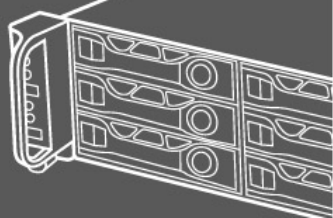
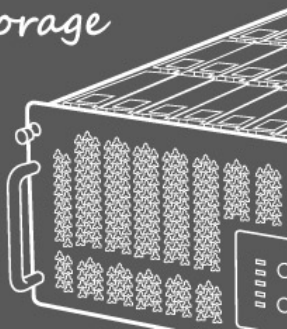


Design Files Contribution For Meta Vernal Falls E1.S 10U Flash Blade and Expansion

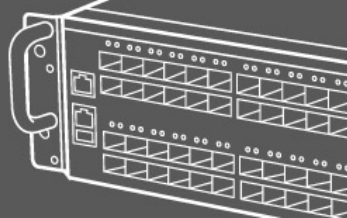
Servers



Storage



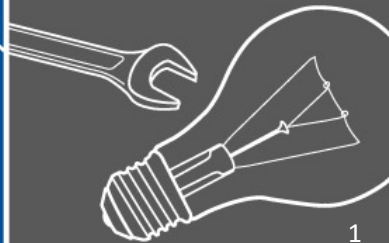
Networking



Rack
Systems



Solutions



Agenda

- **Vernal Falls OCP Specification**
- **Vernal Falls in Yosemite V3**
- **Vernal Falls Overview**
- **Vernal Falls ISO View**
- **Vernal Falls Block Diagram**
- **Vernal Falls board specification**
- **OCP Tenets Compliance**

Vernal Falls OCP Specification

Vernal Falls E1.S 10U Flash Blade and Expansion (Version 1.5)

<https://www.opencompute.org/documents/e1s-expansion-10u-1s-server-design-specification-pdf>

SPEC, Yosemite V3: Vernal Falls E1.S 10U Flash Blade and Expansion Board, Facebook

