Operators say that dynamic SLA management and service assurance is key to getting NFV operational.

Over 100 network operators and service providers worldwide participated in Heavy Reading’s NFV Service Assurance and Analytics research study*. They rated the following as the top five ‘Massive’ or ‘Significant’ challenges to operationalize NFV:

- How do we run NFV with existing networks and services?
- How do we assure on-demand services?
- And how do we offer dynamic customer SLAs?

Without these answers, service providers cannot commercialize services and make the business case for moving to NFV and cloud networks.

**SANDRA O'BOYLE**
Senior Analyst - CEM & Customer Analytics, Heavy Reading

So what do operators want from assurance?

Here’s how they rate the value of service assurance solutions as they begin utilizing multi-vendor VNFs and running new services across hybrid NFV and legacy networks.

For customer-centric service assurance, service providers need to visualize their end-to-end services, be able to prioritize issues and avoid faults that impact customers, and reduce meaningless data overload.

The question is, how can they do all that?

One answer is to improve intelligence and visibility with high quality data. This is achieved with an active testing and monitoring solution that:

1. Deploying active, automated testing and monitoring solutions that produce real time, targeted KPI data will allow operators to assure end user experiences as they take NFV live.
2. One answer is to improve intelligence and visibility with high quality data. This is achieved with an active testing and monitoring solution that:
3. For customer-centric service assurance, service providers need to visualize their end-to-end services, be able to prioritize issues and avoid faults that impact customers, and reduce meaningless data overload.

Operators should adopt new data sources that can measure actual delivered service quality from the customer perspective — “small data” that can directly provide CSPs with relevant service KPIs.

To find out how active, automated and real-time testing and monitoring can enable dynamic service assurance, download the Netrounds white paper: Service Assurance - In Need Of Big Or Small Data.

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3. So what do operators want from assurance?
4. The question is, how can they do all that?

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**Notes:**

*NFV Assurance and Analytics Survey. Heavy Reading (September 2017). A research survey, including in-depth interviews, of 105 service providers.

**Tables:**

<table>
<thead>
<tr>
<th>High value</th>
<th>Medium value</th>
<th>Low value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real-time in-line processing analytics, telemetry, streaming, event and faults correlation layer</td>
<td>11%</td>
<td>44%</td>
</tr>
<tr>
<td>Ability to go back to a point-in-time to visually replay network route/service quality/faults, etc.</td>
<td>4%</td>
<td>34%</td>
</tr>
<tr>
<td>Active testing and monitoring as a VNF provisioned automatically by an orchestrator</td>
<td>6%</td>
<td>35%</td>
</tr>
<tr>
<td>Unified performance monitoring across service, network and telco cloud layers</td>
<td>10%</td>
<td>38%</td>
</tr>
<tr>
<td>Ability to measure application response times in real time and automate mediation</td>
<td>4%</td>
<td>51%</td>
</tr>
<tr>
<td>Active testing complementing passive monitoring metrics (e.g., OpenStack)</td>
<td>11%</td>
<td>43%</td>
</tr>
<tr>
<td>Automated prioritization and suggested fixes from AI for faults based on predicted customer impact</td>
<td>6%</td>
<td>35%</td>
</tr>
<tr>
<td>Is software based</td>
<td>Can be automated and has programmable APIs to integrate MANO and OSS</td>
<td>Monitors specific SLA KPIs in real time</td>
</tr>
</tbody>
</table>