

# SFA OS<sup>™</sup>

## Shutdown Abrupt Command Can Put Data at Risk with Older Firmware Releases

---

**ALERT!** *Upgrade to SFA OS 3.1.0.1 or higher is strongly advised* on all SFA7700, SFA12K, and SFA14K platforms. Others should **NOT** use **shutdown subsystem abrupt**.

---

### Issue Summary

The SFA OS **shutdown subsystem** command with the **abrupt** parameter causes the storage controllers to speed shutdown by saving their write-back cache contents to nonvolatile storage on the controllers, instead of flushing it to the physical drives. In SFA OS 3.0.1.x (Foundation) and earlier, certain interactions in the handling of the RAID engine, write-back caching, and cache mirroring made this process susceptible to leaving inconsistent RAID stripes.

---

**ALERT!** *Inconsistent RAID stripes put data at risk.* A force verify as soon as possible following an abrupt shutdown is required to recover any damaged data in affected pools, and it is possible that there may not be sufficient redundancy in a pool for recovery to succeed.

---

### Products Affected

All S2A6620, SFA7700, ES7K, GS7K, SFA10K, SFA12K, SFA14K, ES14K, and GS14K platforms running SFA OS 3.0.1.x or earlier are affected by this issue.

## Resolution

The handling of interactions among the RAID engine, write-back caching, and cache mirroring was changed to address this issue in SFA OS 3.1.0.x (Bova). In this and later releases, the SFA metadata state is frozen when the **shutdown\_now** flag is set as the result of a **shutdown subsystem abrupt** command. This prevents inconsistent striping behavior.

Customers should take the following actions to protect their valuable data:

- **Upgrade to SFA OS 3.1.0.1 or higher** on all SFA7700, SFA12K, and SFA14K platforms.
- **Do NOT use the shutdown subsystem abrupt command** on S2A6620 and SFA10K platforms or on any SFA platform running SFA OS 3.0.1.x or earlier.

## Contacting DDN Technical Support

Please contact DDN Technical Support at any time if you have questions or require assistance. Support can be reached by phone, by email, or on the web as listed below.

### Web

*DDN Community Support Portal  
Portal Assistance*

<https://community.ddn.com/login>  
[webportal.support@ddn.com](mailto:webportal.support@ddn.com)

### Telephone

*DDN Support Worldwide Directory*

<http://www.ddn.com/support/contact-support>

### Email

*Support Email*

[support@ddn.com](mailto:support@ddn.com)

### Bulletins

*Support Bulletins*

*End-of-Life Notices*

*Bulletin Subscription Requests*

<http://www.ddn.com/support/technical-support-bulletins>

<http://www.ddn.com/support/end-of-life-notices>

[support-tsb@ddn.com](mailto:support-tsb@ddn.com)