Yosemite V3: Vernal Falls E1.S 10U Flash Blade and Expansion Board Specification

Contributor: Meta

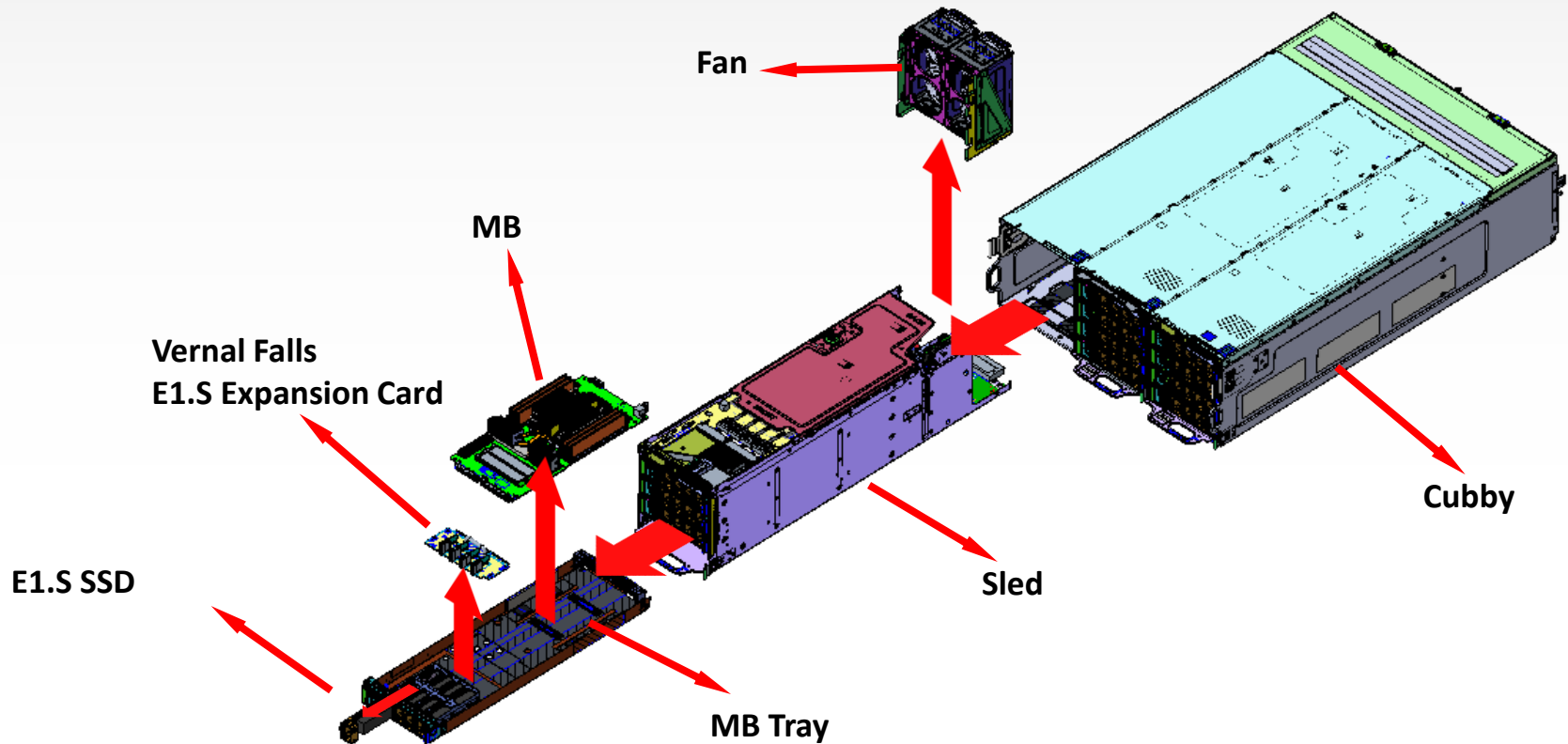
Family: Storage

Project: Storage

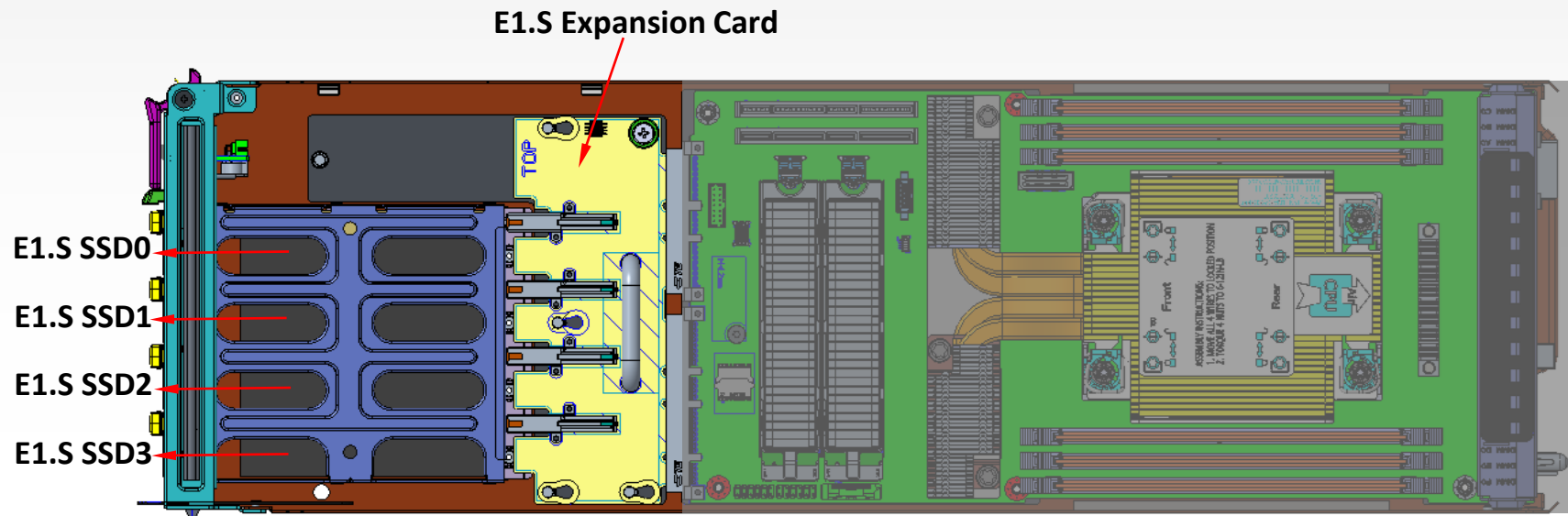
Release Year: 2021



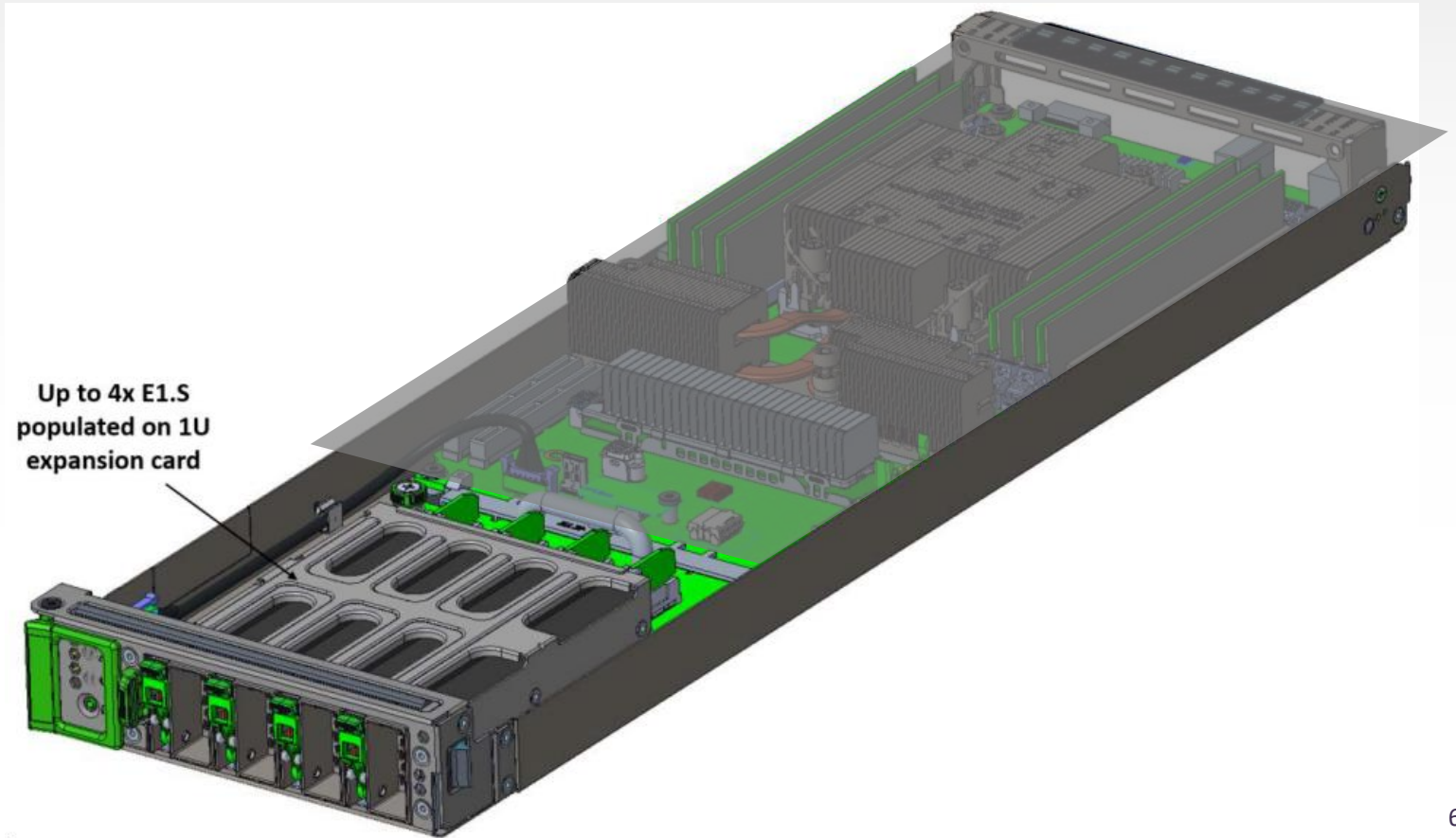
Vernal Falls in Yosemite V3



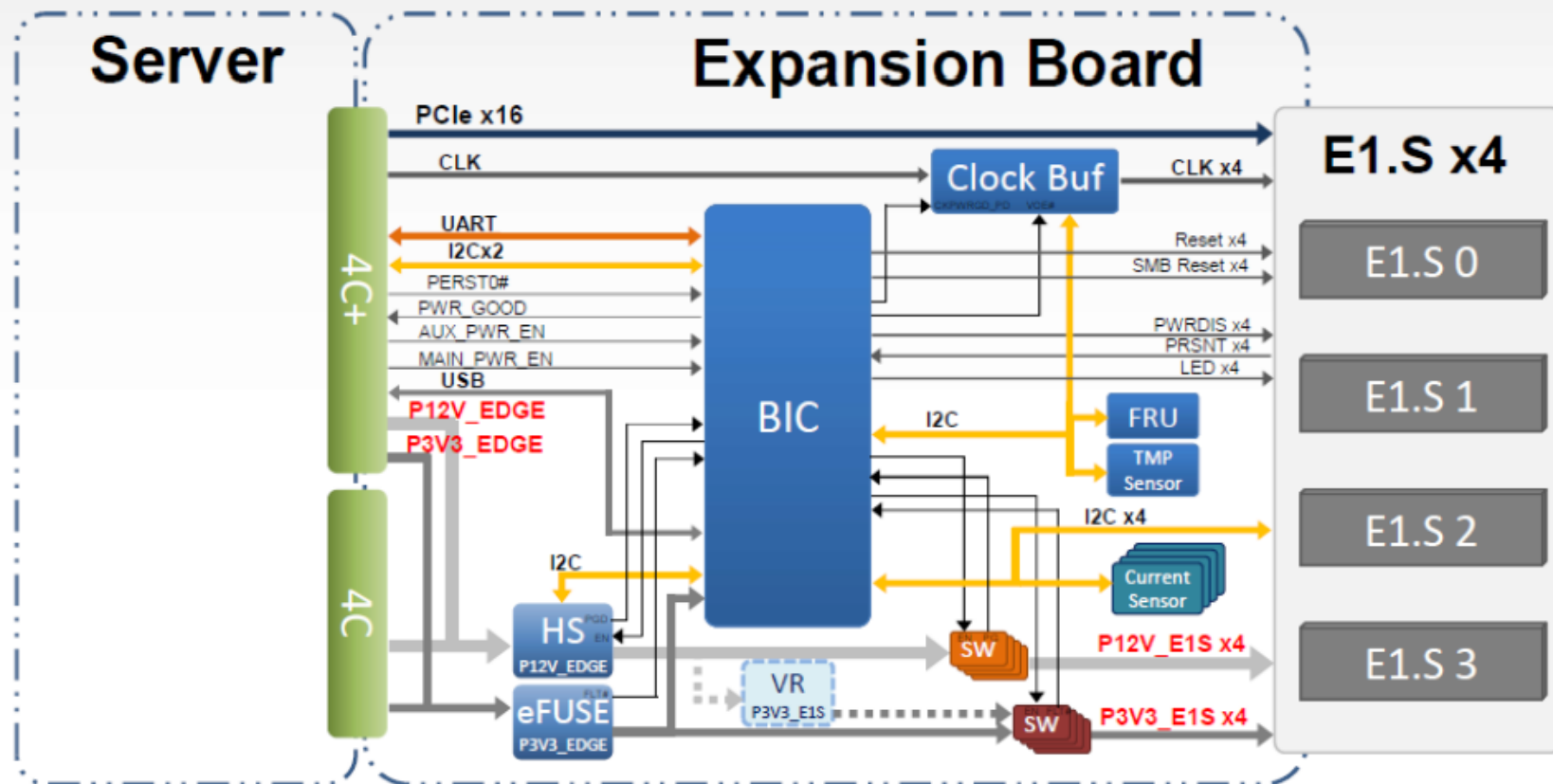
Vernal Falls Overview



Vernal Falls ISO View



Vernal Falls Block Diagram



Vernal Falls board specification

Function	Description
BIC	E1.S power sequence and sensors monitoring
Storage	E1.S SSD x4

Design package:

- 01_Electricals
- 02_Mechanicals
- 03_Firmwares

Design files:

- 01_Full System Board Layout
- 02_Full System Schematic CAD
- 03_Full System Component BOM
- 04_Manufacturing Files
- 01_3D CAD File Format
- 01_BIC

OCF Tenets Compliance

- **Efficiency**

- Enables improved performance per Watt from previous generations

- **Scalability**

- Simple design enables E1.S devices to be front servicable and simplicity in servicing expansion board.

- **Openness**

- Yosemite V3 expansion board provides a flexible baseline which can be used with delta lake contribution or for any member of the community to mix and match to their specific needs.

- **Impact**

- This contribution enables 1OU flash server with E1.S flash devices. This has enables improved thermals, serviceability.

Thank You !