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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 binary packages are currently available only for x86_64 (64-bit) architecture.

Operating System	32-bit	64-bit
Red Hat / Cent OS 6		✓
Red Hat / Cent OS 7		✓

Note: packages for other distributions can be made available upon request. For more information, contact 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

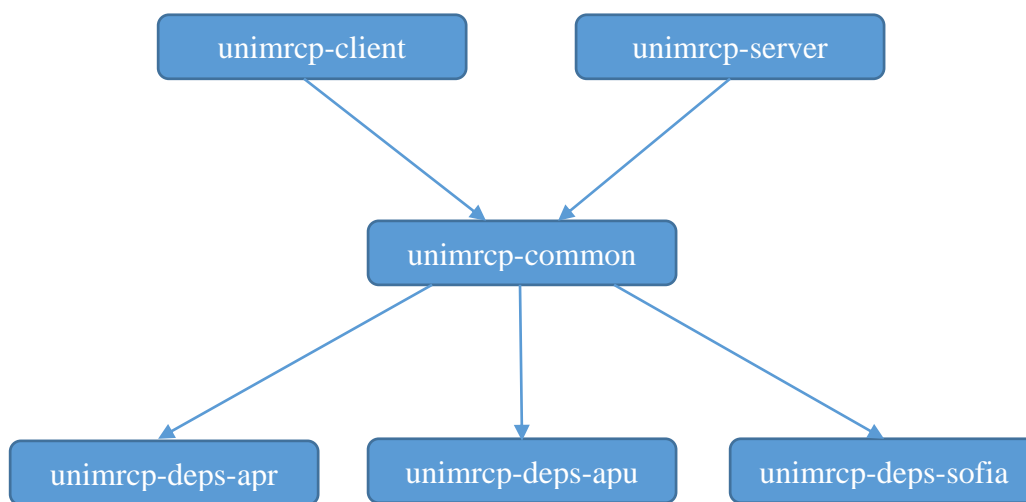
The following is a complete list of RPM packages UniMRCP provides.

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

uniapr-util-devel	Development kit of the corresponding APR-Util library.
unisofia-sip	UniMRCP edition of the Sofia SIP library.
unisofia-sip-devel	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$rhelversion.$arch.rpm
rpm -ivh uniapr-util-$apuverson-$packageversion.el$rhelversion.$arch.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
```