FORTRA

Intermapper 6.6.2

Installation Guide March 2024

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About Intermapper

Intermapper is a network mapping, monitoring, and alerting program. It provides an early warning system that alerts an administrator to problems with their network servers and IP networks. For more information on Intermapper, visit our website at https://www.fortra.com/product-lines/intermapper.

Intermapper Components

- **Intermapper Server** - provides the core facilities of Intermapper, including discovery, polling and monitoring, charting, and alerting.
- **Intermapper Flows** - collects NetFlow and sFlow data from routers and switches. It saves the flow records in a database and displays data about traffic senders, recipients, type, and volume.
- **Intermapper DataCenter** - provides the following tools:
    - **Intermapper Authentication Server** - allows you to authenticate users against external Active Directory, LDAP, RADIUS, Kerberos, and IAS directories.
    - **Intermapper Database** - a PostgreSQL database that stores historical data from Intermapper servers.
    - **Intermapper Reports** - reports are generated from the Intermapper database.

You can use the built-in Intermapper client to connect to the Intermapper server running on your own machine or you can remotely connect to Intermapper servers anywhere on your network using Intermapper RemoteAccess.

System Requirements

Virtual Machine and Intermapper License Keys

To use a license key, the following variables must remain static:

- `Hostname`
- `IP address`
- `MAC address`

> **NOTE:**
> You can set the variables when you create a new virtual machine.

A change in hardware attributes (CPU, storage, or memory) within the same system does not affect how the Intermapper server or Intermapper RemoteAccess™ operate. If you move to new system hardware, you must obtain a new license key.

A change in the Network Interface Card (NIC) requires a new license key; the MAC address is unique and is tied to a network interface (physical, virtual, or wireless).

Software Requirements for Intermapper, Intermapper RemoteAccess, and Intermapper Flows

To install and run Intermapper, Intermapper RemoteAccess, and Intermapper Flows, your configuration must meet the following requirements:

Platform	Operating System Level
macOS	• 10.15 (Catalina) • 11.x (Big Sur) • 12 (Monterey) • 13 (Ventura) **NOTE:** Versions 12 (Monterey) and 13 (Ventura) are supported on Intel-based CPUs only; not on Apple Silicon M1/M2 chips.
Microsoft Windows on x64 systems	• 10 • 11
Microsoft Windows Server **NOTE:** IPV6 requires Microsoft Windows Server 2008 or higher	• 2016 • 2019 • 2022
Red Hat Enterprise Linux on x64 systems	• 7 • 8 • 9
SuSE Linux Enterprise Server	• 12 • 15
Debian	• 10 • 11
Ubuntu	• 21.04 • 22.04

If you install Intermapper on a headless server, use a remote desktop access program that supports remote sounds or a copy of Intermapper RemoteAccess.

Running Intermapper on a macOS virtual machine is not supported.

Minimum Hardware Requirements

Intermapper Application Server

To install and run the Intermapper Application Server, your configuration must meet the following requirements:

Hardware	Requirement
Processors	Two (2) Virtual CPUs dedicated and reserved for App server
Memory (RAM)	
macOS and Linux	8 GB exclusively to the Application Server
Microsoft Windows	16 GB exclusively to the Application Server
Disk Configuration	
OS Drive Array	100 GB 10k SAS of pre-allocated disk space
Data Drive Array	350 GB 10k SAS of pre-allocated disk space

NOTE:
These recommendations support up to 500 devices. As your device counts increase, so do storage requirements.

Intermapper Flows

To install and run the Intermapper Flows, your configuration must meet the following requirements:

Hardware	Requirement
Virtual Machines	
Intermapper Flows	Four (4) Virtual CPUs for Intermapper Flows
macOS and Linux	8 GB (RAM) exclusively to the Intermapper Flows
Microsoft Windows	16 GB (RAM) exclusively to the Intermapper Flows
Dedicated Hardware	Two (2) or more of the latest generation Intel or AMD processors with at least four (4) processor cores each. Recommend processing speed us 2.5Ghz or higher
Disk Configuration	
OS Drive Array	100 GB 10k SAS
Data Drive Array	350 GB 10k SAS
Up to 10 million flows/hour	Quad Core, 16 GB of RAM Requires 64-bit Microsoft Windows, Linux, or macOS hardware
100 million flows/hour	Quad Core, 3GHz, 65 GB of RAM, RAID storage Requires 64-bit Microsoft Windows, Linux, or macOS hardware

NOTE:
Intermapper Flows requires a fairly powerful computer; both processor power and the amount of RAM are important considerations. The minimum recommended specifications support up to 10 million flows per hour.
Intermapper Flows benefits from having a large amount of RAM for its database cache. Use a 64-bit Microsoft Windows, macOS, or Linux system to allocate more than 1.5 GB of RAM for the cache.

Intermapper RemoteAccess

To install and run Intermapper RemoteAccess, your configuration must meet the following requirements:

Hardware	Requirement
Processor	In general, any recent computer capable of running a relatively current macOS, Microsoft Windows, or Linux OS version can run Intermapper RemoteAccess. A 64-bit OS is required.

NOTE:
Intermapper RemoteAccess installs the supported Java runtime version. (Windows and macOS only.)

Installing Intermapper on Microsoft Windows Systems

Download the installer either from the Fortra website if you are an existing customer, or use the link in the email received from Fortra if you are a new customer.

NOTE:

- You must be an administrator to install Intermapper.
- Back up your Intermapper system up before uninstalling the previous version.

Install from the exe file

1. Double-click the Intermapper_Setup_662.x64.exe file and follow the instructions.
2. When the installer finishes, the Intermapper client starts so you can view and configure your Intermapper server.

Install using a command line

1. Uninstall your previous version of Intermapper.
2. cd to the directory where Intermapper_Setup_662.x64.exe has been downloaded.
3. Launch the following as an Administrator from a command line:

```
InterMapper_Setup_662_x64.exe /a /r /f1"c:\<folder where exe is installed>\im_setup.iss"
```

4. Continue with the rest of the installation.
5. Confirm im_setup.iss is in the specified folder.

   Intermapper will launch as soon as it is installed.

> **NOTE:** If you do not want Intermapper to launch as soon as it is installed, enter the following commands:

```
@set NOLAUNCHIM=1
InterMapper_Setup_662_x64.exe /s /a /SMS /f1"c:\temp\im_setup.iss"
@timeout /T 25 /nobreak > NUL
@set NOLAUNCHIM=0
```

> **NOTE:** You must specify the iss file in order for the NOLAUNCHIM command to work.

What is installed and where

The components of Intermapper are installed as separate Microsoft Windows services. This means that after you start them, they automatically start running when your computer starts, before any users are logged in, and continue to run even when no user is logged in. For information on managing these services, see Managing Intermapper Services.

The installer creates an Intermapper folder in the Microsoft Windows Program Files folder, which contains all of the Intermapper core files. When it first starts, Intermapper creates an Intermapper folder in the default Microsoft Windows ProgramData location, that contains settings and data that Intermapper collects from your network. For example,

```
C:\Program Files\InterMapper or
C:\Program Files (x86)\InterMapper - The "InterMapper" folder
```

```
C:\Program Files\InterMapper\dwf or
C:\Program Files (x86)\InterMapper\dwf - The "InterMapper DataCenter" folder
C:\Program Files\InterMapper\flows or
C:\Program Files (x86)\InterMapper\flows - The "InterMapper Flows" folder
C:\ProgramData\InterMapper - The "InterMapper Settings" folder
```

If it does not already exist, the installer creates an InstallShield or an InstallShield Shared directory in Program Files/Common Files. These files are required for uninstalling Intermapper.

Intermapper adds keys to the Microsoft Windows registry to identify the installation location and local preferences.

Managing Intermapper Services

You can start and stop Intermapper services with the Intermapper Control Center system tray icon. The Intermapper and Intermapper DataCenter services are started and stopped simultaneously. You can also start and stop individual services from the Microsoft Windows service Control Panel.

Using the Intermapper Control Center, you can:

- check if the Intermapper services are currently running. You can also look for Intermapper.exe, flows.exe, and imdc.exe files in the Task Manager or check their entries in the Services control panel.
- find the version of Intermapper that is installed. You can also start a web browser and navigate to the web interface for Intermapper DataCenter. The version number is displayed at the bottom of the page.

Starting Intermapper

The first time you start the Intermapper server, it accepts only connections from the local machine. If you have a graphical interface and Java already installed, you can launch Intermapper by clicking the Intermapper button from the Intermapper Control Center.

Starting Intermapper Flows

Intermapper Flows allows you to obtain deeper insight into the traffic on your network. When Intermapper Flows first starts, it creates a 10 GB flows database. You can change the database size and location to fit your needs. Intermapper Flows does not run by default. Use the Intermapper Control Center to start it to access flows information.

