G-CLOUD 10
INSIGHT for BRIDGES/STRUCTURES (CLOUD EDITION)

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Service Overview

Insight for Bridges/Structures (Cloud Edition) provides a spatially enabled solution for the management of Highway Bridges and Structures assets.

The Insight for Bridges/Structures solution provides comprehensive facilities, which include:

- Integrated multi-user embedded GIS based on ESRI ArcGIS technology
- Geographic Areas of Interest
- A comprehensive user-definable Asset Register
- Powerful bulk enquiry/update facilities
- Hierarchic linking of Assets i.e. Bridges to Structure Spans to Parapets etc.
- Pre-built Asset definitions in accordance with Highway Structures CoP
- Pre-built Bridge Inspection definitions
- Shared Asset Attributes concept
- Field-based Asset Collection/Updating and Condition Surveys using Insight Mobile
- Asset Lifecycle Management
- BCI Calculation facilities in accordance with Atkins spreadsheet
- Ability to store BCI results year-on-year to provide historical analysis
- Condition Indicators produced for Bridges, Retaining Walls and Signal Gantries
- All Condition Indicators output individually and combined averages
- Ability to store photographs, documents etc. with Assets, Defects and Inspections
- Defect Recording/Works Ordering
- Street Works notifications & feedback
- Warranty functionality
- Budget Monitoring
- Customer Service module for progressing structures issues (optional)
- Integrated Contractor functionality (optional)
- Comprehensive Reporting facilities

Detailed Summary of the Service

Insight for Bridges & Structures (Cloud Edition) includes:

Products & Services	Included
Software Products	
Street Gazetteer	☑
Embedded Mapping (based on ESRI ArcGIS technology)	☑
Asset Register & Networks	☑
Condition Surveys	☑
Cyclic Activities	☑
General Maintenance & Works Ordering	☑
General Maintenance/Street Works interface	☑
Accounts Payments	☑
Customer Service	☑
Integrated Activities	☑
Insight Mobile Interfaces	☑
Integrated Crystal Reporting facilities	☑
Other Included Services/Facilities	
Separate Live and Test Environments	☑
Test System Refreshes (2 per year)	☑
Annual MasterMap Updates - incl. Generation of MasterMap for Mobiles	☑
Data Warehouse for Statistical Reporting	☑
150Gb of disc space for system, database and attachments	☑
Other Chargeable Options	
Works Management Basic Edition (inc. 1 Contractor Interface)	
Works Management Advanced Edition (inc. 1 Contractor Interface)	
Additional Works Management Contractors	
External Works Management System Interface	
Street Gazetteer & ASD Maintenance functions (Single Database Approach)	
Street Gazetteer & ASD Maintenance functions (Dual Database Approach)	
Customer Service Direct Interface (Incl. IDI, Jitterbit, Customer Notification)	
Customer Service Direct Interface (For use with Web Reporting Portal)	
Customer Service Web Reporting Portal (ReportIt)	
ReportIt – additional environment	
ReportIt – VIP Option	
Corporate Finance System Interface	

Import/Export of Datasets (FTP)	
Corporate GIS Integration (WMS/WFS) publication	
Additional Crystal Reports Designer Licences	
Additional 25Gb disc space per annum	
Asset Register Direct Interface	
Bespoke Interface Hosting/Monitoring (Not Dev, PM or Implementation) - S	
Bespoke Interface Hosting/Monitoring (Not Dev, PM or Implementation) - M	
Bespoke Interface Hosting/Monitoring (Not Dev, PM or Implementation) - L	
Dashboard Reporting (up to 5 dashlets)	
Initial Mandatory Services	
On-boarding	☑
Project Management (Fixed Price) – Org's with Network >= 2400km	☑
Project Management (Fixed Price) – Org's with Network < 2400km	☑
Implementation Consultancy (Fixed Price) - Org's with Network >= 2400km	☑
Implementation Consultancy (Fixed Price) - Org's with Network < 2400km	☑
Insight Mobile – Initial Setup & Configuration 1-10 Devices	☑
Insight Mobile – Initial Setup & Configuration 11-20 Devices	☑
Insight Mobile – Initial Setup & Configuration 21-50 Devices	☑
Insight Mobile – Initial Setup & Configuration 51-100 Devices	☑
Other Chargeable Optional Services	
Ordnance Survey MasterMap Updates	
Test System Refreshes	
Gazetteer Loads (per year per Authority Area)	
Standard Training Courses at Symology Offices (per person per day)	
Standard Training Courses delivered on-site (1 day course)	
Standard Training Courses delivered on-site (2 day course)	
On-site Consultancy Services (per day)	
Office based Consultancy Services (per day)	
System Analysis/Design Services (per day)	
Development/Programming (per day)	
Mobile Device Management (1-10 Devices)	
Mobile Device Management (11-20 Devices)	
Mobile Device Management (21-50 Devices)	
Mobile Device Management (51-100 Devices)	
Mobile Device Management (101-150 Devices)	
Mobile Device Management (151-300 Devices)	
Insight Online Service Package – SP5	

Insight Online Service Package – SP10	
Insight Online Service Package – SP15	
Insight Online Service Package – SP20	
Insight Online Service Package – SP25	
Insight Online Service Package – SP30	
Insight Online Service Package – SP35	
Insight Online Service Package – SP40	
Insight Online Service Package – SP50	
Insight Online Service Package – SP60	

Software Product Descriptions

Street Gazetteer

The Street Gazetteer forms the central hub of Insight, providing a network referencing system that is used throughout.

Insight provides proven BS7666 National Street Gazetteer Level 3 compliance. A single-step process will import a Level 3 gazetteer, providing a simple method of populating the Street Gazetteer and linking the Insight database to the embedded mapping system.

The Associated Street Data, - Ownership, Interested Parties, Reinstatement Designations, Special Designations and Height/Weight/Width Restrictions can all be managed and maintained in the Street Gazetteer. The "uncoupled ASD" provided by Network Rail, as well as the Highways Agency's TRSG can also be imported.

Index Groups provide a sophisticated method of defining a "patch" or "zone", or indeed any set or combination of Street Gazetteer, Network Sections or Asset entries, which the user wishes to group together. In essence, Index Groups provide a shorthand way of referring to the defined collection of entries specified within the Index Groups.

There is no restriction against Street Gazetteer entries appearing in more than one Index Group. Index Groups may be set-up to reflect Inspector's Areas, Political Boundaries, Geographical Operational Areas, Gritting Routes or any other Areas of Interest.

Embedded Mapping

Comprehensive mapping functionality is provided within the Insight product suite, utilising .NET technologies to interface seamlessly with ESRI's world-leading ArcGIS products.

These facilities provide dual screen, fully synchronised bi-directional connectivity, with full enquiry and updating capabilities. The embedded functions exploit the full capabilities of desktop mapping products, including sophisticated symbology definition, layer control, labelling, print templates and tool tips.

Multiple Map Definitions can be defined and allocated to users, allowing different users to access the maps with personally tailored views.

Street Lighting assets, works and customer service requests can be plotted on the map and a powerful concept called "Hot Layers" allows the results of any Insight enquiries/reports to be plotted on the embedded mapping system at the press of a couple of buttons.

Asset Register & Networks

The Insight Asset Register provides the ability to create a central store of all Highway related Assets. Typically the module is used by Highway Authorities to store Asset data for Carriageways, Footways, Verges, Street Lighting, Bridges/Structures, Gullies, Illuminated and Non-illuminated signs, Street Furniture, Road Markings etc.

The Asset Dictionary is 100% user definable; any number of Asset Types, each with an unlimited number of Attributes can be defined. The Attributes can be customised to your exact data and validation requirements and can be any of the following types:

- ***Checkbox*** *Tick Box*
- ***Codes*** *a set of user defined Codes*
- ***Text*** *free text*
- ***Number***
- ***Integer***
- ***Percentage***
- ***Date***
- ***Time***
- ***Object*** *- links to digital files, intended to attach scanned images, photographs, documents or movie files to a record. Any type of file, or URL, may be attached to the record providing that the required software to open the file is available on the User's computer.*

Symology provide files (at no extra cost) that can be used to populate the Asset Dictionary for Bridges & Structures, based on the definitions provided in the Structures Code of Good Practice. The Items, Attributes and Codes created by these imports can be amended as required.

The Asset Module provides facilities to define a hierarchic representation of different Assets. Typical uses of this functionality include defining Bridges with multiple structure spans, with other assets such as the deck, parapets etc. being defined as children of a structure span.

A powerful bulk enquiry/update facility is provided which enables users to quickly identify Assets which meets a certain criteria, for example "show me all the structures, grouped by owner and number of spans within a particular geographic area or route".

The results of these enquiries will provide a count of the number of items in each grouping and also a listing of every asset which meets the selection criteria. These listings can then be used to carry out a bulk update of the asset register, create maintenance jobs and subsequent orders, or to create an Index Group that can then be used for reporting/enquiry purposes throughout the system.

In addition, the results of the bulk enquiry/update facility can be exported directly to CSV, XML or used by the embedded report designer tool to produce quality formatted reports that can include pictures, logos and extracts from maps. The resulting reports can be output as Adobe Acrobat PDF files and even be e-mailed to other interested parties.

Facilities are also provided to define automatic updates of the Asset Register from completed work details. This facility also enables an attribute's latest installation date to be automatically updated and can also recalculate warranty periods. When recording a maintenance job against an Asset, that has an associated attribute within its warranty period, the system will generate warnings to the user to make them aware that an item is still under warranty.

Condition Surveys

Effective Asset Management requires an accurate and detailed assessment of the condition of all parts of the asset base. The Condition Surveys module provides a means of defining the condition data required, and then collecting and storing it for analysis.

Insight accommodates all types of condition survey data. To achieve this flexibility, the different formats in which condition data may be stored are defined using a dictionary system, which may be tailored by the user to meet each individual requirement.

Many different types of survey may be defined, each with its own set of possible observations and measurements. Standard survey types, including those required for Bridges/Structures Condition Surveys are provided in ready-built form.

Each element of condition data is collected as a result of a survey of a particular Street, Asset or Section. High priority, safety-related, defects which are detected during an inspection can also be processed as work through to the General Maintenance module.

Much of the data may be collected from visual surveys, normally using mobile devices. Survey data can be imported using an industry standard HMDIF format.

Cyclic Activities

Within a maintenance environment, there are many activities which are required to be carried out on a cyclic basis. These include:

- Safety & Service inspections in accordance with the document "Structures - Code of Good Practice".

- Condition assessment surveys in accordance with the document "Structures - Code of Good Practice”.

The Cyclic Activities module provides a means of creating, executing, and monitoring a programmed schedule of activities for all these requirements, and many more. Activities may be related to the Street Gazetteer (e.g. a road/street), or to individual assets which exist within a street (e.g. Structures).

Information from the Network Details, Street Gazetteer and/or Asset Register may be used when defining an Activity Type. For example, the classification of a road may be used to determine the frequency of an inspection cycle, and/or calculate resource/time requirements.

A "due date" diary system is used to prompt and monitor the programme of Activity Types. Activities due to be performed may be either printed off or downloaded onto Symology's Insight Mobile software.

Full integration is provided with Insight's Condition Surveys and General Maintenance/Works Ordering modules. Observations and defects detected during cyclic inspections can be passed directly into these modules for condition assessment and works ordering, as appropriate.

The module can also be used to define Cyclic Maintenance work programmes and facilities are provided to auto-generate works orders, allocate funds, and monitor the activities through to completion. Of course it is also possible to record the fact that an Inspection has been carried out and that "No Defects" were found.

A full history of completed activities is maintained including cross-references to any recorded defects. It is possible to trace the frequency and the dates at which an activity has been performed, who performed it and the number of defects recorded on each occasion. The full details of each defect recorded can be accessed, including an event history facility which indicates all actions taken since it was first logged on the system.

General Maintenance and Works Ordering

These Insight modules provide a uniquely powerful system for the definition and management of works on highways and other infrastructure assets. The types of work may be very varied; from major asset improvement schemes to relatively low cost works such as ad-hoc safety defects and preventative maintenance.

The contracts which are used to encompass these works are correspondingly varied. Insight uniquely covers all normal contractual terms, enabling administration and progressing of works with a minimum of effort. A wide range of functions exist for monitoring contractors' performance in meeting demands, and for checking work quality.
Full multiple contract facilities enable special schemes to be set up as separate contracts, with a separate schedule of rates if required. This allows different conditions to the standard "term" contracts and avoids dangers of scheme work being confused with routine works. There is no limit on the value and complexity of orders which can be produced from the General Maintenance module.

Each work record which is created within the General Maintenance module is allocated a unique reference number (L.A.Code). The L.A.Code record may contain work specified by means of many schedule codes and related quantities/dimensions. The subsequent ordering processes will create orders either with one L.A.Code per order (Single-Job Order), or with many L.A.Codes combined on an order (Multi-Job Order).

User-defined expenditure codes may be employed for exercising financial control. Sophisticated facilities for budgeting, linked with automated commitment and expenditure tracking, provide instant management information. User authority levels are used to maintain security on order and invoice approval. A standard expenditure interface file production facility is provided as part of the system for interfacing with corporate financial systems.

The General Maintenance module may be used in tandem with the Asset Register & Networks module. If used independently, each L.A.Code is cross-referenced to a Street Gazetteer entry in which the work is to be carried out. If used with the Asset Register & Networks module, each L.A.Code may be referenced to an asset within the road (e.g. a particular lamp column, or a particular section of carriageway) and/or a Network Section Reference.

Using General Maintenance in association with an established Asset Register clearly provides many advantages. In particular, it allows more precise identification of work to avoid duplicate ordering, highlights recurring problems, and permits the recording of "life history" of defects/treatments.

The General Maintenance module provides facilities for specifying work requirements, selecting contractors, post-order monitoring, and inspection recording. Whilst the General Maintenance module provides facilities for works ordering and completions, the main facilities for producing orders and recording completion of work are contained in the Works Ordering module which is provided together with General Maintenance.

General Maintenance/Street Works Interface

One of the key requirements introduced with the Traffic Management Act is that Local Authorities are now required to register a much higher proportion of their own works on the Street Works Register, together with co-ordinates.

To assist Local Authorities in meeting this requirement, the General Maintenance/Street Works Interface enables Street Works Notices to be created at the push of a button – at the time the user is recording their own Local Authority Works within the General Maintenance module.

Once the Street Works notice has been created, the notice will update automatically as the General Maintenance work progresses through its natural lifecycle.

Accounts Payments

The Accounts Payments module handles contractors' invoices, matching them with original order details, and controlling the processes for approval and certification of the claim. It integrates intimately with the General Maintenance and Works Ordering modules. "Unallocated claims", where there is no match with an order, can also be processed.

A contractor's claim may be entered manually or received electronically from a third-party contractor system or from the Insight Works Management module (see below). Claims are checked for arithmetical accuracy, and in accordance with contract terms. Tolerances may also be set to highlight significant differences between orders and invoices, enabling staff to focus on the more contentious claims.

With multiple-defect orders, the value of the claim may be distributed proportionately against all "tagged" defects on the order. This is particularly useful for high-volume, low value works. For larger works, claim values may be checked against calculated totals, based on interim and final measures of the work completed. Supplementary claims and credit notes can also be accommodated.

Part-payment may be authorised and, if required, a defined proportion of the approved claim kept in retention. Payment certificates may be produced for approved amounts, either in printed form, or as files for direct interfacing with a creditors system. Claim processing facilities automatically adjust both commitment and payment details on the internal expenditure budget file. A full audit trail of claims and approvals is provided, together with all other related events in the life of the works, such as orders, variations, inspections and measures. This enables contractors' queries on the progress of claims to be answered quickly and easily.

