

spatialSUITE

END-TO-END NETWORK ASSET MANAGEMENT



 ***Synchronoss***

spatialSUITE

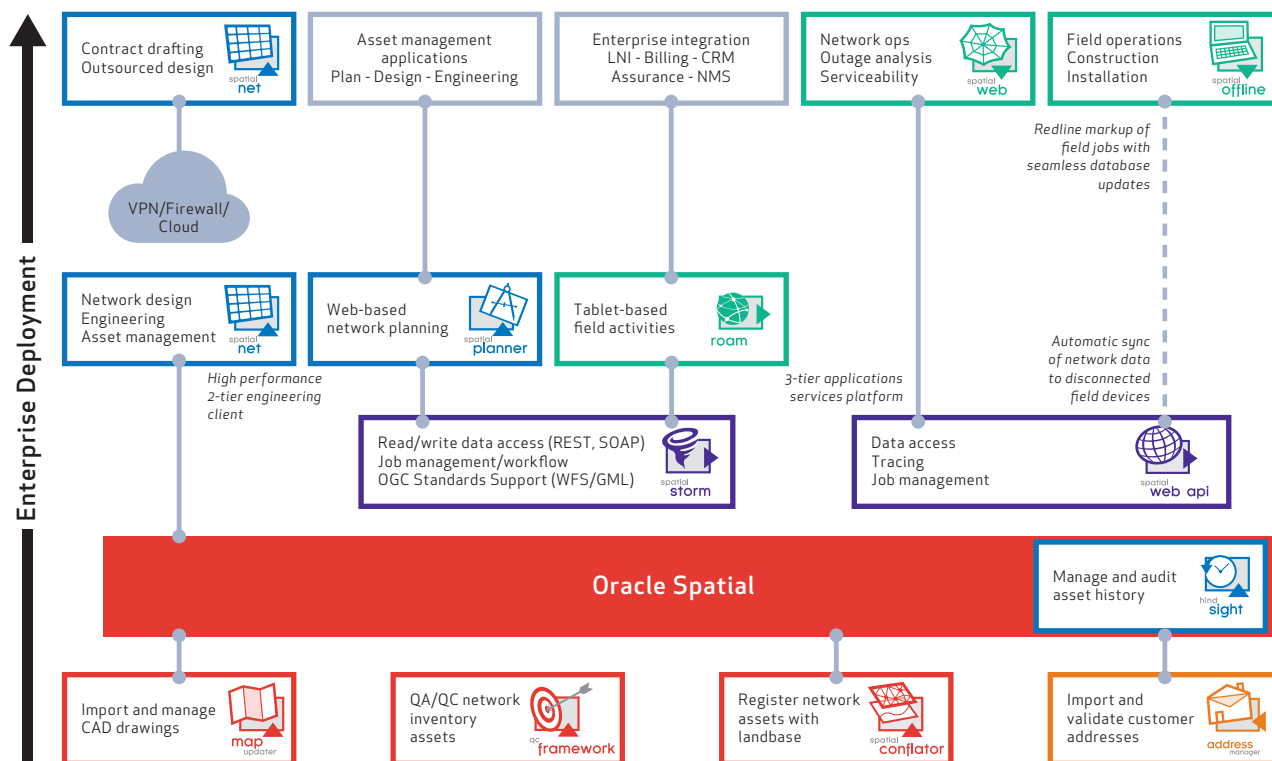
END-TO-END NETWORK ASSET MANAGEMENT

Communication service providers throughout the world face similar challenges when managing their network assets; maintaining a current and accurate physical network inventory (PNI) is critical for operational efficiency, but is made difficult due to constantly evolving networks. New build-out, network configuration changes, repairs, and the migration to new network technologies all contribute to making asset management a challenge. To remain competitive, organizations need a solution that addresses a broad range of asset management requirements and that can be integrated throughout the enterprise. By implementing a complete network inventory portfolio that can support the entire asset lifecycle from planning through maintenance, service providers can decrease costs, increase revenues, and improve customer service. Synchronoss' spatialSUITE portfolio is designed to meet the specific needs of the communications industry and streamlines the complexities of network asset management.

spatialSUITE PLATFORM

The spatialSUITE platform starts with the core network information model necessary to track asset information including physical location, attributes, connectivity, and capacity, for every inside- and outside-plant asset. A robust database architecture enables the asset information to be distributed throughout the enterprise as a seamless, connected network with none of the breaks at the edges of drawings found in file-based management systems.

