

Skills and Competencies Survey
v15.0
service definition



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Introduction

Our Skills and Competencies Survey (SCS) tool is a *secure* cloud-based solution for measuring and assessing the collective capabilities of an organisation's workforce. The tool, with optional consultancy support, performs an objective assessment of individual staff skills and competencies, covering knowledge and behaviours, capability and expertise, academic achievement etc. Our clear distinction between other such tools is the security around the protection of your data and the ability to host on-site or single tenant.

People are our most expensive resource, yet we are often unaware of their wider talents and learning abilities. All too often we pigeonhole staff according to our preconceptions and low awareness, a behaviour that runs the risk of masking their true potential and talent. With our Skills and Competencies Survey tool, organisations can gain a clear understanding of the collective capabilities of the workforce and any gaps in coverage (compared with the ideal). The results can be used to leverage previously unrecognised abilities or as a catalyst for improvement through training or recruitment. Similarly, they can be used to inform activities supporting organisational change and restructuring.

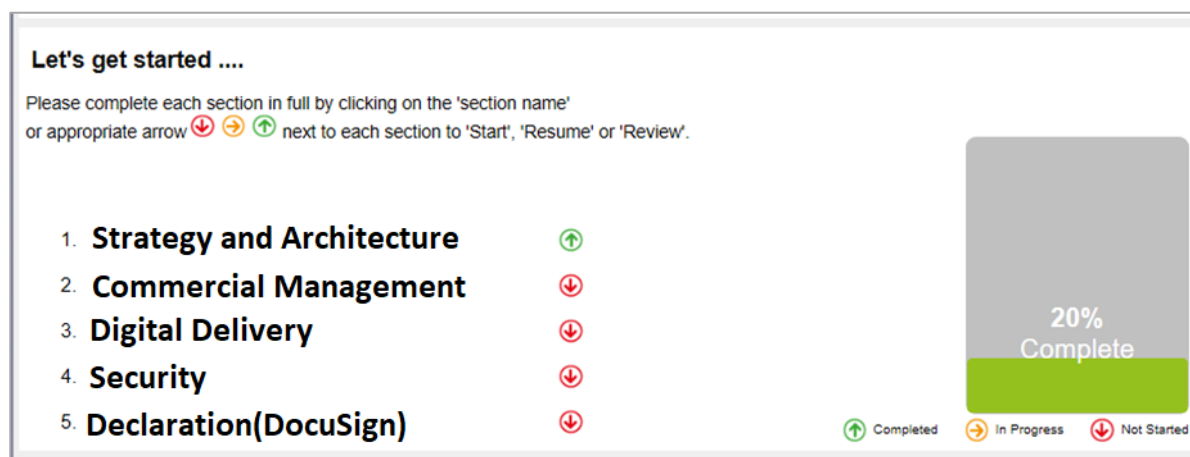


Figure 1: Landing Pages & Annexes

Delivered as an online, self-assessment survey, information on staff skills and competencies can be gathered in a supportive, non-intrusive manner. Survey questions can be tailored to a given audience (e.g. information technology) so that they appear familiar and relevant. Questions can be 'open-ended' (phrased statement requiring a response) or 'closed' (deterministic answers such as 'yes' / 'no') to explore the candidate's unconscious disposition likely to influence future performance and behaviour. Powerful, but easy to use tools, allow surveys to be quickly and easily constructed and also make survey participation (by the workforce) just as painless. Staff engagement can be via email with an embedded link (to the survey) or via a Skills and Competencies website requiring participants to self-authenticate. Surveys with a different audience or the same audience but different information requirements can be run concurrently, while customisable reports ensure

beneficiaries (which might include participants, union leaders, HR, management etc.), get the information they need in a format that is readily accessible.

Flexible, integrated reporting and use of document templates makes reporting and feedback straightforward, with embedded analytics to help distil from answers the information gleaned from the survey. The data assimilated with our survey tool can be also exported to a range of 3rd-party applications through Blackthorn's comprehensive and inclusive APIs.

The benefits delivered by Blackthorn's Skills and Competencies tool include:

- Release of underutilised capability and expertise
- Supports case for training and/or recruitment
- Identifies skills shortages / excess capacity
- Excellent engagement and response rates from increased user accessibility and convenience
- Accessible via mobile devices, tablets, laptops, desktop computers
- Target audience easily reached
- Highly scalable with global reach
- Flexibility in the design and nature of survey questions
- No opportunity for responses to be influenced by person coordinating as might be case with telephone or in-person surveys
- Flexible reporting
- User accountability with audit trail and monitoring
- Enhanced security to protect against data leakage
- GDPR compliant data handling.

Our Skills and Competencies Discovery service (G-Cloud Support – Lot 3) is a complimentary service providing access to Organisational Development / Human Resource 'subject matter' expertise. Whilst we encourage organisations to design their own surveys and to set their own survey questions, experience and 1st hand knowledge can be invaluable in helping avoid much of the 'trial and error' that accompanies new ventures. Our subject matter experts can also assist with the assessment and interpretation of results, especially where the meaningful inference requires careful evaluation of the results. For more information on advisory services, please refer to our Cloud Support Service Descriptions.

Fundamental axioms

Our software is designed around three fundamental axioms: insight, accountability and control. This means actions are logical and intuitive, making adoption of our software easy. Powerful but simple to use set-up and configuration tools enable solutions to be quickly and easily tailored to a customer's specific requirements, and a range of business functions to be integrated into one cohesive package to meet a specific business or operational need. Customers have 'total say' over the look and feel of their solutions and, consequently, the resulting user experience!

Skills and Competencies Survey is one of a range of solutions based on our eGRC (software) platform. Other 'standard' solutions include:

- (Security) Incident Management
- Risk and Threat Analysis
- Pre-employment Security Vetting
- Health & Safety Assessment
- Fraud Case Management
- Law Enforcement Case Management
- Audit Case Management
- Coroner Case Management
- Investigation Case Management
- FOI/SAR Case Management
- Questionnaire, Forms and Surveys.

Our cloud services¹ are delivered on scalable, secure infrastructure with the flexibility to deliver optimum performance at minimum cost. Customers can choose, based on risk appetite, between UK sovereign data centres² that meet the accreditation and assurance requirements of data at OFFICIAL (as per the Government's Security Classification), less expensive commercial cloud-hosting, or something in between. Full UK data sovereignty can also be assured no matter which hosting option is chosen. On-premises hosting is also an option. Our services can be accessed over standard Government networks (PSN, HSCN) or via the Internet with appropriate channel encryption.



