



## **APM poll on TEN-155, November 2000**

In November 2000, the APMs of all of the 19 NRENs connected to TEN-155 were asked to complete a simple questionnaire in order to give their views on different aspects of the service. A summary of the responses was included in the Final Report to the EC on the QUANTUM project and is reproduced here.

They were asked to give a score in the range 0 - 5, corresponding to quality levels shown in Table 1 for each of 10 aspects of the TEN-155 service (listed below in Table 2). They were also asked to indicate the characteristics of the service that they most appreciated and those that they felt could be improved.

**Table 1: Correspondence Between Scores and Quality Levels**

Score	Quality level
5	excellent
4	good
3	acceptable
2	poor
1	very poor
0	unusable

The questionnaires were returned by 18 (out of 19) APMs. The average scores for each of the ten service aspects listed are shown in Table 2. The number of times that each score was recorded in the returned questionnaires is shown in Fig. 1:

**Table 2: Average Scores for Service Components**

	Service aspect or component	Average score
A	Performance (packet loss, transit delay, etc)	4.2
B	Routing accuracy and stability	4.2

C	Availability	4.1
D	Monthly reports	4.4
E	APM meetings	4.1
F	Responsiveness of IP NOC	4.1
G	Responsiveness of DANTE technical staff	4.5
H	Operational procedures	4.0
I	Online (web-based) reference information	3.8
J	Trouble ticket information	3.8

**Figure 1**



It will be seen that the most common score was 4 (good) followed by 5 (excellent). The average score for 8 out of the 10 service components was 4.0 or more.

There were only two cases for which a score of 2 (poor) was given:

- One APM considered the on-line information to be poor; "The TEN-155 site needs a major overhaul and restructuring." (This issue was recognised some time ago and steps have already been taken to re-organise and re-design the whole of the DANTE web site, including the sections relating to the operational network service.)
- For a second APM, "The score of 2 is received for the whole period of TEN-155. Since its start, TEN-155 showed severe performance problems,...". The problems referred to were caused by a software fault in the ATM switches which limited the IP throughput available to individual users and performance of the interconnections with the commercial internet in Europe.

The latter service component was also commented on by 5 other APMs (see Table 4 below) but otherwise this view of TEN-155 performance contradicts the general view of the APMs.

Items mentioned by two or more APMs in response to the request to "Name the aspects of the service that please you most" are listed in Table 3:

**Table 3: Phasing aspects of the service**

<b>Item</b>	<b>No. of mentions</b>
Helpfulness and effectiveness of DANTE staff	7
Network performance	6

Connectivity to other NRENs	4
MBS (as an advanced service)	2

Aspects of the service that two or more APMs would like to see improved and steps that are being taken to address the issues raised are listed in Table 4:

**Table 4: Areas for improvement**

<b>Item</b>	<b>No. of mentions</b>	<b>Steps (to be) taken</b>
Communication with/between IP NOC, ATM NOC and DANTE	8	Comments will be taken into account in the design of procedures for the successor to TEN-155
Interconnection with the commercial internet	5	The Policy Committee has agreed a procedure for making capacity upgrades in line with increasing traffic loads
APM meeting arrangements	3	Individual comments will be acted on
Availability	2	Subject to cost constraints, all access ports will be connected via at least two separately routed international circuits
Web site	2	Restructuring is in progress

*Thanks to all APMs for completing this questionnaire*

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Last update: