OPENFABRICS ALLIANCE

10TH ANNUAL INTERNATIONAL DEVELOPER WORKSHOP

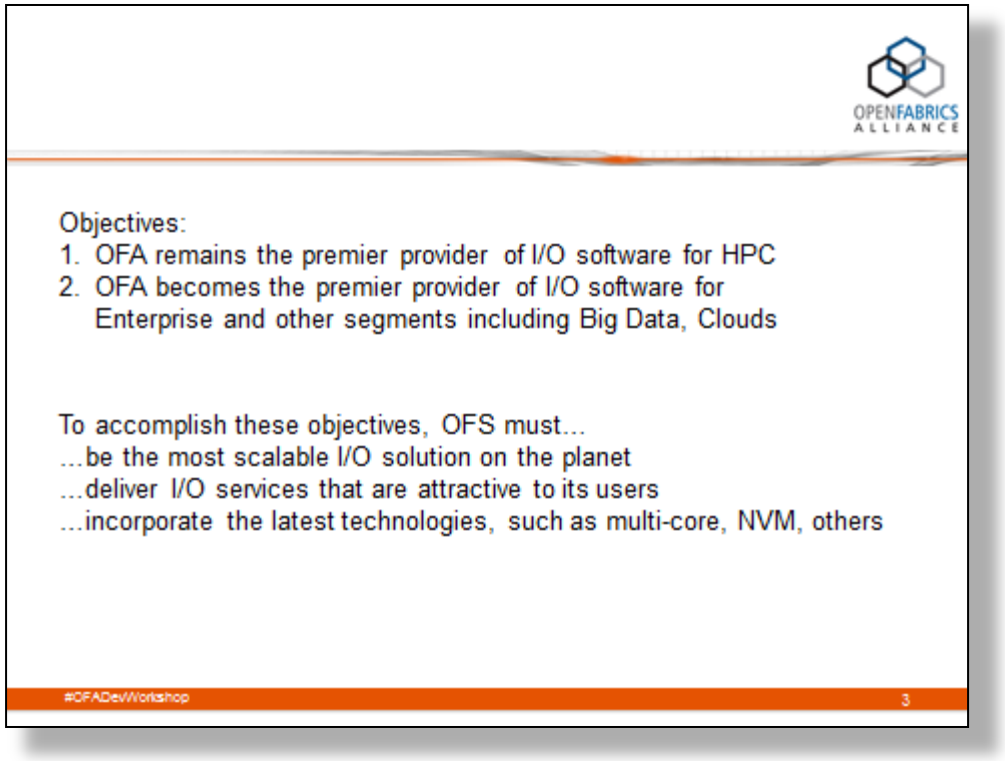
Welcome to the 10th OFA Workshop

#OFADevWorkshop

Things to be sure to cover

- Workshop theme: “Disruptive Technology”
  - h/w – the stuff going on around us
    - The NVW talks
    - The processor panel
  - s/w – the stuff we’re doing to ourselves (for good reason)
    - OFI WG
- A couple of especially important blocks of talks
  - Exascale radio astronomy
- Acting on the imperatives defined at last year’s workshop – a broader way of thinking about OFA development?

