ABOUT US

FCCN is a branch of FCT – the Foundation for Science and Technology, the principle objective of which is planning and managing the RCTS – the Science, Technology, and Society Network.

RCTS is a digital research infrastructure, which transcends all areas of knowledge and covers the entire national territory.

Its services are provided by means of a high-performance network for education and research institutions, thus ensuring communication requirements and advanced digital services for the various user communities from these entities.

RCTS is also a test platform for applications and advanced communication services.
WHAT IS IT?

RCTS IP is the main and oldest RCTS connectivity service. This service ensures direct communication between all entities connected to the network and the entire Internet, secured via connection to GigaPIX – an IP traffic exchange platform also operated by FCCN – to GÉANT, the European academic network, and to the Spanish academic network, RedIRIS.

Connection to the GÉANT network also provides access to academic networks on other continents, namely RedClara (Latin America), TEIN3 (Asia and Pacific), Internet2 (North America) and ORIENT (China).

The performance of high-demand content access is guaranteed using nodes local to the RCTS from the most popular CDNs (Content Delivery Networks).

The RCTS IP service covers a range of broadband access between 100Mbit/s and 10Gbit/s, supporting the v4 and v6 versions of the IP protocol, in Unicast and Multicast, with multiple levels of redundancy.

All other services and applications are provided through the RCTS IP service, whether they are related to collaboration, knowledge, computing or security.

WHO IS IT FOR?

All higher education institutions, laboratories, State R&D Entities and Non-profit Institutions with Research & Development (R&D) activities as their main objective can join the RCTS IP service.

contacts
www.fccn.pt
noc@fccn.pt
RCTS IP tools

**ipv6**

**WHAT IS IT?**
To check if you have IPv6 internet access, FCCN provides a test IP address. You will only be able to see the content of this page if you access it via IPv6.
If you are using IPv4, you won’t obtain any result when attempting to access the website.
If you can see the webpage, then you are using IPv6. If the protocol in use is IPv4, the test result will be an error page.

**site**
apenasipv6.fccn.pt

**Speedmeter**

**WHAT IS IT?**
Speedmeter is an application that allows you to measure the speed of your internet connection.
This is a simplified definition of Speedmeter, but strictly speaking, the application measures the available bandwidth at a given moment between a computer and the Speedmeter service installed in a FCCN’s technical room.
Speedmeter is available to anyone who wants to test the speed of their internet access.

**site**
speedmeter.fccn.pt
**WHAT IS IT?**

RCTS Plus is a connectivity service that provides a set of advanced functionality provided by the creation of Ethernet Virtual Private Networks (VPN).

It is a service especially intended for projects or applications that require high-performance circuit-switched connectivity, but that do not require an Internet connection.

It is especially intended for distributed applications, both in terms of computing and storage.

High data flow rates can be exchanged over virtual private networks (VPN) under the RCTS Plus service, without passing through IP-switching equipment. Thus, it is possible to achieve better performance and isolation regarding RCTS IP traffic.

RCTS Plus may include entities from other European academic networks connected to GÉANT, through its equivalent service GÉANT Plus.

It also allows direct connections to the Spanish academic network RedIRIS.

The inclusion of entities external to RCTS always requires confirmation that the necessary network features exist.

**WHO IS IT FOR?**

RCTS PLUS is intended for the institutions eligible for subscription to the RCTS IP service.

*contacts*

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noc@fccn.pt
WHAT IS IT?
RCTS Lambda is a high-performance connectivity service, suited to the most demanding communication needs.

RCTS Lambda allows the establishment of point-to-point connections, with a guaranteed 1 or 10 Gbps bandwidth, with very low latency and jitter at a constant.

RCTS Lambda is the most advanced package in terms of communication capacity between two organizations connected to RCTS.

This service provides data transfer at 10 Gbps, in a dedicated, insulated channel, thus not affecting the performance of other RCTS connectivity services.

The fields of GRID computing and data storage, particularly when applied to Medicine, Biology, Astronomy or Particle Physics, are examples of uses that may benefit from the connections provided by RCTS Lambda.

WHO IS IT FOR?
All institutions eligible for the subscription to the RCTS IP Service.

This service is especially designed for point-to-point connections and projects that require regular transfers of large amounts of data.
WHAT IS IT?
The RCTS Fibre service provides organizations connected to RCTS with the opportunity to develop fibre optic networks tailored to their needs.
RCTS Fibre provides an optical fibre pair without any intermediate active equipment, thus providing total traffic isolation and higher levels of security.
The RCTS Fibre Service allows its users to choose the technologies to be used in the optic fibre pair provided, thus allowing the freedom to choose a solution that better suits the necessities of each organization, without imposing any limitations.
This service meets high information security and traffic segregation requirements, as it provides totally isolated transport.

WHO IS IT FOR?
All institutions eligible for subscription to the RCTS IP Service.
WHAT IS IT?

RCTS VoIP is the FCCN Voice Over IP service, which reduces costs in voice communications while providing advanced features.

This reduction is not only achieved as a result of forwarding calls via different operators through the lowest-cost route, but also because these are created using virtually dedicated IP connections between member institutions, making it possible to establish calls between them at no cost.

The RCTS VoIP service is a private voice network, where all traffic between member institutions flows over the RCTS – Science, Technology and Society Network.

Voice Over Internet Protocol – VoIP is a technology that allows the user to make phone calls over a data network, by converting an analogue voice signal into a set of digital signals, that are sent through an Internet connection as packets with IP addresses.

WHO IS IT FOR?

Higher education or research institutions connected to RCTS using the RCTS Plus Service.
WHAT IS IT?
eduroam (Education Roaming) is a mobile service developed for the international, education and research communities.

This service ensures secure internet access to students, teachers, researchers and institutional contributors, through their institution’s wireless network or any member institution they visit.

With the eduroam service, the member organizations make access to their Wi-Fi network available with the same login they use at their home institution.

This means, for example, that a teacher from a Portuguese university may use his/her usual login whenever he/she wishes to access the Wi-Fi network in a foreign university, as long as both institutions are a part of the eduroam network.

In Portugal, access to the eduroam network is ensured in most higher education and research institutions.

WHO IS IT FOR?
The eduroam service is available for institutions connected to RCTS.
WHAT IS IT?

The INCD – National Distributed Computing Infrastructure, is a digital research infrastructure, which transverses all the knowledge areas.

Its mission is to ensure access for scientific and academic communities operating in Portugal, to high-capacity and high performance computational and storage resources.

The INCD encompasses an integrated system that provides its services from multiple locations, connected to each other by the latest generation network infrastructure.

The INCD is designed specially to provide services in the field of scientific computing, supporting researchers and their participation in national and international projects, and is the result of the evolution of a computing infrastructure established in 2008 as part of the National Grid Initiative.

The INCD is integrated with international counterpart infrastructures, with which it shares resources and allows Portuguese researchers to use computational resources, both nationally and internationally.

In this context, the INCD is part of the European Grid Infrastructure (EGI), the Iberian infrastructure IBERGRID, and the Worldwide LHC Computing Grid (WLCG).

WHO IS IT FOR?

The INCD is intended for researchers from scientific fields whose projects require the processing of large volumes of data and high computing capabilities.

contacts

www.incd.pt
helpdesk@incd.pt
WHAT IS IT?
Datacentres, a designation given to data processing centres, are physical spaces especially designed to house computer equipment in the long term, with high availability and performance.

RCTS Housing provides a datacenter integrated with RCTS, with excellent connectivity for equipment housed and structured on several levels.

The housing service may take one of the following forms:

- At a datacentre managed by FCCN, integrated into the RCTS backbone.
- At a Public Administration datacentre with a dedicated connection to RCTS.
- At a commercial datacentre with a dedicated connection to RCTS.

The decision will be made on case by case basis, after assessing the proposal and analysing factors such as technical availability and relevance of the project to FCCN’s mission.

