Trajectory Sampling

Trajectory Sampling is a new tool to support network engineering and operations management. There are tools to sample packets today, but they do not work real-time as required by operations people. Trajectory Sampling is a new packet sampling method that measures packet trajectories. This extends packet sampling to a wide user base – ISPs and enterprise networks. Trajectory Sampling is becoming a standard in the IETF.

What is needed to make path matrix measurement a reality is to measure the paths taken by a sample of packets, the sample must not need any subsidiary measurements for interpretation, the measurement of the sample must take place at all network devices and the measurement must reflect packet behavior in real time. AT&T owns the Intellectual Property rights to several patent applications and has the technical expertise to implement Trajectory Sampling in the network.

The Differentiators

- Each packet that is sampled either everywhere or nowhere
- Sampling decision for a given packet is the same at each router
- Solves a problem of resource and logistical requirements
- Solves the problem of having an up-to-the-minute snapshot of routing
- Provides visibility into traffic’s experience of the network

Potential Applications

- Enables new measurement-based network management applications
- Traffic engineering, direct mapping of traffic flows, actual traffic intensity
- Performance measurement trajectory terminating in core, router time stamping
- Real-time measurement, routing loops
- Network attach tracing
- Network probing

For additional information, please contact us via e-mail at attip@att.com

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