

# Testing and Monitoring Professional Services

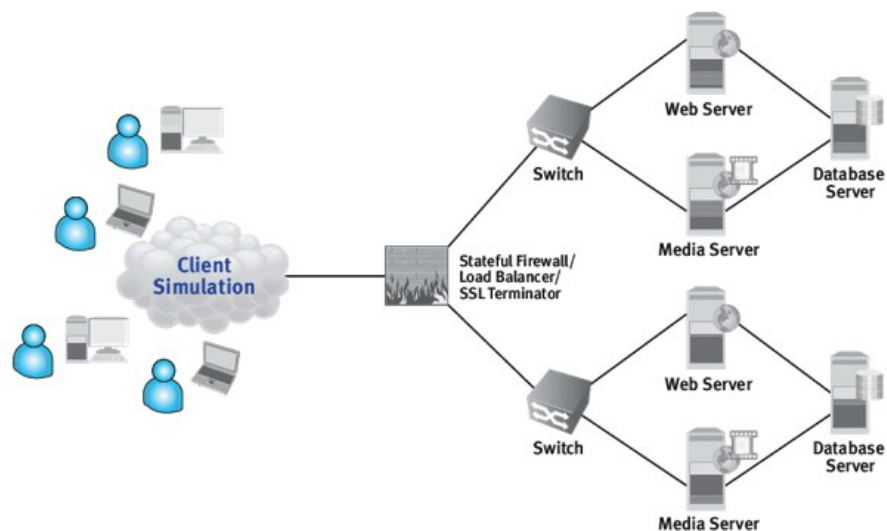
## Areas of Expertise covered:

- Test Strategy and approach.
- Integration Testing.
- Performance Testing.
- Defect Management.
- Load Testing.
- SVP Stress Volume.
- Performance Testing.
- Systems Testing.
- Test Automation.
- User Acceptance.
- End to end Testing.
- Monitoring Solutions.

## Benefits:

- Knowledge.
- Experience.
- Accuracy.
- Excellence.
- Technology Innovation and adaptation.

**NMX SPAIN**, as part of **NETMETRIX Group**, provides test management services for all your end to end testing requirements including functional, automation, performance, monitoring and security. Our experience covers diverse domains from telecom services (Operators, Manufacturers, etc)



## We provide the following outcomes:

- Delivering high quality, enterprise level testing projects from conception till the final implementation, everything aligned to competitive deadlines.
- This includes all testing artifacts (i.e. resources, environment, test deliverables and release management).
- Planning and management of test phases, risk and mitigation strategies, budgeting, forecasting, test effort estimation, scheduling, defect management (from logging and tracking through to resolution), metrics based reporting.
- Analyzing/defining testing scope and then developing a customized strategy to suit the testing requirements of that particular project.
- Establishing (testing) framework, execution, release management and best quality assurance practices.
- Managing testing and releases of both applications and products including delivery of stable, reliable and maintainable software to meet client requirements across diverse domains.
- Working in conjunction with clients to provide an end to end solution, from the test program director through to test analyst level consulting.

L1-L3 Testing

BGP Full Routing

NAT Testing

IPSec Testing

Throughput Testing

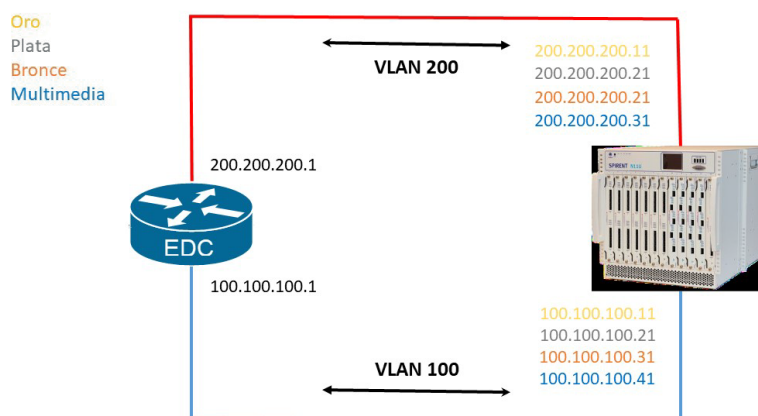
QoS Testing

## CPE performance test plan

Services homologation over CPE paying special attention to:

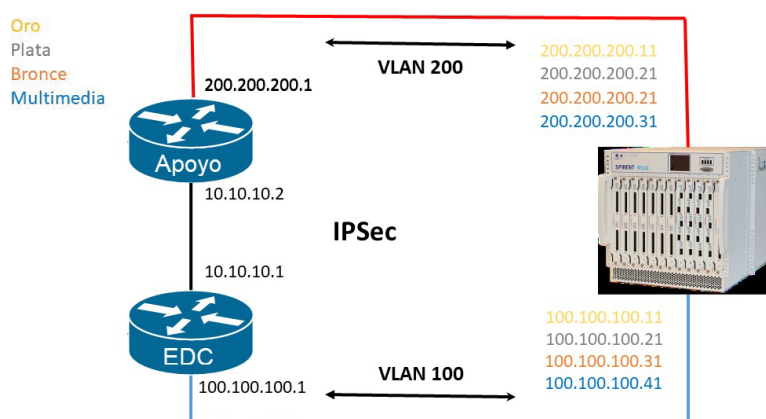
### Quality of Service (QoS):

- Maximum Bandwidth without loss: different frame size and different priority flows.



## IPsec

- Maximum Bandwidth without loss: different frame size and different priority flows through one tunnel IPsec.
- Tunneling Performance: maximum number of IPsec Tunnels.



Virtual Monitoring

Network Packet Broker

Intelligent Visibility

Advance Filtering

Advanced Features

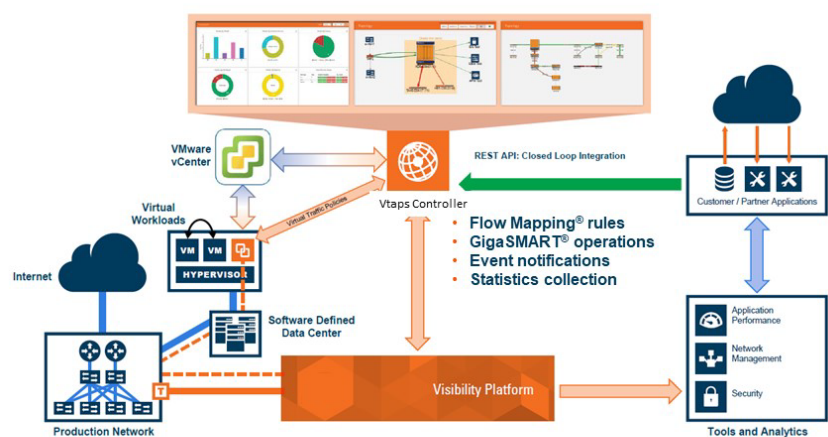
Application Session

Filtering

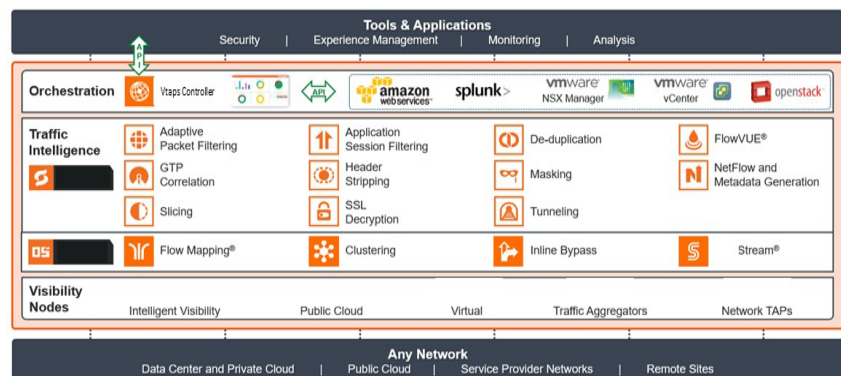
Traffic Aggregation

Netflow Compliance

## Visibility and monitoring on mobile core virtual environment



Virtual Taps dedicated to monitor traffic through the vSwitch regarding several conditions:

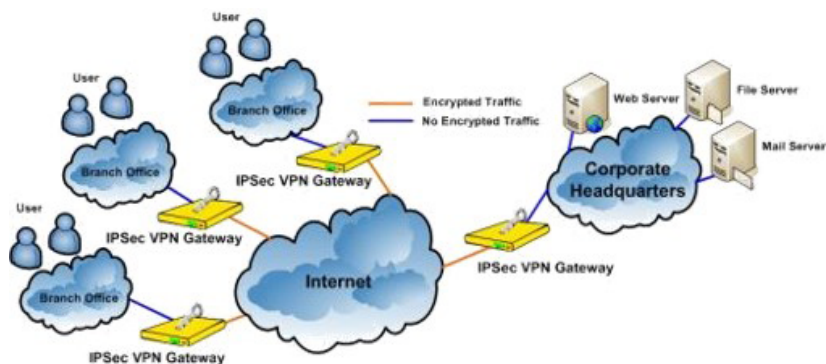


### Benefits:

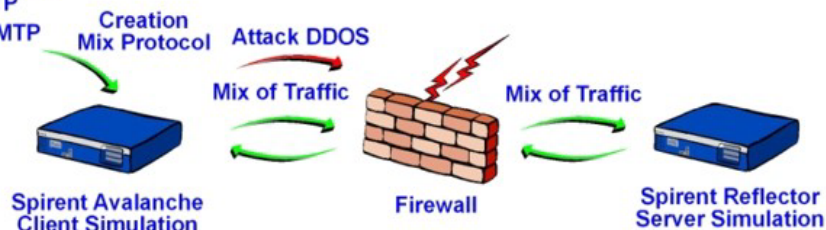
- Final Probe resources properly used
- Bandwidth savings
- Duplicated traffic removal
- Application traffic filtering
- Scalability
- Modularity

## VPN validation

- Tunnel Establishment Rate.
- Tunnel Capacity.
- Encrypted Bandwidth.
- Real Environment Functionality.



50% HTTP  
20% HTTPS  
10% FTP  
20% SMTP

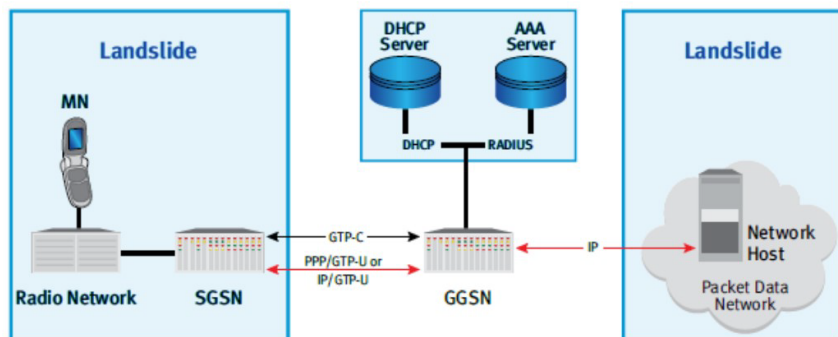


## Network device validation:

- Firewall
- IDS/IPS

## GPRS/UMTS/LTE validation

- GGSN Performance Testing.
- User traffic rate Testing.



MPEG  
Camera



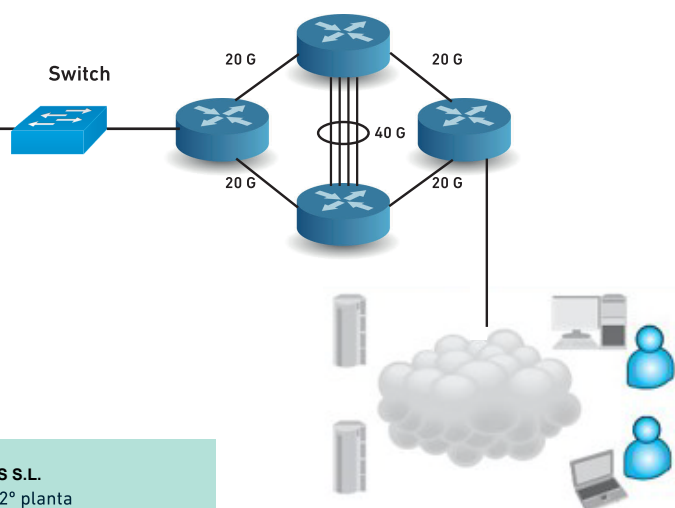
MPEG  
Camera



MPEG  
Camera



System Under Test



## Video surveillance network testing

- Network Limit Evaluation
- Video Traffic Generation to test specific multicast parameters.
- Identify devices that create possible bottleneck on the network.
- Suggest configuration improvements to achieve optimal performance.

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