The existence of a single database repository for data access allows any network device to be found in a search based on name, number, location, or any other asset attribute. Network maps can be developed at any scale, from an overview of the entire system to a detailed view of a head-end site. Additionally, the flexible, open data model facilitates the integration of network asset data with systems designed for ERP, financial, project management, billing, provisioning, order management, and other OSS/BSS functions.



spatialSUITE Enterprise Deployment

spatialSUITE SOLUTIONS

Synchronoss' fully integrated spatialSUITE portfolio provides enterprise-wide access to timely, accurate, comprehensive network information for a wide range of communications service providers. A flexible network information model at spatialSUITE's core tracks all network information—including physical location, specifications, attributes, connectivity, and capacity—for every inside-plant and outside-plant asset and delivers data across the enterprise to support provisioning, planning and design, construction, fault and event management, work order management, customer service, marketing, and other critical business functions.

The spatialSUITE portfolio maintains all inventory data in a single enterprise repository, eliminating duplicate data entry and management and allowing up-to-date recording and reporting of network asset data across the communications service provider's enterprise. The fully integrated spatialSUITE portfolio includes:

ENGINEERING



spatialNET uses a familiar AutoCAD interface to manage, design, and maintain inside-plant and outside-plant networks



hindSIGHT provides historical data management and difference analysis tools to improve insight on asset data repository changes over time

BUSINESS SUPPORT



spatialSTORM enables organizations to incorporate network planning tools into their asset management workflow with web-based tools through Service Oriented Architecture (SOA)



spatialPLANNER provides planners and designers with the ability to simplify network planning and optimization tasks using service qualification, redline, and data analysis tools

ENTERPRISE



spatialWEB is an easy-to-use web application capable of displaying complex combinations of CAD/GIS map data and network information



spatialOFFLINE is a field friendly application for technicians to use on their laptops, Toughbooks, and tablets while disconnected from the corporate database

MOBILITY



ROAM Mobility Suite offers an expedient way to accomplish a defined number of small tasks utilizing a lightweight application that can be accessed on location through mobile devices

DATA MANAGEMENT



spatialCONFLATOR consolidates data from a variety of sources and degrees of quality into one accurate data set by using control points to adjust source data



QC Framework allows users to encode and enforce data-related business rules, including attribute standards, symbology, and network connectivity



MAPUpdater keeps the spatialNET database current as the network evolves by automatically loading data from CAD maps into the database



ADDRESSserver provides a central location to manage all existing and proposed addresses by combining address data from multiple sources into a single repository

ENGINEERING

Time to market and return on capital investment are key drivers in today's competitive communications industry. Designing the network efficiently in order to build out infrastructure quickly is an important part of a successful deployment. Synchronoss is a market leader in delivering engineering solutions for planning and design of fiber, RF, HFC, and copper networks, as well as inside plant sites.

spatialNET

spatialNET is Synchronoss' agile solution for designing inside- and outside-plant communications networks. At the core of the spatialSUITE, spatialNET provides an engineering solution that efficiently manages network asset data for service providers. Planners, designers, and engineers utilize spatialNET's sophisticated design and engineering tools to create and manage accurate network asset data in a familiar CAD-based interface. Additionally, asset managers and system integrators leverage the scalable information model to deliver data in real-time to users and systems across the enterprise.

With spatialNET, engineers can model any network element used in telecommunications and fiber networks, including multichannel fiber networks, field sites connected to them, MUX/DEMUX, modulators, transmitters, and couplers in the headend.

Utilizing advanced route design, splicing, cable, and associated equipment management capabilities, spatialNET can model HFC networks and RF signals, amplifiers, and power from the central office of headend, through the field, all the way to the customer premises. spatialNET's integrated design capabilities allow network designers to build networks that meet increasing customer demand for high-bandwidth data, telephone, internet, video-on-demand, and HD television services.

