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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'subscription-manager.8' command

$ man subscription-manager.8

subscription-manager(8) Subscription Management subscription-manager(8)

NAME

subscription-manager - Registers systems to a subscription management service and then attaches and manages subscriptions for software prod? ucts.

SYNOPSIS

subscription-manager command [options]

DESCRIPTION

subscription-manager is a client program that registers a system with a subscription management service such as the Customer Portal Subscrip? tion Management service or on-premise Subscription Asset Manager.

Red Hat provides content updates and support by issuing subscriptions for its products. These subscriptions are applied to systems; once a subscription for a product is attached to a system, that system is al? lowed to install, update, and receive support for that software prod? uct. IT administrators need to track these subscriptions and how they are attached. This subscription management is a feature available for Red Hat platforms version 5.7 (and later) and version 6.1 (and later).

For RHEL systems, content is delivered through the Red Hat Customer Portal. Subscriptions and systems are managed globally through the Red Hat subscription management service, which is integrated with the Cus? tomer Portal. Subscriptions are managed for the local system by using the Red Hat Subscription Manager tool. Subscription Manager is a local

client which connects a system with the subscription management ser? vice.

subscription-manager is the command-line based client for the Red Hat Subscription Manager tool.

Subscription Manager performs several key operations:

* It registers systems to the Red Hat subscription management service and adds the system to the inventory. Once a system is registered, it can receive updates based on its subscriptions to any kind of software products.

* It lists both available and used subscriptions.

* It allows administrators to both attach specific subscriptions to a system and remove those subscriptions.

Subscription Manager can be used to auto-attach subscriptions to a sys? tem, as well. The subscription-manager command can even be invoked as part of a kickstart process.

Available subscriptions are based on the specific information about the system's architecture. A subscription is only considered available if the platform and hardware can support that specific product.

Subscription Manager also collects and summarizes system facts related to its hardware, operating system, and other characteristics. These facts can be edited in the Subscription Manager configuration and dis? played through Subscription Manager.

There is also a Subscription Manager GUI, which can be invoked simply by running subscription-manager-gui from the command line.

Subscription management is only available for RHEL 5.7/6.1 and later systems. Older systems should register to Red Hat Network Classic using the rhn_register command.

COMMANDS AND OPTIONS

subscription-manager has specific options available for each command, depending on what operation is being performed. Subscription Manager commands are related to the different subscription operations:

Note: Please note that using commands that require providing a username using --username , a password using --password , an organization using

--org , or environments using --environments must be passed as system arguments in a non-interactive session.

1. register
2. unregister
3. attach
4. auto-attach
5. remove
6. release
7. import
8. redeem
9. list
10. refresh
11. environments
12. repos
13. orgs
14. plugins
15. identity
16. facts
17. clean
18. config
19. version
20. status
21. syspurpose
22. repo-override

Following commands were deprecated: addons, role, service-level, subscribe, unsubscribe, usage, and activate

COMMON OPTIONS

-h, --help

Prints the specific help information for the given command.

--proxy=PROXY

Uses an HTTP proxy. The PROXY name has the format hostname:port.

--proxyuser=PROXYUSERNAME

Gives the username to use to authenticate to the HTTP proxy.

--proxypass=PROXYPASSWORD

Gives the password to use to authenticate to the HTTP proxy.

--noproxy=NOPROXY

Specifies a list of domain suffixes which should bypass the HTTP proxy.

--no-progress-messages

Disables progress messages that are being displayed when waiting for server response.

REGISTER OPTIONS

The register command registers a new system to the subscription manage? ment service.

Note: Please note that using commands that require providing a username using --username , a password using --password , an organization using --org , or environments using --environments must be passed as system arguments in a non-interactive session.

--username=USERNAME

Gives the username for the account which is registering the sys? tem; this user account is usually tied to the user account for the content delivery system which supplies the content. Op? tional, for user-based authentication.

--password=PASSWORD

Gives the user account password.

--token=TOKEN

Token to use when authorizing against the server.

--serverurl=SERVER_HOSTNAME

Passes the name of the subscription service with which to regis? ter the system. The default value, if this is not given, is the Customer Portal Subscription Management service, subscrip? tion.rhsm.redhat.com. If there is an on-premise subscription service such as Subscription Asset Manager, this parameter can be used to submit the hostname of the subscription service. For Subscription Asset Manager, if the Subscription Manager tool is configured with the Subscription Asset Manager RPM, then the de?

fault value for the --serverurl parameter is for the on-premise Subscription Asset Manager server.

--baseurl=https://CONTENT_SERVICE:PORT/PREFIX

Passes the name of the content delivery service to configure the yum service to use to pull down packages. If there is an on-premise subscription service such as Subscription Asset Manager or CloudForms System Engine, this parameter can be used to sub?mit the URL of the content repository, in the form https://server_name:port/prefix. PREFIX in particular depends on the service type. For example, https://sam.exam?ple.com:8088/sam is the baseurl for a SAM service. https://sat6.example.com/pulp/repos is the baseurl for a Satel?lite 6 service with the hostname sat6.example.com . https://cdn.redhat.com is the baseurl for the Red Hat CDN.

