

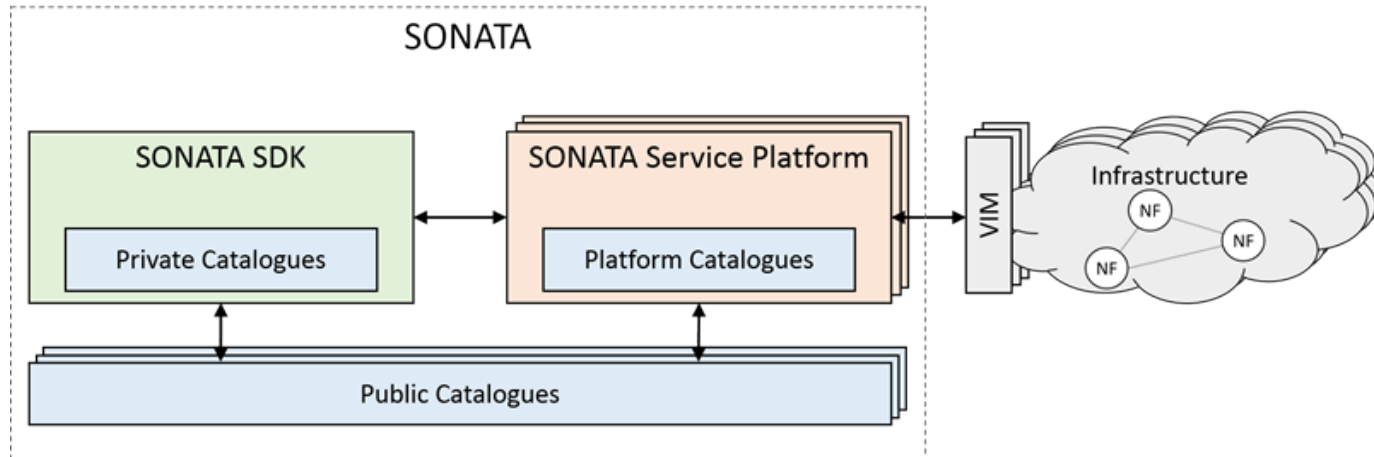


# draft-sonata-nfvrg-devops-gatekeeper

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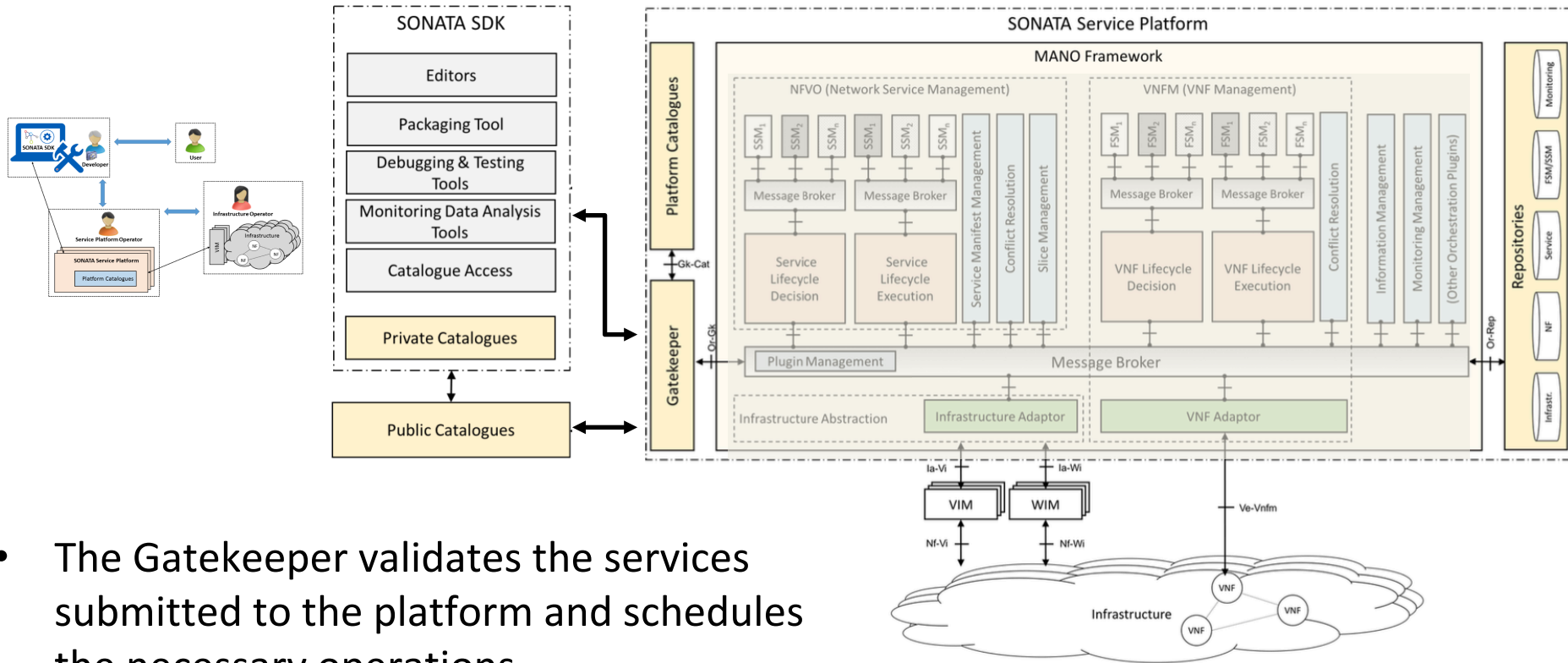
Berlin, 18th July 2016

# The Components for NFV DevOps



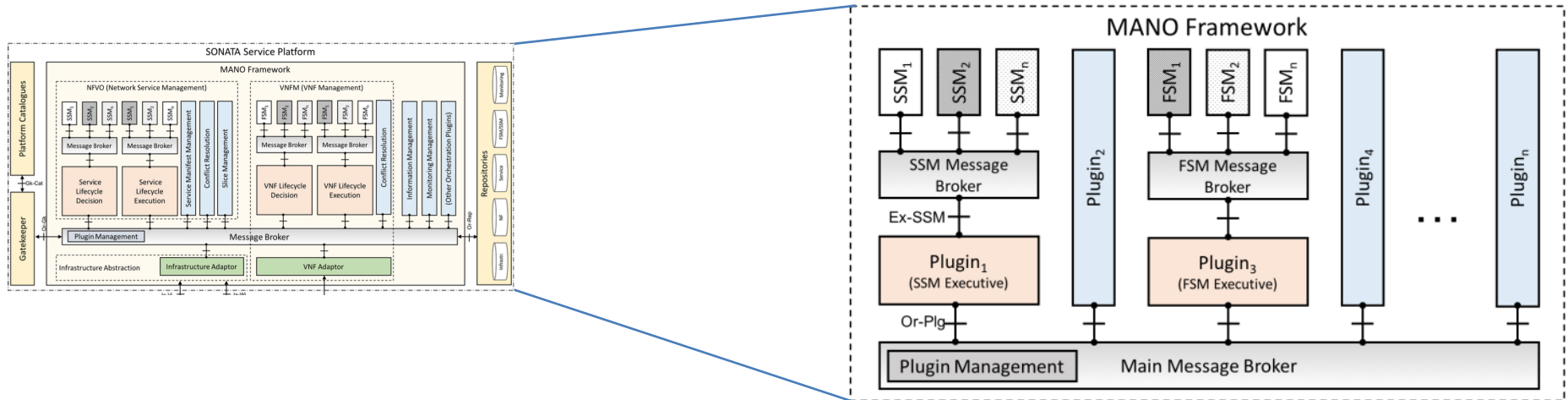
- **Catalogues**
  - Storing static information regarding network functions and services
  - Private catalogues of service developers
  - Service platform catalogues made available to authorized service developers
  - Public catalogues storing artifacts developed and maintained by third parties
- **Service Development Kit**
  - Provides a service programming model and a development tool-chain
  - Supports developers in defining and testing complex services
  - Facilitates custom implementations of individual network functions
- **Service Platform**
  - Receives the service packages implemented and created with the help of the SDK
  - Responsible for placing, deploying, provisioning, scaling, and managing the services on existing infrastructures
  - Provides direct feedback about the deployed services to the SDK
- **Underlying Infrastructure**
  - Uses information provided by the SO for execution and lifecycle management of services

