

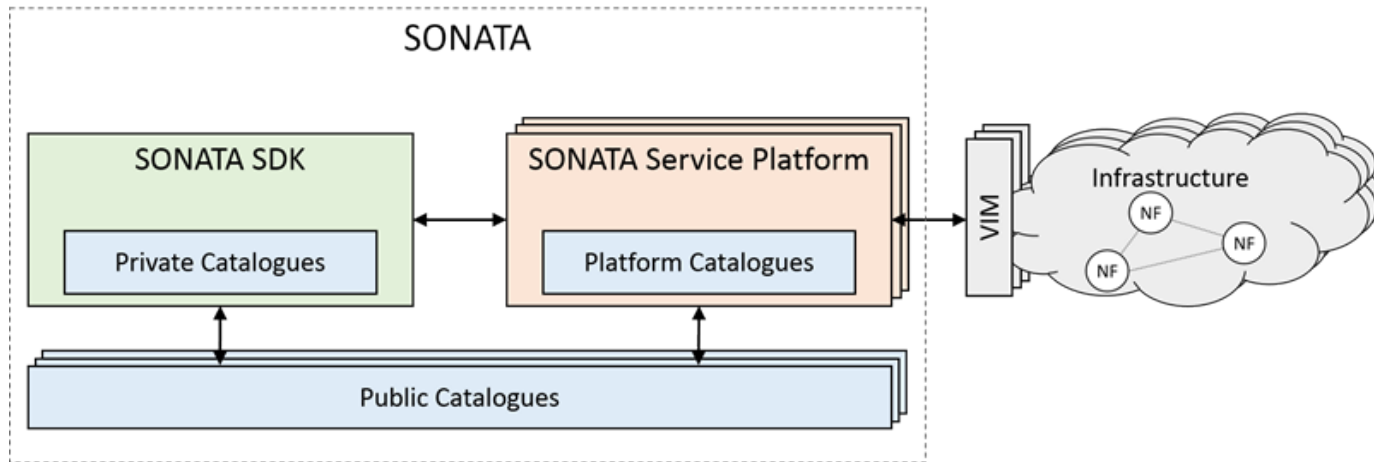


# **draft-sonata-nfvrg-devops-gatekeeper**

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# 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

# The SDK and the Gatekeeper

- The new elements to support DevOps
  - The focus of this draft
- The others are required for any conceivable NFV model
  - Therefore discussed in sufficient deep elsewhere
- Working with packages
  - A consistent unit for service deployment

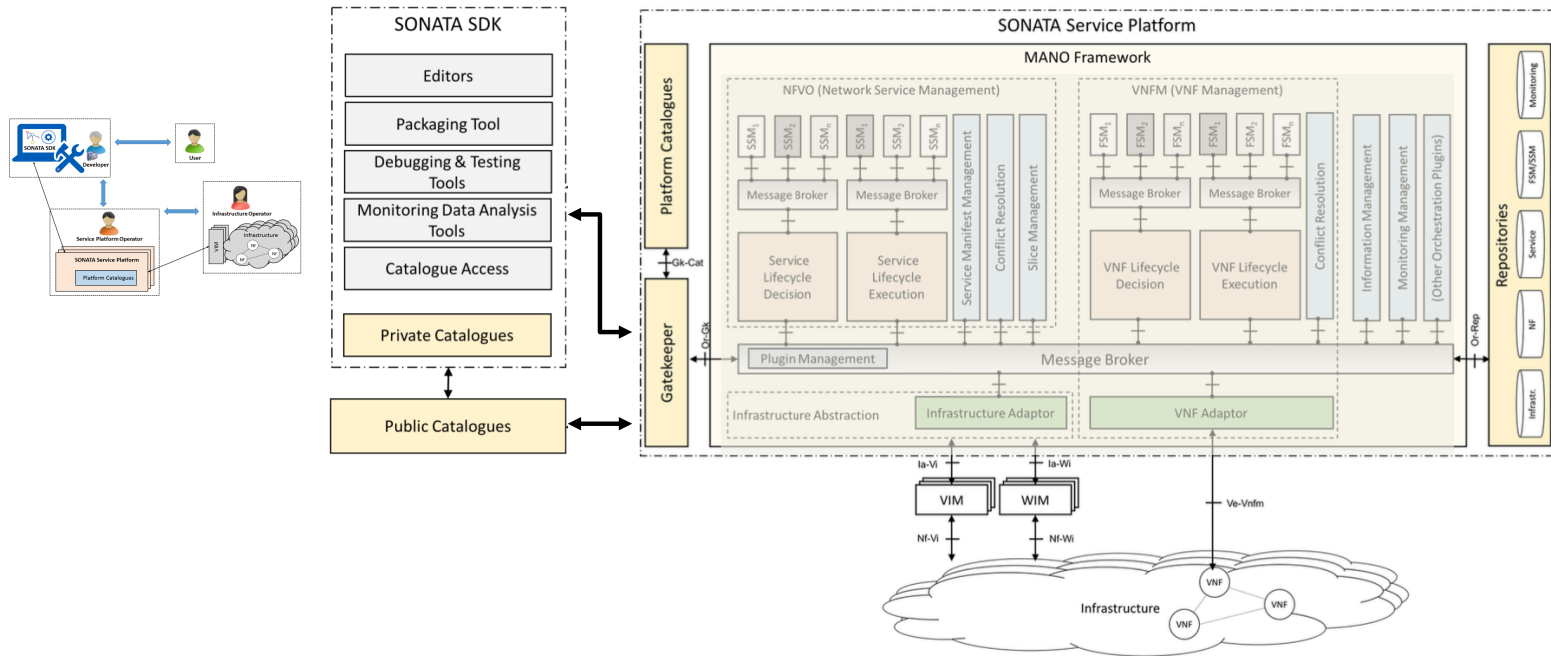
# The SDK

- Supports the service programming model and provides a development tool-chain
- Pre-validation
  - Gatekeeper acceptance
- Offline testing and emulation
  - Supporting model-driven development and deployment
- Packaging
  - Build deployment units
- Service platform interaction
  - Package management
  - Data access

# The Gatekeeper

- Mediating element
  - Validates the services submitted to the platform and schedules the necessary operations
- User authentication and authorization
  - All roles: Admin, developer, provider, customer...
- Package verification and attestation
  - Syntax & semantics, testing, licensing...
- Secure access to internal interfaces
  - Related to the lifecycle of packages and their components
- Monitor data transfer
  - As a pure forwarder, once AuthN/AuthZ are used to establish the data view

# Mediated DevOps



- An NFV DevOps approach need a trustworthy cycle
  - Accountability in all its aspects
- The SDK supports validation and consistent interaction with the NSP environment
  - In any collaboration scenario
- The gatekeeper mediates interactions and can be applied not only to VNF and NS management
  - Extensible management
  - Recursion