

Lenovo™

Lenovo ThinkServer System Manager Command Line Interface User Guide



ThinkThinkThinkServerThink

TSMCLI

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1. Introduction

This guide will provide instruction about how to use the features available in the **Lenovo ThinkServer System Manager Command Line Interface (TSMCLI)**.

The Lenovo ThinkServer System Manager (TSM) is a Baseboard Management Controller (BMC). A BMC is an embedded hardware component present in servers to monitor and control their status.

The TSMCLI is a shell module that provides a set of tools for monitoring and controlling the TSM of your ThinkServer. With the help of TSMCLI administrators can manage users, network settings, platform event filters and other TSM functionalities of one or more ThinkServer units in a scriptable way. It also provides some tools for managing ThinkServer operations like power control and remote media images.

The next sections will present all commands and options available in the TSMCLI.

2. System Requirements

In order to execute the TSMCLI your system must meet the following requirements:

- Lenovo ThinkServer RD350, RD450, RD550, RD650 or TD350;
- Linux Redhat 6.8 and later version, Redhat 7 or SUSE 12, 64-bit operating system;

3. Install Procedure

In order to install the TSMCLI follow the instructions below:

1. Download the latest TSMCLI installer.
 - To download TSMCLI, go to http://support.lenovo.com/en_US/downloads/default.page and follow the instructions on the Web page.

2. Extract tarball release.

```
# tar -zxvf <TSMCLI_RELEASE_TARBALL>
```

3. Add TSMCLI path to PATH.

```
# cd <TSMCLI_LOCATION/bin>
# export PATH=$PATH:${dirname 'pwd'}
# ./tsmcli
```

4. Uninstall Procedure

In order to uninstall the TSMCLI, make sure you have **Root Privileges** and follow the instructions below:

1. Close all running instances of the TSMCLI.
2. Then execute the follow command: `rm -rf <TSMCLI_LOCATION>`

5. Usage

The basic TSMCLI command line syntax is the following:

```
tsmcli --CommandName <COMMAND_NAME> [COMMAND_PARAMETERS] [--CommandArgs "<COMMAND_ARGUMENTS>"]
```

Where:

- <COMMAND_NAME> is the TSMCLI command which will be executed. Examples: "get-commands", "get-users", and "create-credential".
For the complete list of commands available check the [Chapter 6, TSMCLI Commands Reference](#) on this document.

- [COMMAND_PARAMETERS] is one of the following parameters:

--ComputerName

Specifies the Lenovo ThinkServer System Manager IP address or network name.

--Port

Specifies the Lenovo ThinkServer System Manager port number. This value is optional and if not specified will be set to "80" (or "443" if -UseSSL is specified).

--Authentication

Specifies the authentication type to be used upon the connection to a Lenovo ThinkServer System Manager. This value is optional and will be set to "basic" if not specified.

--Credential

Specifies a file or structure containing credentials. It should be created using the "create-credential" command.

--UseSSL

Specifies that the Secure Sockets Layer (SSL) protocol should be used to establish a connection to the specified TSM. By default, SSL is not used.

--SkipSSLCertificateCheck

Specifies that when connecting using SSL, there will be no verification if the TSM certificate is valid. Use this option only when the remote TSM is trusted by other means, for example, if the TSM is part of a network that is physically secure and isolated.

--LogLevel

Specifies the maximum message level that should be logged. The supported values are: 0 - none (no log); 1 - fatal; 2 - critical; 3 - error; 4 - warning; 5 - notice; 6 - information; and 7 - debug. If not specified the default level is 6 - information.

Note:

From version 4.10, TSM only permits SSL connection, so UseSSL parameter must be specified when connecting TSM of 4.10 or later.

- [`<COMMAND_ARGUMENTS>`] specifies the arguments specific to each TSMCLI command. For more information check the [Chapter 6, TSMCLI Commands Reference](#) on this document.

Based on given command, text output of TSMCLI could be various. Examples for each TSMCLI command can be found on [Chapter 6, TSMCLI Commands Reference](#). Moreover, exclamation mark (!) is a special character for Linux shell, if you plan to use this character in argument value, please use single quote (') to quote the arguments instead of double quote ("). For more details, please refer to online help 'QUOTING' section from Linux shell.

