



Creating Infinite  
Possibilities.

# Advanced Workflows for Onboarding

Peter Cline

Principal Engineer II

Comcast Cable

[peter\\_cline@comcast.com](mailto:peter_cline@comcast.com)

## Desirable

- Great first impression
- Happy customers
- Easy interactions
- Quick and ready access to products



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## To Be Avoided

- Poor first impression
- Frustrated customers
- Bad interactions
- Difficulty getting up and running with products



Photo by Andrea Piacquadio: [www.pexels.com](http://www.pexels.com/)

## Software to Support Great FTUE

**Reliability**

**Observability**

**Reusability**

**Robustness**

**Developer Velocity**

**Simplicity**

## Concepts

- **Task** – a functional unit that typically involves HTTP interactions with an external service
- **Orchestration** – component responsible for executing tasks and responding to the result of task execution
- **Onboarding Session**- mechanism for tracking progress of the orchestration and making that status accessible to clients

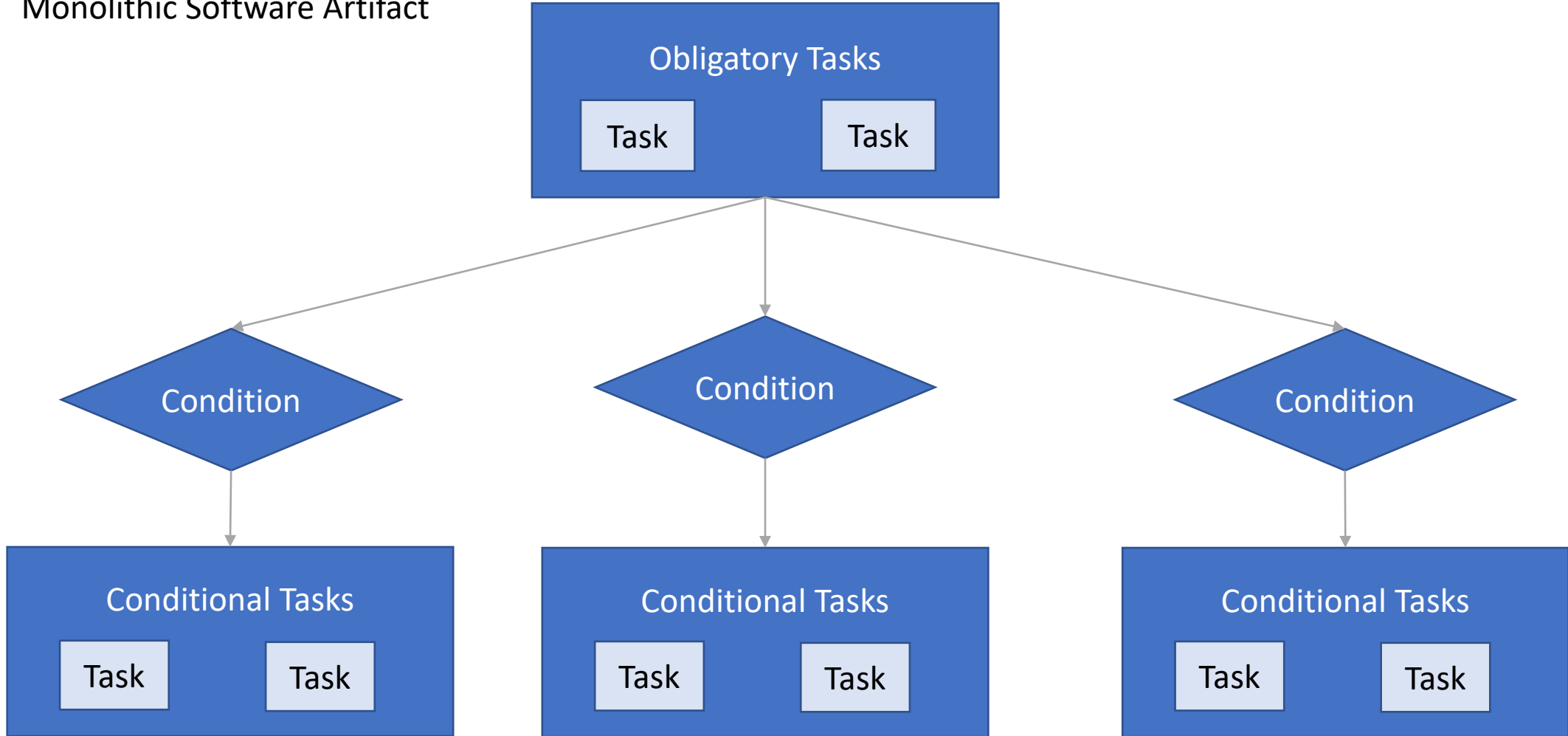
# Leased Gateway Orchestration



## Characteristics

- First introduction of onboarding into the xFi mobile application
- Superior customer experience
- Single software artifact for orchestrator and task implementations
- Tight coupling between task implementations and orchestration
- Single bucket for logging events
- Orchestration defined in code

## Monolithic Software Artifact



## Opportunities

- Improved observability
- Task reusability
- Testing and deployment
- Easy modification of workflows
- Workflow comprehension



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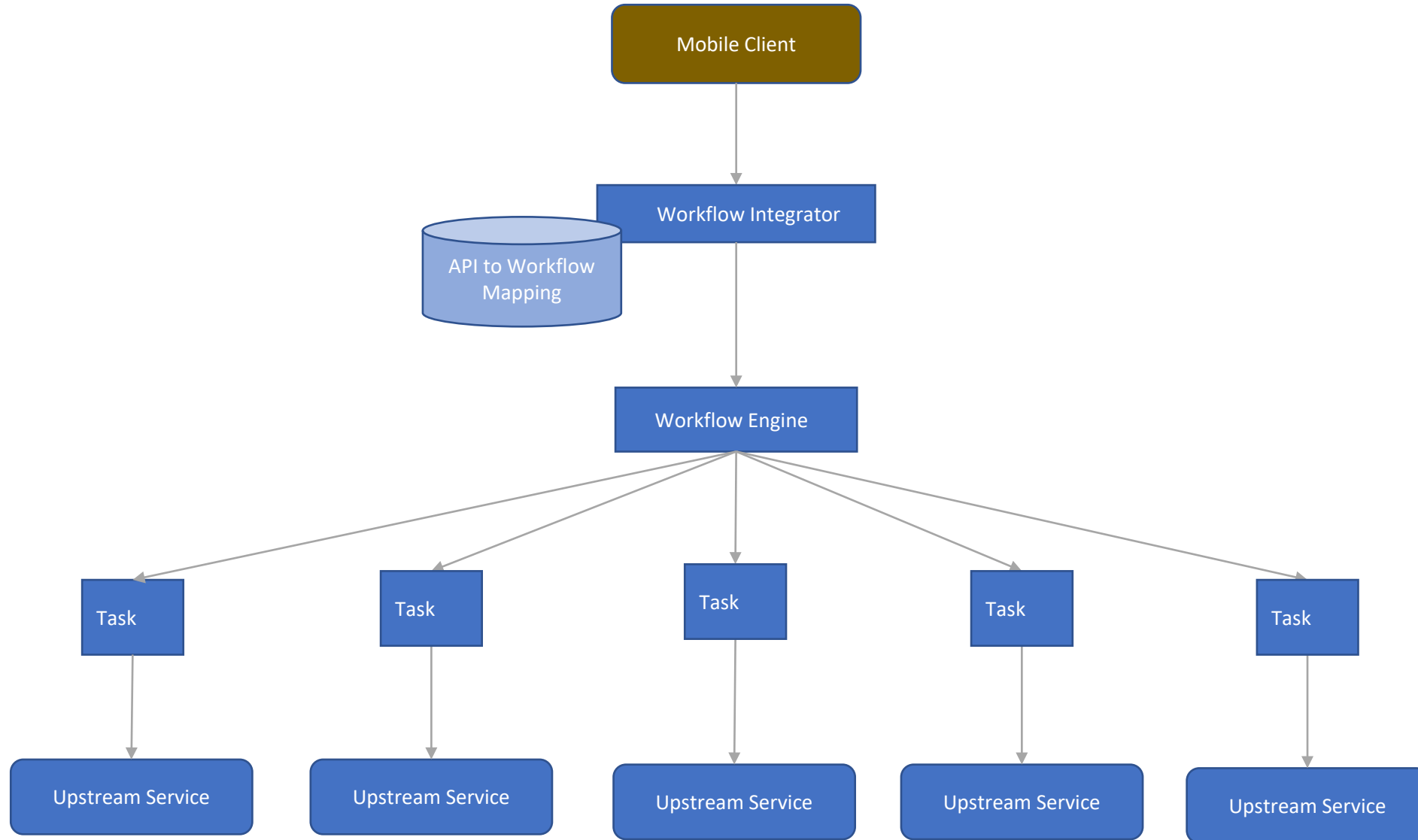
# Workflow Orchestration Architecture

