp.zip
%Install Root%\ECC610_BAK
%Install Root%\ECC\Repository\admin\Ramb_scripts\upgrade\afterupgradeExp.dmp
```

## Rolling Back the 6.0 to 6.1 Upgrade (optional)

The following steps describe how to uninstall your 6.1 upgrade and roll back your installation to 6.0, if necessary.



**Version mismatch of any Ionix ControlCenter infrastructure component is not supported.**

---

You must perform the following tasks to roll back your Ionix ControlCenter 6.1 upgrade to 6.0:

1. From a Ionix ControlCenter Console, stop all Ionix ControlCenter agents, if any are running.
2. Uninstall any agents that have been upgraded to 6.1.
3. Uninstall the Master Agent on each host with a 6.1 Master Agent.

---

**Note:** Be sure to stop any enabled virus-checking software. If your site policy does not allow this, the roll-back will proceed but take an extremely long time. Some antivirus software may be monitored by Services and restarted automatically. Refer to your antivirus vendor documentation to determine if additional Services need to be stopped.

Ensure your system is in a quiesced state before proceeding.

---

4. Close the Ionix ControlCenter Console on all hosts where it is running and then uninstall it.

---

**Note:** Perform the following steps (5 through 16) on all hosts where any Ionix ControlCenter infrastructure components were upgraded.

---

5. Go to **Administrative Tools > Services**, **Stop** the following services if they are present, and set them to **Manual Startup**:

- ◆ Any Ionix ControlCenter Services:
  - EMC ControlCenter API Server
  - EMC Key Management Server
  - EMC ControlCenter Master Agent
  - EMC ControlCenter Web Server
  - EMC ControlCenter Server
  - EMC ControlCenter Store
  - EMC StorageScope Server
- ◆ Distributed Transaction Coordinator Service
- ◆ Terminal Services Service
- ◆ Terminal Server Licensing Service

- ◆ Anti-Virus Services

6. Close the Services window.
7. Go to Add or Remove Programs, select EMC ControlCenter 6.1.0, and click **Remove**.

The EMC ControlCenter 6.1.0 InstallShield Wizard starts.

8. Select Uninstall ControlCenter Components.
9. Complete the Uninstall Wizard by selecting all ControlCenter Components to uninstall and accepting all defaults.
10. Uninstall the Master Agent if there is one on this host.
11. Delete %ECC\_INSTALL\_ROOT%.
12. Copy the installation folder from the backup directory <drive>:\rollback to its original location.
13. Go to **Administrative Tools > Services**, and set the following Services, if they are present, to Automatic Startup Type:
  - ◆ Distributed Transaction Coordinator Service
  - ◆ Terminal Services Service
  - ◆ Terminal Server Licensing Service
  - ◆ Anti-Virus Services
14. Close the Services window.
15. Go to %ECC\_INSTALL\_ROOT%\tools\utils and from the command line run **clusterload.bat**.
16. Reboot the host.

### Recover the 6.0 Infrastructure

1. Go to **Administrative Tools > Services** on the Repository host, **Start** the following Ionix ControlCenter components, and then set them to **Automatic Startup Type**:
  - OracleECCREP\_HOMETNSListener
  - OracleServiceRAMBDB
2. Open a command prompt (DOS window) and Run **%RAMBOH%\admin\ramb\_scripts\ramb\_mediarecovery.bat**



3. Enter **Y** at the prompt to proceed. This resets the database and puts it into a usable state.

If the Repository recovery fails, contact Customer Support.

## Restart Infrastructure

For the necessary hosts, do the following:

1. Select **Start, Settings, Control Panel, Administrative Tools, Services** on the infrastructure hosts. Start the following components, and then set them to **Automatic Startup Type**:
  - EMC Control Center Server service
  - EMC Control Center Store service
  - EMC Control Center StorageScope service
  - EMC ControlCenter API Server service
  - EMC ControlCenter Master Agent service
  - EMC ControlCenter Web Server service
  - EMC ControlCenter WebConsole Server service
2. Reinstall your 6.0 Ionix ControlCenter Console. Refer to your existing 6.0 installation documentation for more information.

---

**Note:** If the Ionix ControlCenter Console shows any agents as inactive, then those agents are not functional until they are reinstalled.

---

3. Reinstall 6.0 Master Agents.
4. From a host with a Ionix ControlCenter Console, reinstall and restart any agents that were uninstalled in [step 2 on page 111](#) .

## Remove Backup Files

If the rollback results are satisfactory, remove the backup folder.

For the hosts that a restore has been performed, delete the folder:

```
%ECC_INSTALL_ROOT%\tools\utils\BackupFile
```



# CHAPTER 3

## Upgrading Ionix ControlCenter 6.1UBx to 6.1UB14

This chapter shows you how to upgrade your Ionix ControlCenter 6.1 installation of an earlier UB level to the Ionix ControlCenter 6.1UB14 version.

The flowchart provides a high level view of the steps involved in performing the upgrade.

## Upgrade Flowchart

This flowchart provides a high level view of the steps for performing the upgrade.

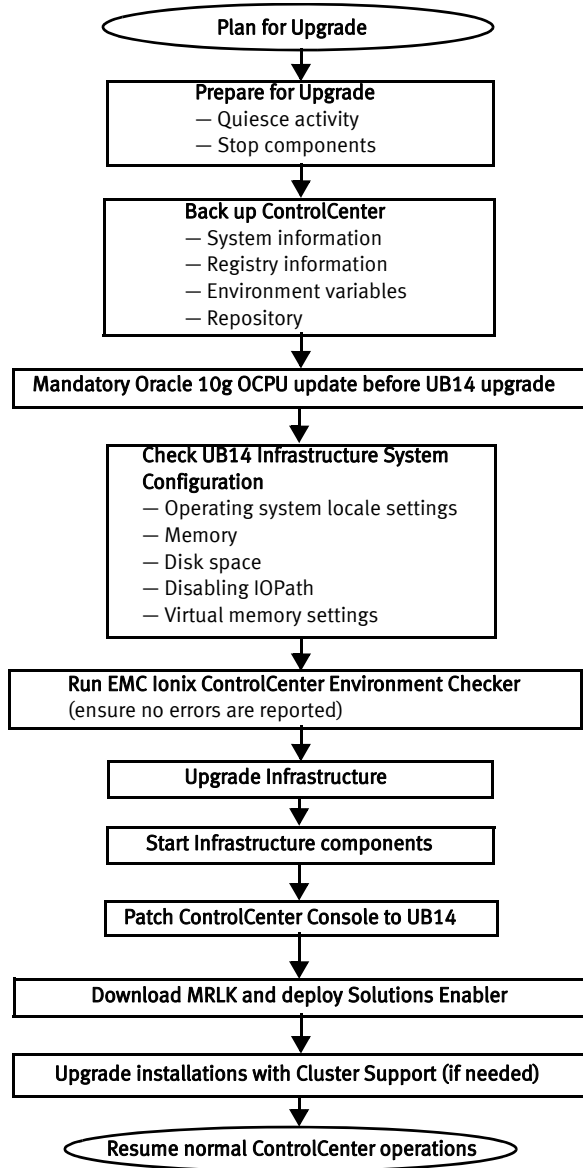


Figure 3 6.1UBx to 6.1UB14 Upgrade process

# APPENDIX A

## Multi-NIC and Clustering

If the Ionix ControlCenter 5.2 Service Pack 4 or higher environment being upgraded uses multi-NIC or clustering, the upgrade process will succeed as described in [Table 9](#).

---

**Note:** For a clustered upgrade, make sure the upgrade is done on the node where the original installation was done.

---



---

**Note:** If the `ecc_server.ini` file has been customized, back it up prior to the upgrade process, and then reapply the `ecc_server.ini` file after the upgrade is complete.

---

**Table 9** Upgrading Multi-NIC and clustered environments

Prior Version of Ionix ControlCenter	Upgrade Scenario and Results	Effect on Repository Data
5.2 Service Pack 4 or higher, with multi-NIC, clustered Ionix ControlCenter Server host	Perform upgrade to 6.1. Multi-NIC support and clustering will operate as with the prior release.	None. Repository data is available for migrating to the 6.1 StorageScope Repository (see <a href="#">Appendix Appendix C, “StorageScope Data Migration Utility”</a> ).
5.2 Service Pack 4 or higher, with multi-NIC, Ionix ControlCenter Server host	Perform upgrade to 6.1. Multi-NIC support will operate as with the prior release.	None. Repository data is available for migrating to the 6.1 StorageScope Repository (see <a href="#">Appendix Appendix C, “StorageScope Data Migration Utility”</a> ).

Multi-NIC support became available for clean installations at 5.1 or later. There is no automated upgrade path from a non-multi-NIC Server host to a multi-NIC Server host. The recommended process for adding multi-NIC support is a clean installation of Ionix ControlCenter , in which case Repository data is lost (refer to [Table 11 on page 119](#)).

An alternative process involving the manual editing of .ini files is not recommended but is available if the loss of Repository data is unacceptable.

[Table 10](#) provides manual reconfiguration processes that should only be performed under the guidance of EMC Customer Support. It is included for information only. Specific customer circumstances and configurations should be reviewed and validated by EMC Customer Support before applying any of the steps documented in the table.

**Table 10** Edit the ecc\_server.ini file to add Multi-NIC support

Component	ini Files to Edit	ini Fields to Edit	Notes
ControlCenter Server	ecc_server.ini	name server url = //primary_name:30751 login url = //primary_name:30721 name server aliases =name_alias1,name_alias2 Database Host Name = db_host1, db_host2	Put additional hostnames (or IP addresses) of the network interfaces of the Server host into name server aliases. Do not include the primary hostname chosen for name server url. Put all the Repository hostnames into Database Host Name. It applies to both the single-host infrastructure configuration and the distributed configuration. Restart server after the modification.
Repository	None	None	
Store	None	None	
Master Agent	None	None	
StorageScope	None	None	StorageScope Server can be multi-NIC. However, users on different subnets from the ControlCenter Server will not be able to launch StorageScope from the Console. They will have to use their browser.

[Table 11 on page 119](#) details the effects on Repository data if you perform an uninstall and a clean install in order to add clustering.

**Table 11** Add clustering support by performing a clean installation

Prior Version of Ionix ControlCenter	Steps Performed to Add Clustering	Effect on Repository Data
5.2 Service Pack 4 or higher, with non-multi-NIC, Ionix ControlCenter Server host	Uninstall 5.2 Service Pack 4 or higher infrastructure and agents from all hosts. Perform clustering planning. Perform clean installation of ControlCenter Server and other components on multi-NIC hosts.	Repository data will be lost. To avoid losing prior data, do not move to a multi-NIC ControlCenter Server host. Perform an infrastructure upgrade on the current ControlCenter Server host.
5.2 Service Pack 4 or higher, with multi-NIC, non-clustered Ionix ControlCenter Server host	Uninstall 5.2 Service Pack 4 or higher infrastructure and agents from all hosts. Perform clustering planning. Perform clean installation of ControlCenter Server and other components on multi-NIC hosts.	Repository data will be lost. To avoid losing prior data, do not move to a multi-NIC Ionix ControlCenter Server host. Perform an infrastructure upgrade on the current ControlCenter Server host.

The upgrade process does not affect DNS addressing of the Ionix ControlCenter Server. However, customers may want to change the ControlCenter Server network location or subnet at the time of an upgrade.

For Windows and UNIX hosts, the upgrade procedure preserves the ControlCenter Server IP addresses or hostnames specified at initial agent installation. Changing IP addresses to hostnames requires manually editing agent `.ini` files. The upgrade process for OS/390 and z/OS hosts is manual, requiring the installation of the new Master Agent and specification of the ControlCenter Server, at which time either an IP address or hostname and domain name can be used.

**Table 12** Converting IP addresses to hostnames

Component	ini Files to Edit	ini Fields to Edit	Notes
Master Agent	ctg.ini file shared by all agents on a host	Server Host=	Edit the <code>Server Host</code> field to specify the host name rather than the IP address. Edit the port number only if it changes.
Agents on Windows		Server Port=	
Agents on UNIX			
Agents on OS/390 and z/OS	N/A	N/A	No <code>.ini</code> file changes are required. Specify a hostname and domain name when installing the Master Agent on the host.

All infrastructure components must be at the same release level to communicate with one another.

## Update a Ionix ControlCenter cluster configuration

If Ionix ControlCenter is part of a clustered environment, follow this procedure to allow remote Stores and Consoles to be updated completely when configuration commands are entered or the status Ionix ControlCenter changes.

To enable more than one Store in a clustered environment, and to have remote Consoles fully refreshed when failover occurs:

- a. On the infrastructure host(s), shut down all Consoles, the Store(s), and the Ionix ControlCenter Server.
- b. Copy this file to a backup location:

`<Install_Root>\ecc_inf\data\<hostname>\data\ecc_server.ini`

- c. Open `ecc_server.ini` (the original file, not the backup) with a text editor.
- d. In `ecc_server.ini`, search for the line that contains the string: `name server aliases`
- e. Add to the `name server aliases` line a comma-separated list of hostnames that correspond to the physical IP addresses that are bound to the same network adapter as the server's virtual IP address. The hostnames must be the appropriate hostnames from both nodes of the cluster. Ensure that hostnames in `name server aliases` do not contain the server's virtual name since it is already included in `name server URL` property.
- f. Restart the Ionix ControlCenter Server, Stores, and Consoles.



# APPENDIX B

## Migrating a 5.2.x Ionix ControlCenter Infrastructure

This Appendix contains instructions for migrating a single or distributed host Ionix ControlCenter 5.2.x infrastructure to new hardware.

---

**Note:** The procedure for migrating a Ionix ControlCenter 6.0 infrastructure to new hardware is provided in **Patch3928.zip**, available on EMC Online Support site.

---

If you need to migrate your Ionix ControlCenter infrastructure to a new host, you must complete the procedure *before* you upgrade to Ionix ControlCenter 6.1.

**Patch3322.zip is required for migrating a 5.2.x infrastructure. The patch is provided on ControlCenter 6.1 Installation Disk #4.** The patch and the procedures this Appendix are based upon (Service Alert 511), are also available from EMC online support.

This Appendix contains the following sections

- ◆ [Introduction .....](#) 122
- ◆ [Prerequisites and Conditions .....](#) 123
- ◆ [Migrating the Ionix ControlCenter Infrastructure: Generic Steps .....](#) 124
- ◆ [Migrating a Distributed Infrastructure: Scenario 1 .....](#) 125
- ◆ [Migrating a Distributed Infrastructure: Scenario 2 .....](#) 147
- ◆ [Migrating a Single Host Infrastructure.....](#) 160

# Introduction

In some situations, you may need to migrate your existing Ionix ControlCenter 5.2.x infrastructure to a new host(s) before you upgrade to Ionix ControlCenter 6.x.

Some reasons for migration include:

- ◆ Upgrading the hardware specifications to improve Ionix ControlCenter Performance and Scalability
- ◆ Meeting the minimum hardware requirements for new Ionix ControlCenter 6.x features

**IMPORTANT**

If you need to migrate your 5.2.x infrastructure, it must take place before you upgrade your Ionix ControlCenter infrastructure to 6.x.

## Distributed and single infrastructure scenarios

There are two scenarios for a distributed infrastructure and a third scenario for a single infrastructure that are covered in this document. Refer to the table below.

**Table 13** Distributed and single infrastructure scenarios

	Host 1	Host 2	Host 3	Qualified Version
<a href="#">“Migrating a Distributed Infrastructure: Scenario 1” on page 125</a>	Repository	Server	Store (The Store is the only Ionix ControlCenter application on this host.)	5.2 SP4 or SP5
<a href="#">“Migrating a Distributed Infrastructure: Scenario 2” on page 147</a>	Repository Server	Store (The Store is the only Ionix ControlCenter application on this host.)		5.2 SP4 or SP5
<a href="#">“Migrating a Single Host Infrastructure” on page 160</a>	Repository Server Store			5.2 SP4 or SP5

## Prerequisites and Conditions

The following prerequisites and conditions apply to migrating your Ionix ControlCenter infrastructure to another host(s):

- ◆ The source host and target host must have the same Operating System (OS).
- ◆ The original and new hosts must maintain the same fully qualified network name.
- ◆ The migration is limited to implementations based on DNS. Implementations not using DNS are not covered by this procedure.
- ◆ Performance View migration is not supported.
- ◆ Console migration is not supported.
- ◆ EMC Log Utility (ELU) cannot be installed on a possible migrating/DR host.
- ◆ If the original installation was a 5.0.x or 5.1.x and upgraded to later revisions, the IP addresses on the new host must match that of the old host.

A quick review of the `%_INSTALL_ROOT%\data\ecc_server.ini` and the `%_INSTALL_ROOT%\Repository\network\ADMIN\listener.ora` reveals the hostnames (or IP addresses) that are bound to the installation.

- ◆ Any Agent host that was installed using the IP address as opposed to the hostname will need to have the `ctg.ini` and `master.ini` files updated with the Host Network Names.
- ◆ If you are using multi-NIC, the primary and any additional NIC interface must map to the Fully Qualified Domain Name (FQDN) of the original installation.
- ◆ The target (new hardware) host name must remain the same as the source (former) host with FQDN.

---

**Note: Note:** Ionix ControlCenter 6.1 uses Network Names only, IP addresses are not supported. Use of Network Names avoids the need to reconfigure Ionix ControlCenter if IP address assignments change (a common security practice).

---

# Migrating the Ionix ControlCenter Infrastructure: Generic Steps

The following generic steps must be completed before starting any of the migration scenarios outline in [Table 13 on page 122](#).

Before starting the installation verify all source machine DNS settings for both A and PTR (in-addr.arpa) records. Refer to the following screens for more information.

---

**Note:** Take a screen capture of your information.

---

1. Verify the hostname and IP address using nslookup. In a DOS window, type **nslookup**.
2. On all source machines verify the hostname and primary DNS suffix using ipconfig. In a DOS window, type **ipconfig**.
3. On all Windows platforms source machines verify the domain name and the primary DNS suffix. Right click **My Computer**, select **Properties**, select the **Network Identification** tab, click **Properties**, and click **More**.
4. Verify the DNS suffix and server addresses. Select **Start > Settings > Control Panel > NetWork and Dial-up Connections > Local Area Connection**. From the Local Area Connection Properties dialog box select **Internet Protocol (TCP/IP)**, click **Properties**, click **Advanced**, and select the **DNS** tab.

---

**Note:** If you do not have access to your DNS server you can skip this step.

---

5. Using the Forward Lookup Zones, verify the DNS suffix and host name.

---

**Note:** If you do not have access to your DNS server you can skip this step.

---

6. Using the Reverse Lookup Zones, verify the IP address and host name with DNS suffix.

# Migrating a Distributed Infrastructure: Scenario 1

Use the following procedure to migrate a distributed infrastructure in which the Repository and Ionix ControlCenter Server reside on different hosts.

## **IMPORTANT**

---

Complete generic steps 1 through 6 on pages 124 through 124 before beginning this procedure.

---

## Repository migration procedure

1. On the Repository source machine, install **Patch3322.zip** from Ionix ControlCenter 6.x Installation Disk #4 or download it from EMC online support and extract the contents to a temporary folder, for example, `c:\migration_scripts`.

---

**Note:** These scripts are only required for local authentication and not domain authentication.

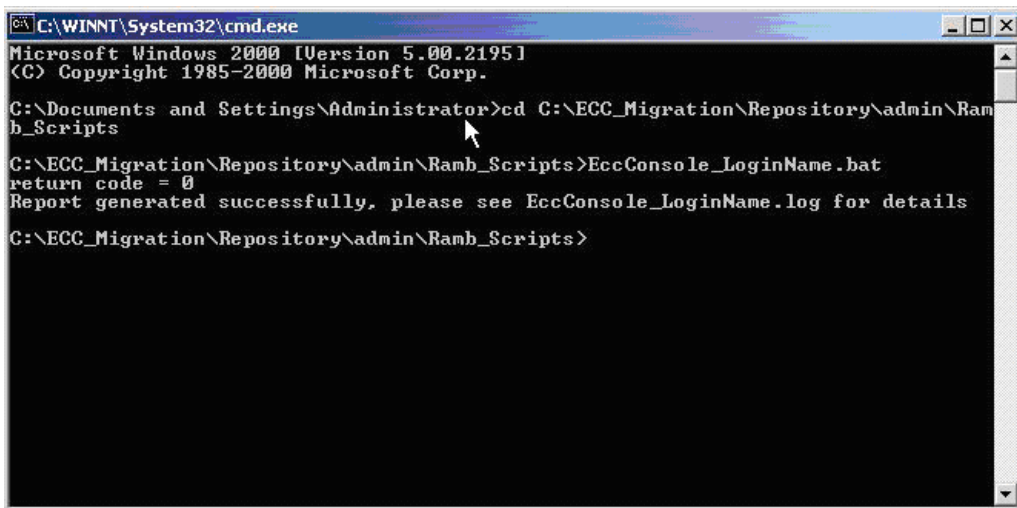
---

2. Extract two files **EccConsole\_LoginName.bat** and **EccConsole\_LoginName.sql** from the `EccConsole_LoginName.zip` file to the `%RAMBOH%\admin\Ramb_Scripts` directory (Repository host in a distributed environment).
3. Open a DOS Window, type:
 

