



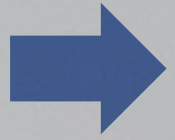
OPEN
Compute Project®

Open Rack V3 Family Status Update

Steve Mills

April 2020

- 1> Rack Frame
- 2> Power shelf
- 3> Power Shelf Input Connector
- 4> Liquid Cooling Interfaces



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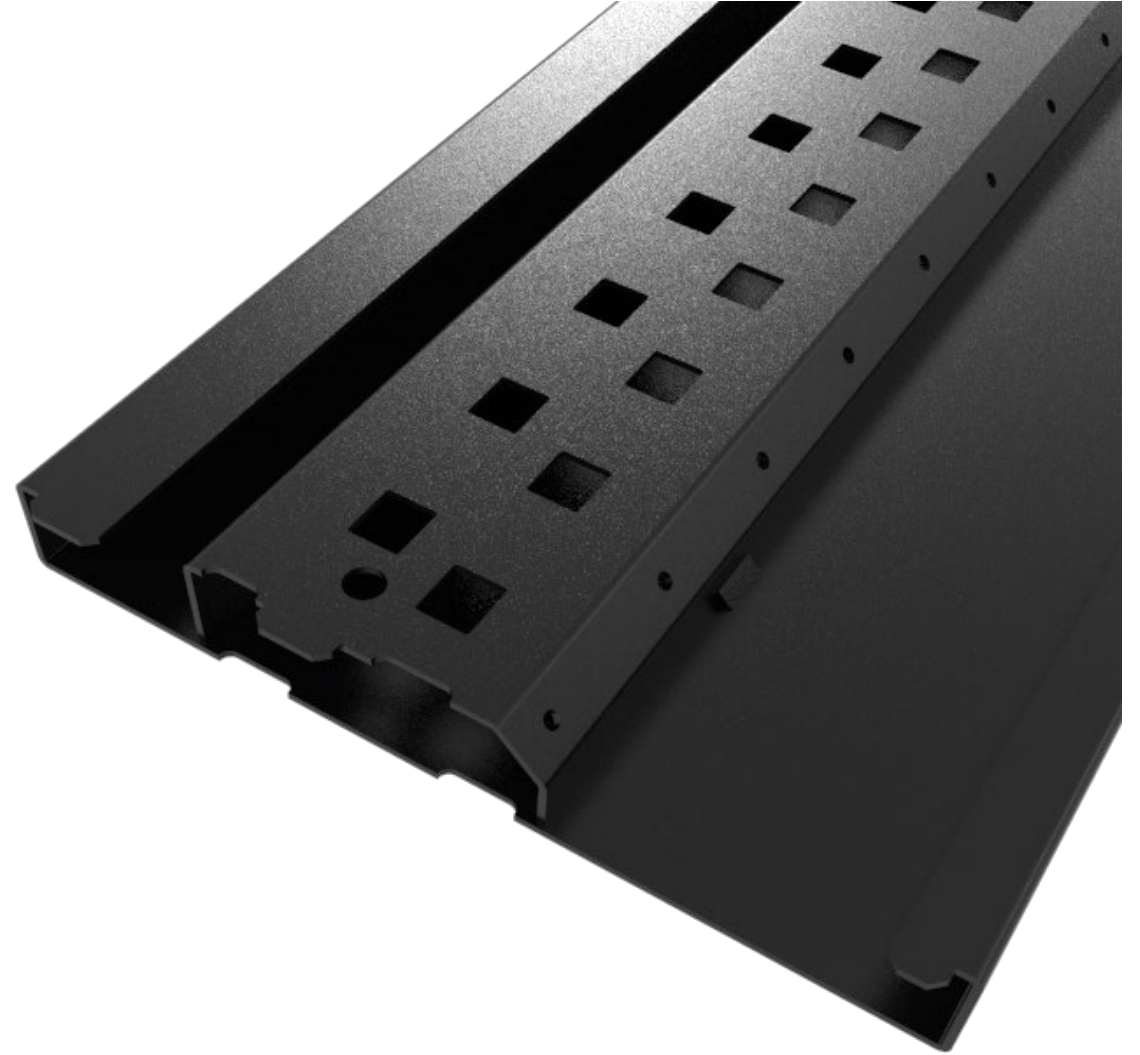