6. Commands Reference

create-credential

Creates a structure containing user credentials.

SYNTAX

```
tsmcli --CommandName create-credential [--LogLevel <0|1|2|3|4|5|6|7>] --  
CommandArgs  
"password=<password>;saveToFile=<cred.xml>;username=<username>"
```

DESCRIPTION

The create-credential command stores user credentials in a structure that can be passed to subsequent TSMCLI calls.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

password

Specifies the password. In the absence of this argument, an error message is shown.

saveToFile

Specifies the name of the file where to save the structure containing the username and password.

username

Specifies the username. In the absence of this argument, an error message is shown.

EXAMPLES

```
tsmcli --CommandName create-credential --CommandArgs  
"password=mypassword;saveToFile=file.xml;username=username1"
```

create-user

Creates a new user account on a specific TSM.

SYNTAX

```
tsmcli --CommandName create-user --ComputerName <computer_name> --
Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|4|
5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ] --
CommandArgs "password=<password>;role=<admin|user|
operator>;username=<username>;[authenticationProtocol=<sha|md5>;]
[email=<email>;][kvm=<0|1>;][privacyProtocol=<des|aes>;][snmp=<0|1>;]
[snmpAccess=<read-only|read-write>;][virtualMedia=<0|1>]"
```

DESCRIPTION

The create-user command creates a new user account on a specific Lenovo ThinkServer System Manager.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

password

Specifies the password. It shall have a maximum of 20 characters and only printable ASCII characters and spaces are accepted. In addition, if SNMP is enabled, the password shall have at least 8 characters.

role

Specifies the user role. Possible values are: "admin" for Administrator, "user" for User or "operator" for Operator.

username

Specifies the user name. It shall have a maximum of 16 characters, must start with an alphabetical character and is case sensitive. The following special characters are allowed: '-'(hyphen), '_'(underscore) and '@'(at sign).

authenticationProtocol

Specifies the authentication protocol for SNMP settings (required if enabling SNMP). Possible values are: "sha" or "md5".

email

Specifies the user email (optional). The email length is limited to 63 characters and can be defined as empty string (""). In addition, the e-mail shall be in the format <username>@<domain>. Examples: "myname@mycompany.com" and "my.mail@dept.example.com".

kvm

Specifies the KVM privilege (optional). Enabled by default for "admin" and "operator" roles

privacyProtocol

Specifies the encryption algorithm to use for SNMP settings (required if enabling SNMP). Possible values are: "des" or "aes".

snmp

Specifies the SNMP enabled state (optional).

snmpAccess

Specifies the SNMP access level (required if enabling SNMP). Possible values are: "read-only" or "read-write".

virtualMedia

Specifies the Virtual Media privilege (optional). Enabled by default for "admin" and "operator" roles.

EXAMPLES

```
tsmcli --CommandName create-user --ComputerName my_computer.com --  
Credential mycredential.xml --CommandArgs  
"password=pass1;role=user;username=user1"
```

delete-user

Deletes an user account from a specific TSM.

SYNTAX

```
tsmcli --CommandName delete-user --ComputerName <computer_name> --  
Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|4|  
5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ] --  
CommandArgs "userId=<user_id>"
```

DESCRIPTION

The delete-user command deletes an user account from a specific Lenovo ThinkServer System Manager.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

userId

Specifies the user identifier. To get the list of valid user identifiers on the TSM, use the command "get-users".

EXAMPLES

```
tsmcli --CommandName delete-user --ComputerName my_computer.com --  
Credential mycredential.xml --CommandArgs "userId=10"
```

get-auditlog

Gets the Audit Log from a specific TSM.

SYNTAX

```
tsmcli --CommandName get-auditlog --ComputerName <computer_name> --  
Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|4|  
5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ] --  
CommandArgs "destinationPath=<destinationPath>"
```

DESCRIPTION

The get-auditlog command gets the audit log from a specific Lenovo ThinkServer System Manager. The logs are saved on the specified path in a text file named using the prefix "AuditLog", the host name and a time stamp.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

destinationPath

Path to the folder where the log file will be saved.