KEY PRODUCT FEATURES

- Design automation helps prevent errors and simplify the design process
- Configurable dictionary templates standardize design according to corporate rules and standards
- Detailed modeling for fibers, buffer tubes, blown fiber, ducts, microducts, trays, and ribbon cables
- Reporting and integration capabilities for network-to-address and network -to-device functionality
- Fiber location with available physical capacity (dark fiber) and logical capacity (unused wavelengths or channels)
- Automatic signal-leveling
- Centralized and distributed power support and forward- and return-path management for all HFC architecture
- Complete tracking and management of ducts, conduits, and manholes
- Service-level views show how logical services are implemented within the physical network
- Creation and management of job scenarios to test design alternatives
- Conflict detection between different job scenarios
- Inside data management models floors, rooms, or other 3D details, allowing real-world modeling and tracing of ISP sites within multiple-unit buildings

Key Benefits

Improved Design Efficiency:

- A faster, cheaper, seamless planning and design process that manages network assets throughout the entire asset lifecycle

Improved Design Certainty:

- Eliminate manual errors and bias, standardize equipment ordered
- Leverage economies of scale through consistency of designed equipment across projects

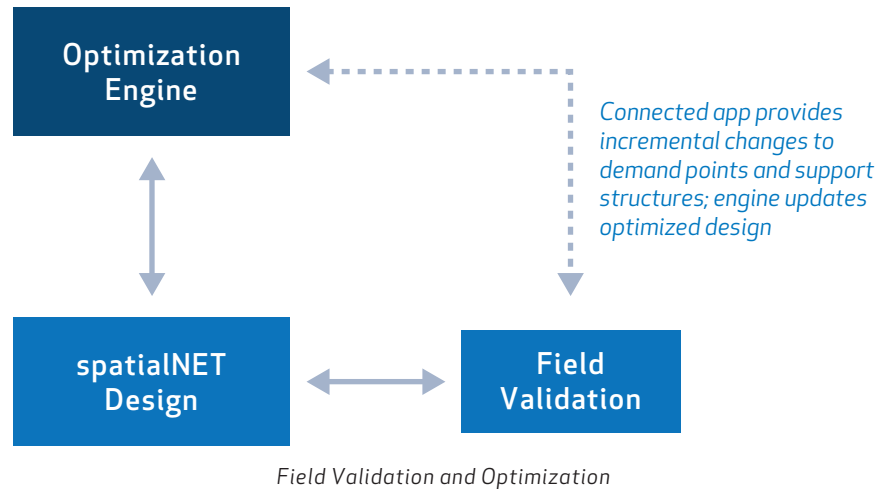
Increased Financial Control:

- Produce designs that are lowest cost, best engineered solutions

spatialPLANNER

spatialPLANNER is a web-based planning tool that enables planners and designers to simplify the planning process and optimization tasks by using service qualification, redline, and data analysis tools. By using ROI calculation tools to create the business case, users can submit an approved network plan as a spatialNET JMS (Job Management System) job for detailed design directly from the spatialPLANNER interface.

Leveraging an open source web-based platform, spatialPLANNER is a flexible, easy-to-install and easy-to-use system for planning that can be extended to meet any customer demands. Data from the spatialSUITE database, as well as additional GIS, business, and demographic data, can be analyzed together in spatialPLANNER to facilitate planning decisions.



KEY PRODUCT FEATURES

- **Redline Tools:** spatialPLANNER provides easy-to-use planning tools to lay out new network and line extensions as redlines on a commercial base such as Google Maps
- **Intuitive Map Interface:** Rich map and attribute display of complete networks assets, with an easy to understand interface for users of any skill level
- **Planning Workflow:** spatialPLANNER walks users through the basic workflow of creating a plan, comparing alternatives, and submitting a successful plan to spatialNET for detailed design
- **Data Query & Analysis Tools:** As part of the discovery process, it is critical to manipulate different data sources. spatialPLANNER allows this type of analysis to be performed with simple to use query tools
- **ROI Calculator:** In order to assess the value of a plan, spatialPLANNER includes a configurable calculator that determines the return on investment for a given plan
- **Submit Plan:** Successful plans can be submitted directly as a spatialNET field job, which is queued for processing as a JMS job ready for detailed design
- **Plan Archive & Retrieval:** Recall old plans that were not submitted in order to analyze the potential of multiple plans as a group
- **Reports:** spatialPLANNER has a configurable set of reports, including bill of materials (BOM) and plan archive reports
- **Reserve Fibers:** spatialPLANNER provides tools to reserve or “tag” existing network assets that will be required to activate a plan once it is constructed

Incorporate network planning activities into your asset management workflow with efficient web-based tools

BUSINESS SUPPORT

At the core of the spatialSUITE is a relational database with an advanced network asset data model that supports a variety of network architectures including fiber, HFC, copper, and outside- and inside-plant. Each network architecture includes business rules and behavior that drive data integrity and support business processes regardless of how the data is accessed.

spatialSTORM

Service-oriented architecture has become a fundamental part of the communications industry, enabling organizations to deliver true end-to-end support for business processes. Synchronoss' SOA-enabled spatialSTORM platform was created to support these technological needs.

