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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'tpm2_flushcontext.1' command

\$ man tpm2_flushcontext.1

tpm2_flushcontext(1) General Commands Manual tpm2_flushcontext(1)

NAME

tpm2_flushcontext(1) - Remove a specified handle, or all contexts associated with a transient object, loaded session or saved session from the TPM.

SYNOPSIS

tpm2_flushcontext [OPTIONS] [ARGUMENT]

DESCRIPTION

tpm2_flushcontext(1) - Remove a specified handle, or all contexts associated with a transient object, loaded session or saved session from the TPM. The object to be flushed is specified as the first argument to the tool and is in one of the following forms: - The handle of the object to be flushed from the TPM. Must be a valid handle number. - Flush a session via a session file. A session file is generated from tpm2_startauthsession(1)?s -S option.

OPTIONS

? -t, --transient-object:

Remove all transient objects.

? -l, --loaded-session:

Remove all loaded sessions.

? -s, --saved-session:

Remove all saved sessions.

? ARGUMENT the command line argument specifies the OBJECT to be removed

from the TPM resident memory.

COMMON OPTIONS

This collection of options are common to many programs and provide information that many users may expect.

? -h, --help=[man|no-man]: Display the tools manpage. By default, it attempts to invoke the manpager for the tool, however, on failure will output a short tool summary. This is the same behavior if the ?man? option argument is specified, however if explicit ?man? is requested, the tool will provide errors from man on stderr. If the ?no-man? option is specified, or the manpager fails, the short options will be output to stdout.

To successfully use the manpages feature requires the manpages to be installed or on MANPATH, See man(1) for more details.

? -v, --version: Display version information for this tool, supported tctis and exit.

? -V, --verbose: Increase the information that the tool prints to the console during its execution. When using this option the file and line number are printed.

? -Q, --quiet: Silence normal tool output to stdout.

? -Z, --enable-errata: Enable the application of errata fixups. Useful if an errata fixup needs to be applied to commands sent to the TPM.

Defining the environment TPM2TOOLS_ENABLE_ERRATA is equivalent.

TCTI Configuration

The TCTI or ?Transmission Interface? is the communication mechanism with the TPM. TCTIs can be changed for communication with TPMs across different mediums.

To control the TCTI, the tools respect:

1. The command line option -T or --tcti
2. The environment variable: TPM2TOOLS_TCTI.

Note: The command line option always overrides the environment variable.

The current known TCTIs are:

? tabrmd - The resource manager, called tabrmd

(<https://github.com/tpm2-software/tpm2-abrmd>). Note that `tabrmd` and `abrmd` as a `tcti` name are synonymous.

? `mssim` - Typically used for communicating to the TPM software `simula` tor.

? `device` - Used when talking directly to a TPM device file.

? `none` - Do not initialize a connection with the TPM. Some tools allow for off-tpm options and thus support not using a TCTI. Tools that do not support it will error when attempted to be used without a TCTI connection. Does not support ANY options and MUST BE presented as the exact text of `?none?`.

The arguments to either the command line option or the environment variable are in the form:

```
<tcti-name>:<tcti-option-config>
```

Specifying an empty string for either the `<tcti-name>` or `<tcti-option-config>` results in the default being used for that portion respectively.

TCTI Defaults

When a TCTI is not specified, the default TCTI is searched for using `dlopen(3)` semantics. The tools will search for `tabrmd`, `device` and `mssim` TCTIs IN THAT ORDER and USE THE FIRST ONE FOUND. You can query what TCTI will be chosen as the default by using the `-v` option to print the version information. The `?default-tcti?` key-value pair will indicate which of the aforementioned TCTIs is the default.

Custom TCTIs

Any TCTI that implements the dynamic TCTI interface can be loaded. The tools internally use `dlopen(3)`, and the raw `tcti-name` value is used for the lookup. Thus, this could be a path to the shared library, or a library name as understood by `dlopen(3)` semantics.

TCTI OPTIONS

This collection of options are used to configure the various known TCTI modules available:

? `device`: For the device TCTI, the TPM character device file for use by the device TCTI can be specified. The default is `/dev/tpm0`.

Example: `-T device:/dev/tpm0` or `export TPM2TOOLS_TCTI=?device:/dev/tpm0?`

? mssim: For the mssim TCTI, the domain name or IP address and port number used by the simulator can be specified. The default are 127.0.0.1 and 2321.

Example: `-T mssim:host=localhost,port=2321` or `export TPM2TOOLS_TCTI=?mssim:host=localhost,port=2321?`

? abrmd: For the abrmd TCTI, the configuration string format is a series of simple key value pairs separated by a ',' character. Each key and value string are separated by a '=' character.

? TCTI abrmd supports two keys:

1. 'bus_name': The name of the tabrmd service on the bus (a string).
2. 'bus_type': The type of the dbus instance (a string) limited to 'session' and 'system'.

Specify the tabrmd tcti name and a config string of bus_name=com.example.FooBar:

```
\--tcti=tabrmd:bus_name=com.example.FooBar
```

Specify the default (abrmd) tcti and a config string of bus_type=session:

```
\--tcti:bus_type=session
```

NOTE: abrmd and tabrmd are synonymous.

EXAMPLES

Flushing a Transient Object

Typically, when using the TPM, the interactions occur through a resource manager, like tpm2-abrmd(8). When the process exits, transient object handles are flushed. Thus, flushing transient objects through the command line is not required. However, when interacting with the TPM directly, this scenario is possible. The below example assumes direct TPM access not brokered by a resource manager. Specifically we will use the simulator.

```
tpm2_createprimary -Tmssim -c primary.ctx
```

```
tpm2_getcap -T mssim handles-transient
```

- 0x80000000

tpm2_flushcontext -T mssim 0x80000000

Flush All the Transient Objects

tpm2_flushcontext --transient-object

Flush a Session

tpm2_startauthsession -S session.dat

tpm2_flushcontext session.dat

Returns

Tools can return any of the following codes:

? 0 - Success.

? 1 - General non-specific error.

? 2 - Options handling error.

? 3 - Authentication error.

? 4 - TCTI related error.

? 5 - Non supported scheme. Applicable to tpm2_testparams.

BUGS

Github Issues (<https://github.com/tpm2-software/tpm2-tools/issues>)

HELP

See the Mailing List (<https://lists.01.org/mailman/listinfo/tpm2>)

tpm2-tools

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