Online Questionnaires, Forms and Surveys v15.0

service definition

IS 721821

Blackthorn

Contents

Introduction

Our Questionnaire, Forms and Surveys tool is an on-premises or cloud-based *secure* solution for engaging with an audience, soliciting information, and interpreting data. Ostensibly a tool for building online questionnaires, the tool's multifarious user and system interfacing also make it the ideal component for integration into 3rd-party applications where trusted and robust data entry and validation is required. Supporting both webforms with style and imagery underlays, and quick-to-build questionnaires, our software provides a ready-made, front-end GUI that can be easily tailored to meet specific data acquisition and presentation needs. Our clear distinction between other such tools is the security around the protection of your data and the ability to host on-premises or to single tenant your data.

As standard, our software delivers "*out-of-the-box"* capability needed to design and build questionnaires[1], and offers a wide choice of question/answer formats. Questionnaires can be dynamic, the sets of questions presented to the respondent adjusting in-line with previously supplied answers. Answers, too, can be dynamic, automatically adjusting to answer choices made earlier.

'Surveys' adds an extra dimension and the additional processing required to collect aggregate and analyse data. Through Surveys, the questionnaire life cycle can be controlled and question sets published for use when fully developed and ready. Respondents can create online accounts giving them access to new and previously completed questionnaires, as well as different iterations[2] of the same questionnaire. Feedback management ensures appropriate segregation of results for different question sets.

The data collected from a questionnaire can be played back to the respondent in a one-off 360° review, aggregated and analysed for statistical interpretation, or mapped to pre-configured, situational responses. This last option is particularly powerful in volume, self-assessment situations where the guidance and instruction offered to respondents needs to be relevant to their situation or circumstance, as informed by the questionnaire results.

One typical application of our Questionnaire, Forms and Survey tool is *internal audit*; the tool's questionnaire functionality allowing audit checklists to be easily constructed with little or no prior training. '*Surveys'* extend this capability, providing a context for effective supervisory control of the checklist proforma and completed assessments. As survey responses can be linked dynamically to Blackthorn's optional risk models, there is an opportunity to use surveys in the determination of control effectiveness, and to adjust the risk calculation in the light of this judgement. This might be appropriate in a Health and Safety risk determination context or where Blackthorn's

[1] Any written set of questions

[2] Analogous to document version control

risk modelling is used to measure the effectiveness of an organisation's cyber security posture.

The benefits delivered by Blackthorn's Questionnaire, Forms and Surveys tool include:

- reduction in setup and administration costs over telephone/hard copy surveys
- time saved creating, administering, collecting and analysing survey results
- improved engagement and response rates from increased user accessibility and convenience
- accessible via mobile devices, tablets, laptops, desktop computers
- target audience easily reached via emails containing embedded URL links
- highly scalable with global reach
- flexibility in the design of questions and path navigated through question-sets
- respondent anonymity where required
- no opportunity for responses to be influenced by person coordinating as might be case with telephone or in-person surveys
- flexible reporting
- improved policy compliance with audit trail and monitoring
- enhanced security to protect against data leakage
- GDPR compliant data handling.

Our software provides a framework that supports the conduct of research and assessment with online surveys targeted towards internal or external audiences. Audiences are easily reached with links embedded in introductory emails. Where respondents are frequent contributors, for example in a corporate compliance scenario, access to a personal online account with dashboards for administering new and ongoing surveys can be an immense benefit. Our software makes the process of designing and conducting surveys less time consuming, while delivering results faster and more reliably. Flexible, integrated reporting and use of document templates makes feedback easy and straightforward, while embedded analytics help answer important questions. The data assimilated with our Survey tool can also be exported to a range of 3rd-party applications through Blackthorn's comprehensive and inclusive APIs.

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!

Questionnaire, Forms and Surveys 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
- Skills and Competency Assessment.

Our cloud services[3] 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 centres[4] 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, HNSC, N3) or via the Internet with appropriate channel encryption.

[3] solutions delivered as an online, subscription service and SaaS modality.

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

Service Capability

The Blackthorn Questionnaire, Forms and Surveys tool provides enterprise level capability for data capture and management, whether orchestrated using an online survey, a more traditional e-Form, or a combination of both. Surveys allow data to be harvested from a large catchment with down-to-earth questions presented in *list style.* e-Form benefit from more flexibility in terms of the arrangement of the information asked for and constructs used for data capture. e-Form generally are laid out with short 'field' prompts rather than questions to guide respondents; their use is more suited to situations where the context for data collection is understood (for example when updating personal contact details online).