--name=SYSTEM_NAME

Sets the name of the system to register. This defaults to the hostname.

--consumerid=CONSUMERID

References an existing system inventory ID to resume using a previous registration for this system. The ID is used as an in?ventory number for the system in the subscription management service database. If the system's identity is lost or corrupted, this option allows it to resume using its previous identity and subscriptions.

--activationkey=KEYS

Gives a comma-separated list of product keys to use to redeem or apply specific subscriptions to the system. This is used for preconfigured systems which may already have products installed. Activation keys are issued by an on-premise subscription manage?ment service, such as Subscription Asset Manager.

When the --activationkey option is used, it is not necessary to use the --username and --password options, because the authenti?cation information is implicit in the activation key.

For example:

subscription-manager register --org="IT Dept" --activationkey=1234abcd

--auto-attach

Automatically attaches compatible subscriptions to this system.

--servicelevel=LEVEL

Sets the preferred service level to use with subscriptions added to the system. Service levels are commonly premium, standard, and none, though other levels may be available depending on the product and the contract.

--force

When the system is already registered, a new attempt to register will fail with a message reminding the user that the system is already registered. However, passing the --force, option will implicitly attempt to unregister the system first. Beware that the --force option does not guarantee a successful registration. For example, if the registration with --force includes a differ? ent --serverurl than was used for the original registration, the implicit call to unregister from the original entitlement server will fail with invalid credentials and the registration with force will be aborted. In this case, the user should explicitly unregister from the original entitlement server. If unregister? ing is not possible, then running subscription-manager clean will effectively abandon the original registration identity and entitlements. Once cleaned, registering a new system identity should succeed with or without force.

--org=ORG

Assigns the system to an organization. Infrastructures which are managed on-site may be multi-tenant, meaning that there are mul? tiple organizations within one customer unit. A system may be assigned manually to one of these organizations. When a system is registered with the Customer Portal, this is not required. When a system is registered with an on-premise application such as Subscription Asset Manager, this argument is required, unless

there is only a single organization configured.

--environments=ENV

Registers the system to one or more environments within an orga? nization. This is a comma-separated list and the order is main? tained.

--release=VERSION

Shortcut for "release --set=VERSION"

UNREGISTER OPTIONS

The unregister command does two important things. Firstly, it will im? plicitly remove all of the currently attached subscriptions thereby re? turning the consumed quantity of entitlements back to their subscrip? tion pools making them available for other consumers. Secondly, it will remove the system's consumer identity thereby removing its contact with the currently configured subscription management service.

This command has no options.

ATTACH OPTIONS

The attach command applies a specific subscription to the system. This command is not possible to use, when the content access mode of the or? ganization to which the system is registered is simple content access mode.

--auto Automatically attaches the best-matched compatible subscription or subscriptions to the system. This is the default unless --pool or --file are used.

--pool=POOLID

Gives the ID for the subscriptions pool (collection of products) to attach to the system. This overrides the default of --auto.

--file=FILE

Specifies a file from which to read whitespace-delimited pool IDs. If FILE is "-", the pool IDs will be read from stdin. This overrides the default of --auto.

--quantity=NUMBER

Attaches a specified number of subscriptions to the system. Sub? scriptions may have certain limits on them, like the number of

sockets on the system or the number of allowed virtual guests. It is possible to attach multiple subscriptions (or stacking subscriptions) to cover the number of sockets, guests, or other characteristics. May not be used with an auto-attach.

--servicelevel=LEVEL

Sets the preferred service level to use with subscriptions automatically attached to the system. Service levels are commonly premium, standard, and none, though other levels may be available depending on the product and the contract. This option cannot be used when attaching specific pools via --pool or --file.

AUTO-ATTACH OPTIONS

The auto-attach command sets whether the ability to check, attach, and update subscriptions occurs automatically on the system. Auto-attaching subscriptions checks the currently-installed products, attached subscriptions, and any changes in available subscriptions every four hours using the rhsmcertd daemon.

--enable

Enables the auto-attach option for the system. If there is any change in the subscriptions for the system, any subscriptions expire, or any new products are installed, then subscription-manager detects the changes and automatically attaches the appropriate subscriptions so that the system remains covered.

--disable

Disables the auto-attach option for the system. If auto-attach is disabled, then any changes in installed products or subscriptions for the system (including expired subscriptions) must be addressed manually by the administrator.

--show Shows whether auto-attach is enabled on the systems.

REMOVE OPTIONS

The remove command removes a subscription from the system. (This does not uninstall the associated products.)

--serial=SERIALNUMBER

Gives the serial number of the subscription certificate for the

specific product to remove from the system. Subscription cer? tificates attached to a system are in a certificate, in /etc/pki/entitlement/<serial_number>.pem. To remove multiple subscriptions, use the --serial option multiple times.

