

G-Cloud 15 - Service Definition Document

BECS.AI



BECS.AI is a privacy-protected, multi-modal conversational AI platform with agentic features. It integrates tightly with BECS Studio to provide intelligent creation of applications using natural language. It powers the ALFIE and ARBI Revenues and Benefits knowledge agents, and underpins the BECS AI Customer Services agent system.

An overview of our service

BECS.AI is an AI platform that provides a familiar ChatGPT-like user interface to deliver intelligent services to customers and staff. The platform has unique privacy protection features that use a custom AI model to detect and replace personal information and confidential information with semantically similar information before handing off to State-of-The-Art (SOTA) Large Language Models such as the Google Gemini, Anthropic Claude and OpenAI GPT series. It then restores the original information before display to the user or desired transfer to your systems, thereby ensuring that data does not leave the UK or end up being processed by third parties with unknown data protection measures. This is backed up by advanced guardrails and verifiers to ensure that BECS.AI is resistant to jailbreaks and drive-by injection attempts.

BECS.AI is more than just a chat interface; the platform supports multimodal agents that can transact with your systems and external services, can perform Web searches and retrieve information from curated knowledgebases. It enables "Bring Your Own Keys", so that you can use any mix of the latest SOTA models appropriate for your use cases. With speech-in-and-out, multilingual abilities and a No-Code Agent Builder, BECS.AI can be used to create intelligent services that are accessible and engaging.

Team Netsol has been researching and working with LLMs since 2020 on academic projects and Turing Catalyst funded projects, together with projects supported by the IRRV and ITS Training (UK). This has resulted in the development of a number of companion products running on or alongside BECS.AI, including:

- ARBI – a Revenues and Benefits expert knowledge agent for staff training and reference
- ALFIE – a Fraud, Investigations and Enforcement expert knowledge agent
- AI Customer Service agent – personalised, intelligent signposting and advice for customers leveraging curated content and services from your corporate website
- BECS Studio AI Builder – rapidly creates sophisticated online services by describing your requirements and by uploading images, specification documents or pointing it at existing applications
- FrameRank for Public Sector – we partnered with data scientists Frame AI to integrate their Generative Engine Optimisation (GEO) reporting service. FrameRank analyses the visibility of your organisation's presence in AI searches and AI apps and advises improvements to increase visibility - the modern replacement for SEO as AI begins to dominate Web traffic and attention

BECS.AI platform features include:

- Privacy protection via intelligent pseudonymisation of personal and confidential information
- ChatGPT-like user interface with automatically saved conversations that can be searched and accessed at a later date
- Multimodal, speech and multilingual input and output
- Upload and summarise documents, perform complex research, analyse data, create documents and diagrams

- Compose intelligent agents and agent swarms to perform complex autonomous tasks
- Tool and external function calling, including MCP servers, Web searches and workflow
- Integrates with BECS Studio, generating Studio application from conversations or documents
- Single Sign-On from BECS Studio, customer portals and corporate intranets

Service benefits include:

- Private AI assistance without sending confidential information outside the UK
- Stops customers from bouncing their Web queries to the callcentre
- Reduces workload on Customer Services and assessment staff
- Provides solid advice on expert areas to staff for training and reference purposes
- Enables multi-lingual customer support
- Build and publish online services in minutes, not weeks
- Customers get advice and action plans that they can reference later
- Leverages existing Web content, keeping customers away from more expensive channels
- Signpost customers to services currently hidden behind suboptimal keyword search facilities
- Customers and staff can share their conversations for extra assistance
- Rich analytics accessible over an OpenMetrics/Prometheus compatible API
- Token usage analytics and spend budgeting
- Full audit trail of all human and AI actions on the system

Implementing the system

Installation and implementation are included within the pricing. The implementation phase is documented and project planned with you. This includes configuration of the system to your requirements, customised branding and styling, and localisation of AI behaviour and text content. Integration with your back-office systems via secure connectivity is procured separately and project planned to aid a smooth delivery.