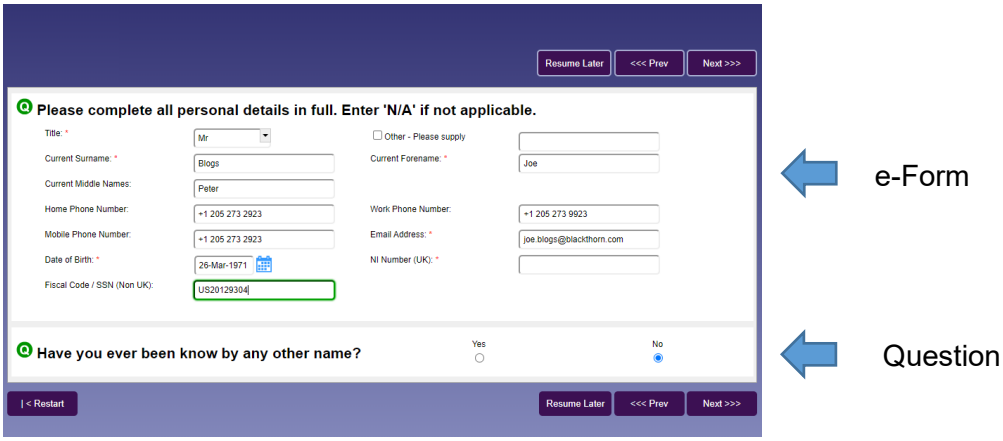

Figure 1: e-Form and Questions

Both our survey and e-Form *front-end* sits over a data management layer that ensures inputted data is properly organised, accessible, communicable and secure.

Downstream options after initial data capture and storage are manifold and include:

- manual analysis and interpretation of individual survey response / collective response
- analysis and processing of data sets (largely manually) under the auspices of Blackthorn Workflow
- automated processing (on receipt of individual response / survey closure and achievement of returns threshold)
- transfer of data to third-party (principally webform data).

e-Forms can be integrated into surveys questionnaires to provide an extra level of richness and sophistication but can also be employed separately to add a data entry capability to a new or existing website. Our e-Forms builder employs a graphical user interface to make the implementation of e-Forms a straightforward and largely intuitive process, and one that avoids the need for programming skills. Changes and

updates can be quickly applied to webforms without the need for compilation[5] and *code release* as the e-Forms builder is integral to our Web *front-end* application and layouts are held in configuration data. Data validation (on entry) and exception handing (such as missing mandatory input) are both integral to our e-Forms solution.

