Buying AWS services through Jisc

Frequently Asked Questions

About Jisc

Who are Jisc?

Jisc is a membership organisation for all UK HE, FE, research organisations and a trusted partner for the wider public and third sectors. Jisc offers a range of connectivity, security, cloud, data analytics and digital solutions as well as advice on the use of digital technology for education and research, built from over 30 years’ experience. Jisc's vision is for the UK to be a world leader in technology for education and research. Jisc is the UK NREN.

Who are Jisc Cloud Solutions?

Jisc Cloud Solutions is a division of Jisc providing consultancy, professional services, and managed services to support the adoption of public cloud. We are partnered with AWS, Microsoft and Google Cloud with certified cloud consultants, solutions architects, cloud security specialists and engineers across all three platforms. The Jisc Cloud Solutions team are all based in the UK and have a broad range of skills and experience in the education, public and third sectors.

Jisc Cloud Solutions is an AWS Advanced Consulting Partner, an AWS public sector Solutions Provider and part of the AWS Guided Onboard (GO) provider program. As an authorised government reseller, we have extensive expertise in the AWS platform. For details of partner and staff credentials, case studies and news see https://www.jisc.ac.uk/cloud/partnerships/aws

What other services do Jisc Cloud Solutions offer?

We provide a billing portal, an optional free ‘core’ managed service, an optional paid-for ‘enhanced’ managed service and a range of paid-for consultancy and professional services.

Our AWS offer includes:

- Resell of all AWS services at list price (including AWS support packages and AWS Marketplace services).
- Access to our cloud billing portal for cost monitoring, pre-payment options, credit management. Access to this portal supports SAML2.
- An optional free ‘core’ managed service that includes first line support, patching and anti-malware protection, monitoring, and monthly reporting.
- An optional paid-for ‘enhanced’ managed service that provides enhanced security features, managed backups, and an improved SLA.
- Optional paid-for consultancy and professional services covering security, connectivity, migration, well-architected design, research-centric compute and data management and a range of other options.
Onboarding

What is the onboarding process?

Assuming that you are already speaking to our cloud engagement team, we'll discuss your requirements and where you are currently with your use of AWS. If you have existing AWS accounts, you may also need to talk to one of our AWS Solution Architects, just to make sure we are all on the same page about how the accounts are handled. We'll ensure that your AWS Account Manager is kept in the loop as well, if necessary. We'll agree what the best procurement route is for you (G-Cloud, OCRE, OGVA or direct award) and we'll get you to sign a contract and provide us with a PO. At that point, we'll either transfer your existing accounts, or create new ones (or both), give you access to the cloud billing portal and our service desk and set up agreed access to the AWS portal. At that point, you are ready to get started.

Who owns my AWS accounts and who has access to them?

As an AWS partner, we are required to own all management/payer accounts procured through us. In this case, ‘own’ means that the credentials (email address, password, and MFA device) used to access the root user must be managed by Jisc.

Quite reasonably, this sounds scary to some of our customers because they are rightly worried about who has access to their services and data. Please remember that any of your management/payer accounts that we ‘own’ can be transferred back to you at any time. Although we hold the root user credentials, we will not use them without your permission. In line with AWS best practice, they would only be used in exceptional circumstances anyway. Depending on what level of managed service you want us to provide, we can give you access to one or more IAM users with as many, or as few, permissions as you require – including full admin permissions.

In summary, we will only access your AWS accounts in ways agreed with you and with your explicit permission. If you are uncomfortable about trusting us with this level of access, remember that you can use CloudTrail to monitor and audit any use we make of your root users.

For more information please see our summary document: Our access to your data on AWS at
https://repository.jisc.ac.uk/8378/1/jisc-cloud-solutions-access-to-your-data-on-aws.pdf

What are AWS Organizations, payer accounts, linked accounts and root users?