A short story



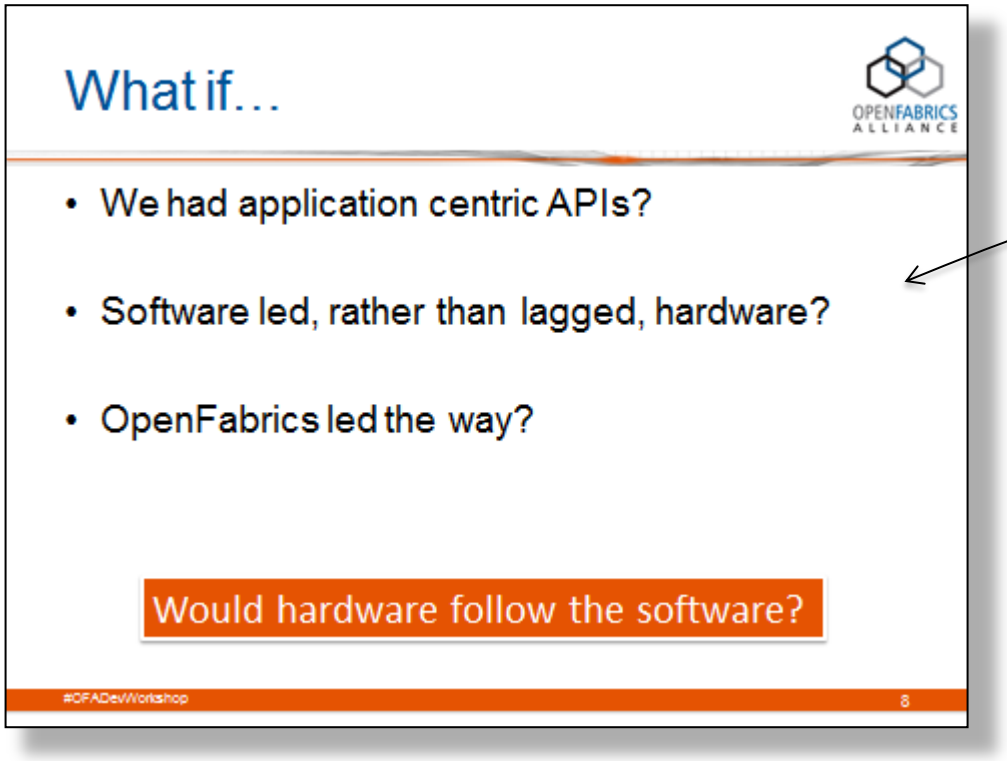
Last year we undertook an objective to drive the OpenFabrics Alliance forward.

Only problem was nobody really knew how to do that.

We've made quite a bit of progress since then.

You may see this reflected in this year's workshop agenda.

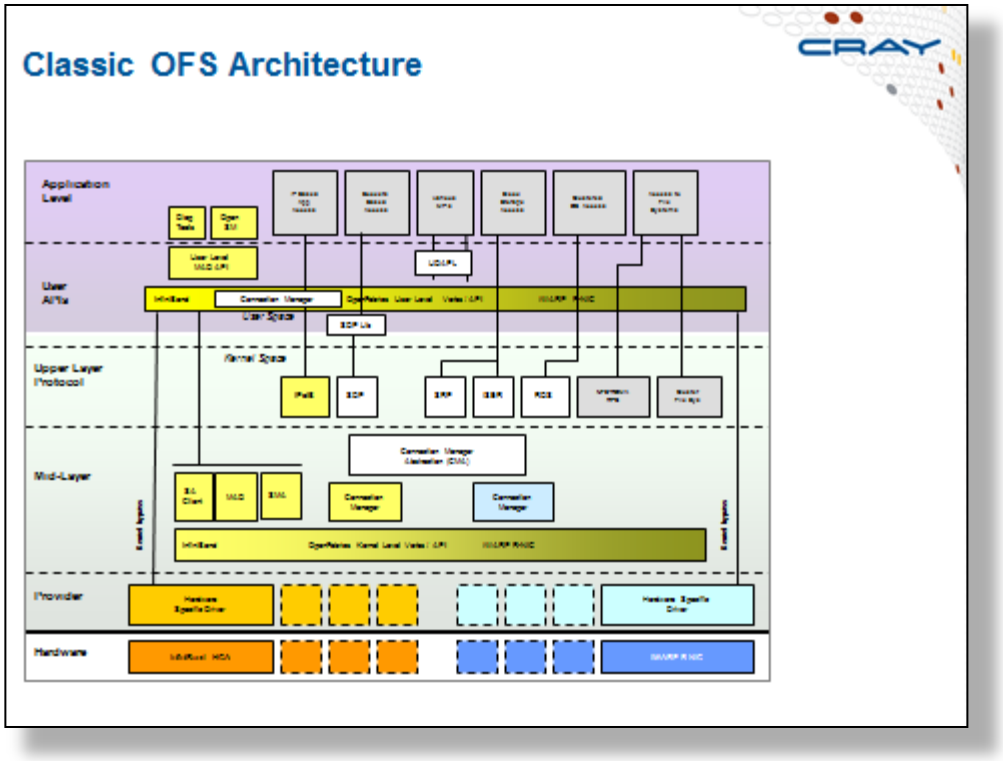
From last year



At last year's workshop, this challenge was offered:

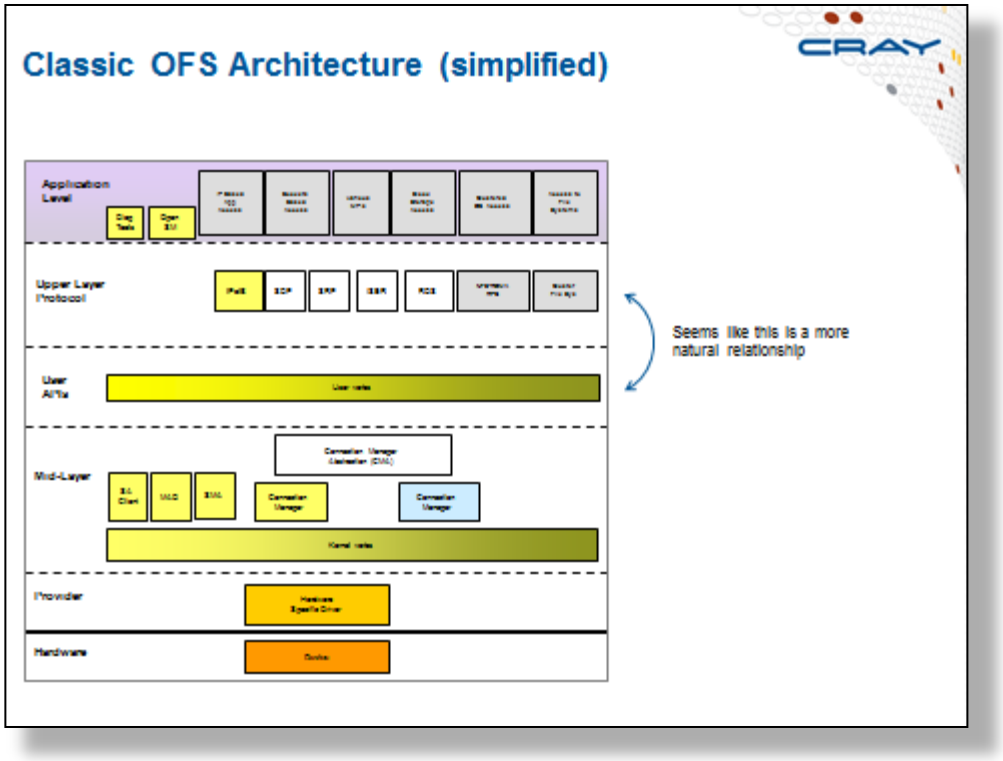
But how to do that?

