

Annual Survey Programme

Summary of findings:
2002/03 to 2004/05

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JISC Monitoring Unit: Annual Survey Programme

This document is a brief summary of the history, operation, findings and future direction of the JISC Monitoring Unit's annual survey programme.

History

The JISC Monitoring Unit has been conducting annual customer satisfaction surveys since its inception in 2002; building on similar surveys undertaken by its predecessors, the Technical Advisory Unit and Monitoring Advisory Unit, in 1995 and 1998. The aim of the survey programme is to collect data on institutional satisfaction with the JANET network, its ancillary services, and the JISC-funded content services it delivers. Two surveys are carried out each year: the Network Infrastructure Services survey, covering the JANET network and ancillary services; and the Network Content Services survey, covering the core content services funded by JISC. One third of HE and FE institutions are surveyed each year, as part of a rolling monitoring plan. As a new group to the JANET community, all Specialist Colleges were included in the 2004/05 surveys, and will be surveyed again in 2005/06. The Research Councils are invited to participate annually, although this is a very small and specialised community.

The core remit of the Monitoring Unit is the collection, analysis and reporting of performance data from UKERNA and the JISC-funded content service providers (e.g. EDINA, MIMAS, RDN). This provides the Monitoring Unit with a unique opportunity to compare the perceived quality and importance of JANET and the JISC Services with actual data on their performance and use. The JISC committees are then able to take strategic decisions on service provision with reference to objective data on the type and level of service provision required. This document is intended to give a brief overview of the key issues and trends identified from the survey programme over the past three years.

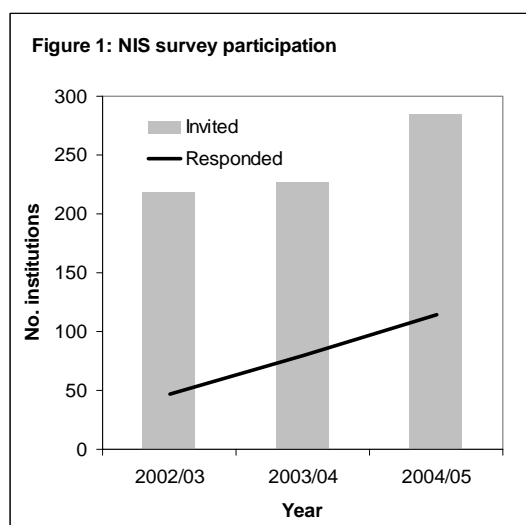
Network Infrastructure Services

The Network Infrastructure Services survey covers a number of aspects of the JANET network and its ancillary services: network availability and performance; network fault handling; bandwidth management; network security, including JANET-CERT; ancillary services, including the Network Time Service, Usenet, JISCmail, and videoconferencing; JANET customer services, documentation and workshops/training; as well as asking institutions about future changes in their use of JANET. Three surveys have been conducted to date, in 2002/03, 2003/04 and 2004/05.

Survey participation

The number of institutions surveyed has increased slightly over the years from 218 in 2002/3 and 227 in 2003/04, to 285 in 2004/05. This reflects the inclusion of 44 Specialist Colleges in the 2004/05 survey. Overall response rates have also gradually increased from 18% in 2002/03 (23% for heads of computing), to 35% in 2003/04 and 40% in 2004/05, with the response rate for HE institutions finally returning to the rates achieved by TAU (45% in 2004/05 vs. 47.5%/48.5% in 1995/1998).

The 2002/03 survey followed the TAU pattern of 1995/1998 by inviting separate responses from the heads of administration, computing and teaching/learning at each institution. Since 2003/04, only the heads of computing have been invited to participate; which, coupled with some significant changes in survey design, makes trend analysis prior to 2003/04 somewhat difficult. The 2005/06 survey will



cover some 260 institutions and remain broadly similar in content and style to the 2004/05 survey. By standardising a core set of questions from 2003/04 onwards, longitudinal trends may be observed, whilst short-term issues may be addressed by including a small number of ancillary questions at JISC's direction.

Network Performance

Overall performance of the JANET network has been consistently judged 'satisfactory' or better, with the number of 'excellent' ratings gradually increasing. JANET is considered to be a leading-edge network by a large majority of institutions; an improvement from 1998, probably due to the introduction of SuperJANET IV.

Network availability is considered consistently 'good' or 'excellent' by the majority of institutions. Most HE institutions would prefer a higher level of availability, whereas FE institutions appear broadly satisfied with the current level. Approximately a third of institutions (predominantly FE) report they have reached saturation on their primary connection. Where additional connectivity or bandwidth is purchased, commercial providers are mostly used. The trend for FE institutions desiring greater bandwidth has been somewhat ameliorated by the FE upgrade programme.