Some of the terminology around AWS accounts can be quite confusing but it is important to be familiar with it so that you can understand what we mean when we say we do or do not have access to your resources. There’s a great summary from AWS about this at:
https://docs.aws.amazon.com/organizations/latest/userguide/orgs_getting-started_concepts.html

An AWS Organization is a mechanism for consolidating your AWS accounts so that they can be administered as a single unit. Each organization has one management account along with zero or more member accounts. The management account is often referred to as the payer account because all account billing for the Organization flows through it (historically, this was the only function of a payer account). Member accounts are often referred to as linked accounts because of the process of inviting them to join the Organization.

All AWS accounts have a root user, which gives complete, unrestricted access to all resources in the account, including access to billing information and the ability to change the password. This level of access is necessary when new accounts are created. However, AWS recommends that root user credentials are not used for everyday access.

Can I have my own AWS Organization?

As an AWS partner, we use AWS Organizations to manage our customers’ AWS accounts. In some circumstances, we can allow you to use a stand-alone Organization to manage your accounts but because this places an additional overhead on us, we will charge you £250/month per stand-alone Organization to do this. Irrespective of whether your AWS accounts sit in one of our shared customer Organizations or in a stand-alone Organization, we are required by AWS to own all the management/payer accounts procured through us. In this case, to “own” the management/payer account means that the email address on the root user is
something@jisc.ac.uk and the password and MFA device are managed by us. The requirement to own the management/payer account applies to all AWS partners.

I must stress that placing multiple AWS accounts from different customers into the same AWS Organization is standard practice for AWS partners and represents no security risk to your services and/or data. An AWS Organization is NOT like a shared tenancy.

Can I have multiple AWS Organisations, e.g., one for the Department of Physics and one for the Department of Chemistry?

Yes, you can do this but note that we will charge you £250/month per stand-alone Organization. In most cases we suggest that you use a single AWS Organization and use it to mirror your institutional structure using Org Units. Multiple AWS accounts can be linked under each Org Unit.

Can Jisc staff see any of the data I am storing in AWS?

That depends on whether we are providing a managed service to you or not.

Basically, as described in the previous answer, in all situations we have access to the root user of the management/payer account you are using – that is the account that payments flow through. However, you retain ownership of all your other accounts – we have no access to those accounts (unless you choose to give us access). AWS best practice says to not use the payer account for anything other than billing (so the fact we have access to it means we do not get to see anything other than billing information). Even if you choose to ignore best practice and use the payer account for real work, we commit not to using that account without your permission (and you can audit that using CloudTrail).

So, if we are not providing a managed service, we have no access to any of your other AWS accounts (i.e. the accounts where you do your real work).

If we are providing a managed service then, obviously, we have a lot more access (otherwise we couldn’t manage the account for you) but, as far as possible, we will not look ‘inside’ the services that we are managing.

For more information, please see our summary document: Our access to your data on AWS at https://repository.jisc.ac.uk/8378/1/jisc-cloud-solutions-access-to-your-data-on-aws.pdf

I already have one or more AWS accounts. Can I move them to Jisc?

Yes. We offer four onboarding options for existing accounts depending on whether you are already using service control policies (SCPs) and CloudFormation StackSets as part of an AWS Organization or not, and whether you want us to manage your accounts for you or not.

These four options can be summarised as follows:

<table>
<thead>
<tr>
<th>You want a managed service from Jisc (Core or Enhanced)</th>
<th>You want to manage the accounts yourself</th>
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<tbody>
<tr>
<td>• Your AWS account(s) will be linked to the Jisc AWS management account under an OU in the Jisc organization.</td>
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<tr>
<td>• We will retain admin level privileges to manage your account(s) using a service role. This is standard practice where we are providing a managed service.</td>
<td>• Your existing root user credentials (email address, password, and MFA device) will continue to be associated with all your AWS accounts. You can therefore create IAM users with admin privileges that will allow you to jointly manage the accounts.</td>
</tr>
<tr>
<td>• Your existing root user credentials (email address, password, and MFA device) will continue to be associated with all your AWS accounts. You can therefore create IAM users with admin privileges that will allow you to jointly manage the accounts.</td>
<td>• Jisc make a commitment that we will NOT apply any SCPs or StackSets in our organization in such a way that they affect your AWS accounts.</td>
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<tr>
<td>• Jisc may create SCPs and StackSets and apply them to your AWS accounts as part of our managed service.</td>
<td>• If you have a requirement to use SCPs and StackSets, or if you are unhappy with your accounts being linked to Jisc AWS management account, then you must move to using the model below (assuming that you</td>
</tr>
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</table>
You already have an AWS Organization and you are using SCPs or StackSets

