Remote Access at Springer Nature

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Agenda

1. What is ‘remote access’ to Springer Nature websites and why it’s an urgent topic right now?

1. What remote access options to our websites does Springer Nature offer?
   a. How does each option work?
   b. What are the pros and cons of each option?
   c. How do you enable each option?

1. What have Springer Nature developed recently to ease remote access in the current circumstances?
   a. Persisted authentication
   b. Google Scholar Universal CASA

1. What are we planning to do next to further ease remote access?
Remote access
Remote access

How a research or student working off-campus or out-of-office, from home for example, authenticates to a Springer Nature website as an active member of an institution to access institutional subscriptions

Not a new problem

An urgent topic now because many researchers and students working from home now due to Covid-19 campus and office closures
What we’re seeing on our websites

- Traffic is up, but that’s due to freely available Covid-19 content
- Fewer users are institutionally authenticating
- Anonymous denials are steady
- For countries ahead on the social isolation curve institutional authentication and anonymous denials steadily climb back up together
Remote access options
Brief context

- Remote access options to some of our most popular Research websites
  - Nature
  - SpringerLink
  - SpringerMaterials
  - ADISInsight
  - Nano
  - Scientific American

- None of these options are mutually exclusive

- Authentication via any of these methods will produce COUNTER usage

- Springer Nature does not charge anything for setting up any of these authentication methods, although you may incur costs setting up and maintaining them

- Some publishers will have similar options available

- Some of you will have one or many of these options already enabled
The options

- IP authentication via Virtual Private Network or Secure Proxy Server
- Federated access (also-known-as Shibboleth and OpenAthens)
- Referrer access
- Associated user - SpringerLink and the Database products ONLY
- Token URL access - Nature and Scientific American ONLY
- Google Scholar CASA (Campus Activated Subscriber Access) - SpringerLink and Nature ONLY
Connect to institutional network IPs

Uncovering the overlapping community structure of complex networks in nature and society

Many complex systems in nature and society can be described in terms
IP authentication via VPN or Proxy from home

Connect to institutional network VPN or Proxy server IPs
IP authentication via VPN or Proxy from home - Pros and Cons

**PROS**
- Can be easy and low cost to set up
- Can provide information about how users within an institution are authenticating and accessing resources
- Many discovery services support proxy URLs
- Widely supported by publishers

**CONS**
- User experience can sometimes be painful
- Some concerns about VPNs or proxies being able to handle the traffic load
- Some concern about the viability of using VPNs or proxies in certain areas
- Can be a vector for abuse
IP authentication via VPN or Proxy from home - How to set it up

- Set up VPN or Proxy
- Provide VPN or Proxy IPs to Springer Nature Online Services or your Licencing Manager
- Inform you patrons about the user experience
Federated access - a few definitions

- **Single Sign On** - A broad term for using a single credential to log in to multiple systems and websites.

- **Federated access** - A form of single sign-on that allows users to use a single credential to authenticate across multiple enterprises’ systems and websites (e.g. using your university credential to log in to SpringerLink, ScienceDirect, Wiley Online, etc.).

- **Shibboleth and OpenAthens** - Software solutions that facilitate the federated access method. Institutions normally use one software or another and some publishers will prompt users down one path or another. OpenAthens also acts as a non-country federation.

- **SAML-based authentication** - A technical term for federated access. The message we send from the Springer Nature Service Provider to the institution’s Identity Provider are in Security Assertion Markup Language (SAML).

- **Federations** - Country-level organisations that institutions and publishers can join to facilitate the exchange of metadata between the two that underlies the federated access method. There is a global federation called EduGAIN that country-level federations are members of and which facilitates the exchange at a global level for those who opt-in.
Federated access

Log in via Shibboleth

Please type in your institution's name...

Can't find your institution? It may not be enabled for this type of login. Try browsing by location.
Federated access - Pros and Cons

**PROS**
- Widely supported by publishers
- User experience is improving

**CONS**
- User experience can sometimes be painful, although can be better than VPN or proxy
- Set-up can be technical and painful, may involve your IT department
- Can also be a vector for abuse
- User privacy concerns
RA21 and SeamlessAccess

- **RA21 (Resource Access in the 21st Century)** - An industry group that issued a recommendation to implement an improved experience of federated access across publishers’ sites. This new user experience of federated access introduced a consistent call-to-action to initiate the access method across sites and once a user has done so once, their institutional selection would be persisted in their browser. This provides the user with a shorter and easier experience as they bounced between publisher’s sites.