Intermapper Flows does not include a graphical user interface. However, you can access flow information either through the built-in Intermapper client or through Intermapper RemoteAccess. Open the Flows window by right-clicking a device on a map. When you do this, you can see information about the traffic on the selected device.

If you purchased Intermapper with Flows, use the serial number to register your installation. If you are only trying Intermapper out, your evaluation serial number allows you to receive data from one exporter source (NetFlow or sFlow data).

See the Intermapper User Guide or online help for more information on Intermapper Flows.

Intermapper DataCenter

You do not need to configure Intermapper DataCenter if you access it from the local machine. To enable external access and more advanced configuration, go to https://localhost:8182.

Intermapper DataCenter ships with a self-signed SSL certificate. Your browser displays a certificate warning when you visit the DataCenter web interface. You can select the certificate and safely continue to navigate to the page. The Intermapper

DataCenter Settings page allows you to upload your own certificate rather than relying on the less secure certificate shipped with Intermapper.

Uninstalling Intermapper

To uninstall Intermapper from your system, use the system's graphical package manager, Programs and Features, or Add or Remove Programs item from the Windows Control Panel.

When you uninstall Intermapper, the settings and data files are not removed. If you do not plan on reinstalling Intermapper and want to remove it completely, manually remove the InterMapper Settings, Intermapper Flows, and Intermapper DataCenter folders from the Microsoft Windows Program Files and Program Data locations.

To uninstall Intermapper RemoteAccess:

1. Open the **Control Panel**.
2. From **Programs and Features**, click **Intermapper RemoteAccess**.
3. Click **Uninstall** and follow the prompts.

Installing Remote Access

The Intermapper RemoteAccess package includes and installs a compatible JRE which runs the Intermapper client.

Silent installation with an ISS file

To silently install Intermapper Remote Access, you must create and use an ISS file.

1. Uninstall your previous version of Intermapper Remote Access.
2. To create an ISS file, launch the following as an Administrator from a command line or from a script:

```
InterMapper_RemoteAccess_Setup_662.exe /a /r /f1"c:\temp\imra_setup.iss"
```

3. Go to C:\temp to see if the imra_setup.iss is there.
4. To install Intermapper Remote Access with the new ISS file, enter the following command:

```
InterMapper_Setup_662_x64.exe /s /a /SMS /f1"c:\temp\imra_setup.iss"
```

> **NOTE:** The installation takes 10-15 seconds. The silent installation exits quickly and runs in the background. Wait 10-15 seconds to see Intermapper Server appear in the Control Panel.

Intermapper Remote Access will try to launch as soon as it is installed. If you do not want Intermapper Remote Access to start automatically, use a local environment variable NOLAUNCHHIM. You can also put the command line into a script as in the following:

```
@set NOLAUNCHIM=1
InterMapper_RemoteAccess_Setup_662.exe /s /a /SMS /f1"c:\temp\imra_setup.iss"
@timeout /T 25 /nobreak > NUL
@set NOLAUNCHIM=0
```

Uninstalling Remote Access

To uninstall Intermapper RemoteAccess from a Microsoft Windows system:

1. Open the **Control Panel**.
2. From **Programs and Features**, click **Intermapper RemoteAccess**.
3. Click **Uninstall** and follow the prompts.

Installing Intermapper on SuSE Linux Systems

Along with the adoption of SystemD for management of Intermapper services, Intermapper for Linux has been updated to conform to the Linux File System Hierarchy Standard's policy for packaged applications. For Intermapper 6.6 or higher, the default installation root directories are as follows:

Files	New default installation root directory	Previous default installation root directory
Intermapper Program files	/opt/helpsystems/intermapper	/usr/local
Intermapper Data files	/var/opt/helpsystems/intermapper	/var/local

The installer creates a link (typically in the directory /usr/local/bin) to ensure that you can start Intermapper UI by issuing the command intermapper at the shell prompt. The path /usr/local/etc/intermapperd.conf continues to be reserved – it is now a link to the actual configuration file.

Intermapper is shipped as an RPM package (.rpm file): **64-bit: Intermapper-6.6.2-1sse.x86_64.12x.rpm**, which includes Intermapper server and Intermapper Flows server.

IMPORTANT:
Before you install Intermapper on SuSE Linux Enterprise 15, you must run the following command:

```
rpm -Uvh --nodeps --replacepkgs --replacefiles \
 https://ftp.lysator.liu.se/pub/opensuse/distribution/leap/15.5/repo/oss/x86_64/libstdc++6-12.2.1+git416-150000.1.7.1.x86_64.rpm
```

This will upgrade the libraries needed for running the Intermapper server. We recommend upgrading your version of SLES to version 15 SP5. See ***Dependency failures in RPM Installation* on page 28**.

Installing from a command line

To install Intermapper on SuSE Linux systems, run the following commands:

```
cd <directory-containing-rpm>
sudo rpm -ivh InterMapper-6.6.2-1sse.x86_64.12x.rpm
```

NOTE: -i option performs a clean installation in the new location or in a non-default location. If you are installing Intermapper on a non-default location, run the following commands:

```
cd <directory-containing-rpm>
sudo rpm -ivh --prefix=/thirdparty/packages/intermapper Intermapper-6.6.2-1sse.x86_64.12x.rpm
```

A compatible Java JRE is automatically installed with each version of Intermapper server. This file runs the Intermapper client.

Upgrading Intermapper

When you upgrade an existing Intermapper installation to a newer version, data is retained in the Intermapper Settings folder. Fortra recommends that you create a backup of that folder before you upgrade. For information on which files to back up, see What is Installed and Where.

If you are upgrading from	Then
version 5.7 or earlier	contact Fortra Customer Support for upgrade instructions

version 5.8 to version 6.5.1	Ensure you have upgraded Intermapper's PostgreSQL to 10.14. (Refer to the Intermapper Database Migration Guide for instructions.) You will need to
	
	1. Upgrade to version 6.5.3 using the following command, which supports 64-bit PostgreSQL installation:
	
	`sudo rpm -U InterMapper-6.5.3-1.x86_64.5x.rpm`
	
	2. Then upgrade to version 6.6.2 using the following commands:
	
	``
	cd <directory-containing-rpm>
	sudo rpm -e InterMapper
	sudo rpm -i InterMapper-6.6.2-1.x86_64.7x.rpm
	sudo systemctl stop intermapperd.service
	sudo cp -r -p /var/local/InterMapper_Settings \
	    /var/opt/helpsystems/intermapper/
	sudo cp -r -p /usr/local/imdc/config \
	    /opt/helpsystems/intermapper/imdc/
	sudo systemctl start intermapperd.service
	``
	
	NOTE: Because Intermapper is installed in a new default location, copy the settings and folders from your previous installation location and paste to the new location when you install the new version of Intermapper. Restart the services.
	
	- `-e` erases the old installation
	- `-i` performs a clean install. Archive the directories in the old location after copying them to the new location.

Intermapper server will start and discover the previous license. It was also upgrade map files from Maps/Enabled/ (the folder structure of your previous installation) and place them in the new folder structure Maps/Enabled/6.6.2.

> **NOTE:** The Chart Data directory is populated with the chart files for each map as part of the copy specified by the previous step above. Ensure that the permissions for the directories remain the same after the move.

Installing the Intermapper Public Key

The Intermapper RPM is signed with gpg to verify the integrity of the downloaded file. To install the Intermapper gpg public key, run the following commands:

```
sudo rpmkeys --import \
    https://hsdownloads.helpsystems.com/intermapper/debian/helpsystems-rpm-public.asc
```

After you import the key, rpm remembers it for future releases and you do not need to import it again.

To check the signature on the Intemperance package before installing it, run the following command:

```
sudo rpmkeys --checksig InterMapper-6.6.2-1sse.x86_64.12x.rpm
```

If the package signature is correct, the following line is displayed:

```
InterMapper--1sse.x86_64.12x.rpm: (sha1) dsa sha1 md5 gpg OK
```

Starting Intermapper

Run the following command to launch the Intermapper UI:

```
intermapper
```

The installation process creates a link to that command in the directory /usr/local/bin (provided that the directory exists).

To start the Intermapper UI, run the following command

```
/usr/local/bin/intermapper
```

If that path does not exist, use the path at which the link has been created can be seen in the output of the installation command.

> **NOTE:**
> During installation, /usr/local/bin/intermapper is created if /usr/local/bin already exists, otherwise /opt/local/bin exists, then /opt/local/bin/intermapper is created.

> **NOTE:**
> If the above command fails (for example if you are working from your server's console without access to a graphical display), see ***Installing Remote Access* on page 29**.