Created through a standards-based, service-enabled architecture model, spatialSTORM allows service providers to quickly and easily adapt to changes in their business and IT environment. As a result, spatialSTORM improves access to data and lowers the costs of integration, significantly increasing the value and return on investment.

Utilizing an API-based approach, spatialSTORM delivers business agility, improved customer experiences, and a competitive advantage in a constantly evolving industry. spatialSTORM's API-enabled assets allow users to unlock the value of spatialNET data, connecting it seamlessly and securely with the cloud and mobile devices.

KEY SERVICE AREAS

- **Data Management:** Services for database creation, replication, extraction, and other tools for managing the database and data model within various database technologies
- **Workflow (JMS) Management:** Services for managing Job Management System (JMS) workflow between clients and external systems
- **Mapping:** Services for delivering spatially-enabled information to other applications and systems, leveraging standards such as OGC (WMS, WFS), etc. Management of data with different coordinate projections
- **Network Analysis:** Network tracing, dark fiber, diversity, trace-to-common point, etc.
- **Field Data Markup:** Support for processing data updates through to the network asset model in a secure workflow that supports data validation and maintains data integrity
- **Reporting:** Basic reporting services and integration to 3rd party tools
- **OSS/BSS Integration:** Standards-based integration tools to specific business functions including provisioning, logical network inventory, billing, CRM, and ERP
- **Scheduled Processes:** Support for scheduled processes that enable regular updates from/to affected systems

Key Benefits

- Read/write services designed specifically to maintain database integrity
- Supported, sustainable integration points that adhere to complex business processes
- Standards-based services that lower integration, upgrade, and ongoing maintenance costs
- Interface standards and protocols that are used across a number of OSS/BSS vendors
- Development tools that deliver PNI information as part of a robust OSS/BSS services orchestration

hindSIGHT

hindSIGHT provides a complete solution for managing a historical asset repository. As a true enterprise solution, hindSIGHT provides the operator with a scalable system for managing asset history as they change in real-time without the need to create snapshots or separate database archives. Leveraging a standard Oracle database and separate database schema to manage spatialSUITE's historical information, hindSIGHT works directly with spatialNET's Job Management System (JMS) to record all changes to the network as JMS jobs are posted. Additionally, hindSIGHT tracks changes to lightweight field jobs used by spatialSUITE application clients for redline markup tasks. Common business functions that can benefit from a temporal view of asset data include:

- > Planning and design
- > Engineering and operations
- > Maintenance management
- > Assurance and fault management
- > Disaster recovery

KEY PRODUCT FEATURES

- > **View Historical Data:** hindSIGHT provides a temporal view of asset data at any user-determined date, including pre-determined "snapshots" or an ad-hoc date. The system will revert to the status of the database at that time
- > **View Data Differences:** hindSIGHT answers the important question "what happened between two points in time?" The system also handles other queries such as "all versions of this entity" and a summary of what changed at a particular time
- > **Historical Viewer:** Seamlessly switch from a writeable view of a current spatialNET session to a read-only view of a historical view, providing the ability to easily investigate historical issues, prepare maps, etc.
- > **Integration With spatialSTORM:** spatialSUITE's SOA platform, spatialSTORM, can be used to request historical asset data through standard APIs that include a data parameter
- > **Historical Reports:** hindSIGHT supports key reports that enable the user to view network changes, including:
 - > Summary of all changes in the selected boundary between dates
 - > Summary of differences between two BOM (Bill of Materials) reports between dates
 - > Detail of all changes to a selected asset between two dates

Historical asset management and difference analysis tools to improve insight on data repository changes



ENTERPRISE

Access to current and accurate network asset data is critical to providing superior customer service and reducing operational costs. Synchronoss' enterprise products grant communications service providers the ability to view network data regardless of connectivity limitations. Synchronoss' spatialSUITE includes lightweight applications that can be deployed through the enterprise to provide network intelligence to every member of the organization.

spatialWEB

spatialWEB provides a web-based mapping application that delivers network asset information accurately and cost-effectively across the communications service provider's enterprise. Utilizing interactive map technology accessed in a standard web browser, spatialWEB ensures that users are always making decisions with current information, improving operational efficiency for the entire organization. spatialWEB can be used by a diverse set of users, including sales and marketing representatives, customer service representatives, network technicians and planners, and operation support personnel.

A scalable mapping engine allows users fast and secure access to current asset data for mapping, analysis, and data updates. Unlike generic map viewers that require extensive customization to access network data, spatialWEB's built-in data access features offer a highly functional, cost-effective way to retrieve, view, and update data.

