Complex Issues Require an Intelligent Solution

STREETWORKS
INFORMATION MANAGEMENT SYSTEM

Developed for Utilities by Utilities People

Streetworks Information Management System (SwIMS) is a unique software solution; initially designed for reinstatement contractors within the water industry it has evolved into a comprehensive streetworks information management system, extending to other utilities too.

SwIMS has a track record in achieving more effective, efficient, compliant and quality assured operations. This is achieved through a centralised job management system with mobile capabilities.

The intelligent solution for utility companies, main contractors and sub-contractors looking for a comprehensive works management system.

Unlock the potential of your streetworks operations

Streetworks Software specialise in the utilities sector and our team have successfully developed and delivered Streetworks Information Management Systems (SwIMS) solutions to clients working across water, gas, electric and telecommunications infrastructures. From the initial contact, evaluation and design, through to full implementation and training we will support your business all the way. We also provide a dedicated client support helpdesk.

Understanding clients' operations is key to delivering a tailored SwIMS solution based on:

- clients issues and needs
- the nature of contract(s) managed
- organisational structure, responsibilities and individual accountability
- operational resources and arrangements for delivering utility contracts
- demands of clients' utility contracts

Understanding how SwIMS works and fits within overall contractor/client relationships, including highways authorities is important in recognising and maximising the benefits from SwIMS.

Working with clients, highways authorities and utility partners has underlined the value of the range and volume of data captured and held by clients using SwIMS. Full job history is captured throughout the works management processes from planning, scheduling, job management through closure.

At Streetworks Software we can help you unlock, understand and utilitise this range of management data generated. SwIMS is optimised by ensuring all data is captured, whether by manual input into SwIMS, by import routines or application programmable interfaces (APIs).

Business Intelligence

SwIMS is a powerful business planning tool. For senior managers and key decision makers SwIMS can provide a unique perspective on how your contracts are performing.

- Identify potential performance and productivity issues
- Inform critical analysis
- Enable early intervention, action or support strategy discussions.

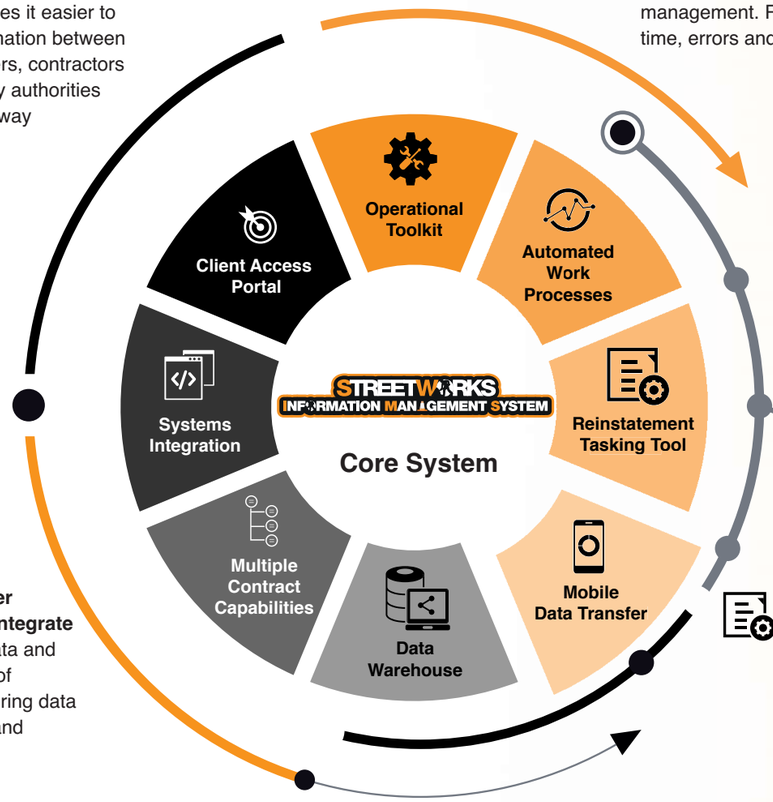
Unlock your potential

How SwIMS works

Intuitively designed - SwIMS core system and suite of operational tools help plan, schedule, manage and oversee dig, repair and reinstatement operations.