Meanwhile…



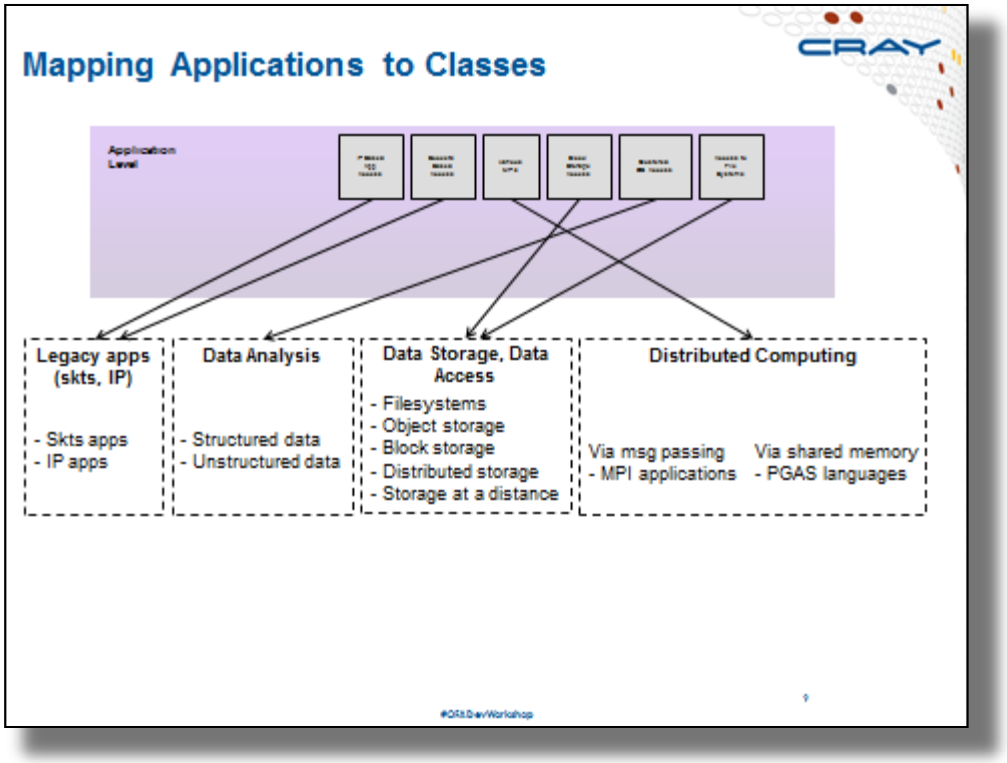
Fall 2012, the TAC had been looking to update the canonical OFA stack diagram,

Meanwhile…



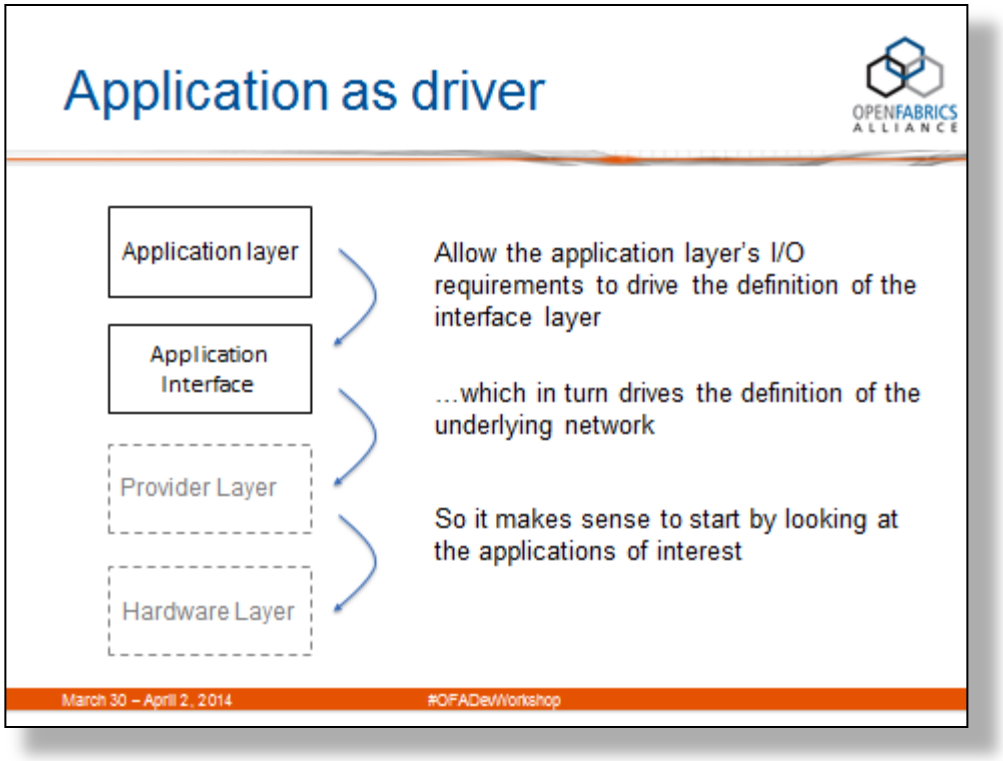
…but soon realized that tinkering with the plumbing is really just re-arranging the deck chairs.

