OCRE AWS Resell and Managed Service

Our service definition for customers using the OCRE Cloud Framework
1 About Jisc and AWS

Jisc is a not-for-profit membership organization dedicated to the UK higher education, research, and further education and skills sectors. We provide shared digital infrastructure and services for the benefit of our members, their students, staff and the wider community.

1.1 Jisc Cloud Solutions

Jisc Cloud Solutions is a division within Jisc; we are an AWS Advanced Consulting Partner and Authorised Government Reseller with extensive expertise in the AWS platform. We are a trusted technology advisor and ally of the education, public and third sectors in the UK. We provide best-in-class technology advice, engineering and support, and work as part of our customers’ teams to transfer knowledge at every step. As a not-for-profit organisation, we act as a strategic business partner for our members and customers at any stage of their cloud maturity and reinvest the profits for the benefit of our communities.

Jisc Cloud Solutions is the UK AWS reseller on the OCRE Cloud Framework. We offer a 14% discount against AWS list price coupled with optional free access to our core managed service, a billing portal and first line support. All AWS services can be purchased under the Framework.

In addition to the core managed service, OCRE customers are also able to buy a range of additional consultancy, professional services, and enhanced managed services.

1.2 Amazon Web Services

Amazon Web Services (AWS) offers a broad set of global cloud-based products including compute, storage, databases, analytics, networking, mobile, developer tools, management tools, IoT, security and enterprise applications. For more information, please see: https://aws.amazon.com/products/. Using AWS, customers can deploy compute power, storage, and a wide range of other services in minutes and have the flexibility to choose the development platform or programming model that makes the most sense for the problems they are trying to solve. Customers pay only for what they use, with no upfront expenses or long-term commitments, making AWS a cost-effective way to deliver applications.

2 Benefits of AWS for Research

The AWS cloud platform allows researchers to quickly (and affordably) access the latest versions of many resources that may otherwise be difficult to use. This level of availability promotes deployment of new ideas or services that in other circumstances might have taken months or years to achieve. As a result, it is possible to expedite the prototyping of an idea in order to discover its feasibility without incurring lasting costs or irreversible investment. Likewise, other stages of the scientific research cycle such as analysis and validation are expedited. By reducing the time to deploy and run your experiment, AWS increases the time you can spend developing new ideas or completing analysis, which allows scientific goals to be reached rapidly. The following chart shows the benefits of deploying research workloads in the cloud.
The AWS “pay as you go” approach also means that it is possible to match the available compute capacity to the researcher’s needs in real time. Historically, many researchers used an expensive workstation for real-time work, but even if they used it 9-5, Monday through Friday, it was only being utilized for about one-fifth of the time. In the AWS Cloud, it is possible to have five times the compute performance (i.e., more cores, more memory) for that same amount of time and at the same cost, so that when the compute is required, results are available five times sooner.

Amazon Web Services (AWS) provides a market leading suite of compute, storage and associated services that allows you to dynamically provision infrastructure in the cloud. The services are designed to make web-scale computing easier for developers and service providers.

3  AWS Resell and Managed Service

Customers that buy AWS services from Jisc under the OCRE Cloud Framework have the option of procuring on a resell-only basis or taking our managed services. The full list of AWS services that can be procured is listed at https://aws.amazon.com/products/.

All customers (resell-only and managed service customers) get access to our billing portal and service desk.

Our managed service is made up of a core service and several service options. The core managed service includes first line support and is available at no additional charge for any customer procuring AWS services under the OCRE Cloud Framework.

Irrespective of whether you buy on a resell-only basis or you choose our managed service, you may wish to draw on additional consultancy when required. Our extensive experience in AWS and other leading cloud providers can provide that support, whether for security or cost management advice, architecture and design, or hands-on working with your team.

3.1  AWS Resell

All customers consuming AWS services via the OCRE Cloud Framework must buy those services through Jisc and will get a 14% discount against AWS list price¹. You can consume AWS services using as many AWS accounts as you want.

We use AWS Organizations to manage our customers’ AWS accounts. Depending on various factors, we will either configure your accounts to sit within our OCRE AWS Organization, use your existing AWS Organization or create a new stand-alone AWS Organization for you.

To be eligible for the OCRE discount, your AWS accounts must sit within the agreed OCRE AWS Organization. The root user on the payer account associated with the agreed OCRE AWS Organization must be owned by Jisc (i.e., the root user on the payer account must have a Jisc email address, a Jisc password and a Jisc MFA device). All other AWS accounts are owned by you (i.e., the root user on non-payer AWS accounts will have one of your email addresses, a password set by you and an MFA device owned by you).