Customer Service

An important part of Highway Asset Management is the recording of Customer Service requests and progressing these through to clearance. The Insight Customer Services module provides a single central function which will deal with all infrastructure assets, and offers unrivalled flexibility to allow for the different work practices of organisations and individuals.

User-defined Request Types, Priorities and Analysis Codes can be used. Automated action programmes may be initiated for each Request Type, including assignment to officers, document production, and time-based escalation in accordance with corporate policy. Requests can be progressed for inspection, and linked to the Works Ordering system. In both these cases, it is possible to optimise the workload together with requirements which arise from other sources.

Additional fields can also be defined, enabling users to collect any other information regarding the customer or enquiry. This includes multimedia objects, such as photographs, videos and scanned documents. All recorded information is available for analysis and the production of statistics, using standard enquiry and reporting tools.

A word processing interface allows the automatic production of both standard letters and bespoke documents. Embedded GIS facilities provide immediate access to a map of the area being referenced, both to assist in locating the appropriate street or inventory units, and for plotting and printing the location of the query being raised.

Customer Request data may be imported electronically, including over the Internet. This enables members of the public to raise issues on the web, and also enables other departments within the authority to transfer requests. In both cases, the Insight user can access and, if necessary, modify the data before it is incorporated into the main database.

Integrated Activities

The Integrated Activities module is designed to co-ordinate and optimise overall inspection operations. It is particularly relevant for organisations where inspectors are assigned to “patches” or groupings of assets, and are to some extent multi-functional or multi-disciplined.

For each inspector, the module combines and lists the inspection requirements which have been generated from up to five Insight modules, namely General Maintenance, Cyclic Activities, Street Works Register, Customer Service and Licences.

Inspectors’ schedules are optimised by pulling together multiple inspections, perhaps of different types, in order to avoid repeat visits to the same site or location. Different timescale tolerances may be specified for each type of inspection, in accordance with its priorities.

Integrated Activities will utilise these tolerances, to achieve the maximum level of optimisation, whilst ensuring that every inspection is carried out within the time limit allowed. Inspection due lists may be printed, displayed, or output to Symology’s Insight Mobile software.

The Integrated Activities module also provides an "Activity Done Enquiry". This facility enables the user to enquire upon all activities that have been carried out on a specified street or list of streets between a range of dates. This enquiry lists all types of Inspections, all works carried out including a Highway Authorities own works and works carried out by Utilities. This enquiry can prove invaluable for defending any claims for accident liability.

Insight Mobile Interfaces

Insight Mobile software combines unparalleled software functionality, together with the latest technology and communication options. All the requirements for multi-disciplined inspectors are provided within a single, easy to install application. The software, which is wholly developed by Symology, offers guaranteed compatibility with the following Insight modules:

- Street Gazetteer
- Customer Service
- General Maintenance/Works Ordering
- Works Management
- Cyclic Activities
- Street Works
- Condition Surveys
- Asset Register & Networks

No set-up work is necessary on the mobile devices; simply making the connection with the Insight server ensures that the devices will "auto-program" to be compatible.

Once implemented, Insight Mobile requires no further "back-office" intervention is required as the upload/download of data is undertaken by the Inspector. The inspector can initiate a "receive new data" at anytime.

Insight Mobile is designed to work without the requirement for an "always-on" connection. Data is sent and received between the Insight server and the mobile using web services (XML/SOAP) technology. So long as the Insight Mobile software can connect to the web service, be it by 3G, Wi-Fi or even connected via USB to a PC, then data can be exchanged.

All types of inspections and condition surveys are accommodated, as well as the ability to record defects found as a result of an inspection or any ad-hoc defects that are encountered. The types of inspections and condition surveys that can be accommodated by Insight Mobile include but are not limited to:

- Asset Safety and Service Inspections
- Customer Service generated Inspections
- Post Work Quality Inspections
- Measure Inspections
- Bridges/Structures – General and Principal Inspections

On-going works-in-progress can also be downloaded onto the mobile – either in bulk or on-demand in relation to the entity currently being viewed by the inspector. These facilities enable the inspector to check the status of records (and update if necessary) that are currently "on-going" and have already been recorded in the central Insight system.

In addition to the above, Insight Mobile also provides the capability to collect new asset data, or download existing asset data and carry out updates.

If the Works Management (Basic Edition) module is being utilised by the Contractor then the Insight Mobile software can be used by the gangs to receive allocated works, record status updates, record audited messages with associated photographs, send Street Works start/stop notices and record completed works details. If the Advanced version of this module is being used then the Insight Mobile software extends to allow the gangs to also record the labour, plant and materials usage for a given job.

The mobile mapping facilities may be used to select and update existing records as well as for plotting (points, lines and polygons are all supported) the location of new defects, assets etc. Any changes to the representation of existing spatial entities or newly created records with a spatial representation are automatically GIS-linked when uploaded to the central Insight system.

There is the option to use GPS to ensure that the map is continuously synchronised with the current map location. Photographs can be taken and attached to records, and even digital objects already associated with an existing record on the central system can be downloaded to the device whilst out on-site. GPS tracking facilities linked with the central system GIS are also provided, these facilities include the ability to trace the routes that inspectors have been taking. A planned route facility allows the inspector/gang to optimise the route and coordinate different activities to ensure maximum efficiency when on-site.

The Insight Mobile software is optimised to operate on Laptops/Tablets running Windows 7 or Windows 8.

Integrated Reporting Facilities

Three levels of enquiry and reporting are available within Insight, each related to the needs and relative skills of different users.

Firstly, each module contains an extensive range of on-line enquiries and reports, which will cover most day-to-day operational and management requirements. Each Enquiry/Report provides a vast array of selection criteria, which allows the results to be filtered as required. Facilities are also provided (on a per user basis) to define the precise data fields to be included on the report. The results of these enquiries can be output to file, print or screen. File Export options include CSV and XML. These facilities are entirely "pick-and-point" screen-based, and require no special training.

Secondly, the above enquiries may be used to generate an extract of the required data, in CSV or XML form, for input into the embedded Crystal Reports Designer, which can be accessed from within the standard Insight enquiry screens. This technology provides options for further collating, sorting, totalling, and sophisticated layout design, including graphics. It requires only a capability to use the embedded report design tool, and once a report template is created it can be used by all users as part of the standard facilities. These enquiry/reports can also be setup to run in background batch mode, with the results sent via e-mail in PDF format.

Thirdly, if there are requirements that cannot be accommodated by the above two options, full access to the underlying Insight database is available using the embedded Crystal Reporting tools.

The Crystal Reporting facilities can be used by all customers, however in order to define report templates a designer licence is required. One designer licence is provided free of charge as part of the standard package for every 20 concurrent Insight users. For example if 45 concurrent Insight users are licensed then 2 designer licences would be provided without charge. If additional designer licences are required then these can be added at additional cost.

Other Included Services/Facilities

Live/Test Environments

Each customer will be provided with two environments – Live and Test.

Test System Refreshes

The test environment will be refreshed to mirror the live environment on customer request. It is common practise for this to be coordinated as and when new versions of the software are released. This will allow new facilities to be reviewed and incorporated into business processes and operating procedures prior to the upgrade of the live environment. In addition, it will provide an environment that can be used for the training of end-users to familiarise themselves with any relevant new facilities or enhancements prior to the live upgrade. Any additional refreshes of the test environment, over and above those provided as standard with upgrades, are chargeable (see Chargeable Options below).

Annual OS MasterMap Updates

As part of the standard service, Symology will apply annual updates of Ordnance Survey MasterMap layers to the Live mapping system. In addition, Symology will also generate the OS MasterMap layers in the format required for use with Insight Mobile. It will be the customer's responsibility to load the updated map layers onto each mobile device, unless the customer has taken up the "*Remote Management/Updating of Insight Mobile"* option (see Other Chargeable Optional Services below). It is important to note that Symology will only apply the OS MasterMap updates if the data is provided by the customer and made available to Symology's Managed Services.

Oracle Data Store for Statistical Reporting

As part of the standard service, Symology will download data required for statistical reporting purposes (such as the nationally agreed Street Works Performance Indicators) into a separate Oracle RDBMS.

Disc Space

A burstable limit of 150 GB of disc space is provided as part of the standard service. This amount of disc space should prove to be more than sufficient for most customers (even large County Councils). However, if more disc space is required this limit can be burst through automatically. In such circumstances the Symology Managed Services team would contact the customer to ascertain whether additional disc space as required on an on-going basis (please see Other Chargeable Options below).

Other Chargeable Options

Works Management Basic Edition (Incl. 1 Contractor Interface)

The Traffic Management Act (TMA) introduced a number of challenges for Contractors carrying out works on the public highway. The Insight Works Management module has been developed to assist Contractors in meeting these and other requirements.

This module is designed to provide facilities for Contractors within Insight. The intimate integration between the Client and Contractor functions enables all applicable data and system facilities such as the Street Gazetteer, Asset Register & Networks, Mapping functions etc. to be utilized by both parties - enabling operational efficiencies to be gained.

Sophisticated user permissions (based on Contract/Contractor combinations) can be utilised to ensure that Clients and Contractors both have their own discreet view of the system.

The Works Management module allows Contractors to receive Works Orders electronically from the Client - removing the need for external interface files, paper orders and claims, and the re-keying of data into other systems.

Works Orders received can be split down into component parts, as required, and then manually or automatically (in accordance with user-defined rules) be allocated to work gangs.

To meet the TMA requirements, an industry unique Gantt chart style Work Scheduling tool is available. This tool enables Contractor Managers and Supervisors to visually take into account available labour resources and TMA noticing rules at the same time. Additionally, as works are being scheduled, the user is also made aware of potential conflicts with any other on-going works. As works are committed using the scheduling tool, all relevant modules of Insight are automatically updated.

High quality job tickets can be produced in printed form, or works can be downloaded onto Insight Mobile – enabling the gangs to receive allocated works and progress them through to completion.

Street Works Notices, such as Works Start and Works Stop are also automatically generated as work is progressed through its natural lifecycle. These can be generated by the gang whilst on-site if Insight Mobile is being used and the necessary communications are in place.

Facilities are provided to allow the Contractor to record the status of the work at any point in time and send messages to the client along with attachments. Similarly the Client can send messages and attachments to the Contractor.

The Contractor can enter interim or final completion details for the works including, schedule code details, additional extras and lump sum amounts with associated descriptions. Standard import facilities are provided to import Schedule Completion details from third-party Contractor systems. The import facilities are likely to prove useful to customers who wish to integrate Insight Works Management with other third-party contractor systems.
The production of financial claims is automatically built-up from the works completion details. The Contractor can then choose to send Interim/Final/Supplementary claims individually or in batch.

A full range of in-built reporting tools are provided, including the ability to monitor the receipt of payment certificates received from the Client.

Works Management Advanced Edition (Incl. 1 Contractor Interface)

The Advanced edition of the Works Management module includes all of the facilities provided with the Basic Edition, but with the following additional functionality:

- Resource Definition i.e. Labour, Plant, Materials etc.
- Entry of Resource Usage against Jobs
- The ability to generate claims based on Resource Usage
- Job Target Time and Actual Time Calculations
- Calculation of Work in Progress Values
- Import/Export facilities for Resource Usage

In addition to the above facilities, the Insight Mobile software extends to allow resource usage to be entered by the gang whilst out on-site.

Resources are the items that are used when carrying out works i.e. the Labour, Plant, Materials and possibly other services used. Insight allows any number of Resources to be defined within the system. Resources are defined with a Version number; this ensures that the system is capable of maintaining and utilising multiple versions of the Resources as they increase/decrease over time in-line with inflation and contract conditions.

Like schedules of rates, standard facilities are provided to increase/decrease rates using Bulk/Update facilities. Once resources have been defined in the system they can be used to record everything that was required to perform a piece of work. Resource Usage can be entered against individual Jobs, Orders or L.A.Codes. Alternatively they can be entered at Gang-level and automatically pro-rated across all the L.A.Codes the Gang worked on for costing/claiming purposes. The Resource Rates version can be automatically selected based on the date used.

Resources can also be used to calculate the claim value of Dayworks based L.A.Codes and/or provide internal costs for all types of work. Furthermore they can also be used to provide a more detailed breakdown of ordered schedule codes in order to calculate expected costs, resource requirements and calculate target times and the value of works in progress. The facilities provided also offer the potential to export all materials used to third-party stores systems. Furthermore, standard import facilities are provided to import Resource Usage from third-party Contractor systems. The import facilities are likely to prove useful to customers who wish to integrate Insight Works Management with other third-party contractor systems.

Additional Works Management Contractors

The Works Management options outlined above include a licence to operate with 1 contractor. If the customer wishes to use the Works Management module with more than 1 contractor then an additional charge applies per additional contractor.

External Works Management System Interface

This option, which is charged on a per contractor basis, applies if the customer wishes to integrate their Insight system with an external third-party Contractor system. A standard interface is available which provides the capability to send electronic works orders and receive back electronic work status updates and financial claims/invoices.

The charge for this option includes for licensing this interfacing capability and all Symology costs involved in setting up and monitoring the interface is working on an on-going basis. The charge for this option does not include any assistance that may be required from

Symology by the third-party system suppliers in understanding how to use the standard interface or to provide any assistance with testing the interface. Any such requirement would be charged at normal service rates (see below).

Street Gazetteer & ASD Maintenance (Single Database Approach)

A comprehensive suite of tools are provided for maintaining a Level 3 National Street Gazetteer. This includes the option to import OS MasterMap ITN data and use it as the basis for maintaining the spatial data element of the Gazetteer, whilst at the same time having the ability to manage the data sets using local knowledge.

Associated Street Data, such as Reinstatement Designations and Special Designations can also be plotted (manually or in bulk-plot mode) and maintained. This includes the ability to define offsets from the road centre line.

The files for NSG Level 3 and ASD data submission can be exported with a single-step-process in a format ready for delivery to the NSG Custodians.

The Single Database approach means that the Street Gazetteer maintenance functions are provided in the same database as the live Street Works database. This means that changes being made in-between submissions to GeoPlace are reflected immediately in the live operational database, which could lead to inconsistencies between the Local Authority and Utilities who may be operating on different data sets for Street Works purposes. This is the lowest cost option in terms of how Gazetteer updates are managed. If the customer is not comfortable with this option then the "Dual Database Approach" mentioned below could be utilised.

Street Gazetteer & ASD Maintenance (Dual Database Approach)

A comprehensive suite of tools are provided for maintaining a Level 3 National Street Gazetteer. This includes the option to import OS MasterMap ITN data and use it as the basis for maintaining the spatial data element of the Gazetteer, whilst at the same time having the ability to manage the data sets using local knowledge.

Associated Street Data, such as Reinstatement Designations and Special Designations can also be plotted (manually or in bulk-plot mode) and maintained. This includes the ability to define offsets from the road centre line.

The files for NSG Level 3 and ASD data submission can be exported with a single-step-process in a format ready for delivery to the NSG Custodians.

The Dual Database approach provides a separate Insight database for Gazetteer Maintenance purposes. This ensures that changes being made in-between submissions to GeoPlace are not reflected immediately in the live operational database, which would lead to the Local Authority and Utilities operating on different data sets for Street Works purposes. As part of this approach the gazetteer in the live operational database will be updated monthly by Symology's Managed Services Team using the latest Gazetteer and ASD data available via the GeoPlace portal.

Customer Service Direct Interface

Symology can provide the "Customer Service Direct Interface" which is designed to allow other applications to interface directly with the Insight Customer Service module, in real-time. It is aimed at receiving data from "trusted sources" which can be recorded directly into the Insight database, without any form of review by an Insight user. Primarily the solution is targeted at interfacing with Corporate CRM systems.