Meanwhile…



What we really needed was to figure out what kind of deck chairs were needed.

A novel idea

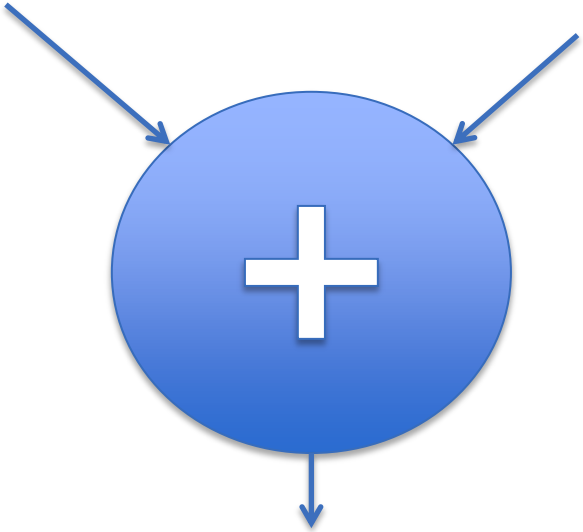


The novel conclusion was to focus on applications as key drivers in developing OpenFabrics Software.
Which is what drove the agenda for last year's workshop.

The OFI WG example

TAC decides to focus on applications as a key driver for OFS

2013 workshop challenge: “let the s/w lead”

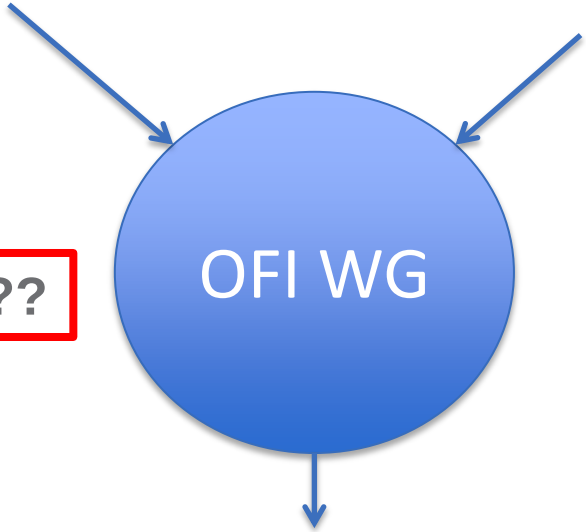


Summer 2013 the OFI WG is formed with the charter to come up with interfaces *that meet the needs of applications.*