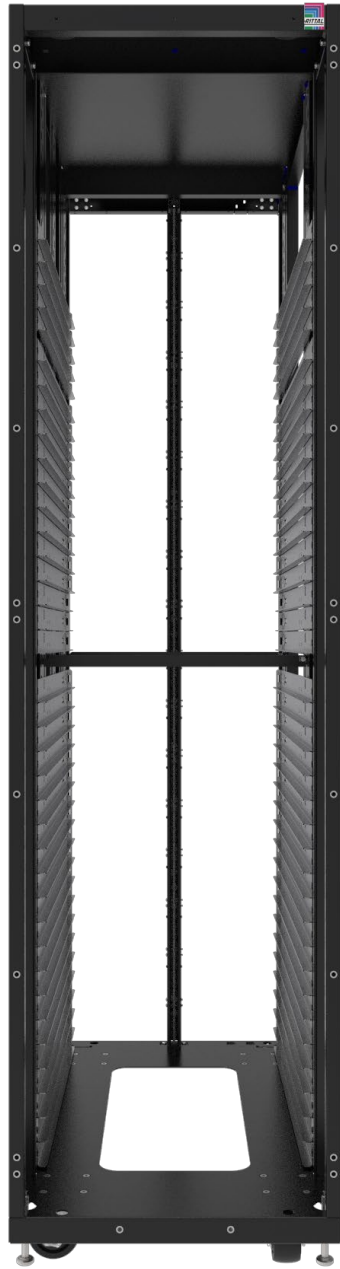
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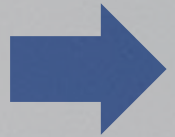
- Rough Layout is complete
- Working on Detailed design
- Open Rack specification will require update to support Open Rack V3
- IT Gear will require minor changes to the chassis to fit into ORV3