All customers are given access to our billing portal, providing near real-time overviews of your spending across all your AWS accounts. You will also receive monthly invoice(s) and consolidated billing report(s), broken down by AWS service, AWS account and clearly identifying our managed service costs. An example report can be provided on request.

Depending on the level of your AWS consumption, we can provide separate invoices for different departments within your university or college. Where we agree to provide this facility, we will agree with you a mapping of your

¹ Note that a small number of AWS services are not eligible for the 14% discount. Details are available on request.
AWS accounts to different departments and will effectively treat each department as a separate customer for billing purposes.

All customers will be provided with access to our service desk, allowing you to log and track incidents and raise change requests. Where we are billing your departments separately, we will provide separate service desk accounts for each department. Telephone and email support are also provided. Our service desk team is all UK-based.

We anticipate that customers who buy their AWS from Jisc on a resell-only basis will separately buy support from AWS (e.g., AWS Business Support) for some or all their accounts. In most cases, AWS support calls must be raised through the Jisc service desk (known as 'partner-led support') so that we can provide first line support. In cases where we either use your existing AWS Organization or where we create a new stand-alone AWS Organization for you, you can opt to raise support calls directly with AWS (known as 'resold support'). The choice of partner-led support or resold support must be made at the AWS Organization level (i.e., it applies to all AWS accounts within your AWS Organization).

In all cases we will work with you to configure the agreed OCRE AWS Organization and to ensure that you have appropriate IAM access to the payer account.

### 3.2 Core Managed Service

In addition to AWS resell, customers benefit from Jisc's core managed services, at no further cost.

Our core managed service primarily provides support for the compute, storage, database, networking, security, identity management and compliance features of AWS. We can also manage many of the other services provided by AWS, however pricing will be based on our OCRE rate card.

Further details of what is included in our core managed service are provided below. It may be that you already have some of these items in place and that they are therefore not required. In such cases, we are happy to provide a review of what you have where we have knowledge of the systems you are using.

#### Monitoring and alerting

For managed service customers we will configure monitoring of both the underlying AWS infrastructure and any EC2 instances that have been deployed by us and will send alerts when agreed thresholds are exceeded, including:

- Memory
- CPU
- Storage
- Network traffic.

The alerts will be sent by email to a distribution group you specify during setup of the managed service. We will provide you with access to AWS CloudWatch and will work with you to configure appropriate dashboards.

#### First line support, incident handling and change requests

For customers buying our managed service, we will provide first line support for your AWS services via our service desk (see the comments about ‘partner-led support’ above)\(^2\). We strongly recommend that you buy AWS Business Support whenever you are hosting production services in AWS. Where our first line support

\(^2\) Note that managed service customers are not allowed to raise support tickets directly with AWS.
engineers are unable to resolve an incident or change request, our team will act as an intermediary between you and the AWS Business Support team.

Change requests are typically undertaken on a T&M basis.

Working hours for the core service are 08:00-18:00 Mon-Fri.

**Named technical contact**

We will provide managed service customers with a named contact for technical and other queries.

**Reporting**

Reporting in the core managed service includes the following. All reports are provided monthly:

- Patching – A report detailing the status of patching across your estate.
- Incident management – A report detailing the number of incidents raised against SLAs.
- Security and compliance – A report detailing recommendations against AWS best practice.
- Cost optimisation – A report detailing how cost savings could be made across your estate.

**Patching**

The setup and configuration of patching of your EC2 instances is included as part of on boarding into the managed service. We will provide monthly reports as to whether the patching has been successful or not. As part of the core offering, we do not fix the issues, we advise you of them. However, change requests can be raised to request changes.

In cases where we have built your environment, we will work with you to agree the patching configuration and schedule. If you have an already established environment and a patching schedule, we can provide a review of what you have in place during the managed service onboarding process, if required.

**Anti-malware (AV) – Windows servers only**

We include the setup and configuration of Windows Defender as part of our core service offering for your Windows servers. Whilst this is a robust and stable service it may not offer everything required for all customers such as ongoing monitoring, alerting or support of Linux or other operating systems. A comprehensive Enhanced Anti-malware solution is offered as an add-on.

In cases where we have built your environment, we will have worked with you to agree the anti-malware configuration and update schedule. If you already have an established environment and update-schedule we can provide a review of what you have in place during the managed service onboarding if requested.

Please see Annex 1 for pricing details.