¹ solutions delivered as an online, subscription service with SaaS modality.

² sovereign data centres meeting the specification of the Baseline Control Set (BSC) and recommendations of the UK Security Policy Framework.

Service Capability

The Blackthorn Skills and Competencies tool provides enterprise level capability for surveying a workforce to better understand the value of people in terms of their knowledge, skills and experience. This insight creates opportunity to benefit from expertise that had previously gone undetected, but also the chance to invest in the workforce to address skills shortages with appropriate training. Data is collected from the workforce using questionnaires but as the nature of the workforce, individual staff skill sets, and *raison d'être* for conducting the survey will differ from one organisation to the next, our tool is not supplied as standard with *ready-made* questionnaires. Instead, it is supplied with a set of flexible and intuitive tools empowering organisations to construct survey question-sets capable of addressing their specific and individual assessment needs.

Our Skills and Competencies system is supplied with a set of standard features. With these you can:

- create and publish survey questionnaires and 'withdraw' earlier or superseded questionnaires
- re-use (up-cycle) earlier survey questions creating new versions of a survey
- conduct assessments, tracking progress at participant or survey level
- visualise survey results with configurable dashboards
- interpret survey results using (graphical) analytics tools
- drill down into survey results for the detail behind the detail.

Tools for survey administration (including deployment) ensure appropriate separation between live surveys and those in the initial stages of set up. Survey administrators have full control over survey participation and follow-up actions post survey closure. Participation is normally by email invite, the communication containing a link that

opens the survey in the participant's browser. Tools for importing and maintaining address lists are provided. Alternatively, participants can be directed to our online website and access the survey using previously supplied account credentials.

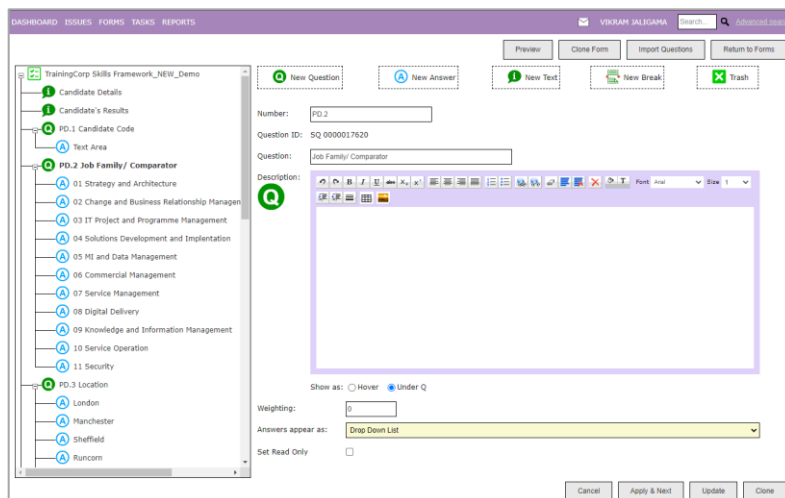


Figure 2: Simple Interface to build questionnaires

Perhaps unique to the Blackthorn Skills and Competencies solution is the inclusion of a participants' portal with tools to help respondents organise their survey responses. Survey participation is for many, a one-off, occasional activity and therefore the link to participate can open the survey directly. For others, survey participation might be a regular activity, and the ability to juggle new, partially completed and completed surveys a welcome benefit. The portal can be also used by stakeholders to access the results of surveys. The results might be in their original 'raw' state or processed and presented in a dashboard or hard copy report format.

Our surveys builder supports a range of question formats. It also provides control over the appearance and framing of questions meaning corporate branding and styling can be easily incorporated. Appropriate segregation between new (in development) and live surveys ensures survey questionnaires do not enter use before they are fully developed and ready, and the ability to withdraw redundant and/or superseded survey questionnaires protects against their accidental future use. Typically, survey questionnaires are constructed from the ground up, but a 'cloning' facility enables new questionnaires to be created from existing ones, a welcome time saver if simply updating and publishing at higher version or where the differences between new and old are minimal.

Survey engagement levels can be tracked by administrators and reminders sent to participants who are slow to respond. Participant notification can be manual or fully automated with triggers set at intervals leading up to the survey closure date.

Survey responses can be viewed individually (by respondent) or in aggregate. In aggregate, the results are analysed statistically as the percentage distribution across individual answer options. Other types of analytic interpretation can be applied to results with the addition of bespoke modules. Survey answers can also be given a weighting or score. This allows a pre-determined bias or different measurement regime to be applied to results. Scoring also allows results to be aggregated by respondent (using a common denominator) leading to deliverance of an absolute, singleton result. This might be appropriate where a survey is used to measure a person's overall technical ability rather than any one specific technical skill.

There might be circumstances where the return of a completed survey questionnaire needs to trigger a sequence of follow-up, user actions, or start automated processes. Similarly, the closure of a survey on achievement of a set response threshold, may need to trigger a downstream action or response. This action or response could be as simple as alerting the survey administrator to the closure of the survey and availability of results. All of the above situations are catered for with 'workflow' to orchestrate manual activities and links to run scripts and SQL coding when appropriate conditions are met.

Integrated dashboards provide fast access to survey results, automatically adapting according to the question types in the underlying survey. Other dashboards provide operational and management information, but these can be supplemented with tailor-

made³ or self-created dashboards as required. Survey results can also be output in report format (.docx) or in file format (.xlsx and .csv). A library of report templates (.dotx) can be maintained, personalised to the corporate branding scheme, to aid and accelerate report generation.

Online 'help' provides participants with guidance on the survey process and answers to FAQs.