Challenges:

- Blind-mate liquid cooling

Rack Frame



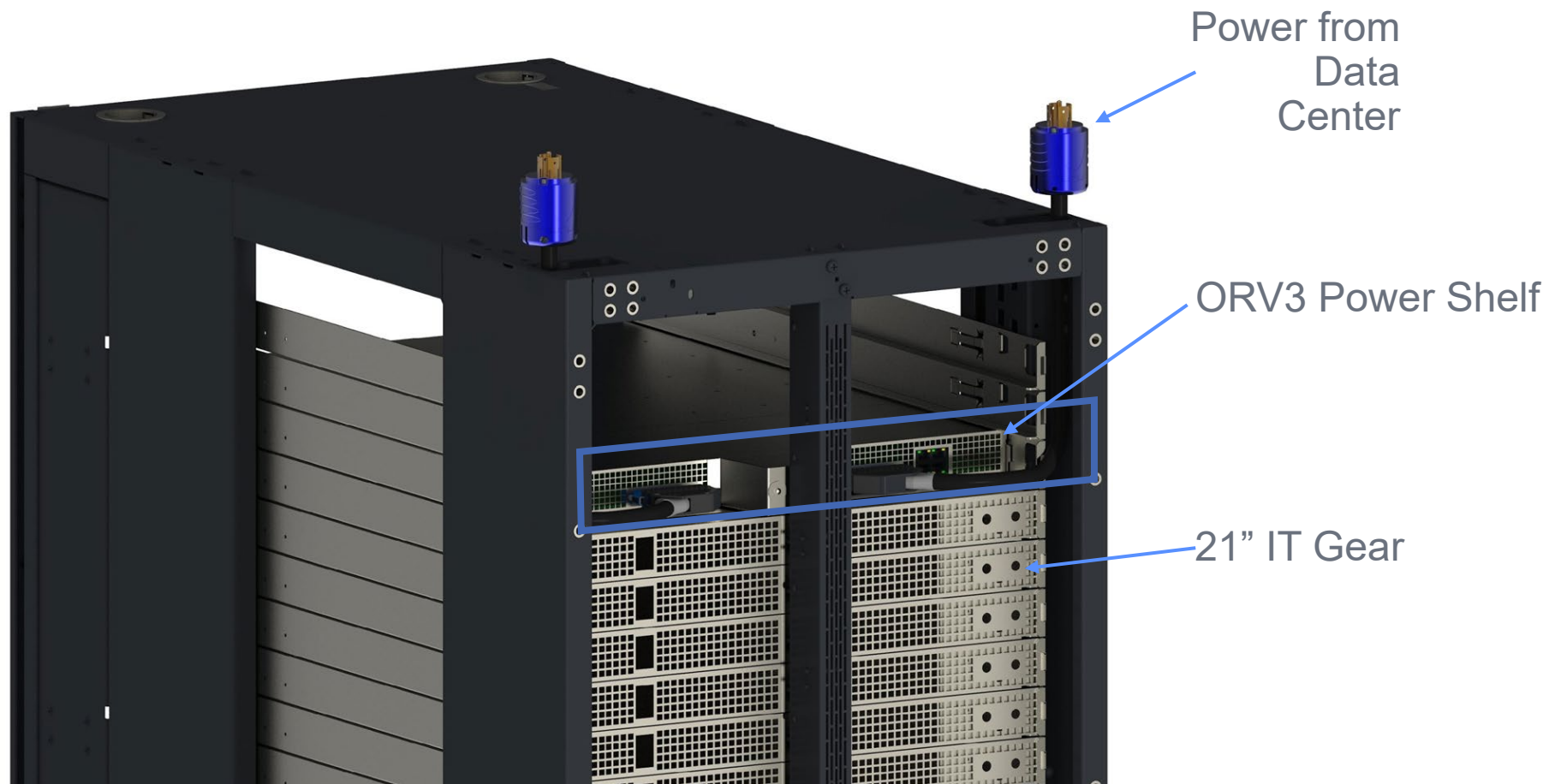


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