- **SeamlessAccess** - The group implementing the services that enable the RA21 recommendations. Only Springer Nature on nature.com and the American Chemical Society have rolled out the SeamlessAccess experience of federated access so far. SeamlessAccess does NOT replace federated access, it’s a new user experience of federated access.
An interbacterial toxin inhibits target cell growth by synthesizing (p)ppApp

Shehryar Ahmad, Boyuan Wang, Matthew D. Walker, Hiu-Ki R. Tran, Peter J. Stogios, Alexei Savchenko, Robert A. Grant, Andrew G. McArthur, Michael T. Laub & John C. Whitney

Nature (2019) | Cite this article

Associated Content

Toxin discovery reveals fresh ammunition for bacterial warfare
Brent W. Anderson & Jue D. Wang
SeamlessAccess - Persisted institutional selection
Federated access - 
How to set it up

- Check that you have an Identity Provider that supports SAML-based authentication - most do
- Contact Springer Nature Online Services or your Licensing Manager to request enablement; if you can provide the entity ID or OpenAthens ID please
- If you’re a member of a federation, your Identity Provider may already have our metadata and our Service Provider may already have yours and it’s simply a data configuration on our side; If not then we may need to exchange metadata
## Referrer access - Pros and Cons

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Referrer access - How to set it up

- Build a website with individual authentication for patrons and a ‘members only’ area with a link to our website
- Provide URL of the members only page to Springer Nature Online Services or your Licensing Manager with a request to enable
Associated user - SpringerLink and the Database Products

By auto-association when on IP or by invitation
Associated user - Pros and Cons

**PROS**
- Works well if you have a small, infrequently changing user base and don’t subscribe to too many publishers

**CONS**
- Can create significant administration to manage associations; 10-year duration
- Doesn’t scale very well to multiple publishers
- Not widely offered by publishers
Associated user -
How to set it up

- Go to the Springer Nature Librarian Administration Portal and switch on auto-enablement or invite users to associate
Token URL Access - Nature and Scientific American

Unique URL

Concurrency Limit
## Token URL Access - Pros and Cons

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Token URL access - How to set it up

- Send a request to Online Services or your Licensing Manager with your ‘Magic Word’ and a proposed concurrency limit based on your number of patrons
Google Scholar CASA - Nature and SpringerLink ONLY

User ABC

IP 1.2.3.4

User ABC = Institution X

IP = 6.7.8.9

User ABC = Institution X (Valid for 60 days)

Links created for Nature for Institution X

Authenticated as Institution X
Google Scholar CASA - Pros and Cons

PROS
- Fits into a common discovery and access journey
- Just works for researchers who use Google Scholar
- Works cross-device
- Can be disabled by researcher in their Google account settings

CONS
- Dependent on the user being a Google Scholar user and being on their institutional network IP to work
Google Scholar CASA - How to set it up

- Nothing to do. Auto-enabled for institutional customers.
Recent changes

3.0
Recent changes

- Persisted access
- Piloting Google Scholar Universal CASA
- Encouraging federated access enablement
Persisted access

Institutionally authenticates

Institutional identifier stored against persistent cookie in the user’s browser, currently for 90-days

Same browser and device

Persisted identifier used if not authenticated in another way
Persisted access

- Implemented on 18th March for Nature and the Database Products
- Implemented on 27th March for SpringerLink

- Works for all institutional authentication methods on Nature
- Works for IP (including VPN and proxy) and federated access on SpringerLink and the Database Products

- Implemented for all institutional customers; Nothing special for librarians or researchers to do

- Only works if user has cookies enabled and in the same browser on the same device

- Planned to be a temporary measure for the crisis, reviewed weekly; 90-day duration can be changed and can be turned off
Google Scholar Universal CASA - Nature and SpringerLink ONLY

User ABC

IP 1.2.3.4

User ABC = Institution X

User ABC = Institution X

Valid for 60 days

IP = 6.7.8.9

SN Presentation title / date
Parental-to-embryo switch of chromosome organization in early embryogenesis

Samuel Collombet, Noémie Ranisavljevic, Takashi Nagano, Csilla Varnai, Tarak Shisode, Wing Leung, Tristan Piotot, Rafael Galupa, Maud Borensztein, Nicolas Servant, Peter Fraser, Katia Ancelin & Edith Heard

Abstract
Paternal and maternal epigenomes undergo marked changes after fertilization. Recent epigenomic studies have revealed the unusual chromatin landscapes that are present in oocytes, sperm and early preimplantation embryos, including atypical patterns of histone modifications and differences in chromosome organization and accessibility, both in gametes and after fertilization. However, these studies have led to very different conclusions: the global absence of
Google Scholar Universal CASA

- Implemented on 24th March for Nature and SpringerLink
- Enabled for all institutional customers; Nothing for librarians or researchers to do
- Works cross-browser and device
- Monitoring effect
Encouraging federated access enablement

Federated access or Federated identity is a form of single sign-on that allows users to use a single credential to authenticate across multiple organization’s systems and websites. This is only one of the many secure remote access options Springer Nature supports.

Continue reading to find more information on services and support available to you around Single sign-on and federated access.

Search for: ‘Springer Nature Federated Access’
https://www.springernature.com/gp/librarians/tools-services/implement/federated-access
What’s next?

4.0
What’s next?

- Communicate out the options and the work we’ve been doing to ease remote access during the crisis

- Exploring looking back through stored historical authentications to ‘backfill’ persisted access to an earlier date

- Exploring enabling federated access by default for federation members
The story behind the image

Following the progress of Dolly’s clones

When Dolly, the cloned sheep, had to be put down halfway through her expected lifespan there was concern that the cloning process might create animals that aged prematurely. Twenty years on a team from the University of Nottingham have led a study on a small flock of Dolly clones that show that they are ageing no differently to naturally conceived sheep and were not suffering from any particular health problems when compared to a control group of non cloned animals.