EXAMPLES

```
tsmcli --CommandName get-auditlog --ComputerName my_computer.com --  
Credential mycredential.xml --CommandArgs "destinationPath=path"
```

get-commands

Lists all supported commands.

SYNTAX

```
tsmcli --CommandName get-commands [--LogLevel <0|1|2|3|4|5|6|7>]
```

DESCRIPTION

The get-commands provides a list of all supported commands with a brief description.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

EXAMPLES

```
tsmcli --CommandName get-commands
```

get-crashscreen

Gets crash screen image to a local file.

SYNTAX

```
tsmcli --CommandName get-crashscreen --ComputerName <computer_name> --  
Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|4|  
5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ] --  
CommandArgs "destinationPath=<destinationPath>"
```

DESCRIPTION

The get-crashscreen command gets blue screen of death (BSOD) of host operating system from a specific Lenovo ThinkServer System Manager and save to a local file.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

destinationPath

Specifies the filename and path where the crash screen image will be saved (required).

EXAMPLES

```
tsmcli --CommandName get-crashscreen --ComputerName my_computer.com --  
Credential mycredential.xml --CommandArgs "destinationPath=path"
```

get-frus

Gets the list of available Field Replaceable Units (FRUs) on a specific TSM.

SYNTAX

```
tsmcli --CommandName get-frus --ComputerName <computer_name> --Credential  
<credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|4|5|6|7>] [--  
Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ]
```

DESCRIPTION

The get-frus command gets the list of available Field Replaceable Units (FRUs) on a specific Lenovo ThinkServer System Manager.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

EXAMPLES

```
tsmcli --CommandName get-frus --ComputerName my_computer.com --Credential  
mycredential.xml
```


get-fwversions

Gets the current and the new (if available) firmware versions for components of a specific TSM.

SYNTAX

```
tsmcli --CommandName get-fwversions --ComputerName <computer_name> --  
Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|4|  
5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ]
```

DESCRIPTION

The get-fwversions command gets the current and the new (if available) firmware versions of a specific Lenovo ThinkServer System Manager.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

EXAMPLES

```
tsmcli --CommandName get-fwversions --ComputerName my_computer.com --  
Credential mycredential.xml
```

get-help

Provides detailed help information for a command.

SYNTAX

```
tsmcli --CommandName get-help [--LogLevel <0|1|2|3|4|5|6|7>] --CommandArgs  
"commandName=<command>"
```

DESCRIPTION

The get-help command provides a help guide for supported commands. It describes the command functionality and its syntax.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

commandName

Specifies the command for which it is desired to obtain the help message. Examples: "create-credential", "get-powerstate".

EXAMPLES

```
tsmcli --CommandName get-help --CommandArgs "commandName=get-users"
```

get-nicsettings

Gets the network configuration of the active network interface on the TSM.

SYNTAX

```
tsmcli --CommandName get-nicsettings --ComputerName <computer_name> --  
Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|4|  
5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ]
```

DESCRIPTION

The get-nicsettings command gets the network configuration of a specific Lenovo ThinkServer System Manager.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

EXAMPLES

```
tsmcli --CommandName get-nicsettings --ComputerName my_computer.com --  
Credential mycredential.xml
```

get-powerconsumption

Retrieves information about a ThinkServer power consumption. It provides the current power consumption, the average power consumption (based on values recorded by TSM), the date and time of the most recent peak of consumption and also the power consumption history.

SYNTAX

```
tsmcli --CommandName get-powerconsumption --ComputerName <computer_name>
--Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|
4|5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ] [--
CommandArgs "[getHistory=<0|1>;][saveToFile=<file>]"
```

DESCRIPTION

The get-powerconsumption command retrieves the information about power consumption (in watts) from a specific ThinkServer. It provides the current power consumption, the average power consumption (based on values recorded by TSM), the date and time of the most recent peak of consumption and also the power consumption history.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

getHistory

Indicates if the user desires to get the history of all power consumption information obtained from the ThinkServer (optional). Valid values: 0 (default) for no history or 1 to get the history.

saveToFile

Allows the definition of filename and path where the power consumption history of the ThinkServer will be saved (applicable only if getHistory is "1"). It will be saved in a CSV format with index, date and time (in ISO 8601 format) and the power consumption value. The path shall exist, and if there is already a file with the same name on that path, it will be overwritten. The filename must have an extension.

