



Service Level Agreements - What are the Goals?

Alan Clark

CEO, Telchemy Incorporated



ITU-T

Outline

- Services and Service Levels
- SLA Agreements
 - Customer objectives
 - Service provider objectives
- Defining meaningful SLAs
- Where are we today?



What is a “Service”

- “Service functionality”
- Set of formal or informal expectations with respect to:
 - Cost
 - Performance
 - Availability
 - Reliability
 -



“Service Levels”

- Informal
 - Desired - expectation with regard to some element of a service
 - Actual - perception that service is “good” or “bad” with respect to expected level
- Formal
 - Desired - measurable aspect of service
 - Actual - measured aspect of service



What should an SLA be

- Measurable
 - Countable, quantifiable
- Objective
 - Related to user perception of service quality
- Comprehensive
 - Address all aspects of service delivery



ITU-T

A Classic SLA Agreement

- Availability
- Capacity
- Performance
- Change notification
- Help desk response time
- Billing/ Usage statistics



Customer objectives for SLAs

- Agreed level of service from vendor/provider
- Means to hold service provider accountable when objectives not met
- Safety - confident in using critical applications that rely on service
- Prefer SLAs to be "narrow" - to reflect events that affect user experience of quality

Service Provider objectives for SLAs

- Clear delineation of service expected by customer
- SLA metrics can be used to set internal performance objectives
- Prefer SLAs to be “broader” - averaged, not specific to individual events, reflecting overall experience of quality
- Prefer that SLA measurements can be correlated with customer satisfaction - avoid “artificial” service quality problems



Why isn't this easy?

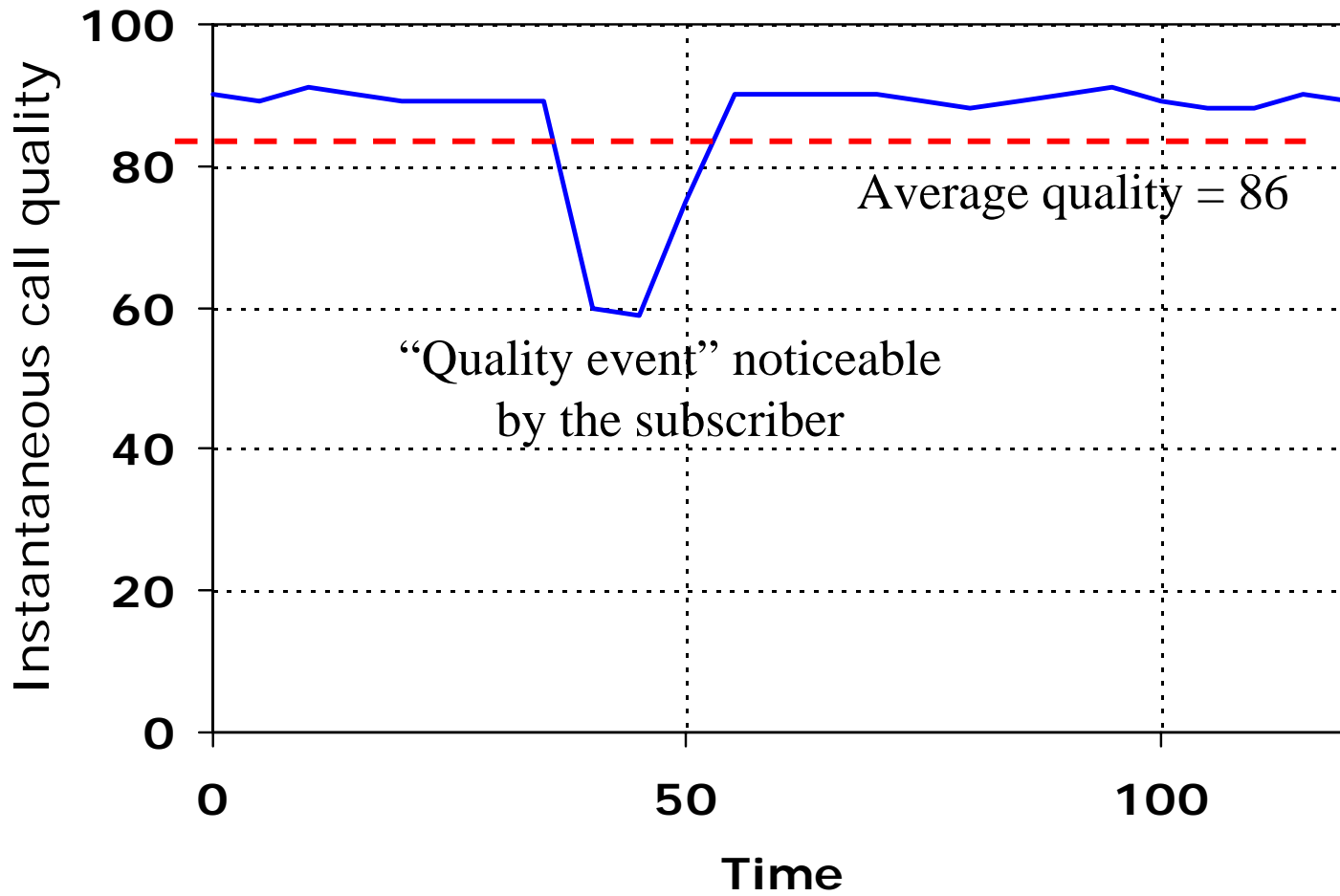
- Easy if
 - service quality is uniformly good or bad
 - SLA expressed in terms of things that are easy to measure
- Unfortunately
 - Problems may be intermittent/ irregular
 - Things that are easy to measure may be difficult to relate to “actual” service quality

“Real World” SLA from a major service provider (Sept '03)

- Availability - 100% uptime
- Packet loss - average monthly loss rate 0.1%
- Latency - average monthly latency < 55mS
- Jitter - average 500uS
- Maximum jitter - exceeds 10mS less than 0.1% of a calendar month



Example





Lesson

- Average quality level may be within limits
- User may be unhappy with service quality
- And worse - if the service provider only measures average service level
 - they may be unaware of widespread problems
 - Problem diagnosis can be difficult



Recommendations

- o With regard to call/ session performance metrics
 - If the customer's perception of service is affected by transient problems and
 - If the service can experience transient problems then
 - Measure service level in a way that reflects this.

What should an SLA be

How do we measure up?

- o Measurable
 - Countable, quantifiable ✓ A
- o Objective
 - Related to user perception of service quality ✗ D
- o Comprehensive
 - Address all aspects of service delivery ✓ B+