**Configuration Management Database (CMDB) Updates**

**Title:** *CMDB Integration and Update Framework for Deployed Smart 5G Systems*

**A. Purpose**

Maintain an accurate, real-time inventory of all deployed network components, software versions, configurations, and interdependencies after deploying optimization algorithms and infrastructure changes.

**B. CMDB Update Scope**

| **Item** | **Details Captured** | **Update Frequency** |
| --- | --- | --- |
| **Network Elements** | Base stations, routers, switches, firmware versions | Automated daily sync |
| **Optimization Algorithms** | Model versions, deployment timestamps, code repository refs | Post-deployment & updates |
| **Infrastructure Resources** | Servers, VMs, containers, IP addresses, cloud resources | On provisioning changes |
| **Configuration Items (CIs)** | Parameter settings, security policies, access controls | After each config change |
| **Relationships** | Dependencies between hardware, software, services | Dynamic, real-time where possible |

**C. Integration Approach**

* **Automated Discovery:**  
  Use tools like ServiceNow Discovery, Device42, or custom scripts via APIs to pull current state from network and cloud environments.
* **Change Management Integration:**  
  Sync CMDB updates with ticketing systems (JIRA, Remedy) to track deployment status and approval workflows.
* **Version Control:**  
  Maintain historical configuration versions for rollback and auditing.

**D. Data Quality & Governance**

* Validate incoming data against schema rules.
* Reconcile conflicting data from multiple sources.
* Assign ownership and stewardship roles for CMDB entries.