EXAMPLES

```
tsmcli --CommandName get-powerconsumption --ComputerName my_computer.com
--Credential mycredential.xml
```

get-psuredundancysettings

Gets the PSU redundancy settings of a specific ThinkServer.

SYNTAX

```
tsmcli --CommandName get-psuredundancysettings --ComputerName  
<computer_name> --Credential <credential> [--Authentication <basic>] [--  
LogLevel <0|1|2|3|4|5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ]  
[--UseSSL ]
```

DESCRIPTION

The `get-psuredundancysettings` command gets the power supply redundancy settings of a specific ThinkServer.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

EXAMPLES

```
tsmcli --CommandName get-psuredundancysettings --ComputerName  
my_computer.com --Credential mycredential.xml
```

get-remotemediasettings

Gets the remote media settings and the list of available remote media images on a specific TSM.

SYNTAX

```
tsmcli --CommandName get-remotemediasettings --ComputerName  
<computer_name> --Credential <credential> [--Authentication <basic>] [--  
LogLevel <0|1|2|3|4|5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ]  
[--UseSSL ]
```

DESCRIPTION

The get-remotemediasettings command gets the remote media settings and the list of available remote media images on a specific Lenovo ThinkServer System Manager.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

EXAMPLES

```
tsmcli --CommandName get-remotemediasettings --ComputerName  
my_computer.com --Credential mycredential.xml
```

get-sel

Gets the SEL (System Event Log) of a specific TSM.

SYNTAX

```
tsmcli --CommandName get-sel --ComputerName <computer_name> --Credential  
<credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|4|5|6|7>] [--  
Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ]
```

DESCRIPTION

The get-sel command gets the SEL of the specified Lenovo ThinkServer System Manager.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

EXAMPLES

```
tsmcli --CommandName get-sel --ComputerName my_computer.com --Credential  
mycredential.xml
```

get-sensors

Gets current sensor readings from a specific TSM.

SYNTAX

```
tsmcli --CommandName get-sensors --ComputerName <computer_name> --  
Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|4|  
5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ] [--  
CommandArgs "sensorName=<sensor_name>"]
```

DESCRIPTION

The `get-sensors` command gets the current sensor readings from a specific Lenovo ThinkServer System Manager. The list is ordered by name and contains name, type, unit, current reading and thresholds of each sensor. The type and unit codes are defined by the IPMI specification. If a sensor name is passed in, only information about that specific sensor is returned.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

sensorName

Optional argument that specifies the name of a sensor to get information from. If this argument is not specified, information about all sensors is returned.

EXAMPLES

```
tsmcli --CommandName get-sensors --ComputerName my_computer.com --  
Credential mycredential.xml
```


get-systeminfo

Gets the system information of a specific TSM.

SYNTAX

```
tsmcli --CommandName get-systeminfo --ComputerName <computer_name> --  
Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|4|  
5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ]
```

DESCRIPTION

The get-systeminfo command gets the system information of a specific Lenovo ThinkServer System Manager.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

EXAMPLES

```
tsmcli --CommandName get-systeminfo --ComputerName my_computer.com --  
Credential mycredential.xml
```

get-users

Gets the list of local users on a specific TSM.

SYNTAX

```
tsmcli --CommandName get-users --ComputerName <computer_name> --Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|4|5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ]
```

DESCRIPTION

The get-users command gets the list of local users on a specific Lenovo ThinkServer System Manager. The list contains the id, username, e-mail address, role, KVM, virtual media, SNMP status, SNMP access, authentication protocol and privacy protocol for each user.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

EXAMPLES

```
tsmcli --CommandName get-users --ComputerName my_computer.com --Credential mycredential.xml
```

reset-config

Restores a TSM to its factory configuration.

