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# JANET Network Services



# INTRODUCTION

This leaflet describes the network services available on JANET. Most of these services are available at no extra cost to JANET-connected organisations with a Primary Connection.

The first point of contact for information on any of the services or eligibility is the JANET Service Desk:

Tel: 0870 850 2212  
Fax: 0870 850 2213  
E-mail: [service@ja.net](mailto:service@ja.net)

New services are introduced from time to time and the latest information is always available at:

<http://www.ja.net/services>

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## Voice Advisory Service (VAS)

<http://www.ja.net/services/network-services/vas/>

VAS provides advice and guidance to organisations on all aspects of voice technologies, focusing on VoIP and IP Telephony. Typical areas in which the service is able to provide independent technical support are: interconnecting traditional PBX equipment over network links using IP; implementing IP telephony; utilising VoIP in the form of MSN®, AOL®, GoogleTalk®, Skype® etc.; and connecting to an ISP PSTN gateway service. The service is free of charge for JANET customers but a chargeable consultancy arrangement service is also available. A wide range of information is published on the service's web site, including technology guides and case studies.

## Wireless Technology Advisory Service (WTAS)

<http://www.ja.net/services/network-services/wtas/>

WTAS provides independent and impartial expert advice on the deployment and management of wireless networks. Typical areas in which the service can provide support to organisations include: security techniques; surveying and monitoring; WLAN management; standards and technologies; user support models and best practice developments. The WTAS web site contains an extensive range of technology guides, case studies and factsheets.

## Bandwidth Management Advisory Service (BMAS)

<http://www.ja.net/services/network-services/bmas/>

BMAS provides free advice and guidance to organisations to help maximise the efficiency of their bandwidth resources, including JANET connections and inter-site links. A wide range of information on the use of bandwidth management technologies including traffic management, caching, bandwidth conservation, data compression and QoS (Quality of Service) techniques is published on the service's web site, together with a best practice guide and reports on trials and evaluations of relevant products.

## Multi-site Connectivity Advisory Service (MCAS)

<http://www.ja.net/services/network-services/mcas/>

MCAS provides free advice for customers wishing to inter-connect multiple sites and guidance in choosing from the wide range of techniques and technologies available. It offers independent technical expertise to organisations wanting to set up or expand their own wide area networks or VPNs (Virtual Private Networks), or to use the JANET network for inter-site connectivity. The MCAS web site contains technology guides, telecommunications provider information and case studies.

## Video Technology Advisory Service (VTAS)

<http://www.video.ja.net/>

VTAS offers unbiased technical advice on video technologies to JANET-eligible organisations, and provides product evaluations and documentation for end-users and technical staff. Access is provided to video technology advisors, and a chargeable on-site consultancy service is available for organisations requiring specific advice. An online videoconference test and demonstration facility is also available.

# AUTHENTICATION

## Server Certificate Service

<http://www.ja.net/services/scs.html>

Server certificates are used to encrypt data and to identify a web server. The server certificate contains information about the certificate holder, the domain that the certificate was issued to, the name of the Certificate Authority that issued the certificate, and the root and the country it was issued in. The security of information and transactions from the certified server is assured.

Two types of server certificates are available to JANET customers.

One is provided through an agreement between TERENA and GlobalSign and allows JANET(UK) to act as a Registration Authority to provide GlobalSign server certificates to JANET-connected organisations. At present there is no charge to organisations. These certificates cannot be used for commercial transactions.

The second type of service is the continuing agreement between JANET(UK) and GlobalSign to offer discounted server certificates for servers with addresses in the .ac.uk domain. The cost of a server certificate under this agreement is currently €130 (approximately £90) per certificate per year. These certificates permit the exchanges of financial data and so can be used to secure credit card transactions. Discounted certificates can be requested from GlobalSign.

## UK Access Management Federation for Education and Research

<http://www.ukfederation.org.uk/>

The federation provides a framework for organisations in the education and research sector to allow controlled access to licensed material and network-based resources, while also protecting personal data associated with their users.