### 3.3 Service Options

Building on the core support offering, you can select none, some, or all of the following service options:

#### 3.3.1 Enhanced Support

Our core managed service is suitable for many education and public sector organisations. However, there are certain circumstances and critical systems that require an additional level of support.

Our Enhanced Support service option provides:

- Enhanced 24/7 monitoring, proactive alerting and reactive support for designated systems.
• Two days free consultancy annually with our AWS Solution Architects or Cloud Consultants, consumed in up to four half-day sessions if desired.  
• Automated power on/off scheduling for selected EC2 instances according to your requirements to help minimise your AWS costs.  
• Pro-active alerts if your public-facing web services hosted on AWS become unavailable and a monthly report detailing their overall availability.  
• A free annual security review (see below).

3.3.2 Annual Security Review
We undertake an annual security review of your infrastructure, including an automated check against CIS Benchmark Level 1 followed by a more thorough architectural review. We deliver a report with recommendations. We will agree with you what remediation actions are required, how quickly they need to be made and who will make them. Any remediation actions done by us will be undertaken as change requests on a T&M basis.

3.3.3 Managed Backup
Tailored to your needs with ongoing monitoring, reporting and incident resolution, our Managed Backup solution for EC2 and RDS instances has simple, per VM pricing and includes configuration and scheduling of lifecycle and retention policies. Instance and file recoveries are treated as service requests and charged on a T&M basis.

3.3.4 Enhanced Anti-malware (AV)
Enhanced Anti-malware provides peace of mind for critical applications and services. As per other products the pricing is straightforward and per VM. The service is based on a COTS anti-malware solution, configured to your requirements including reporting, monitoring, and alerting.

Where you are also buying Managed Backup, we will recover systems to a last known good state in the event of a malware compromise.

3.3.5 Hybrid Solutions
For customers that have requirements to make use of hybrid or multi-cloud solutions (using on-premise or collocated facilities or other cloud providers) we can work with you to procure and manage infrastructure and connectivity (including Janet connectivity) as required. For example, such facilities may be required as a short-term, stop-gap mechanism during a cloud migration exercise or might form part of a longer-term hybrid cloud strategy.

3.3.6 Enhanced Security
Security is key to all our public cloud deployments. However, in some scenarios further enhancements may be necessary to meet compliance or assurance requirements. Enhanced Security provides longer log data retention, benchmarking to CIS Level 2, configuration of AWS Service Control Policies (SCPs), defence in depth configuration, higher quality alerting with automation on a 24x7 basis, AWS WAF configuration, and enhanced endpoint protection (including ransomware protection and IDS/IPS configuration). We will review your cloud architecture quarterly, providing security/compliance recommendations and upgrades.

Enhanced Security is only available for customers that also buy Enhanced Support.

3.4 Processing Locations
AWS services are available from multiple locations (AWS Regions) around the world, including from the UK. Jisc will ensure that details of specific locations are investigated and discussed with you as part of any design and provisioning activity.

3 Limited to customers that are spending at least £60,000 annually on their AWS consumption
3.5 Information Assurance

Jisc and AWS are both ISO27001 certified organisations and will utilise, as required, appropriately certified management infrastructure, network connectivity, staff security clearance and processes to deliver the service.

3.6 Service On-boarding

Service on-boarding is handled as part of the contract start-up and typically happens at the end of a Jisc Cloud Design & Deployment or Jisc Cloud Migration project. Onboarding includes the transfer of an existing AWS payer account (if necessary) and configuration of the agreed OCRE AWS Organization.

For managed service customers, where we are taking on the management of an existing AWS estate, we will undertake a security review of your infrastructure. We will agree with you whether any security updates are required, how quickly they need to be made and who will make them. Any updates undertaken by us will be undertaken as change requests on a T&M basis.

Onboarding has several requirements that must be met:

- Commercial and Service requirements:
  - Compliance with OCRE Cloud Framework procurement processes, including Account Holder agreement to Jisc Terms and Conditions for Jisc Cloud Services.
  - Compliance with the AWS Customer Agreement found at https://aws.amazon.com/agreement/.
  - Completion of the AWS account transfer process (if necessary).
  - Provision of an authorised and validated purchase order.
- Technical requirements:
  - Account holder service registration and service user specification.

3.7 Service Off-boarding

Service termination is defined as end of contract, without transfer of services to a new provider or customer function.

Transfer of ownership of AWS accounts to the customer, or to a third-party managed service provider, is straightforward and can usually be completed within a few days with no disruption to running services. Simple account transfer is provided at no charge.