SYNTAX

```
tsmcli --CommandName reset-config --ComputerName <computer_name> --  
Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|4|  
5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ] --  
CommandArgs "force=<1>"
```

DESCRIPTION

The reset-config command restores a Lenovo ThinkServer System Manager to its factory configuration.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

force

The reset-config command will reset the TSM settings to their factory defaults, erasing any customizations already made. As a security measure, the "force" argument is required and must be specified as "1".

EXAMPLES

```
tsmcli --CommandName reset-config --ComputerName my_computer.com --  
Credential mycredential.xml --CommandArgs "force=1"
```

set-nicsettings

Sets the network configuration of a specific network interface on the TSM.

SYNTAX

```
tsmcli --CommandName set-nicsettings --ComputerName <computer_name> --
Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|4|
5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ] [--
CommandArgs "[ipv4Address=<ipv4 address>;][ipv4DefaultGateway=<ipv4
address>;][ipv4Mode=<dhcp|static>;][ipv4SubnetMask=<ipv4 address>;]
[ipv6Address=<ipv6 address>;][ipv6DefaultGateway=<ipv6 address>;]
[ipv6Enabled=<0|1>;][ipv6Mode=<dhcp|static>;][ipv6SubnetPrefixLength=<ipv6
address>;][nicMode=<shared|dedicated>;][vlanEnabled=<0|1>;][vlanId=<2 to
4094>;][vlanPriority=<0 to 7>]"
```

DESCRIPTION

The set-nicsettings command sets the network configuration on the Lenovo ThinkServer System Manager. When switching between the NIC modes (shared/dedicated) this operation can take some minutes. During this time, network connectivity to the TSM can be lost.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

ipv4Address

Specifies the new IPv4 address for the network interface.

ipv4DefaultGateway

Specifies the new default IPv4 gateway for the network interface. This argument is required if IPv4 mode is changed from "dhcp" to "static".

ipv4Mode

Specifies the IPv4 assignment mode. The possible values are "dhcp" if the configuration will be retrieved from a DHCP server or "static" if the new settings will be defined manually.

ipv4SubnetMask

Specifies the new network subnet mask for the network interface. This argument is required if IPv4 mode is changed from "dhcp" to "static".

ipv6Address

Specifies the new IPv6 address for the network interface. This argument is required if IPv6 mode is changed from "dhcp" to "static".

ipv6DefaultGateway

Specifies the new default IPv6 gateway for the network interface. This argument is required if IPv6 mode is changed from "dhcp" to "static".

ipv6Enabled

Specifies whether the IPv6 settings should be enabled (1) or not (0). When changing the NIC mode the IPv6 settings will be disabled by default.

ipv6Mode

Specifies the IPv6 assignment mode. The possible values are "dhcp" if the configuration will be retrieved from a DHCP server or "static" if the new settings will be defined manually.

ipv6SubnetPrefixLength

Specifies the new network subnet prefix length for the network interface. This value must be a number between 0 and 128. This argument is required if IPv6 mode is changed from "dhcp" to "static"

nicMode

Specifies the mode for network interface. The available modes are "shared" or "dedicated" (optional). When changing the NIC mode the IPv4 arguments are required.

vlanEnabled

Specifies whether the VLAN should be enabled (1) or not (0) for this NIC. When changing the NIC mode the VLAN will be disabled by default.

vlanId

Specifies the id of the VLAN (2 to 4094). This argument is required if vlanEnabled is "1".

vlanPriority

Specifies the priority of the VLAN (0 to 7). This argument is required if vlanEnabled is "1".

EXAMPLES

```
tsmcli --CommandName set-nicsettings --ComputerName myserver --Port 80 --
Authentication basic --Credential credential.xml --CommandArgs
"ipv4Mode=static;ipv4Address=192.168.1.12;ipv4SubnetMask=255.255.255.0;ipv
4DefaultGateway=192.168.1.1"
```

```
tsmcli --CommandName set-nicsettings --ComputerName myserver --Port 80 --
Authentication basic --Credential credential.xml --CommandArgs
"ipv6Mode=static;ipv6Address=2001:0db8:85a3::8a2e:370:7334;ipv6SubnetPrefi
xLength=64;ipv6DefaultGateway=2001:db8:85a3::8a2e:370:ffff"
```

set-psuredundancysettings

Configures the power supply redundancy on a specific ThinkServer.