```
cd /d %RAMBOH%\admin\Ramb_Scripts
```

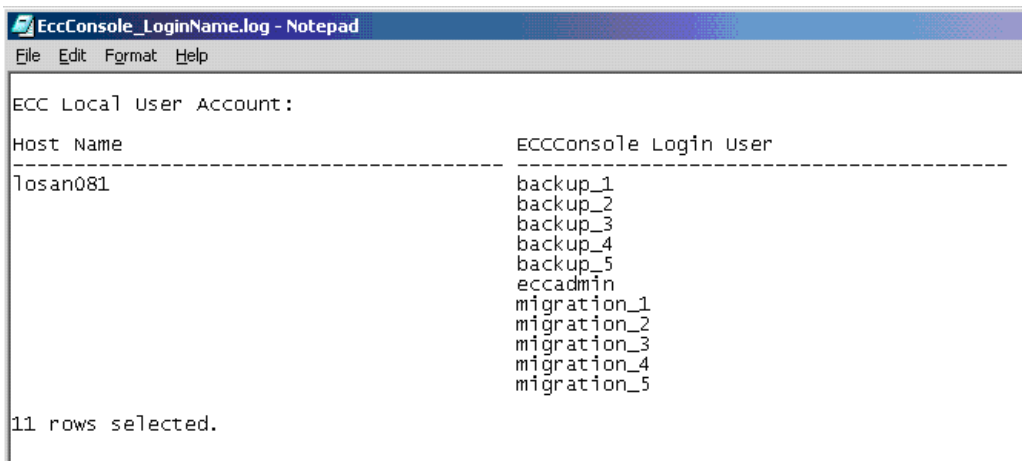
 and press **Enter**.
4. Type **EccConsole\_LoginName.bat** and press **Enter**.

The following screen is a sample of what you might see when executing `EccConsole_LoginName.bat`.



**Figure 4** Example: running EccConsole\_LoginName.bat

The following is an example of an EccConsole\_LoginName.log file located in the %RAMBOH%\admin\Ramb\_Scripts folder.



**Figure 5** Example of an EccConsole\_LoginName.log

5. Verify that Performance View, Console, or ELU has not been installed on the Repository Source hosts that require recovery or migration. If the Performance View, Console, or ELU was installed, uninstall these programs from the Source host and install them on another host. Refer to the EMC *ControlCenter 5.2 (SP4 or SP5) Planning and Installation Guide, Volume 1* for uninstallation instructions.
6. On the Repository source host install **backup.bat** and **restore.bat**.

---

**Note:** For 5.2.0: From a temporary folder, after executing **Patch3322.exe**, the hot fix is installed to the %ECC\_INSTALL\_ROOT%\HF3275\utils folder.

---

7. From the %ECC\_INSTALL\_ROOT%\HF3275\utils directory, run **backup.bat**.

---

**Note:** The installation path is %ECC\_INSTALL\_ROOT%.

---

The following screen displays what you might see when executing backup.bat.

```

C:\WINNT\system32\cmd.exe
Parsing Command Line
Initializing variables
Checking Pre-Requisites ...
Detecting Install Root (Backup mode) ...
Detected Original Version = 520
=> Backing Up Start Menu entries ...
12 File(s) copied
=> Backing Up Desktop icons ...
    1 file(s) copied.
    1 file(s) copied.
=> Backing Up Oracle Files ...
288 File(s) copied
=> Backing Up Oracle System Files ...
    1 file(s) copied.
    1 file(s) copied.
    1 file(s) copied.
    1 file(s) copied.
    1 file(s) copied.
=> Backing Up registry keys ...
<01%> Executing product-specific actions
<05%> Forcing ECC service to Manual
<66%> Handling registry keys
<05%> Forcing services to Manual
<66%> Handling registry keys
<30%> Forcing ECC service to Manual
<85%> Handle Registry Values
<88%> Handle Registry Keys
<20%> Forcing ECC services to Manual
<90%> Handling registry keys
<15%> Forcing all ECC services to Manual
<90%> Handling registry keys
<10%> Determine install directory
<20%> Forcing Services to Manual
<70%> Modifying environment values
<80%> Modifying registry values
<82%> Modifying registry values (specific to Oracle)
<90%> Handling registry keys
<09%> Detect ECC Install Directory
<45%> Modify Environment Variables
<54%> Modify Registry Keys (local machine)
<55%> Modify Registry Keys (local machine)
Done. (Success)
=> Backing Up ServicePack key (if necessary)

Backup actions were successful.

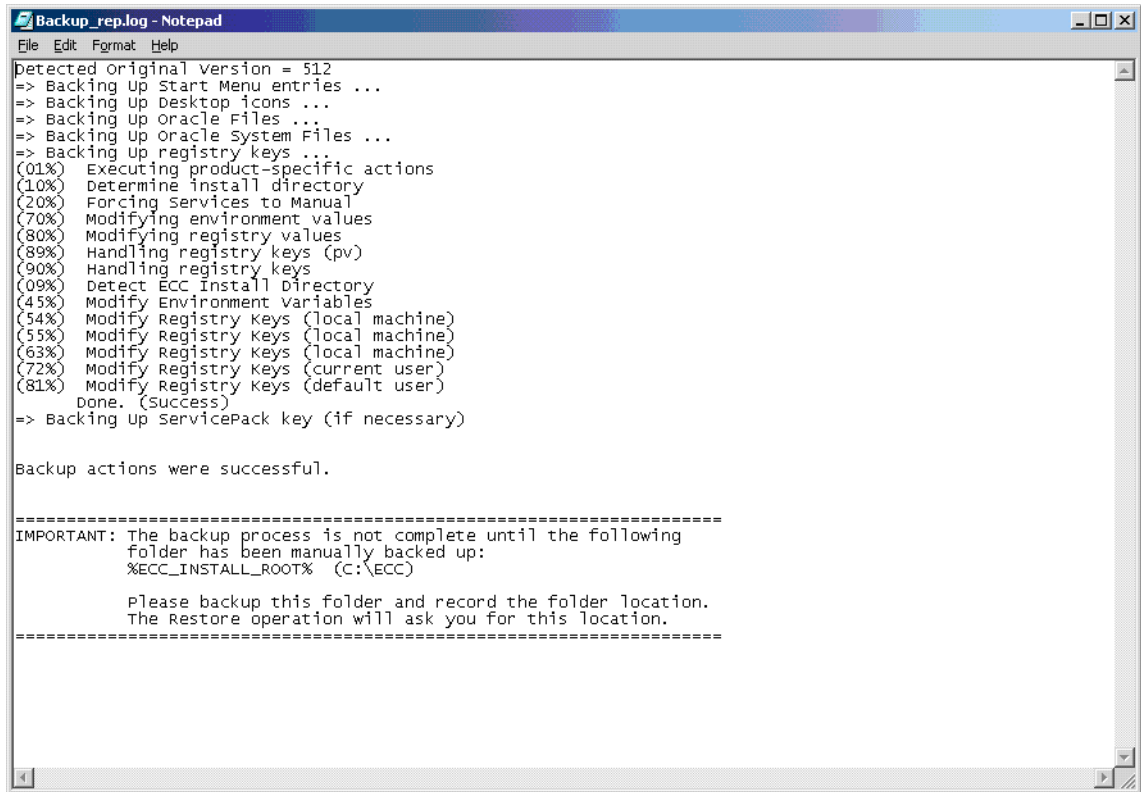
=====
IMPORTANT: The backup process is not complete until the following
           folder has been manually backed up:
           %ECC_INSTALL_ROOT% (e:\ECC)

           Please backup this folder and record the folder location.
           The Restore operation will ask you for this location.
=====
Press any key to continue . . . _
    
```

Figure 6 backup.bat example

The following is an example of a Backup.log file located in the %ECC\_INSTALL\_ROOT%\tools\utils folder:





```

Backup_rep.log - Notepad
File Edit Format Help
Detected Original version = 512
=> Backing Up Start Menu entries ...
=> Backing Up Desktop icons ...
=> Backing Up oracle Files ...
=> Backing Up oracle System Files ...
=> Backing Up registry keys ...
(01%) Executing product-specific actions
(10%) Determine install directory
(20%) Forcing Services to Manual
(70%) Modifying environment values
(80%) Modifying registry values
(89%) Handling registry keys (pv)
(90%) Handling registry keys
(09%) Detect ECC Install Directory
(45%) Modify Environment Variables
(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(63%) Modify Registry Keys (local machine)
(72%) Modify Registry Keys (current user)
(81%) Modify Registry Keys (default user)
done. (Success)
=> Backing Up ServicePack key (if necessary)

Backup actions were successful.

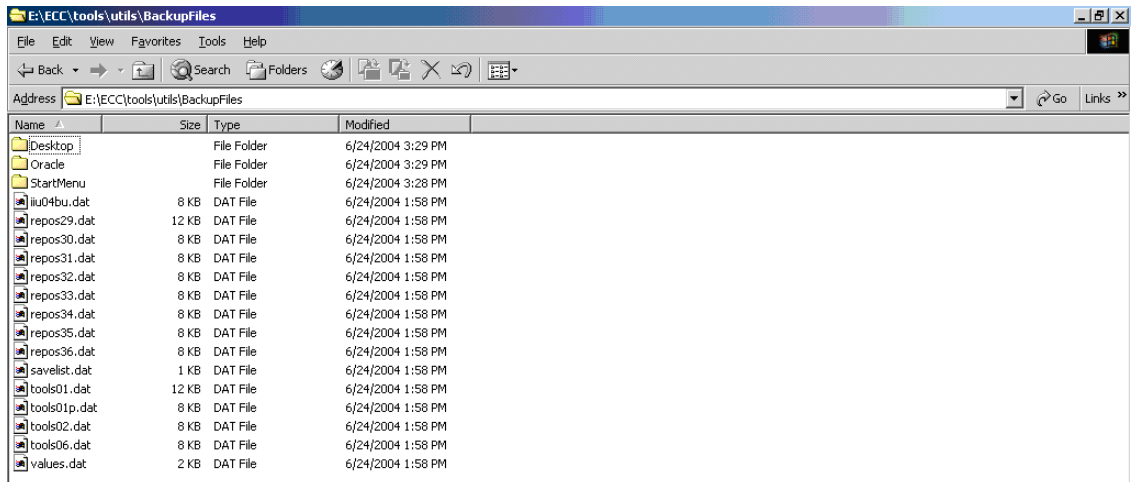
=====
IMPORTANT: The backup process is not complete until the following
folder has been manually backed up:
%ECC_INSTALL_ROOT% (C:\ECC)

Please backup this folder and record the folder location.
The Restore operation will ask you for this location.
=====

```

**Figure 7** Backup.log example

The following is an example of backup data:



**Figure 8** Backup data example

8. Stop all the services and agents on the Source hosts. Refer to the *EMC ControlCenter 5.2 (SP4 or SP5) Planning and Installation Guide, Volume 1* for a complete list of services.
9. Backup all the Repository host data to a shared drive. This includes:
  - %ECC\_INSTALL\_ROOT% — Record the location of where you backed up this folder. It is needed during the restore process.
  - if an Archive was installed include: Reports and Archives
  - Backup directory — %RAMBACKUPDIR%

**Note:** You can use any program to move the data to the shared drive.

10. Shutdown the Repository source hosts.
11. On the Repository Target host, verify the hostname, the DNS names, and the Network Connections are the same as on the Source host. The Network Names and DNS Entries are bound to the host. If IP addresses are changing, then the DNS must be refreshed within the enterprise and the router tables updated, as long as DNS was set up correctly at the time of the original installation (e.g., Ionix ControlCenter is using all hostnames).
12. Any Solaris host that does name caching may need to have their agents restarted if you changed the IP address.

13. On the Repository Target host restore all the data from the shared drive. This includes:

- %ECC\_INSTALL\_ROOT% — The value of %ECC\_INSTALL\_ROOT% must stay the same on the new host as it was on the old host.
- if an Archive was installed on Source host include: Reports and Archives
- Backup directory - %RAMBBACKUPDIR%

**Note:** You can use any program to move the data to the shared drive.

14. From the %ECC\_INSTALL\_ROOT%\HF3275\utils directory, run **restore.bat**.