The "Customer Service Direct Interface" operates by providing a component interface to the Insight Customer Service module, whereby elements of the Insight Application Logic can be called by external applications. The components are made available as web services accessible via HTTP using SOAP/XML data streams. Components are available to send request details, send actions and events relating to existing requests and to get full request details and history for existing requests.

The charge for this option includes the required software products, the setup and ongoing monitoring of the products and assistance with implementing customer notifications by e-mail or data feedback to the third-party system.

The charge for this option does not include any assistance that may be required from Symology by the third-party system suppliers in understanding how to use the standard interface or to provide any assistance with testing the interface. Any such requirement would be charged at normal service rates (see below).

Customer Service Web Reporting Portal (ReportIt)

Symology can provide a ready made Customer Service Web Reporting portal which is designed so that members of the public can report issues such as potholes, street lighting defects etc. The web reporting system can be configured such that requests raised are automatically fed into the Insight Customer Service system. This solution includes facililities which show previously recorded service requests on the web mapping portal and the current status of each request. The solution also includes the capability to send e-mails to members of the public at each stage of the lifecycle in order to provide the customer with feedback. The solution uses an HTML5 based reponsive design, which means that the portal can be used on any device (Desktop, Tablet or Smartphone) with a modern web browser. The VIP Option offers the facility to access and distinguise between different groups of users.

It is important to note that the "Customer Service Direct Interface (For use with Web Reporting Portal)" is required as a pre-requisite for this solution. It should also be noted that Symology's Consultancy Services would be required in order to plan and implement this solution.

Corporate Finance System Interface

Insight provides a wealth of standard facilities which are used to manage and monitor finance. These range from the management of budgets, works orders and recharges in the General Maintenance and Works Ordering modules, to facilities in the Street Works and Licences modules to generate charges, deal with deposits etc.

This option provides the customer with the capability of interfacing Insight with their corporate finance system, so that financial transactions managed within Insight can be reflected in the corporate finance system.

The charge for this option includes the required software products and the technical setup and ongoing monitoring of the interface.

Symology provide a standard interface format, however this is typically required to be modified to suit the specific corporate system being interfaced with. The costs for modifying the standard interface format are not included within this option – any such requirement would be charged at normal service rates (see below).

Import/Export of Datasets (FTP)

This option applies if the customer has a specific requirement for data to be either uploaded or downloaded on a regular basis.

Example uses of this option may include, the regular transfer of mapping layers such that layers maintained locally in a third-party system can be uploaded and displayed within Insight. Or alternatively, the customer wants to download a weekly copy of the mapping layers within Insight so that they can be loaded into local mapping systems.

Whilst the examples above are mapping related, this option can be utilised for any dataset that regularly requires exchanging between local and hosted systems.

Such requirements are normally met by providing FTP In/Out areas. Any regular data extracts would be automated by Symology with the resulting files being placed in the FTP Out folder. Any files being sent by the customer would be uploaded to the FTP In folder, from where Symology would have automated scripts to pick up the files and process them as required.

The charge for this option includes the provision of the FTP In/Out folders, and any scripting work required to process the files as agreed.

It is important to note that this charge applies on a "per instance" basis.

Corporate GIS Integration (WMS/WFS) publication

This option provides the customer with the facility to locally consume the mapping layers within Insight in real-time by means of Web Services (Web Mapping Services or Web Feature Services). This option removes the need to upload/download mapping layers manually as described in the previous option.

The charge for this option includes a combination of software charges plus technical setup and monitoring.

It should be noted that a "fair usage" policy applies to this option. For example, it would not be deemed fair usage for the customer to have local systems configured to consume Ordnance Survey MasterMap layers on an on-going basis.

Additional Crystal Report Designer Licences

The Crystal Reporting facilities provided within Insight can be used by all customers, however in order to define report templates a designer licence is required. One designer licence is provided free of charge as part of the standard package for every 20 concurrent Insight users. For example if 45 concurrent Insight users are licensed then 2 designer licences would be provided without charge. If additional designer licences are required then these can be added at additional cost.

Additional 25GB disc space per annum

This option can be utilised if the customer requires more disc space than that which is allocated with the standard service.

Asset Register Direct Interface

Symology can provide the "Asset Register Direct Interface" which is designed to allow other applications to interface directly with the Insight Asset Register module, in real-time. It is aimed at receiving data from "trusted sources" which can be recorded directly into the Insight database, without any form of review by an Insight user.

The charge for this option includes the required software products, the setup and ongoing monitoring of the product.

The charge for this option does not include any assistance that may be required from Symology by the third-party system suppliers in understanding how to use the standard interface or to provide any assistance with testing the interface. Any such requirement would be charged at normal service rates (see below).

Bespoke Interface Hosting/Monitoring – Small, Medium or Large

Due to the breadth and sheer versatility of the Insight product range there is very occasionally a requirement for an interface which is not provided "off-the-shelf" as a standard product. This option is therefore provided to cover for any unforeseen interfacing requirements which may arise.

This option is available at three levels – Small, Medium and Large. Symology will advise the customer as to which level of product should be ordered following an assessment of the bespoke requirement.

The charge for this option includes any required software products, the initial setup and the ongoing monitoring of the bespoke product.

The charge does not include any requirement for System Analysis, Programming, Project Management or Implementation services. These requirements would be charged at normal service rates (see below).

Dashboard Reporting (up to 5 dashlets)

Insight's Dashboard Reporting facilitiy offers licenced users access to high-level management dashlets. Dashlets can be created and customised to specific reporting requirements and there is no limit to the information that can be shown. No standard dashlets are provided and this option should be considered a bespoke reporting requirement

Initial Mandatory Services

On-boarding

A fixed price will apply to the on-boarding process (see Section 14 below).

Project Management

A fixed price will apply to cover all Project Management activities required from the outset of the Project up to the point of going Live. Symology's Project Managers are PRINCE2 accredited.

Two fixed price cost options are provided for Project Management activities. The higher charge applies to organisations with a total Highway Network length of 2,400km or greater. The lower charge applies to organisations with a total Network length lower than 2,400km.

Implementation Consultancy Services

A fixed price will apply to cover all Implementation Consultancy Services required from the outset of the Project up to the point of going Live.

Two fixed price cost options are provided for Implementation Consultancy Services. The higher charge applies to organisations with a total Highway Network length of 2,400km or greater. The lower charge applies to organisations with a total Network length lower than 2,400km.

Mobiles – Initial Setup, Configuration and Training

This is a mandatory option for customers implementing Insight Mobile for the first time.

The customer will be expected to courier their chosen mobile devices to Symology's offices for initial setup/configuration. Once the devices have been configured, a Symology Consultant will visit the customer's premises in order to return the devices and to provide technical maintenance and end-user training.

Various Fixed Price cost options are provided, based on the number of mobile devices being implemented. The different cost band rates are as follows:

- 1-10 Devices
- 11-20 Devices
- 21-50 Devices
- 51–100 Devices

Note that the Insight Mobile software will need to be able to communicate, over the Internet, with the web service hosted on Symology's servers. The customer must therefore ensure that suitable communications are available i.e. 3G, Wi-Fi or connecting in the office or at home using a USB connection.

Other Optional Chargeable Services

Ordnance Survey MasterMap Updates

As part of the standard service, Symology will apply annual updates of Ordnance Survey MasterMap layers to the Live mapping system.

If for any reason any additional MasterMap updates are required then this option will need to be ordered.

Test System Refreshes

As mentioned in 2.2 above - the test environment will be refreshed to mirror the live environment on customer request up to twice a year. Test System Refreshes will not be carried over.

If for any reason any additional refreshes of the test system are required then this option will need to be ordered.

Gazetteer Loads (per Year per Authority Area)

If the Gazetteer Maintenance functions provided with this solution are used then there will be no requirement to load gazetteers into the Insight system on a monthly basis. However, if the Street Gazetteer is maintained by another third-party system then this option must be ordered by the customer. The Customer will be responsible for supplying the Street Gazetteer and ASD data electronically to the Symology Hosted Team on a monthly basis. Following this, Symology will:

- Load the supplied datasets into Insight
- Generate new spatial layers based on the updated data
- Generate new spatial layers for Insight Mobile

Standard Training Courses at Symology's Offices (per person per day)

Symology has a range of pre-prepared "Standard" hands-on training courses, which come with full documentation and a pre-prepared database.

These courses are regularly run at Symology's Training Centres in Blackburn, Sheffield, Caddington (Beds) and/or Larbert (Scotland) offices.

Most of the standard courses are 1 day in duration, though there are some 2 day courses.

Customers wishing to attend these training courses should order this option for each person attending each day. For example, if the customer wishes to send 4 people on a 2 day course then they should order a quantity of 8 of this option.

Standard Training Courses delivered on-site (1 Day Course)

Symology has a range of pre-prepared "Standard" hands-on training courses, which come with full documentation and a pre-prepared database.

These courses can be delivered on-site, subject to the customer providing an appropriate training room. A maximum of 12 people can be accommodated per day, based on 2 people sharing 6 laptop computers which Symology will bring along pre-loaded with the relevant database.

Standard Training Courses delivered on-site (2 Day Course)

Symology has a range of pre-prepared "Standard" hands-on training courses, which come with full documentation and a pre-prepared database.

These courses can be delivered on-site, subject to the customer providing an appropriate training room. A maximum of 12 people can be accommodated per day, based on 2 people sharing 6 laptop computers which Symology will bring along pre-loaded with the relevant database.

On-site Consultancy Services (per Day)

This item should be ordered to cover for any requirement for on-site consultancy services. On-site consultancy services are inclusive of travel and normal expenses (locations in England, Wales and Scotland, excluding Highlands and Islands).

Office based Consultancy Services (per Day)

This item should be ordered to cover for any requirement for consultancy services from Symology where the work will be carried out at Symology's Offices rather than on-site.

System Analysis & Design Services (per Day)

This item should be ordered to cover for any requirement for on or off-site System Analysis & Design Services. Such services would normally only be required if bespoke interfaces are required.

Development/Programming (per Day)

This item should be ordered to cover for any requirement where our development team will be required to write new code or scripts. It is envisaged that this service would normally only be required if bespoke interfaces are required.

Mobile Device Management

The standard Insight for Bridges and Structures (Cloud Edition) service does not include for updating of software on mobile devices, as and when new versions of the software are released.

New versions of the mobile software (including any mapping/GPS components) will be posted on the managed service portal for a local administrator or individual users to download and install onto the mobile devices. Likewise, following any OS MasterMap updates, copies of the necessary mobile map layers will be posted on the portal for local transfer onto the devices.

If the customer would prefer Symology to take full responsibility for the updating of mobile device software, this option should be ordered.

Please note that in order for Symology to provide this service, the customer must grant Symology with the necessary access permissions on the remote devices.

Various Fixed Price cost options are provided, based on the number of mobile devices being managed. The different cost band rates are as follows:

- 1-10 Devices
- 11-20 Devices
- 21-50 Devices
- 51–100 Devices
- 101–150 Devices
- 151–300 Devices

Insight Service Packages

The Insight Service Package is either a yearly or a one off package which provides the Customer with Training and Consultancy Services up to a pre-defined value. There are ten levels of service packages, as defined below.

Package Name	Annual Charge	Consultancy/Training Service Credits to the Value of
SP5 (Annual)	£5,000.00	£5,500.00
SP10 (Annual)	£10,000.00	£11,000.00
SP15 (Annual)	£15,000.00	£16,500.00
SP20 (Annual)	£20,000.00	£23,000.00
SP25 (Annual)	£25,000.00	£28,750.00
SP30 (Annual)	£30,000.00	£35,100.00
SP35 (Annual)	£35,000.00	£41,300.00
SP40 (Annual)	£40,000.00	£47,200.00
SP50 (Annual)	£50,000.00	£60,000.00
SP60 (Annual)	£60,000.00	£72,000.00

The package provides a credit for any combination of Consultancy/Training services at the standard consultancy and training rates. Any remaining credit on the service package at the end of each year will not be carried over. Any remaining credit on the service package at the end of the contract will not be reimbursed. It is the customer’s responsibility to ensure that they will be able to utilise all of their service credits in time.

Symology Conference

The Symology Conference is for all existing Symology customers and is a free event held over two days in London and Manchester. Customers represent both Authority and Utility users who are welcomed to network within the Symology community in addition to sharing best practice processes and keeping up to date with all the latest industry and Insight product news.

Compliance

Insight for Bridges & Structures Cloud Edition is compliant with:

- The Technical Specification and Code of Practice for the Electronic Transfer of Notices (EToN) v5.0.1 and 6.0
- Code of Practice for the Co-ordination of Street Works and Works for Road Purposes and Related Matters (3rd Edition August 2009)
- Structures – Code of Good Practice
- CIPFA/HAMFIG/CSS Asset Valuation
- BS7666 National Street Gazetteer

Insight for Bridges & Structures (Cloud Edition) is a Public Cloud SaaS implementation (according to the NIST definitions) of the Symology Insight software suite. Hosted in our secure data centre (see the attached document "INSIGHT ON-LINE Additional Details.pdf"), the service allows subscribed users to initialise access to the Insight software suite over the public Internet through a web portal. Once authenticated, the user's web browser automatically downloads an ActiveX component to initiate a Windows Remote Desktop Connection session to connect to the service.

APIs are available to integrate external systems with the service – these APIs are documented as part of the comprehensive online help system and are supported through the regular service management process.

The service is available both to Local Highway Authorities and private sector companies providing services to Local Highway Authorities.

Open Standards

Symology's Insight for Bridges/Structures System complies with a wide range of open standards. These include technical standards such as the ability to export data/reports in PDF, CSV and XML formats as a standard feature. In addition, a wide range of XML/SOAP web services are available with the products, which comply with open W3C standards. The ESRI based GIS system embedded within our Insight software is also OGC (Open Geospatial Consortium) compliant.

In addition the Insight software meets and complies with the following industry related "open standards" – these include:

- The Technical Specification and Code of Practice for the Electronic Transfer of Notices (EToN) v5.0.1 and 6.0
- Code of Practice for the Co-ordination of Street Works and Works for Road Purposes and Related Matters (3rd Edition August 2009)
- Structures – Code of Good Practice
- CIPFA/HAMFIG/CSS Asset Valuation
- BS7666 National Street Gazetteer

Information Principles

The service provides many features that are in alignment with Her Majesty's Government Information Principles.

Both Symology and its Hosting Centre providers – Gyron Internet Ltd and Virtus (provided by CoreTx) are ISO 270001 accredited. As such a range of information management best-practices are applied throughout the lifecycle to ensure appropriate availability and integrity, to avoid exposure and loss, and to ensure continuity across technology upgrades. Of course particular importance is placed on ensuring that personal or sensitive data is adequately protected. In order to apply these best practices an organisation culture has been established to ensure that all staff are adequately trained and are skilled in managing the effective and efficient use of information in a way that enables a customer to achieve its goals.

Symology's Insight system has been used for many years by a high number of Local Authorities to hold and use data that is used, in a court of law, to defend third-party liability claims from members of public. The data that is used for these purposes is stored in a consistent and standardised manner, with full auditing facilities to ensure that the data is not tampered with after the event.

A range of Web Services (XML/SOAP) are available with the product. These Web Services are designed to ensure that access is only ever provided to the relevant data. Some of these Web Services are particularly aimed at providing information to members of the public – such that a self-service approach can be provided.

Information throughout the system is stored in a consistent standardised manner, and as mentioned in Section 9 (Open Standards) a wide away of open standards are supported and utilised.

