

What's New in OpenSAF

By Monica Hatlen, President, OpenSAF Foundation

The biggest news is the imminent distribution of Release 4.0, planned for June 2010. OpenSAF is an open source community focused on high availability (HA) middleware consistent with Service Availability™ (SA) Forum specifications. In the open source tradition, OpenSAF Release 4.0 is the product of many person-years of collaborative effort by community members. It will be freely available to anyone under the LGPLv2.1, and anyone may contribute to the code base.

In many ways, Release 4.0 realizes the initial OpenSAF vision. In particular, it includes implementations of the remaining major SA Forum services, the Software Management Framework (SMF) and Platform Layer Management (PLM). OpenSAF no longer requires implementors to solve the problems of software upgrades, and it addresses integration with all aspects of hardware, including virtual machines. It now aligns extremely well with the SCOPE Alliance's base platform concepts, and it represents the most complete implementation of the SA Forum specifications to date.

Besides these major features, OpenSAF 4.0 also includes an architectural reworking of the base code, driven by community feedback. This increases modularity and scalability. It also has logging, tracing, and debugging enhancements, and it adds support for Solaris. It is worth examining the implications of these changes.

First of all, the code was re-architected to be much more modular, thus making it more suitable for applications that do not require all the OpenSAF services. In practical terms, users may now build and install only the features they plan to use, reducing memory requirements and avoiding maintenance issues.

Another major addition to Release 4.0 is the first industry implementation of SMF. It allows users to upgrade application software from one deployment configuration to another without affecting service availability. The seamless update capability applies to software version rollback as well. Since it is a framework, it does not dictate the actual mechanisms and processes used to update a platform, which remain under the design team's control.

A third important addition to Release 4.0 is the implementation of PLM, which bridges between OpenSAF and the SA Hardware Platform Interface (HPI) specification. It provides for smoother hardware management and also facilitates virtualization.

Overall, Release 4.0 achieves many of the goals of OpenSAF's founders - it is a real milestone. It is the first stand-alone distribution; developers can utilize it without having to add functionality from elsewhere.

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