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## **Automated Image Optimizations**

- Parallels Remote Application Server 18.3
- Parallels Remote Application Server 19.1

Automated Image Optimizations is the built-in RAS Console tool that allows system administrators to simplify the process of optimizing an OS on an RDSH/WVD/Guest VM. Although this is technically possible to apply an optimization setting to any non-pooled/non-templated RDSH/Guest VM, this feature is more efficient when deploying/configuring a set of RDSH/VDI guests based on the template.

**NOTE:** Changes are irreversible. Please ensure you have a full backup or snapshot before you apply any optimization. You will need it if you decide to revert the applied changes later.

# **Key Benefits**

- Built-in tool Available out of the box
- Predefined list with over 130 optimizations in 11 categories
- Bring your own script for optimizations
- Applies to RDSH/ VDI/ WVD: Standalone, Template, Site
- More efficient use of resources
- Increase user density
- Increase UX
- Reduce Costs
- Simplify optimizations (built-in and single pane of glass)
- Faster boot time, logon, clone time
- Reduce time to production Faster move from POC to Pilot to Production

# **Optimization Settings**

There are over 130 optimizations available in the following categories:

- Windows Defender ATP
- Windows Components
- Windows Services
- Windows Scheduled Tasks
- Windows Advanced Options
- Network Performance
- Registry
- Visual Effects
- Disk Cleanup
- Custom Script

# Configuration

1. To apply an optimization, in RAS Console right-click on an entity you're going to use > **Preferences** > **Optimization** tab.

#### 2. Uncheck "Inherit default settings" and check "Enable Optimizations".

3. Either select "Automatic" to apply the common settings from all categories or "Manual" and select all of the needful settings from each category you'd like to use including custom scripts.

4. Optional. Check "Force optimization on all enabled categories" in case there is an optimization currently in progress and you'd like to override it.

### **Designed Behavior**

1. An optimization setting can be applied only to the worker host without users sessions – if there is any session then the status is **Optimization pending** and the host automatically switches to the drain mode.

2. The process starts right after all sessions logged off from the worker host. The status now is **Optimization in progress.** The process requires the target server's reboot, so this is expected that at some point the status will switch to **Not verified** for a short period of time.

**NOTE:** A host remains in drain mode until all of the optimization settings are applied. During this time frame, users won't be able to launch a session.

3. After the reboot, the host's status will switch back to **OK.** 

4. Hash is always created (updated) per optimization category in any case even if optimization failed. It means one cannot run the same optimization set more than 1 time. You can change the set or force it.

5. The option **Force optimization on all enabled categories on next server communication** (not saved) – allows you overcome [4].

6. Changes are irreversible. You need a snapshot or image backup to rollback changes.

7. If you use **"Stop optimization"** from **Tasks** menu, hash is being updated. This means some settings have been already applied and some not > to re-apply one need to repeat steps [4] or [5].

8. Each category keeps only one set of settings in the buffer. For example:

- If you choose some optimization settings (Settings1), apply them, then change some settings (getting Settings2), apply again and then change settings once again (Settings3), Settings2 may be or may not be applied, depending on whether optimization based on Settings1 finished or not.
- If Settings1 had already been finished with, Settings2 will participate in optimization process, then Settings3 will be processed, but if Settings2 are still in the buffer, when Settings3 arrived, Settings3 will simply overwrite them, so nothings from Settings2 is going to apply.

9. The time required to complete an optimization may vary and depends on what exact settings/scripts are taking place. Please ensure you apply an optimization during maintenance hours only.

# Troubleshooting

To check the results of applied optimization settings, on the worker host check the following log file:

#### $\% Program Data \% \ Parallels \ RASLogs \ Image Optimizer. log$

Please for the following strings:

[I 78/0000009/T10C4/P0FD4] 11-08-20 10:09:19 - Image Optimization complete with 98 successful and 0 unsuccessful optimizations [I 78/00000003/T10C4/P0FD4] 11-08-20 10:09:19 - Image Optimization finished

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