Our Skills and Competencies solution includes, as standard, support for the following operations:

Survey Respondents

- participate in surveys with ability to save partially completed questionnaires
- administer new, partially complete and completed questionnaires via portal and personal account
- print questionnaires (new, partially complete and completed)
- upload files in support of survey responses

Survey Administrator

- design and build survey questionnaires using a range of standard question types/answers
- include launchpads and progress thermometers in questionnaires
- incorporate conditional branching / dynamic routing in questionnaires
- add weighting or scoring to questionnaire answers to aid interpretation of results
- maintain separation between live surveys and those in design, build and test
- preview questionnaires before 'publishing' for live use
- invite participation in a survey by email (embedded link to survey website)
- track participation in live surveys (i.e. unopened, started, completed)
- manually send ad-hoc notifications and reminders to survey participants
- automatically send notifications and reminders ahead of end-date for participation
- automatically send acknowledgement following receipt of a completed survey
- withdraw surveys (earlier versions) stopping further use.
- view survey results using filters to refine sample
- view or analyse surveys results with statistical inference
- create custom dashboards using a range of standard, pre-built '*widgets*'
- output survey results in report format using library report template
- maintain library of document templates (.dotx).

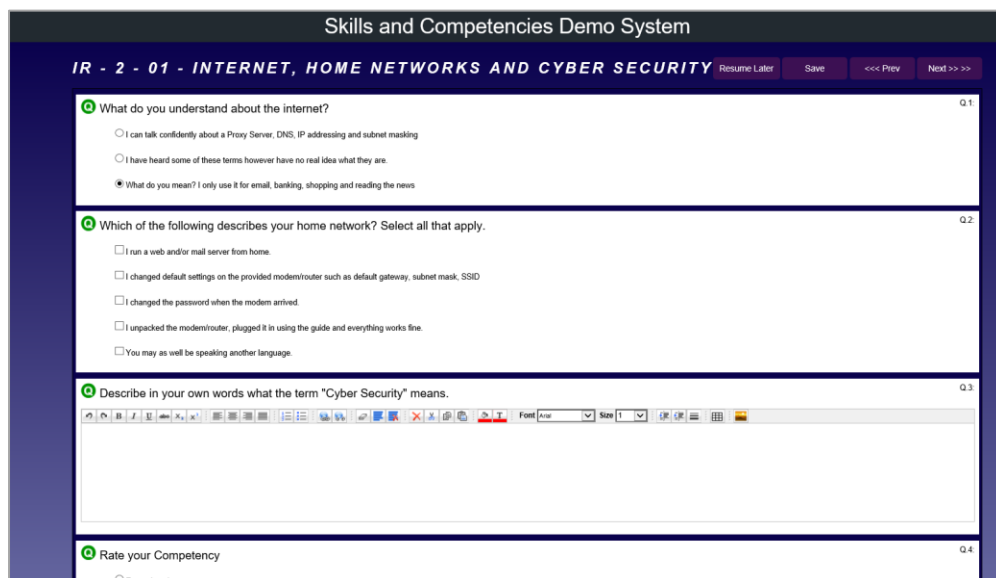
³ Bespoke dashboard supplied by Blackthorn to customer's specific requirements.

Our many years of experience working with public and private sector organisations has taught us that no two organisations are totally alike and whilst their underlying requirements might be the same, e.g. skills assessment, some deviation from our established product line is inevitable. This might be required to cater for circumstance, individual preferences, or the need to integrate with existing in-house applications and systems. Specific data collection, assessment or reporting needs might also be the catalyst for change. Whatever the reason, our data configurable software ensures that any additional bespoke coding is kept to a minimum and the dwell time between contract award and initial operating capability is measured in weeks rather than months.

All variants of our Forms and Surveys are based on a technology platform that incorporates the following features and capabilities:

a) Information capture

High-fidelity e-Forms with embedded data validation and consistency checking help to eliminate mundane and error prone data entry. e-Forms are context sensitive, only displaying the questions relating to the specified fields of expertise. Documents, files, audio recordings, photographs, scanned papers can be captured. Questions can feed off external systems such as Active Directory and Asset Management Systems to capture personal details, contact details (address) and systems they have access to.



The screenshot displays a web-based questionnaire titled "Skills and Competencies Demo System". The interface includes a navigation bar with buttons for "Resume Later", "Save", "<<< Prev", and "Next >>>". The questionnaire is divided into four sections:

- Q.1: What do you understand about the internet?** This section contains three radio button options:
 - ☐ I can talk confidently about a Proxy Server, DNS, IP addressing and subnet masking
 - ☐ I have heard some of these terms however have no real idea what they are.
 - ☒ What do you mean? I only use it for email, banking, shopping and reading the news
- Q.2: Which of the following describes your home network? Select all that apply.** This section contains five checkbox options:
 - ☐ I run a web and/or mail server from home.
 - ☐ I changed default settings on the provided modem/router such as default gateway, subnet mask, SSID
 - ☐ I changed the password when the modem arrived.
 - ☐ I unpacked the modem/router, plugged it in using the guide and everything works fine.
 - ☐ You may as well be speaking another language.
- Q.3: Describe in your own words what the term "Cyber Security" means.** This section features a rich text editor with a toolbar containing various formatting and editing tools.
- Q.4: Rate your Competency** This section contains a single radio button option:
 - ☐ Expert Level

Figure 3: Self-Assessment style Questionnaires

b) Dashboards

‘At-a-glance’ access to key information and insight needed to drive decisions. Operational dashboards provide directors, managers and seniors with a snapshot of the status of skills within their team. Analytical dashboards enable a more detailed evaluation of skills, comparison between skills or over time, or access to underlying details or trends. An example of a dashboard is provided in Figure 4 below.

Filtering by questionnaire attribute, for example employee, section, region, grade, etc. allows the ‘window’ onto case data to be narrowed and better focused. Filters can be also used for analytical reporting and detailed trend analysis.