The design of the Insight system follows the Write Once Read Many (WORM) philosophy and there are many areas of the system where data is re-used for difference purposes – for example physical asset data is stored centrally but re-used for inspections, works ordering, visualisation, condition projection and reporting. The Insight Asset Register has its own Web Services API such that other systems or public facing systems can access and (if appropriate) update the data held within the system. This is just one of many examples that exist within the Insight product range to help avoid multiple sources of the same information being held within a customer organisation.

Greening Government

As an ISO 14001 accredited organisation, Symology is committed to minimising the impact of its daily operations, products and services on the environment. Symology applaud the Greening Government ICT Vision, and is already well on the way to meeting the objectives of this vision.

The Management of the Company recognises that its activities have environmental impacts and has developed a range of policies to manage environmental issues properly.

These policies have the full support of the Symology Management Team, who in implementing this commitment to manage our environmental impact properly will:

- Fully comply with environmental regulations.
- Ensure that environmental considerations are integrated into our business decisions.
- Actively pursue opportunities to minimise the environmental impact of our operations, concentrating particularly on the use of energy, carbon emissions, recycling and waste disposal.
- Actively pursue opportunities to minimise our customers' environmental impact in their use of our products and services.
- Attempt to develop a wider understanding of environmental issues among our suppliers and employees.
- Regularly review our policies to ensure that they remain properly aligned to the need to reduce waste and encourage the most effective utilisation of scarce resources.

Symology's Insight products provide a wealth of facilities which enable our customers to operate more efficiently and more environmentally friendly. Examples include:

- a comprehensive suite of mobile working solutions, with facilities to prevent repeat visits to the same sites
- facilities to calculate and model energy usage of electricity using infrastructure assets such as street lights– enabling carbon emissions to be reduced
- facilities to analyse inspector or work gang routes to ensure that work is being carried out in the most efficient manner
- work allocation facilities based on geographic areas / skill sets
- all reports/documentation that can be generated from within the system can be generated in electronic format i.e. PDF, MS Word, MS Excel etc. and standard system facilities are provided to e-mail these documents rather than print them

In addition our Managed Service technical infrastructure is completely virtualised - ensuring that computing resources are maximised across all customers – whilst minimising wastage and reducing emissions at the same time.

Symology is committed to a process of ongoing review to ensure that its policies, products and services are as environmentally friendly as is possible.

Information Assurance

The service holds public data relating to Highway Authority operations – that is to say, data that is or could be subject to a Freedom of Information request or which is required to be published under the New Roads and Street Works Act 1991. As such, the broad range of data would be subject to IL0.

There are three potential exceptions:

- Names and telephone numbers of individuals within Works Promoter organisations may be included in Street Works notices. This contact information would be subject to a Data Protection exemption from publication under the Freedom of Information Act (FOIA), and customers may consider these as data subject to IL1.

- Contractors charge rates held against Schedule of Rates items. This information would be subject to a Data Protection exemption from publication under the Freedom of Information Act (FOIA), and customers may consider this as data subject to IL1.

- Names and telephone numbers of members of the public who have made requests to the Local Authority, which have been recorded in Insight's Customer Service module. This contact information would be subject to a Data Protection exemption from publication under the Freedom of Information Act (FOIA), and customers may consider these as data subject to IL1.

If these exceptions are considered as data subject to IL1, customers will need to complete their own internal assurance procedures as they would for any non G-Cloud procurement.

It should be noted that Symology and its hosting centre supplier are both ISO 27001 accredited.

Fault Tolerance, Backups and Disaster Recovery

The Service will be provided through a fault tolerant infrastructure. Every major hardware component within the model is duplicated. The duplicate is identically configured and is automatically commissioned should the master component fail.

The infrastructure includes servers featuring multiple CPU's, power supplies and redundant arrays of independent disks (RAID) and therefore individual components such as a power supply or disk can fail safely.

The Insight data is stored on a high specification SAN designed with a significant level of inbuilt redundancy. A second SAN, provided in an off-site environment is frequently updated so in a critical situation the Live System can fail over to this environment. This failover is not completely automatic and will require manual intervention before the service is fully available.

The Hosting Centres provide high availability power supplies and multiple incoming networking feeds to safeguard against single supplier failure.

Data will be mirrored to a secondary/passive environment at our second Hosting Centre at hourly intervals during the day. Daily backups are also made and client will be able to recover to any end of day's data for the previous 20 working days. There will also be monthly, quarterly, and yearly full backups. The standard length of data retention will be as defined on the Service Card.

Symology's dual hosting site passive/active model offers a high level of **business continuity** when dealing with **disaster recovery**. It is Symology's responsibility to test, validate and ensure the service is up and running and capable of meeting the defined SLA.

Symology reserve the right to limit the service to core functionality required for the business. Criticality of functionality would be established during the initial Service Mobilisation.

Depending on the reason for the failure of the service, access to the service may be via a different IP address. This would still be via the standard IP address range provided within the standard technical connection documentation. However any hard-coded uses of IP addresses by the Customer may need to be changed at short notice.

On-boarding / Off-boarding Processes

On-boarding Process

1. Purchase Order placed
2. Sign contracts and licence agreements
3. PRINCE2-based project management method:
    a. Identify Project Board members
    b. As part of Project Initiation, identify project critical data including:
        i. Desktop PC configuration requirements for accessing the service
        ii. Street Gazetteer availability
            - The customer will supply Symology with their Local Street Gazetteer and Associated Street Data formatted according to BS7666:2006 and DTF 8.1
        iii. Ordnance Survey map layer availability and licensing
            - The customer will supply Symology with their Ordnance Survey background maps (a contractor agreement will also need to be signed)
        iv. User categories and permissions
        v. User training requirements
        vi. For each of the following functional areas, identify source data for migration to the new service:
            - Local Street Gazetteer and Associated Street Data
            - Geographic Areas/Patches
            - Network Referencing systems
            - Expenditure Codes
            - Defect Codes
            - Priority Codes
            - Schedules of Rates
            - Cyclic Inspections Types
            - Condition Survey Definitions
            - Previous Condition Survey data in HMDIF format
            - Inspection Frequencies
            - Asset Types and Attributes
            - Customer Service Request Types
            - Cyclic Inspection Last Done / Next Due dates
            - Street Works Operational District Files
            - Asset data

4. Service commissioning
    a. Provision of a "bare" service with Street Gazetteer, Networks, Assets, Geographic Areas and Mapping (expected no later than 10 weeks after stage 2 above)
    b. For each agreed project phase:
        i. Agree User Acceptance Test plans
        ii. Functional configuration
        iii. Data conversion/load
        iv. User configuration
        v. Mobile Device configuration, if required (see "Mobile Device Configuration in the "Pricing" section below)
        vi. User Acceptance Test
        vii. End User Training

Off-boarding Process

At the termination of the contract Symology will make all data available in XML format for input into any new system. Symology's own schema will be utilised. This data will be available via FTP for a period of 3 months from the termination of contract.

Pricing

Insight for Bridges & Structures (Cloud Edition) is priced by an Annual Subscription fee, plus an additional annual fee for each Option, plus a fee per user and per mobile user.

Per user and per mobile user fees are per user per month in advance, and can be varied up or down. The number of users required is completely elastic with no limitations as to the maximum number of concurrent users.

Per user and per mobile user fees are also available on fixed a 1 year or 2 year commitment basis, with a lower effective price per month.

These two per user models can be combined, with a base number of users on a 1 or 2 year commitment, and additional users on a monthly variable basis.

Product or Service	Unit	Price
Annual Subscription		
Insight for Bridges & Structures (Cloud Edition)	Per Year	£10,500
Insight Users		
Monthly	Per User Per Month	£126
1 Year Commitment	Per User Per Year	£1,386
2 Year Commitment	Per User Per Year	£1,292
Insight Mobile Users		
Monthly	Per User Per Month	£53
1 Year Commitment	Per User Per Year	£600
2 Year Commitment	Per User Per Year	£560
Options		
Works Management (Basic Edition) inc. 1 contractor	Per Year	£2,625
Works Management (Advanced Edition) inc. 1 contractor	Per Year	£4,200
Additional WM Contractors	Per Year Per Contractor	£1,050
External Works Management System Interface per contractor	Per Year Per Contractor	£2,625
Street Gazetteer & ASD Maintenance functions (Single Database)	Per Year	£2,100
Street Gazetteer & ASD Maintenance functional (Dual Database)	Per year	£5,100
Customer Service Direct Interface (Incl. IDI, Jitterbit, Customer Notification)	Per Year	£5,250
Customer Service Direct Interface (For use with Web Reporting Portal)	Per Year	£3,500
Customer Service Web Reporting Portal	Per Year	£4,000
Asset Register Direct Interface	Per Year	£3,150
Publicly hosted attachment service for Street Works	Per Year	£2,625
Corporate Finance Interface	Per Year	£1,575
Import/Export of Datasets (FTP)	Per Instance Per Year	£1,575
Corporate GIS Integration (WMS/WFS) publication	Per Year	£5,250
Additional Crystal Report Designer Licences	Per Named User per Year	£525
Additional 25Gb disc space per annum	Per Additional 25Gb Per Year	£1,050
Bespoke Interface Hosting/Monitoring - Small	Per Interface Per Year	£2,625
Bespoke Interface Hosting/Monitoring - Medium	Per Interface Per Year	£5,250
Bespoke Interface Hosting/Monitoring - Large	Per Interface Per Year	£10,500
New Customer - Mandatory Services		

SECTION 15 – PRICING

On-boarding	One Off Charge	£6,300
Project Management – Org's with >= 2400Km Network	One Off Charge	£5,250
Project Management – Org's with < 2,400Km Network	One Off Charge	£3,150
Implementation Consultancy – Org's with >= 2400Km Network	One Off Charge	£7,875
Implementation Consultancy – Org's with < 2,400Km Network	One Off Charge	£5,250
Mobiles - Initial Setup, Configuration and Training		
Insight Mobile Configuration 1-10 Devices	One Off Charge	£5,250
Insight Mobile Configuration 11-20 Devices	One Off Charge	£7,350
Insight Mobile Configuration 21-50 Devices	One Off Charge	£10,500
Insight Mobile Configuration 51-100 Devices	One Off Charge	£15,750
Other Optional Services		
Ordnance Survey MasterMap Updates	Per Update	£1,260
Test System Refreshes	Per Update	£1,050
Gazetteer Loads	Per Authority Area Per Year	£3,000
Standard Training Courses at Symology Offices (per person per day)	Per Person Per Day	£420
Standard Training on-site (1 Day Course - Max 12 People)	Per Course	£3,150
Standard Training on-site (2 Day Course- Max 12 People)	Per Course	£5,250
On-site Consultancy	Per Day	£960
Office based Consultancy	Per Day	£860
System Analysis/Design	Per Day	£1,010
Development/Programming	Per Day	£705
Remote Management/Updating of Insight Mobile (1-10 Devices)	Per Year	£3,000
Remote Management/Updating of Insight Mobile (11–20 Devices)	Per Year	£5,000
Remote Management/Updating of Insight Mobile (21–50 Devices)	Per Year	£8,000
Remote Management/Updating of Insight Mobile (51-100 Devices)	Per Year	£12,000
Insight Online Service Package - Bronze	Per Year	£6,500
Insight Online Service Package - Silver	Per Year	£9,000
Insight Online Service Package - Gold	Per Year	£13,000
Insight Online Service Package - Platinum	Per Year	£60,000

Expected Best-selling Configuration

Description	One-time Cost	Annual Cost
On-boarding	£6,300	
Annual Subscription		£10,500
8 x Concurrent Insight Users		£10,336
2 x Insight Mobile Users		£1,120
Project Management	£3,150	
Implementation Consultancy	£5,250	
Training	£5,250	
Insight Mobile Config	£5,250	
SUB-TOTALS	**£25,200**	**£21,956**
TOTAL FIRST YEAR COST	**£47,156**	

SERVICE DESCRIPTION

Definitions

Service shall mean the provision of the INSIGHT ON-LINE service to be provided to the Client.

Service Availability shall mean that the Service is working as described and can be accessed remotely.

Service Card shall mean the definition of various service parameters as defined in Section 9.

Service Levels shall mean the level of service availability which the Supplier will provide to the client, as defined in Section 9.

Service Plan shall mean the particular implementation of the service for the client as defined in Schedule 5 of the Managed Service Agreement.

Service Period shall mean the period over which service availability is calculated.

Maintenance Window shall mean the period defined in the Service Card, during which the service is routinely unavailable to allow for system maintenance activities.

Core Service Hours shall mean the times defined in the Service Card, during which the pre-specified level of Service Availability will be provided.

Hosting Centre shall mean the secure external data centre where the servers are physically located as defined in Schedule 3 of the Managed Service Agreement.

Hosting Support Team shall mean the Symology staff responsible for the optimised management of the Service.

Incident shall mean a problem of usability, hardware or software failure, registered with Symology's Hosting Support Team.

Application Software shall mean software developed by Symology or approved third party software suppliers, which is licensed for use by the Client in accordance with the Service.

Application Administrator shall mean the principal contact (and/or deputies) who is nominated by the Client to liaise with the Hosting Support Team on all issues related to the on-going use of the Service.

Account Manager shall mean the Symology Consultant assigned to manage the strategic and commercial relationship with the Client

Planned Outage An outage, requested by the Hosting Support Team, notified to the Application Administrator in advance of the event.

Unplanned Outage A complete loss of the Service, of which the Application Administrator has not been notified.

Service Management

Service Scope

During implementation of the Service, Symology will produce a Service Plan in agreement with the Client. The Service Plan will define in more detail the frequency and nature of the implementation, such as scheduled processes, system interfaces and bespoke developments/reports. It will also include details of the Application Administrator and nominated deputies.

Following implementation Symology will maintain the Service Plan, which will be available on request. If Symology make any material changes to the Service Plan which may affect the Client's use of the Service, then a revised copy of the Service Plan will be sent to the Client in a timely manner.

Roles & Responsibilities

Symology Ltd takes overall responsibility for ensuring that the Service is provided to the agreed level. Symology will ensure that only the necessary level of access is provided to its personnel who are required to maintain and support the Service.

The Client will, and will procure that its employees will, agree to abide by the terms of use of the Service as defined in the Agreement. Misuse or abuse of the Service may result in the Service being made unavailable to the Client or individual users indefinitely.

The Client must ensure that only those users authorised to access the Service attempt to use it.

The Client must also ensure that the service is being used appropriately and in the manner for which it is licensed.

The Client must nominate a contact person to assume the duties of "Application Administrator". Appropriate arrangements for deputies must also be made.

The Client must notify Symology of any changes to the nominated Application Administrator(s) and deputies, and any changes to their contact details.

The Application Administrator(s) will be required to attend all Symology training courses that are necessary for the on-going successful implementation of the Application Administration role, as defined by Symology.

The Client agrees to comply with all of the Hosting Support Team's reasonable instructions concerning the usage, modification, control and testing of the Service and to take all reasonable steps to ensure that the Client's employees are adequately trained in the correct use of the Service.

The Client must notify Symology if there are any changes to their business practices which are likely to have a material effect on their use of the service.

The Client must provide the necessary technical infrastructure to allow their users to access the Service.

The Client must notify Symology if they intend to perform any actions which could reasonably be expected to have a wide-ranging detrimental effect to the performance of the Service.

Security

Access to the servers in the Hosting Centre is restricted to nominated Symology and Hosting Centre staff.

Continuous high security monitoring is carried out by on-site personnel at the Hosting Centre. This includes automated security systems to control access, visual verification of all persons entering the building, CCTV video camera surveillance and a security breach alarm to provide the control room with information.