Improves data transfer, transparency & trust - SwIMS makes it easier to share information between utility partners, contractors and highway authorities in a secure way

Improves performance and reduces costs -Automated work processes significantly improve the effectiveness and efficiency of work management. Reduce paper, lost time, errors and liabilities.



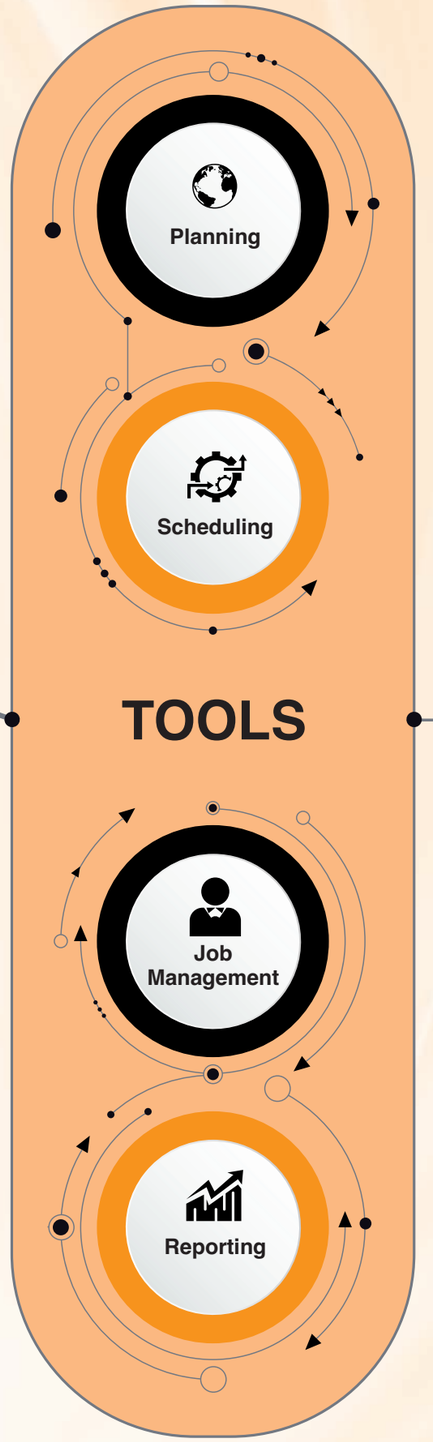
Enables other systems to integrate - using the data and components of SwIMS. Ensuring data consistency and quality.

Manages multiple contracts - With all work on one system SwIMS makes managing across different contracts and workstreams much easier, optimising use of available gang and field team resources.

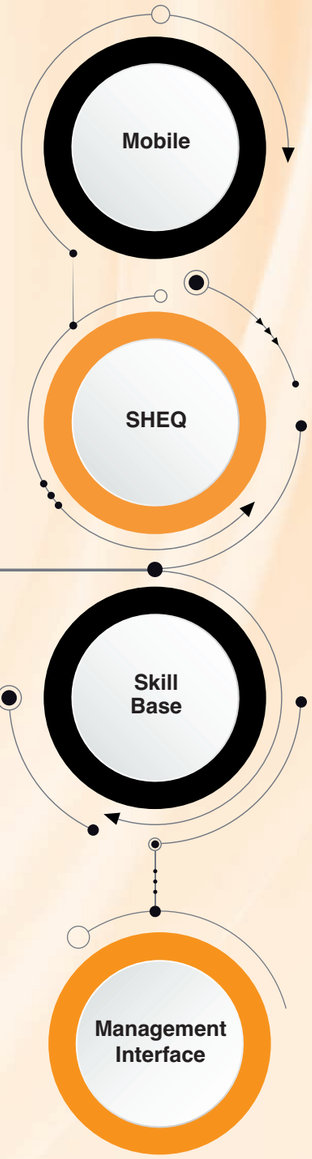
Full job data capture - sitting at the heart of SwIMS is a powerful data engine with full capture and storage functions throughout the works management process.