Identity Providers – typically schools, FE and HE organisations, and research institutes – find it easier to comply with regulatory requirements and offer a better service with more control to their users. They can integrate with existing access management systems and can use the same access control for all

resources, both internal and external. Service Providers – typically publishers and data centres – have no need to maintain their own user database, fewer user support requirements and a reduced compliance burden; and end users have much less need to disclose their identity and services can be better tailored for them.

The service enables controlled access to online resources from any location so that users can login from their own organisation, at home or while travelling. Access management is performed using SAML (Security Assertion Markup Language)-based technologies, such as the Shibboleth architecture.

## JANET Roaming

<http://www.ja.net/roaming/>

JANET Roaming is the solution for JANET organisations wanting to provide visitor network access without IT Support workload, and for visitors to JANET-connected sites wanting quick and simple authenticated secure access to full network services on their home networks, the Internet or permitted areas of a host site network. The service enables network login anywhere using one's own username and password regardless of location, either in areas supported by the service or on designated guest terminals at participating organisations.

Expert technical guidance and support is freely available to help organisations implement and operate the service. A dedicated web site has been created to help organisations set up and update their service and to test user authentication using their preferred protocol.

# COMMUNICATING

## JANET txt

<http://www.ja.net/services/janet-txt>

JANET txt is an SMS service that allows JANET-connected organisations to send and receive text messages to and from relevant groups and individuals. Participating organisations administer and regulate their own use of texting facilities, with specific billing and auditing reports. The service also supports customisation and branding options so that tools and messages can be clearly associated with the organisation deploying them. The service supports multilingual formats, non-text based delivery (e-mail and text-to-voice options) and international delivery.

Messages may be prepared from templates using mailmerge functions and scheduled for delivery at appropriate times. Potential recipients may be divided into relevant groups for bulk delivery of messages. In addition, the service has been designed from the start as a secure and highly available facility tailored for best practice in handling data potentially relating to minors or vulnerable adults.

## Web Mail Service

<http://www.ja.net/services/network-services/web-services/webmail/janet-web-mail-service.html>

The Web Mail Service is available to those organisations that do not have the resources to support an e-mail service themselves. It uses a standard web browser for administration and for sending and receiving e-mail from any computer with Internet access. The mail is stored and processed on a central web mail server.

## JISCmail

<http://www.jiscmail.ac.uk/>

JISCmail provides an electronic mailing list service to enable list members to talk to each other and to share information.

*[Security-related mail services include JANET Mailer Shield, JANET RBL+ and the JANET Spam-relay Tester and Notification System. See pages 15-16 for details.]*



## Primary Nameserver Service

<http://www.ja.net/services/network-services/nameserver/primary-nameserver>

The service offers a basic DNS (Domain Name System) service which includes the publishing of zones on central nameservers and a limited facility for requesting changes to resource records.

## Secondary Nameserver Service

<http://www.ja.net/services/network-services/nameserver/secondary-nameserver.html>

The service provides an off-site nameserver as a backup to the primary nameservers at JANET-connected organisations. It is available to all organisations with a JANET Primary Connection.

## Off-site Resolver Service

<http://www.ja.net/services/network-services/resolver>

Resolvers are part of the DNS functions that query nameservers for IP addresses. Most organisations run the resolver on their own network but some may find it appropriate to use an off-site resolver, and JANET(UK) has set up this service for their benefit.

Dedicated resolvers located in the JANET core will answer queries for domain name resolution that come from client computers on the organisation's network. The service is only available for organisations with JANET Primary Connections.