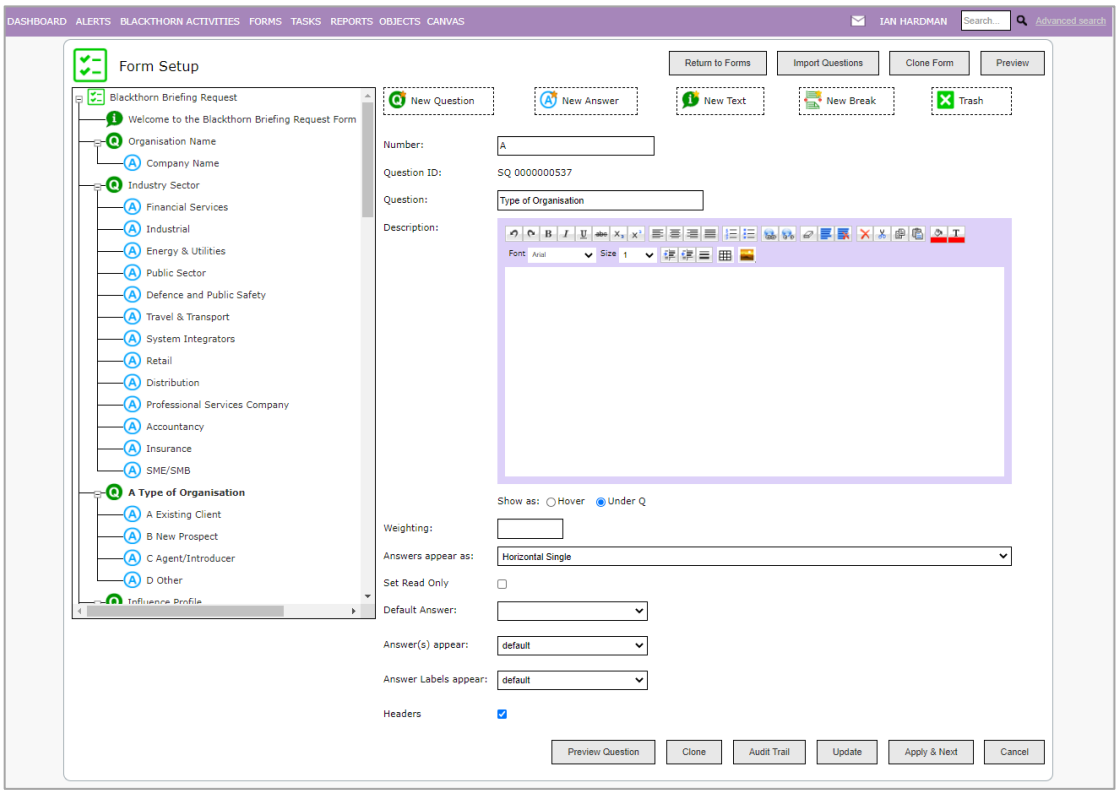

Figure 2: Configuring a questionnaire

Our surveys capability extends considerably the range of data collection options. Traditionally used to solicit, with immediacy, the opinions of an invited audience, surveys questionnaires in their purest form are little different to e-Forms, losing out in 'richness and sophistication' but gaining in terms of ease of construction and logic to navigate (skip) questions. Surveys, as an alternative to e-Forms, also benefit from *under-the-hood* functionality enabling 'scores and 'weighting' to be applied to a respondent's answers, and for answers to be linked to 'situation responses' (a.k.a. recommendations of action or improvement) that can be automatically fed back to the respondent in an alert, email or report. This latter capability brings within easy reach of business users, access to auto-generated, self-assessment/improvement reports constructed from situational responses.

[5] Process of generating executable code from the programming language used to specify the desired operational capability.

Where surveys are used in a more conventional manner (i.e. to *snapshot* the opinions and understanding of a target audience) support extends beyond simply the design and creation of questionnaires and covers the full survey lifecycle, including:

- design and construction of survey questionnaires
- administration of surveys and questionnaire templates
- deployment and engagement with participants
- monitoring survey participation and completion rates
- analysis of findings
- administration of contact lists (participants).

Survey questionnaires can take on many styles according to sample size, subject matter, participant expertise (in respect of subject), type of question (information or opinion) and planned use of collected data. Our questionnaire builder supports a range of question formats, from straight text (open ended questions) to multi-choice questions and sliders, and everything in between. Users have control over the appearance and framing of questions, as well as the presence and positioning of buttons, progress bars and other navigation tools. Question presentation and sequencing is also controllable allowing questions to presented individually, a page at a time, or skipped if earlier answers make a question(s) inappropriate. Launchpads allow several questionnaires to be used concurrently in one survey and provide a convenient way of organising questions by main topic.

