

Experiments

Elements

Experiment 1:
Basis e2e QoS
using simulated
traffic

Define required traffic profiles	Define and implement traffic generation mechanisms	Define measurements to be made	Define and implement measurement mechanisms	Define and implement classification policies and mechanism at ingress
Define and implement interdomain SLA mechanisms	Define and implement SLA in core	Define and implement suitable security	Infrastructure: Edge nodes	Infrastructure : Edge domain
Infrastructure: Core domain	Links	Configuring IP network	Verify IP connectivity	Verify e2e EF/BE/LBS (no stress)
Demonstrate problem scenario	Demonstrate QoS operation	Produce report	Prepare presentation material	
Experiment should be finished by 1st December 2002				

Experiment

Experiment 2:
Basis e2e QoS
using a HEP
application

Elements

Experiment 1 done	Choose a suitable HEP application and identify source of application.	Install, configure and generate traffic with chosen application	Define measurements to be made	Define and implement measurement mechanisms
Define and implement suitable security	Define and implement classification policies and mechanism at ingress	Produce report	Prepare presentation material	
Experiment should be finished by 1st March 2003				

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Experiment 3:
Access to QoS
from applications

Review our application and define what class of applications should get API access to QoS	Current technology review (i.e. APIs and implementation projects) and determin suitability for MB-NG	Deploy and validate one or more systems on the testbed	Using the simulated traffic flows selected for experiment-1 adapt a traffic generator to use the API and demonstrate	Do similar demonstration using real traffic
Define a subset of QoS tests run with the chosen application	Run QoS tests using the chosen application	Produce a report		
Experiment should be finished by 1st June 2003				

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Experiment 4:
Managed
Bandwidth

Define sensible services to offer users	Develop a suitable and simple user interface for requesting service reservation	Develop a process for sending and receiving the request and causing all necessary negotiations to take place and then grant	Investigate methods of classifying and authenticating individual users traffic at the point of access to the service
Develop a workable procedure to allocate resources as necessary within each domain	Run a baseline "problem" scenario, i.e. with only best effort configured, chose a traffic scheme which induces a "problem"	Enable MBS provision and demonstrate and quantify the user successfully obtaining the contracted service	Produce a report
Experiment should be finished by TBA			

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Experiment 5: e2e QoS to end points in the US and EU

Understand and chose technical solutions	Configure end-to-end capabilities across multiple domains outside of our control.	Define and implement suitable security	Demonstrate connectivity
Decide on the subset of tests to perform	Run the tests	Produce a report	
Experiment should be finished by TBA			

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Experiment 6: Demonstration of QoS by a non HEP application	Choose a suitable non-HEP application and identify source of application.	Install, configure and generate traffic with chosen application	Define measurements to be made	Define and implement measurement mechanisms
	Define and implement classification policies and mechanism at ingress	Define and implement interdomain SLA mechanisms	Define and implement SLA in core	
	Infrastructure: Edge nodes	Infrastructure: Core domain	Links	
	Verify IP connectivity	Demonstrate problem scenario	Demonstrate QoS operation	
	Produce report			
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Experiment 7: High throughput program	Define and set up a task force to take this further
	Experiment should be finished by 1st June TBA