--pool=POOLID

Removes all subscription certificates for the specified pool id from the system. To remove multiple sets of subscriptions, use the --pool option multiple times.

--all Removes all of the subscriptions attached to a system.

RELEASE OPTIONS

The release command sets a sticky OS version to use when installing or updating packages. This sets a preference for the minor version of the OS, such as 6.2 or 6.3. This can prevent unplanned or unsupported oper? ating system version upgrades when an IT environment must maintain a certified configuration.

--list Lists the available OS versions. If a release preference is not set, then there is a message saying it is not set.

--set=RELEASE

Sets the minor (Y-stream) release version to use, such as 6.3.

--unset

Removes any previously set release version preference.

SYSPURPOSE OPTIONS

The syspurpose command displays the current configured syspurpose pref? erences for the system.

The syspurpose command has subcommands for all the various syspurpose preferences and attributes:

1. addons
2. role
3. service-level
4. usage

--show Shows the system's current set of syspurpose preference format? ted as JSON. Single-valued entries for which there is no value will be included in the output with a value of "". List entries

which have no value will be included in the output with a value of "[]" (less the quotes).

addons options

The addons subcommand displays the current configured addons system purpose attribute preference for products installed on the system. For example, if the addons preference is ADDON1, then a subscription with a ADDON1 addon is selected when auto-attaching subscriptions to the sys? tem.

--show Shows the system's current addons preference. If a addons is not set, then there is a message saying it is not set.

--list Lists the available addons system purpose values.

--username=USERNAME

Gives the username for the account to use to connect to the or? ganization account [Usable with --list on unregistered systems].

--password=PASSWORD

Gives the user account password [Usable with --list on unregis? tered systems].

--token=TOKEN

Token to use when authorizing against the server [Usable with --list on unregistered systems].

--org=ORG

Identifies the organization for which the addons apply [Usable with --list on unregistered systems].

--add=ADDON

Addon to add to the list of requested addons for this system

--remove=ADDON

Remove the addon from the list of requested addons.

--unset

Removes all addons from the list of requested addons.

role options

The role subcommand displays the current configured role preference for products installed on the system. For example, if the role preference is "Red Hat Enterprise Linux Server", then a subscription with a "Red

Hat Enterprise Linux Server" role is selected when auto-attaching sub? scriptions to the system.

--show Shows the system's current role preference. If a role is not set, then there is a message saying it is not set.

--list Lists the available role system purpose values.

--username=USERNAME

Gives the username for the account to use to connect to the or? ganization account [Usable with --list on unregistered systems].

--password=PASSWORD

Gives the user account password [Usable with --list on unregis? tered systems].

--token=TOKEN

Token to use when authorizing against the server [Usable with --list on unregistered systems].

--org=ORG

Identifies the organization for which the role applies [Usable with --list on unregistered systems].

--set=ROLE

Role to apply to this system

--unset

Removes any previously set role preference.

service-level options

The service-level subcommand displays the current configured service level preference for products installed on the system. For example, if the service-level preference is standard, then a subscription with a standard service level is selected when auto-attaching subscriptions to the system.

--serverurl=SERVER_URL

Server URL in the form of https://hostname:port/prefix [Usable on unregistered systems].

--insecure

Do not check the server SSL certificate against available cer? tificate authorities

--show Shows the system's current service-level preference. If a ser?
vice level is not set, then there is a message saying it is not
set.

--list Lists the available service levels.

--username=USERNAME
Gives the username for the account to use to connect to the or?
ganization account [Usable with --list on unregistered systems].

--password=PASSWORD
Gives the user account password [Usable with --list on unregis?
tered systems].

--token=TOKEN
Token to use when authorizing against the server [Usable with
--list on unregistered systems].

--set=SERVICE_LEVEL
Service level to apply to this system

--unset
Removes any previously set service-level preference.

usage options

The usage subcommand displays the current configured usage preference for products installed on the system. For example, if the usage prefer? ence is "Production", then a subscription with a "Production" usage is selected when auto-attaching subscriptions to the system.

--show Shows the system's current usage preference. If a usage is not
set, then there is a message saying it is not set.

--list Lists the available usage system purpose values.

--username=USERNAME
Gives the username for the account to use to connect to the or?
ganization account [Usable with --list on unregistered systems].

--password=PASSWORD
Gives the user account password [Usable with --list on unregis?
tered systems].

--token=TOKEN
Token to use when authorizing against the server [Usable with

--list on unregistered systems].

--org=ORG

Identifies the organization for which the usage applies [Usable with --list on unregistered systems].

--set=USAGE

Usage to apply to this system

--unset

Removes any previously set usage preference.

IMPORT OPTIONS

The import command imports and applies a subscription certificate for the system which was generated externally, such as in the Customer Portal, and then copied over to the system. Importing can be necessary if a system is preconfigured in the subscription management service or if it is offline or unable to access the subscription management service but it has the proper, relevant subscriptions attached to the system.

