GCloud Service Definition – Lot 3

This document provides key information about Verna's cloud support service, as required under the terms of the GCloud framework.

For further details about Verna, please see verna.earth or contact us on info@verna.earth.

Service overview

Verna offers software development and support in relation to Mycelia and/or similar products.

Verna

Verna is a software company focused on positive climate and nature impacts. We were set up by sector specialists (including a former head of climate change mitigation at Defra) and have supported many public sector bodies including a great number of Local Authorities, Defra, DESNZ, the Environment Agency, and National Highways.

Our highly experienced software engineers are able to take varied requirements and translate these into easy-to-use solutions that meet customer needs. Together with other technical staff, including ecologists, our software engineers also offer advice and consultancy support services related to Mycelia and/or similar products.

Mycelia

Mycelia is a software tool that helps local government teams drive better environmental outcomes in less time. It includes end-to-end support for every aspect of the Biodiversity Net Gain process – from validation and assessment, to monitoring and reporting.

It has been developed through collaborative research involving ecologists at more than 40 Local Authorities. It aims to help you drive better outcomes, with less stress and more control.

The Mycelia service definition included within Appendix 1 is also relevant for the cloud support service.

Appendix 1 - Service Definition for Mycelia

Service overview

Mycelia is a software solution to help Local Planning Authorities (and similar organisations) drive better environmental outcomes in less time.

Introduction to Mycelia and Verna

Mycelia is a software tool that helps local government teams drive better environmental outcomes in less time. It includes end-to-end support for every aspect of the Biodiversity Net Gain process – from validation and assessment, to monitoring and reporting.

It has been developed through collaborative research involving ecologists at more than 40 Local Authorities. It aims to help you drive better outcomes, with less stress and more control.

Mycelia is developed and maintained by Verna, a software company focused on positive climate and nature impact. We were set up by sector specialists (including a former head of climate change mitigation at Defra), and have supported many public sector bodies including a great number of Local Authorities, Defra, DESNZ, the Environment Agency, and National Highways.

Why Mycelia is needed

We built Mycelia because we wanted to help Local Planning Authorities benefit from Biodiversity Net Gain (BNG).

BNG is a great opportunity to create better local environments, improve outcomes for citizens, and potentially generate revenue to support Authorities' activities.

But BNG also brings new responsibilities and risks. We did a year's research, engaging with over 40 Local Planning Authorities (LPAs) as well as expert stakeholders such as the Planning Advisory Service and the Association of Local Government Ecologists. We found the biggest concerns are:

- The risk of slowdowns and backlogs in the planning system, caused by the need to assess BNG plans and Metrics prior to consent.
- The workload of monitoring each BNG plan for 30 years following consent. This starts with the introduction of mandatory BNG and grows year-on-year as projects are consented, so LPAs will soon be monitoring thousands of projects.

- The legal duty to monitor, enforce, and report BNG progress, and respond to FOI requests, with associated legal risks of challenge from government, citizens, and other stakeholders.
- The need to link BNG implementation to other environmental and social objectives (such as Local Nature Recovery Strategies), to maximise benefits and avoid "box-ticking" outcomes.

We've designed Mycelia to help with these challenges. The software is based on our research and has been co-developed with a working group of seven LPAs, and we will continue to improve and refine it collaboratively with the sector.

In time, we want Mycelia to help with all ecology and environment processes within LPAs. We're starting with BNG because it's new and brings significant risks and burdens, but Mycelia already includes support for some other aspects of ecology and we will increase its wider functionality over time.

What Mycelia does

Mycelia helps with data management and assessment at every stage of the BNG process. It provides a home for every BNG case – from validation and assessment, to monitoring and reporting – and aggregated reports across all cases.

It enables you to:

- **Save time across teams and throughout the BNG process,** both pre- and post-determination, with tailor-made software.
- **Drive better environmental outcomes,** using tools designed by ecologists and environmental scientists, with links to wider issues including Local Nature Recovery Strategies (LNRS).
- **Catch and manage risks,** with smart checks, alerts, and prioritisation underpinned by ecological science.

As far as we're aware, Mycelia is the only solution around that's tailor-made to support the ecology elements of planning. It's designed to work alongside, not replace, general purpose planning case management software.

Some of Mycelia's ecology-specific features include:

- Drag-and-drop import of the Biodiversity Metric, and radically easier interfaces for interacting with it at validation, assessment, and monitoring. No need to sift through spreadsheet-style data ever again.
- Full and faithful recreation of the BNG algorithm. Powers smart error-checking, including automated validation checks, and auto-reporting of Biodiversity Unit progress.
- Handles all BNG requirements, including tracking monitoring data, responsibilities, and deadlines for every case, and automated reporting for statutory duties and wider stakeholders.