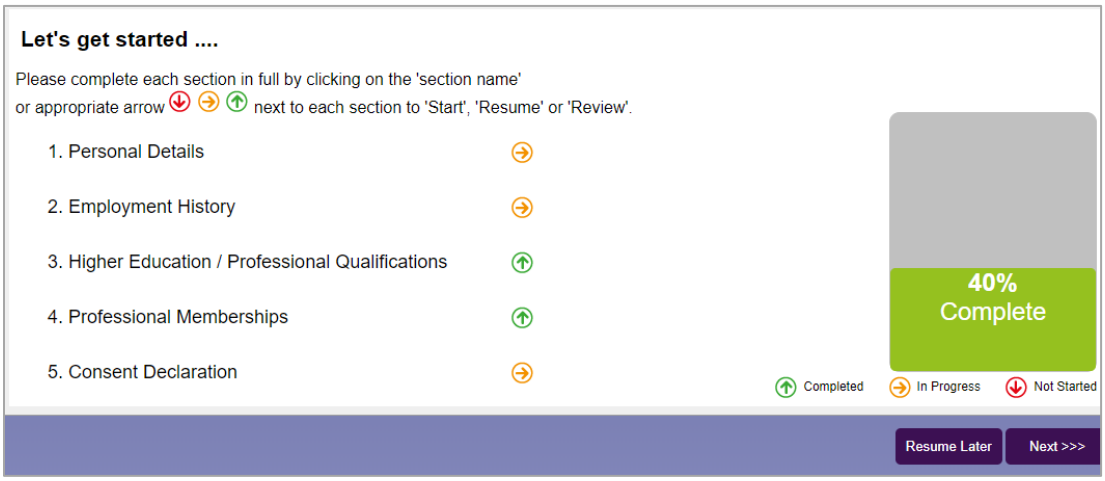

Figure 3: Example use of Launchpad

Tools for survey deployment and administration ensure appropriate separation between live surveys and those in the initial stages of set up. Users have control over survey response thresholds and settings used to manage sample sizes, participation and follow-up actions post survey closure. Participation can be by invite or open, the latter allowing public participation without pre-qualification as might be the case if the survey was embedded in a third-party website. Typically, participation is by email invitation (with embedded link), and therefore tools for importing and maintaining address list are provided.

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. Answer weighting and scoring 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 denomination) leading to deliverance of an absolute, singleton result. This might be appropriate where a survey is used to measure total customer satisfaction, but *approval* is measured across different facets of service delivery.

There are 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 pre-set response thresholds might also 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 activities either manual or automatic.

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-made[6] 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.

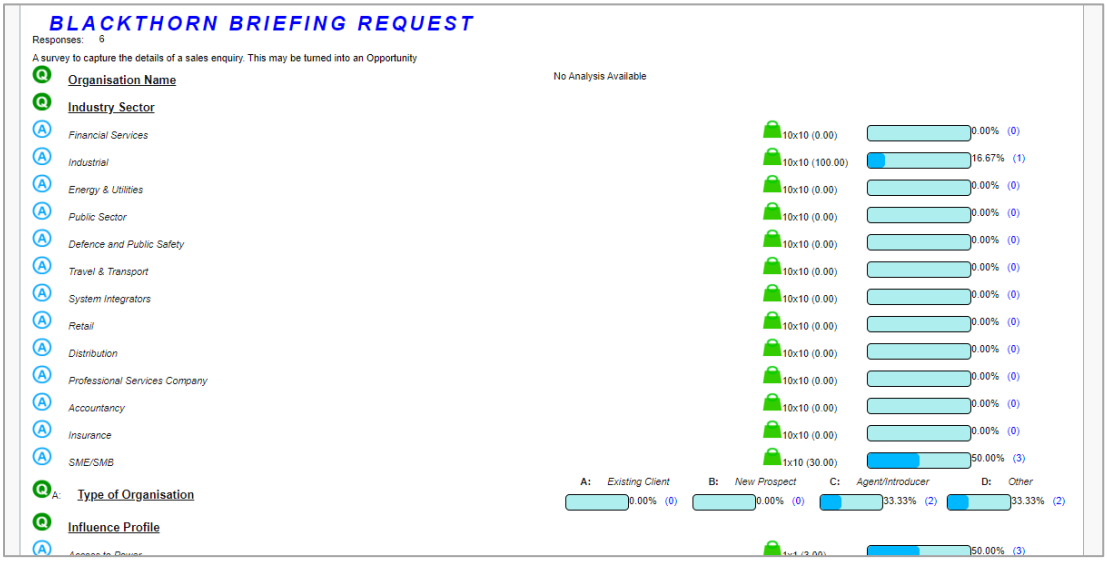

Figure 4: Inbuilt dashboards to quickly mine information

Our Questionnaire, Forms and Surveys solution includes, as standard, support for the following operations:

[6] Bespoke dashboard supplied by Blackthorn to customer's specific requirements.

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 questions

Survey Builder

- design and build questionnaires using a range of standard question types/answers
- include custom web forms (e-Forms), launchpads, 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 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
- generate self-assessment reports incorporating situational response aligned to survey answers
- maintain library of document templates (.dotx)
- measure control effectiveness (audit) feeding results into the corporate risk model (enterprise, cyber, information etc.) to provide a current snapshot of true risk exposure.

e-Forms Builder

- design, build and style custom web forms (e-Forms) for data input
- validate data entry field-by-field while navigating around form
- apply styles to forms

- preview custom forms before releasing for general use
- share inputted data with 3rd-party applications (push or pull options)
- authorise and control access to Blackthorn's form-build.