The Tuesday morning scheduled maintenance period seems to be convenient for most institutions, with the FE community having apparently adapted to the timing since reporting problems in 2002/03. Bandwidth management is not a problem for most institutions. Indeed, the majority employ on-site web caches and patch servers. Netsight use appears to be dropping slightly, from 60% in 2003/04 (and earlier) to 50% in 2004/05. Survey comments consistently indicate a need for help with analysing network traffic, including possible improvements to Netsight to aid that analysis.

Ancillary Services

The overall quality of the ancillary network services provided by UKERNA is consistently considered 'satisfactory' or better by almost all institutions. Use of the JANET Network Time Service remains consistently high in the HE sector (70-80%) but just as consistently low in the FE sector (20-25%), despite about 50% of FE institutions being aware of it. Usenet usage shows a similar pattern with ~45% of HE institutions using JANET news services, compared to less than 10% of FE institutions. Where used, the service is considered typically 'good' in all respects; however, the provision of Usenet services by UKERNA it is not considered particularly important.

The number of institutions using the JANET videoconferencing service has remained fairly consistent since 2002/03, with 40-50% of HE and 10-20% of FE institutions reporting use. However, data reported to the Monitoring Unit show the number of conferences per month has increased significantly. Where used, the service is typically considered 'good' or 'excellent'. Use of the Video Technology Advisory Service is falling for both HE and FE institutions, from 50% and 12% in 2002/03 to 25% and 4% in 2004/05 respectively. VTAS advises institutions setting up videoconferencing facilities, so its use may be expected to fall as videoconferencing becomes more established within the community. Use of streaming media for teaching and learning appears to be increasing in HE institutions (29% in 2003/04 to 43% in 2004/05) but this trend is not shared by FE institutions (21% in 2003/04 vs. 12% in 2004/05). Videoconferencing is consistently more commonly used for administrative matters (~70% HE, ~40% FE) rather than teaching and learning (~50% HE, ~20% FE).

JISCMail is a consistently well regarded service, with its users considering it at least 'satisfactory' or better, and rating its performance as broadly similar to other email list distribution systems. Use of such other systems remains low (~15% on average), suggesting JISCMail is meeting the needs of the community.

Network Security

Confidence in the overall security of the JANET network has remained high but is subject to fluctuation according to the vagaries of internet security threats. Most institutions report

having network security policies in place; however, uptake of more advanced security measures (e.g. digital signatures, encryption) has remained low (not more than 40% and typically 10-20% for each technology surveyed). Filtering of network traffic by UKERNA is opposed by a large number of institutions (45% in 2003/04 and 54% in 2004/05), primarily on grounds of control.

The majority of institutions have some contact with JANET-CERT each year, and satisfaction with all aspects of the service is typically 'good' or 'excellent'. The services are consistently considered to be 'very important' or 'vital', and it would appear nearly 75% of institutions make some use of the security training, awareness raising and threat information provided by JANET-CERT. A quarter of institutions (including 40% of HE institutions) reported being the target of a Denial of Service attack in 2004/05, future surveys will seek to determine whether this is becoming a recurrent problem.

Awareness of the JANET Mailer Shield and Mail Abuse Prevention System remains low (25-35%), particularly in the FE community. Consequently, use of the services remains low at about 10%, and is apparently falling within the HE community (24% in 2003/04 to 9% in 2004/05), probably as a result of taking email security 'in-house'. In 2004/05 20% of HE institutions reported being included on an email 'black-list'; again, this potential problem will be examined further in future surveys.

Customer support

The overall quality of liaison with UKERNA staff is considered 'satisfactory' or better by almost all institutions. The JANET Customer Service Desk has consistently been rated 'satisfactory' or better, with most institutions rating it 'good' or 'excellent'. The UKERNA website is widely used and considered a valuable resource by the JANET community. It is consistently rated 'satisfactory' or better for the accuracy and timeliness of its content.

Documentation published by UKERNA has been consistently rated 'satisfactory' or better (predominantly 'good') but comments from the surveys suggest tailoring of documentation to different types of institutions may improve things further (i.e. more general for FE and more technical for HE). Workshops and training provided by UKERNA are not very well attended, particularly by the FE community. This was identified as a problem in the 2002/03 survey, and the workshop/training programme has been changed to encourage greater FE participation. Some success has now been made in this direction with 22% of FE institutions, compared with 46% of HE institutions, participating in training events in 2004/05. Where attended, satisfaction with UKERNA events is high, with a large majority (70% workshops/conferences, 90% training) reporting 'satisfactory' or better experiences. Indeed, fewer than 10% of institutions can think of areas of service provision that would benefit from a new event (cf. ~25% in 2002/03).