The Hosting Centre provides early fire detection and suppression, guaranteed power backup (should power supply fail) and temperature control systems.

Authorised Symology personnel can only access servers at the Hosting Centre for administrator and system management activities.

Access is restricted to authorised workstations on the Symology network, connected via VPN to the Hosting Centre. Only a limited number of network protocols will be allowed to communicate between the workstations and remote servers e.g. RDP, HTTP, HTTPS and FTP. Access is via username and password. The issue and update of all passwords is subject to a strict procedure.

All logons to the servers are audited.

Access to the Service is mediated by a Firewall. Servers are hidden behind a firewall in a "private ip address space". Servers and routers are segregated in Virtual Local Area Networks (VLAN). Network security features include multi-level privileges and OS lockdowns and device change logs.

Users will initially login to the Service using a username and default password, which the user will be obliged to change. It is the user's responsibility to ensure that their password is secure and should they suspect their password has been compromised; it is their responsibility to effect a password change.

If it is believed that a user is not conforming with reasonable password confidentiality Symology reserve the right to suspend the user account or services accessible by that user.

Access to the Service is monitored. Details of this cannot be made available for security reasons.

All servers allocated to delivery of the Service have **Anti-Virus** software installed as standard, which operate continuously and are regularly monitored.

Virus definitions will be reviewed daily for updates.

All unnecessary on-line services and software are removed from the INSIGHT ON-LINE servers. Specific details of these cannot be made available for security reasons.

Service Monitoring

Server Performance is automatically monitored for CPU, memory, disk and network usage, and alerts sent to the Hosting Support Team if limits are exceeded. The usage of CPU, memory, disk and network usage are reviewed regularly to identify unexpected trends.

The Service is monitored using a combination of industry standard tools and bespoke monitoring software under the control of the Hosting Support Team. These are not connected to the Hosting Centre's network other than by the Internet.

An alerting process operates 24 x 7 x 365 notifying key personnel within the Hosting Support Team of any operational server status changes.

If the 'Client Side' Service is unavailable to the Client, it is the responsibility of the Application Administrator to notify Symology of the Unplanned Outage by means of a telephone call to the Hosting Support Team. At the time of logging the call, if requested, the Application Administrator will be provided with a unique Customer Service Request Number; this will identify the support request and will be used to reference the specific incidence of unavailability. The period of service unavailability will be taken to start at the time the support call is recorded on Symology's Customer Service system.

If the cause of the service unavailability is with the Symology managed software, hardware or communications, the Hosting Support Team will organise the rectification of the problem and ensure the Client's Application Administrator is kept informed of the call progress. Once the Service is available the support request will be closed. The period of service unavailability will stop being measured at the time the support request is closed. The call will be closed with a status indicating that the service unavailability incurred was the responsibility of Symology.

If the cause of the service unavailability is outside of Symology's control, Symology will notify the Client that the Service is operating correctly. The support call will then be closed and no service unavailability will be logged. The call will be closed with a status indicating that the service unavailability was not the responsibility of Symology.

Service/System Administration

In the normal course of events, **Planned Maintenance** tasks will be performed outside the defined core working hours, normally during the Maintenance Window. Planned Maintenance includes, but is not limited to, the following tasks:

- routine deletion of temporary files, disk defragmentation, etc
- backup of data
- activities to accommodate new data or applications
- archiving
- updates to virus definition files
- application of security patches
- updates to firewall and security procedures
- activities in the Hosting Centre to accommodate new hardware or network infrastructure
- any other work determined by the Hosting Support Team to be essential in the continued provision of the service.

In some circumstances, such as upgrades to provide additional anti-virus security, the upgrade must be applied immediately for security reasons.

It is Symology's policy that upgrades should be applied to the Service, at Symology's discretion, where they will result in a benefit to the effectiveness and quality of service provided. This will include, but is not limited to:

- the hardware and physical infrastructure of the system
- the operating system and system software

- security patches and fixes

The Hosting Support Team will endeavour to undertake such upgrades outside Core Service Hours. Where this is not possible the Hosting Support Team will endeavour to provide the Client suitable notice but in such circumstances no notice period can be defined.

It is Symology's policy that Insight **Software Patches and Service Releases** necessary to maintain service availability or address critical fixes should be applied to the Service at Symology's discretion.

Other Insight Software Patches and Service Releases will be applied in agreement with the Application Administrator (such agreement will not be unreasonably withheld).

Prior to the implementation of a new version or the introduction of significant functional change an upgrade plan containing dates for the Test and Live systems implementation will be defined. The Test System will be updated first to allow users an opportunity to preview the functionality. The Live System implementation plan will then proceed as scheduled unless the Hosting Support Team is notified otherwise.

For **Data Migration/Conversion**, where an Insight service is being moved from a local environment into a Managed Environment, or is being converted from another supplier, a Test environment will be provided. It is the responsibility of the customer to work with their Account Manager to ensure that the Test System is configured in the exact manner that they require their live system.

Unless Symology are notified to the contrary it will be assumed that the Test System implementation has been correctly configured. Again, unless notified to the contrary, it will be assumed that the Test System configuration is acceptable for Live implementation.

Service Constraints

Data Migration of historical records is not provided within the standard costs. Prices can however be supplied following further analysis of the requirement.

Access to following areas of the Insight System will only be available to the Hosting Support Team:

- System Options including the Licensing and File Location Configuration Parameters
- Database Codes, Service Codes and Street Gazetteer Codes
- Database Structure and Physical Disk Organisation Parameters
- Username creation
- Inbound and Outbound Interface Transfer directories
- Mapping Definition and Layer Symbology.
- Archiving Facilities

Service Levels

The Service will be available for at least the target service level of Core Service Hours in each period as specified in the Service Card.

In the event that this Service Level is not achieved in any period, remedial action will be taken as defined under Section 5 - Remedial Action.

Although not within the scope of the Service Agreement, the Service will in the normal course of events remain available outside of Core Service Hours, except during the Maintenance Window defined.

The calculation of Service Availability will not include the following:

- Any System Administration activities which by agreement with the customer are undertaken within Core Service Hours
- Client caused outages - these may be actions due to the Client's action on the Service that is not part of the normal use of the Service or over-utilisation of the Service
- Any unavailability relating to or caused by a material breach by the Client of the terms of the Agreement
- Any unavailability as a result of the Client's inability to connect which is outside of Symology's control
- Any events beyond the reasonable control of Symology, such as force majeure events

The Hosting Support Team will notify the Client of any Planned Outages to the service, outside of the Maintenance Window. For planned maintenance an advance notification will be given within the period defined in the Service Card. For planned maintenance activities the work will be scheduled outside of the defined core hours.

In the event of an Unplanned Outage occurring that requires remedial action the Hosting Support Team will endeavour to provide the Client with suitable notice but in such circumstances no notice period can be defined.

This Service Card details the default parameters which apply to the service.

SERVICE CARD

Service Parameters:

Core Service Hours:	08:00 to 18:00
Service Week:	Monday to Friday
Public/Bank Holidays:	Excluded
Service Period:	3 months
User Inactivity Suspension	30 Days
Outage Notification Period:	2 Weeks
Maintenance Window:	30 minutes between 21:00 and 24:00
Portal Document Availability:	7 Days
Portal Timeout:	4 hours
Insight Application Timeout:	1 hour
Password Timeout:	30 days
Background Map Data Updates:	Quarterly
Archiving Processes:	Annually
Retention of Backup data:	1 Year
Allocated Total Storage Capacity:	150 GB
Service Environments:	Live, Test
Microsoft Office Availability:	No

Service Availability

Target Service Level: 99% of Core Service Hours

If the Service Availability falls below the Target Service Level in any service period, the Client shall be entitled to be granted a Service Credit against the Fees for that service period, at the appropriate level as indicated in the table below and in accordance with Section 5 of the Service Description.

Service Level	Failure Credit
98%	5%
97%	10%
96%	15%
<= 95%	20%

Service Credits

Service Credits will be granted in accordance with the terms of the Managed Service Agreement.

The Service Credit will be calculated in accordance with the relevant Service Card band and based on the pro-rata Charge for the Service Period.

Service Credits are not additive, that is, only one credit can be applied in any given service period.

Target service availability within Core Service Hours is defined within the Service Card. This will be monitored on the agreed Service Period defined within the Service Card. The following formula shall be used to calculate the percentage availability each period:

(Time logged as available/Core Service Time) * 100%

For the avoidance of confusion, the "time logged as available" will be calculated as the total length of Core Service Time minus the total time Symology were responsible for Service unavailability within the period.

The total service unavailability will be calculated as the total difference between each 'Service Unavailable' request being logged and being closed in Symology Customer Service system, where the service unavailability was the responsibility of Symology.

Service Support

The Client shall not use the facilities offered by the Service to make requests for information and/or assistance, which would reasonably be considered as training.

Support is provided for the maintenance and availability of the Service hosted by Symology. This will include regular maintenance of the related infrastructure including backups and operating system patching.

If a fault is diagnosed with an item of software or hardware that is covered by a third party maintenance agreement it will be escalated in accordance with that agreement in a timely manner.

Support does not extend to primary support where the Service is unavailable to a particular Client or user because of their local network problems. In such circumstances, the criteria for determining that the problem is local to the Client will be that the Service is available to at least one remote site over an Internet connection.

The Application Administrator will be responsible for logging support calls and incidents, assisting in preparing for new software releases, organising training courses, and representing the Client at the Symology Conference. They are also responsible for requesting new users, changes to existing users and requesting changes to functions or configuration. *Further details regarding the Application Administrator's responsibilities are detailed in the Service Management section.*

Application Management and Administration

Licensing	The Hosting Support Team will assume full control for all the licensing issues related to the operation of the Application Software on the server. The Application Administrator will have the authority to specify the association of the licensed functions with an Insight User Account. The actual implementation of the association will be performed by the Hosting Support Team.
Application Monitoring	It is the Client's responsibility that any problems with the service or the application are reported to the Hosting Support Team when they occur in a timely manner. The Hosting Support Team will manage any necessary investigations. Failure to report problems in a timely manner, with an appropriate amount of detail may result in more serious problems occurring which require actions to be performed outside the scope of the service provision.
Monitoring "System" Log Files	The Hosting Support Team will check system logs on a daily basis. The Hosting Support Team will manage any necessary investigations.

Monitoring Scheduled Processes	The Hosting Support Team will monitor all scheduled and batch processes to ensure that they are running successfully in accordance with the agreed schedule. The Hosting Support Team will manage any necessary investigations.
Monitoring "Functional" Log Files e.g. Batch Processes, EDI Reports, Message Audit Trail	It is the Application Administrator's responsibility to monitor that the results of scheduled processes match the expected business requirements. Where the process does not meet the business requirements it will be the Application Administrator's responsibility to investigate the cause of failure. If they are unable to rectify the issue the Application Administrator must contact the Hosting Support Team.
Monitoring External Interfaces	It is the Application Administrator's responsibility to ensure that the results of any interfaces with external systems, match the expected business requirements in the external systems. Where the process does not meet the business requirements it will be the Application Administrator's responsibility to investigate the cause of failure. If they are unable to rectify the issue the Application Administrator must contact the Hosting Support Team.
Resolving EToN Web Service Connection Issues	It is the Application Administrator's responsibility to monitor any non-transient connection issues with EToN Web Service recipients. Failures should be reported to the Hosting Support Team. It is the Application Administrator's responsibility for ensuring any transactions which need to be resubmitted are done so. At the request of the Application Administrator, the Hosting Support Team will, where practical, take actions to resubmit en masse all transactions which are identifiable as unsent. In the event of continuous external failures, Symology reserve the right to refuse to resubmit, or to charge for any resubmission activities.
Resolving EToN OD Batch File Changes	All changes to EToN OD Batch details should be submitted via EToN Web Services and therefore require no intervention from the Application Administrator or Hosting Support Team. It is the Application Administrator's responsibility to notify the Hosted Support Team of any OD Batch files which need to be loaded manually for any reason. At the request of the Application Administrator, the Hosting Support Team will load the supplied batch file into the Service. In the event of continuous changes, Symology reserve the right to charge for any resubmission activities.

Definition of Permission Profiles	Permission Profiles are records that define a set of Insight Authority permissions. Each user must be associated with a Permission Profile. It is the responsibility of the Application Administrator in conjunction with the Hosting Support Team or Account Manager to determine the correct Permission Profile definitions.
Application Administration Permission Profile	An Application Administrator Permission Profile for accessing Insight will be provided as part of the set-up process. This Permission Profile will have access to all the Insight facilities provided, along with the authority to change certain configuration and system option settings. A list of the restrictions is documented in Section 8.6. Key user accounts can then be associated with the Application Administrator Permission Profile allowing them to inherit these permissions. It is the Application Administrator's responsibility to ensure that the Insight configuration options are set correctly for their business requirements. Only an Application Administrator has the ability to request "System" changes to the Insight Configuration. The Hosting Support Team will retain the "Super User" password. This is to ensure that the major database control parameters cannot be incorrectly updated. This password will be not be divulged to anyone outside of the Hosting Support Team. Within the Hosted (Shared) and Pay-per-Works solution, the Hosting Support Team will manage the configuration and system options and as such the Application Administrator will not be assigned to the Application Administration Permission Profile.
Definition of Users	An Application Administrator will have the capability of requesting new Insight Users. It is the responsibility of the Hosting Support Team to set up the users and the appropriate access permissions. New users can only be requested by email from the Application Administrator, or in their absence by email from a deputy registered previously with Symology, via email. The email must be sent from the Client's email system and not a private system. Symology reserve the right to refuse a request to create an account if it is believed that the integrity of the system could be compromised.

Password Definition	The initial definition of a user's password will be performed by the Hosting Support Team. On initial receipt of their login credentials it is the user's responsibility to change their password. Password safety and security remains the responsibility of each user.
Password Resets	Generally, only the Application Administrator can request the Hosting Support Team to reset a password for a user. The Application Administrator achieves this by logging onto the portal and choosing the "Update Existing User" icon. This allows them to define a user and the appropriate action. On completion of the form, an email is sent to the Hosting Support Team who then actions the request. In exceptional circumstances, for example where the Application Administrator is on annual leave, emails will be accepted from individuals requesting a password change. These emails must originate from the Client's organisation domain of the person who is requesting the reset. As part of the process, the user will be emailed to confirm that the request has been completed and this email will be "cc"'d to the Application Administrator. Unfortunately, for security reasons it is not possible to action requests for resets received via phone calls. Symology reserve the right to refuse a request to reset an account if it is believed that the integrity of the system could be compromised.
Batch Process Requirements	The business requirements for any batch processes will be agreed between the Application Administrator and the Account Manager. Once finalised they will be passed to the Hosting Support Team for implementation. The agreement will be documented on the Service Plan. If the requirements for batch processes are such that they would place unreasonable or excessive load on the managed service, then Symology reserve the right to make an additional charge for provision of this service. This charge will not be levied if the requirements would be considered reasonable for standard operation of the service.

Definition and Scheduling Batch Processes	The Hosting Support Team will ensure that the batch processes are defined and scheduled as per the business requirement. In general, batch processes will be scheduled outside of core hours, unless by their nature it is considered reasonable and practical to schedule them within core hours. The right to charge is reserved in the event of continuous changes to requirements.
Archiving	The number of archive runs included within the Service is defined on the Service Card. Archiving policy will need to be agreed between the Application Administrator and the Account Manager. The agreement will be documented on the Service Plan. Once agreement has been reached, the Hosting Support Team will archive data in accordance with the policy. Each archive run will require exclusive use of the application, and this will not be included within service availability calculations. Within the Pay-per-Works solution, the implementation of Archiving will be controlled by the Hosting Support Team.
Test Databases	The Hosting Support Team will provide a test database environment. The Test System will only be refreshed on customer request up to twice a year. If more frequent updates are required, then Symology reserve the right to charge for these updates. In addition, the Hosting Support Team must be informed 30 days in advance of the required date. The Hosting Support Team will endeavour to house the live and test databases on the same server. If this is not possible, for example due to a conflict of 3rd party products, an alternative shared environment will be provided. In general, the Test System will not have the integration capabilities of the Live System. For example, it will not have the ability to send and receive EToN transactions. This is to safeguard the end users from entering data that could then be erroneously sent to a live 3rd party system.