--certificate=CERTIFICATE_FILE

Points to a certificate PEM file which contains the subscription certificate. This can be used multiple times to import multiple subscription certificates.

REDEEM OPTIONS

The redeem command is used for systems that are purchased from third-party vendors that include a subscription. The redemption process essentially auto-attaches the preselected subscription that the vendor supplied to the system.

--email=EMAIL

Gives the email account to send the redemption notification message to.

--locale=LOCALE

Sets the locale to use for the message. If none is given, then it defaults to the local system's locale.

LIST OPTIONS

The list command lists all of the subscriptions that are compatible with a system. The options allow the list to be filtered by subscrip?

tions that are used by the system or unused subscriptions that are available to the system.

--afterdate=YYYY-MM-DD

Shows pools that are active on or after the given date. This is only used with the --available option.

--all Lists all possible subscriptions that have been purchased, even if they don't match the architecture of the system. This is used with the --available option.

--available

Lists available subscriptions which are not yet attached to the system.

--consumed

Lists all of the subscriptions currently attached to the system.

--installed

Lists products which are currently installed on the system which may (or may not) have subscriptions associated with them, as well as products with attached subscriptions which may (or may not) be installed. (default)

--ondate=YYYY-MM-DD

Sets the date to use to search for active and available sub? scriptions. The default (if not explicitly passed) is today's date; using a later date looks for subscriptions which will be active then. This is only used with the --available option.

--no-overlap

Shows pools which provide products that are not already covered; only used with --available option.

--match-installed

Shows only subscriptions matching products that are currently installed; only used with --available option.

--matches=SEARCH

Limits the output of --installed, --available and --consumed to only subscriptions or products which contain SEARCH in the sub? scription or product information, varying with the list re?

quested and the server version.

SEARCH may contain the wildcards ? or * to match a single char? acter or zero or more characters, respectively. The wildcard characters may be escaped with a backslash to represent a lit? eral question mark or asterisk. Likewise, to represent a back? slash, it must be escaped with another backslash.

--pool-only

Limits the output of --available and --consumed such that only the pool IDs are displayed. No labels or errors will be printed if this option is specified.

REFRESH OPTIONS

The refresh command pulls the latest subscription data from the server. Normally, the system polls the subscription management service at a set interval (4 hours by default) to check for any changes in the available subscriptions. The refresh command checks with the subscription manage? ment service right then, outside the normal interval. Use of the re? fresh command will clear caches related to the content access mode of the system and allow the system to retrieve fresh data as necessary.

--force

Force regeneration of entitlement certificates on the server be? fore these certificates are pulled from the server.

ENVIRONMENTS OPTIONS

The environments command lists all of the environments that have been configured for an organization. This command is only used for organiza? tions which have a locally-hosted subscription or content service of some kind, like Subscription Asset Manager. The concept of environments -- and therefore this command -- have no meaning for environments which use the Customer Portal Subscription Management services.

--username=USERNAME

Gives the username for the account to use to connect to the or? ganization account.

--password=PASSWORD

Gives the user account password.

--token=TOKEN

Token to use when authorizing against the server.

--org=ORG

Identifies the organization for which to list the configured en? vironments.

--list Lists all of the environments that have been configured for an organization.

--list-enabled

Lists the environments in the order that they have been enabled for this consumer.

--list-disabled

Lists all of the environments that have been configured for an organization but not enabled for this consumer.

--set=SET

Sets an ordered list of one or more comma-separated environments for this consumer.

REPOS OPTIONS

The repos command lists all of the repositories that are available to a system. This command is only used for organizations which have a lo? cally-hosted content service of some kind, like Subscription Asset Man? ager. With Red Hat's hosted content service, there is only one central repository.

--list Lists all of the repositories that are provided by the content service used by the system.

--list-enabled

Lists all of the enabled repositories that are provided by the content service used by the system.

--list-disabled

Lists all of the disabled repositories that are provided by the content service used by the system.

--enable=REPO_ID

Enables the specified repository, which is made available by the content sources identified in the system subscriptions. To en?

able multiple repositories, use this argument multiple times. Wild cards * and ? are supported. The repositories enabled by this option and disabled by --disable are processed in the same order they are specified.

--disable=REPO_ID

Disables the specified repository, which is made available by the content sources identified in the system subscriptions. To disable multiple repositories, use this argument multiple times. Wild cards * and ? are supported. The repositories disabled by this option and enabled by --enable are processed in the same order they are specified.

ORGS OPTIONS

The orgs command lists all of the organizations which are available to the specified user account. A multi-tenant infrastructure may have mul? tiple organizations within a single customer, and users may be re? stricted to access only a subset of the total number of organizations.

--username=USERNAME

Gives the username for the account to use to connect to the or? ganization account.

--password=PASSWORD

Gives the user account password.

--token=TOKEN

Token to use when authorizing against the server.

