

# HEAnet SLAs Design and Implementation

HEAnet Strategy Planning team CS1  
Team  
&  
Network Operations

# Overview

## Aim:

- Identify an appropriate set of operational benchmark and service metrics to measure our performance for clients.
- Benchmark against other NRENs.
- Benchmark operational performance on an ongoing basis.

## Outputs:

- 2007 SLA figure recommendations
- Processes for management of SLAs
- Templates
- Improved network management tools

# SLA recommendations 2007

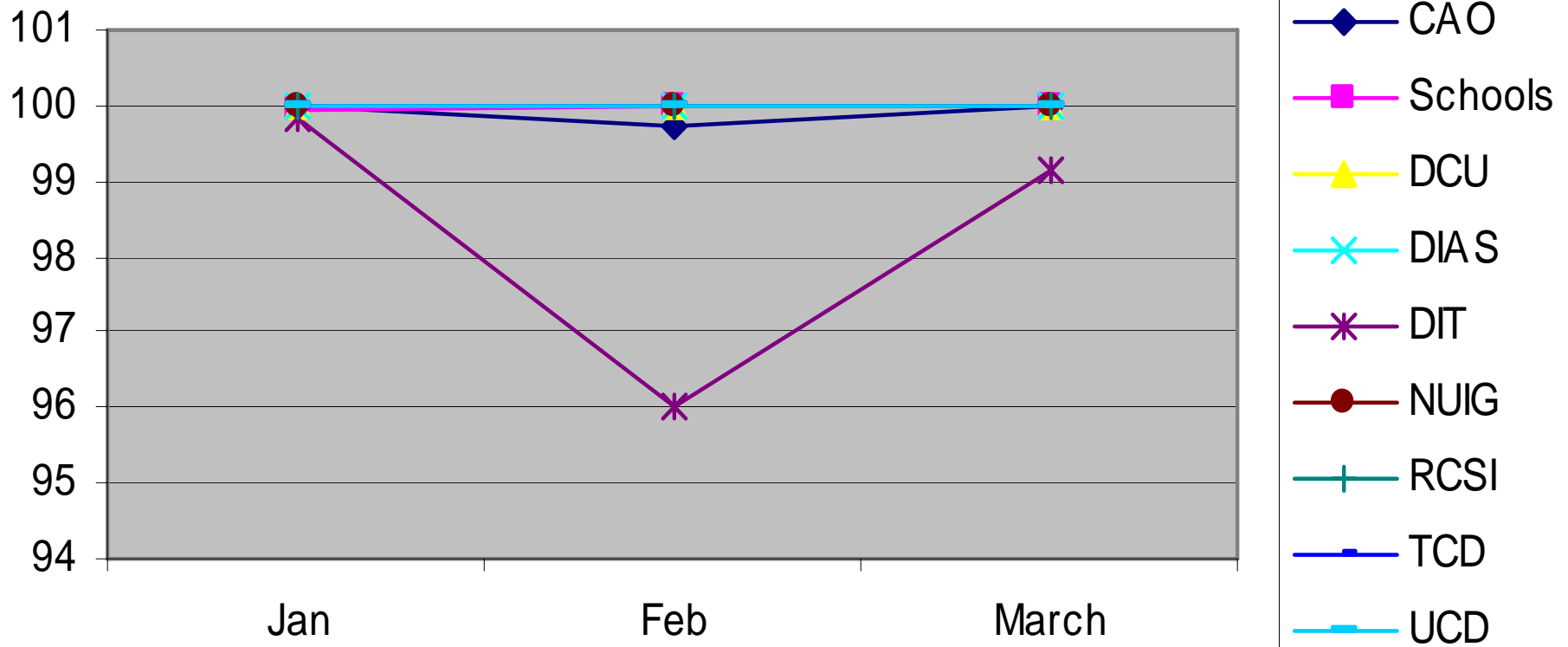
- SLAs to be offered on new and existing services
  - IP connectivity
  - Hosting
  - Point to point services
  - Support
- Decision based on
  - Client/community interest
  - Market competition
  - Demonstrating value/difference
- Biggest difficulty
  - Getting user/client input!

# SLA Format

- **Metainfo:** Title, Year, Version
- **Service description:** This describes in formal terms the service the SLA is being offered on and how this is defined.
- **Indicators:** Conditions determining success or failure of the objective, expressed as concisely as possible
- **Limitations:** There may be limitations—for example, scheduled maintenance — that may affect the SLA. These limitations should be noted so that the expectation of the service is practical.
- **Problem Management:** Provide the contact and escalation points for the service.
- **Reporting:** What reports will be run to support the SLA, when, by whom, how will the reports be distributed, and what indicators will be measured?
- **Reviews:** Define the review period and the process for any informal changes and reviews—for example, who must agree in order for a change to be made to the SLA.
- **Exclusions:** Any variations to the general service that render it inelligible for an SLA or particular part of SLA e.g. ISDN backup does not equate to service resilience.