Crystal Reports Designer	The Embedded Report Designer licence is necessary for users who require access to Crystal Designer facilities. If this facility has been licensed then the Crystal Reports designer Licence will be installed into the appropriate Environment. Unless users are sufficiently proficient, it is recommended that templates be refined and tested in the test environment prior to being implemented in the Live environment. Please note, any corrective actions as a result of user error, performed by the Hosting Support Team may be chargeable. The Application Administrator will be responsible for determining the users who have access to the Crystal Reports Designer function. If users have not licensed the Embedded Report Designer they will still have access to the Crystal Report Viewer facilities.
Crystal Report Viewer	This is a standard facility provided to all customers, in both the Live and Test environments, to view pre-determined templates. Where customers have not licensed the Crystal Reports Designer facility, these will be the standard Insight Software Templates.
MS Office Templates	If Microsoft Office facilities are provided, the Hosting Support Team will specify the version to be used on the server. Operating system permissions will be set to ensure that the integrity of the file system is preserved. Note it is recommended that the MS Office templates be refined in the test environment prior to being moved into the live environment.
Standard RDBMS Reporting	It is possible to provide Crystal Reports of a statistical nature, reporting on tables within the underlying business database. Any standard reports of a mandatory nature relating to National Indicators etc. will be provided in accordance with the prescribed timetables.

Bespoke RDBMS Reporting	Any requirements for bespoke reports based on RDBMS tables are outside the scope of the basic Service and requirements will need to be discussed with the Account Manager. The agreed requirements will be documented on the Service Plan. In general, due to the complexity of the Insight database, the need for on-going maintenance as a result of database changes and the potentially detrimental effects on the Service of a poorly designed query, the only realistic option for the Client is to engage Symology's services to design, maintain and manage the reports. If the Client pursues the option of designing their own reports and queries, then Symology reserve the right to make a charge for any additional load placed on the Service, and/or to remove the reports if it is considered that they will have a wide-ranging detrimental effect to the performance of the Service.
Embedded Mapping	The Hosting Support Team will control the installation of the embedded mapping software. The Application Administrator will be responsible for determining the users who have access to the embedded mapping functions. The Client will provide the background mapping data to be published as part of the Service. The background map data will be updated by the frequency defined in the Service Card. As part of the initial configuration process the Hosting Support Team will define and create the map document(s) and map layer structures including the appropriate Symbology and access permissions.
Mapping Configuration changes	After the initial GIS installation services any significant changes to the Map document or the Map Layers requested by the customer may incur an additional charge. In general, minor ad-hoc changes will be performed as part of the service. However Symology reserve the right to charge where significant work is required, or the work needs to be provided "out of hours".
Creation of Standard Map Layers	The Hosting Support Team will control the creation and installation of the Map Layers typically required for Insight System implementation.

Creation of Bespoke Map Layers	The Hosting Support Team will control the creation and installation of all bespoke Map Layers. Bespoke Layers can be defined as either: • Layers for which the data source is not contained within the Insight Database Structure. For example an "Unadopted Highways" or "Accidents" Layer • Non-standard Layers for which the data source is derived as a result of specific user processes. For example, plotting the results of an Automatic Pass. Where a bespoke layer is created, the user must provide details of the required Symbology and access permissions.
Maintenance of Bespoke Map Layers	Where a bespoke layer requires updating on a regular basis, the frequency must be agreed between the Application Administrator and the Account Manager. The agreement will be documented on the Service Plan. Symology reserve the right to charge where significant work is required, or the work needs to be provided "out of hours".
Export of Insight Map Layers	Where the requirement exists to export (on a regular basis) Map Layer information from Insight to a 3rd party this must be agreed between the Application Administrator and the Account Manager. The agreement will be documented on the Service Plan. Symology reserve the right to charge where significant work is required, or the work needs to be provided "out of hours".
File Retrieval	On completion of a process, any export, transaction or report files will generally automatically be made available within the documents page of the Web Portal. From this location they can be downloaded onto the local hard disk. For any file not automatically available in the documents page the Hosting Support Team should be contacted to perform the transfer.
Interface File Upload	It will be the responsibility of the Application Administrator to upload 3rd party data files required for processing within the Insight System. This is achieved using the standard uploading functions within the portal.

Gazetteer Export	For Highway Authority customers only, facilities will be provided to export the Street Gazetteer. The exported Gazetteers will be displayed within the documents page of the Web Portal. From this location they can be downloaded onto the local hard disk.
Gazetteer Import	All Gazetteer Import Facilities are controlled by the Hosting Support Team. Gazetteers will be imported or updated in line with procedures in the Service Plan.

Mobile Device Solution	The Hosting Support Team will implement all the technical server-side components to enable use of the Insight Mobile solution. This will include: • Implementing the web services on live and test environments and publishing the connection details to the Client. • Setting up the necessary mobile batch processes within Insight • Creating the mobile map document and definition as a result of agreements between the Application Administrator and the Account Manager. (The right to charge is reserved in the event of continuous changes to these requirements.) • Conversion of the latest provided background maps into mobile mapping format and publication on the portal. Symology will maintain these components in line with any Software Upgrades performed.
Mobile Device Software	The Hosting Support Team will ensure that the latest version of the Mobile Device software is available as a permanent link within the documents area of the portal. Customers are expected to update all their mobile devices such that they are running the version of the software provided within the portal.

Mobile Device Installation	It is the Client's responsibility to install the Insight Mobile solution on all their mobile devices. This installation process includes, but is not limited to: • downloading the latest Insight Mobile software and Insight Mobile Mapping software from the Managed Services portal • installing Insight Mobile software on devices • installing Insight Mobile Mapping software on devices • ensuring that all devices are running the same version of the Insight Mobile software • copying converted maps onto devices • configuring the Insight Mobile software on devices • configuring the non-Symology mobile device functionality e.g. GPS, 3G, Camera, Device ID etc. • testing and troubleshooting any mobile internet connectivity To enable successful installation of the Insight Mobile solution on the mobile devices, it is the responsibility of the Client to provide at least one PC for use by the mobile devices with: • a working USB connection • access to the internet for attached mobile devices • no firewall restrictions that would prevent or limit access to the Symology portal • no restrictions that would prevent the downloading of Symology mobile software msi files • no restrictions that would prevent the running and installation of Symology mobile update software from the PC • update access to the C: drive so that the update programs work successfully • Microsoft ActiveSync or Windows Mobile Device Center installed. It is the Application Administrator's responsibility for implementing and maintaining the Mobile Device Profiles and Settings within Insight.
Mobile Device Training	As part of the initial implementation process each customer will receive the necessary training to allow them to load and configure the Insight Mobile software on their own mobile devices. In the event of a customer being unable to load and configure the Insight Mobile software these services can be requested from Symology, although these may be chargeable.

Mobile Device Usage Policy	Provision of the Mobile device solution is dependent on the acceptance of a fair use policy. It is expected that Customers will use the solution in an efficient, reasonable manner. The data sets should be streamlined and the appropriate transfer method and frequency must be established to maximise operational efficiency. Symology reserve the right to charge where use is outside of the fair use arrangements.
Warranty Responsibility	The warranty and maintenance of all devices are the responsibility of the customer.
Street Works Charging Regime Maintenance	It is the Application Administrator’s responsibility to maintain and manage the Street Works Charge Regimes / Charge Rates Sets.
Street Works Message Settings	It is the Application Administrator’s responsibility to maintain and manage the Street Works Message Settings in accordance with EToN standards and any local requirements.
PCIS/UKPMS Rule Sets	It is the Application Administrator’s responsibility to maintain and manage the PCIS/UKPMS Rule Sets and Weighting Sets used in the Maintenance Standards module.
Working Days Calendar Definition	It is the Application Administrator’s responsibility to maintain the Working Days Calendar in line with their requirements.
Module Processing Options	The maintenance of the module processing options screens is the responsibility of the Hosting Support Team. Any requests for changes will need to be notified by email. Scheduling of the change will be arranged once the change has been approved.
Portal Downloads	It is the responsibility of the customer to ensure that all important documents are downloaded from the “documents” area of the portal. Documents and Objects older than a period defined in the Service Card, will be removed from the documents portal and deleted from the disks.
Special Processes	From time to time there may be a requirement to run special processes these will be the responsibility of the Hosting Support Team.

Application Software Conversions

Planning	In co-operation with the Application Administrator, the Hosting Support Team will establish a date for conversions. For the Hosted (Shared) and Pay-per-Works solutions, the conversion dates will be defined by the Hosted Support Team. Conversion dates will be established on the understanding that any conversion requirements, for example Training or data manipulation have been performed prior to the conversion date. The Hosted Support Team will publish the agreed conversion dates on the Insight portal. The Client will have 6 months from the date of release of a new version of Insight to agree with the Hosting Support Team a suitable date to upgrade. Failure to meet this requirement may result in additional charges being raised to cover the conversion activities or the effort required in maintaining a non current version of the software
Establishing Boundaries of Responsibility	Each Conversion exercise will have a clearly defined set of steps. As part of the planning exercise the Hosting Support Team and the Application Administrator will determine who is responsible for each step. It will be the Application Administrator's responsibility to ensure that the pre conversion processes are completed prior to the Live implementation date. Similarly, it will be the Application Administrator's responsibility to complete the post conversion processes.
Training	As part of the new release, there may be the requirement for additional training or functional consultancy to ensure that the new version is implemented successfully. Failure to take the minimum necessary services recommended by Symology may result in the Hosting Support Team performing the actions on a chargeable basis.
Software Installation	The Hosting Support Team is fully responsible for all of the software installation issues.

Pre-Conversion Process	As well as training, there may be other pre-conversion processes that are required to be undertaken. For example, there may be a requirement to correct or update certain records within the database, or to run System Processes to clear data records. In these instances, the test system can be used to preview the conversion processes. Although the Hosting Support Team will control the conversion process, it does not assume responsibility for any data preparation prior to the conversion. The assumption will be made that any Pre-conversion processes will have been carried out in a timely manner prior to the scheduled conversion dates. The required processes will be detailed to the customer as part of the conversion planning process.
Conversions	Conversions will be carried out outside of the designated core hours, unless agreed with the Client beforehand. Conversion processes require all users to be logged out of the Application Software. It is the responsibility of the Application Administrator to ensure that all the users are logged out of the service, prior to any conversion. Failure to do this could result in the postponement of the conversion and a charge may be made by Symology to re-cover the costs involved in having to abort the planned work.
Incremental Upgrades	The Hosting Support Team will install incremental Upgrades. Symology will inform the Application Administrator of any enhancements to the Application Software.
Post Conversion Process	The Hosting Support Team will monitor the converted data to ensure that the system is stable, fully operational and that the conversion has been successful. The Hosted Support Team will publish details of the completed conversion on the Insight portal. Any post conversion processes such as the configuration of new facilities/functions will be performed by the Application Administrator.

Crystal Reports Update	After a conversion where new features have been introduced, it is the responsibility of the Application Administrator to update their bespoke Crystal Reports to take into account these new features or database changes. As part of the Test Conversion process customers will need to make sure that any of their specific reports are updated to work with the latest Insight version. As part of the live conversion process these reports can be copied across to the live system.
Mobile Device Update Process	It will be the Application Administrator's responsibility to upgrade any Mobile devices. Symology will provide standard instructions. Alternatively consultancy services are available.

Corrective Actions

Correction of System Errors	Following identification of system errors (For example an Operating System or 3rd Party Software Error etc) the Hosting Support Team will assume full responsibility for the correction of the error. If there is a major operational problem the Hosting Support Team will attempt to get the system operational within the time constraints determined by the Service Level Agreements. If it is a problem, which does not affect key operations, the Hosting Support Team will organise in conjunction with the Application Administrator, the corrective action and the time it is to be performed. The Hosting Support Team will perform all correction operations. At all stages the Hosting Support Team will keep the Application Administrator informed.
Correction of Data Errors	After the identification of a data error (for example a Data Corruption or inconsistency) the Hosting Support Team will assume full responsibility for the correction of the error. Dependent on the type of data error the Hosting Support Team will schedule corrective action. Whenever possible, these will be undertaken outside of the Core Service Hours.

Technical Administration

Operating System	The Hosting Support Team will take full control of the operating system.
Operating System Upgrades	The Hosting Support Team will take full control for updating the operating system. The Hosting Support Team will ensure all 3rd party software is compatible with the new operating system version.
Operating System Patches	The Hosting Support Team will take full control for applying operating system patches.
Virus Checking	The Hosting Support Team will take full control for installing and monitoring the virus checking software. In the case of a serious security risk the application server may be taken off-line and appropriate measures taken. This action will only be taken in agreement with the Application Administrator.
Internet Access	There will be restricted Internet Access from the server. Internet Browser services will only be allowed to pre-determined locations, and only those that are required for the operational use of the Insight application. Non-standard locations will be documented in the Service Plan. Any non Insight Internet based actions will need to be initiated from the local Client PC.
FTP & Web Services	FTP & Web Services will be managed by the Hosting Support Team on a separate server, which is configured to operate with the Insight System.
Disk Management	The Hosting Support Team takes responsibility for Hard Disk Management.
Processor Usage	The Hosting Support Team will monitor the server performance during the course of the working day and will advise the Application Administrator of any processes that are causing system performance to deteriorate.
Hardware Maintenance	The Hosting Support Team will assume responsibility for all hardware maintenance issues.
Interface Technical Implementation	Any configuration or installation required to facilitate an interface into the Insight system will be performed by the Hosted Support Team.

Interface Monitoring	The Hosted Support Team will monitor the process or service to ensure that it is running at the appointed time and also provide a cursory check to ensure that reasonable results are being produced.
Functional Interface Monitoring	It is the Application Administrator's responsibility to ensure that the interface is working as expected in terms of the rules governing the processing of transactions and the exact results that are being produced. The Application Administrator is also responsible for the identification and correction of functional errors / warning messages produced by the interface process.

Disaster Recovery

Backups	Overnight, the Application Software and data files will be copied to a dedicated backup server. A tape drive is fitted to this dedicated server to provide additional resilience in the Hosting Centres. As an added layer of security the contents of the dedicated backup server are mirrored onto a 3rd server in a separate location. The files will then be backed up to tape from this off-site location. This procedure ensures that in the event of any requirement to restore that the information is easily accessible on a server residing on the same network. By mirroring the data Symology can ensure that it will have secure off-site backups.
Backup Validation	The Hosting Support Team will perform the validation of the backup procedure.
Virus Checking Software	The virus checking software will be as per our recommendation. The Hosting Support Team will ensure that the virus software is kept up to date.
Networking	Connection to the Managed Service is the responsibility of the Client. The Hosting Support Team may be able to offer advice on resolving any connection issues.

Customer Service/Support Operations

The goal of Symology's Customer Support Service is to ensure that all customers receive the assistance they require for the successful use of Symology's software products and services.

As part of the company's on-going commitment to quality and best practice, Symology has adopted the internationally recognised ITIL approach to Service Management. ITIL provides a cohesive set of best practices, which have been drawn from the public and private sectors internationally.

