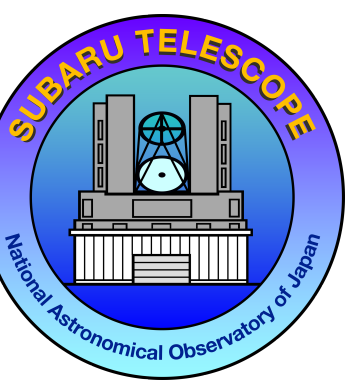


# PFS Software Infrastructure at Subaru

Craig Loomis, Eiji Kyono and Hassan Siddiqui  
cloomis@astro.princeton.edu, kyono@naoj.org, hassans@astro.princeton.edu

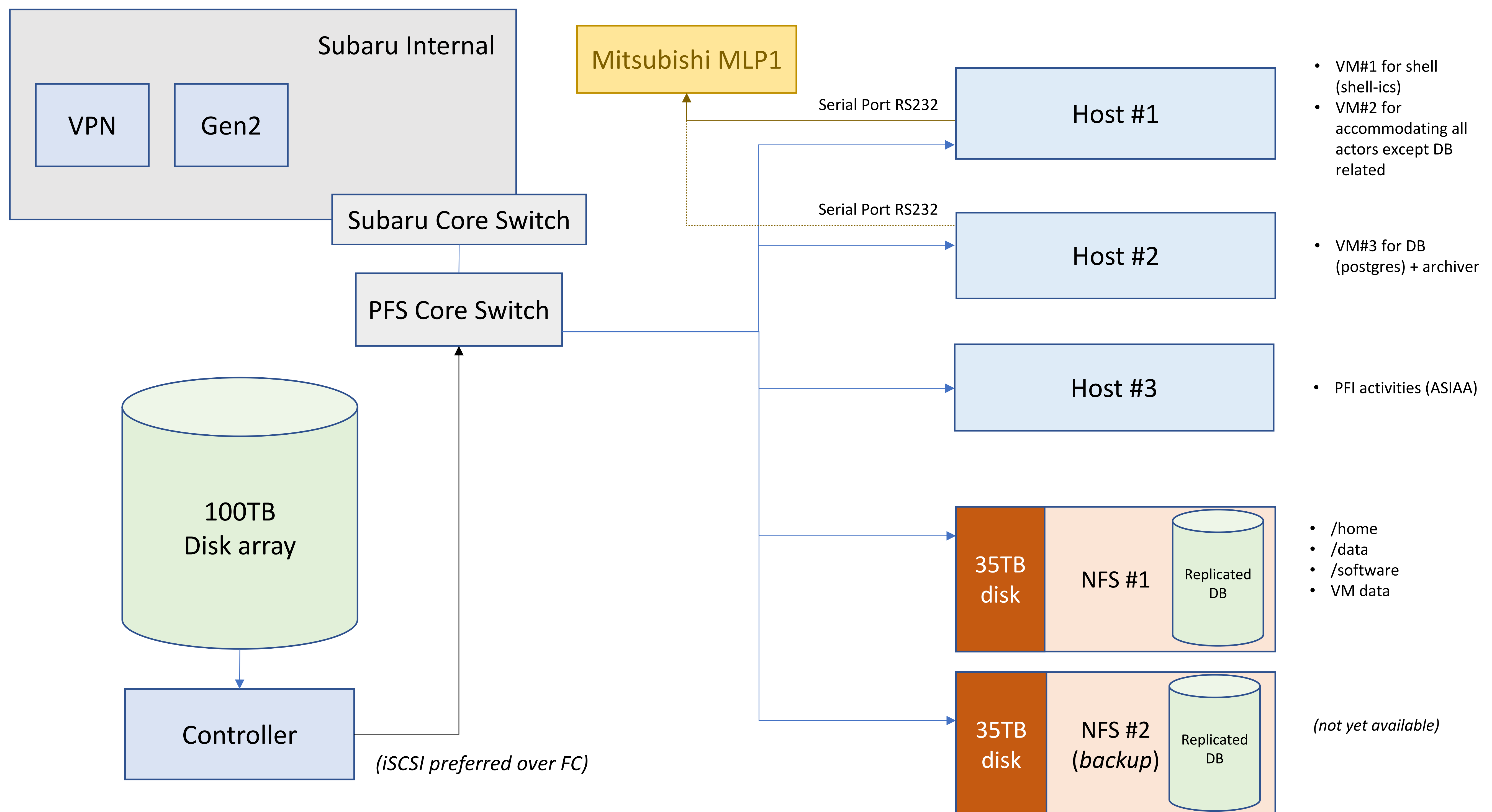


## Introduction

The PFS software installed at Subaru needs to process and store critical science and calibration data during the course of operations. The infrastructure on which the software runs must therefore be robust and reliable. This poster outlines the current and planned infrastructure and lists the main open issues.