Onboarding

A UAT instance of the system is provided to you for further customisation and optimisation prior to deployment to Live production. Onsite or Web-based training is included, depending on your preference.

Upon receipt of an order and acceptance of the contract, the following process is followed:

- The order is acknowledged and Sales requests implementation resource
- Our Head of Operations provides resources and you are contacted to discuss detailed requirements
- Our Project Manager mobilises the Engineering Team, agrees requirements and timescales with you, and forms a project plan for approval
- Our Engineering Team then liaises with you throughout the implementation process, agreeing integration requirements, working with your IT and other stakeholders throughout all areas of the implementation
- An Account Manager will oversee the process and engage with you where necessary
- A UAT system is configured and set up for testing once localisation has been completed
- A defect backlog and RAID logs are managed via our Kanban change management process
- Any system integrations are then end-to-end tested to ensure successful transfer of information to the buyer's systems

- Council users are identified, added to the system, and onsite or online training is arranged and delivered
- Go-live timescales are agreed and roll-out is commenced upon sign-off

Training materials and reference guides are provided to you for wider distribution within your organisation.

BECS.AI supports all modern browsers including desktop and mobile versions of Microsoft Edge, Google Chrome, Apple Safari and Firefox. Its responsive Web design works unaltered on mobile devices including smartphones and tablets.

Offboarding

When implemented, BECS.AI data is generally transferred to your back office systems in real-time or batched within 1 day, depending on your preference. Partially completed data that reaches its data retention lifetime is securely deleted automatically from production systems. Any partially completed, un-transferred data or generated documents that exist when the contract ends are transferred securely to you in an encrypted compressed archive prior to secure deletion of all of your data from our servers.

When the contract ends, the secure connection to your back office systems is decommissioned, and certificates and user accounts are revoked. Your data is securely deleted within 30 days.

Technical Requirements

The BECS.AI system and supporting processes are fully compliant with ISO27001 and Cyber Essentials Plus, an ISMS is maintained and ISO 22301-compliant business continuity is provided.

Access to the system is secured over the Internet by HTTPS (TLS 1.2+) using certificates with strong cryptography. Where a VPN is used for back office integration, strong cryptography (e.g. IKEv2, AES-128, SHA-256, large key sizes, DH19+) is employed. The system is protected by highly available firewalls with threat protection and all data at rest is encrypted within a trusted subnet zone. Penetration testing is performed daily by Team Netsol on our entire infrastructure and the BECS systems hosted on it.

The system runs on dedicated application servers and is designed to be invulnerable to cross-site scripting exploits, SQL injection attempts, AI jailbreaking, drive-by injection and OWASP vulnerabilities. Network intrusion, anti-DDoS and anti-flood measures are in place and the system is actively monitored and alerted in the event of an incident, degradation of service or failure of a system component.

Data storage conforms to FIPS-140-2 and FIPS 197 (AES 256) and multiple levels of physical security are employed within the secure datacentre. Digital access to stored session data is controlled by roles and permissions, and authentication is by means of strong credentials and multi-factor authentication (e.g. 2FA) where appropriate.

Accessibility

The system is optimised for mobile, tablet or desktop use. It is designed and tested to satisfy all Government guidelines and standards, including the WCAG 2.2 Accessibility Standards to at least AA level.

Integrations

BECS.AI provides robust function calling so that you can exchange information with your core systems. BECS.AI can integrate with:

- Your corporate customer portal and corporate authentication systems using SSO federation
- Your corporate workflow integration solution, e.g. Power Automate
- Microsoft Teams for notifications and alerts
- EDMS systems

We can also facilitate integrations into your other core, EDMS and CRM systems on request.

Service Levels & Support

The SLA for service availability is 99.9% and for packet delivery is 99%. Service Level Credit is calculated as: $(\text{Annual Price} \times \text{Outage Minutes}) \times \text{SLA\%} / (365 \times 24 \times 60)$ Service Level Credits must be requested within 5 days of an outage and are subject to a monthly maximum.