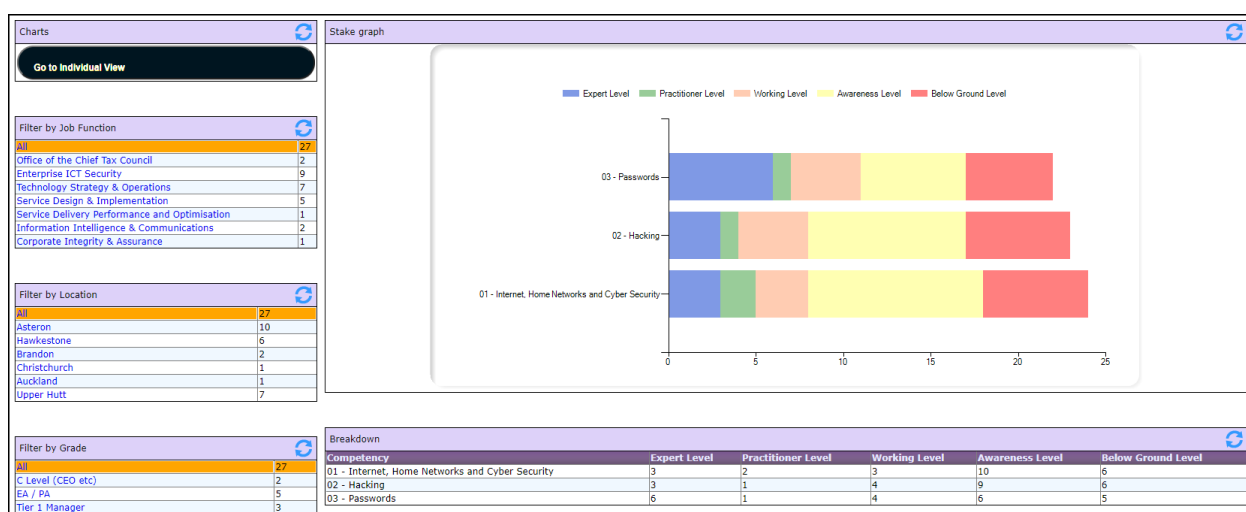
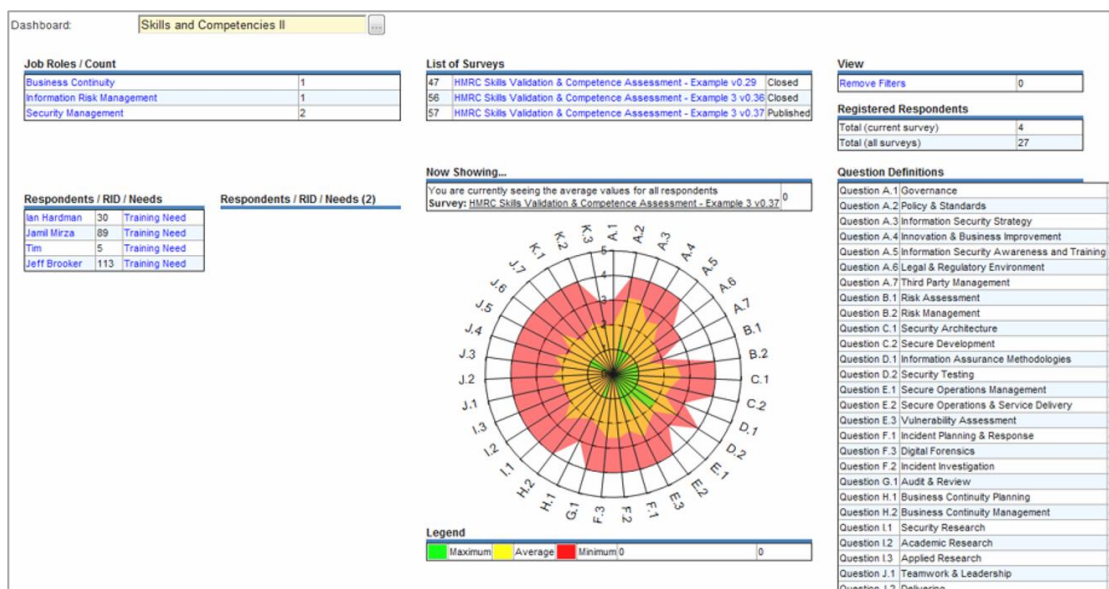


Figure 4: Purpose made dashboards to mine skills

Our SCS system is supplied with a range of standard, pre-configured dashboards which can be retrospectively and individually fine-tuned using filters and personal preferences. Custom dashboards can also be created (permissions allowing) to meet a specific, individual business need. A graphical interface and a range of standard widgets (standard dashboard components) is available for this purpose.

One of our unique features allows for the embedding of graphs within the questionnaire itself, giving immediate feedback to the respondent. This may be in the form a totalizer showing their skill score against expected skill score, or a spider showing the expect skills for their role, against their actual and the average within the organisation, to identify areas that could be improved on.

c) Follow Up Activities

Our tool not only allows you to gather information and help you analyse results, but also organise follow up actions. This may be a restructure, training, reskilling. Our case management tool is integrated with our Survey tool allowing you to either allocate ad-hoc tasks or utilise our powerful workflow features to carry out repeatable processes.

By accompanying this feature, we are not just trying to identify employees' weaknesses, but identifying a road map for training for each employee.

d) Forms and Reports

Our SCS solution supports the creation of templated word documents and PDFs as required by regulation, policy or internal protocol. Document templates can be added to the library of supplied templates allowing standard and bespoke forms and reports to be created digitally and auto completed with relevant case data. For example, after an employee completes a satisfactory self-assessment, a certificate can be automatically e-mailed to the employee. Alternatively, a summary of their performance can be emailed to themselves and their manager, together with their progress from previous skills assessment.

e) Data extraction

Data export (in either .xlsx or .csv file formats) is supported by a 'wizard' giving users complete control over the extraction process. This function is used to facilitate statistical data analysis outside the standard analysis and reporting that is integral to the SCS system.

f) Alerting and Notification

As with most systems, SCS has multiple notification channels including secure PGP email for the most sensitive communications. The content of emails is fully configurable from the front end – no coding is required. Email alerts and notifications can be triggered manually or by workflow, raising awareness without the need to log-on. Internal messaging (a succinct method of communicating with other SCS users) is also available and has the

advantage of keeping the content of the communication within the confines of the system (avoids possibility of data leakage or creep).

g) Accountability

All user actions are logged providing an admissible record of system and user actions. Log entries cannot be deleted or amended. This audit trail helps enforce accountability.

h) Compliance and data retention (GDPR)

Compliance is a key issue for all organisations, be it regulatory, legislative, or alignment with internal policies, procedures and rules. Compliance is addressed in a multitude of ways:

- workflow ensures authorised processes are followed
- changes to records, evidence and internal communications are evidenced by an auditable digital record, and
- strong user account rights ensure effective segregation of duties.

Compliance with the new EU Data Protection regulation is ensured by a powerful security regime that works with process management to ensure personal information is only used for its stated purpose and retained no longer than necessary.

