

Automation of P4 Testbed and Inter-Domain In-band Telemetry

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To boost research and experiment activities of programmable switch technology in Taiwan, TWAREN deploys a P4 network testbed based on hardware P4 switches. Users can access the testbed by passing through SSLVPN authentication system. After booking required resources via the reservation system, the testbed will perform the automation by allocating a brand-new experimental environment for the user on schedule. In addition, real traffic of CDN service operated by our team can be mirrored to the P4 switch for users to investigate and analysis.

We also develop an Inter-Domain INT (In-band Telemetry) Analyzer that collects INT data from several domains. By transforming the INT data into JSON format, we could represent them with a graphical user interface that contains flow statistics, hop latency, and path visualization.