We provide user support with ticketing via phone or email with response times applying Mon-Fri 9am-5pm, excluding UK public holidays. The default response times based on issue impact are:

- Critical events during office hours: 1 hour
- Critical events out-of-hours: 8 hours
- High, Medium and Low issues support, during office hours only: 1 day
- Change Requests during office hours only: 5 days

Out-of-hours monitoring of support requests is performed and response times then apply from the next available working day. The exception is for Critical events that require our business continuity call tree to be activated, in which case response will be as soon as feasible.

Team Netsol is committed to providing excellent support for its services. We operate an ITIL-like Kanban issue resolution process that triages issues based upon their scale and impact:

- Critical - Service unavailable or many users affected - Resolution within 1 day
- High - Parts of service unavailable but still functional - Resolution within 1 week
- Medium - Low number of users affected but still functional - Fix available for UAT within 1 month
- Low - Minor issue with available workaround - UAT of fix within 3 months
- Cosmetic - UAT of fix within 3 months

Customers log issues with our helpdesk via a dedicated email address or phone and are issued with a 'Support Ticket' which is visible to Support engineers. Outside of standard helpdesk hours, there is monitoring of support requests and an emergency call tree process in place.

Bug fixes, security patches and issue resolution are included in the contract price. Customer Change Requests are subject to assessment to identify whether there is an associated cost that then needs to be approved by the customer.

We provide technical account management via our Head of Operations, escalated to our Product Manager and Infrastructure Manager as appropriate.

Software upgrades, comprising feature enhancements and bug fixes, will be tested and released to Test and Live systems as required. We endeavour to make the system available 24 hours per day, 7 days per week, 365 days per year, subject to agreed uptime SLA. The only exceptions are during Planned and Unplanned Maintenance windows.

Business Continuity and Disaster Recovery

The system is vertically and horizontally scaled with ample capacity for a significant increase in use by individual or all customers, well above the peak processing periods normally experienced. Several shared system components, e.g. storage, databases, etc. are configured for high availability and sized with future demand in mind.

Each system instance is re-sizeable and isolated from the resources of other instances. Monitoring and alerting facilitates pre-emptive action by support staff when an instance's available resources fall below the acceptable threshold. Resource availability is reviewed weekly during Infrastructure Team meetings and planned accordingly.

Data is stored within a private cloud within known UK processing locations. Penetration testing is carried out annually as a minimum by approved qualified providers and daily by Team Netsol using an industry-recognised penetration testing service. BECS is protected against data loss and loss of infrastructure by means of data backup procedures and offsite replication. The application servers, databases and data storage are replicated offsite to enable the service to be restored after loss of the primary site. ISO 22301 compliant procedures are activated in the event of a service loss, security incident or physical event (e.g. fire, terrorist threat, etc.)

Team Netsol's services are designed to be resilient. Email, SMS and Microsoft Teams alerts are sent to Team Netsol engineers for any sub-optimal events or incidents. Outage reporting to customers is performed by email by our support staff to designated customer contacts once an event is confirmed by our engineers as an outage or another significant incident that affects customers.

Our policies and procedures are detailed in our ISO 27001 compliant ISMS. All security patches are deployed within 14 days of notification, in accordance with Cyber Essentials guidelines. Threat management is operated via a mix of automated facilities from our infrastructure vendors, our own research of security bulletins and weekly review of CVE databases.

Team Netsol's protective monitoring approach is described in its ISMS policies and procedures which may be inspected on request. Potential compromises are assessed as a critical priority and any actual breach will be

reported in line with the Data Protection Act 2018 and the Information Commissioner's Office guidelines. Incidents are responded to within the timescales determined by our ISMS based on their scale and impact.

Team Netsol implements a risk management approach to security and any system changes are assessed for risks, known threats and vulnerabilities. We implement a Secure Development Policy which includes OWASP guidelines, SOLID and DRY principles for code development.

We have firm change management procedures, use a hybrid Agile approach for new development and use Kanban for ongoing support and implementation, supported by industry-standard tools for issue tracking, configuration management and deployment.