```

C:\WINNT\system32\cmd.exe
Parsing Command Line
Initializing variables
Checking Pre-Requisites ...
Detecting Install Root (Restore mode) ...
=====
IMPORTANT: This script only works correctly if the folder originally
specified by %ECC_INSTALL_ROOT% has already been manually
restored. If it has not yet been restored, please quit
this script now, and re-run it after the above-mentioned
folder has been manually restored.
=====
Please enter a value for %ECC_INSTALL_ROOT% (or enter "quit" to quit)
E:\ECC_

```

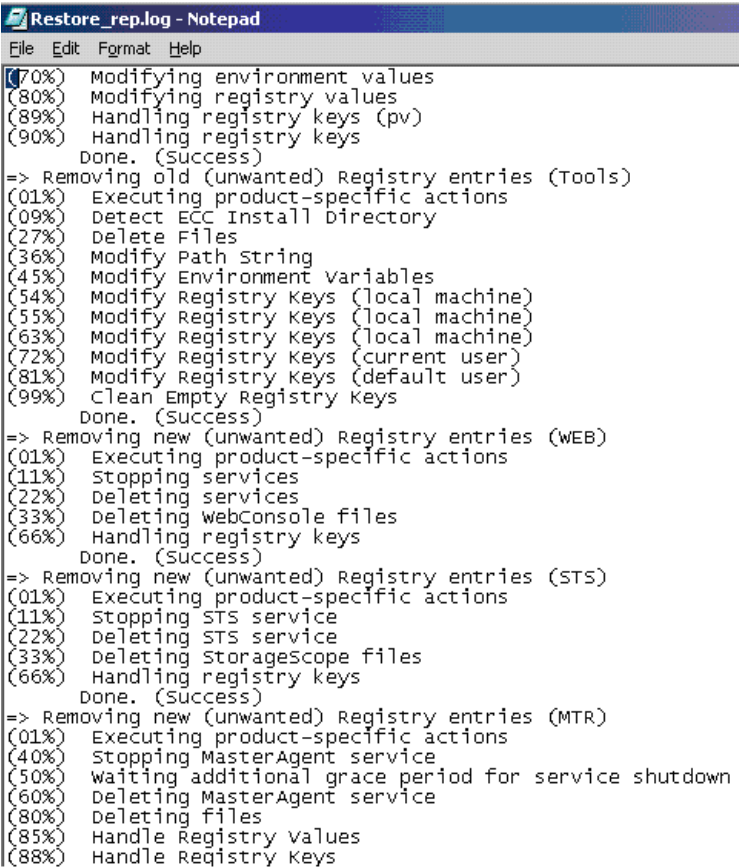
**Figure 9** Running restore.bat

The following is an example of a Restore.log file located in the %ECC\_INSTALL\_ROOT%\tools\utils folder:

```

Restore_rep.log - Notepad
File Edit Format Help
Detected original version = 512
=> Restoring tmp directory ...
=> Removing old (unwanted) Registry entries (STS)
(01%) Executing product-specific actions
(11%) Stopping STS service
(22%) Deleting STS service
(33%) Deleting StorageScope files
(66%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (MTR)
(01%) Executing product-specific actions
(20%) Determine Master Agent Install Dir
ERROR Cannot determine Master Agent Install Directory
ERROR ERROR: return status = 31
NOTE: Above errors for "MTR" removal can be safely ignored.
=> Removing old (unwanted) Registry entries (IGT)
(01%) Executing product-specific actions
(40%) Checking ECC service state
(60%) Deleting ECC services
(80%) Deleting files
(90%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (IGS)
(01%) Executing product-specific actions
(30%) Checking ECC server service state
(36%) Checking WLA Reports service state
(40%) Checking Enhydra service state
(60%) deleting files (general)
(75%) Deleting files (specific)
(90%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (IGR)
(01%) Executing product-specific actions
(10%) Determine install directory
(15%) Temporarily stop MSDTC service if necessary
(20%) Stopping ECC services
(30%) Deleting ECC services
(50%) Deleting files
(60%) Modifying Path string
(65%) Restarting temporarily stopped MSDTC service
    
```

Figure 10 Restore.log example (screen 1)



```

Restore_rep.log - Notepad
File Edit Format Help
(70%) Modifying environment values
(80%) Modifying registry values
(89%) Handling registry keys (pv)
(90%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (Tools)
(01%) Executing product-specific actions
(09%) Detect ECC Install Directory
(27%) Delete Files
(36%) Modify Path String
(45%) Modify Environment variables
(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(63%) Modify Registry Keys (local machine)
(72%) Modify Registry Keys (current user)
(81%) Modify Registry Keys (default user)
(99%) Clean Empty Registry Keys
Done. (Success)
=> Removing new (unwanted) Registry entries (WEB)
(01%) Executing product-specific actions
(11%) Stopping services
(22%) Deleting services
(33%) Deleting webconsole files
(66%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (STS)
(01%) Executing product-specific actions
(11%) Stopping STS service
(22%) Deleting STS service
(33%) Deleting StorageScope files
(66%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (MTR)
(01%) Executing product-specific actions
(40%) Stopping MasterAgent service
(50%) Waiting additional grace period for service shutdown
(60%) Deleting MasterAgent service
(80%) Deleting files
(85%) Handle Registry Values
(88%) Handle Registry Keys

```

Figure 11 Restore.log example (screen 2)

```

Restore_rep.log - Notepad
File Edit Format Help
(85%) Removing last ECC Class ID
(90%) Removing empty registry keys
(91%) Removing empty registry keys
(92%) Removing empty registry keys
(93%) Removing empty registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (IGT)
(01%) Executing product-specific actions
(40%) Stopping ECC services
(60%) Deleting ECC services
(80%) Deleting files
(90%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (IGS)
(01%) Executing product-specific actions
(20%) Stopping ECC services
(30%) Deleting ECC services
(60%) Deleting files (general)
(75%) Deleting files (specific)
(90%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (IGR)
(01%) Executing product-specific actions
(10%) Determine install directory
(15%) Temporarily stop MSDTC service if necessary
(20%) Stopping ECC services
(30%) Deleting ECC services
(50%) Deleting files
(60%) Modifying Path string
(70%) Modifying environment values
(80%) Modifying registry values
(82%) Modifying registry values (specific to oracle)
(90%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (Tools)
(01%) Executing product-specific actions
(09%) Detect ECC Install Directory
(27%) Delete Files
(36%) Modify Path String
(45%) Modify Environment variables
    
```

Figure 12 Restore.log example (screen 3)

```

(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(99%) Clean Empty Registry Keys
ERROR ERROR: return status = 2
NOTE: Above errors for "Tools" removal can be safely ignored.
=> Removing new (unwanted) Oracle files ...
=> Removing new (unwanted) Oracle system files ...
=> Restoring registry information ...
(01%) Executing product-specific actions
(09%) Detect ECC Install Directory
(18%) Modify Path String
(45%) Modify Environment Variables
(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(63%) Modify Registry Keys (local machine)
(72%) Modify Registry Keys (current user)
(81%) Modify Registry Keys (default user)
(10%) Determine install directory
(30%) Modifying Path String
(70%) Modifying environment values
(80%) Modifying registry values
(89%) Handling registry keys (pv)
(90%) Handling registry keys
-----
Done. (Success)
=> Restoring Start Menu entries ...
=> Restoring Desktop icons ...
=> Restoring Oracle Files ...
=> Restoring Oracle System Files ...
=> Restoring ServicePack key (if necessary)

Restore actions were successful.

```

**Figure 13** Restore.log example (screen 4)

15. Reboot the Repository Target host.
16. Set services to **Automatic** on the Target host, then start services. Refer to the *EMC ControlCenter 5.2 (SP4 or SP5) Planning and Installation Guide, Volume 1* for a complete list of services.
17. Reinstall the programs uninstalled in [Step 5 on page 127](#) to the new Repository Target host.
18. Open the Console. If a Master Agent and Host agent were installed on the Repository source host with HBAs attached, the Host Bus Adapter (HBA) Managed Object (MO) must be deleted and the new instance of the Host must be rediscovered for the proper HBA to be discovered.
19. The Repository migration portion of the procedure is complete.

## Server migration procedure

1. On the Server machine, install **Patch3322.zip** from Ionix ControlCenter 6.x Installation Disk #4 or download it from EMC online support and extract the contents to a temporary folder, for example, `c:\migration_scripts`.

**Note:** These scripts are only required for local authentication and not domain authentication.

2. Review your local users and groups for reference. Login to the Ionix ControlCenter Console to verify the Ionix ControlCenter Local Users. Select **Administration > Security Management > ECC Users**.

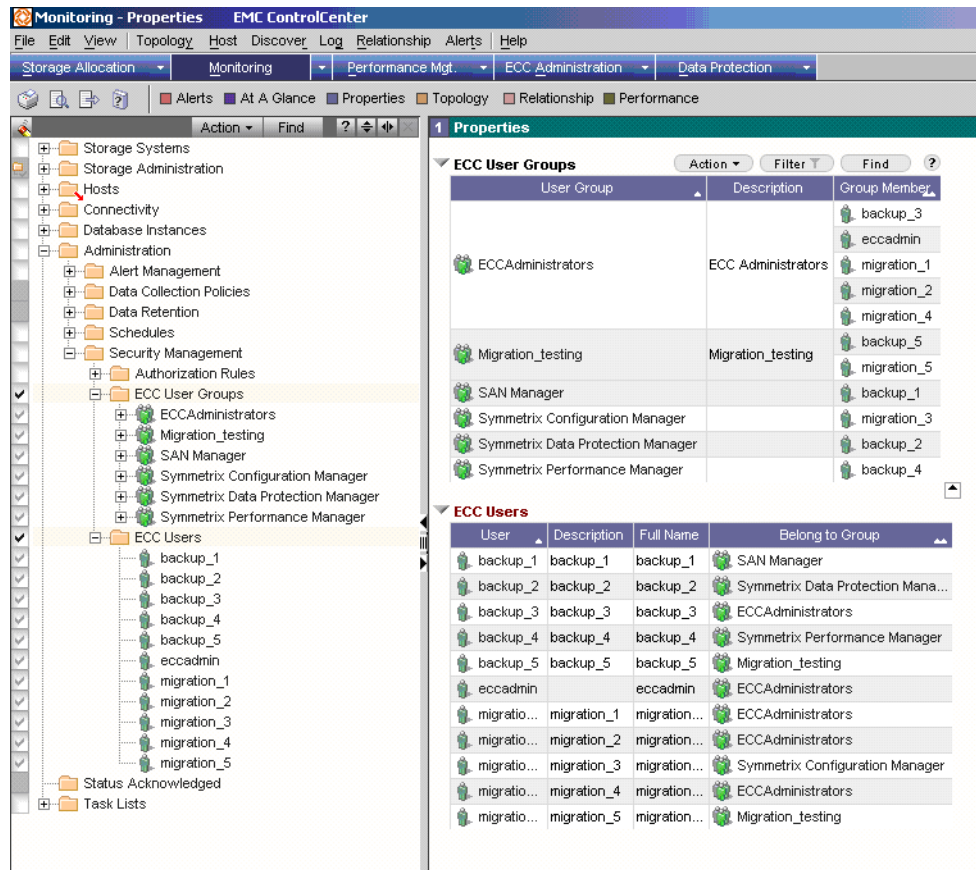


Figure 14 Reviewing your local users and groups



3. Verify that Performance View, Console, or ELU has not been installed on the Server Source hosts that require recovery or migration. If the Performance View, Console, or ELU was installed, uninstall these programs from the Source host and install them on another host. Refer to the *EMC ControlCenter 5.2 (SP4 or SP5) Planning and Installation Guide, Volume 1* for uninstallation instructions.
4. On the Server source host install backup.bat and restore.bat:

---

**Note:** For 5.2.0: From a temporary folder, after executing Patch3322.exe, the hot fix is installed to the %ECC\_INSTALL\_ROOT%\HF3275\utils folder.

---

5. From the %ECC\_INSTALL\_ROOT%\HF3275\utils directory, run **backup.bat**.

---

**Note:** The installation path is %ECC\_INSTALL\_ROOT%.

---

The following screen displays what you might see when executing backup.bat.

```

C:\WINNT\system32\cmd.exe
Parsing Command Line
Initializing variables
Checking Pre-Requisites ...
Detecting Install Root (Backup mode) ...
Detected Original Version = 520
=> Backing Up Start Menu entries ...
12 File(s) copied
=> Backing Up Desktop icons ...
    1 file(s) copied.
    1 file(s) copied.
=> Backing Up Oracle Files ...
288 File(s) copied
=> Backing Up Oracle System Files ...
    1 file(s) copied.
    1 file(s) copied.
    1 file(s) copied.
    1 file(s) copied.
    1 file(s) copied.
=> Backing Up registry keys ...
<01%> Executing product-specific actions
<05%> Forcing ECC service to Manual
<66%> Handling registry keys
<05%> Forcing services to Manual
<66%> Handling registry keys
<30%> Forcing ECC service to Manual
<85%> Handle Registry Values
<88%> Handle Registry Keys
<20%> Forcing ECC services to Manual
<90%> Handling registry keys
<15%> Forcing all ECC services to Manual
<90%> Handling registry keys
<10%> Determine install directory
<20%> Forcing Services to Manual
<70%> Modifying environment values
<80%> Modifying registry values
<82%> Modifying registry values (specific to Oracle)
<90%> Handling registry keys
<09%> Detect ECC Install Directory
<45%> Modify Environment Variables
<54%> Modify Registry Keys (local machine)
<55%> Modify Registry Keys (local machine)
Done. (Success)
=> Backing Up ServicePack key (if necessary)

Backup actions were successful.

=====
IMPORTANT: The backup process is not complete until the following
           folder has been manually backed up:
           %ECC_INSTALL_ROOT% (e:\ECC)

           Please backup this folder and record the folder location.
           The Restore operation will ask you for this location.
=====
Press any key to continue . . . _
    
```

Figure 15 backup.bat example

The following is an example of a Backup.log file located in the %ECC\_INSTALL\_ROOT%\tools\utils folder:

```

Backup_server.log - Notepad
File Edit Format Help
Detected Original version = 512
=> Backing Up Start Menu entries ...
=> Backing Up Desktop icons ...
=> Backing Up registry keys ...
(01%) Executing product-specific actions
(05%) Forcing ECC service to Manual
(66%) Handling registry keys
(20%) Determine Master Agent Install Dir
(30%) Forcing ECC service to Manual
(85%) Handle Registry Values
(88%) Handle Registry Keys
(15%) Forcing all ECC services to Manual
(90%) Handling registry keys
(09%) Detect ECC Install Directory
(45%) Modify Environment Variables
(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(63%) Modify Registry Keys (local machine)
(72%) Modify Registry Keys (current user)
(81%) Modify Registry Keys (default user)
done. (Success)
=> Backing up ServicePack key (if necessary)

Backup actions were successful.