Perhaps unique to the Blackthorn Questionnaires, Forms and Surveys 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. For example, corporate or regulatory compliance might necessitate the completion of surveys on a quarterly or half-yearly basis. Blackthorn's participant portal, with separate user accounts, allows multiple surveys to be administered concurrently. Use of the portal, as with basic, one-off surveys, can be orchestrated via an embedded link.

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. compliance audit, 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) Offline Entry

Our web-based tool has an associated Mobile App available for Windows, iOS and Android platforms. This App supports the entry of information in off-line situations where a stable internet connection cannot be guaranteed.

b) Prefilling Forms with data

Forms can be configured to open with pre-entered values – saving time and user fatigue, as well as increasing data quality. The pre-fill information can be static (set up during system configuration) or dynamic (values taken from the database or a third-party data feed). By way of example, forms can be pre-filled with address information sourced from a national database or uploaded PAX file supplied by *AddressBase* or similar.

c) Reports

Receipt of a (fully) complete survey response can be met by an automated response (workflow). The survey results, an analytical derivation of the results, certificates, recommendations and other types of report can be autogenerated and returned to the respondent as email attachments. The

body of the email can be also ‘autogenerated’ with the help of pre-configured templates.

d) Inline graphs

Normally incorporated towards the rear of a survey, Inline graphs can provide instantaneous feedback, as might be required as part of a 180° or 360° appraisal. Graphs can comprise data supplied solely in the response, draw comparison between the response answers and an established baseline, or ‘live’ comparison against responses from other participants. Graphs are particularly useful when making comparisons with other industries and sectors.

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 might be used to facilitate statistical data analysis outside the standard analysis and reporting that is integral to the system. The wizard also provides the ability to navigate around dynamic database content and structures.

f) Intelligent routing of respondents around the questionnaire

As previously described, the tool has a launch pad facility allowing users to separately complete sub-sections of the questionnaire (often termed ‘annexes’). Further flexibility is afforded by dynamic routing. Routing (or the navigable path) through a set of survey questions can be based on the answers to earlier questions. Individual questions or groups of questions can be skipped leaving the respondent having to answer only those questions that are relevant.

AI (artificial intelligence) can be built into the question routing, the AI learning from previous responses or information fed into the tool from external sources.

g) Post Completion tasking

Often the completion of a questionnaire results in the need for follow up action. This action might need management oversight. For more information on workflow and automation please see our other solutions including Auditing and Background Screening.

h) Alerting and Notification

Email alerts and notifications can be triggered, raising awareness without the need to log-on.

i) 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.

j) 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).

k) Interoperability

A library of pre-existing web services (Open API compliant and RESTful[7]) 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 SMTP[8], the vehicle enabling email, is ubiquitous, making it a very open and accessible channel for information exchange.

[7] 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.

[8] Secure Mail Transfer Protocol.

Features and Benefits

Features	Benefits
• Perform surveys as part of internal audits and controls assessments • Task management, alerting and tracking • Capture, manage and organise surveys in a formalised way • Create and implement plans to resolve audit or controls failures • Full audit trail of all actions performed • Review and approve surveys for audit and compliance control programs • Comprehensive reporting • Forms (e-forms) and surveys to capture multi-dimensional survey data • Sophisticated RBAC to ensure secure partitioning of information • Routing through questions based on earlier answers	• Re-use of question-sets across questionnaires/surveys • Online (24x7) access to surveys • Optimised time management with workflow, task assignment and user alerting • Improved data integrity with cross-checking and data validation on entry • Saves time collecting and assimilating information • 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. Incident Response Management, Corporate compliance, 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.