As your service provider, Blackthorn has in place established processes for handling FOI and SAR requests where prior authorisation has been given by you (a.k.a. Data Controller).

i) Interoperability

A library of pre-existing web services (Open API compliant and RESTful⁴) are available for standard interfacing needs. OLEDB services are available allowing direct interaction with our data storage medium. Additionally, data can be exchanged digitally via email - both inbound and outbound. This has many advantages as SMTP⁵, the vehicle enabling email, is ubiquitous, making it a very open and accessible channel for information exchange.

⁴ RESTful API is an application programming interface (API) that uses HTTP (Hyper-Text Transfer Protocol) to GET, PUT, POST and DELETE data, which is stateless.

⁵ Secure Mail Transfer Protocol.

Features and Benefits

Features
• Qualified and objective assessment of your organisation's skills and competencies • Online, self-assessment of your people • Visual indication of skills and capability against expectation • Gaps and weaknesses easily identifiable • Customisable question-sets to match business interests and needs. • Flexibility to conduct assessments in many geographies • Intuitive, clear user interface with user configured reports and dashboards • Routing through questions based on earlier answers

Benefits
• Clear understanding of future training / recruitment needs • Re-use of question-sets across skills surveys • Online (24x7) access to survey findings • Full audit trail ensuring users fully accountable for their actions • Secure storage of data with channel encryption on remote links • Clean, intuitive user interface reducing any training requirements • Wide range of supported platforms e.g. tablet, laptop, desktop

eGRC Platform

Our eGRC platform is the workhorse behind all our case management, audit and survey solutions. It is an integrated software offering that combines core capability (modules) with extensions (wrappers) to create a suite of ready-made solutions aligned to familiar operational and/or business needs e.g. Survey, Audit, Self-assessment etc. Set-up tools integrated into the platform enable further configuration and tailoring, and the adaption of solutions to meet specific, and often very individual, operating needs. The supply of pre-configured solutions means our software can be up and running in virtually no time, while built-in configuration tools afford the flexibility required to ensure optimal alignment with functional, as well as visual and branding preferences.

As our set-up and configuration tools are part of the supply, such work can be undertaken by us or by you with a minimum amount of training. Investment in training will see an immediate return as, thereafter any through-life enhancement and update work can be completed in-house, lowering the cost of ownership.

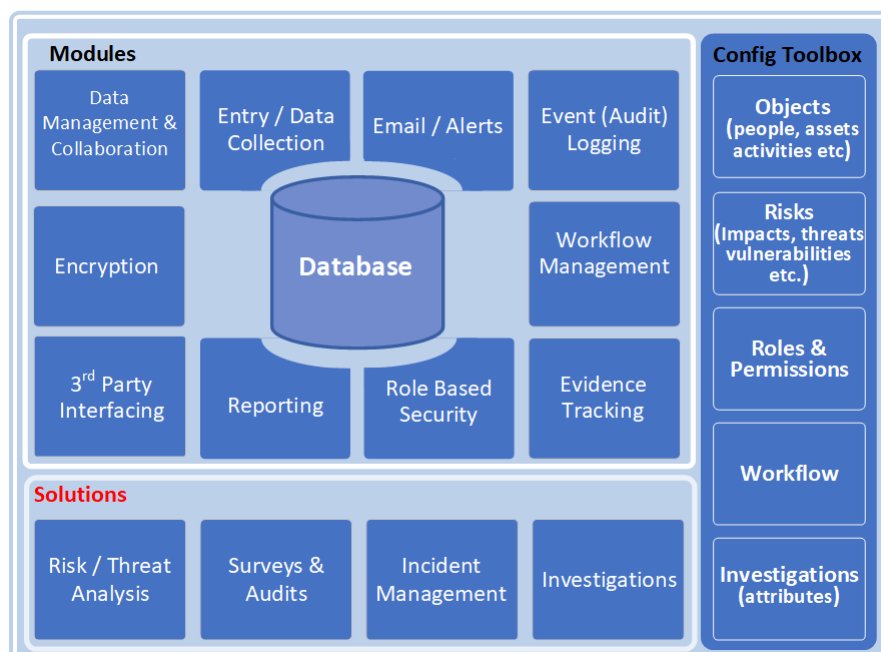


Figure 5: eGRC Platform Architecture

The web technologies employed by our eGRC platform are all traditional and well proven for reliability and performance. We use Xamarin, ASP.NET and MS-SQL for server-side processing, which are regularly refreshed and updated by Microsoft.

Our GUIs employs HTML & JQuery and work with Internet Explorer IE9 and IE11 (IE8 if there is a genuine necessity), Firefox and Chrome. This ensures our solutions work with the widest range of client devices and are backwards compatible.

Cloud Hosting

Whilst offering government many benefits, cloud hosting introduces potential data sovereignty and security challenges. Our Skills and Competencies Survey solution is available with full database encryption, as well as channel encryption (secure link between browser and cloud infrastructure). We have established relationships with several hosting providers and can offer different hosting options based on risk appetite, budget, and the sensitivity of the data you need to store.

We can offer single tenant or multi-tenanted hosting environment suitable for keeping data secure up to IL3/OFFICIAL. Alternatively, we can offer hosting in a commercial cloud, again with requisite levels of security.

A further option is self-hosting, either on-premises or with an infrastructure provider directly contracted. In this scenario, the supply would be on a 'software only' basis.

Regardless of provider, our service availability is better than 99.95% meaning access to reliable and secure data, without compromise.

Service Architecture

Our standard offering is single tenanted with dedicated, virtualised infrastructure, ensuring your data is accessible only by you and any other parties you so authorise.

