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# RPM Installation Manual

## Administrator Guide

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# 1 Overview

This guide describes how to obtain and install UniMRCP binary packages on Red Hat-based Linux distributions. The document is intended for system administrators and developers.

## 1.1 Applicable Versions

Instructions provided in this guide are applicable to the following versions.

 UniMRCP 1.4.0 and above

## 1.2 Supported Distributions


UniMRCP RPMs are currently available for x86\_64 (64-bit) architecture only.

Operating System	Released	End of Support
Red Hat / Cent OS 6	February 2017	August 2018
Red Hat / Cent OS 7	March 2017	TBA
Red Hat / Cent OS 8	January 2021	TBA

Note: packages for other distributions can be made available upon request. For more information, contact [services@unimrcp.org](mailto:services@unimrcp.org).

## 1.3 Authentication

UniMRCP binary packages are available to authenticated users only. In order to register a free account with UniMRCP, please visit the following page.

 <https://www.unimrcp.org/profile-registration>

Note: a new account needs to be verified and activated prior further proceeding.

## 2 Installing RPMs Using YUM

Using the Yellowdog Updater, Modifier (yum), a command-line package management utility for Red Hat-based distributions, is recommended for installation of UniMRCP binary packages.

### 2.1 Repository Configuration

The content of a typical yum configuration file, to be placed in `/etc/yum.repos.d/unimrcp.repo`, is provided below.

```
[unimrcp]
name=UniMRCP Packages for Red Hat / Cent OS-$releasever $basearch
baseurl=https://username:password@unimrcp.org/repo/yum/main/rhel$releasever/$basearch/
enabled=1
sslverify=1
ggpcheck=1
ggpkey=https://unimrcp.org/keys/unimrcp-gpg-key.public
```

The username and password fields included in the HTTPS URI must be replaced with the corresponding account credentials.

### 2.2 Repository Verification

In order to verify that yum can properly connect and access the UniMRCP repository, the following command can be used.

```
yum repolist unimrcp
```

where `unimrcp` is a name of the section set in the yum configuration file above.

In order to retrieve a list of packages the UniMRCP repository provides, the following command can be used.

```
yum --disablerepo="*" --enablerepo="unimrcp" list available
```

## 2.3 UniMRCP Client Installation

In order to install the UniMRCP client binaries, including the dependencies, the following command can be used.

```
yum install unimrcp-client
```

As a result, yum will check and prompt to download all the required packages by installing them in the directory */opt/unimrcp*.

Similarly, for installation of development kit(s), the UniMRCP client libraries and header files, the following command may follow.

```
yum install unimrcp-client-devel
```

## 2.4 UniMRCP Server Installation

In order to install the UniMRCP server binaries, including the dependencies, the following command can be used.

```
yum install unimrcp-server
```

As a result, yum will check and prompt to download all the required packages by installing them in the directory */opt/unimrcp*.

Similarly, for installation of development kit(s), the UniMRCP server libraries and header files, the following command may follow.

```
yum install unimrcp-server-devel
```

In order to install a package containing a set of demo plugins to the UniMRCP server, the following command can be used.

```
yum install unimrcp-demo-plugins
```

## 3 Installing RPMs Manually

UniMRCP RPM packages can be installed manually using the *rpm* utility. Note, however, that the system administrator should take care of package dependencies and install all the packages in appropriate order.

The RPM packages have the following naming convention:

```
$packagename-$universion-$packageversion.el$rhelversion.$arch.rpm
```

where

- *packagename* is the name of a package
- *universion* is the UniMRCP version
- *packageversion* is the RPM release version
- *rhelversion* is the Red Hat version
- *arch* is the architecture (x86\_64, i686, ...)

### 3.1 Package List

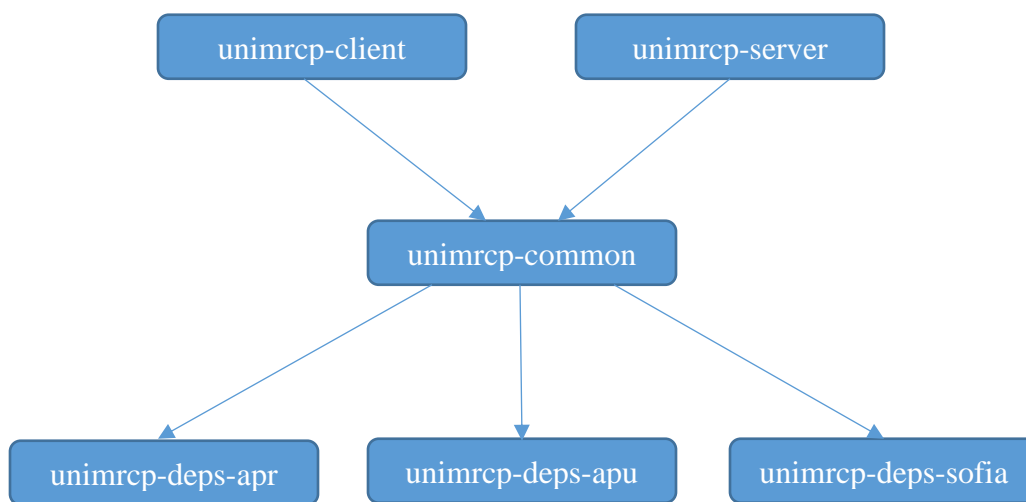
The following is a complete list of RPM packages UniMRCP provides.

Package Name	Description
<b>unimrcp-client</b>	Shared libraries and sample applications of the client.
<b>unimrcp-client-devel</b>	Development kit of the client.
<b>unimrcp-server</b>	Shared library and application of the server.
<b>unimrcp-server-devel</b>	Development kit of the server.
<b>unimrcp-demo-plugins</b>	Set of demo plugins to the server. [Optional]
<b>unimrcp-common</b>	Data common for the client and the server.
<b>unimrcp-common-devel</b>	Development kit of the common client and server data.
<b>uniapr</b>	UniMRCP edition of the Apache Portable Runtime (APR) library.
<b>uniapr-devel</b>	Development kit of the corresponding APR library.
<b>uniapr-util</b>	UniMRCP edition of the Apache Portable Runtime Utility (APR-Util) library.

<b>uniapr-util-devel</b>	Development kit of the corresponding APR-Util library.
<b>unisofia-sip</b>	UniMRCP edition of the Sofia SIP library.
<b>unisofia-sip-devel</b>	Development kit of the corresponding Sofia SIP library.

## 3.2 Package Dependency Graph

The following is a graph of package dependencies.



## 3.3 Package Installation Order

Note that all the RPM packages provided by UniMRCP are signed by a GNU Privacy Guard (GPG) key. Before starting the installation, you may need to import the public key in order to allow the `rpm` utility to verify the packages.

```
rpm --import https://unimrcp.org/keys/unimrcp-gpg-key.public
```

Packages for the APR, APR-Util and Sofia-SIP libraries must be installed first.

```
rpm -ivh uniapr-$aprversion-$packageversion.el$rhelversion.$sarch.rpm
rpm -ivh uniapr-util-$apuverson-$packageversion.el$rhelversion.$sarch.rpm
```

```
rpm -ivh unisofia-sip-$sofiaversion-$packageversion.el$rhelversion.$arch.rpm
```

Then, a package containing common data for the client and the server should follow.

```
rpm -ivh unimrcp-common-$universion-$packageversion.el$rhelversion.$arch.rpm
```

Based on your requirements, either a client package, or a server package, or both of them can be installed next.

```
rpm -ivh unimrcp-client-$universion-$packageversion.el$rhelversion.$arch.rpm  
rpm -ivh unimrcp-server-$universion-$packageversion.el$rhelversion.$arch.rpm
```

Optionally, a package containing a set of demo plugins to the server may follow.

```
rpm -ivh unimrcp-demo-plugins-$universion-$packageversion.el$rhelversion.$arch.rpm
```

The same order should be considered for the installation of the corresponding development packages.



# 4 System Daemon

This section outlines how to start/stop the UniMRCP server as a daemon, and applies to 1.5.0 and above.

Upon installation of the UniMRCP server package, a systemd unit file *unimrcp.service* is installed in the directory */usr/lib/systemd/system* and can be used as follows.

## 4.1 Starting Daemon

```
systemctl start unimrcp.service
```

## 4.2 Stopping Daemon

```
systemctl stop unimrcp.service
```

## 4.3 Retrieving Daemon Status

```
systemctl status unimrcp.service
```

## 4.4 Setting Auto-start on Next Boot

```
systemctl enable unimrcp.service
```