Where you are migrating services to on-prem or another cloud platform, Jisc can provide a managed migration path for the resources in your AWS account(s), typically working alongside your new provider. This is provided as a standalone project and will incur rates and charges per the Jisc Cloud Migration service.

Where your AWS services are to be shut down, on service termination Jisc will close and delete any AWS accounts, access controls and resources and reconfigure any managed service components that we are using. Off-boarding of EC2 instances, RDS instances and customer data is the customer’s responsibility and should be completed prior to termination.

3.8 Customer Responsibilities

Customers have the following responsibilities in relation to the Managed AWS service:

- You must provide accurate contact and payment details on Managed AWS registration.
- You must complete the AWS account transfer process (if necessary).
- You must follow designated procedures for logging incidents, service requests and change requests.
• You must agree to Jisc owning the management/payer account associated with your AWS accounts.  

4 Service Management

Jisc is a proven service management specialist with extensive experience of service management implementation, operation and continual service improvement. All our operational processes are aligned with ITIL v3 and information assurance is provided through our ISO 27001 certification.

4.1 Support

Jisc provides support via our experienced service desk personnel, who act as your first point of contact for any service-related issues or queries that you may have. Support is provided during core hours of service, Monday to Friday between the hours of 08:00 - 18:00, excluding UK public holidays. Jisc also offer an Enhanced Support offering where we can provide support on a 24-hour basis.

In addition to our core managed service and service options, we strongly suggest you also buy AWS Business Support, at least for any production services. For customers that buy our managed service, where we are unable to resolve an incident or change request, our team will act as an intermediary between you and the AWS Business Support team. Without this, we are unable to raise support calls against AWS on your behalf.

4.2 Incident Management

Our service desk team will follow ITIL incident management process guidelines to log, assign and diagnose incidents and to restore service operation as quickly as possible with minimum disruption, in line with the agreed hours of service.

For managed service customers, the timings below indicate the target time to respond to an incident. In most cases, this will require us to triage the incident, raise a call against the AWS Business Support service desk. Once we receive the response, we will pass it back to the customer.

<table>
<thead>
<tr>
<th>Service Incident Response Targets</th>
<th>Core</th>
<th>Enhanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority 1 incidents</td>
<td>30 mins</td>
<td>30 mins</td>
</tr>
<tr>
<td>Service component failed or severely impaired resulting in serious business-wide impact or multiple users/services impacted. Needs immediate attention.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority 2 incidents</td>
<td>60 mins</td>
<td>60 mins</td>
</tr>
<tr>
<td>Service component impaired resulting in some loss of functionality, or loss of access to a single or subset of users, but work can reasonably continue in an impaired manner.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4 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. See our FAQ for more details.

5 Incident resolution targets do not apply in cases where the incident is outside of Jisc’s control, e.g. an AWS Region failure.

6 Core support: Incidents are managed Monday-Friday 08:00-18:00 excluding UK public holidays unless otherwise stated.

7 Enhanced support: Incidents are managed 24 hours a day, seven days a week.

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<table>
<thead>
<tr>
<th>Priority 3 incidents</th>
<th>2 hours</th>
<th>2 hours</th>
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</thead>
<tbody>
<tr>
<td>Incident with minor or no direct impediments on the customer’s business and/or is not time sensitive.</td>
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</table>

### 4.3 Service Requests and Change Requests

Our service desk team will follow ITIL request fulfilment process to manage service requests and change requests. For customers buying our managed service, where necessary, we will raise a call against the AWS Business Support service desk, returning the response to the customer as we get it.

<table>
<thead>
<tr>
<th>Service/Change Request Response Targets</th>
<th>Core</th>
<th>Enhanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>A request for information, advice, access to a service component or where effort is identified as less than 2 hours.</td>
<td>4 hours</td>
<td>4 hours</td>
</tr>
</tbody>
</table>

Change requests are managed Monday-Friday 08:00-18:00 excluding UK public holidays unless otherwise stated.

### 4.4 Account Management

Managed service customers will be assigned a named account manager who will be your primary contact at Jisc for all service-related matters. For technical queries, your account manager will liaise with your named technical contact at Jisc.

Your account manager will arrange quarterly service review meetings (typically by video call). Whenever necessary, these will also include your named technical contact.

### 5 Additional services

In addition to the free core managed service and the service options, Jisc Cloud Solutions also provides a range of consultancy and professional services to support your use of public cloud services. The services can be taken in sequence, to support an entire cloud journey, or selected as needed to enhance just those parts of a programme that need additional support.

