

ONAP Control Loop in TOSCA LCM

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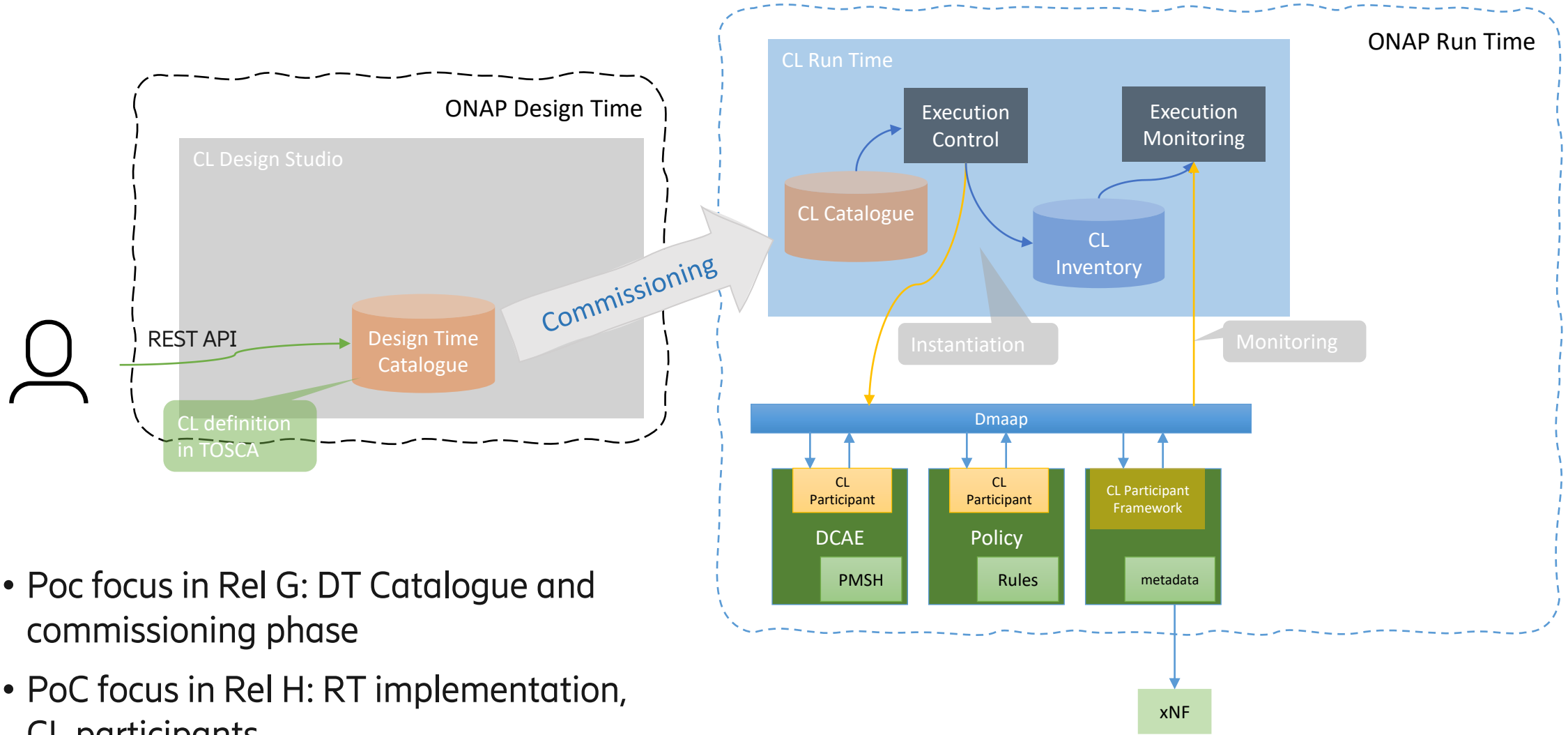
Business Requirements for ONAP Rel I