- Your AWS account(s) will be linked to the Jisc AWS management account under an OU in Jisc organization.
- We will retain admin level privileges to manage your account(s) using a service role. This is standard practice where we are providing a managed service.
- Your existing root user credentials (email address, password, and MFA device) will continue to be associated with all your AWS accounts. You can therefore create IAM users with admin privileges that will allow you to jointly manage the accounts.
- Jisc will replicate (as best we can), and possibly add to, your existing SCPs and StackSets as part of managed service.

Note: we charge £250/month for each management account / organization.

- You retain your existing management account / organization.
- A Jisc email address, password and MFA device will be assigned to your management account root user (in line with AWS ‘service provider’ requirements).
- Your credentials (email address, password, and MFA device) can be retained for all other linked accounts’ root users.
- You must create a read-only IAM ‘billing’ user for Jisc (so that our billing tool can collect billing information from your management account). We will provide a CloudFormation template for you to create this.
- You can use an IAM ‘admin’ user to manage SCPs and StackSets within your organization.
- Jisc make a commitment that we will NOT use your management account root user without your permission. You can audit this (and set up alerts for any unexpected usage) using CloudTrail.

In most cases, the onboarding process associated with these options will be managed by Jisc for free. However, where your existing account configuration is complex, there may be a professional service charge to undertake the transfer.

Where the onboarding process requires the unlinking of your accounts from an existing AWS Organization in order that they can be linked to our Organization, you may need to provide credit card coverage on the account for the duration of the transfer. In such cases, once the transfer is complete, you can delete your existing management account because it is no longer required.

How can I get more details about onboarding?

Jisc have a document that can be shared detailing the process. Please contact cloud@jisc.ac.uk. You may also want to talk to your existing AWS Account Manager.

Operational

Will I get charged for egress data?

It depends.

If you are procuring through OCRE then, in addition to the 14% discount available under the framework, AWS waive data egress fees for approved researchers and academic customers; these are the fees associated with transferring data from AWS to the Internet (including to Janet). The maximum egress discount is 15% of your total monthly spend on AWS services.

If you are procuring through a route other than OCRE then, in most cases, there will not be an egress waiver and you will have to pay for data egress at standard rates.

In all cases, there are no fees for transferring data to AWS from the Internet (including from Janet), or for moving data between Amazon S3 (object storage) and Amazon EC2 (virtual machines).

For non-OCRE customers, your eligibility for receiving the egress waiver will be assessed during onboarding.

Who will provide the invoices for my AWS consumption?
Jisc will provide invoices monthly in arrears. Our invoices will cover your AWS consumption and any other services that you are buying.

**What currency will Jisc invoice in?**

In GBP (£). Jisc will convert the AWS charges from USD ($) to GBP (£) using the exchange rate at time of invoice.

**How can I see a breakdown of my AWS usage?**

Jisc will provide a detailed billing breakdown to support your monthly invoice. This shows usage by AWS Account at the discounted rate. An example breakdown can be shared if you want to see what they look like. We also provide access to a billing portal which provides near real-time information about your current spend levels. In addition, customers can use the native AWS tooling such as Cost Explorer to understand their current and historic usage and spend patterns. Please note that if you are buying through OCRE then, because of the way that discounts are applied, Cost Explorer will only show your usage at list price, not at the OCRE discounted price.

**Can Jisc invoice different parts of my institution separately?**

Yes, we can do this on a per-account basis. For example, if your Department of Physics uses 3 AWS accounts and your Department of Chemistry uses 2 (different) AWS accounts, we can provide you with 2 separate invoices addressed separately to each department (even though all the accounts are under a single payer account and AWS Organization). We will, effectively, treat each department as a separate customer.

