



BlackBerry Policy Service Throttling

BlackBerry Enterprise Server version 4.1 SP6 or later

Overview

You can run TraitTool.exe on a BlackBerry® Enterprise Server to limit the database load that the BlackBerry® Policy Service generates when it performs the following operations:

- sends IT policies and service books to all BlackBerry devices associated with the BlackBerry Enterprise Server on which it runs (due to a change in IT policy or service book content)
- sends peer-to-peer encryption keys to all BlackBerry devices associated with the BlackBerry Enterprise Server on which it runs (due to a change in a key value)
- performs an application poll to determine whether applications must be sent to all BlackBerry devices associated with the BlackBerry Enterprise Server on which it runs

TraitTool.exe is located in the Tools directory on the BlackBerry Enterprise Server installation media.

IT policy and service book throttling

If the BlackBerry Policy Service automatically detects that the content of an IT policy or service book has changed in the BlackBerry Configuration Database (for example, if an administrator modifies an IT policy), it schedules a task to create and deliver the IT policies and service books to any BlackBerry device users that are affected by the change. Without throttling, the BlackBerry Policy Service tries to process these tasks as fast as the server allows, which might result in an unexpected increase in CPU and database usage.

Since multiple instances of the BlackBerry Policy Service on multiple BlackBerry Enterprise Servers are not synchronized, an unexpected increase in CPU and database usage can be compounded and sustained for a long period of time when a change affects users on multiple BlackBerry Enterprise Servers. This can lead to database failures.

You can use IT policy and service book throttling to limit the number of IT policies and service books that a BlackBerry Policy Service sends to BlackBerry devices. With throttling, the BlackBerry Policy Service determines which users on the BlackBerry Enterprise Server on which it runs require a new IT policy or service book, and then determines how many users to schedule for processing in the next 60 seconds. The BlackBerry Policy Service then schedules the same number of users at equal intervals over the next 60 seconds. This distributes the load on the BlackBerry Configuration Database.

Throttling only applies when the BlackBerry Policy Server automatically detects changes to IT policies or service books. Automatic detection is triggered by the BlackBerry database notification system or by a five minute timer if BlackBerry database notification system is turned off. Throttling does not apply in the following cases:

- when IT policies or service books are requested during BlackBerry device activation
- when an administrator requests (from the BlackBerry device) that IT policies or service books be sent to users

Peer-to-peer key throttling

If the BlackBerry Policy Service automatically detects that peer-to-peer encryption key values have changed in the BlackBerry Configuration Database, it determines which users require the new key value and how many users to schedule for processing in the next 60 seconds. The

BlackBerry Policy Service then schedules that same number of users at equal intervals over the next 60 seconds.

Throttling only applies when the BlackBerry Policy Service automatically detects changes to the peer-to-peer encryption keys. Automatic detection is triggered by the BlackBerry database notification system or by a five minute timer if the BlackBerry database notification system is turned off.

Requirements

- BlackBerry Enterprise Server version 4.1 SP6 or later

Managing BlackBerry Policy Service Throttling

Specify a setting

1. At the command prompt, navigate to the folder that **TraitTool.exe** is located in.
2. Type the following command:

```
TraitTool -global -trait <name> -set <value>
```

- For **<name>**, type the trait that you want to specify. See “BlackBerry Policy Service throttling traits” below.
 - For **<value>**, type a value for the trait that you specified. See “BlackBerry Policy Service throttling traits” below.
3. Press ENTER.

Delete a setting

If you delete the setting for a trait, the setting will use the default value.

1. At the command prompt, navigate to the folder that **TraitTool.exe** is located in.
2. Type the following command:

```
TraitTool -global -trait <name> -erase
```

- For **<name>**, type the trait that you want to delete the setting for. See “BlackBerry Policy Service throttling traits” below.
3. Press ENTER.

View the current settings

1. At the command prompt, navigate to the folder that **TraitTool.exe** is located in.
2. Type the following command:

```
TraitTool -global -list
```

3. Press ENTER.

BlackBerry Policy Service Throttling Traits

Trait	Description	Trait values	Default value

PolicyThrottlingMaxDomainJobs	This trait specifies the maximum number of IT policies and service books that all BlackBerry Policy Services can send each minute.	A positive integer.	300
PolicyThrottlingMaxBESJobs	This specifies the maximum number of IT policies and service books that an individual BlackBerry Policy Server can send each minute.	A positive integer.	100
PolicyThrottlingInProgressJobs	This trait specifies the maximum number of IT policies and service book jobs that can be in progress (scheduled, but not complete in the last processing window) by an individual BlackBerry Policy Service before the BlackBerry Policy Service schedules any more jobs.	A positive integer.	30
PolicyThrottlingP2PKeyRate	This trait specifies the number of peer-to-peer encryption keys that an individual BlackBerry Policy Service can send each minute.	A positive integer.	60 A value of 0 disables throttling.

Examples

Configuring the maximum number of IT policies or service books that a BlackBerry Policy Service can send to 500:

```
TraitTool -global -trait PolicyThrottlingMaxDomainJobs -set 500
```

Configuring the maximum number of IT policies or service books that a BlackBerry Policy Service can send to 200:

```
TraitTool -global -trait PolicyThrottlingMaxBESJobs -set 200
```

Viewing the values of configuration items that are set globally:

```
TraitTool -global -list
```

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Document ID: 20219273

Last Modified: October 15, 2008