WHO IS IT FOR?
The RCTS Housing Service is intended for institutions connected to the RCTS and ministerial organic units in the development of its science, technology and higher education activities.
WHAT IS IT?

COLIBRI is a collaboration service that allows one to hold meetings remotely between two or more participants in the academic and scientific community, facilitating meetings, workgroups, classes and tutorials over the Internet.

The service enables the sharing of the participants’ audio, video, text, images, white board and the computer screens. It includes a recording facility in order to record and play the sessions back afterwards.

FCCN provides support for the integration of this service with e-learning tools used by the institutions connected to RCTS.

Two versions of COLIBRI are available: Web Conference and Videoconference.

The Web Conference environment provides a rich collaboration environment in which document sharing and participant interaction is key.

The Videoconference environment provides sessions with higher video quality, in which interoperability with traditional terminals is vital for the session.

WHO IS IT FOR?

COLIBRI is intended for teachers, students and employees associated with institutions connected to RCTS.

Access to the service is via authentication integrated with RCTSaai.

The FCCN also provides videoconferencing services and infrastructure through RCTS integrated with the COLIBRI Service.
the video conferencing network is a technical and human infrastructure that provides services to the users and managers of video conferencing rooms of entities connected to RCTS.

SERVICES PROVIDED

- Advice – technical support for the purchase and operation of videoconferencing equipment in various usage scenarios.
- Scheduling – scheduling system for videoconferencing rooms (http://sag.fccn.pt), in which in-room managers can pre-schedule remote rooms and share connection data.
- Registration and addressing – integrated with the GDS (Global Dialling Scheme), the registration service via Gatekeeper H.323 is key for registering and enabling the addressing of the terminal to and from remote locations.
- Virtual MCU – multi-point virtual service that allows two or more locations to participate in the same session. This service is part of the video conferencing component of the COLIBRI service.

Tejo e Douro HD rooms

LISBON – Tejo Room - FCCN - Campus do LNEC, Edifício Manuel Rocha, Av. do Brasil 101 - 1700-066 Lisboa

OPORTO – Douro Room - Reitoria da Universidade do Porto
Praça Gomes Teixeira - 4099-002 Porto

contacts

www.fccn.pt
Lisbon  servicio-videoconferencia@fccn.pt
Oporto  videoconferencia@reit.up.pt
WHAT IS IT?
Videocast is a service that allows the broadcast of live events worldwide via the Internet. Using this service, the FCCN provides a web page where the video and audio from the event is presented.
Everyone who wishes to follow the live broadcast can access this page. It can be an event, a class, internal TV channel programming or any other event you wish to transmit over the Internet.
This service stands out from other broadcast services on the Internet as it allows the simultaneous submission of the speaker’s video and screen. The content is embedded in the Web page and streams to mobile devices in real time.
This tool does not limit nor filter the content. This service does not overlay ads nor interrupt the stream with commercial breaks.
The web page provided by the Videocast service is compatible with the main internet browsers and can already be viewed correctly from mobile devices, such as smartphones or tablets.

WHO IS IT FOR?
The Videocast service is intended for institutions connected to RCTS, especially event promoters and teams managing lecture theatres.

contacts
www.fccn.pt
servico-videodifusao@fccn.pt
WHAT IS IT?
A professional-level Studio for the production of high-definition audiovisual content.
Whether for producing high-definition video or for audio capture, the studio provided by FCCN offers the RCTS user community a space with advanced equipment for the production of multimedia content of an educational, scientific, cultural or artistic nature.
The Studio has a floor area of 80 m², “Chroma Green” walls and floor, virtual scenarios, 3 video cameras, autocue, lighting and wireless microphones. It is therefore equipped for professional quality video and audio recording.
A space in which to put together the audiovisual content required for E-learning projects, the broadcasting of live or recorded webinars, photography sessions, product demonstrations, recording of radio programs, Podcasts or e-Papers.
The studio is also available for duly scheduled study visits.

