Proactive customer notification for network-incident resolution

Telecommunications Assurance Workflows

Managing the growing complexity of network monitoring data

The evolution of core network technology over the years, coupled with the introduction of 5G technology, has led to a significant increase in the number of network monitoring tools used by communications service providers (CSPs).

Network monitoring tools are leveraged extensively by network operations teams in the NOC to poll data from a variety of different network resources in a CSP’s landscape. These tools identify the network resource, have a view of network topology and, in most cases, monitor key performance metrics based on incoming events. The challenge is multiplied because most CSPs support multiple monitoring tools.

To further complicate matters, these network monitoring tools, while having context of the physical resource (e.g. port, router, link etc.), do not always have context of the service application sitting on top of the resource, and almost never have context of the end customer who is using the service. This disconnect between the network data, service application and end customer data can ultimately lead to a bad service experience and, ultimately, an unsatisfied customer.

Telecommunications Service Management supports Telecom Assurance Workflows to allow CSPs to proactively notify customers for network-related issues—all within a single workflow.

<table>
<thead>
<tr>
<th>Before</th>
<th>Value</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 minutes</td>
<td>Notification time</td>
<td>&lt; 5 minutes</td>
</tr>
<tr>
<td>100s for the same set of events</td>
<td>Incidents created</td>
<td>1 with associated primary and secondary alert</td>
</tr>
<tr>
<td>Customer NPS –1</td>
<td>Support</td>
<td>Customer NPS 22</td>
</tr>
</tbody>
</table>

Chart 1: Comparison of major value drivers achieved in Tier 1 CSP when Telecom Assurance Workflows used.

How Telecom Assurance Workflows work

Telecom Assurance Workflows simplify the process of proactively notifying customers about network-related issues. With this capability, you can:

1. Gain service operations management functionality.
   Sitting on top of a myriad of network monitoring tools, ServiceNow Event Management leverages existing monitoring systems, collecting network events and running AIOPs for event correlation and de-duplication.

2. Categorize and prioritize incidents.
   Based on the identified alerts, incidents can be opened with the right category and priority, associating alerts against them. For example, an event storm generating 1,000 events per second would create a single incident with all other events associated as secondary to the primary alert.

Why ServiceNow Telecom Assurance Workflows:

- Best practice out-of-the-box workflows for incidents and service changes
- Detect and resolve issues early
- Initiate case associated to customer from network incident
- Track updates between incidents, cases and work orders
- Single pane for service resolution with service-aware CMDB

Customer use case

Reduce OpEx

Using Telecom Assurance Workflows for routing the entire issue resolution process has proven to reduce cost of operations by up to 45% for a Tier 1 CSP in EMEA.

Increase NPS

The CSP also saw a dramatic increase of customer NPS for their enterprise customers, shifting from a negative value to a positive 22 NPS score.
3. **View impacted services and customers in a single pane.**

Once the incident is created, using the ServiceNow centralized, service-aware CMDB, CSPs can identify impacted services and also which customers are impacted. In a single pane, the CSP now has a view of the alert, incident, impacted resources, services, and impacted customers.

4. **Create individual customer cases.**

Based on customer priority and preference, individual customer cases can now be created. As the cases get created, care agents have visibility of network activity and the resolution the NOC team is working on. More importantly, the customer is proactively notified about the network event using their preferred channel. And it’s quick: this all takes place within minutes of the individual case being created.

5. **Follow along the entire resolution process.**

Within the same single pane view, care agents have full visibility of case status and can track resolution progress including changes, escalations, work order dispatches, and more. As the case status is updated, the customer can either be notified along the way or view the status on their care portal.

6. **Verify and close.**

Once resolved, care agent’s last step is to verify resolution with the customer and then close the associated case.

**Telecom Assurance Workflows**

![Image 1: Out-of-the-box Telecom Assurance Workflows](image1.png)

![Image 2: Communication Service Provider's dashboard showing an alert and root cause of impacted services associated to the configuration item (CI).](image2.png)

**For more information**