Occurrence of unscheduled network downtime has remained relatively constant with 40-50% of institutions reporting they experienced faults each year. The fault reporting service is consistently rated as 'satisfactory' or better, as is the fault resolution process. One-off findings suggest institutions mostly receive, rather than make, fault reports; and when they do make reports, regional network helpdesks or Regional Service Centres are the first point of contact. Awareness of the list of major network outages on the UKERNA website remains fairly constant at ~50% of FE and ~75% of HE institutions. Where aware, 70-80% of institutions state it provides the information they need.

Strategic direction

Each year, the surveyed institutions are asked to list two future plans/policies and two future application areas that will most alter their use of JANET in the following three years. Despite the wide range of responses, certain key policies/technologies dominate. Both HE and FE institutions regularly cite increased use of e-learning, including streaming media, as the major area of future development. In addition, HE institutions also cite e-science/GRID applications as another major area of development; however, collaboration with other institutions may be supplanting this to some extent. Increased bandwidth is the greatest perceived requirement to support such developments, although this demand appears to be declining somewhat as

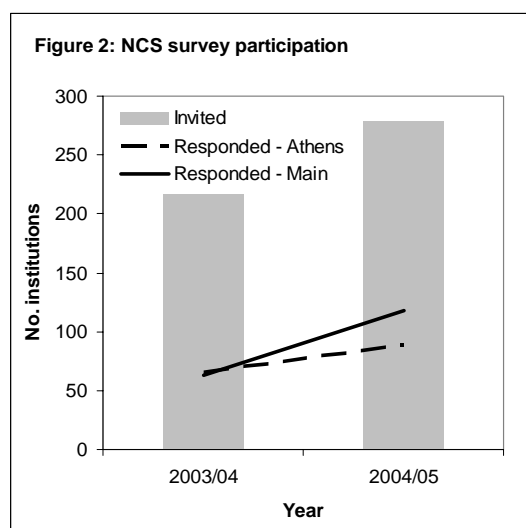
JANET is upgraded. Demands for greater network availability/resilience from the HE sector are common but somewhat declining (75% in 2003/04 to 50% in 2004/05). Demand for increased network security and quality of service (QoS) has remained consistent with around 50% of institutions indicating greater future need.

Network Content Services

The Network Content Services survey covers the JISC-funded services hosted at the EDINA and MIMAS data centres, the Resource Discovery Network (RDN), the Arts and Humanities Data Service (AHDS), the Athens authentication service, and elements of the National Learning Network (NLN) (2004/05 only) and Census of Population Programme. The main survey is distributed to Librarians and Heads of Learning Resources, whilst questions on the Athens service form a sub-survey sent directly to the Athens Administrator at each institution. Two surveys have been conducted so far, one in 2003/04 and one in 2004/05.

Survey participation

The number of institutions surveyed increased from 217 in 2003/04 to 279 in 2004/05, due to the inclusion of 44 Specialist Colleges and the surveying of Research Council sites individually. Participation also increased from 32% in 2003/04 to 42% in 2004/05, whilst participation by Athens administrators remained fairly constant (32-36%). Participation by HE institutions is higher, at about 60% per year. The content of the survey has remained mostly unchanged, with just the addition of the NLN and the regrouping of the Census of Population Programme elements into a separate section. The 2005/06 survey may cover up to 304 institutions (227 HE/FE) if all Specialist Colleges (44) and Research Council sites (33) are invited to participate again.



EDINA datacentre

The EDINA services included in the surveys were: Digimap, Education Media OnLine (EMOL), Education Image Gallery (EIG; 2004/05 only), and UPDATE. UKBORDERS was included under EDINA in the 2003/04 survey but was included under Census of Population Programme in 2004/05, and will be discussed later. Approximately 75% of HE institutions indicate use of one or more EDINA services, whilst FE institutions show lower but increasing use (19% in 2003/04 to 56% in 2004/05). Satisfaction with the availability, speed of response, and speed of updating was consistently 'satisfactory' to 'good' for all of the EDINA services.