WHO IS IT FOR?
The video studio is intended for the community served by the institutions connected to RCTS, namely higher education researchers, teachers and students interested in using video as a support for scientific dissemination.
VIDEO BANK
The Video Bank is a web portal where the video producing community can save its collection of images, video and draft images.
Take advantage of this redundant infrastructure that will preserve your content so that you can search for it and reuse it for new content in the future.

VIDEO EQUIPMENT LOAN
If you have a special event, need professional assistance and your institution cannot provide the support you need, please contact us. In special cases, FCCN may loan specific video equipment.

EVENT SUPPORT
FCCN’s Video Studio team can provide support for special events. This support may mean sending technicians to support an equipment installation, to assist in the decision of a purchase or equipment loan or even specialized training to technical teams. This support requires prior analysis of the request.
If you are recording video using Educast, carrying out a live broadcast using Videocast or a videoconference with a remote speaker, you may find the support provided by the video studio team very useful.

contacts
www.fccn.pt
servico-estudio@fccn.pt
WHAT IS IT?
Filesender is a safe solution for sending and temporarily sharing large files with anyone. It is a web application that allows authenticated users to send and temporarily store large files. User authentication is carried out via the RCTSaa service.
This is the solution you need for those situations in which the file you wish to send is too large to be sent via email.
Filesender was developed with the specific requirements of the academic and scientific community in mind, and is supported by the following organizations: AARNet, HEAnet, SURFnet and UNINETT, managing bodies from the European national academic networks.

WHO IS IT FOR?
This service is designed for the community served by the institutions connected to RCTS.
WHAT IS IT?
b-on – Online Knowledge Library offers higher education and research institutions unlimited and permanent access to thousands of journals and e-books from some of the leading providers of international scientific content.
b-on has been online since March 2004 and is now a reference for access to international scientific information.
As well as ensuring access to a large number of scientific publications and electronic services to the national academic and scientific community, b-on still plays an active and participatory role in the construction of a Knowledge Society.
Nowadays, b-on is a service that encourages the community to consume and produce scientific content, promotes cooperation between national academic and scientific entities, and allows cost reduction by means of centralized negotiation with publishers and other content providers.

WHO IS IT FOR?
The online knowledge library is intended for the scientific and academic community, particularly students, teachers and researchers.

contacts
www.b-on.pt
info@b-on.pt
WHAT IS IT?

The RCAAP – Scientific Open Access Repositories of Portugal is a national open access initiative that aims to storage, preserve and promote access to scientific knowledge produced in Portugal.

It is possible to access thousands of articles from scientific journals, communications, theses and dissertations stored within several Portuguese repositories at national higher education entities and other R&D organizations via the RCAAP portal.

As a central point for access and research, the RCAAP plays an important role in promoting open-access to scientific knowledge in Portugal and in increasing the visibility of the results of academic and scientific Portuguese activity. A benefit not only for the academic community but for society in general.

WHO IS IT FOR?

RCAAP is open to the participation of all higher education and scientific institutions.

contacts
www.rcaap.pt
info@rcaap.pt
WHAT IS IT?
Arquivo.pt – Portuguese Web Archive is a portal for researching and accessing Web pages that have been preserved since 1996.

Every day millions of web pages are published on the Web. However, 80% of this information disappears within a year of its publication and becomes inaccessible.

Periodically, Arquivo.pt collects and stores information published on the Web. This information is then processed to make it researchable and accessible.

This preservation process is carried out automatically through a computer system. Research and access can be carried out using the website Arquivo.pt.

Arquivo.pt preserves information published on the Web that is of interest to the Portuguese community, distinguishing itself by allowing you to search and retrieve information from old websites.