Service Constraints and Customisation

BECS.AI may be customised as follows:

- Control over where and to whom the service is available
- Decide which multimodal features to allow
- Select which LLMs to use for different purposes
- Control over LLM selection, agent configuration, preset prompts
- Manage generated Studio applications
- Augment ALFIE and ARBI knowledge
- Configure connections to APIs and external workflow for data enrichment from back office systems
- Customer portal integration can be implemented for end-users
- External federated identity for staff SSO can be added
- User accounts can be self-managed by the Buyer
- Customisable Branding

Buyers localise and customise the services during the implementation phase by working through the agreed implementation plan.

After go-live, you may self-manage system prompts, agent styling, preset queries, agent logic and user roles & permissions. Bespoke customisation of other elements is handled as part of normal support or as a Change Request, depending on the nature and scale of the customisation.

All bespoke customisation is performed by Team Netsol's staff on behalf of the buyer and is released to production systems once UAT has been performed by you and approval given to proceed.

You localise and customise the services during the implementation phase by working through the agreed implementation plan. After go-live, any customisation you need help with is handled as part of normal support or as a Change Request, depending on the nature and scale of the customisation.

All customisation performed by Team Netsol's staff on your behalf is released to production systems once UAT has been performed by you and approval given to proceed.

An out-of-hours planned maintenance window is reserved for security patching and infrastructure upgrades every weekend. You are notified in advance if a reserved window is to be used and end-users are notified before and during maintenance to minimise disruption.

To implement back office integration with BECS.AI applications, you may need to provide the following:

- a secure reverse proxy or VPN connection
- appropriately licensed and activated APIs from your system suppliers. The APIs are often already available to you but, if not, they can be purchased from your supplier and BECS Studio will then communicate through the standard interfaces. Note: We do not use robotic process automation as this often breaches the terms of use for your suppliers' systems and is brittle to changes in the supplier's system.

Pricing

BECS services are not provided on a per-use basis. Instead, each service adheres to a Service Level Agreement and Team Netsol contracts to provide an outcome to you in accordance with the defined service level. This enables you to process as many transactions as you wish without incurring additional costs and Team Netsol ensures that it has sufficient resources and capacity to meet the service levels irrespective of usage. Please note: using your own LLM API keys will incur costs that are under your control via the token usage and spend budgeting facilities within BECS.AI.

Each service attracts a Base Price and a Unit Price. The Base Price ensures that adequate capacity is available for the service and the Unit Price reflects the different support and hosting costs associated with different sized organisations.

The Unit Price is charged per Council Tax Chargeable Dwelling in the Local Authority (as identified in England via MHCLG's "Council Taxbase local authority level data" published in November, in Wales via StatsWales' "Council tax dwellings, by local authority" published in January, and in Scotland via Gov.Scot's "Chargeable Dwellings" published in September.)

As an example for BECS.AI, Local Authority A has a base price of £6,000 and a 'Chargeable Dwelling' number of 10,000 properties with a charge of 10p per dwelling, this would carry an annual cost of £11,000 + VAT. Initial standard setup, configuration, training and testing would be included in these costs.

How to order?

All BECS services are supplied on an annual subscription basis which includes licencing, installation and localisation, hosting, initial training, support and maintenance. Integration with EDMS, core systems, customer portals and other systems (where required) that you wish Team Netsol to implement for you are separately chargeable on approval of a project plan at our standard SFIA rate card day rates for such work. You subscribe to each BECS service that you need for a term of not less than one year. Invoices are raised annually and

payment is due as indicated within the 'Terms and Conditions Document'. Additional services and training can be purchased at the rates indicated within the 'Pricing Document'.

Buyers should follow the G-Cloud 15 guidelines for procuring Team Netsol's products and services.

Contract Termination

There are no exit fees at the end of contract, as there is no pro-rata return of any unused part of the subscription period, and final data transfer and service decommissioning is included within the pricing.

There is a notice period indicated in the 'Terms and Conditions Document' that should be adhered to within the contracted period, which is used to trigger the exit and decommissioning process.

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