--serverurl=SERVER_HOSTNAME

Passes the name of the subscription service to use to list all available organizations. The orgs command will list all organi? zations for the specified service for which the user account is granted access. The default value, if this is not given, is the Customer Portal Subscription Management service, https://sub? scription.rhsm.redhat.com:443. If there is an on-premise sub? scription service such as Subscription Asset Manager, this pa? rameter can be used to submit the hostname of the subscription service, in the form [protocol://]servername[:port][/prefix].

For Subscription Asset Manager, if the Subscription Manager tool is configured with the Subscription Asset Manager RPM, then the default value for the --serverurl parameter is for the on-premise Subscription Asset Manager server.

PLUGIN OPTIONS

The plugins command lists the available subscription-manager plugins.

--list List the available subscription-manager plugins.

--listslots

List the available plugin slots

--listhooks

List the available plugin slots and the hooks that handle them.

--verbose

Show additional info about the plugins, such as the plugin con? figuration values.

REPO-OVERRIDE OPTIONS

The repo-override command allows the user to manage custom content repository settings

--repo The repository to modify (can be specified more than once)

--add=NAME:VALUE

Adds a named override with the provided value to repositories specified with the --repo option

--remove=NAME

Removes a named override from the repositories specified with the --repo option

--remove-all

Removes all overrides from repositories specified with the --repo option

--list Lists all overrides from repositories specified with the --repo option

IDENTITY OPTIONS

The identity command handles the UUID of a system, which identifies the system to the subscription management service after registration. This command can simply return the UUID or it can be used to restore the

registration of a previously-registered system to the subscription man?
agement service.

--regenerate

Requests that the subscription management service issue a new identity certificate for the system, using an existing UUID in the original identity certificate. If this is used alone, then the identity command also uses the original identity certificate to bind to the subscription management service, using certifi? cate-based authentication.

--username=USERNAME

Gives the username for the account which is registering the sys? tem; this user account is usually tied to the user account for the content delivery system which supplies the content. Op? tional, for user-based authentication.

--password=PASSWORD

Gives the user account password. Optional, for user-based au? thentication.

--token=TOKEN

Token to use when authorizing against the server.

--force

Regenerates the identity certificate for the system using user? name/password or token authentication. This is used with the --regenerate option. --regenerate alone will use an existing identity certificate to authenticate to the subscription manage? ment service. If the certificate is missing or corrupted or in other circumstances, then it may be better to use user authenti? cation rather than certificate-based authentication. In that case, the --force option requires the username or password or token to be given either as an argument or in response to a prompt.

FACTS OPTIONS

The facts command lists the system information, like the release ver? sion, number of CPUs, and other architecture information.

--list Lists the system information. These are simple attribute: value pairs that reflect much of the information in the /etc/sysconfig directory

cpu.architecture: x86_64

cpu.core(s)_per_socket: 1

cpu.cpu(s): 2

cpu.cpu_family: 6

cpu.cpu_mhz: 1861.776

cpu.cpu_op-mode(s): 64-bit

cpu.cpu_socket(s): 2

cpu.hypervisor_vendor: KVM

cpu.model: 2

cpu.numa_node(s): 1

cpu.numa_node0_cpu(s): 0,1

cpu.stepping: 3

cpu.thread(s)_per_core: 1

cpu.vendor_id: GenuineIntel

cpu.virtualization_type: full

distribution.id: Santiago

distribution.name: Red Hat Enterprise Linux Workstation

distribution.version: 6.1

--update

Updates the system information. This is particularly important whenever there is a hardware change (such as adding a CPU) or a system upgrade because these changes can affect the subscrip? tions that are compatible with the system.

CLEAN OPTIONS

The clean command removes all of the subscription and identity data from the local system without affecting the system information in the subscription management service. This means that any of the subscrip? tions applied to the system are not available for other systems to use.

The clean command is useful in cases where the local subscription in?

formation is corrupted or lost somehow, and the system will be re-reg? istered using the register --consumerid=EXISTING_ID command.

This command has no options.

CONFIG OPTIONS

The config command changes the rhsm.conf configuration file used by Subscription Manager. Almost all of the connection information used by Subscription Manager to access the subscription management service, content server, and any proxies is set in the configuration file, as well as general configuration parameters like the frequency Subscrip? tion Manager checks for subscriptions updates. There are major divi? sions in the rhsm.conf file, such as [server] which is used to config? ure the subscription management service. When changing the Subscription Manager configuration, the settings are identified with the format sec? tion.name and then the new value. For example:

server.hostname=newsubscription.example.com

--list Prints the current configuration for Subscription Manager.

--remove=section.name

Deletes the current value for the parameter without supplying a new parameter. A blank value tells Subscription Manager to use service default values for that parameter. If there are no de? faults, then the feature is ignored.