=====
IMPORTANT: The backup process is not complete until the following
           folder has been manually backed up:
           %ECC_INSTALL_ROOT% (C:\ECC)

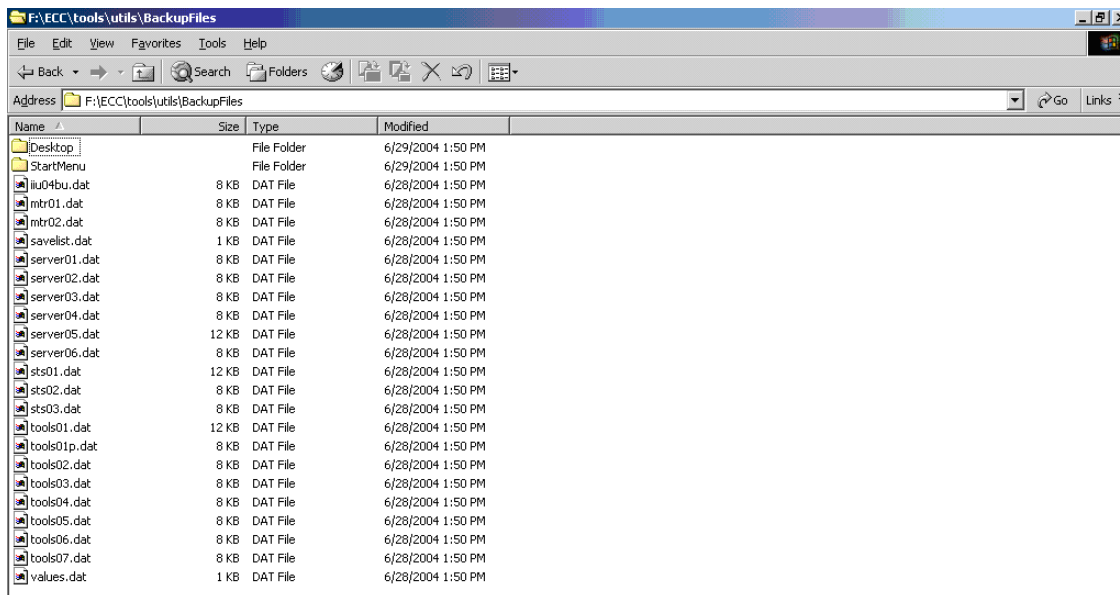
           Please backup this folder and record the folder location.
           The Restore operation will ask you for this location.
=====

```

Figure 16 Backup.log example

## Backup data

This screen is a sample of what you could see. It is based on your host configuration.



**Figure 17** Example of backup data

6. Stop all the services and agents on the Source hosts. Refer to the *EMC ControlCenter 5.2 (SP4 or SP5) Planning and Installation Guide, Volume 1* for a complete list of services.

**Note:** Note that there can be up to five Oracle Services running.

7. Backup all the Source host data to a shared drive. This includes:
  - %ECC\_INSTALL\_ROOT% — Record the location of where you backed up this folder. It is needed during the restore process.
  - if an Archive was installed include: Reports and Archives

**Note:** You can use any program to move the data to the shared drive.

8. Shutdown the Server Source host.

9. On the Server Target host, verify the hostname, the DNS names, and the Network Connections are the same as on the Source host. The Network Names and DNS Entries are bound to the host. If IP addresses are changing, then the DNS must be refreshed within the enterprise and the router tables updated, as long as DNS is set up correctly at the time of the original installation (e.g., Ionix ControlCenter is using all hostnames).

---

**Note:** Any Solaris host that does name caching may need to have their agents restarted if you changed the IP address.

---

10. On the Server host restore all the data from the shared drive. This includes:
  - %ECC\_INSTALL\_ROOT% — The value of %ECC\_INSTALL\_ROOT% must stay the same on the new host as it was on the old host.
  - if an Archive was installed on Source host include: Reports and Archives.

---

**Note:** You can use any program to move the data to the shared drive.

---

11. From the %ECC\_INSTALL\_ROOT%\HF3275\utils directory, run restore.bat.

```

C:\WINNT\system32\cmd.exe
Parsing Command Line
Initializing variables
Checking Pre-Requisites ...
Detecting Install Root (Restore mode) ...
=====
IMPORTANT: This script only works correctly if the folder originally
            specified by %ECC_INSTALL_ROOT% has already been manually
            restored.  If it has not yet been restored, please quit
            this script now, and re-run it after the above-mentioned
            folder has been manually restored.
=====
Please enter a value for %ECC_INSTALL_ROOT% (or enter "quit" to quit)
E:\ECC_
  
```

**Figure 18** running restore.bat

The following is an example of a Restore.log file located in the %ECC\_INSTALL\_ROOT%\tools\utils folder:

```

Restore_server.log - Notepad
File Edit Format Help
Detected Original version = 512
=> Restoring tmp directory ...
=> Removing old (unwanted) Registry entries (STS)
(01%) Executing product-specific actions
(11%) Stopping STS service
(22%) Deleting STS service
(33%) Deleting Storagescope files
(66%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (MTR)
(01%) Executing product-specific actions
(20%) Determine Master Agent Install Dir
ERROR Cannot determine Master Agent Install Directory
ERROR ERROR: return status = 31
NOTE: Above errors for "MTR" removal can be safely ignored.
=> Removing old (unwanted) Registry entries (IGT)
(01%) Executing product-specific actions
(40%) Checking ECC service state
(60%) Deleting ECC services
(80%) Deleting files
(90%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (IGS)
(01%) Executing product-specific actions
(30%) Checking ECC Server service state
(36%) Checking WLA Reports service state
(40%) Checking Enhydra service state
(60%) Deleting files (general)
(75%) Deleting files (specific)
(90%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (Tools)
(01%) Executing product-specific actions
(09%) Detect ECC Install Directory
(27%) Delete Files
(36%) Modify Path String
(45%) Modify Environment variables
(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(63%) Modify Registry Keys (local machine)

```

Figure 19 Restore.log example (screen 1)

```

01: Restore_server.log - Notepad
File Edit Format Help
(72%) Modify Registry Keys (current user)
(81%) Modify Registry Keys (default user)
(99%) Clean Empty Registry Keys
Done. (Success)
=> Removing new (unwanted) Registry entries (WEB)
(01%) Executing product-specific actions
(11%) Stopping services
(22%) Deleting services
(33%) Deleting webConsole files
(66%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (STS)
(01%) Executing product-specific actions
(11%) Stopping STS service
(22%) Deleting STS service
(33%) Deleting StorageScope files
(66%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (MTR)
(01%) Executing product-specific actions
(40%) Stopping MasterAgent service
(50%) waiting additional grace period for service shutdown
(60%) Deleting MasterAgent service
(80%) Deleting files
(85%) Handle Registry values
(88%) Handle Registry Keys
(85%) Removing last ECC Class ID
(90%) Removing empty registry keys
(91%) Removing empty registry keys
(92%) Removing empty registry keys
(93%) Removing empty registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (IGT)
(01%) Executing product-specific actions
(40%) Stopping ECC services
(60%) Deleting ECC services
(80%) Deleting files
(90%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (TGS)

```

Figure 20 Restore.log example (screen 2)

---

```

(01%) Executing product-specific actions
(20%) Stopping ECC services
(30%) Deleting ECC services
(60%) Deleting files (general)
(75%) Deleting files (specific)
(90%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (Tools)
(01%) Executing product-specific actions
(09%) Detect ECC Install Directory
(27%) Delete Files
(36%) Modify Path String
(45%) Modify Environment Variables
(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(99%) Clean Empty Registry Keys
ERROR ERROR: return status = 2
NOTE: Above errors for "Tools" removal can be safely ignored.
=> Restoring registry information ...
(01%) Executing product-specific actions
(09%) Detect ECC Install Directory
(18%) Modify Path String
(45%) Modify Environment Variables
(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(63%) Modify Registry Keys (local machine)
(72%) Modify Registry Keys (current user)
(81%) Modify Registry Keys (default user)
(90%) Handling registry keys
(20%) Determine Master Agent Install Dir
(85%) Handle Registry Values
(88%) Handle Registry Keys
(66%) Handling registry keys
Done. (Success)
=> Restoring Start Menu entries ...
=> Restoring Desktop icons ...
=> Restoring ServicePack key (if necessary)

Restore actions were successful.

```

---

**Figure 21** Restore.log example (screen 3)

12. Reboot the Server Target host.
13. Set services to Automatic on the Server Target host, then start services. Refer to the *EMC ControlCenter 5.2 (SP4 or SP5) Planning and Installation Guide, Volume 1* for a complete list of services.
14. Reinstall the programs uninstalled in <Blue>Step 3 on page 137 to the new Target host(s).
15. Create the identical local user accounts on the Server Target host that were on the Server Source host and the password can be changed for each user account on the Target host. This information is available from the `Eccconsole_loginname.bat` file run in <Blue>Step 3 on page 125 of the Repository migration procedure.



Open the Console. If a Master Agent and Host agent were installed on the source host with HBAs attached, the Host Bus Adapter (HBA) Managed Object (MO) must be deleted and the new instance of the Host must be rediscovered for the proper HBA to be discovered.

The Server migration procedure is complete.

## Store procedure

The Store can be either recovered or migrated. To recover a Store, you have to clean up the repository using installation tools and the console. You can then reinstall the Store on the target host. To migrate, you have to uninstall the Store on the source host, clean up the repository using the console, and then install it on the target host.

---

**Note:** Refer to the *EMC ControlCenter 5.2 (SP4 or SP5) Planning and Installation Guide, Volume 1* for detailed instructions.

---

### Recover a non-functional Store

1. Insert your Ionix ControlCenter 5.2 installation CD #1 in the CD-ROM drive on the target host.
  - If autorun is enabled, the installation wizard relaunches automatically.
  - If autorun is not enabled, launch: < cd\_drive>:\ecc.exe
2. Click **Begin Installing**.
3. Click **Accept** to continue.
4. Specify the installation directory where you want to transfer the installation tools.
5. Click **Next**.
6. The installation wizard displays the following options:
  - Install Ionix ControlCenter Repository
  - Specify Existing Ionix ControlCenter Repository
7. Select **Existing ControlCenter Repository**
8. Cancel out of the installation process.
9. From the command prompt, run %ECC\_INSTALL\_ROOT%\tools\setup.exe -u&nb to uninstall the destroyed Store.

10. Open a console, right-click on the store host and select delete to remove it from the repository.
11. Reinstall the Store on Target host.

**Migrate a functional Store:**

1. Uninstall any Store that is installed.
2. Open a console, right-click on the store host and select **Delete** to remove it from the repository.
3. Shutdown the Store Source host.
4. Reinstall the Store on Target host

## Migrating a Distributed Infrastructure: Scenario 2

Use this procedure to migrate an infrastructure with Ionix ControlCenter Server and Repository on one host and the Store on a different host.

### IMPORTANT

Complete generic steps 1 through 6 on pages 124 through 124 before beginning this procedure.

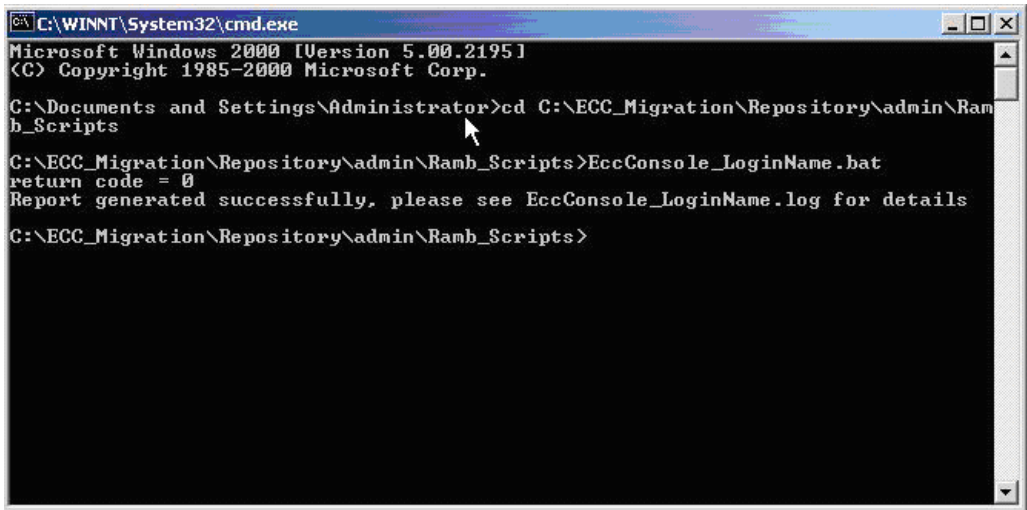
### Repository/Server migration procedure

1. On the Repository/Server source machine, install **Patch3322.zip** from Ionix ControlCenter 6.x Installation Disk #4 or download it from EMC online support and extract the contents to a temporary folder, for example, `c:\migration_scripts`.

**Note:** These scripts are only required for local authentication and not domain authentication.

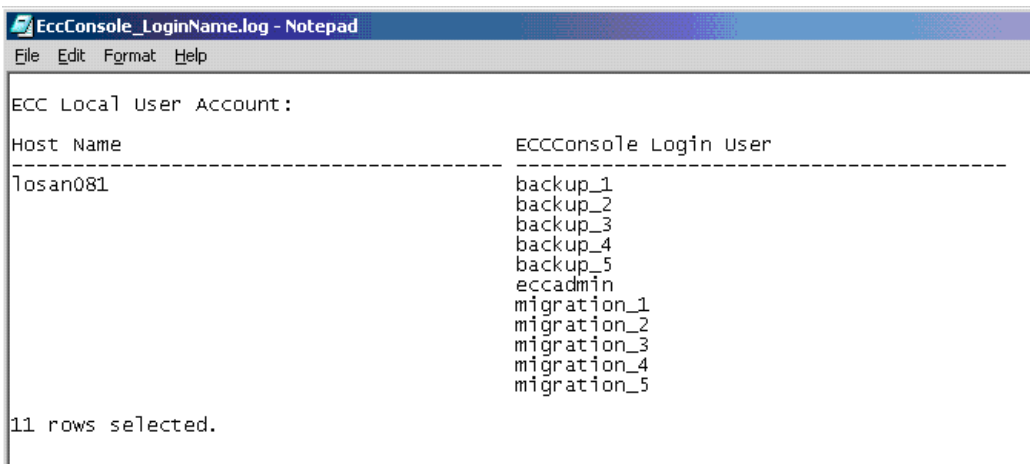
2. Extract two files **EccConsole\_LoginName.bat** and **EccConsole\_LoginName.sql** from the `EccConsole_LoginName.zip` file to the `%RAMBOH%\admin\Ramb_Scripts` directory (Repository/Server host in a distributed environment).
3. Open a DOS Window, type: `cd /d %RAMBOH%\admin\Ramb_Scripts`, and press **Enter**. Type **EccConsole\_LoginName.bat** and press **Enter**.

The following screen is a sample of what you might see when executing `EccConsole_LoginName.bat`.



**Figure 22** Executing EccConsole\_LoginName.bat

The following is an example of a EccConsole\_LoginName.log file located in the %RAMBOH%\admin\Ramb\_Scripts folder.



**Figure 23** EccConsole\_LoginName.bat example

4. Review your local users and groups for reference. Login to the Ionix ControlCenter Console to verify the Ionix ControlCenter Local Users. Select **Administration > Security Management > ECC Users**.

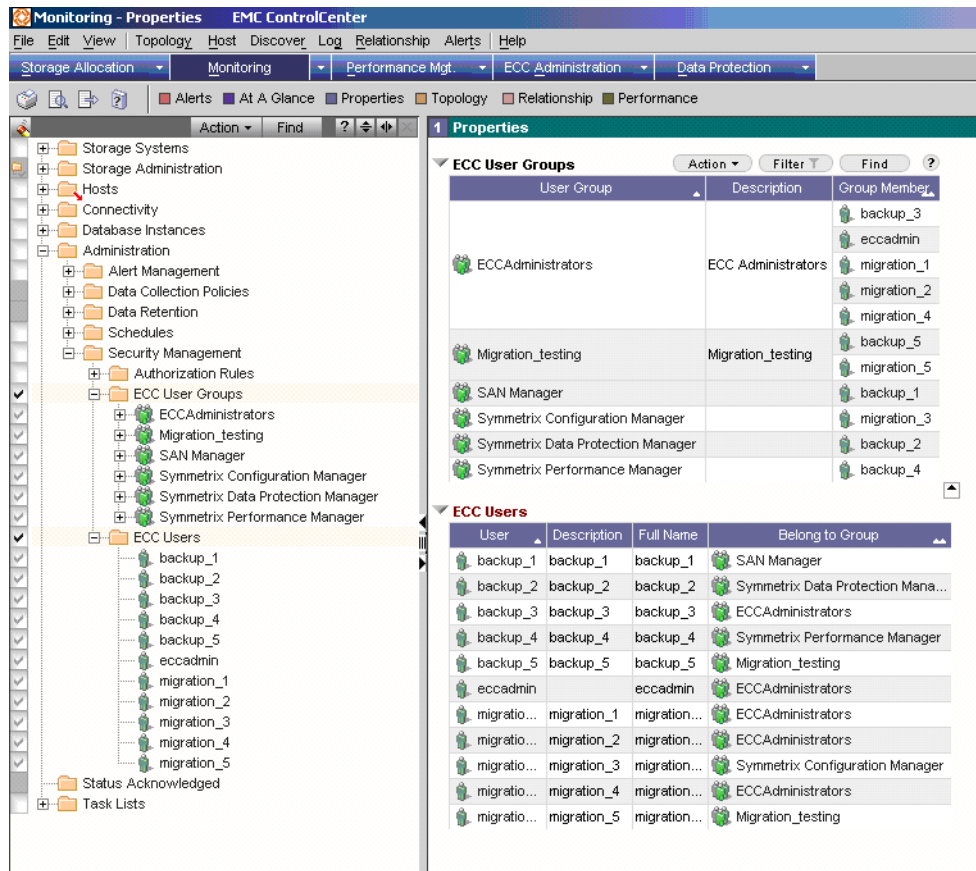


Figure 24 Review local users and groups

5. Verify that Performance View, Console, or ELU has not been installed on the Repository Source hosts that require recovery or migration. If the Performance View, Console, or ELU was installed, uninstall these programs from the Source host and install them on another host. Refer to the *EMC ControlCenter 5.2 (SP4 or SP5) Planning and Installation Guide, Volume 1* for uninstallation instructions.
6. On the Repository/Server source host install **backup.bat** and **restore.bat**:

**Note:** For 5.2.0: From a temporary folder, after executing Patch3322.exe, the hot fix is installed to the %ECC\_INSTALL\_ROOT%\HF3275\utils folder.

7. From the %ECC\_INSTALL\_ROOT%\HF3275\utils directory, run **backup.bat**.

**Note:** The installation path is %ECC\_INSTALL\_ROOT%.

The following screen displays what you might see when executing backup.bat.

