

```
{
  "cognitive_node": {
    "id": "api-gateway.analytics-module",
    "kind": "Module",
    "title": "AnalyticsModule (GraphQL facade for legacy Dashboard)",
    "purpose": "Expose legacy Dashboard data via GraphQL with minimal-change migration; isolated from live-mode and historical-mode.",
    "contracts": {
      "inputs": [
        "env.CALL_METRICS_RECORDS_URL",
        "env.ANALYTICS_MAX_PAGE_SIZE?",
        "env.ANALYTICS_MAX_RANGE_DAYS?",
        "env.ANALYTICS_REQUEST_TIMEOUT_MS?"
      ],
      "queries": [
        "callsDurationSummary(range, clinicTimezone)",
        "handlingOverview(range, granularity, clinicTimezone)",
        "callVolume(range, clinicTimezone, granularity=HOUR)",
        "aiOperationBreakdown(range, granularity, clinicTimezone)",
        "callFrequencyOutcome(range, clinicTimezone)",
        "medianCallDuration(range, granularity, clinicTimezone, pagination?)",
        "agentCallTimeCarousel(range, clinicTimezone)"
      ],
      "outputs": [
        "JSON payloads isomorphic to legacy Dashboard responses (unit:'seconds' where applicable)"
      ],
      "non_functionals": [
        "Determinism (input→pipeline→output)",
        "Security: reuse API-Gateway auth (HTTP middleware / WS onConnect)",
        "Observability: upstream latency & payload size (no PII)",
        "Limits: bounded pageSize and date ranges"
      ]
    },
    "substructure": {
      "submodules": [
        "summaries/calls-duration-summary",
        "charts/handling-overview",
        "charts/call-volume",
        "charts/ai-operation-breakdown",
        "charts/call-frequency-outcome",
        "charts/median-call-duration",
        "carousel/agent-call-time"
      ],
      "files": [
        "analytics.module.ts", "analytics.config.ts",
        "common/dto/*.graphql", "utils/*.ts",
        "**/*.resolver.ts", "**/*.service.ts", "**/*.pipeline.ts", "**/*.graphql"
      ]
    }
  }
}
```

```

        ]
    }
},
"graph_patch": {
  "nodes": [
    { "id": "api-gateway.analytics-module", "kind": "Module" }
  ],
  "edges": [
    { "from": "api-gateway.analytics-module", "to": "system:API-GATEWAY", "kind": "PART_OF" },
    { "from": "api-gateway.analytics-module", "to": "service.call-metrics-records", "kind": "CALLS_HTTP", "data": { "method": "GET", "path": "/call-records/aggregate?pipeline=..." } },
    { "from": "api-gateway.analytics-module", "to": "api-gateway.graphql", "kind": "EXPOSES_QUERY", "data": { "fields": ["callsDurationSummary","handlingOverview","callVolume","aiOperationBreakdown","callFrequencyOutcome","medianCallDuration","agentCallTimeCarousel"] } },
    { "from": "api-gateway.analytics-module", "to": "api-gateway.config", "kind": "USES_CONFIG", "data": { "keys": ["CALL_METRICS_RECORDS_URL","ANALYTICS_MAX_PAGE_SIZE?", "ANALYTICS_MAX_RANGE_DAYS?", "ANALYTICS_REQUEST_TIMEOUT_MS?"] } },
    { "from": "api-gateway.analytics-module", "to": "api-gateway.graphql", "kind": "REUSES_SECURITY" }
  ]
}
}

```

## 2) NODES (Path, code, cognitive memory)