Starting Intermapper Flows

Intermapper Flows allows you to obtain deeper insight into the traffic on your network. When Intermapper Flows first starts, it creates a 10 GB flows database. You can change the database size and location to fit your needs.

Intermapper Flows does not include a graphical user interface. However, you can access flow information either through the built-in Intermapper client or through Intermapper RemoteAccess. Open the Flows window by right-clicking a device on a map. When you do this, you can see information about the traffic on the selected device.

If you purchased Intermapper with Flows, use the serial number to register your installation. If you are only trying Intermapper out, your evaluation serial number allows you to receive data from one exporter source (NetFlow or sFlow data).

See the Intermapper User Guide or online help for more information on Intermapper Flows.

Intermapper Flows does not running by default. For information on starting Intermapper Flows, see Managing Intermapper Services.

What is installed and where

Intermapper components are installed as separate services. This means that after you start them, they automatically begin running when your computer starts, before any users are logged in, and continue running even when no user is logged in. For information on managing these services, see Managing Intermapper Services.

The installer creates files and folders at the following (default) locations:

File Path	Contents
/var/opt/helpsystems/intermapper/InterMapper_Settings	Intermapper settings
/opt/helpsystems/intermapper/bin/	Intermapper Server binaries

File Path	Contents
/opt/helpsystems/intermapper/bin/intermapperd	Intermapper Server executable
/opt/helpsystems/intermapper/bin/intermapperauthd	Intermapper authorization delegate
/opt/helpsystems/intermapper/bin/intermapperflows	Intermapper Flows server
/opt/helpsystems/intermapper/man/man1/intermapperd.1	Documentation
/opt/helpsystems/intermapper/man/man1/intermapperauthd.1	Documentation
/opt/helpsystems/intermapper/share/intermapper	Intermapper support files
/opt/helpsystems/intermapper/imdc	Intermapper DataCenter folder
/var/opt/helpsystems/intermapper/InterMapper_Settings/Flows	Intermapper Flows folder
/var/opt/helpsystems/intermapper/InterMapper_Settings/Flows/SESSIONDB	Default directory for the flow database
/var/opt/helpsystems/intermapper/InterMapper_Settings/Flows/flows.conf	Configuration file for Intermapper Flows
/var/opt/helpsystems/intermapper/InterMapper_Settings/Flows/services	List of port numbers and service names
/opt/helpsystems/intermapper/share/intermapper/imflows_configure.sh	The IMflows configuration script

When Intermapper first starts, the Intermapper_Settings folder is created and stored in the /var/opt/helpsystems/intermapper/Intermapper_Settings folder. This folder stores preferences, maps, and data that Intermapper collects from your network. You can change the location of the InterMapper Settings folder by editing Intermapper's configuration file (intermapperd.conf) to which a link is created from the /usr/local/etc folder.

The installer also creates a new folder /opt/helpsystems/intermapper/imdc that contains the Intermapper DataCenter's files, including data and configuration files.

There are now three Intermapper services (intermapperd, imflows, and imdc), managed by systemd on all Linux systems, that have systemd active at the time Intermapper is installed. The systemd service files are located in the /opt/helpsystems/intermapper/share/intermapper/units directory. These files are copied to the appropriate run-time location during the installation process. The SystemV-style startup scripts (as used in earlier Intermapper versions) are

supplied in the /opt/helpsystems/intermapper/share/intermapper/sysv.init directory. These files are only installed if systemd is not managing the Linux host when Intermapper is installed.

The intermapperauthd file is a setuid-root program. The intermapperd service (running as a non-privileged user) makes requests to intermapperauthd to access low-level network services, such as ICMP ping and low-numbered network ports.

The installer creates user and group entries named "intermapper" on your system, if they do not exist already. The new user and group configuration and log files are stored in the InterMapper Settings and Intermapper DataCenter folders. These log and configuration files are not granted public read access. If you want to read these files, add yourself to the intermapper group or use sudo in your commands.

Managing Intermapper Services

To start individual services, run the following service management commands:

```
sudo systemctl start intermapperd.service
sudo systemctl start imdc.service
sudo systemctl start imflows.service
```

To stop individual services, run the following service management commands:

```
sudo systemctl stop intermapperd.service
sudo systemctl stop imdc.service
sudo systemctl stop imflows.service
```

To verify the version of Intermapper that is installed, run the following command:

```
/opt/helpsystems/intermapper/bin/intermapperd -v
```

To check if Intermapper services are currently running, run the following commands:

```
systemctl status intermapperd.service
systemctl status imflows.service
systemctl status imdc.service
```

Intermapper DataCenter

You do not need to configure Intermapper DataCenter if you access it from the local machine. To enable external access and more advanced configuration, go to https://localhost:8182.

Intermapper DataCenter ships with a self-signed SSL certificate. Your browser displays a certificate warning when you visit the DataCenter web interface. You can select the certificate and safely continue to navigate to the page. The Intermapper DataCenter Settings page allows you to upload your own certificate rather than relying on the less secure certificate shipped with Intermapper.

Setting a password for Intermapper Data Center

The Intermapper DataCenter configuration page, accessed from a browser, requires its own password.

Run the following commands:

```
sudo systemctl stop imdc.service
sudo /opt/helpsystems/intermapper/imdc/sbin/imdc --password=[password]
sudo systemctl start imdc.service
```

Now you can connect to Intermapper using one of the following URLs:

- https://localhost:8182/settings.html
- https://*IPaddress*:8182/settings.html
- https://*domain name*:8182/settings.html

Dependency failures in RPM Installation

The *.rpm Intermapper Combined Installer distributions for RedHat and SuSE Linux are built on hosts provisioned with platforms no later than the earliest Linux distribution for which that version of Intermapper is supported and which remain under Linux distribution support. If that platform is more recent than your Linux installation host, then you may encounter a dependency failure at installation time. Such a failure indicates that you need to upgrade your Linux installation host to resolve the dependencies displayed in the error message displayed by the failing rpm command before installing Intermapper. To upgrade to SuSE Linux Enterprise 12 SP5, see https://documentation.suse.com/sles/12-SP5/html/SLES-all/cha-update-sle.html. To upgrade SuSE Linux Enterprise 15 SP5, see https://documentation.suse.com/sles/15-SP5/html/SLES-all/cha-upgrade-paths.html. This will update the Standard C++ Library on the SLES-12/SLES-15 target host.

EXAMPLE:
This failure shows an attempt to install IM-6.6.2 built on SLES 12 SP5 / SLES 15 SP5 on a target running SLES 12/SLES 15.

```
# rpm -ivh InterMapper-6.6.2-1sse.x86_64.12x.rpm
```

```
Warning: InterMapper-6.6.2-1sse.x86_64.12x.rpm: Header V4 RSA/SAH256 Signature, key ID
c8e6c58d: NO KEY
Error: Failed dependencies:
libstdc++.so.6(GLIBCXX_3.4.30)(64bit) is needed by InterMapper-6.6.2-1sse.x86_64
```

Uninstalling Intermapper

To uninstall Intermapper from your system, use the system's graphical package manager, or run the following command:

```
sudo rpm -ev InterMapper
```

When you uninstall Intermapper, the settings and data files are not removed. If you do not plan on reinstalling Intermapper and want to remove it completely, manually remove the InterMapper Settings, Intermapper Flows, and Intermapper DataCenter folders by using the following commands:

```
sudo rm -rf /var/opt/helpsystems/intermapper/InterMapper_Settings
sudo rm -rf /opt/helpsystems/intermapper/imdc
sudo userdel intermapper
```

Installing Remote Access

Intermapper's remote server allows you to configure and edit maps on an Intermapper installation from a remote computer. To allow these changes, the remote server accepts connections from the Intermapper or Intermapper RemoteAccess application, running on a different computer.

The Linux Intermpper RemoteAccess package (a self-extracting installer) does not deliver a Java JRE: it will attempt to use the JRE supplied with an Intermapper Server installation on the same host, or, failing that, a Java Runtime from the host environment.

To start the Intermapper RemoteAccess installer, run the following command:

```
$ sh ./Install_InterMapper_RemoteAccess_.bin
```

To launch Intermapper RemoteAccess, run the following commands:

```
$ cd InterMapper_RemoteAccess_
$ ./intermapper_remoteaccess.sh
```

If your Intermapper server does not have a graphical interface, use Intermapper RemoteAccess to administer the Intermapper server. Before the Intermapper server can accept connections from Remote Access, launch the server with a command line argument, telling it where to connect from. Run the following commands to manually stop the intermapperd process, grant remote access to the server, and restart the intermapperd process:

```
sudo systemctl stop intermapperd.service
sudo /opt/helpsystems/intermapper/bin/intermapperd -f /usr/local/etc/intermapperd.conf --setenv 'Admin=remote:password@*.*.*.*'
sudo systemctl start intermapperd.service
```

Uninstalling Remote Access

Delete the **Intermapper_Remote Access_6.6.2** directory and the Intermapper RemoteAccess icon from your desktop.