--section.name=VALUE

Sets a parameter to a new, specified value. This is commonly used for connection settings:

* server.hostname (subscription management service)
* server.proxy
* server.proxy_port
* server.proxy_user
* server.proxy_password
* rhsm.baseurl (content server)
* rhsm.certFrequency

VERSION OPTIONS

The version command displays information about the current Subscription

Manager package, the subscription service the system is registered to (if it is currently registered), and the subscription management server that the system is configured to use. For example:

```
[root@server ~]# subscription-manager version
server type: Red Hat Subscription Management
subscription management server: 0.9.18-1
subscription management rules: 5.9
subscription-manager: 1.12.1-1.git.28.5cd97a5.fc20
python-rhsm: 1.11.4-1.git.1.2f38ded.fc20
```

This command has no options.

STATUS OPTIONS

The status command shows the current status of the products and attached subscriptions for the system. If some products are not fully covered or subscriptions have expired, then the status command shows why subscriptions are not current and returns an error code.

```
[root@server ~]# subscription-manager status
+-------------------------------------------+
   System Status Details
+-------------------------------------------+
Overall Status: Current
```

--ondate=DATE

Shows the system status for a specific date in the future. The format of the date is YYYY-MM-DD.

```
[root@server ~]# subscription-manager status --ondate=2014-01-01
+-------------------------------------------+
   System Status Details
+-------------------------------------------+
Overall Status: Insufficient
```

DEPRECATED COMMANDS

As the structures of subscription configuration have changed, some of the original management commands have become obsolete. These commands have been replaced with updated commands.

subscribe

This has been replaced with attach. A similar registration op?

tion, --subscribe, has also be replaced with --auto-attach.

unsubscribe

This has been replaced with remove.

activate

This has been replaced with redeem.

addons This has been replaced with syspurpose addons.

role This has been replaced with syspurpose role.

service-level

This has been replaced with syspurpose service-level.

usage This has been replaced with syspurpose usage.

USAGE

subscription-manager has two major tasks:

1. Handling the registration for a given system to a subscrip?

tion management service

2. Handling the product subscriptions for installed products on

a system

subscription-manager makes it easier for network administrators to maintain parity between software subscriptions and updates and their installed products by tracking and managing what subscriptions are at? tached to a system and when those subscriptions expire or are exceeded.

REGISTERING AND UNREGISTERING MACHINES

A system is either registered to a subscription management service -- which makes all of the subscriptions available to the system -- or it is not registered. Unregistered systems necessarily lack valid software subscriptions because there is no way to record that the subscriptions have been used nor any way to renew them.

The default subscription management service in the Subscription Manager configuration is the Customer Portal Subscription Management service. The configuration file can be edited before the system is registered to point to an on-premise subscription management service like Subscrip? tion Asset Manager.

Systems are usually registered to a subscription management service as

part of their initial configuration, such as the kickstart process.

However, systems can be registered manually after they are configured, can be removed from a content service, or re-registered.

If a system has never been registered (not even during first boot), then the register command will register the system with whatever sub? scription management service is configured in the /etc/rhsm/rhsm.conf file. This command requires, at a minimum, the username and password or token for an account to connect to the subscription management service.

If the credentials aren't passed with the command, then subscription-manager prompts for the username and password interactively.

When there is a single organization or when using the Customer Portal Subscription Management service, all that is required is the user? name/password set or the token is used. For example:

subscription-manager register --username=admin --password=secret or subscription-manager register --token=eyJhbGciOiJSUzI1NiIsI ... stGc_2bFDQC8CENEOo

With on-premise subscription services, such as Subscription Asset Man? ager, the infrastructure is more complex. The local administrator can define independent groups called organizations which represent physical or organizational divisions (--org). Those organizations can be subdi? vided into environments (--environment). Optionally, the information about what subscription service (--serverurl) and content delivery net? work (--baseurl) to use for the system registration can also be passed (which overrides the Red Hat Subscription Manager settings). The server and content URLs are usually configured in the Subscription Manager configuration before registering a system.

subscription-manager register --username=admin --password=secret --org="IT Dept" --environment="local dev" --serverurl=local-cloudforms.example.com --baseurl=https://local-cloudforms.example.com:8088/cfFe

If a system is in a multi-tenant environment and the organization is not provided with the registration request, registration fails with a remote server error. In the rhsm.log, there will be errors about being unable to load the owners interface.

If a system is registered and then somehow its subscription information

is lost -- a drive crashes or the certificates are deleted or corrupted -- the system can be re-registered, with all of its subscriptions re? stored, by registering with the existing ID.

subscription-manager register --username=admin --password=secret --consumerid=1234abcd

A system uses an SSL client certificate (its identity certificate) to authenticate to the subscriptions system to check for updates or changes to subscriptions. If the identity certificate is lost or cor? rupted, it can be regenerated using the identity command.

subscription-manager identity --regenerate

Using the --force option will prompt for the username and password for the account, if one isn't given, and then return the new inventory ID and the hostname of the registered system.

subscription-manager identity --force
Username: jsmith
Password:
eff9a4c9-3579-49e5-a52f-83f2db29ab52 server.example.com

A system is unregistered and removed from the subscription management service simply by running the unregister command. Unregistering a sys? tem and removing its attached subscriptions can free up subscriptions when a system is taken offline or moved to a different department.