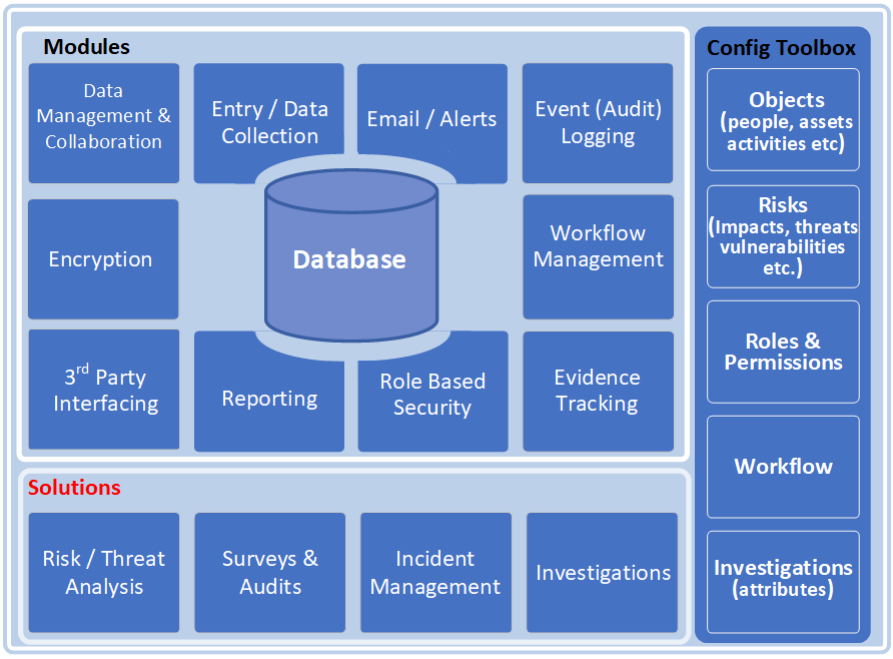

Figure 5: eGRC Platform Architecture

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 works with Chrome, Microsoft Edge, Internet Explorer IE11 (IE9 and IE8 if there is a genuine necessity) and Firefox. 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 Online Questionnaire Forms and Surveys 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.

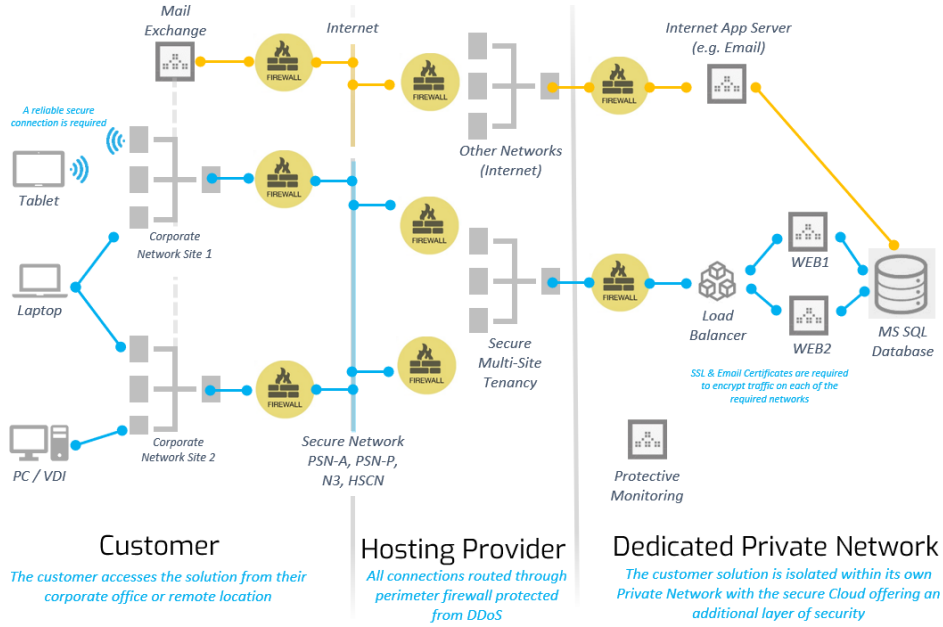

Figure 6: Dual Web Server suitable for hosting Official Sensitive Information

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, N3) 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

webservers behind a load balancer provide the capacity to handle large quantities of HTTPS traffic but this configuration is obviously scalable, both up and down.

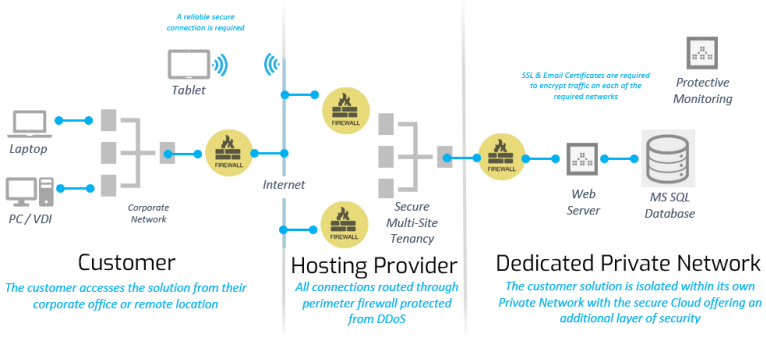

Figure 7: Single Web Server suitable for hosting Commercial Information

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 escalates 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.

