

# Space-Time Service Composite

## Space-Time Service Composite:

optimization of field service performance and efficiency in the context of real-time environmental factors

- Liability Calculation  
Prioritization
- Workforce cost based analysis
- SLA and Schedule-Based Alerting
- Real-Time Data Integration
- Time, Proximity, and Workload Visualization
- Outage and Disturbance Visualization

## Time, Proximity & Workload Visualization

Visualize the proximity in distance and time as well as workload data for appropriately skilled, equipped, and available crews to service orders and outage locations

## Real-Time Outage Visualization

View outages, system disturbances, and their impact leveraging SCADA and sensor data linked to real-time liability calculation

## SLA and Schedule-Based Alerting

Visual alerts of SLA and schedule-based commitments. Link to asset specifications, maintenance history, and remedial action procedures.

## Liability Calculation & Prioritization

Calculate liability for missed SLAs, asset condition, and asset reliability requirements linked to remedial action

## Workforce Cost-Based Analysis

Calculate the cost of scheduling one or a group of field workers based on skill set, contractual circumstances and hourly rates

## Real-Time Data Integration

Seamless integration of data from real-time weather and traffic feeds, GPS, GIS, inventory, MWM, scheduling, and dispatch systems

## Major Vertical Markets Served:

- Utilities (Power, Gas, Water, Public Sector, Municipalities)
- Process Manufacturing
- Oil & Gas
- Telecommunication
- Transportation

**Space-Time Service Composite** geospatially displays the current status of outage service orders, field service engineers and their equipment status, current inventory, traffic, and weather on 3D satellite images, providing true visual awareness of an area. Space-Time Service Composite promotes optimized prioritization of the field workforce by providing the utility with operational visibility and enabling liability assessment associated with outages and service orders, SLA compliance, skill sets, scheduling, and inventory. Intuitive and customized site-level views offer options for cost analysis, scheduling and remedial action that can be initiated from the screen.

## HALFWAY SOLUTIONS ARE FOR HALFWAY-SERVICE COMMITMENT

In the words of statesman Benjamin Disraeli, “Great services are not canceled by one act or by one single error.” But the memory of good service can be quickly eroded by repeated poor service – especially when service excellence is expected. Lapses in service management can result in dissatisfied customers, fines or penalties due to broken SLA commitments and substandard operational reliability. In addition, inefficient workforce affect the bottom line of the utilities.

You can access all your service orders. You've got asset data. You have scheduling, dispatch, and mobile workforce management systems plus the benefit of electronic maps and GPS. Current systems house your SLAs and warranty information. Someone's responsible for permits and compliance. You have analytics. You know many of the circumstances when assets need attention. Sensors may even provide you with real-time asset status.

**S**o, what's the problem? What you have isn't enough. Your current systems are partially integrated. But they lack the ability to give you real-time situational awareness and situational readiness. Real-time situational awareness involves having all the information you need presented geospatially, intuitively, on one screen – satellite images from which you can take action. Real-time situational awareness includes factors like weather, terrain, and traffic conditions. It includes liability calculations to help you prioritize, suggests remediation processes. It helps you get the permits you need to complete service orders.

**S**pace-Time Service Composite (STSC) is where data meets reality. By delivering geospatial and visually intuitive analytics, STSC adds context to data, improves decision making, accelerates informed action-taking and strengthens your ability to provide excellent service to your customers. Space-Time Service Composite helps utilities recognize that all data is not created equal. It provides the analytics and visualization capability to improve workforce efficiency and productivity, improve customer service and ensure reliability. Space-Time Service Composite delivers situational awareness. It provides a geospatial and temporal view of outages, inventory and spare parts, field workforce schedule, location, skill sets, cost base, SLA requirements, and liability data. This data is analyzed in the context of real-time factors like weather and traffic to provide operational visibility into an area. The tool helps you understand potential costs associated with a missed commitment or compare workforce cost basis, or liability issues to help you prioritize scheduling and mitigate your liabilities. Space-Time Service Composite includes guided remediation to optimize service schedules and help reduce service interruptions and outage duration. Automated permit filing features speed the process for service order completion. Improved scheduling means reduced costs. Better service results in higher customer satisfaction. STSC works hand-in-hand with other Space-Time Insight composites for managing crises, assets, and renewables.



## Space-Time Service Composite – Features and Benefits

- **Situational Awareness**, including field workforce locations, inventory data, weather and traffic for improved scheduling and dispatch and improving Service Order completion and grid reliability
- **Real-Time Data Integration**, seamlessly, from multiple systems such as outage management, workforce management, inventory management, scheduling, sensor data, weather and traffic
- **Service License Agreement and Schedule-Based Alerting** linked to remedial action scripts and guided workflow
- **Liability Calculation** for missed SLAs linked to remedial action scripts and guided workflow
- **Cost Based Calculation** for workforce cost-based metrics such as contractor labor, over-time, etc. to analyze lowest-cost scheduling
- **Proximity Visualization** of skilled, equipped, and available field personnel to outages and service centers
- **Context-Sensitive Time and Distance Visualization** including real-time traffic, weather, and inventory data feeds
- **Real-Time Visualization of Outages and Disturbances** using integration with SCADA and sensor data
- **Workload Forecast Visualization** for re-assignment of work order notifications, training, and long-term planning
- **Automatic Permit Filing** of county or federal work permits using context-sensitive help