Installing Intermapper on Red Hat Linux Systems

Along with the adoption of SystemD for management of Intermapper services, Intermapper for Linux has been updated to conform to the Linux File System Hierarchy Standard's policy for packaged applications. For Intermapper 6.6 or higher, the default installation root directories are as follows:

Files	New default installation root directory	Previous default installation root directory
Intermapper Program files	/opt/helpsystems/intermapper	/usr/local
Intermapper Data files	/var/opt/helpsystems/intermapper	/var/local

The installer creates a link (typically in the directory /usr/local/bin) to ensure that you can start Intermapper UI by issuing the command intermapper at the shell prompt. The path /usr/local/etc/intermapperd.conf continues to be reserved – it is now a link to the actual configuration file.

Installing Intermapper

The Intermapper RPM is available in the following package: **64-bit: Intermapper-6.6.2-1.x86_64.7x.rpm**, which includes the Intermapper server and Intermapper Flows server.

Installing From a Command Line

For CentOS, follow the instructions for the compatible version of Red Hat.

```
cd <directory-containing-rpm>
sudo yum install "InterMapper-6.6.2-1.x86_64.7x.rpm"
```

A compatible Java JRE is automatically installed with each version of Intermapper server. This file runs the Intermapper client.

Installing the Intermapper Public Key

Intermapper is shipped as an RPM package (.rpm file). The Intermapper RPM is signed with gpg to verify the integrity of the downloaded file. The yum utility, referenced below, requires the public key as part of the installation process.

To install the Intermapper gpg public key, run the following commands:

```
sudo rpmkeys --import \
 https://hsdownloads.helpsystems.com/intermapper/debian/helpsystems-rpm-public.asc
```

After you import this key, rpm remembers it for future releases and you do not need to import it again.

To check the signature on the Intermapper package before installing it, run the following command:

```
sudo rpmkeys --checksig InterMapper-6.6.2-1sse.x86_64.12x.rpm
```

If the package signature is correct, the following line is displayed:

```
InterMapper-6.6.2-1.x86_64.7x.rpm: (sha1) dsa sha1 md5 gpg OK
```

Upgrading Intermapper

When you upgrade an existing Intermapper installation to a newer version, data is retained in the Intermapper Settings folder. Fortra recommends that you create a backup of that folder before you upgrade. For information on which files to back up, see What is Installed and Where.

If you are upgrading from	Then
version 5.7 or earlier	contact Fortra Customer Support for upgrade instructions

version 5.8 to version 6.5.1	Ensure you have upgraded Intermapper's PostgreSQL to 10.14. (Refer to the Intermapper Database Migration Guide for instructions.) You will need to
	
	1. Upgrade to version 6.5.3 using the following command, which supports 64-bit PostgreSQL installation:
	
	`sudo rpm -U InterMapper-6.5.3-1.x86_64.5x.rpm`
	
	2. Then upgrade to version 6.6.2 using the following commands:
	
	`cd <directory-containing-rpm>`
	`sudo rpm -e InterMapper`
	`sudo rpm -i InterMapper-6.6.2-1.x86_64.7x.rpm`
	`sudo systemctl stop intermapperd.service`
	`sudo cp -r -p /var/local/InterMapper_Settings \`
	`/var/opt/helpsystems/intermapper/`
	`sudo cp -r -p /usr/local/imdc/config \`
	`/opt/helpsystems/intermapper/imdc/`
	`sudo systemctl start intermapperd.service`
	
	NOTE: Because Intermapper is installed in a new default location, copy the settings and folders from your previous installation location and paste to the new location when you install the new version of Intermapper. Restart the services.
	• `-e` erases the old installation
	• `-i` performs a clean install. Archive the directories in the old location after copying them to the new location.

Intermapper server will start and discover the previous license. It was also upgrade map files from Maps/Enabled/ (the folder structure of your previous installation) and place them in the new folder structure Maps/Enabled/6.6.2.

> **NOTE:** The Chart Data directory is populated with the chart files for each map as part of the copy specified by the previous step above. Ensure that the permissions for the directories remain the same after the move.

Starting Intermapper

The Intermapper user interface is launched by executing the command intermapper. The installation process creates a link to that command in the directory /usr/local/bin (provided that the directory exists). To start the Intermapper UI, issue the command /usr/local/bin/intermapper.

If that path does not exist, use the path at which the link has been created can be seen in the output of the installation command.

> **NOTE:**
> During installation, /usr/bin/local/intermapper is created if /usr/local/bin already exists; otherwise if /opt/local/bin exists, then /opt/local/bin/intermapper is created.

> **NOTE:**
> If you cannot run the command above, see ***Installing Remote Access* on page 41**.

Starting Intermapper Flows

Intermapper Flows allows you to obtain deeper insight into the traffic on your network. When Intermapper Flows first starts, it creates a 10 GB flows database. You can change the database size and location to fit your needs. Intermapper Flows does not run by default. Use the Intermapper Control Center to start it to access flows information.

Intermapper Flows does not include a graphical user interface. However, you can access flow information either through the built-in Intermapper client or through Intermapper RemoteAccess. Open the Flows window by right-clicking a device on a map. When you do this, you can see information about the traffic on the selected device.

If you purchased Intermapper with Flows, use the serial number to register your installation. If you are only trying Intermapper out, your evaluation serial number allows you to receive data from one exporter source (NetFlow or sFlow data).

See the Intermapper User Guide or online help for more information on Intermapper Flows.

What is installed and where

Intermapper components are installed as separate services. This means that after you start them, they automatically begin running when your computer starts, before any users are logged in, and continue running even when no user is logged in. For information on managing these services, see Managing Intermapper Services.

The installer creates files and folders at the following (default) locations:

File Path	Contents
/var/opt/helpsystems/intermapper/InterMapper_Settings	Intermapper settings
/opt/helpsystems/intermapper/bin/	Intermapper Server binaries
/opt/helpsystems/intermapper/bin/intermapperd	Intermapper Server executable
/opt/helpsystems/intermapper/bin/intermapperauthd	Intermapper authorization delegate
/opt/helpsystems/intermapper/bin/intermapperflows	Intermapper Flows server
/opt/helpsystems/intermapper/man/man1/intermapperd.1	Documentation
/opt/helpsystems/intermapper/man/man1/intermapperauthd.1	Documentation

File Path	Contents
/opt/helpsystems/intermapper/share/intermapper	Intermapper support files
/opt/helpsystems/intermapper/imdc	Intermapper DataCenter folder
/var/opt/helpsystems/intermapper/InterMapper_Settings/Flows	Intermapper Flows folder
/var/opt/helpsystems/intermapper/InterMapper_Settings/Flows/SESSIONDB	Default directory for the flow database
/var/opt/helpsystems/intermapper/InterMapper_Settings/Flows/flows.conf	Configuration file for Intermapper Flows
/var/opt/helpsystems/intermapper/InterMapper_Settings/Flows/services	List of port numbers and service names
/opt/helpsystems/intermapper/share/intermapper/imflows_configure.sh	The IMflows configuration script

When Intermapper first starts, the Intermapper_Settings folder is created and stored in the /var/opt/helpsystems/intermapper/Intermapper_Settings folder. This folder stores preferences, maps, and data that Intermapper collects from your network. You can change the location of the InterMapper Settings folder by editing Intermapper's configuration file (intermapperd.conf) to which a link is created from the /usr/local/etc folder.

The installer also creates a new folder /opt/helpsystems/intermapper/imdc that contains the Intermapper DataCenter's files, including data and configuration files.

There are now three Intermapper services (intermapperd, imflows, and imdc), managed by systemd on all Linux systems, that have systemd active at the time Intermapper is installed. The systemd service files are located in the /opt/helpsystems/intermapper/share/intermapper/units directory. These files are copied to the appropriate run-time location during the installation process. The SystemV-style startup scripts (as used in earlier Intermapper versions) are supplied in the /opt/helpsystems/intermapper/share/intermapper/sysv.init directory. These files are only installed if systemd is not managing the Linux host when Intermapper is installed.

The intermapperauthd file is a setuid-root program. The intermapperd service (running as a non-privileged user) makes requests to intermapperauthd to access low-level network services, such as ICMP ping and low-numbered network ports.

The installer creates user and group entries named "intermapper" on your system, if they do not exist already. The new user and group configuration and log files are stored in the InterMapper Settings and Intermapper DataCenter folders. These log

and configuration files are not granted public read access. If you want to read these files, add yourself to the intermapper group or use sudo in your commands.