This section defines all relevant information regarding the standard support service provided by Symology as from the revision date detailed in the document footer.

The performance of our Customer Service is continually reviewed in response to feedback from our customers. If there are any areas of this service, which you feel could be improved, please contact Jon Panconi our Customer Services Manager via 01582 812444 or jon.panconi@symology.co.uk with details of your suggestions.

Symology's support systems and processes are monitored on an ongoing basis against ITIL best practice guidelines.

Terminology

In line with ITIL standards, customers should be aware of the following terminology and definitions:

Previous to the introduction of ITIL standards Symology staff used the term "Requests" to refer to all issues raised with the Customer Service team. Under ITIL the term "**Case**" will be used instead.

Each "**Case**" will be either an "**Incident**" or a "**Service Request**".

An "**Incident**" is something which may cause an interruption to your service.

A "**Service Request**" is a request for information, advice or a change e.g. a request for a password to be reset on the Managed Service or an Enhancement Request.

Commitment to Customers

Customer Satisfaction

Customer satisfaction is of the uppermost importance to Symology. This should be reflected in the level of service you receive and in the way that you receive it.

In addition to feedback you give Symology via your Account Manager, and at the Symology Conference and other direct communications, we proactively measure customer satisfaction in the following ways:

Customer Surveys

Customers will receive support survey emails on a regular basis depending on how many cases they raise. This provides the customer with the opportunity to rate how satisfied they are with the service.

Account Management Meetings

In addition to the regular email surveys relating to the Support service each customer organisation will be visited by their allocated Account Manager (at the very least once per year) to review their overall satisfaction with the products and services that they receive from Symology.

The results from each of these processes will be used to drive further improvements to our service. Any formal complaints will be recorded and acted upon, and the customer will be contacted by telephone by a senior member of staff to acknowledge and discuss the issue arising.

Customer Service

The Customer Services team will endeavour to provide the best possible service to all customers at all times. Our aim is to provide a service that ensures that expectations are met or exceeded and delivered in a manner that customers appreciate.

The Customer Services team will be proactive in updating users, chasing users for responses and retaining ownership of reported issues when immediate responsibility rests with another person or department within the company.

Customers should expect that all Symology staff are responsive, attentive and courteous at all times. Should you ever feel that this expectation is not being met please contact the Customer Services Manager.

Customer Communication

Communication with the Customer Services team is likely to be through a mixture of telephone, email and the on-line customer service reporting portal.

Email from Support Analysts will usually come via the Support system and have an address of support@symology.co.uk with specific Case Reference tags in the subject line. It is important that responses to these emails are replies to the original email and preserve the Case Reference tags in the subject line.

Where appropriate we use shared remote access sessions between Support and user desktops to investigate Cases and demonstrate solutions.

Customer Service Level Targets

Our Service Level targets are defined in Appendix A of this section.

Our Expectation of the Customer

Email

Customers' support contacts must each have their own email address, unique to them as an individual.

This allows our Service Desk system to automatically identify the individual logging the support request, and allows us to contact the individual directly by other means (including phone) if need be. It also allows our system to update the individual directly when the status of the support request changes.

These email addresses should also be specific to the supported customer organisation. For example, if a more than one customer organisation outsources their ICT operations to a contractor, and that contractor's staff may require support from Symology, those members of staff must have access to different email addresses for each customer.

This allows any support request raised by email to be automatically associated with the correct customer organisation.

If these requirements cannot be met, delays may be incurred and the Service Level targets defined in Appendix A will not be applicable.

Training

Customers requiring support are expected to have had relevant training in Symology's products.

The Customer Service Desk should not be viewed as an alternative to attending training courses or taking on-site consultancy services. In particular, it should not be expected that step-by-step assistance will be provided over the telephone for issues that are covered by training courses which the customer has not attended.

On-line Help/Manuals

It is expected that all customers are familiar with, and have access to the Insight on-line help system and all relevant training course documentation provided. This may facilitate some incidents being resolved prior to an issue being raised with Support or outside of standard support times.

Super User/Primary Support Contact

It is absolutely essential that each organisation appoints a primary support contact or "super user" (or one per business area in the case of larger organisations). This person will be a more experienced user and responsible for raising issues with Support, filtering out any common local issues first.

Customer managed systems

Where Symology software is running on systems that are managed by the customer, or managed by a third party under contract to the customer, then the customer is responsible for undertaking the appropriate level of systems administration and database administration.

<u>Please note that if the customer's Insight system is hosted on Symology's Managed Service then all technical administration is carried out by Symology and the need for a local technical system administrator is removed.</u>

System Administrator

It is expected that the customer will appoint a technical system administrator, and that this person attends Symology's Technical and Application Administration training courses. This individual may also act as the super user mentioned in 3.4 above.

DBA

Customers with on-site installations using Insight with Oracle or SQL Server RDBMS systems will require a database administrator to manage their databases.

Test Systems

It is expected that customers will have both live and test systems. It is preferable that each system is installed in its own separate environment as this removes the risk (at the time of major upgrades) of two versions of the same third-party products not being able to be installed on the same machine.

The Live and Test systems should be regularly kept in step.

If no separate test system is available, Symology's Customer Services Team cannot guarantee to meet service level targets and it is possible that the integrity of the live system will be compromised.

Software Upgrades

When a new version of the software is issued, it is expected that the test system will be upgraded some weeks before the live system. This time is required to allow the customer to identify the impact of the new software on their own local processes, locally defined reports and interfaces, etc, as well as an opportunity to familiarise users with changes. It also gives the customer the ability to test new upgrades and to test recommended solutions and bug fixes safely without any impact or risk to the live system.

Backups

It is expected that customers with on-site installations perform daily backups of both live and test systems. It is the customer's responsibility to ensure that these backups happen, and it is strongly recommended that customers test their recovery processes on a regular basis.

Remote Access

Where customers are managing their own local systems, Symology's Customer Services Team will occasionally require remote access as this facilitates more efficient investigation and faster resolution, of reported issues.

Remote access ensures that time is not wasted on importing and managing copies of user databases before an issue can be properly investigated, and thus enables the Customer Service Team to provide a more responsive service.

The service level targets defined in Appendix A of this document are applicable only where the required remote access is available.

The most common forms of remote access are detailed below:

Remote Access Tools

Symology's preferred tool for remote access is GoToMeeting from Citrix Online.

This allows the user and support staff to take part in web meetings where both parties can share an application or a desktop. The user can choose to share their desktop and pass control to the Customer Service Representative.
All actions performed by the Customer Service Team in this way are visible to the user at the time. Additionally, the user can regain control of their system at any time.

Remote Desktop

This is available to users running most Windows OSs or can be downloaded from Microsoft for other operating systems. This must be installed and running on both the desktops involved.

Direct Dial in

This facilitates direct access to the customer's database and/or application servers via an identified IP address. This is usually to interrogate customer data and/or edit the data where this has been agreed.

VPN

This facilitates direct secure access through the customer's network.

If remote access is not possible, the Customer Service Team may request a copy of relevant system databases. These will be transferred and held securely in line with our ISO 27001 Information Security Management System (ISMS), but remote access is inherently a more secure procedure, and provides a more accurate diagnostic of any reported issues.

Self-Service and Local Problem Solving

In many circumstances customers can resolve issues quickly using our self-service facilities and/or by conducting initial diagnostic actions locally.

Self-Service

When logging a new case via the Customer Service Portal, the support system will automatically check the details recorded against its knowledgebase and, where it is a known issue, will provide details of a previously recorded resolution to the problem.

The user can also search the knowledgebase for tips and advice.

Local Problem Solving

Appendix D in this document contains details of diagnostic actions that users can employ locally alongside raising cases with Support.

How to Raise a Case

Symology's Customer Service Team can be contacted by any of the following means:

- Telephone: 01582 812444
- E-mail – support@symology.co.uk
- Customer Service Portal - http://support.symology.co.uk

Regardless of the method used to raise the case, the user will be contacted via telephone or email by the Support Analyst assigned to the case.
Standard service hours (unless otherwise agreed) run Monday to Friday (excluding English national holidays) between 08:30 and 17:30.

Telephone

The information will be recorded in the Support system following operational procedures. Customers will be advised of the Case number and will receive an email confirming this.

Email

Emails can be sent at any time, however customers should be aware that any Case reported by email outside of agreed service hours may not be investigated until the next working day.

The information will be recorded in the Support system following operational procedures. Customers will be advised of the Case number and will receive an email confirming this.

Customer Service Portal

The Symology Customer Service Portal provides a web interface that allows customers to:

- Search and browse the Knowledgebase
- Log new Cases, specifying a Priority
- Check on the status of existing Cases (including those opened by phone or email)
- Add comments and attachments to existing Cases

A detailed Customer Service Portal User Guide is available to users on logging in to the portal.

Every contracted customer will be provided with login credentials for one individual to access the Customer Service Portal. These login credentials are specific to the individual and must not be shared with other individuals. At Symology's discretion, login credentials for further individuals may be supplied.

The Support Process

Case Creation & Classification

All cases are recorded on Symology's internal Service Desk Management system. This handles all Cases – both Incidents and Service Requests.

Regardless of the method used by the customer to communicate the request, the user will always receive email confirmation of the Case number during the Case creation process.

If a customer has given an indication of their perception of the priority of the Case (see Appendix A) this will be noted on the Case. Failing this, the Support Analyst will use their best judgement as to the most appropriate priority. If no priority can be easily determined, the priority will be initially set to 4 (Queries/Advice) – see Appendix A.

If the Support Analyst believes the Case priority has been set incorrectly by the customer they will contact the customer to discuss and agree the priority as appropriate.

Case classification includes checking all the Case details and assigning ownership of the Case to a Support Analyst.

There are circumstances under which support may not be available. For details of these, please refer to the Product Support policy in Appendix B at the end of this section. This will always be discussed with the user.

Case Assessment & Knowledge Base Searching

The assigned Support Analyst will initially assess the Case details. They will next look at other Cases open for that user to check for any correlation and, if so, to talk to the Support Analysts involved.

The Support Analyst will next search the Knowledge Base for previously recorded Cases of a similar type, and the recommended solutions.

For high priority Cases the user will be contacted before/during this process.

Case Investigation & Progression

Any relevant information gained from the Knowledge Base will direct the investigation, which will be carried out in conjunction with the user.

The Support Analyst will initially respond to and then update the user at regular intervals.

Sometimes Support staff will need direct access to the user's systems to investigate a Case efficiently. Where the software is running on a customer managed system, a remote access tool will be used, where possible, to provide a window onto the user's system, allowing Support staff to watch the steps the user took leading up to the incident and see the incident itself replayed. Direct access to database servers and/or application servers may also be required.

Where necessary, Support staff may request additional information from users to that supplied when the Case was created.

Every effort is made to reduce the level of user time required in Case progression. However, in some complex situations the amount of user time required may be relatively high. Discussion between the Support Analyst and the user should take place to ensure that the user is involved at times that result in the least possible disruption to their business.

Where required, Support staff will contact third line support resources and third party organisations to aid with the investigation.

Case Updates

Users will be updated at regular intervals. For details of the relevant Service Levels see Appendix A.

All user responses will be entered in the Case details. When an email is sent to a user the Case number will be included in the subject line of the email.

All communication from users to Support must be accompanied by the relevant Case number unless it is a new Case being created.

Users can use the self-service features described earlier to check on progress or to update Cases on-line. In addition, of course, users can ring or email the Support Analyst investigating the Case. Where updating the Support Analyst by email users should respond by replying directly to an email from the Support Analyst. This should have an address of support@symology.co.uk and will contain specific Case Reference tags in the subject line that ensure that the details in the reply are automatically entered into the Support system.

Where Support is waiting for information from a user for high or very high priority Cases, the analyst will remind the user that a response is being waited for. However, it remains the responsibility of the user to remember to respond and to monitor the status of their Cases.

Case Resolution

For Incidents, the aim of the investigation will ultimately be to resolve the customers experienced service failure as quickly and effectively as possible. When the Incident relates to an underlying problem in the program code, a workaround will usually be quicker to produce than a program change — as a result, the primary aim will be to find a workaround that is acceptable to the customer. If an acceptable workaround can be found, the Case Status will be set as "Solution Proposed" (see Appendix C) and the underlying problem escalated within Symology. If an acceptable workaround cannot be found, the Case Status will remain as "In Progress (S)" while the underlying problem is escalated within Symology.

For Service Requests relating to requested enhancements, these will be managed and tracked by the customer's assigned Account Manager.

Case Implementation & Testing

Once a solution has been identified, it will need to be implemented on the user's system. The implementation will usually be carried out by the user, although in some circumstances the Support Analyst will do this via remote access. The resolution will ideally need to be implemented and tested on the user's Test environment prior to deployment on the Live system. This avoids further problems, e.g. data integrity corruption, which could be caused by a faulty resolution.

The implemented resolution must then be tested by the user and the results reported back to the Support Analyst. It is important that the Support Analyst is informed even if the resolution is satisfactory, so that the case can be closed.

Further investigation will occur should the implemented resolution fail to resolve the original problem.

Case Closure

A Case will normally be closed on the user's instruction once they have confirmed that service has been restored or the service request completed. However where a Case is awaiting a response from customer for more than 14 days the user will receive an email reminder that the Case will be closed automatically after a further 7 days if no response is received. Automatic Case closure will be confirmed by email.

It is important that users either inform Support when a supplied resolution has resolved the Case, or close the Case themselves through the Customer Service Portal.

Previously closed Cases cannot be re-opened.

Where a previously closed Case was closed in error, either by the user or by the Support Analyst, a cloned Case will be created and the user advised of the new case number.

Case Monitoring

Users can monitor the progress and status of their Cases via the Customer Service Portal or by calling the Customer Service team.

Case Escalation

Cases will be escalated on user request where agreed with the Customer Services Manager.

The case should initially be escalated to the Support Analyst managing the case. If the case still fails to be handled in a manner consistent with the standards detailed in this document then the case should be escalated to the Customer Services Manager. Finally, if the user is still not happy with the progress or management of the case, the case should be escalated to the user's Account Manager and Support informed.

Cases that are escalated will not necessarily have the priority of the Case changed.

Service Level Management

The service level targets defined in Appendix A of this document will be monitored and measured, and every effort made to meet them.

Where a user believes that response or update targets are being regularly missed, or the correct process does not appear to be being followed, the Customer Services Manager should be informed via jon.panconi@symology.co.uk.

Software Change Management

Where a case has been identified as an application fault, or documentation that requires resolution, it is passed to the Development team. Where possible an estimated date for resolution will be supplied to the user via Support.

Where a software or documentation change is appropriate then this will be included in the next full release or patch release depending on urgency and priority. These will be accessible via the Symposium section of the Symology website http://www.symology.co.uk/Customers. Users will be informed when new releases are available.

User Complaints

Where users feel that all other means to address poor service have been exhausted and wish to complain formally then a letter or email should be addressed to the Customer Services Manager via jon.panconi@symology.co.uk. All complaints are investigated with the involvement of the user.

Appendix A – Service Levels

The Service Levels in this appendix will apply unless other contract-specific service levels have been agreed.

All service level times stated are targets and are not guaranteed. The quoted times are based on the availability of full direct access to the user's systems via an appropriate remote access tool or direct dial-in facilities.

Case Prioritisation

One of four business impact priority values will be assigned to a case, as described below.

Priority	Name	Description
1	Critical Impact	Whole system or major functional area inoperable.
2	Significant Impact	Problem significantly affecting operation. System usable but severely limited .
3	Moderate Impact	Minor problems. System largely usable.
4	Queries/Advice	Non-Urgent. Queries and Advice.

