



HPSA Agent Migration Benefits

Overview

Several tests were run to show the benefit of agent upgrade when running a non-upgraded managed server on a HPSA core upgraded to a 7.5 or later release. The OGFS framework was optimized in HPSA 7.5 as compared to previous HPSA versions. Some of the optimizations required changes to the agent code in order to support the improved capabilities. This means that any agent that existed on a pre 7.5 core and operates on an upgraded 7.5 or later core does not use these enhancements.

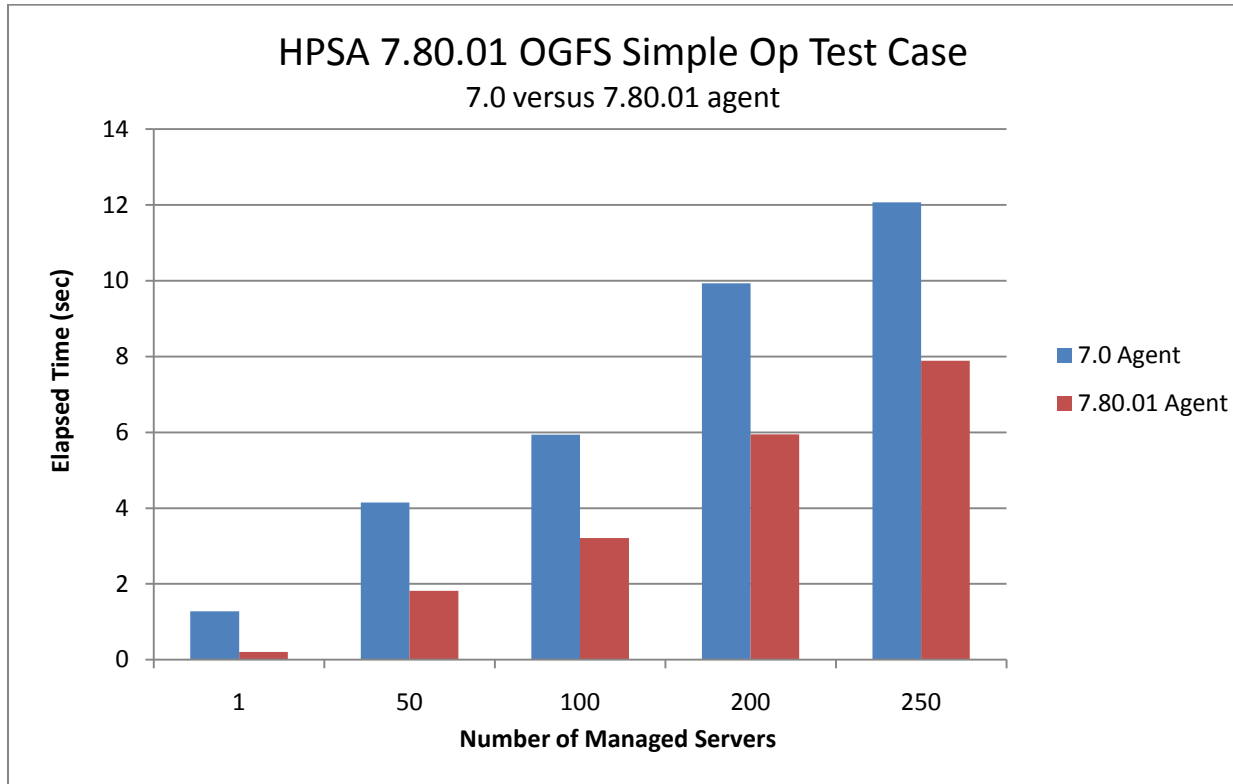
Test Description

A 7.8.1 GA environment was setup with 250 simulated managed servers to generate reasonably large scale results. The test case selected is very focused where everything except the managed server agent version is held constant. We used a 7.0 agent and a 7.8.1 agent for each test to show the difference in code exercised by the OGFS ROSH operation. The test consisted of issuing several ROSH commands in parallel. Each command is executed on a separate managed server. The command being run on the managed server does an md5sum command on a /etc/hosts file. The execution time on the managed server takes a fraction of a second and returns less than a kilobyte of data back to the OGFS.



Results

(When comparing the bars, lower is better)



Conclusions

Continued developments in SA have resulted in significant performance improvements to the OGFS in the last few releases. The chart above validates the performance benefit recognized for low-level OGFS operations when using a post-7.0 agent on the managed server. These improvements translate into reduced elapsed execution time and overall increased throughput when submitting a large number of operations. Users that are operating on an a HPSA core that has been upgraded to a post 7.0 release may see performance benefits like this if they upgrade their managed servers to post 7.0 agents.



System Under Test

2 Slice 7.80.01 HPSA Core

Server Role	Database (Truth)
Hardware Specs	Local Disk: 2x 72GB 10K SAS RAID-1 (Linux boot) Memory: 16GB OS: RHEL AS 4 64-bit CPU: 2x Quad-Core 2.66 GHz Intel Xeon 5355 Model: HP BL460cG1
Network Config	Network: 1 Gbps LAN
Software Specs	Oracle 10.2.0.2.0 Standard Edition
HPSA Version	SA 7.80.01 – Build 37.0.3907.0
Server Role	Infrastructure services Media Repository Storage “Slice” scalable services
Hardware Specs	Local Disk: 2x 72GB 10K SAS RAID-1 (Linux boot) Memory: 16GB OS: RHEL AS 4 64-bit CPU: 2x Quad-Core 2.66 GHz Intel Xeon 5355 Model: HP BL460cG1
Network Config	Network: 1 Gbps LAN
HPSA Version	SA 7.80.01 – Build 37.0.3907.0
Server Role	“Slice” scalable services
Hardware Specs	Local Disk: 2x 72GB 10K SAS RAID-1 (Linux boot) Memory: 16GB OS: RHEL AS 4 64-bit CPU: 2x Quad-Core 2.66 GHz Intel Xeon 5355 Model: HP BL460cG1
Network Config	Network: 1 Gbps LAN
HPSA Version	SA 7.80.01– Build 37.0.3907.0



Managed Servers

Server Types	HP Blade servers with simulated agents
Hardware Specs	Local Disk: 2x 72GB 10K SAS RAID-1 (ESX boot) Memory: 32GB OS: RHEL AS 4 64-bit CPU: 2x Quad-Core 2.66 GHz Intel Xeon 5355 Model: HP BL460cG1
#Agents per blade:	50
Agent Versions:	34.0.0.148 (7.0) and 37.0.0.2.84 (7.8.1)
Network	Network: 1 Gbps LAN