Improves communication, reduces job lifecycles & drives up productivity - SwIMS mobile app provides real time updates via photo capture and mobile data transfers.

Improves allocation and management of resources -(including calculating material requirements) with SwIMS intelligent reinstatement tasking tool linked to road class and structure.



ADDITIONAL MODULES



Flexible -SwIMS core system can operate with or without the SwIMS mobile application. Additional modules can be licensed to provide additional capabilities.

SwIMS is defined by its tools and functions which represent key roles and responsibilities within the utilities industry. The four main tools are Planning, Scheduling, Job Management and Reporting and these include a wide range of functions.

SwIMS provides an integrated solution making it easy to collect, manage and make use of the large volume of data associated with utilities operations. Unlike other solutions SwIMS is not limited as a mobile only solution.

Tools - Planning

Planning: Enabling and planning prior to initiation of jobs

Within the SwIMS Planning tools are a range of functions designed to improve forward planning of the workload to maximise productivity and minimise risks and liabilities.

From receipt of job data (via client systems) SwIMS starts to capture and organise information. SwIMS uses initial client data feeds to identify the specific tasks associated with a job based on various job attributes ready for planners and schedulers to use.

Roadworks.org ProMap

- *Roadworks.org Pro Map* - providing up to date local intelligence crucial for planning and scheduling including:
  - Highway Authority boundaries, including Lane Rental schemes
  - Current and planned roadworks
  - Events and non-streetworks activities & stakeholder and other utility works - enables more efficient working and aids collaboration
  - Google live traffic feed - identify congestion
  - Bus stops, train, tram and Tube stations
  - National Street Gazetteer & ASD/winter gritting routes/traffic sensitive routes/HGV routes/bridges/other local data
  - Restriction information (Section 58s & 58As)
- Job Notice Records - timescales etc.
- Lane Rental - identification and flagging of conditions for scheduler
- Parking/Bus Stop suspension flagging & recording
- Section 58 indicator
- Traffic management requirements identified and tasks created for schedulers
- Gang Whereabouts -assign personnel, plant and vehicles on initiation of job
- Defect Management -logging, inspections, raising of remedial tasks and defect appeal management

Tools - Scheduling

Scheduling: The operational heart of SwIMS for allocation and management of jobs

SwIMS scheduling tools are designed to manage every aspect of a job from initial task allocation sequentially through to completion. The intelligent system design uses key job attribute data to identify and create a sequence of tasks for the scheduler to allocate to complete a job. For reinstatement works SwIMS will automatically create the right sequence of tasks based on road class, surface and dimensions data. Where SwIMS Mobile App is licensed task statuses are automatically updated.

SwIMS is highly configurable to cover a range of different contracts and schedulers can access and manage all workstreams and allocate tasks from the scheduling screen. SwIMS scheduling shows all tasks available for allocation and status of those already allocated. Each task includes icons and colour codes to help prioritise and monitor task completion throughout the day.

SwIMS utilises and captures task status updates and other key information provided at all stages of a job, maintaining detailed task level data to provide a comprehensive record of all work carried out. Data is organised and stored within individual job records making it easy to find, share and use across your organisation.