subscription-manager unregister

An option with registration, --auto-attach, will automatically attach the subscriptions pool which best matches the system architecture and configuration to the newly-registered system. This option attaches sub? scriptions as part of the registration process, rather than separately managing subscriptions.

subscription-manager register --username=admin --password=secret --auto-attach

Auto-attach also supports an option to set a preferred service level with the selected subscriptions, the --servicelevel option. In this case, the --servicelevel option sets a preference that helps the auto-attach process select appropriate subscriptions. For example, if the

preferred service level for a production server is premium, and there are three matching subscriptions with different service levels (none, standard, and premium), the auto-attach process selects the subscrip? tion which offers a premium service level.

subscription-manager register --username=admin --password=secret --auto-attach --servicelevel=premium

LISTING, ATTACHING, AND REMOVING SUBSCRIPTIONS FOR PRODUCTS

A subscription is essentially the right to install, use, and receive updates for a Red Hat product. (Sometimes multiple individual software products are bundled together into a single subscription.) When a sys? tem is registered, the subscription management service is aware of the system and has a list of all of the possible product subscriptions that the system can install and use. A subscription is applied to a system when the system is attached to the subscription pool that makes that product available. A system releases or removes that subscription (meaning, it removes that subscription so that another system can use that subscription count).

list command shows you what subscriptions are available specifically to the system (meaning subscriptions which are active, have available quantities, and match the hardware and architecture) or all subscrip? tions for the organization. Using the --ondate option shows subscrip? tions that are or will be active at a specific time (otherwise, it shows subscriptions which are active today).

subscription-manager list --available --ondate=2012-01-31

```
+-------------------------------------------+
   Available Subscriptions
+-------------------------------------------+
Subscription Name:  Red Hat Enterprise Linux
SKU:          SYS0395
Pool Id:      8a85f981302cbaf201302d899adf05a9
Quantity:     249237
Service Level:     None
Service Type:      None
```

Multi-Entitlement: No

Starts: 01/01/2021

Ends: 01/01/2022

Machine Type: physical

The list command can also be used to show what products you currently have installed, as a way of tracking what products you have versus what subscriptions you have on the system.

subscription-manager list --installed

+---+

Installed Product Status

+---+

ProductName: Red Hat Enterprise Linux Server

Product ID: 69

Version: 6.3

Arch: x86_64

Status: Subscribed

Started: 07/26/2012

Ends: 08/31/2015

The list can be filtered to only include products or subscriptions that match the query string provided to --matches option.

subscription-manager list --installed --matches="*Server*"

+---+

Installed Product Status

+---+

ProductName: Red Hat Enterprise Linux Server

Product ID: 69

Version: 6.3

Arch: x86_64

Status: Subscribed

Started: 07/26/2012

Ends: 08/31/2015

Attaching a subscription requires the ID for the subscription pool (the --pool option). For example:

subscription-manager attach

--pool=ff8080812bc382e3012bc3845da100d2

As with the register command, the system can be auto-attached to the best-fitting subscriptions. This is the default action and is equiva? lent to using the --auto option:

subscription-manager attach

Auto-attach also supports an option to set a preferred service level with the selected subscriptions, the --servicelevel option. In this case, the --servicelevel option sets a preference that helps the auto-attach process select appropriate subscriptions. For example, if the preferred service level for a production server is premium, and there are three matching subscriptions with different service levels (none, standard, and premium), the auto-attach process selects the subscrip? tion which offers a premium subscription.

subscription-manager attach --servicelevel=premium

Some subscriptions define a count based on attributes of the system it? self, like the number of sockets or the number of virtual guests on a host. You can combine multiple subscriptions together to cover the count. For example, if there is a four socket server, you can use two subscriptions for "RHEL Server for Two Sockets" to cover the socket count. To specify the number of subscriptions to use, use the --quan? tity option. For example:

subscription-manager attach

--pool=ff8080812bc382e3012bc3845da100d2

--quantity=2

Removing subscription from a system releases the subscription back into the pool. The system remains registered with the subscription manage? ment service. Each product has an identifying X.509 certificate in? stalled with it. To remove a subscription for a specific product, spec? ify the serial number (or numbers, in multiple --serial options) of the certificate:

subscription-manager remove --serial=1128750306742160

Giving the remove command with the --all option removes every subscrip?

tion the system has used.

REDEEMING EXISTING SUBSCRIPTIONS

Sometimes, a system may come preconfigured with products and subscrip? tions. Rather than attaching a pool and claiming a subscription, this system simply needs to redeem its existing subscriptions.

