



OPENFABRICS
ALLIANCE

14th ANNUAL WORKSHOP 2018

Think Tank Report

System Administration and Interoperability of Diverse Fabrics

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[April 13, 2018]

How to deal with the reality of diverse fabrics in modern systems?

- What great challenges face Sys Admins in integrating diverse fabrics
- What venue can be developed for accumulating documentation and distributing knowledge gained?
- Use of standardized resources at the node/edge, switch, cluster levels for greater visibility from the admin/user point of views.
- Interoperability: How can we make it easier for running multiple types of fabrics/technologies on systems for different use cases and keep each fabric's integrity and reliability for performance/user? (in parallel or interchangeable based on use?)

Assignment

- Identify the key areas inhibiting Sys Admins from deploying new fabric technologies and integrating heterogeneous fabrics and recommend methods for overcoming those obstacles.
- Recommend ideas for integrating heterogeneous fabrics with similar software stacks
- Recommend a venue and/or documentation to capture and memorialize lessons learned.

Managing Diverse Fabrics

- **Different fabrics have similar underlying technology but different ways of presenting that to the admins for deploying and administering**
 - Use of similar kernel modules for different fabrics causes issues/confusions when interoperating them together on systems
 - Should these be redefined for more general use on these high speed fabrics?
 - Or kept separate?
- **Many different tools for diagnosing**
 - Good tools for basic errors, but what about the ones for the “subtle issues”
 - Vendors/admins make use of the tools in different ways and approach issues from different point of views
 - Documentation focused on vendor hardware/OFS
- **Different flavors of OFS between distros**
 - Town house this week focused on this as well

Standardization

- **If the admins can define what requirements they would like to have for administering fabrics, can we work with vendors/developers to present that data?**
 - Define Tools/resources that are well known to provide useful information for fabric status and require same information across fabrics
- **Can the OFA be a driving force to help conceptualize the standardization?**
 - Help define what those requirements should look like
 - Maintain and ensure vendors/developers are adhering to these requirements
 - Develop community to define and implement an overly wrapper to interact with the tools that is standardized across these similar fabrics

Documentation / Knowledge Transfer

- **Develop options for helping admins begin to learn to administer and diagnose these fabrics**
 - Make use of centralized documentation resources

- **OFA wiki page**
 - Has been hit thousands of times but has outdated resources
 - Would be useful to know where hits are coming from to reach out to community
 - Keep up to date by community (need to get the word out)

- **User forums**
 - Used pretty regularly
 - Ideas thrown around to use github perhaps instead, but might be better to keep with OFA forum

Documentation / Knowledge Transfer

- **Sys Admin training**
 - Would a training through the OFA be of use?
 - Drawbacks are that technology is changing rapidly (would be hard to keep current)
 - Tutorials/certifications
 - Would need to be done right to be credible

- **Collaborations with vendors**
 - How do vendors recommend that their fabrics are managed? Learn/share with the community

Path Forward

- **How can the fabric administrator community push forward with accomplishing these tasks?**

- **Ongoing communication**
 - Regular get togethers (either in person/con-calls) where resources can be shared and develop tools/resources
 - OFA efforts to help keep this community alive
 - Hosting events for demos
 - Keep forums active with issues

- **OFA workshop integration**
 - Use to have separate conference for users
 - Go back to this? Different track for portions of the workshop?
 - Benefit is having the developers in the room to give feedback

Important Links

OFA User Community Page

<https://www.openfabrics.org/index.php/ofs-user-community.html>

OFA Sys Admin Mailing List

http://lists.openfabrics.org/mailman/listinfo/ofa_sysadmin



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Questions / Feedback

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