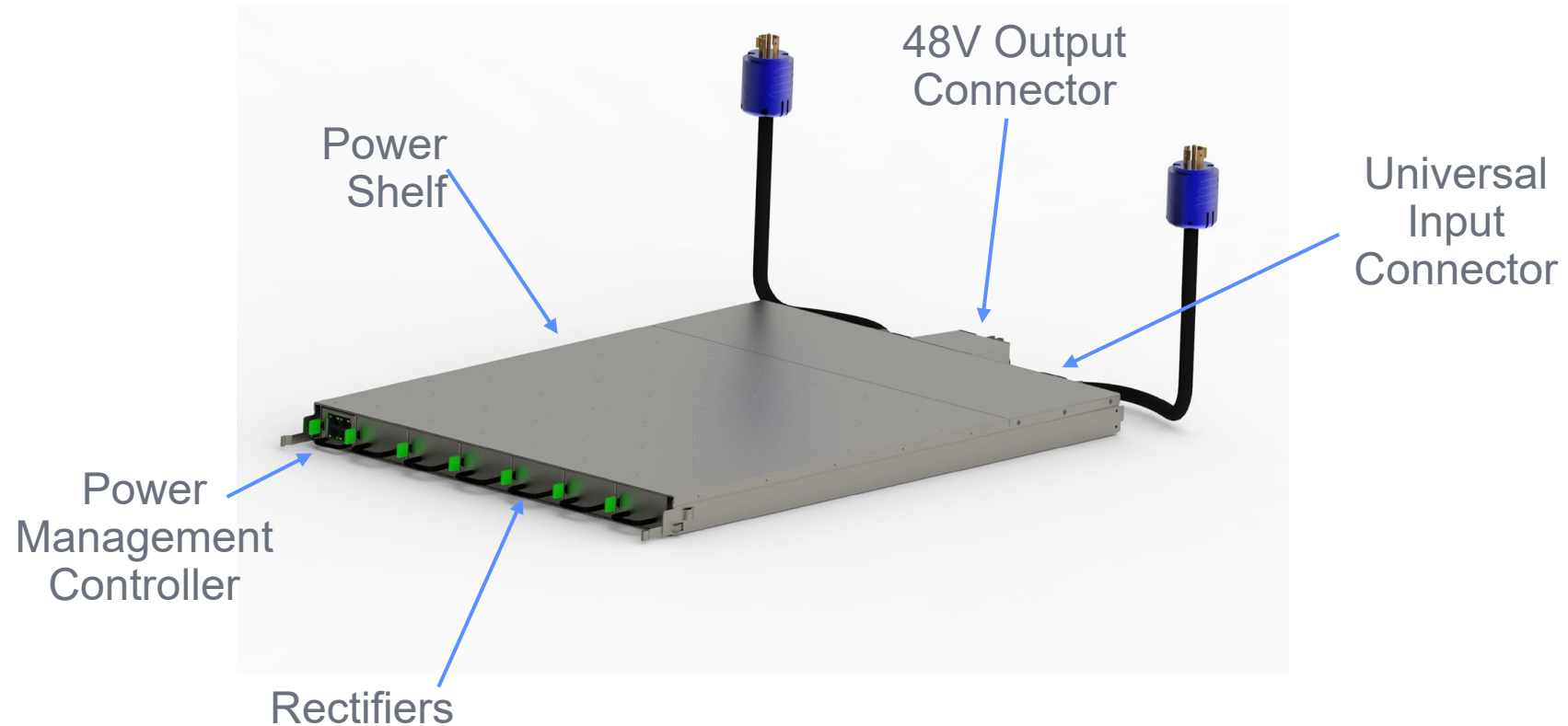
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Power Shelf – 1U Shelf