- **Executive Summary:** CLAMP (Control Loop Automation Management Platform) functionalities, recently moved to Policy project, want to provide a Control Loop Lifecycle management architecture. A control Loop is a key concept for Automation and assurance Use Cases and remain a top priority for ONAP as an automation platform. This requirement wants to improve Control Loop LCM architecture focusing on an abstract CL management logic, providing a common CL Design time catalogue with a generic CL definition, isolating CL logic vs ONAP component logic and elaborate API to integrate with other design systems as well as 3PP component integration. PoCs have been progressed in ONAP Rel G and H in this area, CL LCM redesign has reached a relevant viable set of features and it is ready to be moved in Rel I to mainstream as part of the Policy framework.
- **Business Impact:** Deployment and orchestration of automation and control loop use cases across CNFs, VNFs and PNFs in a model driven way simplifies the network management. Enables operators and service providers to manage the Life Cycle of a Network Service. Assuring continuity of operation of services is crucial for production and carrier grade environments. The actualization or upgrades of software and in consequence required changes in the service model is a natural part of service instance life cycle. Without the support of ONAP service update with schema change, service life cycle management by ONAP can be very difficult which can impact the quality and continuity of services.
- **Business Markets:** All operators and service providers that are using ONAP for automation and assurance.
- **Funding/Financial Impacts:** CL LCM wants to reduce operational expense and its abstraction will provide an added value with multiple integration points.
- **Organization Mgmt, Sales Strategies:** *There is no additional organizational management or sales strategies for this requirement outside of a service providers "normal" ONAP deployment and its attendant organizational resources from a service provider.*

PoC in Rel H and Rel G

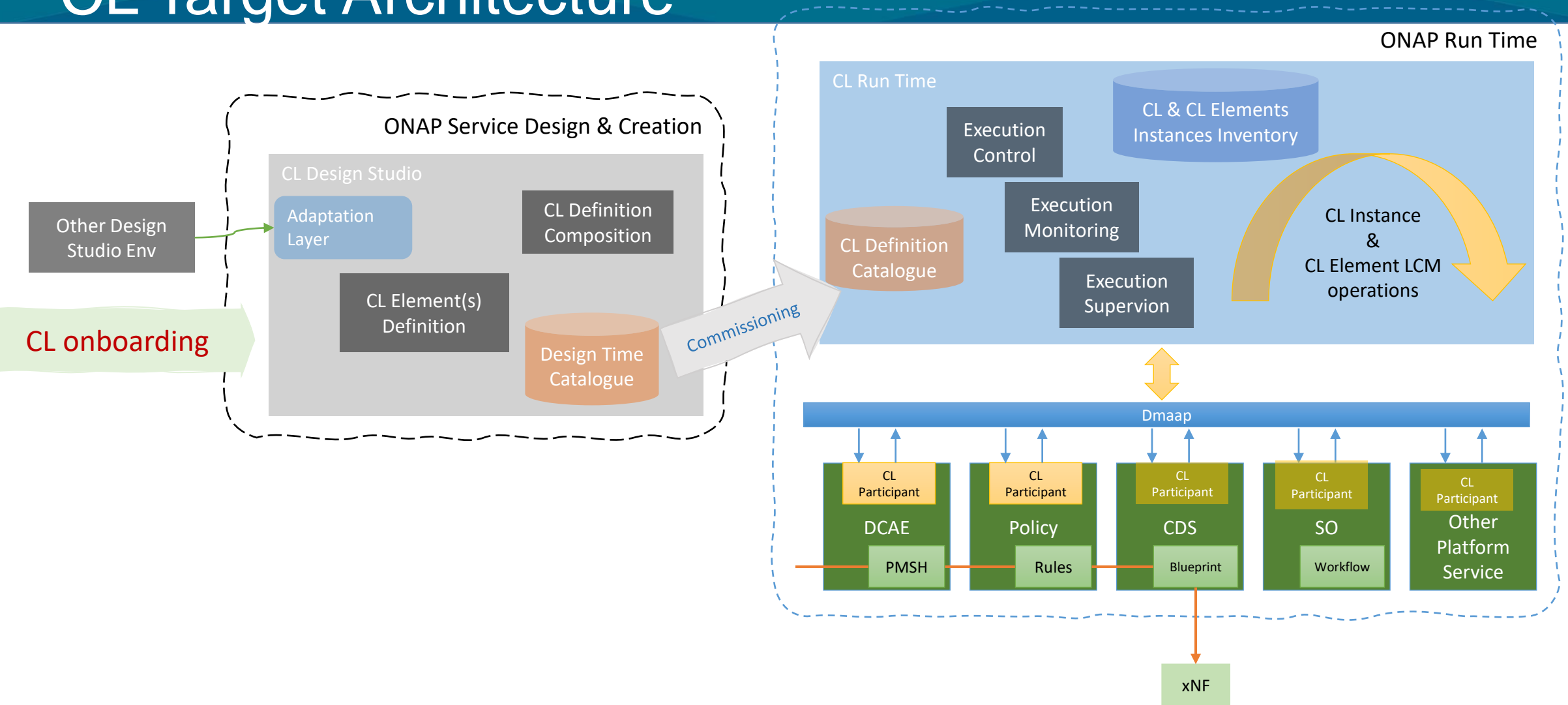
- Goals
 - Demonstrate Control loops can be defined and deployed using TOSCA
 - Use a design time catalogue for Control Loops for a complete storage of all the artifacts from different DT systems
 - Introduce CL participant and Review CL RT API to provide a more abstract LCM
 - Support CL Monitoring and Supervision functionality
- Participating Companies
 - Ericsson
 - AT&T

