

File System Shrink

Tuesday, 21 September 2021 09:00 (30 minutes)

File system shrink allows a file system to be reduced in size by some specified size blocks as long as the file system has enough unallocated space to do so. This operation is currently unsupported in xfs. Though a file system can be backed up and recreated in smaller sizes, this is not functionally the same as an in place resize. Implementing this feature is costly in terms of developer time and resources, so it is important to consider the motivations to implement this feature. This talk would aim to discuss any user stories for this feature. What are the possible cases for a user needing to shrink the filesystem after creation, and by how much? Can these requirements be satisfied with a simpler mkfs option to backup an existing file system into a new but smaller filesystem? In the cases of creating a rootfs, will a protofile suffice? If the shrink feature is needed, we should further discuss the APIs that users would need.

Beyond the user stories, it is also worth discussing implementation challenges. Reflink and parent pointers can assist in facilitating shrink operations, but is it reasonable to make them requirements for shrink? Gathering feedback and addressing these challenges will help guide future development efforts for this feature.

I agree to abide by the anti-harassment policy

I agree

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