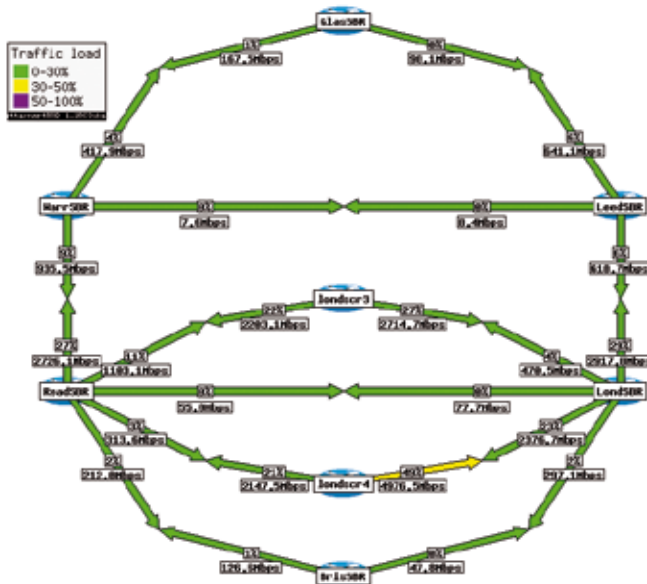
# NETWORK STATUS

## JANET Netsight

<http://www.ja.net/services/network-services/netsight>

This is a networking monitoring service designed to provide an easy-to-understand view of the status and performance of the JANET network. JANET organisations are able to view the status and performance of their JANET access links. The system includes all the JANET regional networks and performs three main tasks:

- monitoring performance and traffic levels on all the JANET customer access links within the regional networks. Information collected, including traffic levels, packet loss and latency, is made available to individuals through a set of password-protected private pages on the web.
- monitoring the performance of the JANET backbone. JANET Netsight makes this information publicly available on the web, in both tabular and graphical formats.
- monitoring the performance of JANET's peering links to the rest of the Internet, such as the circuits to the US and the connection to LINX (London Internet Exchange).





# NETWORKING SUPPORT

## JANET Lightpath

<http://www.ja.net/development/janetlightpath>

JANET Lightpath supports large research projects on the JANET network by providing end-to-end connectivity. It incorporates the former UKLight service for fine-grained circuit provision and extends it to make available whole wavelengths across the JANET optical transmission infrastructure.

The service is available to any organisation with a Primary Connection to JANET, subject to capacity and budget considerations.

The service also replaces JANET's former development network, enabling future network services to be tested before deployment on JANET and offering the possibility of a wide area testbed for use by other academic and research projects. JANET Lightpath lets customers build their own custom networks for their projects.

## Co-location Service

<http://www.ja.net/services/network-services/co-location>

This service offers an allocation of rack space in a secured data centre, with power management, remote access facilities and a direct link to the JANET backbone. These are provided in a fully managed environment which includes UPS, maintenance of an optimum ambient temperature of approximately 22°C and secure access maintained by 24x7 security guards. A single 100Mbit/s or 10Mbit/s Ethernet connection to JANET is provided. Organisations are responsible for the installation and network security of their equipment. This is a chargeable service and is not restricted to JANET organisations although its use must be of benefit to the JANET community.

## Network Time Service

<http://www.ja.net/services/network-services/ntp>

This service delivers a stable time reference to organisations using the NTP (Network Time Protocol). It is intended to be used by organisations in building their own distributed time services, not for access by end-users. The time is distributed hierarchically to servers at organisation sites, and from there to end-user systems.

## Managed Router Service

<http://www.ja.net/services/network-services/managed-router>

The JANET Managed Router Service provides remote support to JANET customers with a Primary Connection who require additional assistance and expertise in supporting their network router. The service runs parallel to the existing maintenance contract held for JANET network equipment and is only available to those sites whose routers are covered by the JANET(UK) maintenance agreement.

## Usenet

<http://www.ja.net/services/network-services/usenet>

The JANET Usenet News Service is available to all JANET organisations with a Primary Connection.

*News Feed Service* This service is appropriate for an organisation with a large number of users reading news in many different newsgroups. The subscribing organisation maintains its own news server which accepts a feed sent from central JANET servers.

*News Reader Service* This service complements the News Feed Service and is suitable for organisations with a low volume of news reading requirements that do not want to run their own news server. The users read their news directly from an off-site JANET server.

# SECURITY

## JANET Computer Security Incident Response Team (CSIRT)

<http://www.ja.net/csirt>

The CSIRT team primarily provide emergency incident response assistance to JANET organisations that have suffered a security event.