SwIMS Scheduling Screen - showing filters, planned and unplanned works

- Job data:
  - Unique job no.
  - Address and postcode
  - Highway Authority
  - Contract details
  - Map coordinates
  - Target dates
  - Notice and permit dates
  - Road type plus other data fields
- SwIMS Intelligent Tasking - automated task creation & material requirement calculations (reinstatement)
- Manual task creation - e.g. Site Survey, Go Assist, Jet Wash
- Creation & allocation of Traffic Management Tasks
- Creation of gang whereabouts and beenabouts for day
- Filters - quick find job function, assign tasks (by location, task type, contract, priority etc.)
- Assignment and task management tools - assign/re-assign work to gangs, update task status, view jeopardy
- Produce & send Whereabouts & Beenabouts (automated with SwIMS Mobile App)
- *Roadworks.org Pro Map* - providing flexible mapping tools to support scheduling, including:
  - Events and non-streetworks activities & Stakeholder and other utility works
  - Current and planned roadworks
  - Live traffic incidents & accidents
  - Google live traffic feed - identify congestion
  - Bus stops, train, tram and Tube stations
  - National Street Gazetteer & ASD/winter gritting routes/traffic sensitive routes/HGV routes/bridges/other local data
  - Restriction information (Section 58s & 58As)
- Customer management (Developer Services & Metering contracts) - Customer information can be held against each job, manage customer call backs & customer call history
- 'Temp to Perm' management tools - logging, and raising of associated 'Temp to Perm' jobs to rectify tempted item

Tools - Job Management

Job Management: Manage data fields, data sources and job records

SwIMS Job Management tools cover job information, ownership, importing and execution of works and alerts. As well as inbuilt tools and functions this area of SwIMS also enables clients to customise and set up data fields and sources.

Much of the functionality relates to jobs in progress but there are also enhancements available via the SwIMS Management Interface to assist in monitoring productivity and profitability (including assessing cost to value) of completed work, liabilities, stock usage and identification, allocation and accountability for penalties and fines.

SwIMS has a powerful core database ensuring full data is captured, stored and used throughout the system.

The examples below show how SwIMS captures and uses key data on work in progress via the patch data and job information records.

- Notice/Permit Management
- Defect/Remedial Work Management
- Job Photo Management - within task based storage, ability to manually upload or automatically receive via SwIMS Mobile App
- Jeopardy and Priority Management -job flags & icons against jobs
- Job Status (linked to SwIMS Intelligent tasking tool) - unknown/incomplete/complete status updated manually or real time via SwIMS Mobile App
- Upload & organise job attachments
- Association of linked jobs - e.g. same permit, location or excavation
- Update multiple jobs - notice/permit dates & number and job comments
- Job history - records gang against tasks (with date & time stamp), collates gang travel time (with time stamp & geolocation) via SwIMS Mobile App
- Configurable scheduled email alerts
- Email to job - emails sent to SwIMS will be filed against the job
- Manage contract Liability & Accountability - including Section 74's, Fixed Penalty Notices, Defects, Core Failures, and Lane Rental to assist in driving performance and compliance
- Configurable job data fields

Patch data - showing task type, measures/quantities for a specific job

Job Information - showing key job data

Tools - Reporting

Reporting

SwIMS reporting tools and Performance Dashboards help with analysis making effective use of your data. Dig deep into your data and understand the impact it has on your business. Present findings to your staff, managers and decision makers. With SwIMS quickly identify key issues and trends, use the data and analysis to underpin recommendations and action.

To help clients maximise the value of SwIMS data, a suite of generic reports is included to aid tracking and analysis at all stages of a job, for example:

- Monitor progress
- Check productivity & compliance of teams
- Assess cost to value
- Undertake trend analysis

SwIMS is a comprehensive repository for all job data, providing a full audit trail for all tasks. For managers, full job history data and reporting can also help identify productivity issues such as excessive travel time or time consuming jobs.

The reporting tools within the core system allow basic report generation, including:

- Whereabouts/Beenabouts
- Job progression
- Job Performance
- Liability
- Works in Progress
- Gang & Overall Performance
- Gang job audit forms
- Outstanding Work
- Defects
- Section 74
- Interim Complete

Reports can be tailored and detailed to individual customer requirements, based on the data sets available within SwIMS.

SwIMS Performance Dashboards are also configurable to customer requirements and can include:

- Tasks planned vs No. completed
- Jobs at jeopardy
- Urgent jobs
- Outstanding jobs
- Emergency jobs

Custom reporting is available via the SwIMS Management Interface.