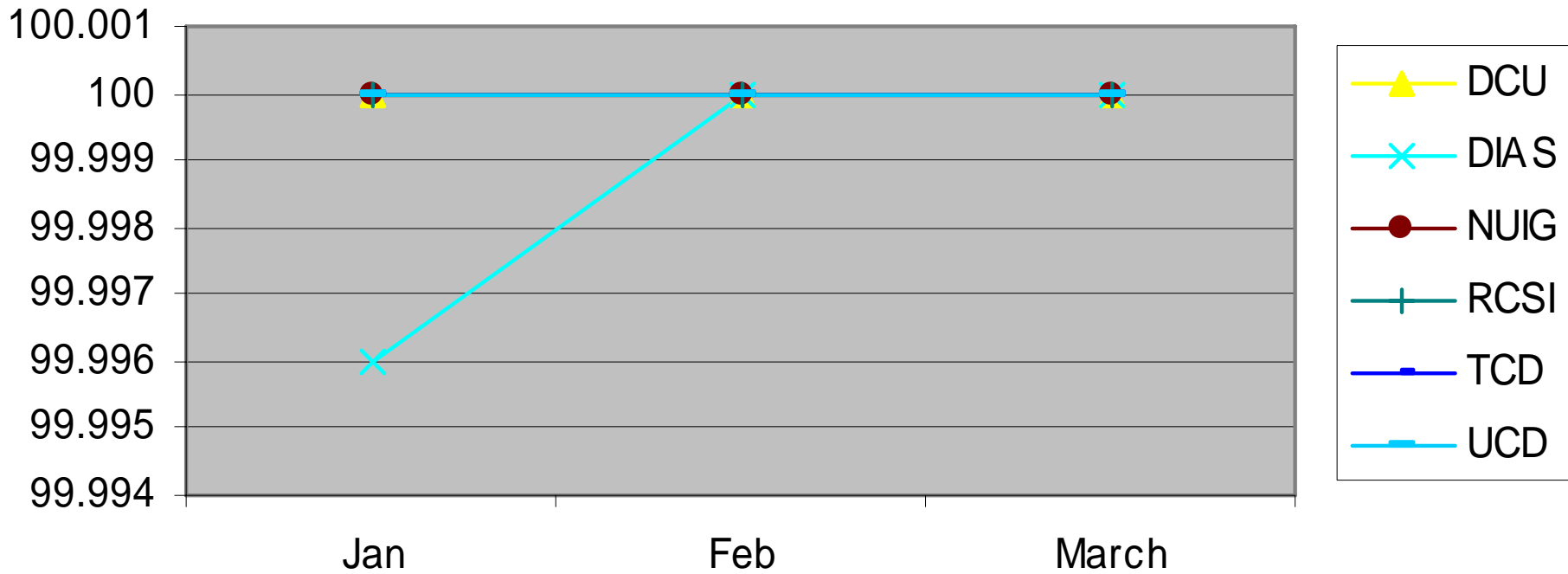
# Calculating SLA levels

Distribution of % availability for resilient clients Q1 2006



# Calculating SLA levels

Distribution of top 75% availability for resilient clients



# 2007 SLA figures

- IP Connectivity
  - 99.9% availability per month HEAnet-Client with path and equipment resilience
  - 99% availability per month HEAnet-Client without path or equipment resilience
  - RFO reports issued within 5 working days if the indicated figure is not met.
  - Service, or part of service delivered over wireless, satellite or ISDN is best effort only
- Figure leaves room for improvement

# 2007 SLA Figures

- Hosting
  - 99.9% http service availability per month for hosted sites
  - 99.9% availability per month for co-located equipment
  - 99.9% availability per month for hot-standby infrastructure
  - RFO reports issued within 5 working days if the indicated figure is not met.
  - Live updates of hosted database sites while in failover mode are not supported
- Figure leaves room for improvement

# 2007 SLA Figures

- Point-to-point service
  - Availability 99.9% per month, BER  $10^{-9}$  delay 12ms, MTU 9000 Byte
  - RFO reports issued within 5 working days if the indicated figure is not met.
  - VLAN based P2P link must connect to a router.
  - Capacity 1Gb, is less L2 MPLS VLL overhead
- Figure based on service specification

# 2007 SLA Figures

- **Support Service**
  - 99% of contacts issued a response within 2 working hours during core hours 9.00-17:30, Monday-Friday
  - Messages left outside core hours to be handled within 2 working hours
  - 99% of application services set up or modified within two working days, on receipt of all necessary information
  - RFO reports issued within 5 working days if the indicated figure is not met.
  - Non-production services are excluded from this agreement.
- **Terms provide ability to prioritise**

# Processes

- SLAs provided to HEAnet Clients
  - On initial provision of an SLA eligible service by HEAnet
  - Annually, as part of the Client Service Agreement Process
- SLAs reviewed and updated
  - Existing SLA Terms must be reviewed based on performance and signed off in the quarter before the Client Service Agreements are to be issued.
  - SLA scope and terms may be reviewed given a significant change in the way a service is provided
  - New services must be considered for SLA and terms from an SLS, dependent contracts and client expectations used
- Keep It Simple & Documented

# Templates

- SLA to client
  - Document format to issue SLA figures to clients
- SLA service terms
  - Document format to design & update SLAs annually
- RFO report
  - Document format to issue RFO reports to clients