The state of data center network automation

- Operational complexity and siloed technology/operations are the biggest barriers to data center automation.
- Analysys Mason, in partnership with Juniper Networks, carried out a global study in 4Q 2022 through an online survey and interviews to assess the current state of data center network automation. The survey results showed that the level of automation in data centers has been limited to-date and organizations struggle to make progress with their do-it-yourself (DIY) automation approaches.

- Notable trends:
  - CSPs, enterprises, and cloud providers are facing similar challenges and opportunities.
  - The level of automation varies significantly within the same industries, but not as much across different industries.

Organizations mainly rely on DIY tools to fulfill their automation needs and overcome barriers…

- Just 3% of organizations surveyed are fully satisfied with their DIY automation approach.
- For further insights into this study, please see these reports:
  - CSPs’ DIY data center network automation: key motivations, challenges and true costs of in house built automation
  - Cloud providers’ DIY data center network automation: key motivations, challenges and true costs of in house built automation
  - Enterprises’ DIY data center network automation: key motivations, challenges and true costs of in house built automation

Operational complexity and siloed technology/operations are the biggest barriers to data center automation.

- Average level of automation achieved in Day 0,1 and 2+ operations:
  - CSPs: 57%
  - Enterprises: 78%
  - Cloud Providers: 82%

DIY automation comes with significant hidden opex costs and a lack of efficiency in achieving automation.

- Lack of resource availability to manage software lifecycle: CSPs 54%, Enterprises 42%, Cloud Providers 38%
- Dependencies of key development staff: CSPs 42%, Enterprises 51-75%, Cloud Providers 51-75%
- ROI/cost of ownership: CSPs 38%, Enterprises 51-75%, Cloud Providers 51-75%

For more information, please refer to the survey report.