```

C:\WINNT\system32\cmd.exe
Parsing Command Line
Initializing variables
Checking Pre-Requisites ...
Detecting Install Root (Backup mode) ...
Detected Original Version = 520
=> Backing Up Start Menu entries ...
12 File(s) copied
=> Backing Up Desktop icons ...
    1 file(s) copied.
    1 file(s) copied.
=> Backing Up Oracle Files ...
288 File(s) copied
=> Backing Up Oracle System Files ...
    1 file(s) copied.
    1 file(s) copied.
    1 file(s) copied.
    1 file(s) copied.
    1 file(s) copied.
=> Backing Up registry keys ...
<01%> Executing product-specific actions
<05%> Forcing ECC service to Manual
<66%> Handling registry keys
<05%> Forcing services to Manual
<66%> Handling registry keys
<30%> Forcing ECC service to Manual
<85%> Handle Registry Values
<88%> Handle Registry Keys
<20%> Forcing ECC services to Manual
<90%> Handling registry keys
<15%> Forcing all ECC services to Manual
<90%> Handling registry keys
<10%> Determine install directory
<20%> Forcing Services to Manual
<70%> Modifying environment values
<80%> Modifying registry values
<82%> Modifying registry values (specific to Oracle)
<90%> Handling registry keys
<09%> Detect ECC Install Directory
<45%> Modify Environment Variables
<54%> Modify Registry Keys (local machine)
<55%> Modify Registry Keys (local machine)
Done. (Success)
=> Backing Up ServicePack key (if necessary)

Backup actions were successful.

=====
IMPORTANT: The backup process is not complete until the following
folder has been manually backed up:
%ECC_INSTALL_ROOT% <e:\ECC>

Please backup this folder and record the folder location.
The Restore operation will ask you for this location.
=====
Press any key to continue . . . _
    
```

Figure 25 Executing backup.bat example

The following is an example of a Backup.log file located in the  
 %ECC\_INSTALL\_ROOT%\tools\utils folder:

```

Backup_rep.log - Notepad
File Edit Format Help
Detected original version = 512
=> Backing up Start Menu entries ...
=> Backing up Desktop icons ...
=> Backing up Oracle Files ...
=> Backing up Oracle System Files ...
=> Backing up registry keys ...
(01%) Executing product-specific actions
(10%) Determine install directory
(20%) Forcing Services to Manual
(70%) Modifying environment values
(80%) Modifying registry values
(89%) Handling registry keys (pv)
(90%) Handling registry keys
(09%) Detect ECC Install Directory
(45%) Modify Environment Variables
(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(63%) Modify Registry Keys (local machine)
(72%) Modify Registry Keys (current user)
(81%) Modify Registry Keys (default user)
done. (Success)
=> Backing up ServicePack key (if necessary)

Backup actions were successful.

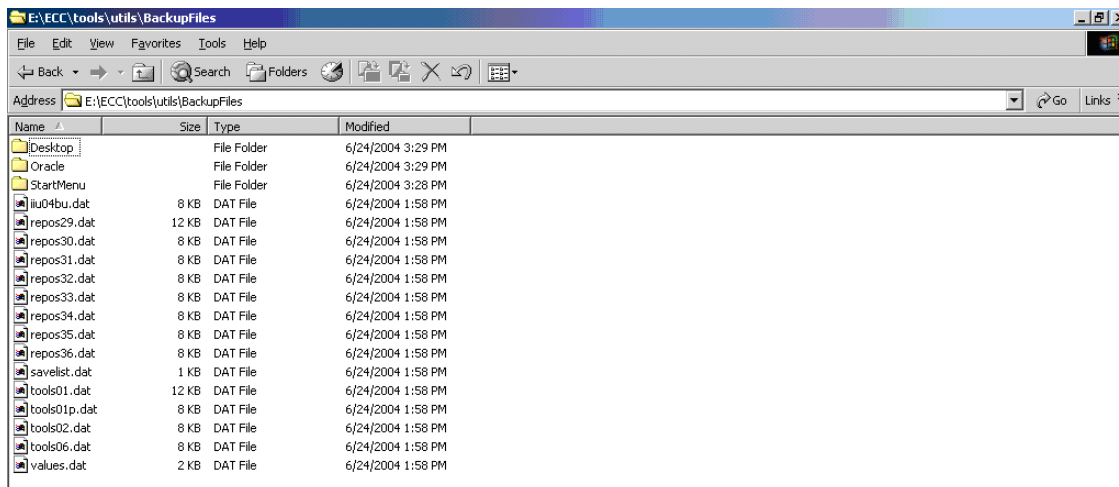
=====
IMPORTANT: The backup process is not complete until the following
           folder has been manually backed up:
           %ECC_INSTALL_ROOT% (C:\ECC)

           Please backup this folder and record the folder location.
           The Restore operation will ask you for this location.
=====
  
```

**Figure 26** Backup.log example

## Backup data

This screen is a sample of what you could see. It is based on your host configuration.



**Figure 27** Backup data example

- Stop all the services and agents on the Source hosts. Refer to the *EMC ControlCenter 5.2 (SP4 or SP5) Planning and Installation Guide, Volume 1* for a complete list of services.

**Note:** There can be up to five Oracle Services running.

- Backup all the Repository/Server host data to a shared drive. This includes:
  - `%ECC_INSTALL_ROOT%` — Record the location of where you backed up this folder. It is needed during the restore process.
  - if an Archive was installed include: Reports and Archives
  - Backup directory — `%RAMBACKUPDIR%`

**Note:** You can use any program to move the data to the shared drive.

- Shutdown the Repository/Server source.
- On the Repository/Server Target host, verify the hostname, the DNS names, and the Network Connections are the same as on the Source host. The Network Names and DNS Entries are bound to the host. If IP addresses are changing, then the DNS



must be refreshed within the enterprise and the router tables updated, as long as DNS was set up correctly at the time of the original installation (e.g., Ionix ControlCenter is using all hostnames).

---

**Note:** Any Solaris host that does name caching may need to have their agents restarted if you changed the IP address.

---

12. On the Repository/Server Target host restore all the data from the shared drive. This includes:
  - %ECC\_INSTALL\_ROOT% — The value of %ECC\_INSTALL\_ROOT% must stay the same on the new host as it was on the old host.
  - if an Archive was installed on Source host include: Reports and Archives
  - Backup directory — %RAMBACKUPDIR%

---

**Note:** You can use any program to move the data to the shared drive.

---

13. From the %ECC\_INSTALL\_ROOT%\HF3275\utils directory, run **restore.bat**.

```

C:\WINNT\system32\cmd.exe
Parsing Command Line
Initializing variables
Checking Pre-Requisites ...
Detecting Install Root (Restore mode) ...
=====
IMPORTANT: This script only works correctly if the folder originally
specified by %ECC_INSTALL_ROOT% has already been manually
restored. If it has not yet been restored, please quit
this script now, and re-run it after the above-mentioned
folder has been manually restored.
=====
Please enter a value for %ECC_INSTALL_ROOT% (or enter "quit" to quit)
E:\ECC_
  
```

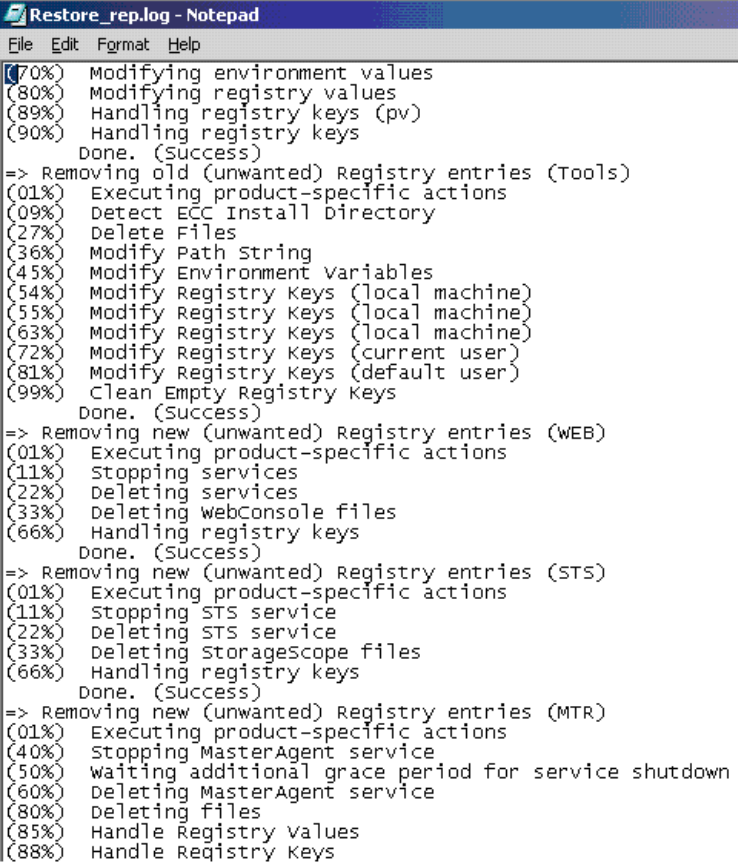
**Figure 28** Running restore.bat

The following is an example of a Restore.log file located in the %ECC\_INSTALL\_ROOT%\tools\utils folder:

```

Restore_rep.log - Notepad
File Edit Format Help
Detected Original version = 512
=> Restoring tmp directory ...
=> Removing old (unwanted) Registry entries (STS)
(01%) Executing product-specific actions
(11%) Stopping STS service
(22%) Deleting STS service
(33%) Deleting StorageScope files
(66%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (MTR)
(01%) Executing product-specific actions
(20%) Determine Master Agent Install Dir
ERROR Cannot determine Master Agent Install Directory
ERROR ERROR: return status = 31
NOTE: Above errors for "MTR" removal can be safely ignored.
=> Removing old (unwanted) Registry entries (IGT)
(01%) Executing product-specific actions
(40%) Checking ECC service state
(60%) Deleting ECC services
(80%) Deleting files
(90%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (IGS)
(01%) Executing product-specific actions
(30%) Checking ECC server service state
(36%) Checking WLA Reports service state
(40%) Checking Enhydra service state
(60%) Deleting files (general)
(75%) Deleting files (specific)
(90%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (IGR)
(01%) Executing product-specific actions
(10%) Determine install directory
(15%) Temporarily stop MSDTC service if necessary
(20%) Stopping ECC services
(30%) Deleting ECC services
(50%) Deleting files
(60%) Modifying Path string
(65%) Restarting temporarily stopped MSDTC service
    
```

Figure 29 Restore.log example



```

Restore_rep.log - Notepad
File Edit Format Help
(70%) Modifying environment values
(80%) Modifying registry values
(89%) Handling registry keys (pv)
(90%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (Tools)
(01%) Executing product-specific actions
(09%) Detect ECC Install Directory
(27%) Delete Files
(36%) Modify Path String
(45%) Modify Environment variables
(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(63%) Modify Registry Keys (local machine)
(72%) Modify Registry Keys (current user)
(81%) Modify Registry Keys (default user)
(99%) Clean Empty Registry Keys
Done. (Success)
=> Removing new (unwanted) Registry entries (WEB)
(01%) Executing product-specific actions
(11%) Stopping services
(22%) Deleting services
(33%) Deleting webConsole files
(66%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (STS)
(01%) Executing product-specific actions
(11%) Stopping STS service
(22%) Deleting STS service
(33%) Deleting StorageScope files
(66%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (MTR)
(01%) Executing product-specific actions
(40%) Stopping MasterAgent service
(50%) Waiting additional grace period for service shutdown
(60%) Deleting MasterAgent service
(80%) Deleting files
(85%) Handle Registry values
(88%) Handle Registry Keys

```

Figure 30 Restore.log example (screen 1)

```

Restore_rep.log - Notepad
File Edit Format Help
(85%) Removing last ECC Class ID
(90%) Removing empty registry keys
(91%) Removing empty registry keys
(92%) Removing empty registry keys
(93%) Removing empty registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (IGT)
(01%) Executing product-specific actions
(40%) Stopping ECC services
(60%) Deleting ECC services
(80%) Deleting files
(90%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (IGS)
(01%) Executing product-specific actions
(20%) Stopping ECC services
(30%) Deleting ECC services
(60%) Deleting files (general)
(75%) Deleting files (specific)
(90%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (IGR)
(01%) Executing product-specific actions
(10%) Determine install directory
(15%) Temporarily stop MSDTC service if necessary
(20%) Stopping ECC services
(30%) Deleting ECC services
(50%) Deleting files
(60%) Modifying Path String
(70%) Modifying environment values
(80%) Modifying registry values
(82%) Modifying registry values (specific to oracle)
(90%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (Tools)
(01%) Executing product-specific actions
(09%) Detect ECC Install Directory
(27%) Delete Files
(36%) Modify Path String
(45%) Modify Environment variables
    
```

Figure 31 Restore.log example (screen 2)

```

(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(99%) Clean Empty Registry Keys
ERROR ERROR: return status = 2
NOTE: Above errors for "Tools" removal can be safely ignored.
=> Removing new (unwanted) Oracle files ...
=> Removing new (unwanted) Oracle system files ...
=> Restoring registry information ...
(01%) Executing product-specific actions
(09%) Detect ECC Install Directory
(18%) Modify Path String
(45%) Modify Environment variables
(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(63%) Modify Registry Keys (local machine)
(72%) Modify Registry Keys (current user)
(81%) Modify Registry Keys (default user)
(10%) Determine install directory
(30%) Modifying Path String
(70%) Modifying environment values
(80%) Modifying registry values
(89%) Handling registry keys (pv)
(90%) Handling registry keys