They also:

- publish advice to raise awareness and improve the security of computers and networks
- provide input on security matters to JANET(UK) training courses held around the country
- speak at other events related to computer security
- liaise with worldwide, European and other UK CSIRT organisations
- provide a security information base for JANET customers.

A series of factsheets is available on security topics, including digital signatures, using passwords, securing networked computers, encryption and legal issues.

The factsheets are available at:

<http://www.ja.net/services/publications/factsheets>

## Spam-relay Tester And Notification System

<http://www.ja.net/services/network-services/mail/anti-spam/STAN>

The service tests a JANET-connected organisation's mail server and reports any vulnerability to unauthorised relaying that it finds. Tests can be requested by customers.

## Mailer Shield Service

<http://www.ja.net/services/network-services/mail/mailler-shield>

This service provides a front end to JANET-connected organisations' mail servers, protecting them from being misused to relay messages between third parties. It can identify the source of a message and indicate whether it is listed in any part of RBL+ (see below).

## RBL+

<http://www.ja.net/services/network-services/mail/mail-abuse/rbl-plus-guide.html>

The MAPS (Mail Abuse Prevention System) RBL+ (Real-time Block List) is available for query by any JANET user. Organisations can test whether an individual IP address is in the RBL+ and decide if their mail systems should refuse connections from that address.

## Web Filtering Service

<http://www.ja.net/services/network-services/web-services/web-filtering/web-filtering.html>

The JANET Web Filtering Service provides a high level of protection against access to inappropriate content on the Internet, while allowing individual organisations to tailor lists of blocked or permitted URLs via a web interface to their local policy.

# VIDEOCONFERENCING

## JANET Videoconferencing Service (JVCS)

<http://www.jvcs.video.ja.net/>

The JVCS is available to JANET-eligible organisations who have suitable equipment deployed locally to participate in videoconferences. It is able to administer bookable videoconferences using both JVCS-IP, which uses the H.323 standard, and JVCS-ISDN, which uses H.320. The service has built-in gateway support for IP-to-ISDN and ISDN-to IP, as well as rate matching capabilities for videoconferencing between IP and ISDN endpoints at different connecting speeds. A dedicated IP-only instant videoconferencing resource is also available in JVCS-OnDemand.

## Video Technology Advisory Service (VTAS)

<http://www.video.ja.net/>

VTAS offers unbiased technical advice on video technologies to JANET-connected organisations, and provides product evaluations and documentation for end-users and technical staff. Access is provided to video technology advisors, and an on-site consultancy service is available for organisations requiring specific advice. An online videoconference test and demonstration facility is also available.

## Access Grid® Support Centre (AGSC)

<http://www.agsc.ja.net/>

The AGSC manages and operates a range of operational facilities to support the use of Access Grid® including virtual venue services and bridging services. The AGSC provides help, advice, guidance and training on deploying, using and managing Access Grid technologies; performs quality assurance tests on Access Grid nodes; and maintains a repository of web-based information about the services of the AGSC and Access Grid technologies.



# WEB SERVICES

## Web Filtering Service

<http://www.ja.net/services/network-services/web-services/web-filtering/web-filtering.html>

The JANET Web Filtering Service provides a high level of protection against access to inappropriate content on the Internet, while allowing individual organisations to tailor lists of blocked or permitted URLs via a web interface to their local policy.

## Web Hosting Service

<http://www.ja.net/services/network-services/web-services/webhosting/>

This service provides space on centrally-managed web servers for JANET organisations to publish their websites without needing to run their own web servers. The service is suitable both for a production website and as a standby website for contingency purposes.

## Web Mail Service

<http://www.ja.net/services/network-services/web-services/webmail/janet-web-mail-service.html>

This is available to those organisations that do not have the resources to support an e-mail service themselves. It uses a standard web browser for administration, and for sending and receiving e-mail from any computer with Internet access. The mail is stored and processed on a central Web Mail server.

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The reader is reminded that changes may have taken place since issue, and consequently URLs and e-mail addresses should be used with caution.

Further copies of this document may be obtained from the JANET Service Desk at [service@ja.net](mailto:service@ja.net) or telephone 01235 822 212.





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