The EDINA helpdesk is consistently highly rated for both the speed and quality of its response. The quality of documentation for each of the services was typically rated 'satisfactory' to 'good' in 2003/04; however, this improved slightly in 2004/05 with a number of 'excellent' ratings given. Promotion activities by EDINA for the services it hosts were typically rated 'satisfactory' to 'good', although there was some concern over the promotion of UPDATE in 2003/04 and 13% of respondents who expressed an opinion in 2004/05 considered promotion activities to be 'poor' or 'mediocre'. Only a quarter of respondents each year indicated any experience of EDINA's training activities; however, of those, most rated them as 'good'.

MIMAS datacentre

Services surveyed at the MIMAS data centre were: Archives Hub, COPAC, CrossFire, ISI Web of Knowledge, JSTOR, Satellite Images, and Zetoc. Hairdresser Training was included in 2004/05, whilst Census of Population Programme and Digital Map Data were included in 2003/04 but given a separate section (with UKBORDERS) in 2004/05. Almost all HE institutions use at least one service hosted by MIMAS (97-100%), due predominantly to their

use of COPAC; whilst use by FE institutions is lower but possibly increasing (40% in 2003/04 vs. 56% in 2004/05). Satisfaction with the availability, speed of response, and speed of updating of each of the MIMAS services was typically 'satisfactory' to 'good', or better. There were well documented problems with availability/speed of response for ISI Web of Knowledge in both 2003/04 and 2004/05 but only 10% of respondents who used the service considered it to be less than satisfactory.

The MIMAS helpdesk is consistently rated highly ('good' or 'excellent') for both the speed and quality of its response, with only one or two disgruntled institutions each year. The quality of documentation published by MIMAS was rated 'satisfactory' or better in 2004/05, an improvement on 2003/04 when a number of less than satisfactory responses were recorded. Promotion of MIMAS services is typically 'satisfactory' or better, and there are some signs of improvement with 65% of respondents having experience of promotional activities in 2004/05 versus 55% in 2003/04. Training activities are typically considered 'satisfactory' to 'good', although participation is low but increasing (36% in 2004/05 vs. 10% in 2003/04).

Resource Discovery Network

The RDN hubs comprise: Altis, Artifact, BIOME, EEVL, GEsorce, Humbul, PSigate, and SOSIG. Promotion of the hubs within institutions is adequate, with the average hub being promoted in about two-fifths of institutions, and a majority of institutions promoting at least one hub. Promotion does, however, vary considerably between hubs, for example: SOSIG is promoted in 60-70% of institutions, whereas GEsorce is only promoted in 25-30%. There have been no reported problems with the availability of any of the hubs, whilst the level of service provision is considered 'satisfactory' or better for all aspects of each hub. A minority of institutions have concerns over the quality and relevance of some of the resources referenced, whilst there is some feeling in the FE sector that the RDN is biased towards HE institutions.

The RDN helpdesk is little used by survey respondents (~4% of institutions annually) but its performance is reported as 'satisfactory' or better by those institutions that do use it. Interestingly, Monitoring Unit data shows the RDN helpdesk to be one of the busiest. RDN documentation is generally considered 'satisfactory' or better and has shown some improvement between 2003/04 and 2004/05, with 'excellent' ratings increasing from 2% to 20% and good ratings from 36% to 50%. Promotion of the hubs by RDN is generally considered 'satisfactory' or better; although comments from the FE sector indicated promotion could be a little patchy. RDN training activities are again considered 'satisfactory' or better, despite low participation (30% in 2004/05 and 20% in 2003/04).

Arts and Humanities Data Service

The AHDS is comprised of an Executive and five centres: AHDS Archaeology, AHDS History, AHDS Literature Language and Linguistics, AHDS Performing Arts, and AHDS Visual Arts. Promotion of the AHDS centres within institutions is fairly low, with the average centre only being promoted in 14-22% (2004/05-2003/04) of institutions, and just 35% promoting at least one centre (2003/04). There are few reported availability problems with any of the centres' web sites, and the level of service provision is considered 'satisfactory' or better for all aspects of each centre.

The AHDS helpdesks are very rarely used, with 3% of institutions reporting use in 2003/04 and none in 2004/05. It is therefore not possible to comment on their performance. AHDS documentation and training activities are both considered 'satisfactory' or better although they are only used by 18% and 14% of institutions, respectively. Promotion of the centres by AHDS is considered 'satisfactory' but only 30% of institutions reported any experience of promotion; and of those, approximately 30% considered it less than satisfactory.