Key Benefits

- Simple browser-based interface with advanced mapping tools designed for a broad range of users expands the use of network asset data and improves decision-making capabilities
- Map markup tools allow users across the organization to propose updates to the network infrastructure, significantly improving data quality and currency
- Efficient fault management and restoration with network analysis tools that lower mean-time-to-repair (MTTR) and improve customer service
- Immediate answers to serviceability questions improve customer acquisition rates and reduce costly truck rolls

WEB-BROWSER ENVIRONMENT

spatialWEB's simple browser-based interface enables users of any skill level to access network asset information with little-to-no training. As a result, novice and expert users alike can view and analyze data without the need to request maps from the engineering staff, greatly increasing productivity and customer service.

SERVICEABILITY ANALYSIS

spatialWEB plays a key role in the sales cycle by allowing sales and marketing personnel to quickly and easily perform service qualification analysis. spatialWEB is able to determine whether residential or business addresses are serviceable for both fiber and RF networks based on company-configured priority rules that can include detailed analysis of nearby network drops, available equipment, and network connectivity. spatialWEB can also be used to reserve or "tag" spare fibers required to serve a prospective customer or provide diverse paths to a critical demand point.

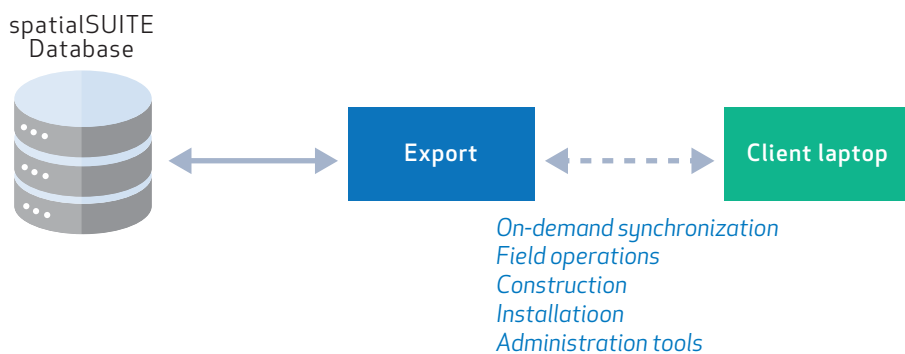
TRACE AND MARK-UP DATA

spatialWEB includes map mark-up tools that allows users to redline maps, add fiber tags (reservations), mark splices, or reserve inside plant rack space. Additionally, users can capture changes in a field job and submit it for approval by an engineer or technician who then completes the job and reconciles any changes with the network database. Fast and accurate fault management and location tools enhance downstream operations, and ultimately lower operational costs, improve mean-time-to-repair (MTTR), and enhance customer service.

spatialOFFLINE

The ability to mobilize the field workforce offers communications service providers a competitive edge, and ensures network asset data accuracy by allowing field works to view and update maps while on location and later synchronize with the corporate database when they return to the office. spatialOFFLINE's easy-to-use client displays full network inventory and landbase information, including outside-plant (OSP) cable, HFC, and fiber networks, support structures, sites, and inside-plant (ISP) buildings, streets, parcels, CAD layers, MDUs, and complete inside-plant equipment details.

By caching network data on the local device, spatialOFFLINE enables users to pan and zoom through detailed network maps without a connection to the database. Utilizing spatialOFFLINE's built-in search tools, users can quickly find any asset in the database by asset type, map location, or specific attribute, including serial numbers, bar code IDs, or unique CLLI codes. With spatialOFFLINE's efficient map mark-up tools, users can create field jobs that allow network assets to be added, deleted, or updated, including the use of GPS devices to reflect real-world situations. Images and documents collected in the field can easily be associated with a mark-up, uploaded through the synchronization process, and made available to other users.



MANAGE MULTIPLE USERS

Administration tools manage data across hundreds of remote spatialOFFLINE users, extracting selected information from the network inventory database and delivering it to spatialOFFLINE clients based on defined user groups and subscribed region boundaries. Administrators are able to specify the type of data each user group receives, resulting in field users only seeing the data they need to work with.

MANAGE, SPLICE, AND TRACE FIBER FROM THE FIELD

With advanced fiber tracing tools, spatialOFFLINE streamlines network analysis, fault management, and restoration tasks for the field worker. Detailed views show clear, logical representations of fiber configurations, including individual fiber and usage information on loops, risers, panels, and splice cases. After easily finding and viewing available fibers, users simply drag and drop to create, edit, or remove splice connections.