Additional Modules

Additional modules can be licensed to provide enhanced functionality and capabilities within the SwIMS Planning, Scheduling, Job Management and Reporting tools.

SwIMS Mobile

SwIMS Mobile is available as an Android or iOS App providing real time updates of job data between teams on site, managers, supervisors and the SwIMS Core system. This is designed specifically for SwIMS and will not operate as a standalone application. Functions include:

- Allocation of work to teams
- Require teams to report travel to site and arrival on site
- Live updates for work statuses (including measures)
- Job photos - meta data stored (job no., address, time and location taken) and automatically uploaded to core system
- Specify any reinstatement required (see image below)

SwIMS Mobile significantly improves information transfer between field based teams and the scheduling personnel and also accessibility and usability of job data. It ensures structured data capture and response processes which improve quality and timeliness of information. When used with the core system SwIMS Mobile delivers additional benefits in use of resources and compliance.

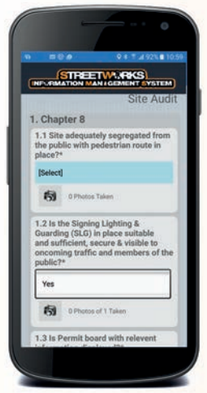
Specify reinstatement required - enables dig teams to specify reinstatement measures

SHEQ Compliance

This module is only available as an add on to the SwIMS Mobile App, providing additional health and safety features helping further strengthen site safety and reduce risk. Supervisors, managers or SHEQ personnel can raise and complete compliance and safety audits via SwIMS Mobile. These can be configured and tailored to individual customer requirements. All audits raised and completed will be transferred via SwIMS Mobile and stored in the SwIMS data engine against the job. This builds up useful usage and trend data for reporting.

Example SHEQ features include:

- Job event reporting -utility strikes, consequential damage & deep excavations
- Email notifications -enabling swift action
- Risk Assessment completion
- Vehicle defect reports
- Plant check
- HAVS monitor
- Permit to Dig
- Quality & Health and Safety audits (see image below)



Site audit/compliance - supervisor completes audit on site via SwIMS Mobile

Streetworks SkillBase

Streetworks SkillBase is available either as a standalone product or with a SwIMS installation.

As a standalone product SkillBase helps manage personnel qualifications to ensure compliance with Industry training requirements. It maintains qualification records against personnel and monitors expiration dates to ensure training can be arranged and skills and certificates renewed as necessary. Copies of certificates and other training records can be electronically filed alongside personnel data.

When licensed as part of a SwIMS installation, SkillBase provides alerts against personnel whose certificates are due to expire. This safeguards against unlawful working practices, providing schedulers with assurance that their site based teams remain fully certified.

Management Interface

SwIMS Management Interface module enables the development of additional custom reporting and analytics drawing on Streetworks Software personnel experience and using application programmable interfaces (API) to link SwIMS with accounting systems and other datasets.

Combining the Streetworks Software products and consultancy services can deliver real additional benefit. This additional management intelligence is only achievable through the SwIMS Management Interface.

Interrogating fully SwIMS datasets as well as combining these with other key financial and resource data provides a unique insight into business operations. Streetworks Software can advise clients and tailor SwIMS reports to provide trend analysis as well as specific scheduled reporting to tie in with management meetings and other operational discussions .

Streetworks Software can help clients get the most out of SwIMS datasets for monitoring exposure to liabilities such as Section 74s and Fixed Penalty Notices.

Areas can be identified for improvement and bespoke alerts can be developed to monitor progress and performance, to assist productivity and business planning. For example, SwIMS can provide performance data to show contract, supervisor, gang or regional discrepancies to allow review.

These reports can almost be ‘real time’ and compiled without accounting/finance input thus saving time to get key information that might assist business performance:

- **Payroll** - generate and manage operative payroll and overtime
- **Invoicing** - produce invoices based on completed works as and when completed
- **Costing of plant and materials** - to gangs and contracts so improving transparency & accountability
- **Gang recharges** - recover costs from sub-contractors based upon compliance with agreed obligations and performance

STREETWORKS
INFORMATION MANAGEMENT SYSTEM

The Intelligent Solution

SwIMS Data Engine -this is the heart of SwIMS where all job information is stored, accessed, used and updated as tasks are completed.

