QoS*Manager*

Key Features

- **Automates service validation testing for voice, data and messaging services from an end-user perspective**
- **Graphical development environment to enable the rapid creation of RCATS® test profiles**
- **Test scheduler coordinates execution of multiple tests across hundreds of Remote Test Platforms (RTPs)**
- **Collects service-specific measurements and Key Performance Indicators (KPIs) for each test**
- **Delivers test results to the QoS*Executive* database or to external systems via FTP, e-mail or an SQL interface**
- **Provides ability to filter and route test results based upon pre-determined criteria**
- **Distributed architecture scales across hundreds of geographically dispersed locations**
- **Ability to integrate with HLRs to dynamically reprogram subscriber and service profiles during test execution**

Benefits

- Reduces operating cost by automating and centralizing service monitoring, testing and reporting
- Increases customer satisfaction by reducing the time required to detect customer-impacting problems
- Increases operator visibility of service quality by providing network-wide, real-time reporting of measurements and key performance indicators (KPIs)
- Improves consistency in customer experience by performing a common set of tests throughout the entire network footprint
- Reduces the time and risk to install or modify network infrastructure by providing extensive recursive testing capability
- Provides service quality baseline to measure impact of network changes and upgrades
- Increased revenue and reduced churn through positive customer satisfaction

The RCATS® QoS*Manager* enables wireless service providers to automate and control the validation of voice, data and messaging services from an end-user perspective.

The QoS*Manager* provides a powerful platform for automatically executing multiple test profiles across hundreds of Remote Test Probes (RTPs). Each QoS*Manager* provides a test scheduler, configured through the QoS*Executive*, that enables RCATS® users to execute test scenarios at designated times and be notified upon the completion of the test. Upon completion of each test, the QoS*Manager* populates the database in the QoS*Executive* with the test results, including service-specific measurements and Key Performance Indicators (KPIs). The QoS*Manager* can also deliver these results to external systems via e-mail, FTP or through an SQL interface. The tests profiles are created separately from within the QoS*TestCase* Builder.

To facilitate service validation testing, the QoS*Manager* provides the ability to interact with Remote Test Probes (RTPs) during tests to originate and receive calls, voice messages, short text messages (SMS) and e-mail, as well as to send and detect fax, DTMF and single frequency tones. For testing that requires HLR interaction, the QoS*Manager* can directly access and control these external network nodes via custom integration or telnet-based programs to dynamically reprogram subscriber and service profiles. GSM operators can optionally use QoS*Manager* to control the RCATS® Mobile Identity (MI) Server, providing a centralized repository of SIM modules for use by remotely-located RTPs.

The QoS*Manager* is part of the patented JDSU RCATS® solution, which enables automated testing, centralized management and aggregated reporting for large numbers of deployed probes. The solution allows wireless operators to access real-time, network-wide performance and availability information, enabling them to use this information to increase service quality, increase revenue and reduce costs.

Wireless operators face enormous pressure to attract and retain subscribers through new service offerings and improved network quality. JDSU, the leader in end-to-end service quality monitoring solutions for wireless networks, has specifically designed the turn-key RCATS® solutions for large-scale, operator-grade deployments worldwide.

WEBSITE: www.jdsu.com

Features and Specifications

Test Execution Control

- Directly controls the RCATS® resources required to execute a given test profile, including Remote Test Probes (RTPs), Mobile Identity (MI) Server, and operator HLRs
- Provides QoSExecutive with detailed test results for report generation, alarming and data storage
- Supports both automated and interactive test execution
- Provides option to execute tests in debug mode

Test Profile Management

- Retrieves test profiles from QoSExecutive that were previously created using QoSTestCase Builder
- Enables administrators and users to view scheduled tests that are pending or completed
- Displays detailed parameters for each test, including date, time, notification options, and failure handling options

Automated Test Scheduler

- Executes test profiles at designated times across hundreds of RTPs
- Schedule options include one-time or periodic execution
- Provides synchronization tags in which groups of test profiles are executed sequentially
- Provides option to automatically retry test upon failure using a configurable retry period and number of attempts

Advanced Scripting Language

- Mobile phone script commands
- Wireline phone script commands
- Telnet script commands

Hierarchical Test Profile Structure

- Test profiles consist of scripts, cases and suites
- Test Scripts are individual commands to execute a specific voice, data or messaging instruction
- Test Cases consist of multiple test script commands to generically test a specific feature or service
- Test Suites consist of one or more Test Cases along with the specific RCATS® resources (RTPs, SIMs/MINs) and operator resources (HLRs, MSCs) required to execute a given test

Management of Test Results

- Populates the QoSExecutive database with test results
- FTP-based delivery mechanism provides option to automatically transfer results to an external system
- Notification message enables operators to receive e-mail upon successful completion or failure of test
- Results stored in database can be queried by external systems through the SQL interface of QoSExecutive

Test Execution Capabilities

- Provides service-specific origination and termination capabilities as needed for distributed RTPs to execute tests
- Originates and receives calls, voice messages, short text messages (SMS) and e-mail
- Sends and detects fax, DTMF and single frequency tones HLR Interface
- Provides ability to interface directly with customer HLRs
- Enables the RCATS® solution to change user profiles as needed to execute specific tests
- Requires custom integration via APIs or telnet command line scripts

Scalability

- Supports multiple QoSManagers, each of which supports up to 50 Remote Test Probes

Manageability

- Designed for lights-out operation in remote locations
- Integrated with the QoSExecutive, which provides an easy-to-use Web-based user interface for managing the QoSManager
- Downloadable remote software upgrades

Support and Warranty

- 90-day software warranty
- Web-based support and toll-free customer hotline support
- Optional extended software warranty and maintenance

Platform and System Requirements

Recommended Platform

- Intel® Celeron® processor
- 2.4 GHz CPU
- 1.0 GB RAM
- 36 GB Ultra SCSI disk storage
- Intel® Dialogic® voice board

Platform Requirements

- Microsoft® Windows® XP Professional or Windows 2000 Professional

Reference Platform

- Dell PowerEdge 750

Note: QoSManager can optionally reside on the same system as the QoSExecutive.

Solution Requirements and Options

Required RCATS® Solution Components

- RCATS® Remote Test Probes (RTPs)
- QoSExecutive
- QoSManager
- Optional: MI Server (centralized SIM repository)
- Optional: MI Server Controller

RCATS® Remote Test Probes (RTPs)

- RCATS® RTP – GPRS/GSM
- RCATS® RTP – EDGE/GPRS/GSM
- RCATS® RTP – HSDPA/EDGE/GPRS/GSM
- RCATS® RTP – 1xEV-DO Rev. 0/1xRTT
- RCATS® RTP – 1xEV-DO Rev. A/1xRTT
- RCATS® RTP – iDEN

RCATS® Managed Services

- RCATS® RoamerNet®

RCATS® Service Validation Packages (SVPs)

- RCATS® SVP – Basic Voice
- RCATS® SVP – Supplementary Services
- RCATS® SVP – Basic Data
- RCATS® SVP – WAP
- RCATS® SVP – SMS
- RCATS® SVP – MMS
- RCATS® SVP – Voice Quality
- RCATS® SVP – IVR

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