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Less known Solaris Features: Remote Mirror with AVS - Part 1: Introduction

Solaris was designed with commercial customers in mind. Thus this operating environment has some capabilities that are somewhat useless for the soho user, but absolutely essential for enterprise users. One of this capabilities is remote replication of disk volumes. Imagine the following situation. You have a database and a filesystem for a central application of your company. The filesystem stores binary objects (for example images or something like that). The application is so important for your company, that you plan to build a replicated site. And now your problems start.

Replicating a database is fairly easy. Most databases have some functionality to do a master/replica replication. Filesystems are a little bit harder. Of course you can use rsync, but whats with the data you wrote after the last rsync run and the failure of your main system. And how do you keep the database and the filesystem consistent?

The Solaris operating environment has a feature to solve this problem. It's called Availability Suite (in short AVS). It's a rather old feature, but i would call it a matured feature. The first versions of the tool wasn't really enterprise ready and this led to some rude nick names for this feature, but that's so long ago

AVS was designed to give the operating environment the capability to replicate a volume to another site independently from the way it's used. Thus it's irrelevant, if the volume is used by a filesystem, as a raw device for a database. Well you can even use it to give ZFS the capability to do a synchronous replication (a feature missing today)

AVS has a point-in-time-copy feature (something similar to snapshots) as well, but this tutorial will concentrate to the remote mirror capability.

Posted by Joerg Moellenkamp in English, Solaris at 20:43