# Mediated DevOps



- The Gatekeeper validates the services submitted to the platform and schedules the necessary operations
  - User authentication and authorization
  - Package verification and attestation
  - Secure access to internal interfaces

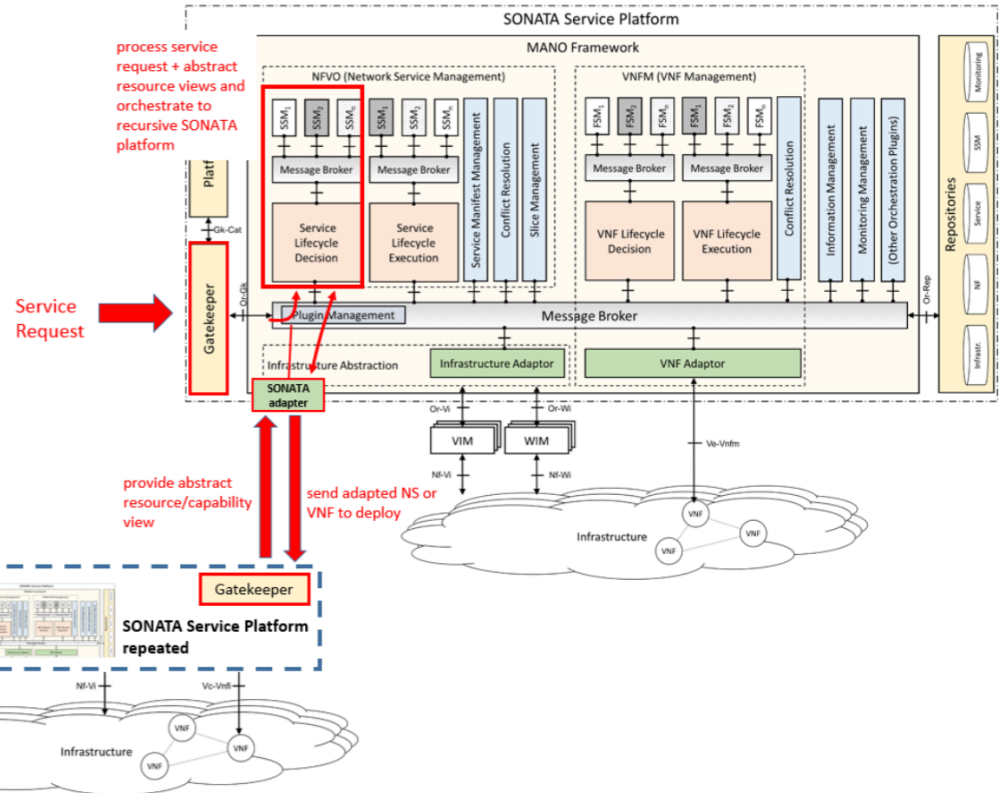
# Mediated Pluggable MANO



- The SONATA MANO framework consists of a set of loosely coupled components that use a message broker to communicate
  - The operator can customize platform functionality or add new features by installing additional plugins
- The framework supports the onboarding of FSMs and SSMs
  - Specific modules bundled into packages, integrated and activated when a service package is deployed on the platform
  - Supporting specific management actions within a general framework
- Extensibility makes the mediation role of the gatekeeper even more essential
  - Security
  - Stability
  - Management consistency

# Mediated Recursion

- The Gatekeeper can also act as an Infrastructure Endpoint
  - Able to send an abstract resource view of the available infrastructure in its own platform
- A recursive infrastructure adapter can serve as interface to a recursively deployed platform by a different infrastructure provider.
  - There is the need of aligning abstraction semantics (and even syntax)
  - But we seem to be in the right path, with several proposals heading in the same direction



# Moving Forward

- An NFV DevOps approach need a trustworthy cycle
  - Accountability in all its aspects
- A mediation element enforcing policies set by the NSP is a feasible approach
  - In any collaboration scenario
- The gatekeeper can be applied not only to VNF and NS management
  - Extensible management
  - Recursion
- Consolidate the concepts of the draft
  - Direct experience in the SONATA project
  - Collaboration with other 5G PPP projects
- Find a common path
  - With other drafts addressing lifecycle aspects – Seek for consolidation
  - With other drafts considering resource orchestration and recursion – Incorporate the mediation concepts
- And, for sure, adoption would help
  - Let's talk about it in a few months