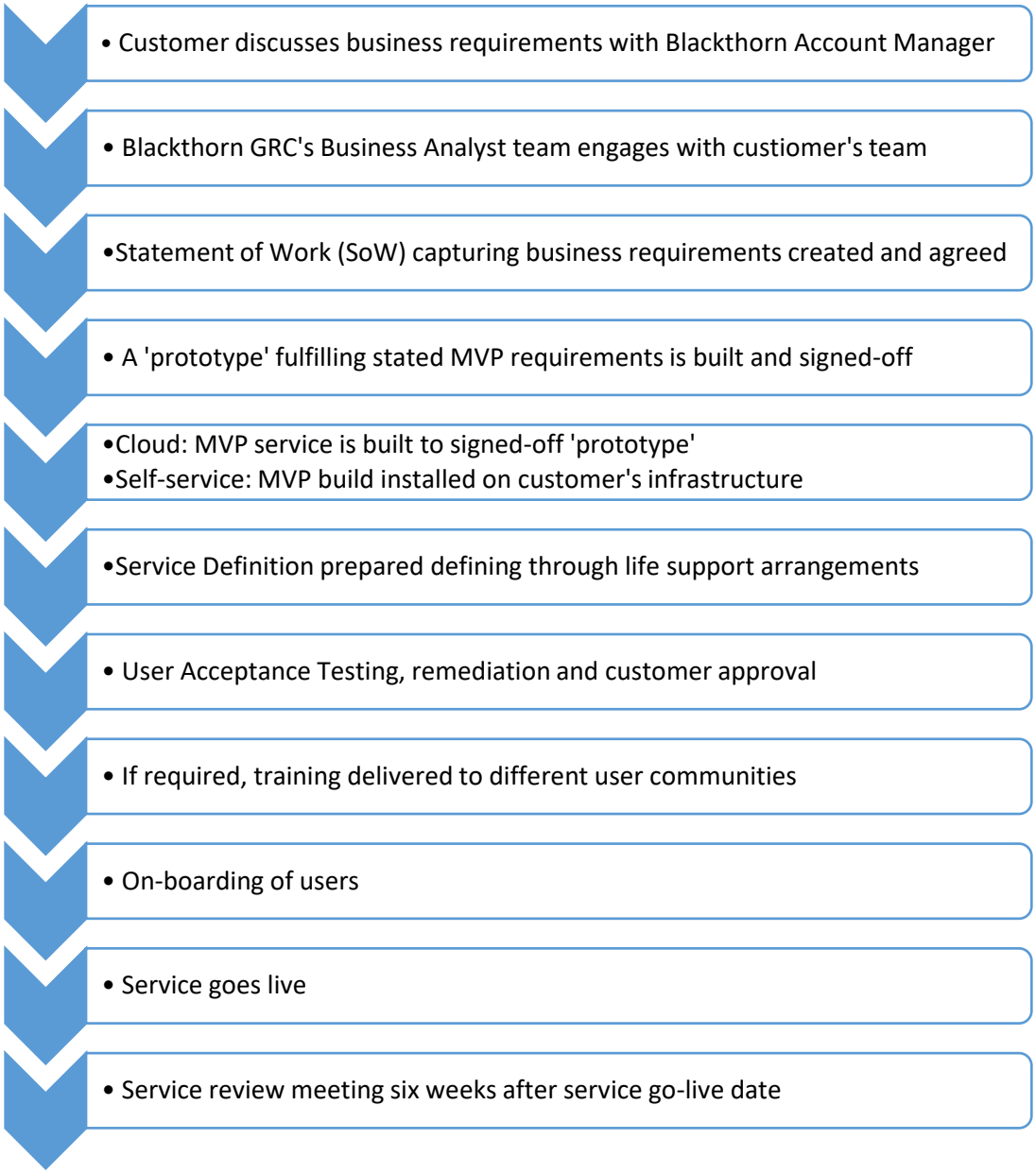

Figure 8: On-boarding stages

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 solution supplied 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:
    - Incident Management
    - Problem Management
    - Change Management

d. Service Desk response SLAs
e. reporting frequency
f. 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.

