**Stakeholder Requirements Traceability Matrix (RTM)**

**Title:** *End-to-End Stakeholder Requirements Traceability Matrix for 5G Optimization*

**Purpose:**  
To ensure all stakeholder business needs are captured, validated, and directly mapped to technical features, configurations, and performance objectives. This promotes accountability, reduces scope creep, and aligns deployment priorities with strategic goals.

**Structure of the RTM:**

| **Stakeholder** | **Business Requirement** | **Derived Functional Requirement** | **Mapped Technical Spec/Feature** | **Test/Verification Method** | **Status** |
| --- | --- | --- | --- | --- | --- |
| CTO | Reduce core latency by 30% | Enable MEC integration at metro sites | Deployment of MEC nodes with <10ms RTT to RAN | Ping/RTT benchmarks; MEC API latency profiling | In Progress |
| Network Ops Head | Improve urban video call QoE | Reduce packet jitter and call drops | Implement dynamic QoS slicing, QoE monitoring | QoE dashboards; SLA thresholds; end-user surveys | Planned |
| Regulatory Manager | Ensure compliance with CAK & GSMA 5G security standards | Enforce SIM traceability, lawful interception readiness | Integration of LIMS; enhanced SIM registration policies | Compliance audit checklist; trace logs | Completed |
| CFO | Minimize per-site operational expenditure by 20% | Optimize energy and spectrum usage | AI-based RAN power saving mode; spectrum re-farming | Energy profiling tools; spectrum audit reports | In Progress |
| Enterprise Customers | Guaranteed 5G slice with SLA | Dedicated slice for premium enterprise users | Slice isolation, API-enabled network control | SLA reports; simulation tests; enterprise feedback | UAT Ongoing |

**Tools Used:**

* Jira (for requirement tracking)
* DOORS Next Generation or Excel-based RTM sheets
* Zephyr for test case traceability
* Automated sync with CI/CD pipeline (GitLab/Jenkins)