MSB R2 Architecture Review

Enhancements since R1

1. Provides HTTPS endpoint at MSB API gateway
   Now the client can either send an HTTP request to 80(VM)/30081(k8s) or an HTTPS request to 443(VM)/30443(k8s) of MSB Internal API gateway to access the services.
   
   ![MSB-140](image-url) - Providing HTTPS endpoint at API gateway [CLOSED]

2. MSB JAVA SDK supports HTTPS service registration
   HTTPS service registration is supported by REST API, kube2msb and MSB Java SDK now.
   
   ![MSB-162](image-url) - MSB JAVA SDK Supports HTTPS service Registration [CLOSED]

3. Support websocket service
   MSB API gateway can proxy websocket service now.
   Service registration is the same as normal REST service.
   Client sends a websocket request to API gateway, API gateway handles the service discovery and load balancing, then the client gets the push notification.
   
   ![MSB-156](image-url) - Support websocket request forwarding [CLOSED]

S3P Updates

1. Security
   a. Cil Badge
   
   b. SONAR code coverage. Reach or surpass the 50% goal on all repos.
   c. Nexus IQ scans:
      i. All critical license issues are cleared
      ii. Most of the critical security issues are cleared. The left one is Remote Code Execution (RCE) introduced by the jackson-bind, which is an indirect dependency of some fundamental 3-party libraries such as dropwizard, Hibernate and swagger. We are still looking for possible solution or mitigation.
   d. Provides HTTPS endpoint at MSB API gateway to provide encrypted communication
   
   ![MSB-140](image-url) - Providing HTTPS endpoint at API gateway [CLOSED]

2. Scalability and Resiliency
   a. Reach out to help ONAP projects to integrate with MSB Microservices Bus Tutorial.pdf
   b. Create a wiki page to track the integration progress: MSB Integration Status
   c. Deploy multiple API Gateway and discovery instances inside MSB.
   
   ![MSB-117](image-url) - MSB components should support horizontal scaling [CLOSED]

3. Performance and stability
   a. Define performance metrics and set up a baseline
   
   ![MSB-116](image-url) - Define performance metrics [CLOSED]

4. Manageability
   a. Integrate with logging enhancement project to provide central Logging
   
   ![MSB-145](image-url) - Central logging [CLOSED]
   b. Provide a portal to manage the registered services
   c. Integrate swagger UIs with MSB portal, the user can browse the REST API definition of all registered services

Information/Data Model Alignment

N/A, MSB doesn't use Information/Data Model produced by Modelling subcommittee.

API Updates

No API change in this release.