After registration, subscriptions on preconfigured systems can be claimed using the redeem command, which essentially auto-attaches the system to its preexisting subscriptions.

subscription-manager redeem --email=admin@example.com --org="IT Dept"

VIEWING LOCAL SUBSCRIPTION & CONTENT PROVIDER INFORMATION

Red Hat has a hosted environment, through the Customer Portal, that provides centralized access to subscription management and content repositories. However, organizations can use other tools -- like Sub? scription Manager -- for content hosting and subscription management. With a local content provider, the organization, environments, reposi? tories, and other structural configuration is performed in the content provider. Red Hat Subscription Manager can be used to display this in? formation, using the environments, orgs, and repos commands.

subscription-manager repos --list

subscription-manager environments --username=jsmith

--password=secret --org=prod

or

subscription-manager environments --token=eyJhbGciOiJSUzI1NiIsI ... stGc_2bFDQC8CENEOo --org=prod

subscription-manager orgs --username=jsmith

--password=secret

or

subscription-manager orgs --token=eyJhbGciOiJSUzI1NiIsI ... stGc_2bFDQC8CENEOo

CHANGING SUBSCRIPTION MANAGER CONFIGURATION

The Subscription Manager CLI and GUI both use the /etc/rhsm/rhsm.conf file for configuration, including what content and subscription manage? ment services to use and management settings like auto-attaching. This configuration file can be edited directly, or it can be edited using the config command. Parameters and values are passed as arguments with

the config command in the format --section.parameter=value , where sec?
tion is the configuration section in the file: server, rhsm, rhsmcertd
or logging.

For example, to change the hostname of the subscription management ser?
vice host:

```
subscription-manager config --server.hostname=myserver.example.com
```

The entries in the logging section are somewhat special. The keys in this section are a name of a logger. The values are the logging level. Valid levels are one of: DEBUG , INFO , WARNING , ERROR , or CRITICAL

Valid logger names are the full module path of any Subscription Manager module. For example: subscription_manager or subscription_manager.man?
agercli

There are three main top-level loggers: subscription_manager, rhsm, and rhsm-app. All logger names begin with one of the above.

To set the default log level for all loggers (that are not otherwise set in the logging section), edit the default_log_level key in /etc/rhsm/rhsm.conf

UPDATING FACTS

The information about a system, such as its hardware and CPU, its oper?
ating system versions, and memory, are collected by Subscription Man?
ager in a list of facts. Subscription Manager uses these facts to de?
termine what purchased subscriptions are compatible with the system.

Whenever these facts change (such as installing an additional CPU), the facts can be updated immediately using the facts command.

```
subscription-manager facts --update
```

The collected facts can also be overridden by creating a JSON file in the /etc/rhsm/facts/ directory. These have simple formats that define a fact and value:

```
{"fact1": "value1","fact2": "value2"}
```

Any fact override file must have a .facts extension.

When these fact files are added, running the facts command will update the collected facts with the new, manual facts or values.

SUBSCRIPTIONS AND KICKSTART

The subscription-manager tool can be run as a post-install script as part of the kickstart installation process. This allows subscription management (registering and applying subscriptions) to be automated along with installation. For example:

%post --log=/root/ks-post.log

/usr/sbin/subscription-manager register --username admin --password secret --org 'east colo' --auto-attach --servicelevel=premium --force

NETWORK INFORMATION

The subscription-manager tool uses outgoing HTTPS requests. In the de? fault configuration it will use HTTPS on port 443 to the subscription servers subscription.rhsm.redhat.com and to the content delivery ser? vice cdn.redhat.com.

For information about the network addresses that subscription-manager and the subscription-manager yum plugin use see https://access.red? hat.com/site/solutions/59586

PROXY CONFIGURATION

subscription-manager can be configured to use a proxy in several ways:

* via standard HTTP_PROXY , HTTPS_PROXY , NO_PROXY environment variables (environment-level settings)

* via options in /etc/rhsm/rhsm.conf (application-level set? tings)

* via command-line arguments (command-level overrides)

Although subscription-manager respects environment variables for proxy configuration, this should be avoided in favor of the configuration file, because the daemons (ex. rhsmcertd) do not provide ways to mod? ify their environments.

Each option of the proxy configuration (hostname, port, host/domain pattern blocklist, username, password) is read independently, with precedence being command-line over configuration over environment, and then the resulting set of options is used to configure the proxy con? figuration.

For example, if the HTTP_PROXY environment variable is set and no_proxy is set in /etc/rhsm/rhsm.conf then both are present in the effective

proxy configuration.

If two equivalent options are set in different places, then the prece?

dence determines which value is effective.

For example, the NO_PROXY environment variable is set and the no_proxy

configuration file option is set, then the value from the configuration

file is the effective value.

LOG FILES

Default log location of the subscription-manager is

/var/log/rhsm/rhsm.log. When the program is run under non-root user

(e.g. as dnf plugin) the logs are written to

$XDG_CACHE_HOME/rhsm/rhsm.log.

If the directory isn't writable, the logs are printed to stderr.

FILES

* /etc/pki/consumer/*.pem
* /etc/pki/entitlement/<serial>.pem
* /etc/pki/product/*.pem
* /etc/rhsm/rhsm.conf
* /etc/rhsm/facts/*.facts
* /var/log/rhsm/rhsm.log

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