Intel® Setup and Configuration Software (Intel® SCS)

Remote Configuration Service Utility

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1 Introduction

Intel® Setup and Configuration Software (Intel® SCS) includes several methods that you can use to configure Intel® Active Management Technology (Intel® AMT). In addition Intel SCS includes options to discover, configure, and maintain other Intel products and capabilities on systems in your network. These methods and options require installation and setup of the Remote Configuration Service (RCS).

This document describes how to use the Remote Configuration Service Utility (RCS Utility).

The RCS Utility is a Command Line Interface (CLI) that was created to make some of the RCS setup tasks easier. These tasks include installing certificates and giving Windows Management Instrumentation (WMI) permissions to user accounts so that they can access the RCS.

2 Using the RCS Utility

The RCS Utility (`RCSutils.exe`) is located in the `Utils` folder. You can run the RCS Utility from a command line prompt or using a batch file.

2.1 Required Permissions

You must run the RCS Utility on the computer where the RCS is installed and running. The local user account running the RCS Utility must have administrator permissions on the computer. On operating systems with User Account Control (UAC), the RCS Utility must be "Run as administrator".

2.2 CLI Syntax

The RCS Utility CLI is not case-sensitive. This is the general syntax:

```
RCSUtils.exe {/Certificate | /Permissions} [/Log]
```

To view the help of the CLI, type `RCSUtils.exe /?` and press <Enter>.

To view syntax of a specific parameter, type the parameter followed by /?.

To view examples, type `RCSUtils.exe` examples and press <Enter>.

These conventions are used in the syntax:

- Optional parameters are enclosed in square brackets [ ]
- User defined variables are enclosed in angled brackets < >
- Mutually exclusive parameters are separated with a pipe |
- Where necessary, braces { } are used to group elements together to eliminate ambiguity in the syntax

3 /Certificate Parameter

Parameter	/Certificate
Description	Performs operations on certificates used by the RCS for remote configuration and mutual TLS. **Note:** See also Network Service Account on the next page.

Syntax	`RCSutils.exe /Certificate {{Add <filename> [<file password>]|`
	`{Remove <certificateID>}|View|{Validate <certificateID>}}`
	`[/RCSuser <username> <password>]`

Values	
`Add`	Installs the supplied certificate into the personal certificate store of the user running the RCS (`RCSServer.exe`)
`Remove`	Removes a certificate from the personal certificate store of the specified user account
`View`	Gets general information about all the certificates in the personal certificate store of the specified user account. To make this information easier to read, use the `/Log` parameter to send the output to a file (see /LogParameter on page 5).
`Validate`	Checks if the certificate is valid and can be used by the RCS. The RCS Utility also checks that the certificate private key exists and that the RCS can build the certificate chain. If the certificate is valid, the RCS Utility then checks if the certificate is compatible for remote configuration or mutual TLS communication.
`<filename>`	The full path to the certificate file in PFX format
`<file password>`	The password to decrypt the certificate file (only necessary if the certificate file is encrypted)
`<certificateID>`	The unique ID hash of the certificate. You can get this ID by using the "View" option, described above, and looking for the "Thumbprint" value returned in the output. For example: Thumbprint:7C4656C3061F7F4C0D67B319A855F60EBC11FC44

`/RCSuser`
`<username>`
`<password>`
	Defines the user account (and thus the personal certificate store) for which the specified action will occur. If a user account is not supplied, then by default the action will occur for the user account that is currently running the RCS Utility. To define the Network Service user account, type `NetworkService` and do not supply a password. To use any other account, supply the correct username and password. If the supplied username or password are incorrect, the requested action will fail.
	Note: `/RCSUser` is only relevant when removing or viewing a certificate. When adding a certificate, the RCS Utility always adds the certificate to the user account running the RCS.