All additional services are priced in addition to the resold AWS consumption and core managed service procured through the OCRE Framework. These engagements are led by a dedicated and specialist cloud solutions team that bring a diverse range of skills and experience across the commercial, technical and security domains.

#### 5.1 Consultancy and Advice

**Cloud Strategy & Roadmap** – we assess your IT estate and operating model before setting out a strategy for public cloud adoption.

#### 5.2 Professional Services

**Cloud Design & Deployment** – we develop high-level and low-level designs for your use of public cloud and deploy them using infrastructure as code.

**Cloud Migration** – we provide the technical and project management expertise to move some or all your IT estate to public cloud.

#### 5.3 Managed Services and Support
Managed Database – we look after the day-to-day running, maintenance, and backup of your databases.

Managed Website Protection – DDoS mitigation and Web Application Firewall protection for your public-facing websites.
Annex 1: Pricing

Our pricing is made up of three components:

- AWS consumption charges (the fee you pay for the AWS services you are using), including AWS support
- An optional core managed service fee (free under the OCRE Cloud Framework)
- Fees for any service options taken.

There is an on-boarding fee for the managed service if we are migrating from an existing provider depending on the size and complexity of the estate. This fee is not applicable if the environment has been built by us through our ‘Cloud Design and Deployment’ or ‘Cloud Migration’ services.

All service options are in addition to the core managed service.

### AWS Consumption Charges

<table>
<thead>
<tr>
<th>Consumption Charges</th>
<th>Pricing</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWS consumption charges</td>
<td>AWS list price less 14%</td>
</tr>
<tr>
<td>AWS support (e.g. AWS Business Support)</td>
<td>AWS list price less 14%</td>
</tr>
</tbody>
</table>

### Core Managed Service

<table>
<thead>
<tr>
<th>Managed Service Charge</th>
<th>Pricing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core managed service charge</td>
<td>Free</td>
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</table>

### Service Options (for core managed service customers)

<table>
<thead>
<tr>
<th>Service Option</th>
<th>Pricing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced Support</td>
<td>35% of AWS consumption</td>
</tr>
<tr>
<td>Annual Security Review</td>
<td>Free</td>
</tr>
<tr>
<td>Enhanced Anti-malware</td>
<td>£5 per EC2 instance per month</td>
</tr>
<tr>
<td>Managed Backup</td>
<td>£5 per EC2 or RDS instance per month</td>
</tr>
<tr>
<td>Enhanced Security</td>
<td>As per OCRE rate card</td>
</tr>
</tbody>
</table>

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. See our FAQ for more details. In most cases, because your AWS accounts will sit within one of our AWS Organizations where the management/payer account is owned by us, this will happen automatically. However, in some cases, we will allow you to use one or more stand-alone AWS Organization(s). In these cases, there will be an additional charge of £250/month per Organization.

We can optionally invoice you separately for different parts of your organization. We do this on a per-account basis. Where we do this, there will be an additional charge of £100/month per additional invoice raised.

Full details for all AWS consumption charges are available at [https://aws.amazon.com/pricing/](https://aws.amazon.com/pricing/).

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8 Note that all OCRE pricing is subject to a separate NREN fee – details available from the UK NREN.
We will invoice you monthly in arrears in £ (GBP). All prices exclude VAT at current rate. All prices exclude travel and subsistence which is chargeable separately at cost. Details of all our additional services are available separately.

In addition to the 14% discount on AWS services available under the OCRE Cloud 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. 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).
Annex 2: Special Terms

Customers have the following responsibilities in relation to the service:

- You must provide accurate contact and payment details on Managed AWS registration.
- As referenced in Clause 7.8 of the Terms and Conditions for Jisc Cloud Services, the Managed AWS service is subject to additional terms that we are required to pass on by Amazon. These Amazon AWS terms prevail over the Terms and Conditions for Jisc Cloud Services terms for those elements of the service which are supplied by Amazon. These terms are set out below:
  - The AWS Customer License Terms, a separate agreement between you and Amazon Web Services, Inc., a current version of which is located here: https://s3-us-west-2.amazonaws.com/legal-reseller/AWS+Reseller+Customer+License+Terms.pdf
  - The rights and restrictions located at http://aws.amazon.com/serviceterms, as updated by AWS from time to time, and as may be made available on any successor or related site designated by AWS
  - The terms and conditions of the AWS Customer Agreement located at http://aws.amazon.com/agreement/, where the rights and obligations of AWS shall be the rights and obligations of Jisc Services Limited
  - You must follow designated procedures for logging incidents and change requests
  - You must agree to Jisc owning the management/payer account associated with your AWS accounts.