



netaxis
solutions

Self Learning control layer

“Self learning control layer” is the NetAxis products suite providing an adaptive control on your telecommunication network. The idea behind this concept is simple: observation and reaction. At one side, the monitoring module observes in real-time the network conditions and, at the other side, the control module provides adaptations to the network behaviour according to the observations.

Monitoring Module

Monitoring

Call tester

Reporting

Service availability

Alarming

Overview

The Monitoring Module collects a wide range of information concerning the telecommunication network usage and conditions. In case of anomalies, the control module is informed and decides whether action needs to be taken. The monitoring module is made of two products:

- Nemo
- Dory

Nemo

Nemo is a monitoring and reporting platform able to reflect the usage of a telecommunication network. It gathers network information using network probes, CDR and SNMP traps.

Nemo analyses signaling and payload media allowing computing session based KPI and Voice quality KPI as well. Nemo also comes also with a powerful fraud detection module. The system allows detailed and flexible anomaly definition in order to cope with any kind of network and situation.

The Probes/CDR hybrid approach allows flexible and carrier grade deployment model.

Dory

Dory is a VoIP traffic generator able to reproduce every SIP call scenario in a flexible way. Dory implements scenarios scripting meta-language allowing users to build scenarios from the simplest to the most complex. The Scheduler feature allows running scenarios at regular intervals to create real service availability check.

Dory has the ability to interpret call-flow and decide whether scenario are successful or not. This decision is made thanks to configurable number of verifications at SIP and RTP levels.

Key Features

- > Voice network monitoring (sessions and media)
- > Anomalies definition, detection and alarming
- > Network probes or CDR
- > Call scheduler
- > Call flow interpreter
- > Web-based HTML5 interface
- > Fine-grained user access

Benefits

- > Vendor agnostic
- > Central monitoring system
- > Passive and active monitoring
- > real service availability
- > Probes only/ CDR only or hybrid approach
- > Multi-tenant

MOS SCORE ANOMALY



FRAUD DETECTION FOR SPECIFIC DESTINATION RANGE



TRAFFIC PATTERN MODIFICATION DETECTION



SERVICE AVAILABILITY FAILURE



Control Module

Provisioning Gateway

Advanced Routing

API orchestration

Routing Engine

Vendor agnostic

Overview

The Control module receives anomalies detected by the Monitoring module and adapts the network behaviour accordingly. The Control module is made of two products:

- SRE: centralised routing engine used to adapt call handling
- Pie: Provisioning gateway and API orchestrator used to adapt network configuration

SRE

SRE is a centralised, multi interface session routing engine. SRE offers the possibility to create advanced and innovative routing thanks to its routing logic framework.

SRE works in 2 modes:

- client/server mode:

The client (the call control equipment) asks the server (SRE) which routing policy should be applied.

In this mode, 3 interfaces are exposed by SRE: SIP (SIP redirect server), ENUM and NetAxis Solutions REST API.

- SIP relay:

The SRE receives a SIP request from other network equipment; SRE applies service logic and proxies the request to the correct destination.

The SRE acts as a call stateful SIP proxy server.

Pie

PIE is a Service creation platform and a provisioning gateway. It allows creating innovative services by orchestrating call to API's exposed by different network equipments.

The Orchestration process starts upon event reception. Events can be initiated by portal, Apps, OSS/BBS layer or Monitoring module.

Pie data model has been designed in order to accommodate with any kind of orchestration logic. The orchestration logic is fully customized to customer needs.

Key Features

- > Flexible Routing logic framework
- > Graphical service logic editor
- > 3rd party integration/API
- > Fully customised API orchestration implementing any kind of business logic
- > Separate front-end/back-end architecture

Benefits

- > advanced and innovative routing logic creation
- > Adaptive routing based on network conditions
- > Routing Creation in a few clicks
- > Provisioning automation

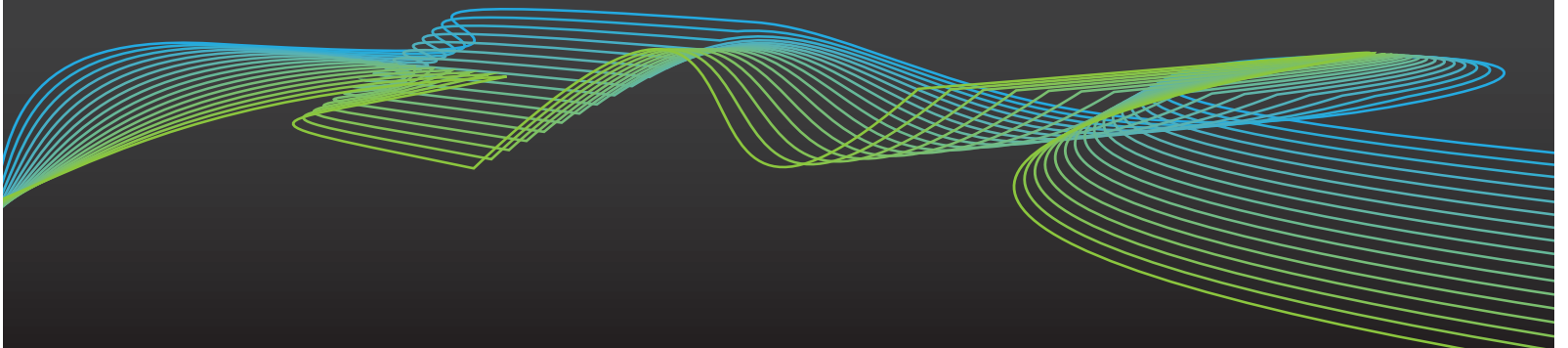
SRE TAKES IT IN CONSIDERATION FOR TRUNK SELECTION

SRE ADDS THIS NUMBER RANGE IN BLACK LIST

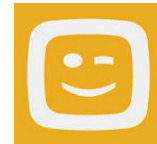
Pie MODIFIES SBC CAC AND DOS PROTECTION THRESHOLD

DESTINATION REMOVED FROM SRE ROUTING ALGORITHM

References



Clients



Partners