Census of Population Programme

The JISC/ESRC Census of Population Programme comprises a number of datasets served by the Census Dissemination Unit, these include: Area Statistics, Interaction Statistics, Digital Boundary data, Sample of Anonymised Records, and Longitudinal study. For the purposes of comparison with the 2003/04 survey, UKBORDERS is treated separately. Use of the Census

Dissemination Unit is low, with just 7.5% of institutions reporting use in 2004/05. Of those that did use the service, no availability problems were reported and satisfaction with the service was 'good'. Use of UKBORDERS has declined from 18% in 2003/04 to 8.5% in 2004/05. No availability problems have been reported and, where used, the service is deemed 'satisfactory' or better. No use of the Census helpdesks was reported in 2004/05.

National Learning Network

Only the data delivery aspect of the National Learning Network has been included in the survey programme. As would be expected, the service is almost exclusively used by FE institutions, with ~50% reporting use in 2004/05. Interestingly, Monitoring Unit data suggest use in that sector was much higher at nearly 90% (this is accounted for in the survey by the 'don't knows'). Availability and performance of the service was considered 'satisfactory' or better, and the documentation provided was considered 'good' overall.

Athens

Athens Administrators are questioned about their experiences with the Athens service in a separate questionnaire. Their responses are combined with those of the main questionnaire to form the annual Network Content Services survey. Participation in the Athens questionnaire is ~30% of invited institutions annually. Naturally, all of the survey respondents indicate use of Athens; however, nearly 50% also use some other form of authentication to access protected sites. Of those institutions reporting use of alternate authentication methods, some 77% use IP authentication. Availability problems with the Athens service were indicated by 26% of institutions in 2003/04, falling to 10% in 2004/05. Known outages in 2003/04, prior to the survey but after the period of interest, are likely to be responsible for the reported availability problems. In addition, comments regarding availability indicate that it is very difficult to determine whether an availability problem is due to Athens or the service being accessed. As of September 2005, approximately 15% of Athens institutions were using or trialling Athens Devolved Authentication; this was reflected in the 2004/05 survey, with a further 20% planning to trial/use it by 2007.

The Administrators' Interface is considered easy to use and only 10-13% of respondents indicate availability problems. This typically tallies with known service level problems reported to the Monitoring Unit. The Athens support desk is used by a large majority of institutions (~85%), and satisfaction with the service is mostly rated 'good' or 'excellent'. Use of documentation was similarly high and most respondents considered it to be of 'satisfactory' or better quality. When system enhancements are introduced, respondents are very satisfied with the speed of updating of documentation to reflect the changes. Athens' training activities are generally considered to be 'good' although only about half of the respondents indicated any experience of them.

Conclusions

The two annual surveys, whilst complementary, are rather different in their approach: the Network Infrastructure Services survey takes a comparatively deep look at quite a narrow range of services; whilst the Network Content Services survey takes a far shallower look at a much broader range. To a certain extent, this difference is down to the type of services being surveyed; however, historic reasons are also important. The Network Content Services survey is necessarily broad because there was limited previous work in 2003/04 to provide direction, and a very wide range of possible services to survey. Conversely, the Network Infrastructure Services survey built on the work of two previous surveys and has only gradually evolved.

To date the surveys have operated with reasonable effectiveness (participation approaching 40%), and indicate a generally good level of satisfaction with the JANET network and JISC-funded content services, whilst identifying a number of specific problems - some of which have been addressed and others not. Continuity in such a survey programme is essential and has been something of a problem with the Network Infrastructure Services survey, following a major change in the questionnaire and sampling strategy in 2003/04. Similarly, the Network Content Services survey only has two years data, severely limiting the scope for identifying

trends in satisfaction and use. With the 2005/06 survey data, some preliminary trend analysis will be attempted.

Future challenges for the survey programme include: increasing participation levels further; maintaining continuity whilst ensuring the survey covers the changing needs of education institutions; developing trend analysis; and more formal comparison analysis of survey with reported data.

Further information on all of the annual surveys can be found on our web site:

www.mu.jisc.ac.uk/surveys

Appendix: Services Surveyed

Network Infrastructure Services

- JANET Network (performance; faults; bandwidth management)
- Ancillary services (videoconferencing; email; Usenet; security)
- Customer services

Network Content Services

- EDINA datacentre (BIOSIS; Digimap; Education Image Gallery; Education Media OnLine; Historic Map Collection; Index to the Times; Land, Life & Leisure)
- MIMAS datacentre: (Archives Hub; COPAC; CrossFire; Hairdressing Training; JSTOR; Satellite Images; Zetoc)
- Resource Discovery Network: (Altis; Artifact; BIOME; EEVL; GEsources; HUMBUL; PSigate; SOSIG)
- Athens Authentication
- National Learning Network

Other services beyond this core group may be included in subsequent surveys