Planning, scheduling, job management and reporting tools -this is the front-line operational interface of SwIMS providing planners, schedulers and managers with the tools necessary for enabling, scheduling and oversight of tasks in progress.

Reporting tools - the SwIMS reporting engine with a range of generic reports and performance dashboards makes it easy to use the comprehensive data available within SwIMS. This area of SwIMS reporting is available once all tasks are completed and the job closed.

Additional Modules - SwIMS Mobile enables live updates, via photo capture and data transfers, enhancing job management, particularly in respect of the scheduler. SHEQ adds further capabilities into SwIMS Mobile strengthening compliance. Skillbase helps manage and monitor personnel skills and qualifications to ensure compliance with industry requirements. SwIMS Management interface enables development of custom reports and analytics with the support of the Streetworks Software team.

UTILITY PARTNER

Data Feeds

Manual Feeds

LIVE TASKS

- Job ID
- Address
- Permit/Notice
- Road Type
- Job Type

JOB DATA CAPTURE

SwIMS creates tasks based on job type

Pre-job
Intitial Job Data from clients

In job
Updated Job Data from SwIMS Tools

Post Job
Full Job Data Job Closure

Audit trail
Job History Data

CLOSED JOBS

- Reinstatement measures
- Completion dates
- Variances
- Cost to value

Applications for payment

- Application Sent

UTILITY PARTNER

OPERATIONAL TOOLS

Planning
Scheduling
Job Management
Reporting

Real time data transfer

- Whereabouts
- Notice Updates
- Task Audit Form
- Live Updates
- Qualifications/ Competancy
- Compliance Audits

Mobile

Skillbase

SHEQ

ADDITIONAL MODULES

- Patch Data
- Task Updates
- Photos
- Documents
- In Job Events
- Audit

Job Data
Used by SwIMS Tools

- Live Task Images

REPORTING TOOLS

Build external system interfaces

Streetworks Software Consultancy Support

Custom Reporting & Dashboards

SwIMS reporting and dashboards

Management Interface

Custom Reporting & Dashboards

Data Locked

- Job Data & Performance Reporting

End to end process management
With full data capture

Data Reconciliation

Defend Liability Claims Received

- Current Notice & Reference
- Highway Authority
- Road Category
- Traffic Sensitivity

Two Way - information on liabilities received and challenged (where necessary):

- Defect (Cat A, B, C)
- Fixed Penalty Notices
- Section 74s

HIGHWAYS AUTHORITY

This diagram provides an overview of how SwIMS works based on information flows (●●● ►) between stakeholders as jobs are received, processed and completed within SwIMS. Example data feeds (➤) are given to help illustrate the workings of the system.

Getting the most out of SwIMS

At Streetworks Software we have the right technical expertise and utilities industry experience enabling us to deliver a tailored system solution for your business.

Support

At Streetworks Software we understand change can be daunting for any organisation and staff members and we seek to ensure a smooth transition.

SwIMS offers choice with either a step by step implementation, starting with a core system or a more transformatory route with a SwIMS core system plus additional modules. We will work with you to identify the right SwIMS solution for your business.

Streetworks Software also offer additional consultancy services to assist with optimising performance and delivery of utilities contracts (e.g. diagnostics, process mapping and quality assurance). Central to this is helping clients unlock and understand the power of the data held within SwIMS and by recognition of key disciplines how this can be used to optimise performance.

Consultancy advice and support in respect of IT infrastructure and system requirements for contract tenders is also available.

Implementation and training

To ensure the right SwIMS solution StreetWorks Software provide a full implementation and support service. Following an initial enquiry our experienced team will work with you to understand the nature of your utilities business, current operations and contracts managed. This collaborative approach will ensure your SwIMS is tailored to your requirements along with a full implementation and training package.