The OFI WG example

TAC decides to focus on applications as a key driver for OFS

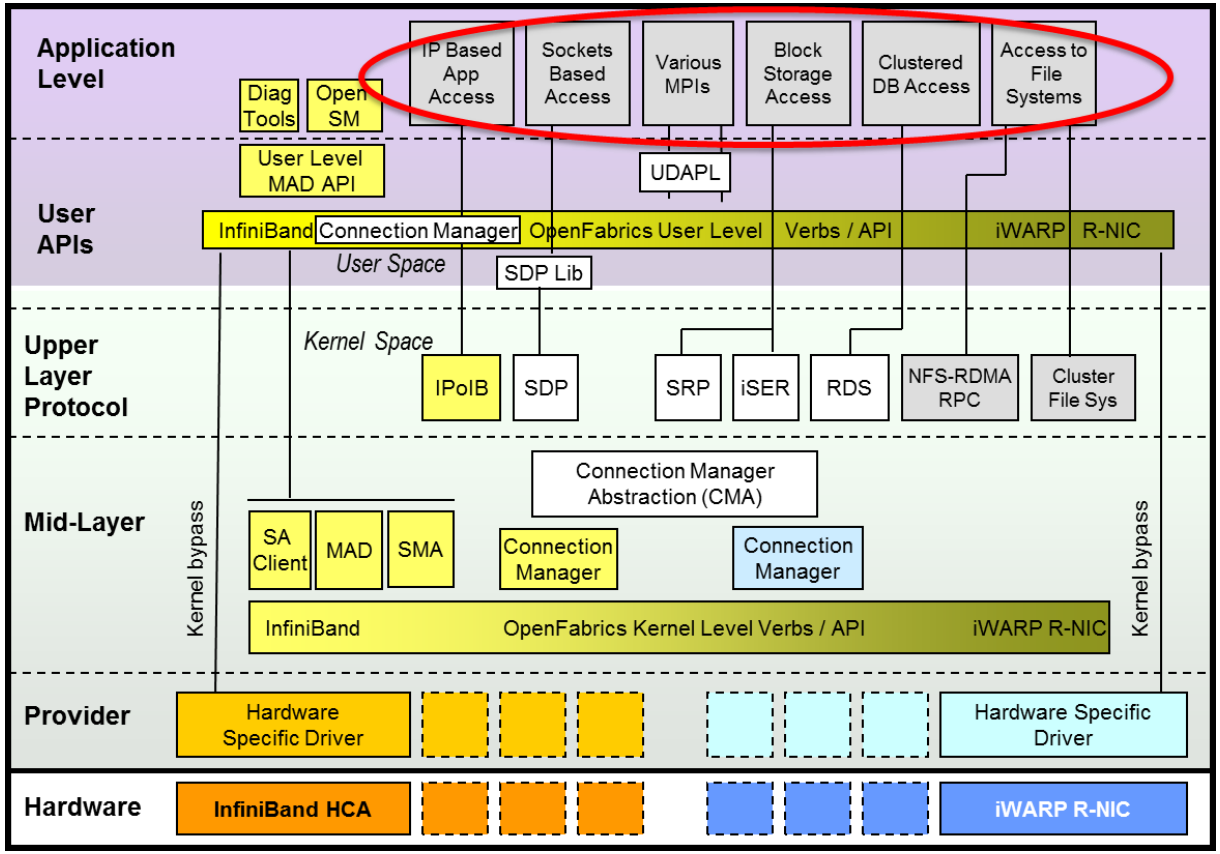
2013 workshop challenge: "let the s/w lead"



But which applications???

Summer 2013 the OFI WG is formed with the charter to come up with interfaces that meet the needs of applications.