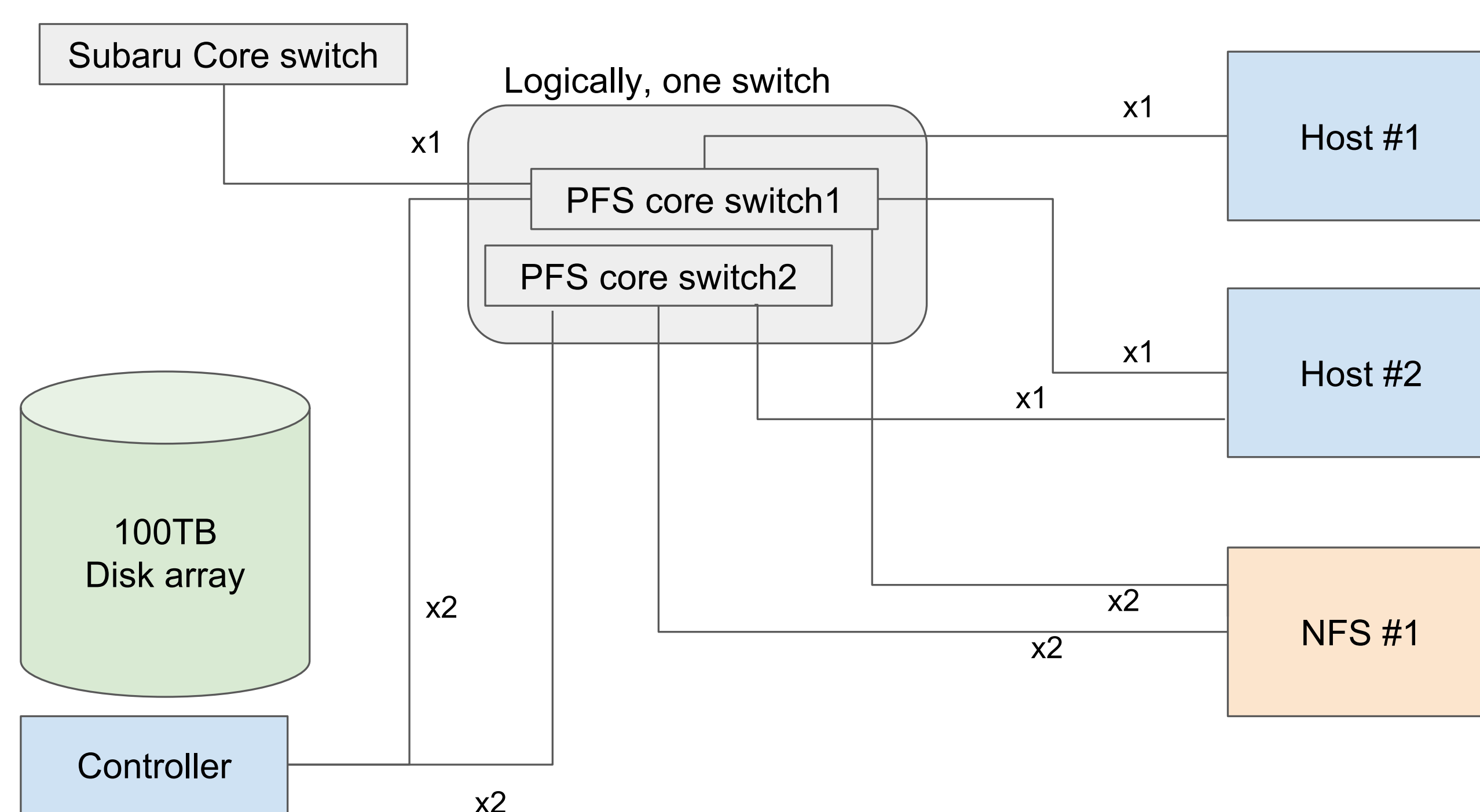
## Target Infrastructure

Currently there are 2 hosts and 1 NFS machine processing data during the MCS engineering runs in April and Oct 2018. This will be extended to target infrastructure below. This consists of 3 hosts and two NFS boxes to provide as much redundancy and flexibility as possible.



## Core Switch Layout

The detailed core switch configuration and ethernet connections to the host and NFS machines are shown below.



## Open Points

1. The 35TB (physical size=60TB; effective capacity=35TB) disk arrays on NFS-1 and -2 are still to be confirmed, pending on the number of slots available and the cost.
2. The NFS-2 machine still needs to be purchased. How is the responsible (Subaru or PFS) is to be discussed.
3. iSCSI over ethernet is preferred to using fiber cable. It is felt that the former is more reliable and is more easily recoverable. This may introduce a performance penalty however.

## References

See document PFS-ICS-PRU030000-01, available from the PBworks website.

## Acknowledgements

HS and CL acknowledge support by the National Science Foundation under Grant No 1636426 and support from the NAOJ. EK acknowledges support from the NAOJ.

## User Access

- The PFS software infrastructure is accessible remotely through SSL VPN upon approval from a PFS project member at Subaru(Takato-san).
- For security, maintenance and traceability, all development and installation of software will be done using dedicated user accounts, with a per-user primary group id. In addition, all users will also share a common secondary group (**pfs**).
- Content written to the **pfs** group directories (**/software/**, etc) are *writable* by all in the project, but content written to non-pfs group directories (**/home/**, etc) are by default readable, *but not writable* by all in the project.