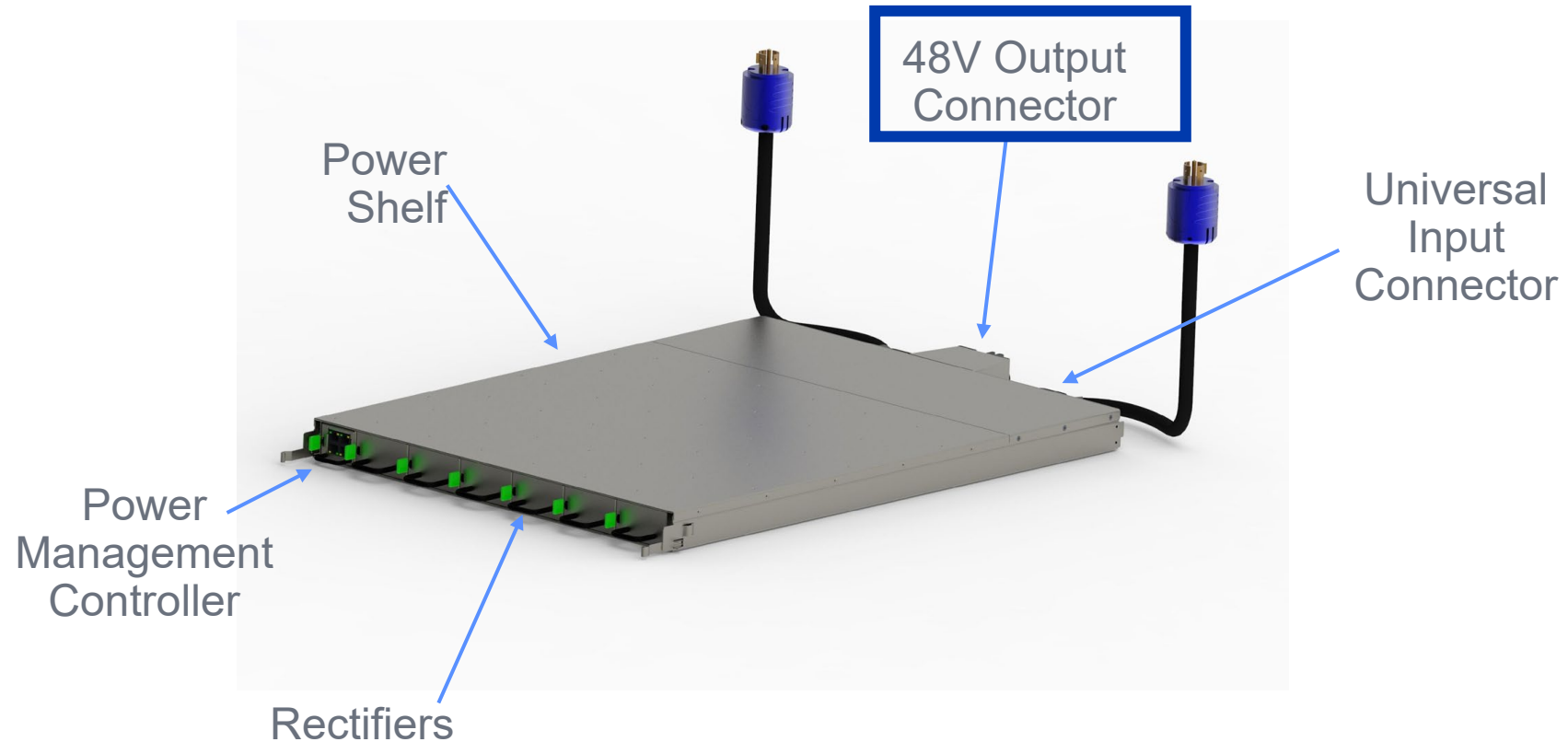
Status:

- Preliminary specifications and prototypes are complete for both 1OpenU and 2OpenU shelves
- FB has working prototype 1OpenU shelves for testing
- Both shelves share the same PSU and Shelf Controller

Next Step:

- Update the specification based on prototype evaluation

Power Shelf – 1U Shelf

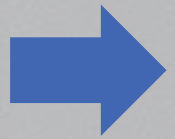


Status:

- Preliminary specification is complete
- Facebook has protos in-house for evaluation

Next Step:

- Update the specification based on prototype evaluation

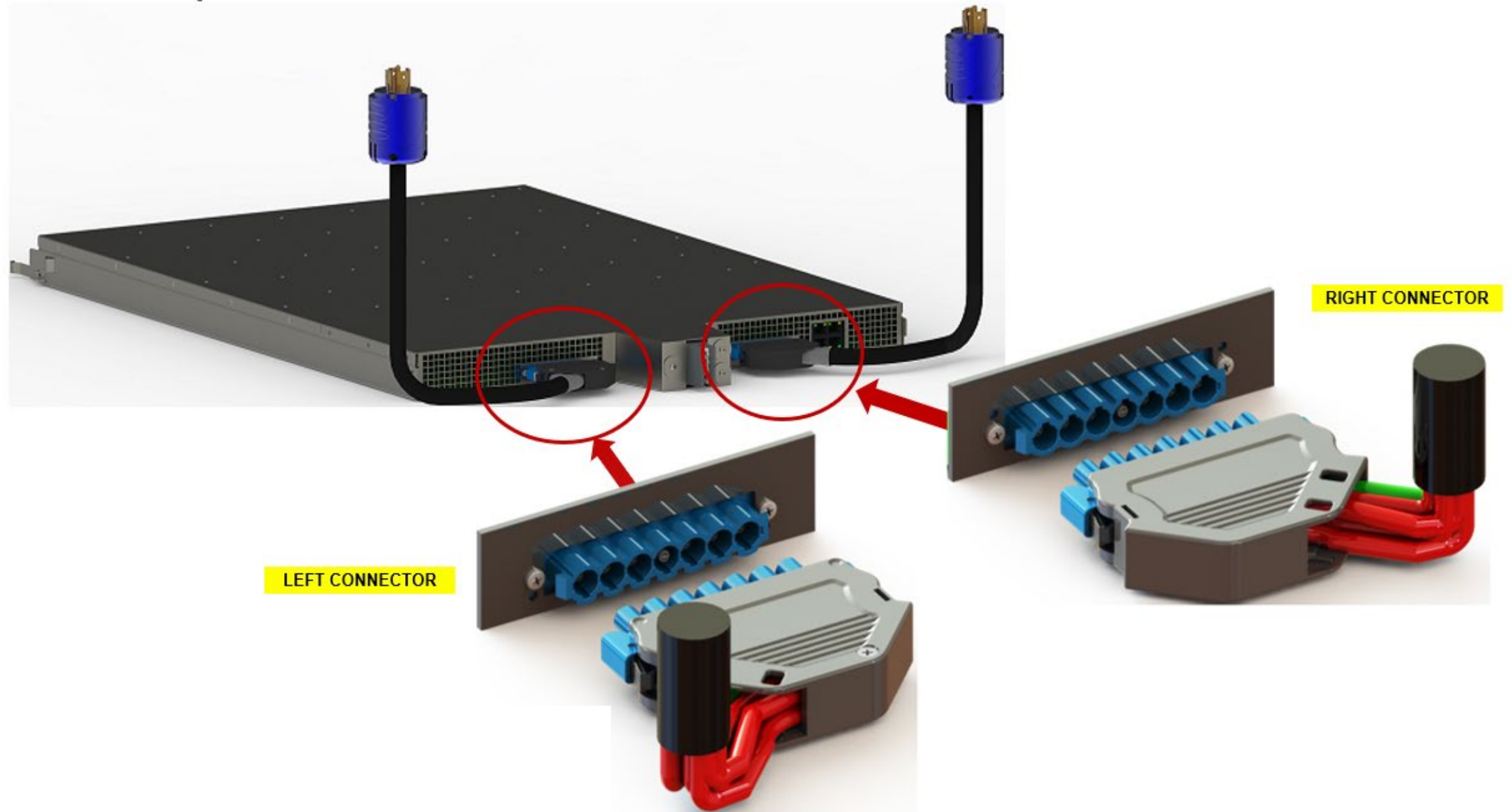


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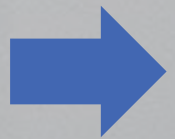
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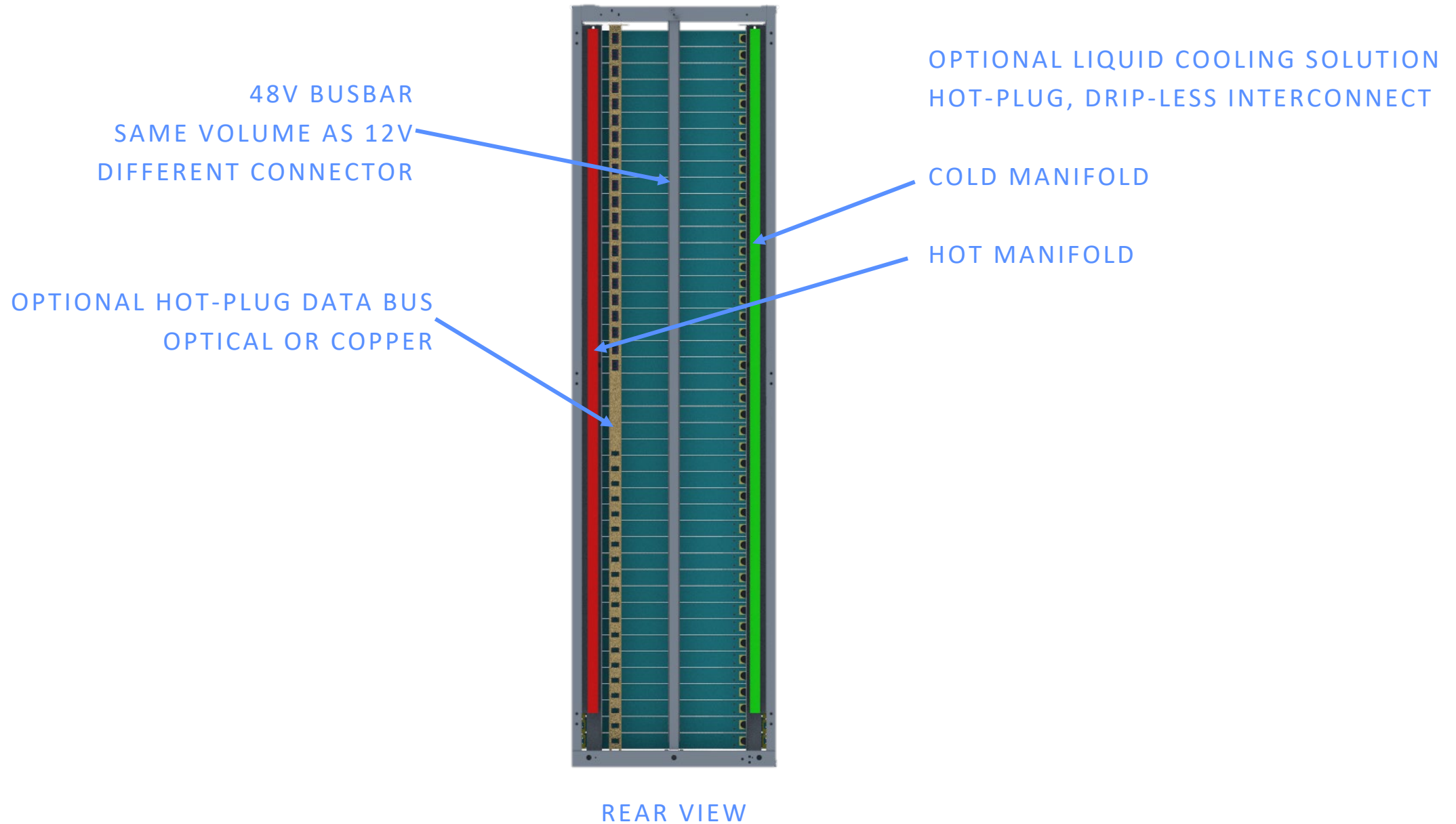
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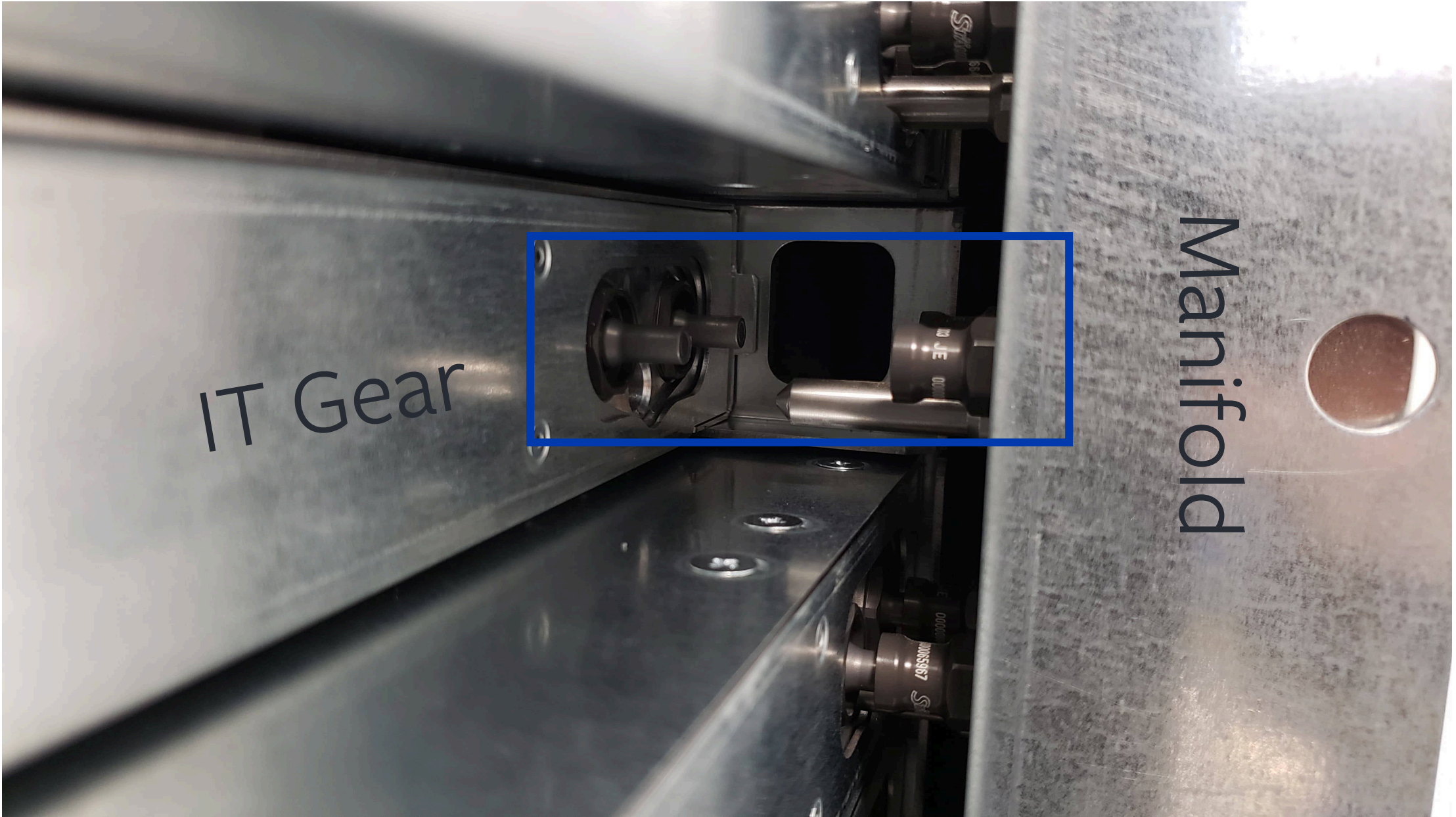
2> Power shelf

3> Power Shelf Input Connector



4> Liquid Cooling Interfaces





Status:

- Group was formed earlier this year with 12 members including manifold suppliers, hose and coupling suppliers, ODM's, solution providers, and hyperscalers.
- Multiple concepts for blind mate quick connectors presented to the group are under review.
- Manifold team members are investigating port design options, bleed-off valve locations & options, and mfg. tolerances.
- Several members have started to meet and author a Manual Hoses and Couplings best practices white paper.
- Rack frame focused members are investigating frame interfaces and brackets.

Next Steps:

- Review the QC concepts and determine preferred option(s)
- Start defining the IT gear and manifold interfaces based on team's preferences
- Develop details around the mating sequence for the blind mate QC's

Call to Action

- Get involved
 - Become an active contributor
 - Help develop the specifications and solutions
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- https://www.opencompute.org/wiki/Main_Page#How_to_Join
 - https://www.opencompute.org/wiki/Rack_%26_Power/Advanced_Cooling_Solutions
 - <https://ocp-all.groups.io/g/OCP-ACS>
 - <https://ocp-all.groups.io/g/OCP-RackandPower>

Questions