-----
Done. (Success)
=> Restoring Start Menu entries ...
=> Restoring Desktop icons ...
=> Restoring Oracle Files ...
=> Restoring Oracle System Files ...
=> Restoring ServicePack key (if necessary)

```

Restore actions were successful.

**Figure 32** Restore.log example (screen 3)

14. Reboot the Repository/Server Target host(s).
15. Set services to Automatic on the Target host, then start services. Refer to the *EMC ControlCenter 5.2 (SP4 or SP5) Planning and Installation Guide, Volume 1* for a complete list of services.
16. Reinstall the programs uninstalled in <Blue>Step 5 on page 149 to new Repository/Server Target host(s).
17. Create the identical local user accounts on the Repository/Server Target host that were on the Repository/Server Source host and the password can be changed for each user account on the Target host. This information is available from the `Eccconsole_loginname.bat` file run in <Blue>Step 3 on page 147.

Open the Console. If a Master Agent and Host agent were installed on the Repository/Server source host with HBAs attached, the Host Bus Adapter (HBA) Managed Object (MO) must be deleted and the new instance of the Host must be rediscovered for the proper HBA to be discovered.

The Repository migration portion of the procedure is complete.

## Store procedure

The Store can be either recovered or migrated. To recover a Store, you have to clean up the repository using installation tools and the console. You can then reinstall the Store on the target host. To migrate, you have to uninstall the Store on the source host, clean up the repository using the console, and then install it on the target host.

---

**Note:** Refer to the *EMC ControlCenter 5.2 (SP4 or SP5) Planning and Installation Guide, Volume 1* for detailed instructions.

---

### Recover a non-functional Store:

1. Insert Ionix ControlCenter 5.2 Installation CD #1 in the CD-ROM drive on the target host.
  - If autorun is enabled, the installation wizard relaunches automatically.
  - If autorun is not enabled, launch: < `cd_drive>:\ecc.exe`
2. Click **Begin Installing**.
3. Click **Accept** to continue.
4. Specify the installation directory where you want to transfer the installation tools.
5. Click **Next**.
6. The installation wizard displays the following options:
  - Install Ionix ControlCenter Repository
  - Specify Existing Ionix ControlCenter Repository
7. Select **Existing ControlCenter Repository**
8. Cancel out of the installation process.
9. From the command prompt, run `%ECC_INSTALL_ROOT%\tools\setup.exe -u&db` to uninstall destroyed Store.
10. Open a console, right-click on the store host and select **Delete** to remove it from the repository.
11. Reinstall the Store on Target host.

**Migrate a functional Store:**

1. Uninstall any Store that is installed.
2. Open a console, right-click on the store host and select **Delete** to remove it from the repository.
3. Shutdown the Store Source host.
4. Reinstall the Store on Target host.

## Migrating a Single Host Infrastructure

Use the steps in this section to migrate your single host infrastructure to another host.

### **IMPORTANT**

---

Complete generic steps 1 through 6 on pages 124 through 124 before beginning this procedure.

---

1. Install **Patch3322.zip** from Ionix ControlCenter 6.x Installation Disk #4 or download it from EMC online support and extract the contents to a temporary folder, for example, `c:\migration_scripts`.

---

**Note:** These scripts only apply to local authentication and not domain authentication.

---

2. Extract two files **EccConsole\_LoginName.bat** and **EccConsole\_LoginName.sql** from the `EccConsole_LoginName.zip` file to the `%RAMBOH%\admin\Ramb_Scripts` directory.
3. Review your local users and groups for reference. Login to the Ionix ControlCenter Console to verify the Ionix ControlCenter Local Users. Select **Administration > Security Management > ECC Users**.



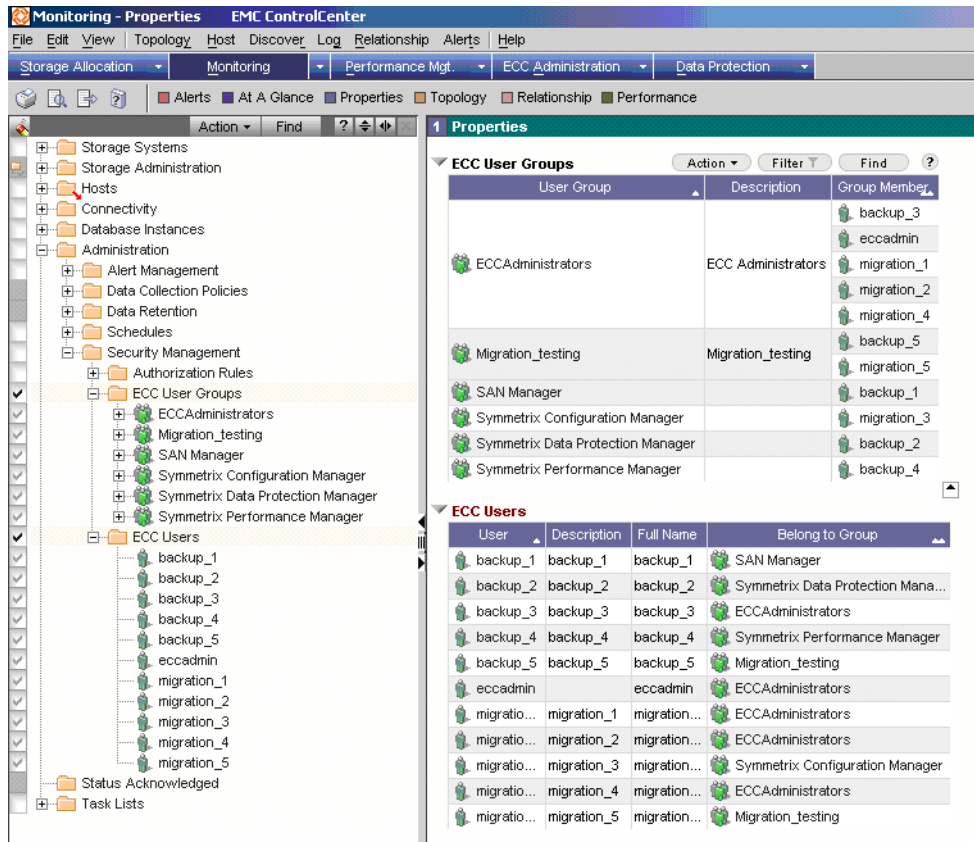
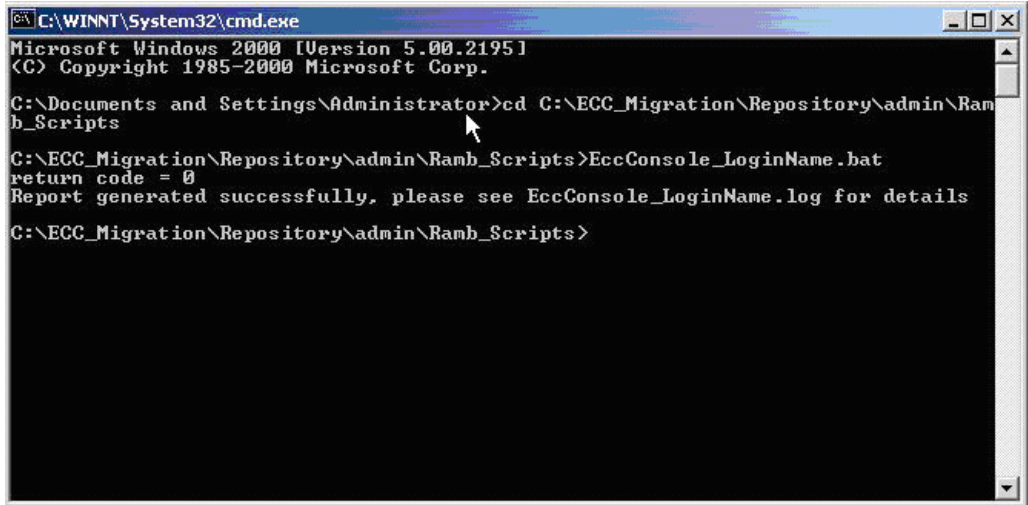


Figure 33 Review local users and groups

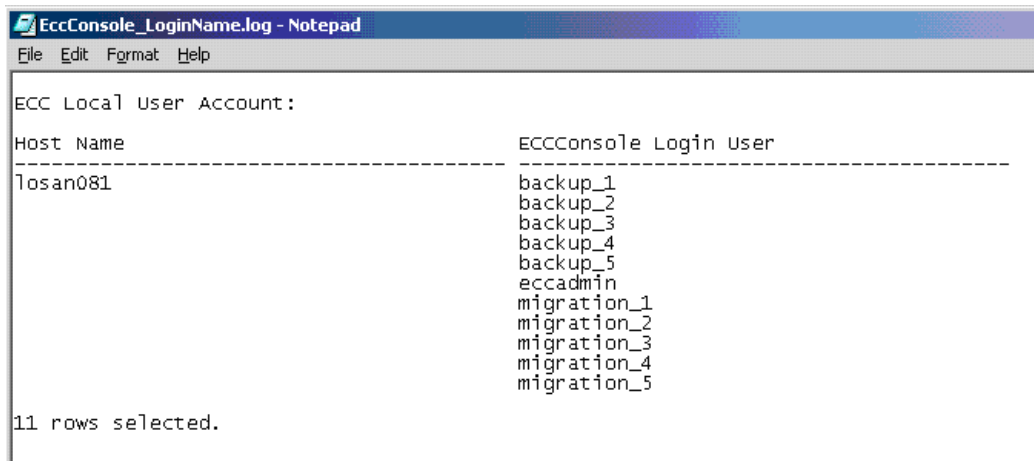
4. Open a DOS Window, type: `cd /d %RAMBOH%\admin\Ramb_Scripts`, and press **Enter**.
5. Type `EccConsole_LoginName.bat` and press **Enter**.

The following screen is a sample of what you might see when executing `EccConsole_LoginName.bat`.



**Figure 34** Executing EccConsole\_LoginName.bat

The following is an example of a EccConsole\_LoginName.log file located in the %RAMBOH%\admin\Ramb\_Scripts folder.



**Figure 35** EccConsole\_LoginName.log example

6. Verify that Performance View, Console, or ELU has not been installed on the Source hosts that require recovery or migration. If the Performance View, Console, or ELU was installed, uninstall these programs from the Source host and install them on another host. Refer to the *EMC ControlCenter 5.2 (SP4 or SP5) Planning and Installation Guide, Volume 1* for a uninstallation instructions.

In the temporary folder, execute **Patch3322.exe**.

From the `%ECC_INSTALL_ROOT%\HF3275\utils` directory, run **backup.bat**.

---

**Note:** The installation path is `%ECC_INSTALL_ROOT%`.

---

The following screen displays what you might see when executing `backup.bat`.

```

C:\WINNT\system32\cmd.exe
Parsing Command Line
Initializing variables
Checking Pre-Requisites ...
Detecting Install Root <Backup mode> ...
Detected Original Version = 520
=> Backing Up Start Menu entries ...
12 File(s) copied
=> Backing Up Desktop icons ...
    1 file(s) copied.
    1 file(s) copied.
=> Backing Up Oracle Files ...
288 File(s) copied
=> Backing Up Oracle System Files ...
    1 file(s) copied.
    1 file(s) copied.
    1 file(s) copied.
    1 file(s) copied.
    1 file(s) copied.
=> Backing Up registry keys ...
<01%> Executing product-specific actions
<05%> Forcing ECC service to Manual
<66%> Handling registry keys
<05%> Forcing services to Manual
<66%> Handling registry keys
<30%> Forcing ECC service to Manual
<85%> Handle Registry Values
<88%> Handle Registry Keys
<20%> Forcing ECC services to Manual
<90%> Handling registry keys
<15%> Forcing all ECC services to Manual
<90%> Handling registry keys
<10%> Determine install directory
<20%> Forcing Services to Manual
<70%> Modifying environment values
<80%> Modifying registry values
<82%> Modifying registry values (specific to Oracle)
<90%> Handling registry keys
<09%> Detect ECC Install Directory
<45%> Modify Environment Variables
<54%> Modify Registry Keys (local machine)
<55%> Modify Registry Keys (local machine)
Done. <Success>
=> Backing Up ServicePack key (if necessary)

Backup actions were successful.

=====
IMPORTANT: The backup process is not complete until the following
           folder has been manually backed up:
           %ECC_INSTALL_ROOT% <e:\ECC>

           Please backup this folder and record the folder location.
           The Restore operation will ask you for this location.
=====
Press any key to continue . . . _
    
```

Figure 36 Backup.bat example

The following is an example of a Backup.log file located in the %ECC\_INSTALL\_ROOT%\tools\utils folder:

```

PKG40E.log - Notepad
File Edit Format Help
Detected Original version = 520
=> Backing Up Start Menu entries ...
=> Backing Up Desktop icons ...
=> Backing Up Oracle Files ...
=> Backing Up Oracle System Files ...
=> Backing up registry keys ...
(01%) Executing product-specific actions
(05%) Forcing ECC service to Manual
(66%) Handling registry keys
(05%) Forcing services to Manual
(66%) Handling registry keys
(30%) Forcing ECC service to Manual
(85%) Handle Registry Values
(88%) Handle Registry Keys
(20%) Forcing ECC services to Manual
(90%) Handling registry keys
(15%) Forcing all ECC services to Manual
(90%) Handling registry keys
(10%) Determine install directory
(20%) Forcing Services to Manual
(70%) Modifying environment values
(80%) Modifying registry values
(82%) Modifying registry values (specific to Oracle)
(90%) Handling registry keys
(09%) Detect ECC Install Directory
(45%) Modify Environment Variables
(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
done. (Success)
=> Backing up ServicePack key (if necessary)

Backup actions were successful.

=====
IMPORTANT: The backup process is not complete until the following
           folder has been manually backed up:
           %ECC_INSTALL_ROOT% (e:\ECC)

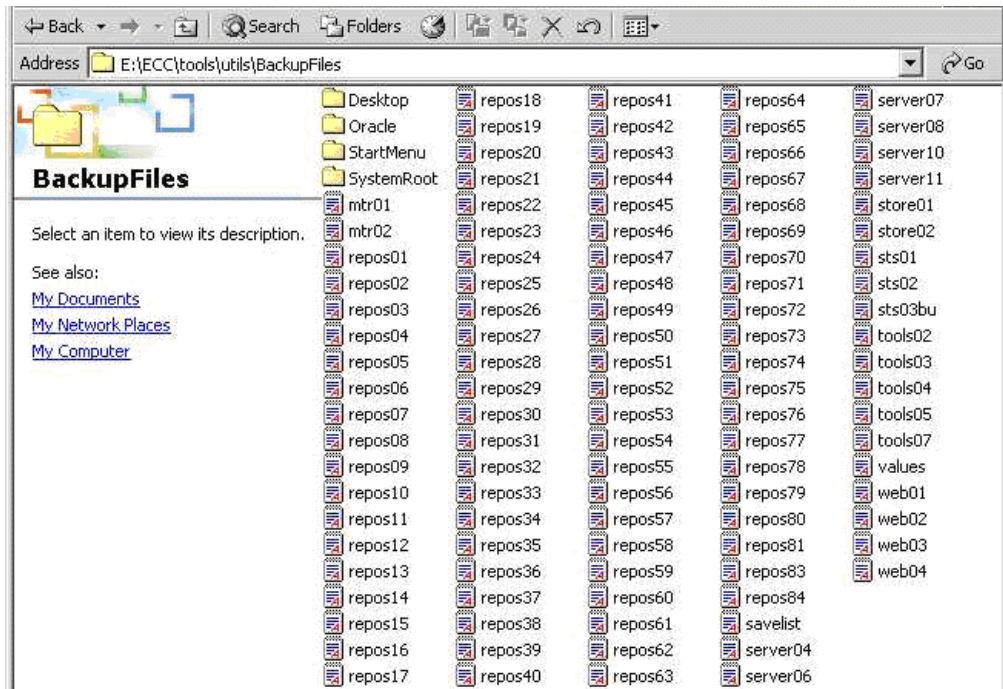
           Please backup this folder and record the folder location.
           The Restore operation will ask you for this location.
=====

```

Figure 37 Backup.log example

## Backup data

This screen is a sample of what you could see. It is based on your host configuration.



**Figure 38** Backup data example

7. Stop all the services and agents on the Source host. Refer to the *EMC ControlCenter 5.2 (SP4 or SP5) Planning and Installation Guide, Volume 1* for a complete list of services.

**Note:** Note that there can be up to five Oracle Services running.

8. Backup all the Source host data to a shared drive. This includes:
  - %ECC\_INSTALL\_ROOT% — Record the location of where you backed up this folder. It is needed during the restore process.
  - if an Archive was installed include: Reports and Archives
  - Backup directory — %RAMBACKUPDIR%

**Note:** You can use any program to move the data to the shared drive.

9. Shutdown the Source host.
10. On the Target host, verify the hostname, the DNS names, and the Network Connections are the same as on the Source host. The Network Names and DNS Entries are bound to the host. If IP addresses are changing, then the DNS must be refreshed within the enterprise and the router tables updated, as long as DNS is set up correctly at the time of the original installation (e.g., Ionix ControlCenter is using all hostnames).

---

**Note:** Any Solaris host that does name caching may need to have their agents restarted if you changed the IP address.

---

11. On the Target host restore all the data from the shared drive. This includes:
  - %ECC\_INSTALL\_ROOT%
  - if an Archive was installed on Source host include: Reports and Archives
  - Backup directory — %RAMBACKUPDIR%

---

**Note:** You can use any program to move the data to the shared drive.

---

12. From the %ECC\_INSTALL\_ROOT%\HF3275\utils directory run **restore.bat**.