## Characteristics

- Orchestration and task implementations are decoupled
- Workflow definition is externalized from code
- Enhanced observability
- Comprehensive metrics
- Full state management



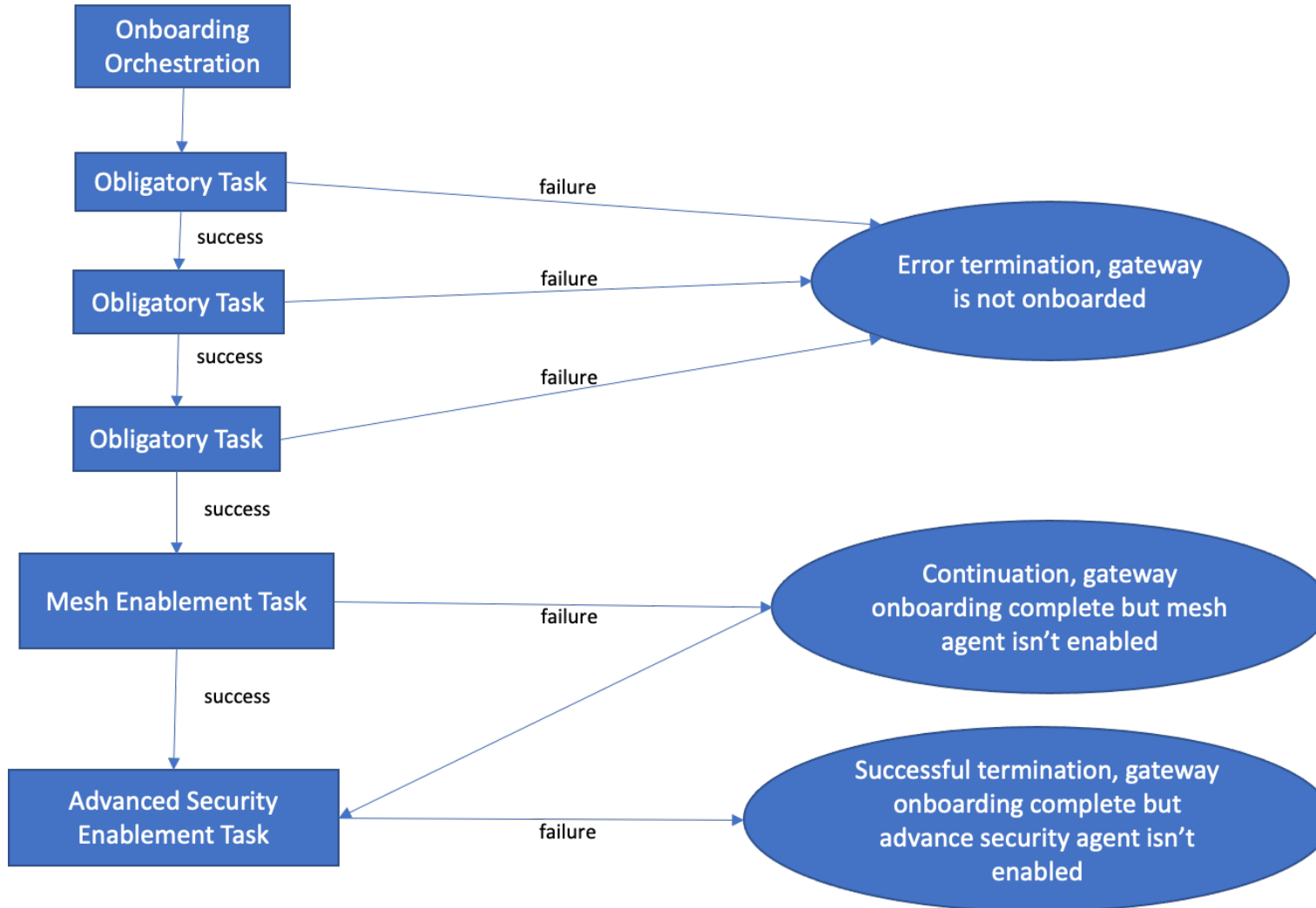