- Ecology-driven risk-flagging and prioritisation, based on insights from leading ecologists.
- Built from the ground up to handle and display spatial data. Enables geospatial functions including map views and location-based search, and is futureproofed for receiving applicants' GIS data.
- Based on extensive research with local government ecologists, and co-developed with a working group of seven Local Planning Authorities.

Technical requirements

Mycelia is a web-based service, accessed through a browser (it is an HTML5 webapp).

No particular hardware or software is required to access Mycelia other than a web browser from the Government Digital Service supported list.

Mycelia uses a responsive design, so it can be accessed using any device including tablets and mobiles. However, we would recommend accessing Mycelia using a desktop or laptop as you will get the best user experience this way.

Hosting and resilience

Mycelia is a modern, web-based service. All operation and maintenance of the service is handled by Verna, so there are no requirements for customers to perform any installation or maintenance.

All Mycelia data is stored and processed in UK datacentres which are ISO27001 certified, with industry-standard business continuity and disaster recovery measures including UPS and backup generators.

To ensure business continuity and disaster recovery, Mycelia uses a redundant cluster of three identical servers operating simultaneously. Data is synchronised across these servers on a minute-by-minute basis, so that at any given moment there are three separate copies of all data on the system. As an additional layer of resilience, we also take daily backups of all data on the system, which are stored in a separate, offsite location.

The Verna team manages the Mycelia service so as to continuously improve it without disrupting user experience. Updates are released as necessary and can be on a frequent basis (e.g. weekly) as maintenance and improvements are rolled out. In the vast majority of cases, updates are released with no impact on availability. Where downtime is required, we give customers a minimum of 48 hours' notice and typically carry out this work outside of usual working hours.

In the rare event of an outage or a critical security issue, we fix it as soon as possible. Our contract specifies a maximum target time to fix of 24 hours, and we aim to resolve issues much faster than this. We periodically run through

procedures such as re-provisioning the service from backups, so that we know how to do this if needed urgently.

Security

Mycelia is designed for Local Authorities and other public bodies, and security is a paramount principle.

Mycelia's software and infrastructure is designed and operated in line with guidance and standards from the Information Commissioner's Office and the National Cyber Security Centre, including the NCSC's Cloud Security Principles.

Some of Mycelia's key security features include:

- All user access to the service requires authentication.
- There is full separation between customers.
- All data is encrypted in transit and at rest.
- Datacentres are ISO27001 certified, and have multiple layers of physical security.
- We scan for vulnerabilities automatically and manually, and encourage security notifications from all sources.
- We proactively monitor the service.
- All use of the service is logged.
- We have chosen our supply chain to use services which take security equally seriously, and we regularly re-check this.

We are happy to provide more details on any of Mycelia's security measures.

Service constraints

There are no particular service constraints beyond the specifications described above. As Mycelia is an HTML5 webapp, no particular hardware or software is required other than a web browser from the Government Digital Service supported list. Updates are generally released with no impact on availability, and where downtime is required we give customers a minimum of 48 hours' notice and typically carry out this work outside of usual working hours.

Service levels and support

We aim for Mycelia to have 100% uptime, outside of the rare need for scheduled maintenance downtime (for which we give a minimum of 48 hours' notice and typically carry out the work outside of usual working hours). In the rare event of outages or other service disruption, we fix these issues as soon as possible: our contract specifies a maximum target time to fix of 24 hours, and we aim to resolve issues much faster than this.

We want customers to get the most out of Mycelia, so we provide full support through a range of mechanisms:

- All users can get in touch with questions or issues using our dedicated support email and phone contacts, 9am-5pm every working day.
- Following the initial live training we provide each customer as part of onboarding, we provide a range of further training options and resources – including articles, videos, webinars, weekly clinics, and user group meetings.
- We schedule regular account check-in meetings with every customer, at which any user can ask questions and give feedback.

Onboarding and offboarding

Mycelia is a modern, web-based service, so there is no technical work required by customers in order to set it up. Onboarding therefore focuses on helping customers to get started with using Mycelia.

We provide every new customer with a dedicated onboarding training session, covering how to use Mycelia and how to access further support following the session (across all of the support options described in the previous section).

The Mycelia contract allows customers to renew indefinitely, but also to end the subscription if they wish. The contract specifies that at the end of the contract the customer may request a transfer of all of their data stored on Mycelia, in a useable format, at no additional cost. Once any transfer has taken place, the data is securely destroyed.