```

C:\WINNT\system32\cmd.exe
Parsing Command Line
Initializing variables
Checking Pre-Requisites ...
Detecting Install Root (Restore mode) ...
=====
IMPORTANT: This script only works correctly if the folder originally
           specified by %ECC_INSTALL_ROOT% has already been manually
           restored.  If it has not yet been restored, please quit
           this script now, and re-run it after the above-mentioned
           folder has been manually restored.
=====
Please enter a value for %ECC_INSTALL_ROOT% (or enter "quit" to quit)
E:\ECC_

```

**Figure 39** Running restore.bat

The following is an example of a Restore.log file located in the %ECC\_INSTALL\_ROOT%\tools\utils folder:

```

PKG417.log - Notepad
File Edit Format Help
Detected original version = 520
=> Restoring tmp directory ...
=> Removing old (unwanted) Registry entries (STS)
(01%) Executing product-specific actions
(11%) Stopping STS service
(22%) Deleting STS service
(33%) Deleting StorageScope files
(66%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (MTR)
(01%) Executing product-specific actions
(40%) Stopping MasterAgent service
(50%) waiting additional grace period for service shutdown
(60%) Deleting MasterAgent service
(80%) Deleting files
(85%) Handle Registry values
(88%) Handle Registry Keys
(85%) Removing last ECC Class ID
(90%) Removing empty registry keys
(91%) Removing empty registry keys
(92%) Removing empty registry keys
(93%) Removing empty registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (IGT)
(01%) Executing product-specific actions
(40%) Stopping ECC services
(60%) Deleting ECC services
(80%) Deleting files
(90%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (IGS)
(01%) Executing product-specific actions
(20%) Stopping ECC services
(30%) Deleting ECC services
(60%) Deleting files (general)
(75%) Deleting files (specific)
(90%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (IGR)
(01%) Executing product-specific actions
(10%) Determine install directory
(15%) Temporarily stop MSDTC service if necessary
(20%) Stopping ECC services
(30%) Deleting ECC services
(50%) Deleting files
(60%) Modifying Path String
(70%) Modifying environment values
(80%) Modifying registry values
(82%) Modifying registry values (specific to oracle)
(90%) Handling registry keys
Done. (Success)
=> Removing old (unwanted) Registry entries (Tools)

```

Figure 40 Restore.log example (screen 1)



```

(01%) Executing product-specific actions
(09%) Detect ECC Install Directory
(27%) Delete Files
(36%) Modify Path String
(45%) Modify Environment Variables
(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(99%) Clean Empty Registry Keys
ERROR ERROR: return status = 2
NOTE: Above errors for "Tools" removal can be safely ignored.
=> Removing new (unwanted) registry entries (WEB)
(01%) Executing product-specific actions
(11%) Stopping services
(22%) Deleting services
(33%) Deleting webConsole files
(66%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (STS)
(01%) Executing product-specific actions
(11%) Stopping STS service
(22%) Deleting STS service
(33%) Deleting StorageScope files
(66%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (MTR)
(01%) Executing product-specific actions
(40%) Stopping MasterAgent service
(50%) waiting additional grace period for service shutdown
(60%) Deleting MasterAgent service
(80%) Deleting files
(85%) Handle Registry values
(88%) Handle Registry Keys
(85%) Removing last ECC Class ID
(90%) Removing empty registry keys
(91%) Removing empty registry keys
(92%) Removing empty registry keys
(93%) Removing empty registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (IGT)
(01%) Executing product-specific actions
(40%) Stopping ECC services
(60%) Deleting ECC services
(80%) Deleting files
(90%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (IGS)
(01%) Executing product-specific actions
(20%) Stopping ECC services
(30%) Deleting ECC services
(60%) Deleting files (general)
(75%) Deleting files (specific)
(90%) Handling registry keys

```

**Figure 41** Restore.log example (screen 2)

```

        Done. (Success)
=> Removing new (unwanted) Registry entries (IGR)
(01%) Executing product-specific actions
(10%) Determine install directory
(15%) Temporarily stop MSDTC service if necessary
(20%) Stopping ECC services
(30%) Deleting ECC services
(50%) Deleting files
(60%) Modifying Path String
(70%) Modifying environment values
(80%) Modifying registry values
(82%) Modifying registry values (specific to oracle)
(90%) Handling registry keys
Done. (Success)
=> Removing new (unwanted) Registry entries (Tools)
(01%) Executing product-specific actions
(09%) Detect ECC Install Directory
(27%) Delete Files
(36%) Modify Path String
(45%) Modify Environment Variables
(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(99%) Clean Empty Registry Keys
ERROR ERROR: return status = 2
NOTE: Above errors for "Tools" removal can be safely ignored.
=> Removing new (unwanted) Oracle files ...
=> Removing new (unwanted) Oracle system files ...
=> Restoring registry information ...
(01%) Executing product-specific actions
(09%) Detect ECC Install Directory
(18%) Modify Path string
(45%) Modify Environment Variables
(54%) Modify Registry Keys (local machine)
(55%) Modify Registry Keys (local machine)
(10%) Determine install directory
(30%) Modifying Path String
(70%) Modifying environment values
(80%) Modifying registry values
(82%) Modifying registry values (specific to oracle)
(90%) Handling registry keys
(90%) Handling registry keys
(90%) Handling registry keys
(85%) Handle Registry Values
(88%) Handle Registry keys
(66%) Handling registry keys
(66%) Handling registry keys
Done. (Success)
=> Restoring Start Menu entries ...
=> Restoring Desktop icons ...
=> Restoring Oracle Files ...
=> Restoring Oracle System Files ...
=> Restoring ServicePack key (if necessary)

```

**Figure 42** Restore.log example (screen 3)

13. Reboot the Target host.
14. Set services to Automatic on the Target host, then start services. Refer to the *EMC ControlCenter 5.2 (SP4 or SP5) Planning and Installation Guide, Volume 1* for a complete list of services.
15. Reinstall the programs uninstalled in <Blue>Step 6 on page 163 to new Target host.

16. Create the identical local user accounts on the Target host that were on the Source host and the password can be changed for each user account on the Target host. This information is available from the `Ecccconsole_loginname.bat` file run in <Blue>Step 5 on page 161.
17. Open the Console. If a Master Agent and Host agent were installed on the source host with HBAs attached, the Host Bus Adapter (HBA) Managed Object (MO) must be deleted and the new instance of the Host must be rediscovered for the proper HBA to be discovered.

The procedure is complete.



# APPENDIX C

## StorageScope Data Migration Utility

This appendix contains instructions for using the StorageScope Repository Data Migration tool, which migrates report data from the StorageScope 5.2.x (SP4 or SP5) XML Repository to the StorageScope 6.1 Repository.

- ◆ [Introduction .....](#) 174
- ◆ [Operation Instructions .....](#) 175
- ◆ [Troubleshooting .....](#) 179

## Introduction

In StorageScope 5.2.x, report data was maintained in XML files that resided on the file system of the StorageScope application server. When building reports, StorageScope would poll the data contained in this XML Repository and use it to present point-in-time or historical data about the managed environment.

In StorageScope 6.1, data about the managed environment is polled from the Ionix Ionix ControlCenter Repository and written to a dedicated StorageScope Repository database, which uses the data for daily snapshots, summary and trending reports.

After successfully upgrading from StorageScope 5.2 SP4 or SP5 to 6.1, the utility documented here must be run to migrate the XML data from the old 5.2.x XML Repository to the new StorageScope 6.1 Repository. The migrated information will then be available as weekly and monthly historical data.

The following information is migrated using this utility:

- ◆ Arrays
- ◆ Hosts
- ◆ NAS
- ◆ Connectivity
- ◆ Database
- ◆ CAS (Optional)
- ◆ User-Defined Groups (Optional)

# Operation Instructions

## Prerequisites

Before using the utility, you must have the following information ready:

- ◆ The range of dates for which you wish to migrate historical data from the StorageScope 5.2.x XML Repository to the StorageScope 6.1 Repository
- ◆ Hostname for the system on which the StorageScope 6.1 Repository resides
- ◆ Name (Oracle SID) of the StorageScope 6.1 Repository
- ◆ StorageScope 6.1 Repository Port

The following prerequisites also apply:

- ◆ Ionix ControlCenter and StorageScope must be successfully updated to version 6.1.
- ◆ The Ionix ControlCenter repository must be successfully upgraded and migrated to version 6.1.
- ◆ You must perform ETL before running the migration utility. To run ETL from StorageScope manually:
  1. On the Utilities menu, select **Settings > ETL Scheduler** to open the ETL Scheduler page.
  2. Click **Run Now**.
  3. Click **Refresh** to update the status of ETL as it is running.

Refer to the StorageScope 6.1 online help topic "Running ETL manually" for more information.

- ◆ The Data Migration Utility needs local or network access to the File System containing the 5.2.x XML Repository.
- ◆ Make a backup of the StorageScope 6.1 Repository prior to running the Data Migration Utility; the utility does not back up the StorageScope 6.1 Repository prior to updating it.

- ◆ While running, the Data Migration Utility will create temporary tables in the StorageScope 6.1 Repository. The utility writes data into these tables before writing permanent data to the trending tables. Once the migration is complete, these temporary tables are deleted. Make sure that there is sufficient disk or quota space for these extra tables prior to running the migration.

**⚠ WARNING**

**The StorageScope application must be shut down before running the data migration utility. Also, verify that there are no other data migrations in progress before running the utility.**

---

## Performance Considerations

While the Data Migration utility is running, performance in the Ionix ControlCenter and StorageScope infrastructures will be reduced, and access to the StorageScope repository will be disrupted. As such, EMC recommends that you run the Data Migration Utility only at a time when user access to Ionix ControlCenter and StorageScope are not required.

If you are migrating a very large amount of data, the StorageScope repository may be unavailable for an extended period of time. EMC recommends that you migrate large amounts of information in stages (i.e. one year at a time) to minimize the performance impact.

## Using the Data Migration Utility

To use the StorageScope Data Migration Utility to migrate data from the StorageScope 5.2.x XML Repository to the StorageScope 6.1 Repository:

**⚠ WARNING**

**The StorageScope application must be shut down before running the data migration utility. Also, verify that there are no other data migrations in progress before running the utility.**

---

1. Before running the utility, review the information under [“Prerequisites” on page 175](#).
2. On the StorageScope application server, open the Windows Command Prompt.
3. Navigate to `<ECC_ROOT>\Tomcat\webapps\srm\bin`.



4. Enter **STSMigrate.bat** to launch the Data Migration Utility.
5. Enter the location of the XML Repository, either as a Windows directory or a UNC path; press <ENTER> to accept it.

---

**Note:** If there are multiple sites contained in the StorageScope 5.2.x Repository, the utility will warn you that it can only migrate data from the primary site.

---

6. Enter the first date for which data should be migrated, in MM/DD/YYYY format. The default value is the first date for which data exists; press <ENTER> to accept it.
7. Enter the last date for which data should be migrated, in MM/DD/YYYY format. The default value is the last date for which data exists; press <ENTER> to accept it. After you have entered the range of dates, the utility confirms the number of days for which data is being migrated.
8. Enter the name of the host on which the StorageScope Repository resides, or press <ENTER> to accept the default value of localhost.
9. Enter the name (SID) of the StorageScope Repository, or press <ENTER> to accept the default value.
10. Enter the port through on the host through which the StorageScope repository is accessed. To accept the default Oracle port (1521), press <ENTER>.
11. When prompted, choose whether to migrate CAS (Content-Addressable Storage) data.
12. When prompted, choose whether to migrate User-Defined Group data.
13. When prompted, choose whether to proceed with the migration using the selected options. The migration utility will run, providing updates on the progress of the data migration.
14. After the migration has completed, re-start the StorageScope web application.
15. Run ETL.

## Stopping the Migration Utility

If you need to abort the migration while the utility is running, follow the instructions below:

1. On the StorageScope application server, open the Windows Command Prompt.

2. Navigate to `<ECC_ROOT>\Tomcat\webapps\srm\bin`.
3. Enter **STSMigrate.bat stop** to stop the migration.



**If you stop the migration, the operation will stop at its current point; no data will be rolled back, even if the transfer of data or the population of trending tables is incomplete. After aborting the migration, you must restore your StorageScope Repository to the last saved backup before re-running the utility or using StorageScope.**

---

## After Migrating XML Data

After you have used the utility, restart StorageScope and re-run ETL, the following conditions will be in place:

- ◆ The StorageScope Repository will contain the migrated XML data, which will reside in the 6.1 Repository as weekly and monthly trending data.
- ◆ The trending data will be available for incorporation into queries and reports.
- ◆ Based on the configuration of the managed environment, the data will appear as current or historical information. For example, information about objects that are no longer in the environment will appear as historical data.
- ◆ If both current and historical data about a managed object exist for a given period of time, the imported historical data will overwrite the current data for that period of time. However, the next time the regularly-scheduled batch job populating the trend data tables runs, the current data for that time period will be restored.

# Troubleshooting

While running the Data Migration Utility, you may encounter one of the errors described in the table below.

**Note:** Error messages are also written to the migration utility's log file, **STS\_Migration.log**, which is located in the same folder as the StorageScope application logs.

**Table 14** StorageScope Data Migration Utility Error Messages

Error Message	Description	Response
No StorageScope (Version 5) XML Repository found at supplied location, or supplied date range results in zero reports.	One or both of the following: 1) There is no StorageScope 5.2.x XML Repository at the location specified; 2) The supplied date range does not contain any report information.	Verify that the path to the XML Repository is correct and that you have entered a range of dates for which report data exists. Then, re-run the data-migration utility.
One or more dates was invalid, or date range of <date> to <date> does not fall within range of XML Repository.	One or both of the specified dates is invalid or incorrectly formatted, or the supplied date range does not contain any report information.	Verify that you have entered valid dates for which report data exists and re-run the migration utility.
Unable to access StorageScope (Version 6) Repository with supplied information.	One or more of the following attributes of the StorageScope 6.1 repository was incorrectly entered: hostname, SID or port number.	Verify that you have entered the correct information and re-run the migration utility.
No conversion descriptor files loaded.	The StorageScope migration tool installation has missing or incomplete files.	Reinstall StorageScope 6.1, which will reinstall the migration tool.
That is not a valid numeric port value.	The specified port for the StorageScope 6.1 Repository is not valid.	Re-enter the correct port number.
One or more conversion descriptor files failed to load: {filename}.	The StorageScope migration tool installation has missing or incomplete files.	Reinstall StorageScope 6.1, which will reinstall the migration tool.
That is not a valid numeric port value.	The port number entered is not valid.	Re-enter a valid port number.

**Table 14** StorageScope Data Migration Utility Error Messages (continued)

Error Message	Description	Response
Unable to connect to StorageScope Repository with entered information.	The login information used to connect to the StorageScope repository is invalid.	Review the login information and re-enter correct values.
Invalid location [Path] entered.	The Data Migration utility cannot locate the 5.2.x XML Repository at the specified path.	Provide the location of the XML Repository.
Failed sending “stop” message. Unable to request migration stop.	The command to stop the data migration has failed.	Re-try the “stop” command or restore the backup of the StorageScope 6.0 Repository after the data migration has completed.

# APPENDIX D

## Using Native Tools to Upgrade Agents

This appendix describes alternate methods for upgrading some ControlCenter Agents using Native Tools.

This appendix contains the following topics:

- ◆ [Native Tools Overview](#) ..... 182
- ◆ [Upgrading Agents with UNIX Native Tools](#) ..... 183
- ◆ [Upgrading Agents with Windows Native Tools](#)..... 191

## Native Tools Overview

Native Tools for UNIX and Windows platforms provide an alternative method for installing, uninstalling, and upgrading the following types of agents:

- ◆ Master Agent
- ◆ Host Agent
- ◆ Database Agent for Oracle
- ◆ Common Mapping Agent
- ◆ Symmetrix SDM Agent
- ◆ Storage Agent for Symmetrix

**⚠ CAUTION**

Please review *Agent Support and Platform Requirements* in the *Ionix ControlCenter 6.1 Support Matrix* before proceeding with any Native Install as some agents are not supported on some platforms.

Reasons for using Native Tools to install, uninstall, or upgrade agents as opposed to using the Ionix ControlCenter Console or in the case of Master Agents, the 6.1 install CD #4:

- ◆ There are *a large number of hosts in the environment* requiring Master, Host, Database Agent for Oracle, Symmetrix SDM Agent, Storage Agent for Symmetrix, or Common Mapping Agent installs, uninstalls, upgrades or agent version updates. Using Native Tools provides the user with a time saving scripted method for deploying agents to a large number of hosts.
- ◆ A Storage Administrator needs to install, uninstall, or upgrade agents on hosts that he or she *does not have permission to install software on*. In this case the Storage Administrator can provide the System Administrator, *who does have permission to install*, with the necessary Native Tools to perform the required agent installs, uninstalls, or upgrades.
- ◆ 6.1 Windows Master Agent installs, uninstalls, and upgrades can only be done using Windows Native Tools. (*see EMC Technical Advisory Solution ID emc200573 for details*).

See this *Appendix D - Using Native Tools to Upgrade Agents* for information on upgrading agents using Native Tools.

See *Appendix G - Using Native Tools to Install and Uninstall Agents* in the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Vol.1* for information on installing and uninstalling agents using Native Tools.

## Upgrading Agents with UNIX Native Tools

**Table 15** Agents Available for UNIX Native Upgrade

AIX	HP-UX	Linux	SunOS
Master Agent	Master Agent	Master Agent	Master Agent
Host Agent	Host Agent	Host Agent	Host Agent
Database Agent for Oracle	Database Agent for Oracle		Database Agent for Oracle
			Common Mapping Agent
Storage Agent for Symmetrix	Storage Agent for Symmetrix		Storage Agent for Symmetrix
Symmetrix Agent for SDM	Symmetrix Agent for SDM		Symmetrix Agent for SDM

**Note:** If you upgrade other agents via the Console, remember you must restart the Master Agent following upgrade.

**Table 16** Files Used by UNIX Native Installers

AIX	HP-UX	Linux	SunOS
ECCAGENTS.bff	ECCMAGT	magent.rpm	ECCMAGT
- ECCAGENTS.MASTER	ECCHAGT	hagent.rpm	ECCHAGT
- ECCAGENTS.HOST	ECCOAGT		ECCOAGT
- ECCAGENTS.ORACLE	ECCSAGT		ECCSAGT

**Table 16** Files Used by UNIX Native Installers

AIX	HP-UX	Linux	SunOS
- ECCAGENTS.SYMMETRIX	ECCDAGT		ECCSAGT
- ECCAGENTS.SDM			ECCDAGT
install_native.sh	install_native.sh	install_native.sh	install_native.sh

**Note:** Native Upgrade is only supported for 5.2 SP4 and higher.

**CAUTION**

Please review Agent Support and Platform Requirements in the *EMC Ionix ControlCenter 6.1 Support Matrix* before proceeding with any Native Upgrade as some agents are not supported on some platforms.

**Note:** For information regarding Native Installs and Native Un-Installs see *Appendix G* in the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Vol. 1*

Download the Ionix ControlCenter 6.1 Native Installers from the EMC online support website (registration required) at:

<http://Support.EMC.com>

- ◆ Create a directory to download to, i.e. `/usr/cc61native`.
- ◆ Download the AIX Native Installers folder to:  
`/usr/cc61native`
- ◆ Download the HP-UX Native Installers folder to:  
`/usr/cc61native`
- ◆ Download the Linux Native Installers folder to:  
`/usr/cc61native`
- ◆ Download the SunOS Native Installers folder to:  
`/usr/cc61native`
- ◆ Download the `install_native.sh` Native Install file to:  
`/usr/cc61native`



## AIX Native Upgrades

While logged in as root, enter the following command, specifying the mount point as an argument:

```
install_native.sh <mount_point>
```

### For example:

```
./install_native.sh /usr/cc61native
```

1. The program displays the following message:

```
Log File is located at
<ECC root directory>/install_native.log
```

2. The program displays what version of Master Agent it found and that it is setting itself to Upgrade Mode:

```
A 6.0 Master Agent was found. Setting upgrade mode.
```

3. In upgrade mode the program upgrades the Master Agent and automatically upgrades the Host Agent, Database Agent for Oracle, Symmetrix SDM Agent, and Storage Agent for Symmetrix, if found.
4. If the Host Agent, Database Agent for Oracle, Symmetrix SDM Agent, and/or Storage Agent for Symmetrix are not found the system prompts you asking if you want to install them:

```
Do you want to install the EMC ControlCenter Host Agent
[Y:N] :
```

5. Respond with one of the following:

- **y**, to tell ControlCenter you want to install the 6.1 Host Agent.
- **n**, to tell ControlCenter you *do not* want to install the 6.1 Host Agent.

```
Do you want to install the EMC ControlCenter Database
Agent for Oracle [Y:N] :
```

6. Respond with one of the following:

- **y**, to tell ControlCenter you want to install the 6.1 Database Agent for Oracle.
- **n**, to tell ControlCenter you *do not* want to install the 6.1 Database Agent for Oracle.

```
Do you want to install the EMC ControlCenter Symmetrix
Agent [Y:N] :
```

7. Respond with one of the following:

- **y**, to tell ControlCenter you want to install the 6.1 Storage Agent for Symmetrix.
- **n**, to tell ControlCenter you *do not* want to install the 6.1 Storage Agent for Symmetrix.

```
Do you want to install the EMC ControlCenter Symmetrix SDM
Agent [Y:N] :
```

8. Respond with one of the following:

- **y**, to tell ControlCenter you want to install the 6.1 Symmetrix SDM Agent.
- **n**, to tell ControlCenter you *do not* want to install the 6.1 Symmetrix SDM Agent.

9. The program displays what it is upgrading and/or installing and finishes by displaying:

```
Please refer to
<ECC root directory>/install_native.log
for any issues with the Upgrade.
```

10. Start the Master Agent.

## HP-UX Native Upgrades

While logged in as root, enter the following command, specifying the mount point as an argument:

```
install_native.sh <mount_point>
```

**For example:**

```
./install_native.sh /usr/cc61native
```

1. The program displays the following message:

```
Log File is located at
<ECC root directory>/install_native.log
```

2. The program displays what version of Master Agent it found and that it is setting itself to Upgrade Mode:

A 6.0 Master Agent was found. Setting upgrade mode.

3. In `upgrade` mode the program upgrades the Master Agent and automatically upgrades the Host Agent, Database Agent for Oracle, Symmetrix SDM Agent, and/or Storage Agent for Symmetrix, if found.
4. If the Host Agent, Database Agent for Oracle, Symmetrix SDM Agent, and/or Storage Agent for Symmetrix are not found the system prompts you asking if you want to install them:

Do you want to install the EMC ControlCenter Host Agent [Y:N] :

5. Respond with one of the following:

- **y**, to tell ControlCenter you want to install the 6.1 Host Agent.
- **n**, to tell ControlCenter you *do not* want to install the 6.1 Host Agent.

Do you want to install the EMC ControlCenter Database Agent for Oracle [Y:N] :

6. Respond with one of the following:

- **y**, to tell ControlCenter you want to install the 6.1 Database Agent for Oracle.
- **n**, to tell ControlCenter you *do not* want to install the 6.1 Database Agent for Oracle.

Do you want to install the EMC ControlCenter Symmetrix Agent [Y:N] :

7. Respond with one of the following:

- **y**, to tell ControlCenter you want to install the 6.1 Storage Agent for Symmetrix.
- **n**, to tell ControlCenter you *do not* want to install the 6.1 Storage Agent for Symmetrix.

Do you want to install the EMC ControlCenter Symmetrix SDM Agent [Y:N] :

8. Respond with one of the following:

- **y**, to tell ControlCenter you want to install the 6.1 Symmetrix SDM Agent.

- **n**, to tell ControlCenter you *do not* want to install the 6.1 Symmetrix SDM Agent.
9. The program displays what it is upgrading and/or installing and finishes by displaying:  
  
Please refer to  
<ECC root directory>/install\_native.log  
for any issues with the Upgrade.
  10. Start the Master Agent.

## Linux Native Upgrades

While logged in as root, enter the following command, specifying the mount point as an argument:

```
install_native.sh <mount_point>
```

### For example:

```
./install_native.sh /usr/cc61native
```

1. The program displays the following message:  
  
Log File is located at  
<ECC root directory>/install\_native.log
2. The program displays what version of Master Agent it found and that it is setting itself to Upgrade Mode:  
  
A 6.0 Master Agent was found. Setting upgrade mode.
3. In upgrade mode the program upgrades the Master Agent and automatically upgrades the Host Agent if found.
4. If the Host Agent is not found the system prompts you asking if you want to install it:  
  
Do you want to install the EMC ControlCenter Host Agent  
[Y:N] :
5. Respond with one of the following:
  - **y**, to tell ControlCenter you want to install the 6.1 Host Agent.
  - **n**, to tell ControlCenter you *do not* want to install the 6.1 Host Agent.

6. The program displays what it is upgrading and/or installing and finishes by displaying:

```
Please refer to
<ECC root directory>/install_native.log
for any issues with the Upgrade.
```

## Solaris Native Upgrades

While logged in as root, enter the following command, specifying the mount point as an argument:

```
install_native.sh <mount_point>
```

### For example:

```
./install_native.sh /usr/cc61native
```

1. The program displays the following message:

```
Log File is located at
<ECC root directory>/install_native.log
```

2. The program displays what version of Master Agent it found and that it is setting itself to Upgrade Mode:

```
A 6.0 Master Agent was found. Setting upgrade mode.
```

3. In upgrade mode the program upgrades the Master Agent and automatically upgrades the Host Agent, the Database Agent for Oracle, the Common Mapping Agent, Symmetrix SDM Agent, and/or Storage Agent for Symmetrix, if found.
4. If the Host Agent, Database Agent for Oracle, Common Mapping Agent, Symmetrix SDM Agent, and/or Storage Agent for Symmetrix are not found the system prompts you asking if you want to install them:

```
Do you want to install the EMC ControlCenter Host Agent
[Y:N] :
```

5. Respond with one of the following:

- **y**, to tell ControlCenter you want to install the 6.1 Host Agent.
- **n**, to tell ControlCenter you *do not* want to install the 6.1 Host Agent.

```
Do you want to install the EMC ControlCenter Database
Agent for Oracle [Y:N] :
```

6. Respond with one of the following:

- **y**, to tell ControlCenter you want to install the 6.1 Database Agent for Oracle.
- **n**, to tell ControlCenter you *do not* want to install the 6.1 Database Agent for Oracle.

Do you want to install the EMC ControlCenter Common Mapping Agent [Y:N] :

7. Respond with one of the following:

- **y**, to tell ControlCenter you want to install the 6.1 Common Mapping Agent.
- **n**, to tell ControlCenter you *do not* want to install the 6.1 Common Mapping Agent.

Do you want to install the EMC ControlCenter Symmetrix Agent [Y:N] :

8. Respond with one of the following:

- **y**, to tell ControlCenter you want to install the 6.1 Storage Agent for Symmetrix.
- **n**, to tell ControlCenter you *do not* want to install the 6.1 Storage Agent for Symmetrix.

Do you want to install the EMC ControlCenter Symmetrix SDM Agent [Y:N] :

9. Respond with one of the following:

- **y**, to tell ControlCenter you want to install the 6.1 Symmetrix SDM Agent.
- **n**, to tell ControlCenter you *do not* want to install the 6.1 Symmetrix SDM Agent.

10. The program displays what it is upgrading and/or installing and finishes by displaying:

Please refer to  
<ECC root directory>/install\_native.log  
for any issues with the Upgrade.

11. Start the Master Agent.

# Upgrading Agents with Windows Native Tools

## Agents available for Windows MSI Native Upgrade:

- ◆ Master Agent
- ◆ Host Agent
- ◆ Database Agent for Oracle
- ◆ Common Mapping Agent
- ◆ Storage Agent for Symmetrix
- ◆ Symmetrix SDM Agent

**Note:** If you upgrade other agents via the Console, remember you must restart the Master Agent following upgrade.

## Files used by Windows MSI Native Upgrade:

- ◆ setup.exe

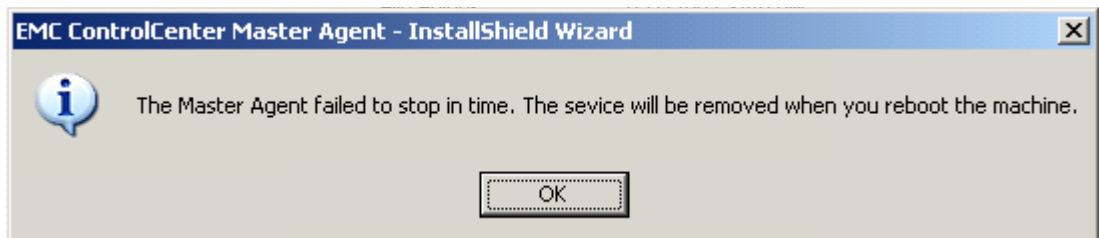
**Note:** Native Upgrade is only supported for 5.2 SP4 and higher.

### **CAUTION**

Review Agent Support and Platform Requirements in the *EMC Ionix ControlCenter 6.1 Support Matrix* before proceeding with any Native Upgrade as some agents are not supported on some platforms.

**Note:** For information regarding Native Installs and Native Uninstalls see *Appendix G* in the *EMC Ionix ControlCenter 6.1 Planning and Installation Guide, Vol. 1*

**Note:** When upgrading 5.2 agents that were installed through MSI, the following messages will appear, click OK to continue.





## Windows MSI Native Upgrade

1. Go to a Command Prompt in the WinNativeInstall folder:  
`cd <WinNativeInstall folder>`
2. Run `setup.exe` as follows to Upgrade all Agents:  
`setup.exe /s /v"/qn CMDLINE=true ALLUSERS=1 /L* <LogOutputFile>"`

### In the Command Syntax:

- ◆ `CMDLINE` must be specified as `true`.
  - ◆ `ALLUSERS=1` allows any user with administrative rights to run the Native Installer to add/upgrade/remove agents.
  - ◆ `[/L*]` indicates that `setup.exe` is to create a log file (`<LogOutputFile>`) that describes its progress.
  - ◆ `<LogOutputFile>` is the location of the log file for `setup.exe`. The directory must exist in the file system before you enter the command. Messages that would normally appear in dialog boxes during interactive installation will be prefixed with the following string: `ECC_LOG_MESSAGE`.
3. Start the Master Agent.



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