3.1 Examples

Example #1: Installing a certificate to the certificate store of the user account running the RCS:

```
RCSutils.exe /Certificate Add c:\certificate.pfx P@ssw0rd
```

Example #2: Viewing certificates installed in the certificate store of a user account named "MyServiceUser":

```
RCSutils.exe /Certificate View /RCSuser MyServiceUser P@ssw0rd
```

Example #3: Viewing certificates installed in the certificate store of the Network Service user account:

```
RCSutils.exe /Certificate View /RCSuser NetworkService /Log File c:\logfile.txt
```

Example #4: Validating a certificate:

```
RCSutils.exe /Certificate Validate 7C4656C3061F7F4C0D67B319A855F60EBC11FC44 /Log
File c:\logfile.txt
```

Example #5: Removing a certificate from the certificate store of a user account named "MyServiceUser":

```
RCSutils.exe /Certificate Remove 7C4656C3061F7F4C0D67B319A855F60EBC11FC44
/RCSUser MyServiceUser P@ssw0rd
```

Example #6: Removing a certificate from the certificate store of the Network Service user account:

```
RCSutils.exe /Certificate Remove 7C4656C3061F7F4C0D67B319A855F60EBC11FC44
/RCSUser NetworkService /Log File c:\logfile.txt
```

3.2 Network Service Account

If the specified user account is the Network Service account, the results of these `/Certificate` parameter actions are NOT sent to the console screen:

- `View`
- `Remove`

This is because, for these actions, the RCS Utility uses the Windows Task Scheduler to impersonate the Network Service account. To do this, a task is created and run immediately. The results from this task cannot be sent to the console screen.

This means that:

- If the task fails, you must look in the Windows Event log to find the cause
- If the task succeeds, the results can be recorded in a log file generated by the RCS Utility. By looking in the log file, you will know that the task completed successfully and see the results. To send the results to the log file, you must make sure that you supply the `/Log` parameter with the value of "`File <filename>`".

4 /Permissions Parameter

Parameter	`/Permissions`
Description	Performs operations on the users and namespace permissions used to restrict/grant access to the RCS
Syntax	`RCSutils.exe /Permissions Add <username>` `[/RCSnamespace <namespace> [<namespace>...] ]`
Values	
`Add`	Adds the supplied user or user group to the specified RCS namespace and gives them full permissions on the namespace. **Note:** • In addition to WMI permissions, the user accounts will also automatically be given the DCOM permissions necessary to connect to the RCS. If the user accounts did not have any DCOM permissions on the computer running the RCS, you will need to restart the computer. (This is because of a Microsoft limitation the first time that a user account is granted DCOM permissions on a computer.) • When the user/group is added, any existing deny permissions that exist for that user/group are NOT removed.
`<username>`	The name of the user or user group
`/RCSnamespace <namespace>`	Defines the namespace(s) to which the requested action applies. If not supplied, the default is `RCS`. Valid values: • All — Give permissions on all the RCS namespaces • RCS — `Intel_RCS` namespace. Necessary for users who need to do operations on Intel AMT systems using the RCS. For example, the user account running the Configurator (`ACUConfig.exe`) • Systems — `Intel_RCS_Systems` namespace. Necessary for users who need to use the monitoring options of RCS (in database mode). • Editor — `Intel_RCS_Editor` namespace. Necessary for users who need to connect to the RCS to define profiles or settings in the RCS. • DMP — `Intel_RCS_Master_Password` namespace. Necessary for users who need to use the RCS to calculate or get the Digest Master Password (DMP) for an Intel AMT system. (Only relevant if you are using the DMP option.)

4.1 Examples

Example #1: Adding a user named "MyUser" to the `Intel_RCS` namespace:

`RCSutils.exe /Permissions Add MyUser`

Example #2: Adding a user named "MyUser" to the `Intel_RCS_Editor` and `Intel_RCS_Systems` namespaces:

`RCSutils.exe /Permissions Add MyUser /RCSnamespace Systems Editor`

5 /LogParameter

Parameter	`/Log`
Description	Defines where errors and other log messages are recorded. If not supplied, the default is used (console screen). You can also record log messages to the console screen and a file, like this: `/Log Console File <filepath>`
Syntax	`/Log {Console | File <filepath> | Silent}`
Values	
`Console`	Show log messages on the console screen
`File <filepath>`	Saves the log messages in a file
`Silent`	Do not record any log messages (console screen or log file)