ENI PoC #12: Progress Update

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PoC#12: Intelligent Transport Network Optimization

PoC Architecture

PoC Goals

✓ **Policy-based Transport Network Optimization**: Based on pre-determined optimization policy, demonstrate the use of AI/ML algorithms on the topology of transport network and detailed information of VNFs, the PoC platform shall be able to intelligently analyze and decide on a policy optimization scheme leading to a global optimum bandwidth utilization regarding the overall network capacity.

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PoC#12: Trail

Trail Information

- **Duration:** 2020.10 ~ 2021.03
- **Site:** a specific district in Zhejiang is chosen to accomplish the test.
- **Data Source:** detailed data of current transport network environment (such as VNF type, VNF capacity, peak-hour capacity usage rate, etc.), which is collected from current network management system.

Test Environment

- **500 VNFs, 8 CPU/16GB Server**

Test Result

- **Time-Cost:** time for formulating the final optimization plan has been shortened from 48 hours to 2 hours, **saving 95% time cost**
- **Labor-Cost:** which has decreased from 2400 person-hour to 960 person-hour in each transport network optimization construction, **saving 60% labor cost**.
- **Investment-Cost:** Based on the result of trail, the capacity expansion cost is estimated to be reduced from 50-million RMB per year to 40-million RMB per year, **saving 20% investment cost**

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## PoC#12: Milestone

<table>
<thead>
<tr>
<th>PoC Milestone</th>
<th>Stages/Milestone description</th>
<th>Target Date</th>
<th>Additional Info</th>
<th>Status</th>
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<tbody>
<tr>
<td>P.S</td>
<td>PoC Project Start</td>
<td>09/2020</td>
<td></td>
<td>Finish</td>
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<tr>
<td>P.TP.1</td>
<td>PoC user story finalization</td>
<td>10/2020</td>
<td>Finalization of the high-level description of the scenario.</td>
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<td>PoC Test Plan 1</td>
<td>11/2020</td>
<td>Test Plan based on the User Story</td>
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<td>P.D1</td>
<td>PoC Demo 1</td>
<td>03/2021</td>
<td>ENI-#17</td>
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<td>PoC Demo 2</td>
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<td>PoC Report</td>
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<td>PoC-Project-End Feedback</td>
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<td>P.E</td>
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<td>07/2021</td>
<td>Presented to ISG ENI for information</td>
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