CL Architecture in PoC (Rel G and Rel H)

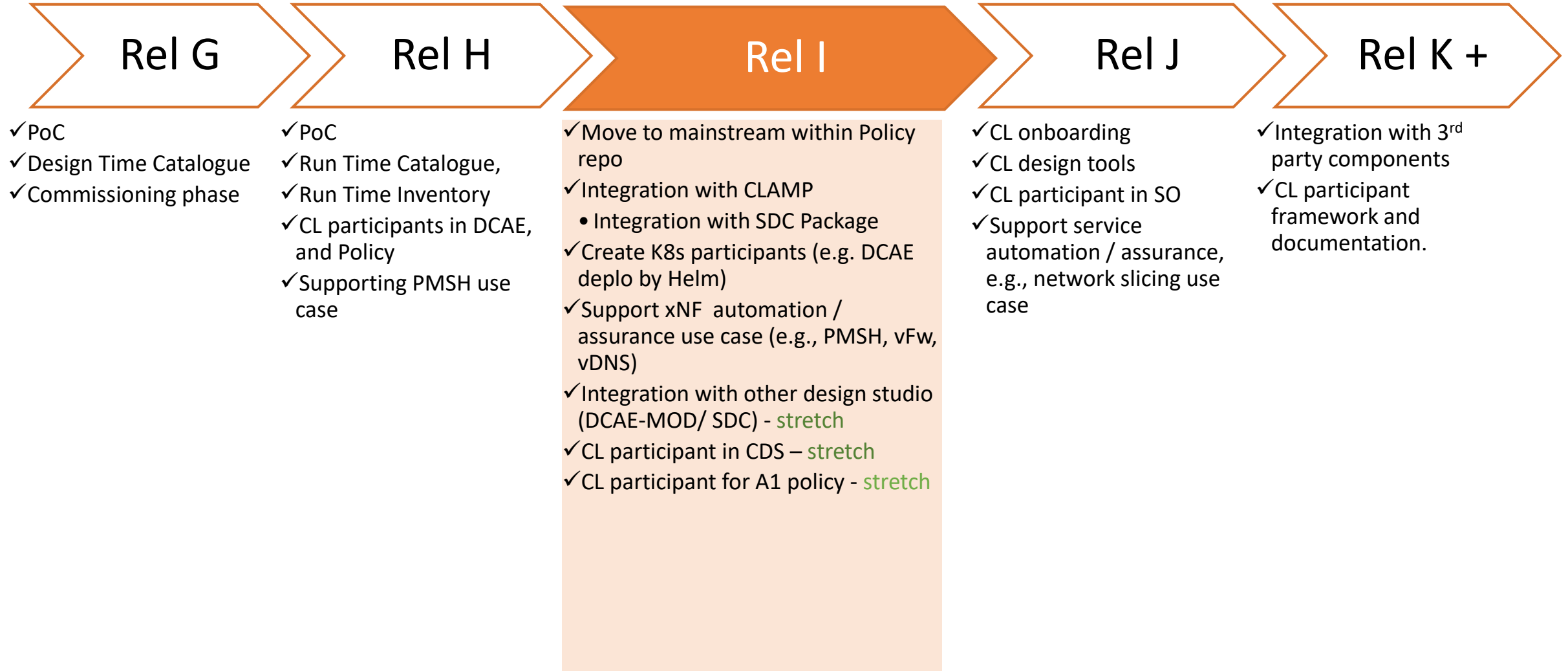


- Poc focus in Rel G: DT Catalogue and commissioning phase
- PoC focus in Rel H: RT implementation, CL participants

CL Target Architecture



Roadmap





ONAP

OPEN NETWORK AUTOMATION PLATFORM

Thank you