For Cases raised via the Customer Service Portal, support will use the priority specified by the user. For Cases raised by email, if no priority can easily be determined from the text of the email, the priority will be set to 4 (Queries/Advice).

Response and Resolution Targets

Priority	Response Target	Resolution Target
1	1 Hour	24 Hours.
2	1 Hour	3 Days.
3	24 Hours	Investigated within 5 days, although the software may not be upgraded until the next software release.
4	24 Hours	n/a.

All timings are based on the agreed Service Hours (see section 4). The "clock" is effectively stopped when waiting on response from the customer.

It is expected that the customer has applied all software updates that have been issued. Where the Customer Support Team identifies that a new version of software is required, either because the problem has been resolved recently, or a new software release has been created to resolve the reported problem, the customer is expected to apply the update forthwith.

The support service is limited to products which are defined in the customer's Licence Agreement and matters directly associated with the operation of those products within the environment specified.

Symology reserve the right to raise charges for any significant time spent on other matters such as the setup, configuration or problem investigation of operating systems, networks and communications on non-Symology supplied components.

The support service is designed to operate with a customer contact who is fully trained in the use of the Symology products. It does not provide an alternative to appropriate training and consultancy services.

Where the Symology products provide user-specification facilities (e.g. template definition, report generation, dictionary definition) the support service does not include using the tailoring facilities to provide the required output for the customer. Although guidance will be provided in response to specific queries, any requirement to "build" the required system for the user will be chargeable.

Advice and guidance will always be provided for recovery from operational problems. Where the difficulties are caused other than by the Symology products (e.g. operating system or hardware failures) or as a result of the customer not following recommended procedures for security and recovery, Symology reserve the right to charge for any extensive time spent on problem resolution.

Where a service call results in a recommended action from the support staff, customers are requested to always inform the support team of the results of carrying out the recommendations.

Even in the event of a successful outcome, this is important in order to clear the case in our system.

Appendix B - Support Policies

User Status

It is our policy to withhold support from users who have been put "On Hold" by our Finance and Administration department. This most typically occurs as the result of invoices being outstanding beyond the terms of the contract.

Supported Versions

It is our policy to provide support for all versions of Insight. However, for releases older than the penultimate available version the support provided may be limited.

Product upgrades and patches will generally only be made available for the latest version of any product except in the case of high impact cases. User specific exceptions may be made at the discretion of the Customer Service Manager or by mutual agreement with Symology.

Version Compatibility

With every major release of the software, Symology issue a "Product Compatibility" document at the same time the Advance Release Notice is distributed to customers. Note that this documentation can be downloaded from the Symposium Section of the Symology website.

The Product Compatibility document describes what versions of software are supported with different operating systems and versions of third-party components. Support can only be provided where compatible products for the version in question are being used.

Unauthorised User Modifications

Where the Insight database or applications have been modified by the user without agreement or instruction from Symology e.g. editing the underlying database directly, it is our policy that support will be withheld.

If a case is reported to Support, and investigation of the case shows that it has occurred as a direct or indirect result of user modifications not sanctioned by Symology, then Symology will make a charge relating to the amount of time spent by Symology investigating the case. Charges will be based on standard office-based consultancy rates.

Training/Documentation/Help

It is our policy to check that the user experiencing the problem has received appropriate training. Support will not be given to users who have not received training except at the discretion of the Customer Services Manager. Support will be given if training is scheduled and already paid for.

It is not intended that Support be used as an alternative to reading supplied documentation such as Installation Guides, Release Notes, Knowledge Base or On-line Help system. However, advice and help on understanding supplied documentation will be provided.

Appendix C - Case Status Codes

Status Code	Description	Action waiting on
New	These are cases that are "Awaiting Allocation" these will be assigned to a Support Analyst by the Support Team Co-ordinator.	Symology
Allocated	The case has been allocated to a Support Analyst but is not being actively worked on.	Symology
In Progress (S)	The case is actively being investigation by (S)ymology.	Symology
In Progress (C)	The case is awaiting a response from the (C)ustomer. Cases at this stage will be automatically closed after 21 days if no response is provided by the customer, however 7 days before this a reminder e-mail will be generated.	Customer
Solution Proposed	A solution has been proposed by Symology to the Customer to resolve the case. Cases at this stage will be automatically closed after 21 days if no response is provided by the customer, however 7 days before this a reminder e-mail will be generated.	Customer
Closed	The case is closed.	None

The SLA "clock" for target response and resolution times is active only during the applicable Business Hours and only while action is waiting on Symology.

Ordering & Invoicing Process

It is the responsibility of the party defined as the Licensee within the agreement to pay the fees associated with the Service. In situations where sub-contractors are operating on behalf of the licensee, it remains the Licensee's responsibility to pay the fees but they may choose to reclaim the costs from the sub-contractors where appropriate.

For all services, a valid Purchase Order which covers all necessary Fees is required before the commencement of the service.

Symology will invoice on receipt of the Purchase Order. Invoice terms are strictly 30 days from receipt of invoice.

Invoices remaining unpaid after 30 days may result in termination of service in accordance with the terms and conditions ("Managed_Service_Agreement.pdf").

Termination

Termination is in accordance with the provisions stated in the enclosed Managed Services Agreement document - “Managed_Service_Agreement.pdf”.

Data Restoration / Service Migration

See "Off-boarding Process" in Section 14 of this document.

Customer Responsibilities

The customer must ensure that only those users authorised to access the service attempt to use it. While it is the Hosting Support Team’s responsibility to ensure that suitable access restrictions are in place, the customer must ensure that information (e.g. URL's, IP addresses, user names and passwords etc.) are not distributed to individuals outside of their user community.

See Roles & Responsibilities section within Service Management for further details.

Technical Requirements

The customer's Systems Administrator or IT department will need to ensure that users' PCs and the corporate firewall are appropriately configured in line this this section.

If mobile working is required the customer will need to acquire their own mobile hardware.

The purpose of the remainder of this section is to provide information on the method by which an organisation can connect to the Symology Insight Online service.

This section concentrates solely on the connection to the service. For instructions regarding using the service refer to the training documentation or the on-line help.

This section is split into two sections:

- Connecting to the Symology Service. This section details the settings required to access the solution. It covers both the local Internet Explorer settings and the corporate firewall requirements.

- Troubleshooting a connection. This section details the solutions to common connection problems.

The current method of connecting to the Insight Online service uses RDP over HTTPS. There is a legacy method which may be made available if necessary.

This section is aimed at users accessing the Insight portal and Insight Online application. However clients accessing web services hosted by Symology will use the same IP addresses and for web applications the network ports will be either HTTPS on port 443 or HTTP on port 80.

Syntax used within this section:

Any user activities are highlighted in bold. For example:

- **Log in using the Symology provided username and password**

Any Technical activities are highlighted in Italics. For example:

- *The Systems Administrator or IT Department needs to ensure that normal HTTPS traffic is allowed out from the corporate firewall on Port 443.*

Connecting to the Symology Service

The solution provides two Insight Systems

TEST	This environment is designed to allow users to familiarise themselves with the application and the facilities. It also provides a safe area for users to develop their use of the system without affecting LIVE operation.
LIVE	This is the production environment holding the live information.

Access to both of the services follows the same principles. For ease of explanation the principles have been separated into three stages.

Step 1

The Systems Administrator or IT department needs to ensure that traffic is allowed out from the corporate firewall on Port 443 (for https traffic) plus 3389 (for RDP (for Remote Desktop Protocol traffic). Access to the following 4 IP address ranges is required.

- 89.145.127.200 to 89.145.127.251
- 89.145.106.230 to 89.145.106.254
- 84.45.34.164 to 84.45.34.190
- 84.45.10.227 to 84.45.10.238

Note that traffic from the Symology Managed Service will come from one of these source IP addresses.

- 89.145.127.252
- 84.45.34.163

Step 2

There are a number of requirements for the second stage

- **The user must have a valid username and password. These can be obtained from the Support Team.**

- *The Systems Administrator or IT department needs to ensure that the user has Internet Access, including the connectivity, proxy and firewall access as specified above.*

- *The Systems Administrator or IT department needs to ensure that the client PC is running an appropriate browser. Supported browsers include Microsoft Edge, Internet Explorer 11, version 52 of Mozilla Firefox and later plus version 57 of Google Chrome and later. These browsers and others may work on non-Windows computers but are not supported.*

- *When using Internet Explorer users must ensure that they are not using compatibility mode. Within IE choose "Tools" then "Internet Options". Choose the "Compatibility View Settings" option. Ensure that "symology.net" is not included in the list and also that "Display intranet sites in Compatibility View" is not checked.*

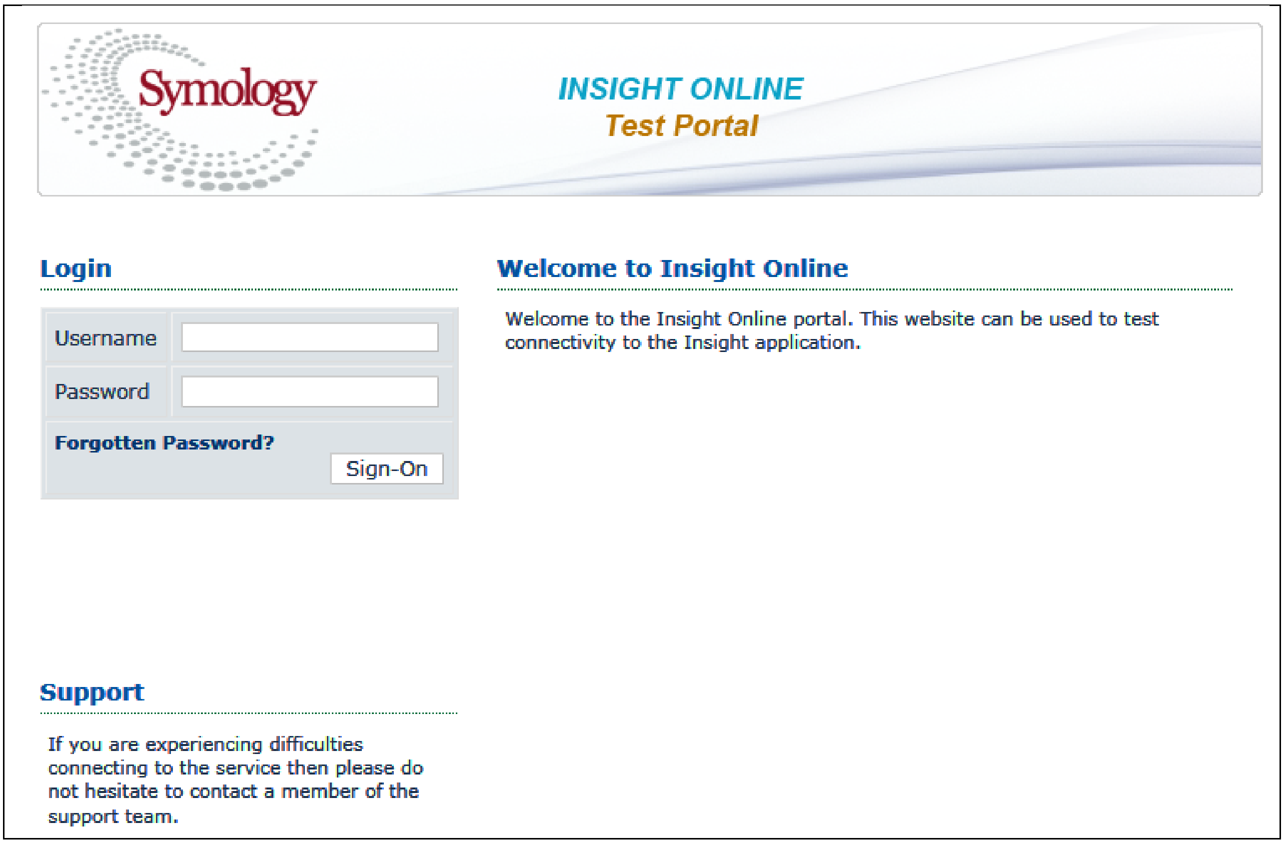
Once the above requirements have been met the user should be able to connect to the landing pages on the Web site.

For the TEST environment access is via the URL https://xxxxtest.symology.net

For the LIVE environment access is via the URL https://xxxx.symology.net

(where xxxx is replaced with your specific information)

Upon successful connection the user will be presented with the screen below



The above screen is termed the "Landing Page". This screen is consistent for all users of the system. Entering the username and password will then allow access to user specific web pages. The usernames and passwords for both environments will be kept in parallel. The only proviso is that a user can only be logged into one of the services at one time. Note there is a forgotten password facility which utilises the registered email address to action a reset.

After a successful login the user will be presented with the following screen. This page is termed as the "User's Home Page".

On this page, links may appear differently depending on the user's permissions arranged with your account manager.

Always note the News displayed, as this is where Symology inform you of important information such as service outage information.

Click on **'Launch Insight'**. After a few moments you should be successfully connected to the Insight.

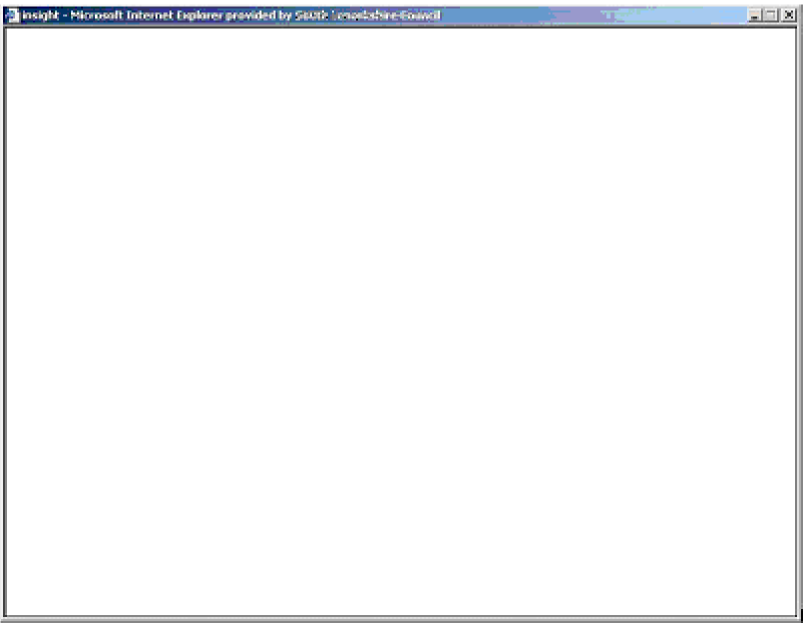
Troubleshooting Connection

- **"I can access the web pages but 'Launch Insight' does not work".**

First confirm the version of Internet Explorer (IE) is 11 or higher. To do this, from within IE choose "Help / About IE". If the version is less than 10 then upgrading the browser is required.

- **"Blank / white screen after clicking on 'Launch Insight' "**

If after using the "Launch Insight" icon the user gets a similar screen to the one below.



This indicates that access to the Application servers has been blocked.

- **"How do I increase the size of the application screen?"**

Login to the Portal, click on 'My Details' and select a suitable size from the Insight Screen Size drop-down box. Note there is an option to make use of a multi monitor configuration.

- **"How to ensure that the Insight screen is at the correct resolution"**

The zoom level controls the size of the screen. The resolution at 100% will provide optimum clarity. There are several methods to change the zoom level; use the Ctrl+ mouse wheel to increase or decrease the zoom level; use Ctrl and "-" or "+"; use the zoom level at the bottom right hand corner of the screen. Ctrl+0 will set the optimum 100% zoom level.