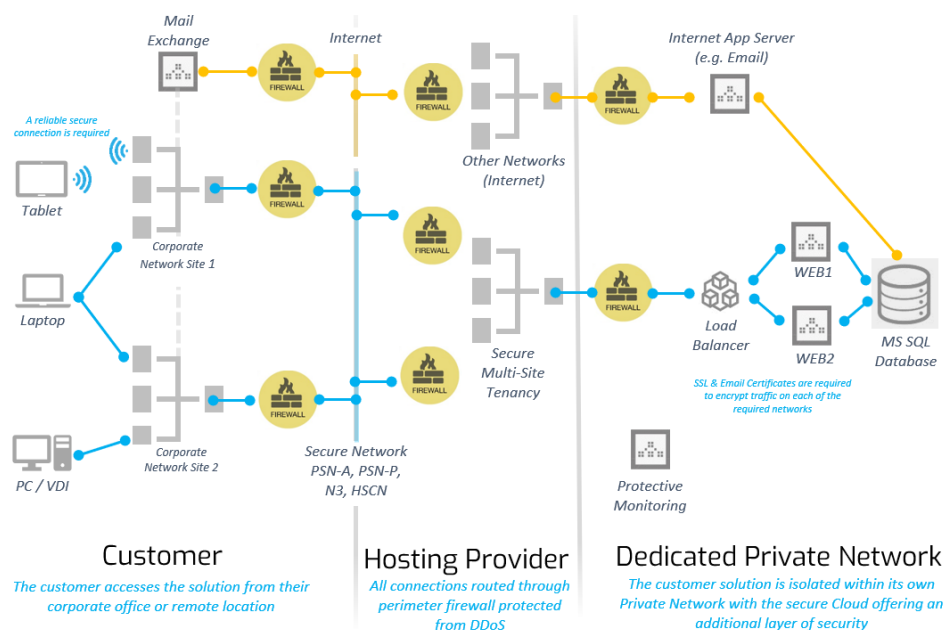


Figure 6: Dual Web Server suitable for hosting Official Sensitive Information

Our standard Government hosting solution (Figure 6) leverages data centres meeting the accreditation and assurance requirements of data at OFFICIAL. They are reached via secure corporate and wide area networks (e.g. PSN, HSCN) and meet all Government code-of-connection requirements. An air-gapped connection to an internet facing application service provides options for email over internet (GDS

preference), reducing the demand on the Government's wide area networks. Dual webserver behind a load balancer provide the capacity to handle large quantities of HTTPS traffic but this configuration is obviously scalable, both up and down.

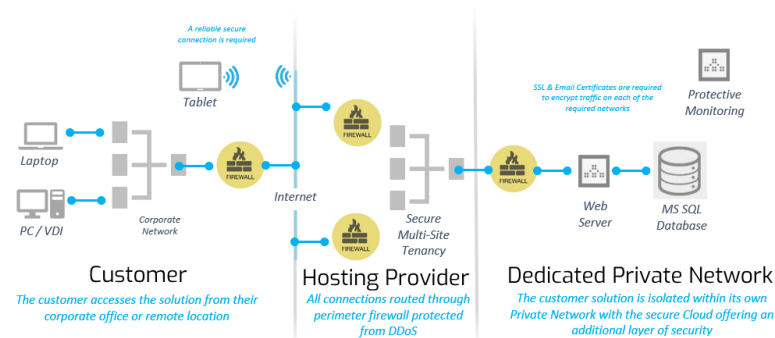


Figure 7: Single Web Server suitable for hosting Commercial Information

Where data security targets are less demanding, we can provide hosting with a commercial hosting provider (

Figure 7). The service is accessed over the internet with channel and database encryption as required.

Figure 7 shows a single webserver, but again, this infrastructure is scalable both in terms of machine capacity and performance and the number of virtualised machine instances used to host our web-Application software.

Resilience

All our providers' data centres, along with their failover sites, are within the UK, and data centre staff security vetting is commensurate with the data protection inherent in the service being procured.

Typically, data centres have geo-redundant disks to aid resilience. Data is replicated between data centres over secure links and held within each data centre (production

and failover) on 'live' disks. No data is off-loaded to tape or moved off-site from data centres.

As standard, we perform hourly incremental backups and full daily backups so in the unlikely event of data loss or corruption, we can complete the full restoration of data to an earlier point in time. The minimum time to recover data (Recovery Time Objective - RTO) is less than 30 minutes depending on the size of your dataset. With hourly incremental backups, our recovery point objective is no more than 60 minutes. Other back up strategies can be implemented at additional cost.

Backup files are retained for a maximum of 1 calendar month in order to comply with the sentiment of the new GDPR (General Data Protection Regulation).

Protective Monitoring

We employ our own protective monitoring solution within the virtualised cloud environment. This aggregates and analyses relevant data from multiple sources for evidence of persistent threats (at the boundary) and other types of unauthorised activity. Our protective monitoring solution polls the servers and other network appliances in its vicinity for security-related event information. Any exceptions or patterns of behaviour deviating from 'normal' will automatically trigger an alert once a pre-set threshold is reached. Alerts are routed directly to our Help Desk staff and in-house Security Incident Management System (SIMS) so an appropriate and measured response can be dispensed. As well as helping to coordinate any response effort, the SIMS also escalate security events internally within Blackthorn's management hierarchy if progress resolving the incident falls behind response time targets.

Business Continuity

Business Continuity plans are separately maintained for each tenant of our cloud-hosting environment. The plans share a common backbone, but each plan is unique to ensure the resilience strategy is properly aligned to a given customer's needs. Separate plans also ensure that contact and escalation information is relevant and falls readily to hand.

The plans are regularly tested to ensure weaknesses are identified before the plan is used in anger. Plans are normally tested on an annual basis.

On-boarding

A Blackthorn GRC Account Manager will make early contact to start the engagement process and create the necessary communication paths between senior users (or equivalent) and Blackthorn GRC's Business Analyst Team. Our Business Analysts will liaise with users to capture and consolidate our understanding of your requirements, filling in any holes or gaps in specifications and documents provided during procurement. This necessary precursor to initial system configuration and set-up ensures there is a common vision and Blackthorn has all the information required to proceed with the supply.



Figure 8: On-boarding stages

Initial engagement is followed by a phase of rapid system configuration and development work creating the forms, screens, templates, workflows, reports and dashboards necessary to tailor our standard solutions/products to your specific, and often unique, requirements. This work follows an 'Agile' style methodology where your engagement team of senior users works closely with our commissioning team on the set-up and configuration. Being on-hand (figuratively) users can critique, influence and shape the evolving design. Planned senior user contact normally occurs at the end of each Agile 'Sprint' (Sprints comprising 5-10 days of setup and development activity).

Figure 8 provides a high-level overview of the steps taken to ensure the supplied solution is the perfect fit for your organisation.

We normally aim to implement and supply the Minimum Viable Product (MVP) i.e. the minimum functionality required to get your service up and running; the residual capability (difference between the procured capability and MVP) is delivered thereafter. This approach ensures the system enters operational service soonest. It also provides users with early exposure and the opportunity to influence the latter stages of implementation.