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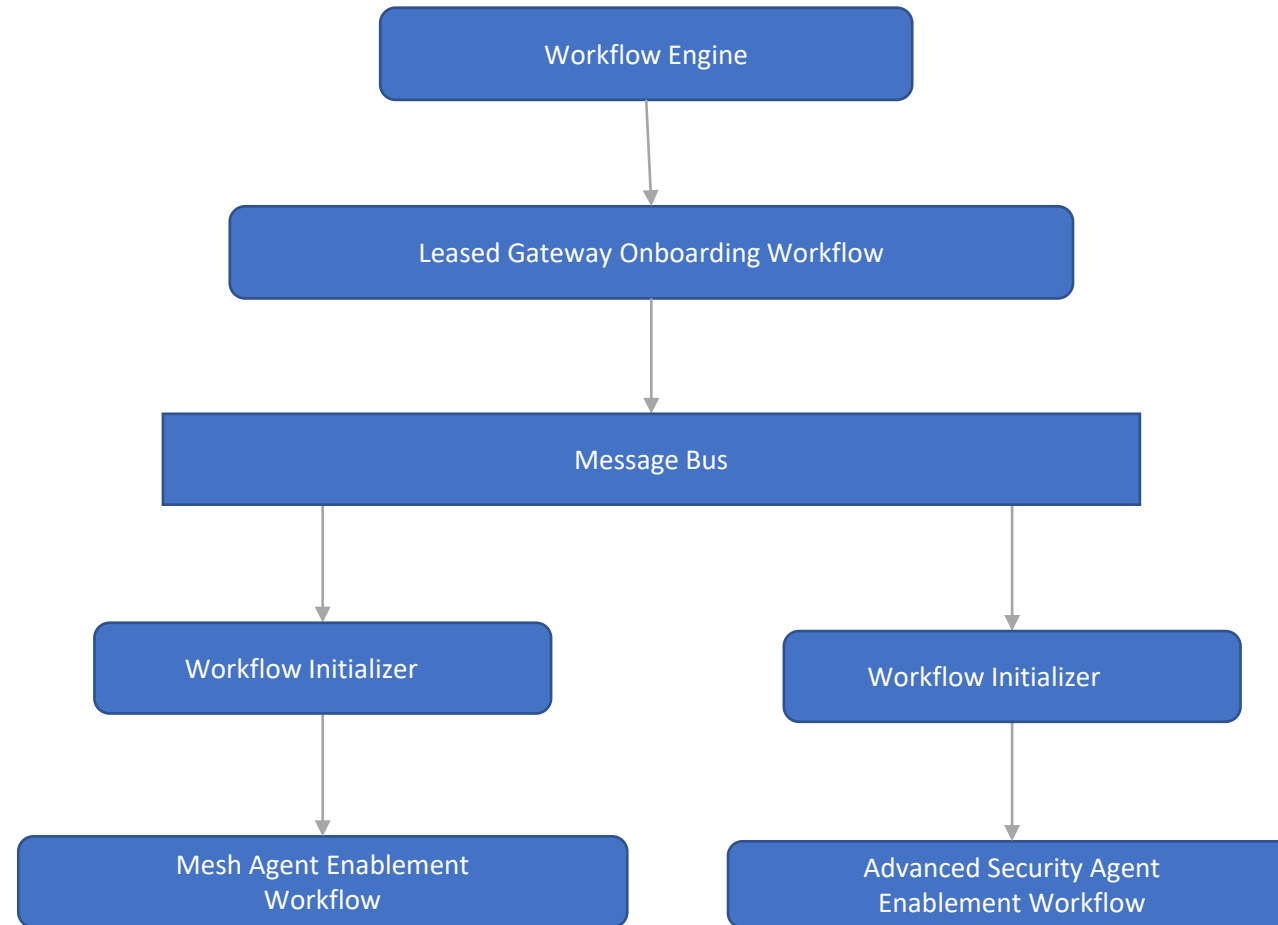
# Case Study: Firmware Agent Enablement

Firmware agents on the IP gateway device support high value features for customers but aren't required for basic operations. How do we best handle enablement of these agents?

