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Topic: Comparison and Performance Analysis of Standard and LVM Based Disk Parititioning

Reference:

Milivoj Boznic, Milos Djukic, Dragan Narancic, Istvan Pap, “Comparison and Analysis of Standard disk Partitioning and LVM based disk Partitioning on Linux Systems”, TELSIKS 2017

Borislav Djordjevic, Valentina Timcenko “LVM in the Linux Environment: Performance Examination”, Tehnicki Vjesnik, October 2015

Prashanth Nayank, Robert Ricci “Detailed Study on Linux Logical Volume Manager”, Flux Research Group, August 2013

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Abstract

In the course of twenty five years, Linux has gone from being a hobbyist toy Operating System run on the creator’s 386 machine to an OS that runs everything from smart watches to Supercomputers. From managing Hard Disk drives having a few hundred megabytes of storage, current Linux systems are tasked with management of vast storage arrays, whose size can go up to tens of Petabytes. From the advent of modern storage devices, disk partitioning was seen as a necessity, as it allowed proper allocation of storage resources for various users and services of the system. But traditional disk partitioning has struggled to keep up with the exhilarating advancements in the field of storage. Logical Volume Manager or LVM is Linux’s answer for easing the storage management. It does this by further abstracting the storage partitions allowing them to span multiple physical disks and to be resized even while being mounted. The seminar introduces standard and LVM based partitioning methods and then looks if LVM can be used as a replacement for the standard partitioning methods.