Managing Intermapper Services

To start individual services, run the following service management commands:

```
sudo systemctl start intermapperd.service
sudo systemctl start imdc.service
sudo systemctl start imflows.service
```

To stop individual services, run the following service management commands:

```
sudo systemctl stop intermapperd.service
sudo systemctl stop imdc.service
sudo systemctl stop imflows.service
```

To verify the version of Intermapper that is installed, run the following command:

```
/opt/helpsystems/intermapper/bin/intermapperd -v
```

To check if Intermapper services are currently running, run the following commands:

```
systemctl status intermapperd.service
systemctl status imflows.service
systemctl status imdc.service
```

Intermapper Data Center

You do not need to configure Intermapper DataCenter if you access it from the local machine. To enable external access and more advanced configuration, go to https://localhost:8182.

Intermapper DataCenter ships with a self-signed SSL certificate. Your browser displays a certificate warning when you visit the DataCenter web interface. You can select the certificate and safely continue to navigate to the page. The Intermapper DataCenter Settings page allows you to upload your own certificate rather than relying on the less secure certificate shipped with Intermapper.

Setting a password for Intermapper Data Center

The Intermapper DataCenter configuration page, accessed from a browser, requires its own password.

Run the following commands:

```
sudo systemctl stop imdc.service
sudo /opt/helpsystems/intermapper/imdc/sbin/imdc --password=[password]
sudo systemctl start imdc.service
```

Now you can connect to Intermapper using one of the following URLs:

- https://localhost:8182/settings.html
- https://*IPaddress*:8182/settings.html
- https://*domain name*:8182/settings.html

Uninstalling Intermapper

To uninstall Intermapper from your system, use the system's graphical package manager, or run the following command:

```
sudo rpm -ev InterMapper
```

When you uninstall Intermapper, the settings and data files are not removed. If you do not plan on reinstalling Intermapper and want to remove it completely, manually remove the InterMapper Settings, Intermapper Flows, and Intermapper DataCenter folders by using the following commands:

```
sudo rm -rf /var/opt/helpsystems/intermapper/InterMapper_Settings
sudo rm -rf /opt/helpsystems/intermapper/imdc
sudo userdel intermapper
```

Installing Remote Access

The Linux Intermpper RemoteAccess package (a self-extracting installer) does not deliver a Java JRE: it will attempt to use the JRE supplied with an Intermapper Server installation on the same host, or, failing that, a Java Runtime from the host environment.

To start the Intermapper RemoteAccess installer, run the following command:

```
$ sh ./Install_InterMapper_RemoteAccess_.bin
```

To launch Intermapper RemoteAccess, run the following commands:

```
$ cd InterMapper_RemoteAccess_
$ ./intermapper_remoteaccess.sh
```

If your Intermapper server does not have a graphical interface, use Intermapper RemoteAccess to administer the Intermapper server. Before the Intermapper server can accept connections from Remote Access, launch the server with a command line argument, telling it where to connect from. Run the following commands to manually stop the intermapperd process, grant remote access to the server, and restart the intermapperd process:

```
sudo systemctl stop intermapperd.service
sudo /opt/helpsystems/intermapper/bin/intermapperd -f /usr/local/etc/intermapperd.conf --setenv 'Admin=remote:password@*.*.*.*'
sudo systemctl start intermapperd.service
```

Uninstalling Remote Access

Delete the **Intermapper_Remote Access_6.6.2** directory and the Intermapper RemoteAccess icon from your desktop.

Installing Intermapper on Debian and Ubuntu Linux Systems

Intermapper is shipped as a Debian package (.deb file) and is available in **64-bit: intermapper_6.6.2-18.04-1_amd64.deb**. This includes Intermapper server and Intermapper Flows server.

The Debian package can be installed using the system's graphical package manager, from a command line, or using apt-get.

Along with the adoption of SystemD for management of Intermapper services, Intermapper for Linux has been updated to conform to the Linux File System Hierarchy Standard's policy for packaged applications. For Intermapper 6.6 or higher, the default installation root directories are as follows:

Files	New default installation root directory	Previous default installation root directory
Intermapper Program files	/opt/helpsystems/intermapper	/usr/local
Intermapper Data files	/var/opt/helpsystems/intermapper	/var/local

The installer creates a link (typically in the directory /usr/local/bin) to ensure that you can start Intermapper UI by issuing the command intermapper at the shell prompt. The path /usr/local/etc/intermapperd.conf continues to be reserved – it is now a link to the actual configuration file.

A compatible Java JRE is automatically installed with each version of Intermapper server. This file runs the Intermapper client.

Installing from a command line

Run the following command:

```
sudo dpkg -i "intermapper_6.6.2-18.04-1_amd64.deb"
```

The curl command above appends the following to the apt sources.list file:

```
#------------------------------------------------------------------#
#                            OFFICIAL UBUNTU REPOS                 #
#------------------------------------------------------------------#
###### Ubuntu Main Repos
deb http://am.archive.ubuntu.com/ubuntu/ bionic main restricted universe
deb-src http://am.archive.ubuntu.com/ubuntu/ bionic main restricted universe
###### Ubuntu Update Repos
deb http://am.archive.ubuntu.com/ubuntu/ bionic-security main restricted universe
deb http://am.archive.ubuntu.com/ubuntu/ bionic-updates main restricted universe
deb-src http://am.archive.ubuntu.com/ubuntu/ bionic-security main restricted universe
deb-src http://am.archive.ubuntu.com/ubuntu/ bionic-updates main restricted universe
```

Installing Intermapper using apt

1. Add the repository URL to the /etc/apt/sources.list file:

   ```
   echo "deb [trusted=yes] https://hsdownloads.helpsystems.com/intermapper/debian /" | sudo tee -a /etc/apt/sources.list
   ```

   After you import the key, apt remembers it for future releases. You do not need to import it again.

2. Add the GPG key used for signing to APT's keyring using Ubuntu's suggested method:

```
sudo apt-key adv --fetch-keys https://hsdownloads.helpsystems.com/intermapper/debian/fortra-release-public.asc | sudo tee /etc/apt/trusted.gpg.d/hsdownloads.helpsystems.com.asc
```

3. Run the installation command:

```
sudo apt update && sudo apt install intermapper
```

Removing an old or expired Intermapper Release Signing Key

If the Intermapper Debian Repository Release Signing Key is no longer used or expired, Fortra recommends stop using the old key and remove it from the apt keyring.

To do so, find the fingerprint for the key you wish to delete by listing all keys in the apt keyring using the following command:

```
sudo apt-key list
```

EXAMPLE:
The following is an example of the output:

```
/etc/apt/trusted.gpg
--------------------
pub   dsa1024 2007-06-12 [SC]
      4E87 6D4B 2C09 45F1 4BC1  65F6 DF7B A8CA 6ACA CF42
uid           [ unknown] Dartware, LLC <info@dartware.com>
sub   elg2048 2007-06-12 [E]

/etc/apt/trusted.gpg.d/debian-archive-bullseye-automatic.gpg
------------------------------------------------------------
pub   rsa4096 2021-01-17 [SC] [expires: 2029-01-15]
      1F89 983E 0081 FDE0 18F3  CC96 73A4 F27B 8DD4 7936
uid           [ unknown] Debian Archive Automatic Signing Key (11/bullseye) <ftpmaster@debian.org>
sub   rsa4096 2021-01-17 [S] [expires: 2029-01-15]

/etc/apt/trusted.gpg.d/debian-archive-bullseye-security-automatic.gpg
---------------------------------------------------------------------
pub   rsa4096 2021-01-17 [SC] [expires: 2029-01-15]
      AC53 0D52 0F2F 3269 F5E9  8313 A484 4904 4AAD 5C5D
uid           [ unknown] Debian Security Archive Automatic Signing Key (11/bullseye) <ftpmaster@debian.org>
sub   rsa4096 2021-01-17 [S] [expires: 2029-01-15]
```

Remove the old info@dartware.com public key whose fingerprint is 4E87 6D4B 2C09 45F1 4BC1 65F6 DF7B A8CA 6ACA CF42.
Using the last eight characters of that fingerprint, delete it with the following command:

```
sudo apt-key del 6ACACF42
```

Upgrading Intermapper

When you upgrade an existing Intermapper installation to a newer version, you do not lose data in the InterMapper Settings folder. Fortra recommends that you create a backup of that folder before you upgrade. For information on which files to back up, see What is Installed and Where.

Upgrading from a command line

You can install the upgrade package using the following command:

```
cd <directory-containing-deb>
sudo dpkg -i "intermapper_6.6.2-18.04-1_amd64.deb"
```

NOTE:
On some versions of Ubuntu, you must remove old 32-bit packages using the following commands before you install the new 64-bit package:

```
cd <directory-containing-deb>
sudo dpkg -r intermapper:i386
sudo dpkg -r intermapper-datacenter:i386
```

If you are upgrading from version 5.7 or earlier, contact Fortra Support.