SYNTAX

```
tsmcli --CommandName set-psuredundancysettings --ComputerName  
<computer_name> --Credential <credential> [--Authentication <basic>] [--  
LogLevel <0|1|2|3|4|5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ]  
[--UseSSL ] [--CommandArgs "[powerCappingEnabled=<0|1>;]  
[redundancyMode=<normal|cold>]"]
```

DESCRIPTION

The set-psuredundancysettings command configures the power supply redundancy on a specific ThinkServer.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

powerCappingEnabled

Specifies the power capping enable state (optional and the new configuration will be active only when there is two PSUs active on the server).

redundancyMode

The redundancy mode. Possible values are: "normal" or "cold" (optional and the new configuration will be active only when there is two PSUs active on the server). For more information about PSU redundancy modes please verify the ThinkServer documentation.

EXAMPLES

```
tsmcli --CommandName set-psuredundancysettings --ComputerName  
my_computer.com --Credential mycredential.xml --CommandArgs  
"redundancyMode=normal"
```

set-remotemediasettings

Sets the remote media settings on a specific TSM.

SYNTAX

```
tsmcli --CommandName set-remotemediasettings --ComputerName  
<computer_name> --Credential <credential> [--Authentication <basic>] [--  
LogLevel <0|1|2|3|4|5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ]  
[--UseSSL ] --CommandArgs "enabled=<0|1>;[domainName=<domain>;]  
[password=<password>;][serverAddress=<ip>;][shareType=<nfs|cifs>;]  
[sourcePath=<source_path>;][username=<username>]"
```

DESCRIPTION

The set-remotemediasettings command sets the remote media settings on a specific Lenovo ThinkServer System Manager. This command allows enabling or disabling the remote media support and also configuring a server where remote images will be placed.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

enabled

Indicates if remote media support should be enabled (1) or not (0).

domainName

If the share type is "cifs", then the domain name must be provided.

password

If the share type is "cifs", then the user's password for the server must be provided. It shall have a maximum of 31 characters. The password cannot contain ';' (semicolon).

serverAddress

The remote media server address. It can be an IPv4 address or an IPv6 address.

shareType

The type of share used on the specified server. Either "nfs" or "cifs".

sourcePath

Path where the image files are located on the specified server.

username

If the share type is "cifs", then a username for the server must be provided. It shall have a maximum of 255 characters. Blank spaces at the beginning and the end of the username are discarded. The username cannot contain only blank spaces. The following special characters are not allowed: '#' (pound sign), ';' (semicolon), '\' (backslash) and "'" (single quote).

EXAMPLES

```
tsmcli --CommandName set-remotemediasettings --ComputerName myserver --  
Credential credential.xml --CommandArgs  
"enabled=1;serverAddress=192.168.1.12;sourcePath=cifs;shareType=cifs;usern  
ame=test;password=test;domainName=lenovo.com"
```


set-user

Modifies an user account on a specific TSM.

SYNTAX

```
tsmcli --CommandName set-user --ComputerName <computer_name> --Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|4|5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ] --CommandArgs "userId=<id>;[authenticationProtocol=<sha|md5>;][email=<email>;][kvm=<0|1>;][password=<password>;][privacyProtocol=<des|aes>;][role=<admin|user|operator>;][snmp=<0|1>;][snmpAccess=<read-only|read-write>;][virtualMedia=<0|1>]"
```

DESCRIPTION

The set-user command modifies an user account on a specific Lenovo ThinkServer System Manager.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

userId

Specifies the user id.

authenticationProtocol

Specifies the authentication protocol for SNMP settings (required if SNMP is changed from "0" to "1"). Possible values are: "sha" or "md5". The "password" argument is required if authentication protocol is specified.

