

Team wise breakup.

Team 1: Device Configuration Microservice

Responsibilities:

- Interface with network devices using NETCONF and RESTCONF protocols.
- Fetch and apply configuration data.

- Use libraries such as Netconf4J for NETCONF and Apache HttpClient for RESTCONF API interactions.

Tasks:

- **Day 1:**
 - Set up the development environment.
 - Review NETCONF and RESTCONF protocols.
 - Implement basic NETCONF and RESTCONF operations.
 - Develop support for configuration changes and fetches.
- **Day 2:**
 - Integrate with the Configuration Database Microservice.
 - Test and validate the microservice's core functionalities.
- **Day 3:**
 - Assist with system integration and comprehensive testing.
 - Document the system and prepare for a demonstration.

Team 2: Configuration Database Microservice

Responsibilities:

- Store current and historical configuration data of network devices.
- Implement version control and change tracking mechanisms.

Tasks:

- **Day 1:**
 - Set up the development environment.
 - Review version control mechanisms.
 - Implement the Configuration Database Microservice focusing on version control and change tracking.
- **Day 2:**
 - Test integration with the Device Configuration Microservice.
 - Validate data storage and version control functionalities.
- **Day 3:**
 - Assist with system integration and comprehensive testing.
 - Document the system and prepare for a demonstration.

Team 3: Network Monitoring Microservice

Responsibilities:

- Monitor the health and performance of network devices using SNMP and streaming telemetry.
- Process and aggregate monitoring data for real-time visibility.

Tasks:

- **Day 1:**
 - Set up the development environment.
 - Review SNMP and streaming telemetry protocols.
 - Develop the Network Monitoring Microservice, focusing on data collection via SNMP and telemetry.
- **Day 2:**
 - Implement data processing and aggregation for real-time visibility.
 - Test and validate monitoring functionalities.
- **Day 3:**

- Assist with system integration and comprehensive testing.
- Document the system and prepare for a demonstration.

Team 4: Compliance and Reporting Microservice

Responsibilities:

- Analyze device configurations against predefined compliance rules.
- Generate reports on compliance status and offer insights into non-compliant configurations.

Tasks:

- **Day 1:**
 - Set up the development environment.
 - Review compliance rules and reporting requirements.
 - Develop the Compliance and Reporting Microservice, focusing on the compliance rules engine.
- **Day 2:**
 - Implement reporting functionalities.
 - Test and validate compliance analysis and reporting.
- **Day 3:**
 - Collaborate on the User Interface Microservice.
 - Implement dashboard views for device configurations, compliance reports, and network health.
 - Develop alerting mechanisms and set up alerts for compliance violations and configuration issues.
 - Assist with system integration and comprehensive testing.
 - Document the system and prepare for a demonstration.

Additional Common Tasks:

Day 3: System Integration and Testing

- **All Teams:**
 - Integrate all microservices and ensure coherent data flow.
 - Perform comprehensive testing, including integration testing, system testing, and user acceptance testing.
 - Document the system and prepare for a demonstration.