WHO IS IT FOR?
Arquivo.pt is a public and free service open to all Web users.

contacts
www.arquivo.pt
www.sobre.arquivo.pt
contacto@arquivo.pt
WHAT IS IT?
Educast is a service that allows you to record, edit and publish seminars, events or other educational content.
With educast, you can record seminars, upload to a central server, edit and publish.
It is possible to integrate the recorded seminars into e-learning systems, portals and websites of higher education institutions.
The central educast system ensures the necessary post-processing in order for the recordings to be available via Internet in multiple formats: Flash, QuickTime and Mobile.
Recording can be carried out in the Mac OS and Windows operating systems.
The educast platform provides user entities with:
A Content Manager, to manage and edit the content produced
A Portal that allows you to search the multimedia content available in the various scientific areas
A Help Site with information on the conditions of use, membership and good practice.

WHO IS IT FOR?
Educast is intended for members of the institutions connected to RCTS, in particular teachers, researchers and e-learning and audiovisual staff.
The user entities must use RCTSaai and have audiovisual systems compatible with the platform.

contacts
educast.fccn.pt
suporte-educast@fccn.pt
**WHAT IS IT?**

PTCRIS is a project that aims to promote the integration of various information systems for the support of scientific activity thus creating an open ecosystem from which all stakeholders will easily benefit, with advantages to all.

PTCRIS aims to facilitate the management and production processes and access to reliable, complete and updated information regarding scientific activity at a national level. The PTCRIS ecosystem will promote excellence in Portuguese science, giving it greater visibility together with all national and international stakeholders.

**WHO IS IT FOR?**

PTCRIS is intended for all stakeholders within the Scientific and Technological Portuguese System and all other parties interested, directly or indirectly, in the results of their activity.

**site**

www.ptcris.pt
WHAT IS IT?
RCTS CERT is a computer security incident response service the source or target of which is RCTS - Science, Technology and Society Network.

The mission of RCTS CERT is to contribute to the effort of cybersecurity in the context of the RCTS user community, particularly through incident response handling and coordination.

In a more preventive component, RCTS CERT provides an alert service and offers recommendations regarding potential security risks and malicious activities. One of the objectives of this area is to develop a culture of safety on the Internet.

The RCTS CERT obtained the Trusted Introducer certification in January 2015, becoming the first national team to be certified.

HOW TO REPORT AN INCIDENT
You may report a computer security incident in the RCTS environment by email (report@cert.rcts.pt, preferably) or telephone (+351 218440177).
WHAT IS IT?
RCTS Certificates is the service that ensures the supply of several types of digital certificates to the entities connected to RCTS.
This service promotes the security, authenticity, confidentiality and integrity of information sent and received via the Internet.
FCCN guarantees this service through the TCS (Trusted Certificate Service), provided by the GÉANT Association.

TYPES OF CERTIFICATES
The RCTS Certificates service offers higher education and research institutions a unique portal for issuing the following types of digital certificates:
Server Certificates: a server with a recognized certificate ensures that the website is trustworthy and safe by creating an encrypted channel between a web server and a browser.
Personal Certificates: Certificates that identify the user as an element of an institution, that can be used to sign and encrypt e-mail messages or to sign documents.
GRID Certificates (Personal and Server): Used to allow access to GRID infrastructures.
Code signature: Certificates that provide signatures for code and applications, ensuring their origin, integrity and security.

WHO IS IT FOR?
The RCTS Certificates service is available to students, teachers and employees of entities connected to RCTS.

contacts
www.fccn.pt
noc@fccn.pt
WHAT IS IT?

The RCTSaai service provides an authentication and authorization infrastructure which simplifies access for educational and research communities to web services.

RCTSaai allows service providers to offer users of other “federated” entities simple and safe access to services: local management of user credentials is not necessary and authentication is carried out at the institution of origin, in a protected and encrypted environment.

With RCTSaai, the user only logs in once with their institutional account to access several services.

The services integrated in RCTSaai benefit a great number of users who do not require the local management of credentials.

WHO IS IT FOR?

The RCTS Identity Federation is available for entities connected to RCTS.

Students, teachers and employees of the institutions that are part of RCTSaai, using their institutional account, have access to the set of web services available in the federation.

Visit the RCTSaai webpage for more technical information regarding components, installation and configuration of the services in the federation.

contacts

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rctsaai@fccn.pt