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{
  "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"
    ]
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}

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    ]
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},
"graph_patch": {
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    { "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","callFre
quencyOutcome","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_MA
X_RANGE_DAYS?","ANALYTICS_REQUEST_TIMEOUT_MS?"] } },
    { "from": "api-gateway.analytics-module", "to": "api-gateway.graphql", "kind":
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}
}

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2) NODES (Path, code, cognitive memory)