When you start the new Intermapper version, it uses the old configuration.

Starting Intermapper

The Intermapper user interface is launched by executing the command intermapper. The installation process creates a link to that command in the directory /usr/local/bin - provided that the directory exists. To start the Intermapper UI, issue the command /usr/local/bin/intermapper. If that path does not exist, the path at which the link has been created can be seen in the output of the installation command and that path should be used instead.

NOTE:
During installation, /usr/bin/local/intermapper is created if /usr/local/bin already exists, otherwise /opt/local/bin exists, then /opt/local/bin/intermapper is created.

NOTE:
If you cannot run the command above, see ***Installing Remote Access* on page 53**.

Starting Intermapper Flows

Intermapper Flows allows you to obtain deeper insight into the traffic on your network. When Intermapper Flows first starts, it creates a 10 GB flows database. You can change the database size and location to fit your needs. Intermapper Flows does not run by default. Use the Intermapper Control Center to start it to access flows information.

Intermapper Flows does not include a graphical user interface. However, you can access flow information either through the built-in Intermapper client or through Intermapper RemoteAccess. Open the Flows window by right-clicking a device on a map. When you do this, you can see information about the traffic on the selected device.

If you purchased Intermapper with Flows, use the serial number to register your installation. If you are only trying Intermapper out, your evaluation serial number allows you to receive data from one exporter source (NetFlow or sFlow data).

See the Intermapper User Guide or online help for more information on Intermapper Flows.

Starting Intermapper Flows

You do not need to configure Intermapper DataCenter if you access it from the local machine. To enable external access and more advanced configuration, go to https://localhost:8182.

Intermapper DataCenter ships with a self-signed SSL certificate. Your browser displays a certificate warning when you visit the DataCenter web interface. You can select the certificate and safely continue to navigate to the page. The Intermapper DataCenter Settings page allows you to upload your own certificate rather than relying on the less secure certificate shipped with Intermapper.

What is installed and where

Intermapper components are installed as separate services. This means that after you start them, they automatically begin running when your computer starts, before any users are logged in, and continue running even when no user is logged in. For information on managing these services, see Managing Intermapper Services.

The installer creates files and folders at the following (default) locations:

File Path	Contents
/var/opt/helpsystems/intermapper/InterMapper_Settings	Intermapper settings
/opt/helpsystems/intermapper/bin/	Intermapper Server binaries
/opt/helpsystems/intermapper/bin/intermapperd	Intermapper Server executable
/opt/helpsystems/intermapper/bin/intermapperauthd	Intermapper authorization delegate
/opt/helpsystems/intermapper/bin/intermapperflows	Intermapper Flows server
/opt/helpsystems/intermapper/man/man1/intermapperd.1	Documentation
/opt/helpsystems/intermapper/man/man1/intermapperauthd.1	Documentation
/opt/helpsystems/intermapper/share/intermapper	Intermapper support files
/opt/helpsystems/intermapper/imdc	Intermapper DataCenter folder
/var/opt/helpsystems/intermapper/InterMapper_Settings/Flows	Intermapper Flows folder
/var/opt/helpsystems/intermapper/InterMapper_Settings/Flows/SESSIONDB	Default directory for the flow database
/var/opt/helpsystems/intermapper/InterMapper_Settings/Flows/flows.conf	Configuration file for Intermapper Flows
/var/opt/helpsystems/intermapper/InterMapper_Settings/Flows/services	List of port numbers and service names
/opt/helpsystems/intermapper/share/intermapper/imflows_configure.sh	The IMflows configuration script

When Intermapper first starts, the Intermapper_Settings folder is created and stored in the /var/opt/helpsystems/intermapper/Intermapper_Settings folder. This folder stores preferences, maps, and data that

Intermapper collects from your network. You can change the location of the InterMapper Settings folder by editing Intermapper's configuration file (intermapperd.conf) to which a link is created from the /usr/local/etc folder.

The installer also creates a new folder /opt/helpsystems/intermapper/imdc that contains the Intermapper DataCenter's files, including data and configuration files.

There are now three Intermapper services (intermapperd, imflows, and imdc), managed by systemd on all Linux systems, that have systemd active at the time Intermapper is installed. The systemd service files are located in the /opt/helpsystems/intermapper/share/intermapper/units directory. These files are copied to the appropriate run-time location during the installation process. The SystemV-style startup scripts (as used in earlier Intermapper versions) are supplied in the /opt/helpsystems/intermapper/share/intermapper/sysv.init directory. These files are only installed if systemd is not managing the Linux host when Intermapper is installed.

The intermapperauthd file is a setuid-root program. The intermapperd service (running as a non-privileged user) makes requests to intermapperauthd to access low-level network services, such as ICMP ping and low-numbered network ports.

The installer creates user and group entries named "intermapper" on your system, if they do not exist already. The new user and group configuration and log files are stored in the InterMapper Settings and Intermapper DataCenter folders. These log and configuration files are not granted public read access. If you want to read these files, add yourself to the intermapper group or use sudo in your commands.

Managing Intermapper Services

To start individual services, run the following service management commands:

```
sudo systemctl start intermapperd.service
sudo systemctl start imdc.service
sudo systemctl start imflows.service
```

To stop individual services, run the following service management commands:

```
sudo systemctl stop intermapperd.service
sudo systemctl stop imdc.service
sudo systemctl stop imflows.service
```

To verify the version of Intermapper that is installed, run the following command:

```
/opt/helpsystems/intermapper/bin/intermapperd -v
```

To check if Intermapper services are currently running, run the following commands:

```
systemctl status intermapperd.service
systemctl status imflows.service
systemctl status imdc.service
```

Intermapper Data Center

You do not need to configure Intermapper DataCenter if you access it from the local machine. To enable external access and more advanced configuration, go to https://localhost:8182.

Intermapper DataCenter ships with a self-signed SSL certificate. Your browser displays a certificate warning when you visit the DataCenter web interface. You can select the certificate and safely continue to navigate to the page. The Intermapper

DataCenter Settings page allows you to upload your own certificate rather than relying on the less secure certificate shipped with Intermapper.

Setting a password for the Intermapper Data Center

The Intermapper DataCenter configuration page, accessed from a browser, requires its own password.

Run the following commands:

```
sudo systemctl stop imdc.service
sudo /opt/helpsystems/intermapper/imdc/sbin/imdc --password=[password]
sudo systemctl start imdc.service
```

Now you can connect to Intermapper using one of the following URLs:

- https://localhost:8182/settings.html
- https://*IPaddress*:8182/settings.html
- https://*domain name*:8182/settings.html

Uninstalling Intermapper

To uninstall Intermapper from your system, use the system's graphical package manager, or run the following command:

```
sudo dpkg -r intermapper
```

When you uninstall Intermapper, the settings and data files are not removed. If you do not plan on reinstalling Intermapper and want to remove it completely, manually remove the InterMapper Settings, Intermapper Flows, and Intermapper DataCenter folders by using the following commands:

```
sudo dpkg --purge intermapper
sudo rm -rf /var/opt/helpsystems/intermapper/InterMapper_Settings
sudo rm -rf /opt/helpsystems/intermapper/imdc
sudo deluser intermapper
```

Installing Remote Access

To install Intermapper RemoteAccess:

Double-click the `Intermapper_RemoteAccess_6.6.2.dmg` file to open the disk image. Drag the Intermapper RemoteAccess icon into the Applications folder or onto your Desktop. Double-click the icon to start Intermapper RemoteAccess.

If your Intermapper server does not have a graphical interface, use Intermapper RemoteAccess to administer the Intermapper server. Before the Intermapper server can accept connections from Remote Access, launch the server with a command line argument, telling it where to connect from. Run the following commands to manually stop intermapper, grant remote access to the server, and restart Intermapper:

```
sudo /usr/local/share/intermapper/Stop.sh
sudo /usr/local/bin/intermapperd -f /usr/local/etc/intermapperd.conf --setenv 'Admin=remote:password@*.*.*.*'
sudo /usr/local/share/intermapper/Start.sh
```

> **NOTE:** For installations that do not have sudo installed, it is not required. The commands must be run as root; the sudo command can be omitted.

The --setenv Admin "remote:password@*.*.*.*" option tells Intermapper server to accept administrator connections from any IP address (*.*.*.*) with the user ID of remote and the password of password. After you restart the server, launch Intermapper RemoteAccess on another computer, log into the Intermapper server to set up the Admin user with a strong password, and set the allowed addresses for the remote server access list.