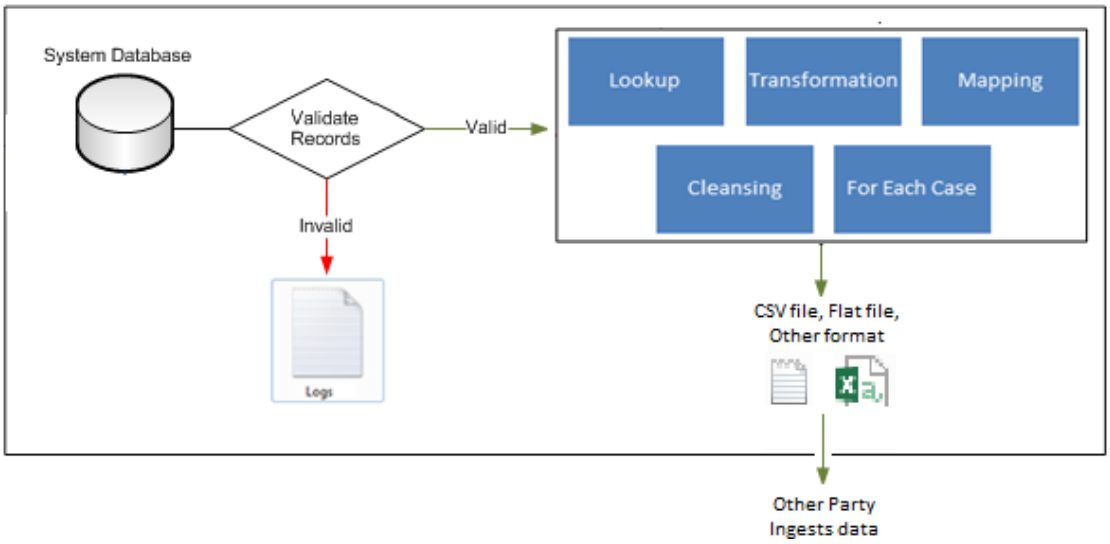

Figure 9: Data migration process

The data migrating process could involve:

g. extracting all textual data to a ‘flat’ or .csv file of agreed format, the file acting as the interface between the two systems, or

h. 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.

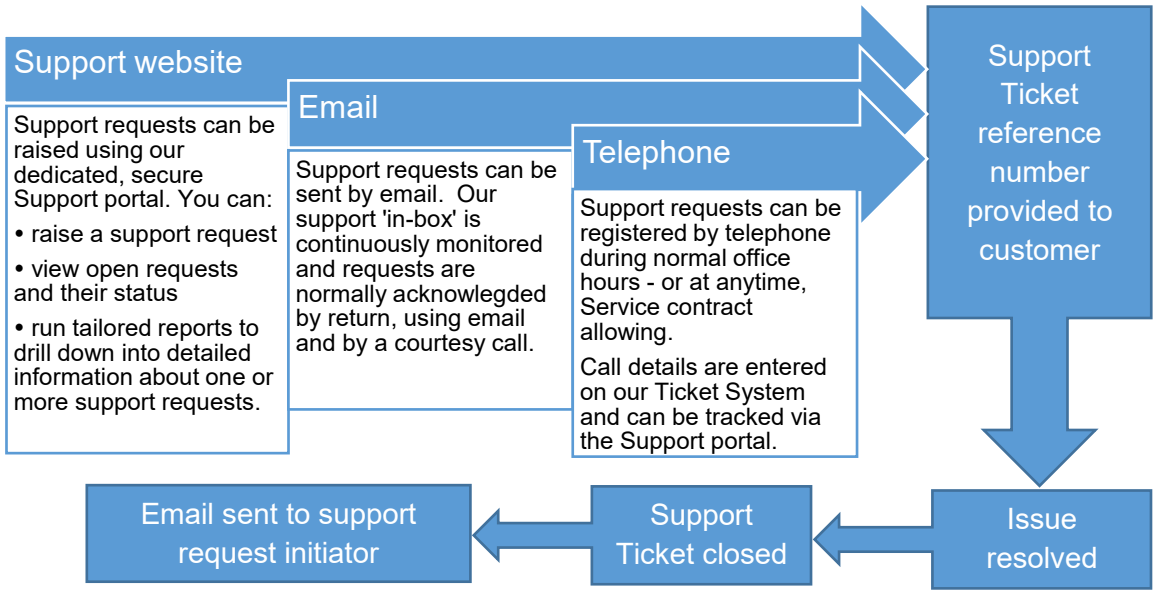

Figure 10: Raising Support Requests

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 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.

Contact

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