Streetworks Software will design your SwIMS implementation to ensure minimum disruption during transition. Full training is provided as well as ongoing support.

This implementation and training package will be designed to suit your needs. Key individuals will receive onsite training and support during implementation and have access to our online user support materials and client support team going forward. Training of desk based and mobile operatives is straight forward and role based requiring minimal time away from the business. Streetworks Software client facing team provide site based support during implementation and initial 'go live' phase.

It is crucial that SwIMS is owned within the organisation. A dedicated SwIMS lead will be needed to provide oversight within your organisation, acting as a lead contact for Streetworks Software and ensuring key individuals are maximising the use of and benefits of SwIMS.

Ten reasons to choose SwIMS

1. Trusted, capable and secure system

Successfully manages large volumes of data on a real-time basis. For example, actual SwIMS usage statistics in 2016 included:

- Processing of 160,380 jobs
- Scheduling of 615,453 tasks
- Capture of 3,995,139 images (via SwIMS Mobile App)

SwIMS includes controlled access permissions and secure hosting facilities.

2. Improves quality and compliance

Health and safety, and auditing tools for in progress and post job checks.

3. Reduces costs and liabilities and improves performance and productivity

SwIMS Scheduling Tools optimises use of available capacity. Job photos from SwIMS Mobile enables prompt action around standards and compliance.

SwIMS Intelligent Tasking tool estimates materials required for tasks based on job attributes assisting scheduling and reducing the risk of costly aborts.

4. Improves transparency & trust

Client Access Portals and the ability to integrate SwIMS with other systems improves data transfer, transparency and trust between utility partners, contractors and highway authorities.

5. Improves sustainability of operations

Works management can be shared across multiple contracts and work streams

6. Improves data quality and integrity

Through structured processes, data validation and reconciliation.

7. Intuitive system design

SwIMS is structured around specific operational roles and responsibilities and is easy to implement

8. Flexible and affordable solution

With licensing options for small, medium and large operations and which can adapt to a range of changing business requirements, helping manage costs.

9. Improves customer experience

Enabling prompt response and quality for first time pass reinstatement, through SwIMS scheduling and mobile tools

10. Instant access to data across multiple sites

As a web based solution including managed client access, improving transparency and collaboration at all levels within the organisation and wider stakeholders.

What our clients say

"SwIMS helped reduce our aborts by 50%."

"SwIMS enabled us to mitigate punitive streetworks fines in London and was a key tool that underpinned our performance in this respect. We consistently outperformed our competitors who were carrying out the same work and this was recognised by the client. I believe that SwIMS enabled our people to see the "wood from the trees" when working on such a high pressure and busy contract."

"SwIMS allows us to become more efficient at what we do and achieve successful first time reinstatement 99% of the time."

"Benefits realised include very effective management of street works processes, that has led to a real reduction in permit charges and fines received from Highways Authorities."

Additional information

Licensing Options & Technical Requirements

SwIMS is provided as Software as a Service with flexible licensing and hosting packages available. Costs will vary based on individual system requirements and size. SwIMS provides a scalable solution enabling costs to be managed as work levels fluctuate. Volume discounts are also available for larger contractors.

SwIMS costs are based on the number of gangs/users and these can range from a handful to thousands with a wide variety of configurations available depending on contracts and workstreams managed.

SwIMS is an ASP.NET application with a SQL Server database backend compatible with all modern mainstream browsers. SwIMS Mobile App requires Android 5.0 / iOS 5 or later on smartphone or tablet.

Affiliations

Streetworks Software are members of NJUG which keep us up-to-date with new legislation and key issues affecting the Utilities sector. With SwIMS we can help achieve the NJUG vision of positive change through delivering improvements across the seven NJUG goals: Safety, Minimising disruption, Keeping the public fully informed, Sustainablity of methods and materials, Avoiding damage to underground assets, Innovation and Quality

NJUG National Joint Utilities Group AFFILIATE

STREETWORKS
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STREETWORKS SOFTWARE

Providing products and services specific to the utilities sector

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