Next, we build out the production hosting infrastructure (cloud solutions) or assist with the installation of the solution on the chosen 'self-host' infrastructure. Supply of the production hosting environment might be accelerated if data security requirements dictate that initial trials (MVP) cannot proceed using lower-grade, commercial cloud-hosting.

A period of User Acceptance Testing (UAT) follows but as customers have been directly involved throughout the set-up and configuration phase, it is unusual for UAT to uncover significant issues. The UAT phase is really intended to give a broader user audience time to evaluate the system and to identify possible performance or operational issues not previously picked up.

Finally, the wider user community is onboarded (community supplied with user accounts) and training provided (if part of the supply).

Service Provisioning Time

Service provisioning times will vary as they are dependent on the customer's business and operational requirements.

Delivery timescales will be agreed based on the information gathered during requirements capture and the preparation of the Statement of Work.

Service De-provisioning Time

De-provisioning time will be determined during the Off-Boarding process. Please refer to the Off-Boarding section of this document.

Service Delivery

During the set-up and configuration phase, regular contact is maintained (daily) but as the solution enters service the level of support contact will abate to the agreed (contracted) background level.

The cloud (or on-premises) service is available 24 x 7 and mainly self-administered by the customer - at least from a day-to-day business operations perspective.

Blackthorn's Operations Team will undertake regular technical service reviews to ensure that the cloud hosting environment has the resources and compute power needed to function correctly and deliver the expected user experience (i.e. user responsiveness).

Checks will be also made to ensure that operating system and security patches are being applied to the infrastructure in accordance with vendor's maintenance schedules. If the support agreement requires additional service assurance checks, such as checking the status of 'comms' with third-party systems, these will be carried out alongside the routine checks.

Service Review Meetings will be arranged at a frequency to suit the customer, typically once every 4 - 6 weeks. These provide an opportunity to discuss service availability, performance, upkeep, resilience, patching, maintenance etc.

Day-to-day service delivery issues and functional queries are handled by our Help Desk which is available 9 x 5 or 24 x 7 according to the support package purchased. Support is delivered in accordance with our standard service SLA (see section on Response Times).

Support enquiries typically range from assistance resetting passwords through to configuration changes, or the set-up of new reports, dashboards or custom forms. If functional changes are required and the level of configuration/development effort, together with background support effort, is likely to exceed the monthly support hours allowance, we will execute the required functional changes under the auspices of a separate and dedicated 'mini project' which will be individually priced (i.e. additional cost). This approach is taken to ensure there is always sufficient 'headroom' (cost cover) to provide Help Desk support to users throughout the month (and up to the start of the following month when allowances are renewed).

During the On-boarding phase, we will prepare a Service Definition document defining through-life support arrangements. This document will include key service delivery information such as:

- a. Contact points
- b. Escalation processes
- c. Support arrangements
- d. Incident Management
- e. Problem Management
- f. Change Management

- g. Service Desk response SLAs
- h. reporting frequency
- i. meeting schedules.

Service Delivery can also include provisions for regular security auditing - which is a key element of our Protective Monitoring solution (if purchased).

Protective Monitoring analyses audit log information from a number of key sources for evidence of malicious or unauthorised activity, whether attributable to support staff, data centre staff or external threats. Whilst this monitoring is largely machine based (Blackthorn GRC's own proprietary solution) there is a need for Blackthorn's Operations team to manually audit the monitoring system each month to ensure the system is working as intended and to carry out other checks that are beyond the capabilities of the automated system. These manual checks will be integrated into the monthly service reviews.

All of Blackthorn's support staff have been security vetted to SC Level.

Off-Boarding

The off-boarding process considers data migration from the incumbent Blackthorn solution, as well as measures for successful engagement with the new solution provider. The process starts by defining the scope of the work and work allocation between the customer, Blackthorn GRC and the new provider. Blackthorn will participate in workshops, frequency as required, to define and agree the mechanics of commuting the data to the new provider. Key to a successful data migration is a mapping specification translating old to new data fields, possibly via an intermediary schema.

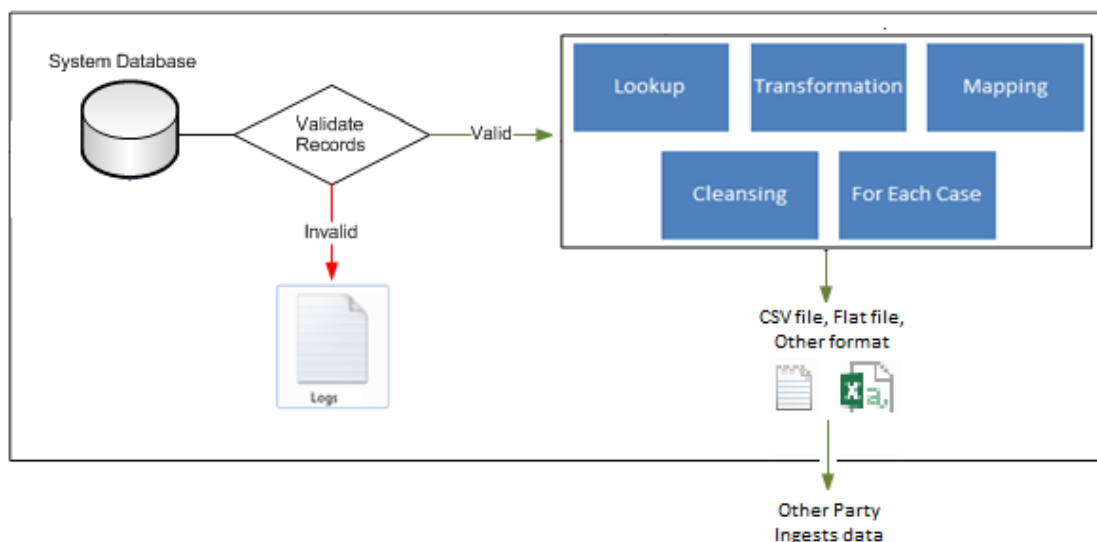


Figure 9: Data migration process

The data migrating process could involve:

- j. extracting all textual data to a 'flat' or .csv file of agreed format, the file acting as the interface between the two systems, or
- k. writing bespoke scripts and processes to manage the migration and to commute data (including non-textual items such as photos) direct from the old to new system.