email

Specifies the user email (optional). The email length is limited to 63 characters and can be defined as empty string ("") to clear the former value. In addition, the e-mail shall be in the format <username>@<domain>. Examples: "myname@mycompany.com" and "my.mail@dept.example.com".

kvm

Specifies the KVM privilege (optional).

password

Specifies the password (required if "authenticationProtocol" argument is specified). It shall have a maximum of 20 characters and only printable ASCII characters and spaces are accepted. In addition, if SNMP is enabled, the password shall have at least 8 characters.

privacyProtocol

Specifies the encryption algorithm to use for SNMP settings (required if SNMP is changed from "0" to "1"). Possible values are: "des" or "aes".

role

Specifies the user role (optional). Possible values are: "admin" for Administrator, "user" for User or "operator" for Operator.

snmp

Specifies the SNMP enabled state (optional).

snmpAccess

Specifies the SNMP access level (required if SNMP is changed from "0" to "1"). Possible values are: "read-only" or "read-write".

virtualMedia

Specifies the Virtual Media privilege (optional).

EXAMPLES

```
tsmcli --CommandName set-user --ComputerName my_computer.com --Credential mycredential.xml --CommandArgs "userId=id;email=example@example.com"
```

start-remotemediainage

Starts a remote media image redirection on a specific TSM.

SYNTAX

```
tsmcli --CommandName start-remotemediainage --ComputerName <computer_name>  
--Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|  
4|5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ] --  
CommandArgs "imageName=<imagename>;imageType=<cddvd|hd>"
```

DESCRIPTION

The start-remotemediainage command starts a remote media image redirection on a specific Lenovo ThinkServer System Manager. This operation can be executed only when remote media is enabled.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

imageName

The name and format of the image file that will be accessed remotely from the TSM. The image file format must always be .img for Harddisk and .iso for CD/DVD. The image name is case sensitive.

imageType

Specifies the type of the remote image redirection to be started on the specified TSM. The possible values are "cddvd" for CD/DVD or "hd" for Harddisk image.

EXAMPLES

```
tsmcli --CommandName start-remotemediainage --ComputerName my_computer.com  
--Credential mycredential.xml --CommandArgs  
"imageName=image.img;imageType=hd"
```

stop-remotemediainage

Stops a remote media image redirection on a specific TSM.

SYNTAX

```
tsmcli --CommandName stop-remotemediainage --ComputerName <computer_name>  
--Credential <credential> [--Authentication <basic>] [--LogLevel <0|1|2|3|  
4|5|6|7>] [--Port <port>] [--SkipSSLCertificateCheck ] [--UseSSL ] --  
CommandArgs "imageType=<cddvd|hd>"
```

DESCRIPTION

The stop-remotemediainage command stops a remote media image redirection on a specific Lenovo ThinkServer System Manager. This operation can be executed only when remote media is enabled.

PARAMETERS

For a list of parameters applicable to all TSMCLI commands see [Chapter 5, TSMCLI Usage](#).

COMMAND ARGUMENTS

imageType

Specifies the type of the remote image redirection to be stopped on the specified TSM. The possible values are "cddvd" for CD/DVD or "hd" for hard disk image.

EXAMPLES

```
tsmcli --CommandName stop-remotemediainage --ComputerName my_computer.com  
--Credential mycredential.xml --CommandArgs "imageType=cddvd"
```

7. Commands permissions

The table below shows the minimum permission for a TSM user required to successfully run each TSMCLI command:

create-credential	User
create-user	Administrator
delete-user	Administrator
get-auditlog	Operator
get-commands	-
get-crashscreen	User
get-frus	User
get-fwversions	Administrator
get-help	-
get-nicsettings	Operator
get-powerconsumption	User
get-psuredundancysettings	User
get-remotemediasettings	User
get-sel	User
get-sensors	User
get-systeminfo	User
get-users	Operator
reset-config	Administrator
set-nicsettings	Administrator
set-psuredundancysettings	Administrator
set-remotemediasettings	Administrator
set-user	Administrator
start-remotemediainage	User
stop-remotemediainage	User

8. TSMCLI Exceptions and Errors

Below is the list of common errors and exceptions that can be thrown by the TSMCLI:

Authentication Exceptions

Thrown when the some authentication problem is found, like invalid or missing credentials.

