

# **SEBool Extension for Config5**

**Stefan Walter**

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# Chapter 1. Introduction

## 1.1. Overview

The SEBool Extension is a simple wrapper around the **setsebool** command. It provides the `sebool` change to efficiently set and clear SELinux booleans with Config5.

## 1.2. Examples

Booleans can be set or cleared as shown in the following example spec file:

```
RedHatEnterpriseServer:
    sebool set samba_share_nfs
    sebool clear httpd_can_network_connect
```

---

# Chapter 2. Installation and Customization

## 2.1. Installation

This extension is contained in the archive `extensions/sebool.tgz` which is part of the Config5 distribution. Simply extract this archive in the `deploy` directory.

### 2.1.1. Files

The following files are included in the archive:

- `etc/extensions.d/sebool.pl`
- `lib/perl/Config5/Change/Extensions/SEBool.pm`
- `lib/perl/Config5/Action/Extensions/SEBool.pm`

## 2.2. Settings

This extension does not have any configurable settings.

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# Chapter 3. Changes

## 3.1. Changes

This extension provides the `sebool` change which can set or clear SELinux booleans:

Synopsis	<code>sebool [-ntT] set clear boolean</code>
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The `set` or `clear` action specifies if the boolean is set or cleared. The parameter `boolean` specifies the boolean to operate on.

## 3.2. Configuration Application

### 3.2.1. Phase

The `sebool` changes are applied in the `configure` phase.

### 3.2.2. Order and Application

All `sebool` changes of a pass are grouped together to one command line for **`setsebool -P`** which cause a policy rebuild.

The extension caches information from **`getsebool -a`** when checking for booleans to set or clear. Mixing `sebool` and `execute` changes to modify SELinux booleans is not supported.

### 3.2.3. Trigger Flag

The the trigger flag for triggered changes is set when a boolean needs to be set or cleared.

### 3.2.4. Root Directory

Changes of this extension are only applied if the root system information item is equal to `/`.

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# Appendix A. Error Messages

## A.1. System Errors

System errors are fatal, no changes will be done to the system.

Cannot get list of SELinux booleans

The list of booleans cannot be obtained. Typically SELinux is completely turned off or the **getsebool** command is not installed.

## A.2. Configuration Data Errors

Configuration data errors are fatal, no changes will be done to the system.

Invalid action '...' in ...

The action must be **set** or **clear**.

## A.3. Configuration Application Errors

The following errors are reported for changes as they are applied but do not interrupt the application of other changes.

Unknown SELinux boolean '*boolean*' in ...

A set or clear action was attempted on an inexistent SELinux boolean. Run the **getsebool -a** command on the target system to list all available booleans.

Failed to ... SELinux boolean '*boolean*'

The named boolean could not be set or cleared.