Data cleansing might also be necessary to remove anomalies or convert data structures that are incompatible with the data schemas used by the new system. Any significant data cleansing is likely to generate a need for additional data testing and validation.

Figure 9 illustrates the process at high level.

Response Times

Blackthorn GRC operates a standard Support SLA which prioritises all incidents based on an assessment of the severity of the reported problem. There are 4 priority levels for response. The priority levels, a description of the types of incidents that correspond to a priority level, and the strategy for initial evaluation and subsequent remediation, and response times (RT) are provided in the table below.

Priority	Description	Initial Response	Resolution
P1 Major Business Impact	Product/service defect has a substantial effect on business operations with no available work-around. Results in complete loss of service for end-users, immediately impacting the clients of end-users. An error or failure where: • User(s) unable to access service • Necessary work unable to proceed • No immediate work-around available.	RT: < 2 hours Acknowledgement of receipt of Support Request and supply of Case Reference No. If there is an obvious and tenable workaround, this will be proposed as a short-term fix to enable necessary work to continue. If 'work-around' acceptable, priority level of support request might be reduced to P2 (only with customer's approval).	RT: Initial Response + < 8 hours Restoration of service to its previous operational state giving access to all normal 'end-user' services. Caveats: a) Recovery involving fail-over to secondary data centre – 24 hrs RTO b) Recovery action that addresses symptoms rather than cause (i.e. work-around) might require follow-up investigation, analysis, and remediation. This work will be carried out under the auspices of separate Remediation Plan and progressed as a P2 incident c) Assistance will be provided with networking issues between data centre and end-users but RT does not apply.
P2 Significant Business Impact	Business operations impacted with a significant reduction in performance or capacity (processing or bandwidth). Business operations able to continue but if defect not resolved there will be medium to longer term consequences.	RT: < 6 hours Acknowledgment of receipt of Support Request and supply of Case Reference No. Supply of initial diagnosis. If there is an obvious and tenable work-around that provides a stop-gap solution, this will be proposed.	RT: Initial Response + < 5 working days Supply of work-around to as temporary means of recovering business operations. Supply of interim release (or scheduled maintenance release) to remediate issue and return service to full operational state.

	Possible 'workarounds' are labour intensive affecting performance and productivity but offer an acceptable short-term solution. An error or failure where: • Users still able to access service • Performance reduced • No Workaround available.	Agree plan that addresses cause and provides permanent fix.	Plan any further software releases necessary for permanent fault correction.
P3 Minor Business Impact	Non-essential business function is unavailable causing a degree of inconvenience but without any significant impact on operations. An isolated error or issue where: • Users still able to access service • Loss of some specific capability • No loss of system performance • Workaround is available.	RT: < 2 working days Response as for P2 incidents.	RT: Initial Response + < 10 working days Response as for P2 incidents.
P4 No Discernible Business Impact	All other types of issue including: • 'How-to' questions • Supply of documentation • Cosmetic changes to GUI, dashboards or reports.	RT: Best Endeavours Acknowledgment of receipt of Support Request and supply of Case Reference No. (if matter cannot be immediately resolved). Agree nature and timeframe for resolution of issue.	RT: Best Endeavours Deliver outlined solution within agreed timeframe.

Table 1: Blackthorn standard SLA for support

Raising a Support Request

There are several routes to raising a support ticket with Blackthorn's Help Desk. These include telephone, email and via Blackthorn's support portal – see Figure 10.

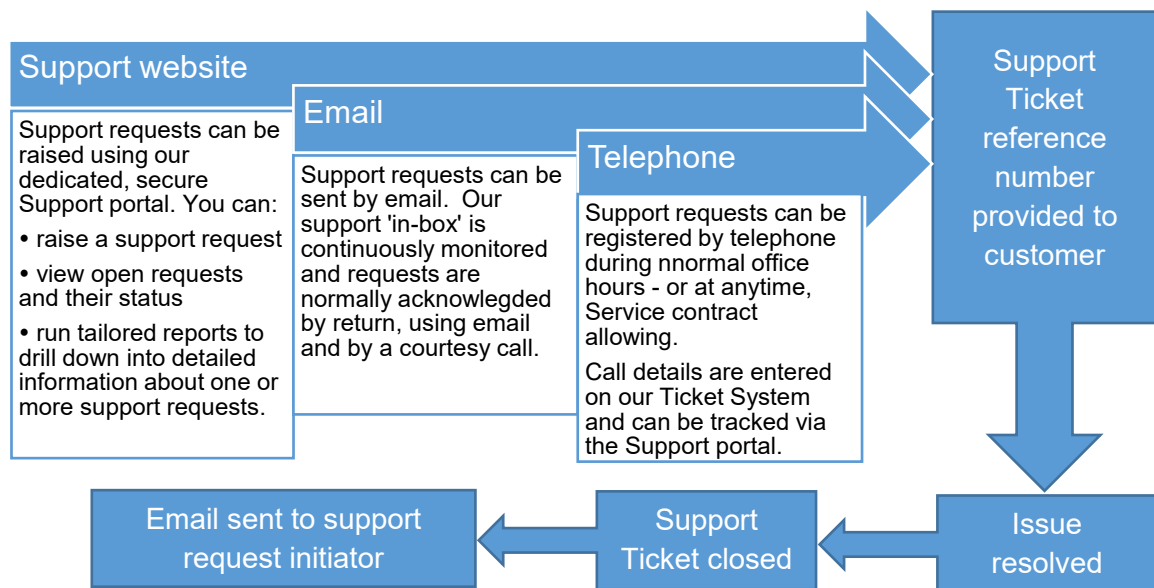


Figure 10: Raising Support Requests

Terms & Conditions

See our standard Terms and Conditions document.

About Us

Blackthorn GRC provides security-based solutions and services. We are the force behind the Blackthorn 'admissible' case management tool, and we have a long history of working with Law Enforcement agencies, Government and Defence. Our innovative business solutions have been in the marketplace since 2005 and enabled many of our existing customers to manage complex tasks including their internal governance activities.

We pride ourselves in developing strong relationships with our customers and helping them achieve their strategic goals. Blackthorn invests in talented staff who help to drive our organisation and enable us to continue to innovate.

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