Beginning with the stack diagram



IP-based and Sockets-based apps

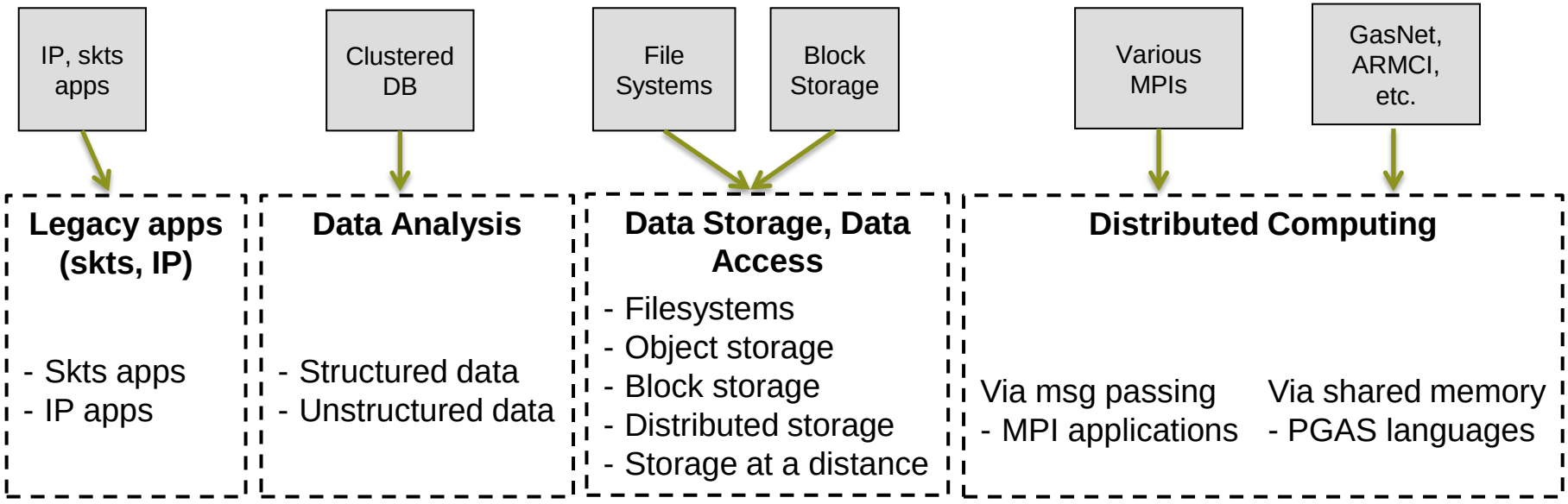
Various MPIs

Block Storage Access

Clustered DB Access

File Systems Access

Grouping by common interest

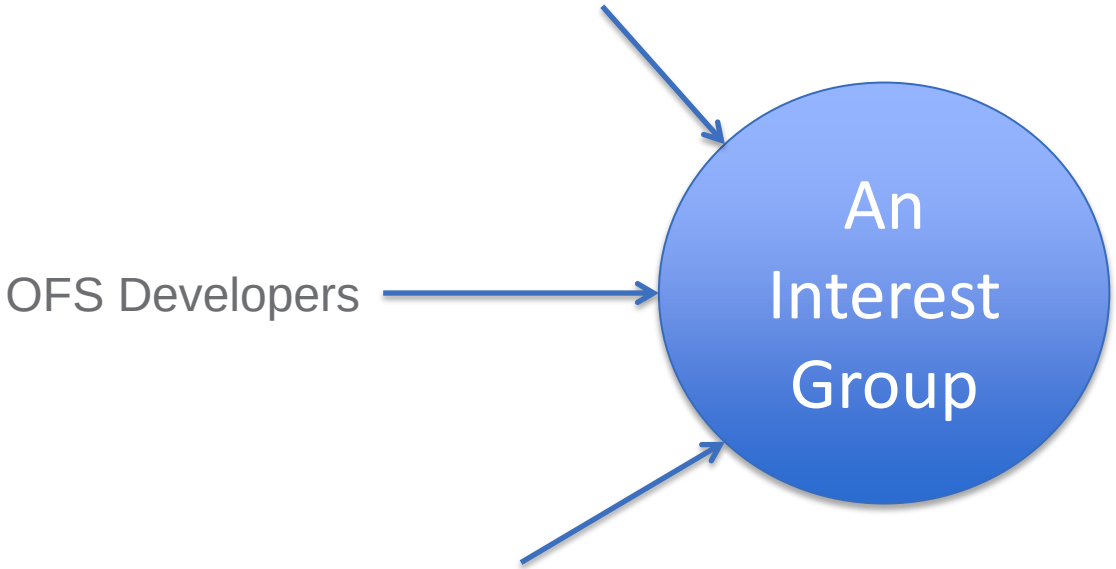


The ways that data is organized, so value can be extracted.

How users store and access data, and collaborate through data. Sometimes over a distance.

Parallel programming models for processing data

A slightly different way of looking at how OFS is developed



Distributed computing

Data Storage & Access

Data Analysis

Sockets Applications

Which brings us to this year's agenda

Robust discussion of Disruptive Technologies
- NVM
- Processor architectures and how that impacts us as I/O providers

Many topics related to the four broad classes of applications – "interest groups"
- Block storage
- File I/O
- Data analysis
- Distributed computing, including both MPI and PGAS topics
- Sockets applications support – rsockets, SMC-r

Scalability
- Dr. Sterling's keynote
- Exascale Radio Astronomy sessions

As with last year, we will follow-up on Wednesday to see if we can draw any useful conclusions on this.

Meanwhile, enjoy the workshop!

Thank You

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