

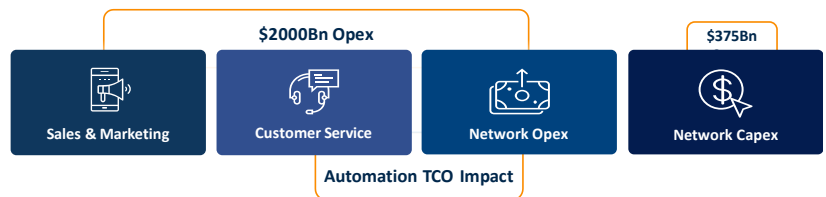
ServiceIQ Suite

Operators globally spend 3x-5x more on Opex costs for their network than the Capex to build them. ServiceIQ unlocks huge savings – \$3M or more per year for a T1 operator - by enabling efficient, error-free operation of complex networks. This frees up scarce human resources to focus on real service innovation rather than the day-to-day drudgery of running large systems.

The sheer scale of deployments envisaged for NFV and 5G Edge Computing demands strong operational automation. Without this, it will be impossible to achieve the agility and efficiency expected. When clouds are measured in thousands of hosts across tens or hundreds of sites, automated deployment tools will be the only way to avoid damaging and costly errors that impact service availability or security.

Metaswitch ServiceIQ provides a rich suite of automation tooling for operators that enables Continuous Integration/Continuous Delivery (CICD) of software updates and service configuration via GitOps pipelines. An Open Source-based data lake of KPIs supports comprehensive, customizable E2E dashboards and progressive “canary-level” test/release CICD workflows.

ServiceIQ is modular and tailored to fit seamlessly with each operator’s preferred way of working and NOC tools, whether derived from physical appliance-based systems or new for Telco Cloud.



Telco Capex/Opex sources: Omnitele: Network Capex Analysis by Tefficient, & Statistica

ServiceIQ CICD

Every operator globally jealously eyes the agility and efficiency of the web-scale players, who have so far led the way on DevOps management of complex services. CICD tooling is fundamental to achieving these goals.

ServiceIQ provides an operational-focused CICD toolchain that allows much faster test/release cycles for network function software updates and fundamental service configuration.

- Images and config are managed “as code” via a Git & Artifactory repository
- Pipelines promote changes across Canary levels defined by the operator
- Automated testing validates each change, with automatic rollback in case of error

Metaswitch tailors each ServiceIQ CICD deployment to fit with the tools and processes in place at each operator. For example, we can instantiate GitLab and Artifactory if required, or integrate to existing repositories.

ServiceIQ CICD can be deployed for VM or container-based infrastructures, integrated with any combination of the ETSI MANO, VNFM or Kubernetes-based orchestration stack that the operator uses for managing cloud resources and inventory.

ServiceIQ Monitoring

Success in deploying Telco Cloud is too-often viewed as just a network or cloud engineering problem. That ignores the fundamental mindset and process changes necessary to extract best value from migration to the cloud – and the tools that will be required in that new world.



Monitoring and dashboards

Service IQ Monitoring provides cloud-fit observability tools and dashboards, built from the ground up using best-in-class open source projects from the Cloud Native Computing Forum (CNCF) to give a complete service-wide view of operational status. Web-scale players monitor and control their services with minimal staff using exactly the same techniques, watching the overall transactions per second processed across the entire service, for example, rather than the health of individual appliance or VNF instances.

Customizable dashboards allow NOC operators and service engineers to tailor their operational cockpit view to fit their exact needs, for your network – incorporating both service and cloud NFVI KPIs and trends, if desired. Service IQ Monitoring can be tailored to use either a pre-existing data lake, or Metaswitch can install cloud native stores (Prometheus and Elastic) suitable for use with any Metaswitch or 3rd-party VNF/CNF and NFVI.

ServiceIQ SAS

That ServiceIQ Suite incorporates Metaswitch’s unique Service Assurance Server, delivering always-on built-in probes for all xNF message flows plus major internal events and decision points. SAS complements ServiceIQ Monitoring and allow drill-down to detailed diagnostic flows, including directly from graphical dashboards in future releases.

Specifications

Deployment Options

- Standalone Monitoring
- Integrated CICD and Monitoring
- Future releases will add additional ServiceIQ tools, including
 - AI/ML operations
 - Security monitors

CICD Lifecycle Capabilities*

- Instantiation
- Healing
- Scale out/Scale In
- Upgrade

VNFM & EMS supplied if required

Professional services for CICD virtual deployment design and integration

CICD Configuration Capabilities

- Declarative document-based schemas for service config
- Managed via GitOps pipelines enabling audit, managed rollout, reversion and recovery

Operator-defined canary levels can be applied to config and image management

Monitoring Capabilities

- Comprehensive KPIs and event logging
- Customizable service-level dashboards and alerting
- Integration with SAS for direct drill-down

See separate Service Assurance Server datasheet for details of SAS capabilities

Open Source Tooling (CNCF)

- Prometheus + Grafana for KPIs, thresholding and graphing
- FluentD + Elastic/Kibana for logs and events
- GitLab & Artifactory repository
- Jenkins pipelines

Pluggable to event bus/service mesh on request e.g. via Kafka plugins

Capacity

- Scales to any size of Metaswitch VNF networks deployment

xNFs Supported

- Perimeta SBC
- Clearwater Core
- Rhino TAS
- Metasphere CFS*
- Metaview, including Metaview Director and MVSE*
- SAS
- Cloud Native Messaging Server and Mobile Messaging Platform
- Radisys MRF
- Fusion Core
- Qcall

Solutions Support

- IMS Core
- VoLTE & VoWiFi
- MaX & HPBX/UC*
- Network Transformation (Class 4 & Class 5)*
- Interconnect and VoLTE Peering*
- 5G core*

** Phased availability of full CICD LSM operations by solution/product*