Memory Allocation Exceptions

Thrown in case of exceptions when allocating memory for internal TSMCLI operations.

Missing Parameters

Thrown when a required parameter for a TSMCLI command is missing.

Missing Arguments

Thrown when a required argument specific to a TSMCLI command is missing.

Invalid Arguments

Thrown when an invalid argument is informed on a TSMCLI command.

Invalid Argument Values

Thrown when invalid values are informed on a TSMCLI command specific argument.

Invalid Commands

Thrown when an invalid TSMCLI command is informed.

Server Communication Problems

Thrown when the TSM is not reachable or takes too long to respond and similar situations.

9. Tips

9.1. Unsupported special characters on the TSM and TSMCLI

- All ASCII control characters are not supported. See the table below:

DEC	OCT	HEX	Symbol	Description
0	000	00	NUL	Null character
1	001	01	SOH	Start of Heading
2	002	02	STX	Start of Text
3	003	03	ETX	End of Text
4	004	04	EOT	End of Transmission
5	005	05	ENQ	Enquiry
6	006	06	ACK	Acknowledgment
7	007	07	BEL	Bell
8	010	08	BS	Back Space
9	011	09	HT	Horizontal Tab
10	012	0A	LF	Line Feed
11	013	0B	VT	Vertical Tab
12	014	0C	FF	Form Feed
13	015	0D	CR	Carriage Return
14	016	0E	SO	Shift Out / X-On
15	017	0F	SI	Shift In / X-Off

DEC	OCT	HEX	Symbol	Description
16	020	10	DLE	Data Line Escape
17	021	11	DC1	Device Control 1 (oft. XON)
18	022	12	DC2	Device Control 2
19	023	13	DC3	Device Control 3 (oft. XOFF)
20	024	14	DC4	Device Control 4
21	025	15	NAK	Negative Acknowledgement
22	026	16	SYN	Synchronous Idle
23	027	17	ETB	End of Transmit Block
24	030	18	CAN	Cancel
25	031	19	EM	End of Medium
26	032	1A	SUB	Substitute
27	033	1B	ESC	Escape
28	034	1C	FS	File Separator
29	035	1D	GS	Group Separator
30	036	1E	RS	Record Separator
31	037	1F	US	Unit Separator

- For TSM Users, the following rules applies to "usernames":

- The username shall not start with a digit.
- The username shall not start with any of the following characters:

DEC	OCT	HEX	Symbol	Description
45	055	2D	-	Hyphen
64	100	40	@	At symbol
95	137	5F	_	Underscore

- The username shall not contain the following characters:

DEC	OCT	HEX	Symbol	Description
32	040	20		Space
33	041	21	!	Exclamation mark
34	042	22	"	Double quotes
35	043	23	#	Hash
36	044	24	\$	Dollar sign
37	045	25	%	Percent
38	046	26	&	Ampersand
39	047	27	'	Single quote
40	050	28	(Opening parenthesis
41	051	29)	Closing parenthesis
42	052	2A	*	Asterisk
43	053	2B	+	Plus
44	054	2C	,	Comma
46	056	2E	.	Period
47	057	2F	/	Slash
58	072	3A	:	Colon

DEC	OCT	HEX	Symbol	Description
59	073	3B	;	Semicolon
60	074	3C	<	Less than
61	075	3D	=	Equals
62	076	3E	>	Greater than
63	077	3F	?	Question mark
91	133	5B	[Opening bracket
92	134	5C	\	Backslash
93	135	5D]	Closing Bracket
94	136	5E	^	Caret
96	140	60	`	Grave accent
123	173	7B	{	Opening braces
124	174	7C		Vertical bar
125	175	7D	}	Closing braces
126	176	7E	~	Tilde
127	177	7F		Delete

- For TSM Users, the following characters are not allowed in "password":

DEC	OCT	HEX	Symbol	Description
59	073	3B	;	Semicolon
127	177	7F		Delete