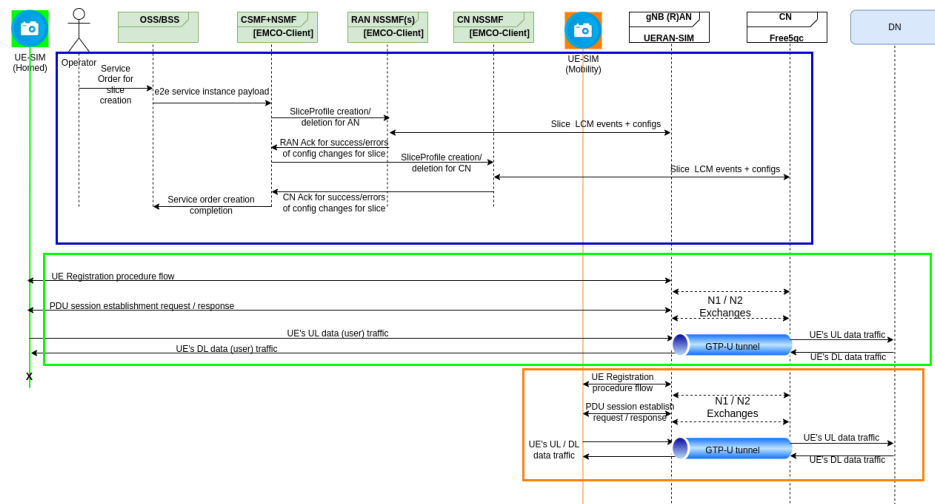


# 5G SBP Use Case - Simplified E2E Network Slicing

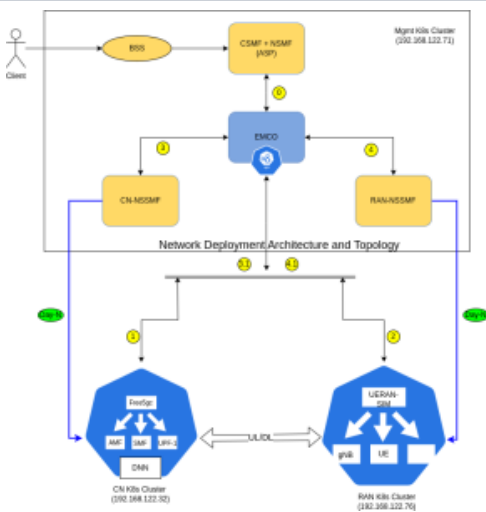
Use this template to submit Use Cases for submission to the 5G Super Blueprint Use Case & Requirements Advisory Group. All input marked Mandatory is required for the blueprint use case proposal to be deemed ready for review by the Use Case & Requirements Advisory Group.

<b>Use Case Name:</b> <b>(Mandatory)</b>	<b>Simplified E2E Network Slicing</b>
Use Case Description:  (Mandatory)	Network slicing is a broader subject and its has fusion of three domains (Core, RAN and Transport). In the context of Public 5G network each of these domains are managed by one or more administrative domain operators. This complexity makes the realisation of network slicing difficult for orchestration and service management. However, in the context of Private 5G (NPN) all the above three domains are very much owned by the solution provider and ease of network slicing realisation is simple. This usecase is addressing the 5G NPN based slicing considering the 3GPP release 18 version.
-Epic  -Problem Statement  (Mandatory)	Simplify network slicing orchestration using EMCO for Free5gc and UERANSIM  <ol style="list-style-type: none"><li>1. For performing the e2e slicing demonstration for various use cases like eMBB, URLLC, MIoT, V2X,... community needs a stable stack of network slicing. In the previous state of art, ONAP was been exercised and that would need lot of efforts to bring up network slicing orchestration.</li><li>2. Third party vendor stack integration with cn-nssmf and ran-nssmf is required and cn-nssmf, ran-nssmf were not available.</li><li>3. Opensource stacks like Free5gc and UERANSIM were not integrated with any slicing stack of orchestrator to showcase advance usecase(s).</li><li>4. Non-shared and/or Shared slicing both were not available.</li></ol>
Blueprint Owner  (Mandatory)	<i>Yogendra Pal (Aarna Networks)</i>
Users Stories  (at least one (1) User Story is Mandatory)	<ul style="list-style-type: none"><li>• a. Build the MVP simplified e2e network slicing with Free5gc and UERANSIM</li><li>• b. Add support for shared slicing.</li><li>• c. Add support for slice selection.</li><li>• d. Support UPF selection and deployment dynamically based upon slice characteristics.</li></ul>
Interaction with other open source projects and components  (Mandatory)	<ul style="list-style-type: none"><li>• Orchestrator: EMCO</li><li>• CN: Free5gc</li><li>• RAN: UERANSIM</li></ul>
Resources - people  (Mandatory)	Resources (people) to execute on the blueprint: <ul style="list-style-type: none"><li>• <i>Yogendra Pal</i></li></ul>
Steps to Realization	<ul style="list-style-type: none"><li>• What is the very 1st step to realization?</li><li>• 2nd step?</li><li>• 3rd step?</li></ul>

High-level architecture diagram  
(Mandatory)



High level lab topology diagram  
(Mandatory)



Dependencies - list of any dependencies that rely of future releases of a specific component.  
(Mandatory)

☐ Yes  
or  
☒ No

Enter details:

High-level timeline  
(Mandatory)

- Month that build can begin: *enter month/year*
- Approximate duration of build: *enter number of weeks or months*
- Approximate completion of outputs: *enter month/year*

Upstreaming Opportunities  
(Mandatory)

- Free5gc
- UERANSIM

<p>Blueprint Outputs</p> <p>(Mandatory)</p>	<p>check all that apply:</p> <p><input type="checkbox"/> Code repository</p> <p><input checked="" type="checkbox"/> Configuration files (e.g. Helm charts, etc.)</p> <p><input type="checkbox"/> Upstreaming to relevant projects</p> <p><input type="checkbox"/> Continuous Integration</p> <p><input checked="" type="checkbox"/> Test requirements and test results (if applicable)</p> <p><input type="checkbox"/> Documentation:</p> <p><input type="checkbox"/> Overview and Theory of Operation (i.e., what does it do?)</p> <p><input type="checkbox"/> Deployment and setup</p> <p><input checked="" type="checkbox"/> Videos</p> <p><input type="checkbox"/> demo</p> <p><input type="checkbox"/> lab setup/behind the scenes</p> <p><input type="checkbox"/> other</p>
<p>High-level timeline</p> <p>(Mandatory)</p>	<ul style="list-style-type: none"> <li>Month that build can begin: <i>enter month/year</i></li> <li>Approximate duration of build: <i>enter number of weeks or months</i></li> <li>Approximate completion of all outputs: <i>enter month/year</i></li> </ul>
<p>Links to existing documentation (Build Guide, Slideware, etc), if available (optional).</p>	
<p>Links to existing demo/video, if available (optional).</p>	<p><a href="https://youtube.com/playlist?list=PL0bkBeEamheCKGzIN_Rz0cGGmjnjhes3C">https://youtube.com/playlist?list=PL0bkBeEamheCKGzIN_Rz0cGGmjnjhes3C</a></p>
<p>Links to existing code/repos, if available (optional).</p>	