The Linux Intermpper RemoteAccess package (a self-extracting installer) does not deliver a Java JRE: it will attempt to use the JRE supplied with an Intermapper Server installation on the same host, or, failing that, a Java Runtime from the host environment.

To start the Intermapper RemoteAccess installer, run the following command:

```
$ sh ./Install_InterMapper_RemoteAccess_.bin
```

To launch Intermapper RemoteAccess, run the following commands:

```
$ cd InterMapper_RemoteAccess_
$ ./intermapper_remoteaccess.sh
```

If your Intermapper server does not have a graphical interface, use Intermapper RemoteAccess to administer the Intermapper server. Before the Intermapper server can accept connections from Remote Access, launch the server with a command line argument, telling it where to connect from. Run the following commands to manually stop the intermapperd process, grant remote access to the server, and restart the intermapperd process:

```
sudo systemctl stop intermapperd.service
sudo /opt/helpsystems/intermapper/bin/intermapperd -f /usr/local/etc/intermapperd.conf --setenv 'Admin=remote:password@*.*.*.*'
sudo systemctl start intermapperd.service
```

The Intermapper RemoteAccess package includes and installs a compatible JRE which runs the Intermapper client.

Silent installation with an ISS file

To silently install Intermapper Remote Access, you must create and use an ISS file.

1. Uninstall your previous version of Intermapper Remote Access.
2. To create an ISS file, launch the following as an Administrator from a command line or from a script:

   ```
   InterMapper_RemoteAccess_Setup_662.exe /a /r /f1"c:\temp\imra_setup.iss"
   ```

3. Go to C:\temp to see if the imra_setup.iss is there.
4. To install Intermapper Remote Access with the new ISS file, enter the following command:

   ```
   InterMapper_Setup_662_x64.exe /s /a /SMS /f1"c:\temp\imra_setup.iss"
   ```

   > **NOTE:** The installation takes 10-15 seconds. The silent installation exits quickly and runs in the background. Wait 10-15 seconds to see Intermapper Server appear in the Control Panel.

Intermapper Remote Access will try to launch as soon as it is installed. If you do not want Intermapper Remote Access to start automatically, use a local environment variable NOLAUNCHHIM. You can also put the command line into a script as in the following:

```
@set NOLAUNCHIM=1
InterMapper_RemoteAccess_Setup_662.exe /s /a /SMS /f1"c:\temp\imra_setup.iss"
@timeout /T 25 /nobreak > NUL
@set NOLAUNCHIM=0
```

Uninstalling Remote Access

To uninstall Intermapper RemoteAccess from a macOS system:

1. Open the **Applications** folder.
2. Drag the **Intermapper RemoteAccess** icon to the trash.
3. Manually remove files that have **com.dartware.*.plist** or **com.helpsystems.*.plist** in the file names from the **../Library/Preferences** folder.

Delete the **Intermapper_Remote Access_6.6.2** directory and the Intermapper RemoteAccess icon from your desktop.

To uninstall Intermapper RemoteAccess from a Microsoft Windows system:

1. Open the **Control Panel**.
2. From **Programs and Features**, click **Intermapper RemoteAccess**.
3. Click **Uninstall** and follow the prompts.

Installing Intermapper on macOS Systems

Running Intermapper on a macOS virtual machine is not supported.

Before you start, download the installer to a convenient location. If you are a current user, access the download from the Fortra website (https://community.fortra.com). If you are a new customer, use the link in email you received to download Intermapper.

1. Double-click the **.dmg** installer file to open the disk image.
2. Double-click the **Intermapper-6.6.2.pkg** file and follow the instructions. You must be an Administrator to install this software.
3. When the installer finishes, it launches the Intermapper client to view and configure your Intermapper server.

Installing from the command line

1. Log on as root user.
2. Identify the disk image (*.dmg) file containing the Intermapper Combined Installer distribution. Use the hdiutil command to mount the disk image.
3. Invoke the macOS command installer (found at path /usr/sbin/installer) on the package (*.dpkg) file that is visible below the mount point for the newly mounted disk image. Use the target option to specify the root directory (/) as the destination for the installation process.
4. After completing the installation process, you can then unmount the disk image.

```
# hdiutil mount "/Users/user/Downloads/InterMapper-6.6.2.dmg"
/dev/disk3 GUID_partition_scheme
```

```
/dev/disk3s1 Apple_HFS /Volumes/InterMapper-6.6.2
# installer -package "/Volumes/InterMapper-6.6.2/InterMapper-6.6.2.pkg" -target /
. . .
# hdiutil unmount "/Volumes/InterMapper-6.6.2"
"/Volumes/InterMapper-6.6.2" unmounted successfully.
```

5. To launch the Intermapper client, double-click on the InterMapper icon in the Applications folder. From that interface you can now continue to view and configure your Intermapper server.

If you are upgrading the Intermapper Combined Installer from the command line, then the procedure is similar. The macOS command installer will, when invoked with the appropriate values for the package file and destination path (-target /), infer that an upgrade installation desired and will upgrade from the old version of Intermapper to the new version as part of the process of installing the new package.

What is installed and where

Intermapper components are installed as separate macOS services. This means that after you start them, they automatically start running when your computer starts, before any users are logged in. It continues to run even when no user is logged in. For information on managing these services, see Managing Intermapper Services. The installer creates the following files and folders:

File Path	Contents
/Library/Application Support/InterMapper Settings	Intermapper settings
/Applications/InterMapper.app	Intermapper application folder
/usr/local/bin/intermapperd	Intermapper Server executable
/usr/local/bin/intermapperauthd	Intermapper authorization delegate

File Path	Contents
/usr/local/bin/intermapperflows	Intermapper Flows server binaries
/usr/local/share/man/man1/intermapperd.1	Documentation
/usr/local/share/man/man1/intermapperauthd.1	Documentation
/usr/local/share/intermapper/Start.sh	Script to start Intermapper Server
/usr/local/share/intermapper/Stop.sh	Script to Stop Intermapper Server
/usr/local/share/intermapper/Extension.sh	Script to start/stop Later 2 server
/usr/local/share/intermapper/Uninstaller.sh	Script to uninstall Intermapper application
/usr/local/share/intermapper/TestScript.pl	
/usr/local/share/intermapper/relaunch	Executable to relaunch Intermapper Server
/Library/Application Support/InterMapper Settings/Flows	Intermapper Flows folder
/Library/Application Support/InterMapper Settings/Flows/SESSIONDB	Default directory for the flow database
/Library/Application Support/InterMapper Settings/Flows/flows_knowngood.conf	The last known good configuration file
/Library/Application Support/InterMapper Settings/Flows/flows.conf	Configuration file for Intermapper Flows
/Library/Application Support/InterMapper Settings/Flows/services	List of port numbers and service names
/usr/local/imdc	Intermapper DataCenter folder

When Intermapper first starts, the InterMapper Settings folder is created in the /Library/Application Support/InterMapper Settings directory. This folder stores settings and data that Intermapper collects from your network.

Intermapper DataCenter creates the /opt/helpsystems/intermapper/imdc folder that contains the core IMDC files, including configuration and log files.

For macOS 10.7 and higher, the following installation files are created:

```
- /var/db/receipts/com.dartware.InterMapperPkg.bom
- /var/db/receipts/com.dartware.InterMapperPkg.plist
```

The following system start-up configuration files are also created:

```
- /Library/LaunchDaemons/com.dartware.InterMapperServer.plist
- /Library/LaunchDaemons/com.dartware.InterMapperDataCenter.plist
- /Library/LaunchDaemons/com.dartware.InterMapperFlows.plist
```

The intermapperauthd file is a setuid-root program. The intermapperd daemon (running as a non-privileged user) makes requests to intermapperauthd to access low-level network services, such as ICMP ping and low-numbered network ports.

The Start.sh, Stop.sh, and Uninstaller.sh scripts are described in Managing Intermapper Services. The Extension.sh, TestScript.pl, and relaunch scripts are used internally by Intermapper for diagnostic purposes.

The installer creates the intermapper user and the intermapper group on your system, if they do not exist already. The new user and group configuration and log files are stored in the InterMapper Settings and Intermapper DataCenter folders. These files are not granted public read access. If you want to read these files, add yourself to the intermapper group or use sudo in your commands.