# Case Study – Firmware Agent Enablement



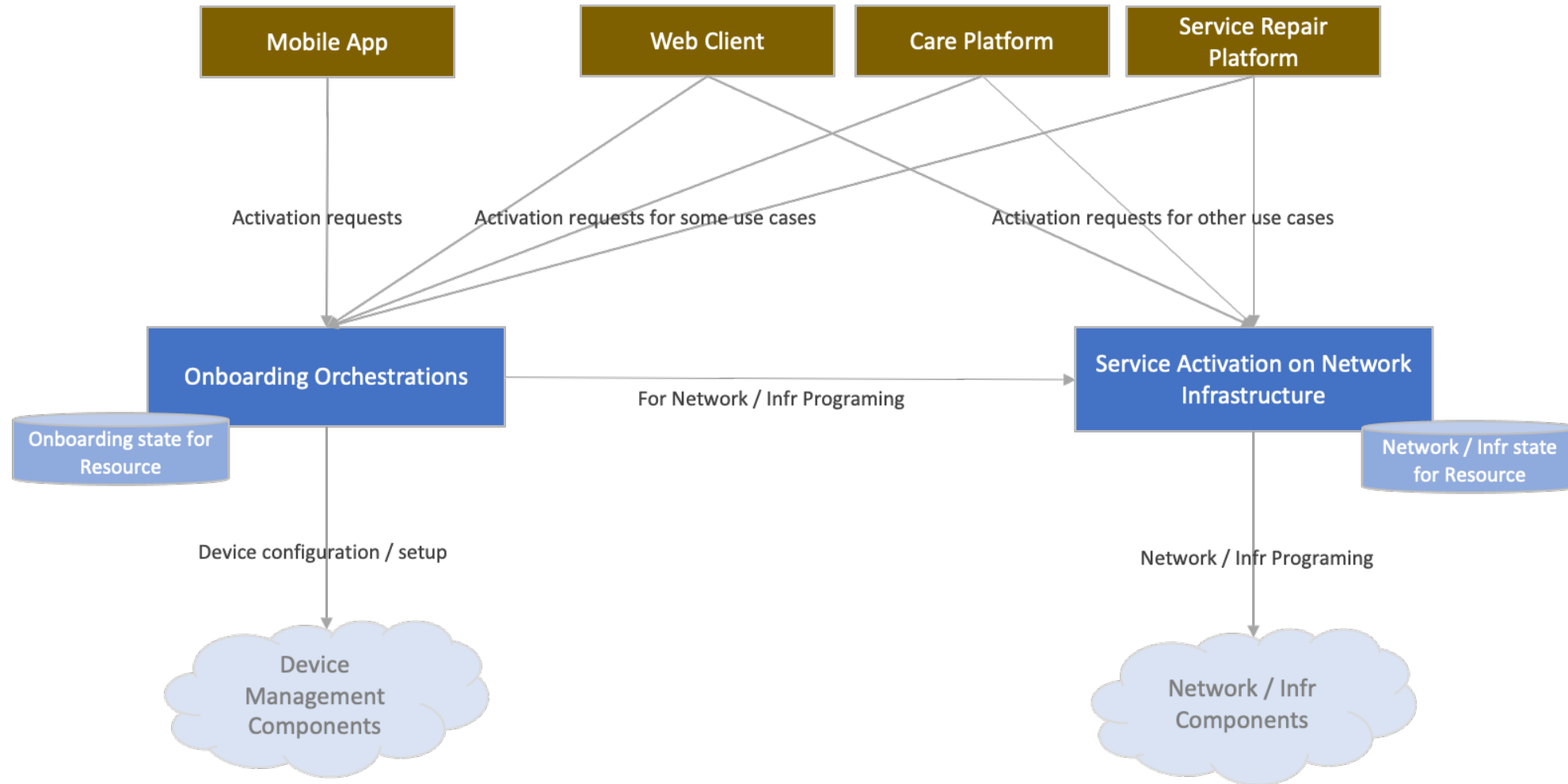


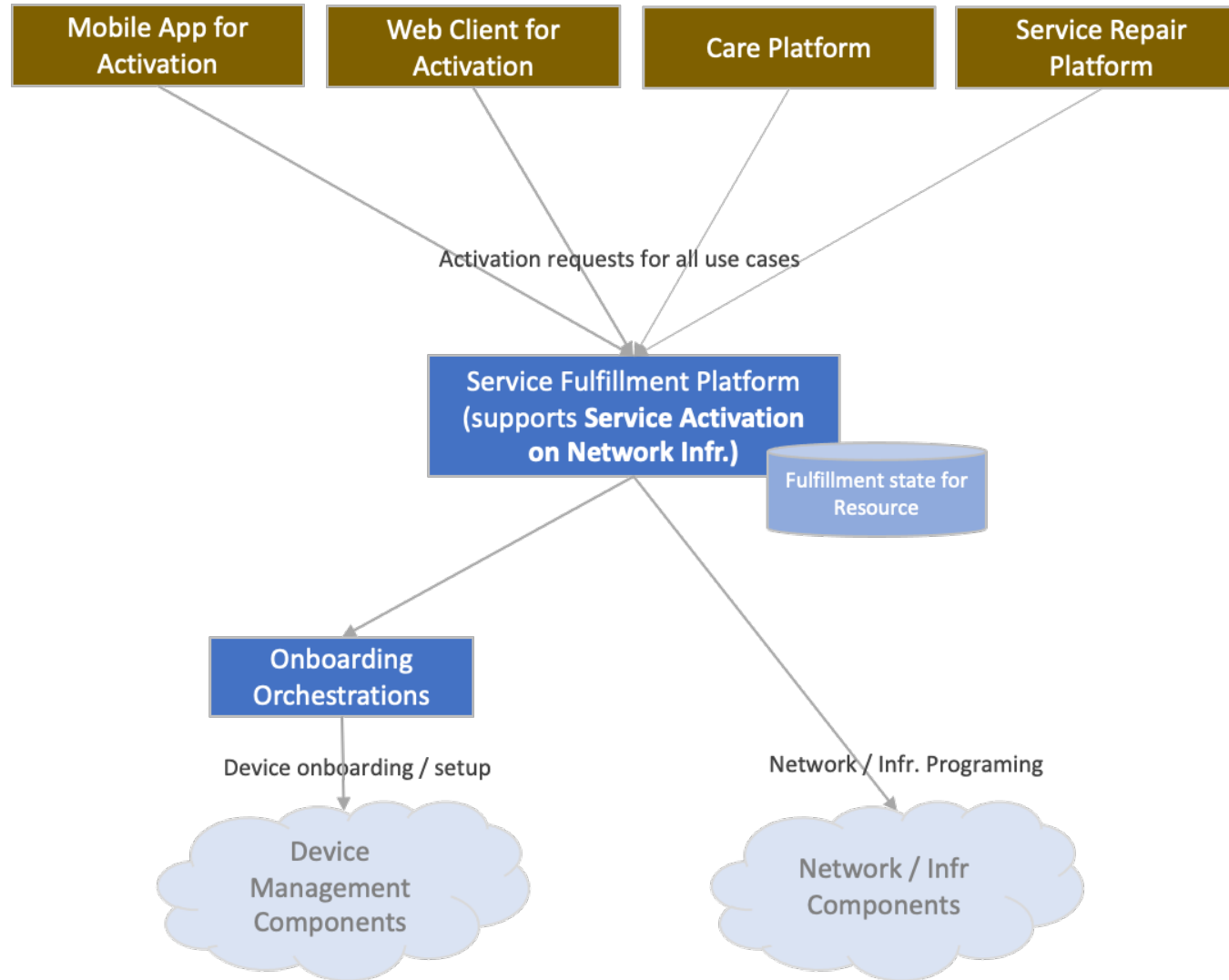


# Unified Client Interface



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# Thank You!

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Comcast

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