Note: because of the overheads it places on our billing processes we charge £100/month for each additional invoice we generate.

**Are AWS prices fixed or will they fluctuate?**

AWS list price is liable to fluctuate (mainly downwards but it may also shift upwards due to currency changes). The pricing for our Enhanced Managed Service is also based on a percentage of list price. However, our pricing for other day-rate engagements, consultancy, and professional services, is fixed for the duration of your contract.

**Who will provide first line support?**

Normally, Jisc. In most cases, all support calls must be raised with the Jisc cloud service desk and not directly with AWS. Any required escalations to AWS will be undertaken by our support engineers (provided you have an AWS support contract in place). Note that for production workloads we strongly advise you to take AWS Business Support. For customers that retain their own AWS Organization and do not take Jisc’s managed services, there is the option to opt for ‘resold’ AWS support which means that you can raise support calls directly with AWS.

**Can Jisc provide consultancy and managed services?**

Yes. We offer a range of consultancy and professional services to help you set your cloud strategy, migrate existing services to AWS, improve your cloud security, manage your AWS spend, and design and build cloud native services on AWS.

**Will I still be able to contact my existing AWS Account manager?**

Yes, of course. Jisc and AWS work together collaboratively to support the needs of our customers.

**Can I pay for my AWS consumption in advance?**

Yes. We offer two ways of doing this. Firstly, you can take advantage of AWS Savings Plans and Reserved Instances if you want to. Secondly, Jisc offer a pre-payment mechanism where we will invoice you upfront and then allow you to draw down on the funds to pay subsequent invoices. We will manage the draw down and report on your remaining balance, both as part of our monthly billing and in the Cloud Portal. Because this second mechanism requires additional work by Jisc, we only provide it where you are spending significant amounts of money.
Can any advanced payments be ‘walled-off’ so that only the accounts, projects or departments I specify can draw down from them?

No, not currently, though we may add this functionality in the future. Currently, advanced payments can only be associated with a single AWS account.

Can I use the cloud vouchers/credits that GÉANT/AWS make available?

Yes, Jisc will be able to accept these.

Environmental issues

Can I convert my AWS consumption into KWhs? Can you tell me the PUE of AWS’s data centres? What proportion of AWS’s energy comes from green sources?

AWS does not usually disclose this kind of information in any detail, either to partners or to end customers. As an AWS partner, we currently have no mechanism for converting your AWS consumption into a KWh measurement, no details about the PUE of individual AWS data centres and no detailed information on how AWS sources its energy beyond the information that AWS make publicly available. All the cloud providers tend to treat this kind of information as commercially sensitive. We are actively looking into this area (not least because Jisc, as an AWS consumer ourselves, has an interest in understanding our own environmental impact) but we have nothing that we can share publicly at this point of time. We have added some links to various additional sources of information from AWS to the section below.

Useful websites

Frameworks

Jisc G-Cloud service listings https://www.digitalmarketplace.service.gov.uk/g-cloud/search?q=Jisc

AWS webpage about the OCRE Cloud Framework https://aws.amazon.com/contract-center/open-cloud-for-research-environments/


Partner Pages

Jisc AWS Partner Page https://www.jisc.ac.uk/cloud/partnerships/aws

Jisc AWS Partner profile https://partners.amazonaws.com/partners/001E000000laD5UIAU/Jisc

Environment

Sustainability in the Cloud https://sustainability.aboutamazon.com/environment/the-cloud?energyType=true


AWS Controls https://aws.amazon.com/compliance/data-center/controls/


**Other**

Jisc statement on Access to Customer Data [https://repository.jisc.ac.uk/8378/1/jisc-cloud-solutions-access-to-your-data-on-aws.pdf](https://repository.jisc.ac.uk/8378/1/jisc-cloud-solutions-access-to-your-data-on-aws.pdf)