Upgrading on MacOS X High Sierra Systems

Before you upgrade:

1. Back up your Intermapper Settings folder.
2. Uninstall Intermapper using the following command:

```
sudo /usr/local/share/intermapper/Uninstaller.sh
```

3. Remove the Intermapper user and group using the following commands:

```
sudo dscl . delete /groups/intermapper
sudo dscl . delete /users/intermapper
```

4. Reinstall Intermapper.

After you upgrade

After installation, High Sierra clears the setuid bit (sticky bit) for intermapperauthd, even though it is configured during installation. As a result, Intermapper cannot open low-numbered ports used by some probes. To work around this issue, run the following command:

```
sudo chmod u+s /usr/local/bin/intermapperauthd
```

Managing Intermapper Services

You can start and stop Intermapper services with the Intermapper Control Center, available on the right side of the macOS menu bar. The Intermapper and Intermapper DataCenter services are started and stopped simultaneously. You can also manually start individual services using the following commands:

```
sudo /usr/local/share/intermapper/Start.sh
sudo /usr/local/share/intermapper/Start.sh imdc
sudo /usr/local/share/intermapper/Start.sh imflows
```

You can manually stop individual services using the following commands:

```
sudo /usr/local/share/intermapper/Stop.sh
sudo /usr/local/share/intermapper Stop.sh imdc
sudo /usr/local/share/intermapper/Stop.sh imflows
```

You can look up the version of Intermapper that is installed from the Intermapper Control Center. You can also start a web browser and navigate to the web interface for Intermapper DataCenter. The version number is displayed at the bottom of the page. You can also run the following command:

```
/usr/local/bin/intermapperd -v
```

To check if Intermapper services are currently running, run the following commands:

```
ps acux | grep intermapperd
ps acux | grep intermapperflows
ps acux | grep imdc
```

Starting Intermapper Flows

Intermapper Flows allows you to obtain deeper insight into the traffic on your network. When Intermapper Flows first starts, it creates a 10 GB flows database. You can change the database size and location to fit your needs. Intermapper Flows does not run by default. Use the Intermapper Control Center to start it to access flows information.

Intermapper Flows does not include a graphical user interface. However, you can access flow information either through the built-in Intermapper client or through Intermapper RemoteAccess. Open the Flows window by right-clicking a device on a map. When you do this, you can see information about the traffic on the selected device.

If you purchased Intermapper with Flows, use the serial number to register your installation. If you are only trying Intermapper out, your evaluation serial number allows you to receive data from one exporter source (NetFlow or sFlow data).

See the Intermapper User Guide or online help for more information on Intermapper Flows.

Intermapper Data Center

You do not need to configure Intermapper DataCenter if you access it from the local machine. To enable external access and more advanced configuration, go to https://localhost:8182.

Intermapper DataCenter ships with a self-signed SSL certificate. Your browser displays a certificate warning when you go to the DataCenter web interface. You can select the certificate and safely continue to navigate to the page. The Intermapper

DataCenter Settings page allows you to upload your own certificate rather than relying on the less secure certificate shipped with Intermapper.

Uninstalling Intermapper

To remove Intermapper from your system, run the following command:

```
sudo /usr/local/share/intermapper/Uninstaller.sh
```

When you uninstall Intermapper, the settings and data files are not removed. If you do not plan on reinstalling Intermapper and want to remove it completely, manually remove the InterMapper Settings, Intermapper Flows, and Intermapper DataCenter folders using the following commands:

```
sudo rm -rf "/Library/Application Support/InterMapper Settings"
sudo rm -rf /usr/local/imdc
```

Installing Remote Access

To install Intermapper RemoteAccess:

Double-click the `Intermapper_RemoteAccess_6.6.2.dmg` file to open the disk image. Drag the Intermapper RemoteAccess icon into the Applications folder or onto your Desktop. Double-click the icon to start Intermapper RemoteAccess.

If your Intermapper server does not have a graphical interface, use Intermapper RemoteAccess to administer the Intermapper server. Before the Intermapper server can accept connections from Remote Access, launch the server with a command line argument, telling it where to connect from. Run the following commands to manually stop intermapper, grant remote access to the server, and restart Intermapper:

```
sudo /usr/local/share/intermapper/Stop.sh
sudo /usr/local/bin/intermapperd -f /usr/local/etc/intermapperd.conf --setenv 'Admin=remote:password@*.*.*.*'
sudo /usr/local/share/intermapper/Start.sh
```

> **NOTE:** For installations that do not have sudo installed, it is not required. The commands must be run as root; the sudo command can be omitted.

The --setenv Admin "remote:password@*.*.*.*" option tells Intermapper server to accept administrator connections from any IP address (*.*.*.*) with the user ID of remote and the password of password. After you restart the server, launch Intermapper RemoteAccess on another computer, log into the Intermapper server to set up the Admin user with a strong password, and set the allowed addresses for the remote server access list.

The Linux Intermpper RemoteAccess package (a self-extracting installer) does not deliver a Java JRE: it will attempt to use the JRE supplied with an Intermapper Server installation on the same host, or, failing that, a Java Runtime from the host environment.

To start the Intermapper RemoteAccess installer, run the following command:

```
$ sh ./Install_InterMapper_RemoteAccess_.bin
```

To launch Intermapper RemoteAccess, run the following commands:

```
$ cd InterMapper_RemoteAccess_
$ ./intermapper_remoteaccess.sh
```

If your Intermapper server does not have a graphical interface, use Intermapper RemoteAccess to administer the Intermapper server. Before the Intermapper server can accept connections from Remote Access, launch the server with a command line argument, telling it where to connect from. Run the following commands to manually stop the intermapperd process, grant remote access to the server, and restart the intermapperd process:

```
sudo systemctl stop intermapperd.service
sudo /opt/helpsystems/intermapper/bin/intermapperd -f /usr/local/etc/intermapperd.conf --setenv 'Admin=remote:password@*.*.*.*'
sudo systemctl start intermapperd.service
```

The Intermapper RemoteAccess package includes and installs a compatible JRE which runs the Intermapper client.

Silent installation with an ISS file

To silently install Intermapper Remote Access, you must create and use an ISS file.

1. Uninstall your previous version of Intermapper Remote Access.
2. To create an ISS file, launch the following as an Administrator from a command line or from a script:

   ```
   InterMapper_RemoteAccess_Setup_662.exe /a /r /f1"c:\temp\imra_setup.iss"
   ```

3. Go to C:\temp to see if the imra_setup.iss is there.
4. To install Intermapper Remote Access with the new ISS file, enter the following command:

```
InterMapper_Setup_662_x64.exe /s /a /SMS /f1"c:\temp\imra_setup.iss"
```

NOTE: The installation takes 10-15 seconds. The silent installation exits quickly and runs in the background. Wait 10-15 seconds to see Intermapper Server appear in the Control Panel.

Intermapper Remote Access will try to launch as soon as it is installed. If you do not want Intermapper Remote Access to start automatically, use a local environment variable NOLAUNCHHIM. You can also put the command line into a script as in the following:

```
@set NOLAUNCHIM=1
InterMapper_RemoteAccess_Setup_662.exe /s /a /SMS /f1"c:\temp\imra_setup.iss"
@timeout /T 25 /nobreak > NUL
@set NOLAUNCHIM=0
```

Uninstalling Remote Access

To uninstall Intermapper RemoteAccess from a macOS system:

1. Open the **Applications** folder.
2. Drag the **Intermapper RemoteAccess** icon to the trash.
3. Manually remove files that have **com.dartware.*.plist** or **com.helpsystems.*.plist** in the file names from the **../Library/Preferences** folder.

Delete the **Intermapper_Remote Access_6.6.2** directory and the Intermapper RemoteAccess icon from your desktop.

To uninstall Intermapper RemoteAccess from a Microsoft Windows system:

1. Open the **Control Panel**.
2. From **Programs and Features**, click **Intermapper RemoteAccess**.
3. Click **Uninstall** and follow the prompts.

Licensing

Fortra redesigned the licensing mechanism and license key formats. You need a license key in the new format to run a current version of Intermapper. If you are a customer with a current maintenance contract, you need to request a new license key. If no valid license key is found, a License Key Required window is displayed. Click **Request a trial license key** and complete and submit the form. Intermapper connects to a web service, retrieves a key, and inserts it in the Register Intermapper Server window. Click **Register** to apply the key.

You might need to adjust your firewall settings to allow access from either Intermapper RemoteAccess (defaults to TCP port 8181) or your web browser (port 80). You might also need to open the UDP port 2055 to use Intermapper Flows.

Contacting Fortra

Please contact Fortra for questions or to receive information about Intermapper. You can contact us to receive technical bulletins, updates, program fixes, and other information via electronic mail, Internet, or fax.

Fortra Portal

For additional resources, or to contact Technical Support, visit the Fortra Community Portal at https://community.fortra.com.

Customer Portal

For additional resources, or to contact Technical Support, visit the Intermapper Community Portal at https://community.fortra.com/.

For additional resources, or to contact Technical Support, visit our website at https://www.fortra.com/support.

For support issues, please provide the following:

- Check this guide's table of contents and index for information that addresses your concern.
- Gather and organize as much information as possible about the problem including job/error logs, screen shots or anything else to document the issue.