Navigating MPO Waters

Designers, Installers, and Operators of Fiber Networks with MPO Connectivity Highlight Trends and Challenges

According to the VIAVI 2018 MPO Study, multi-fiber connectors are becoming increasingly popular as network bandwidth demands increase and physical infrastructure is pushed to deliver more, thus imposing significant challenges on those who work with multi-fiber connectivity. Discover what the respondents reveal about the challenges and opportunities they are experiencing and what they can expect in the future.

MPO: More than just on the horizon

Over half of the respondents predict MPO will grow by over 20% in the next three years. Captains, or rather those who have the most visibility to what's on the horizon (designers, project managers, owners and executives, etc.) predict the highest level of growth.

Job Responsibilities

- Government Cabling Contractor
- Service Provider Internet Content Provider
- Large Enterprise Aerospace & Other
- Owner/Exec Design Engineer Project Manager
- Installation Technician Maintenance Technician
- Design Engineering Consultants System Integrators Equipment Manufacturers

All Aboard

MPO is prevalent across multiple market segments and job responsibilities.

<table>
<thead>
<tr>
<th>Predicted Growth</th>
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<tbody>
<tr>
<td>21-50% growth</td>
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<tr>
<td>51-75% growth</td>
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<tr>
<td>0-20% growth</td>
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<td>76-100% growth</td>
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Routine Passage

40% of respondents are already working with MPO regularly (ie: more than 10 projects in a year).

Reasons to dive into an MPO Expedition

Port Density and faster speed were found to be the top reasons for MPO being implemented.

Ensure Smooth Sailing

MPO connections require the same tests as single-fiber connections...but using the same tools are cumbersome and extremely time-consuming. Using purpose-built tools for MPO testing ensures smooth sailing.

Top 3 MPO Testing Challenges

Testing multi-fiber connectors can make you feel under attack. Here are the top sea monsters the survey respondents feel are lurking in the deep.

- Lost at Sea 67.8%
- Port Density 6.9%
- Other 3%
- Faster Speed 44%
- Greater Flexibility 32.6%
- Ease of Migration 15.9%

Basic/Tier 1 Certification
- Measuring fiber Length, Loss, and Polarity

Enhanced/Tier 2 Certification
- OTDR Testing to see individual event characteristics

Leaks in the Ship

Contaminated connectors are the #1 cause for troubleshooting in fiber optic networks.

4 out of 5...respondents spend up to 20% of their work week troubleshooting physical network issues.

- I inspect BOTH the patch cord and the bulkhead 38.6%
- I inspect the MPO patch cords, but not behind the bulkhead 30.2%
- I clean MPO connectors, but I don't do anything to inspect them 21.2%
- I never or rarely inspect the MPO fiber connectors I am using 10%

Whether you are successfully navigating the MPO seas, or planning a mutiny, you can access the full, complimentary report of the VIAVI 2018 MPO Study at viavisolutions.com/MPO

...say “Complexities using fan-out cables to test all fibers”

End Face Inspection
- Ensuring clean fiber connections

...say “Difficulty keeping MPO end faces clean” 47%

...say “Time it takes to test all fibers” 44%

Current MPO Fiber Inspection Practices

Only 1/3 of the crew are actively inspecting both the patch cord and the bulkhead. This practice is essential in order to decrease the number of possible capsized vessels.

BEST WORSE EVEN WORSE DANGER

- Contaminated/damaged fiber connector end-faces
- Fiber mis-routing
- Faulty Optical transceiver
- Bends or Breaks in network cabling
- Other

62.3% 12.8% 10.4% 9.9% 4.4%