Optical time domain reflectometer (OTDR) analysis tools allow the field technician to select a fiber, choose parameters, and trace segment lengths through the fiber network to determine the exact location of the detected anomaly. These intelligent field tools give workers more productive time in the field with fewer errors and rework, and less time spent back at the office.

Key Benefits

- Accurate and current network asset data in the field without requiring a network connection improves efficiency of the field workforce
- Reduced errors and rework
- Fewer trips back to the office
- Map markup tools allow users across the organization to propose updates to the network infrastructure, significantly improving data quality and currency
- Faster location of problem areas with OTDR and other network analysis tools improve critical field workforce metrics including:
 - Lower mean-time-to-repair
 - Priority restoration support

MOBILITY

The communications space is a continually evolving market with high customer demands and complex challenges for service providers. In an attempt to gain a competitive advantage, many service providers continue to transition work to the field to increase workforce productivity. By doing so, they are able to answer ever-increasing customer demand for faster service resolution, and provide greater visibility into service resources.

ROAM MOBILITY SUITE

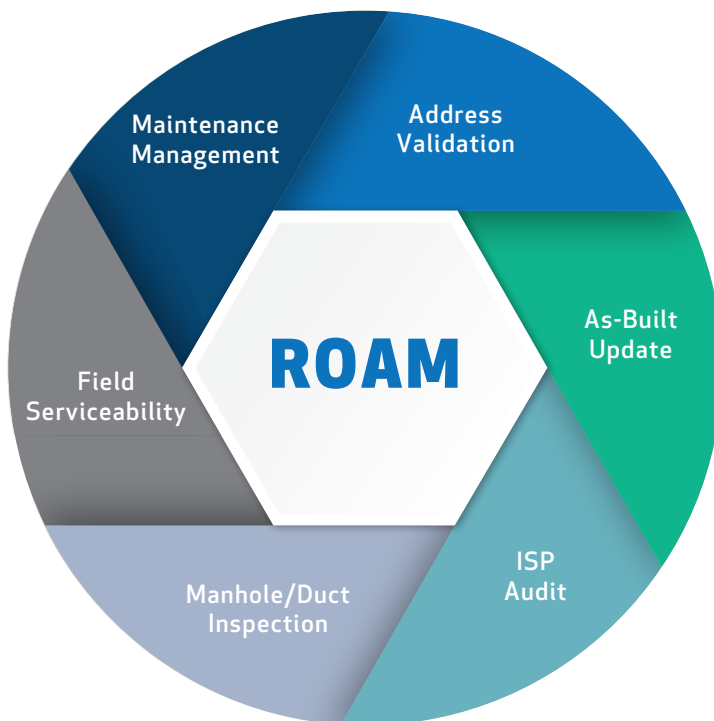
Leveraging the spatialSTORM platform, Synchronoss' ROAM Mobility Suite offers a resolution to the challenges faced by communications service providers and is the most important tool in the field engineer's toolbox. Designed to meet the specific needs of field users, ROAM enables users to access physical network data in the field with native applications that fully adapt to OS and device characteristics.

Utilizing a simple user interface, ROAM delivers functionality in a highly efficient, lightweight application. Unlike cumbersome desktop web clients, which may be used for a variety of functions, ROAM offers an expedient way to accomplish a defined number of small tasks while on location. Access to GPS, and other native tablet functionality, ensures data accuracy and ease-of-use even for the novice user.

The ROAM Mobility Suite delivers walk-out capabilities in a "mostly connected" application paradigm, allowing users to access data through a variety of network connections, including 3G, 4G, Wi-Fi, and Wi-Max, with offline data caching when network connectivity is not available.

Key Benefits

- > Developed using mobile application frameworks in C#, and deployed with Xamarin across all major platforms, including Apple iOS, Android, and Windows
- > Enables access to native tablet components such as GPS, camera, compass, and accelerometer for accurate, geo-located information
- > Integrated basemap tile sets utilizing Apple Maps, Google Maps, and Bing



ROAM Application Roadmap

KEY SERVICE AREAS

The ROAM Mobility Suite provides support for the key needs of customer service representatives for field operations, such as:

- > Field sales
- > Data validation and audit
- > Planning and design
- > As-built updates
- > Inspections
- > Maintenance and repairs
- > Material orders

DATA MANAGEMENT

Maintaining the quality, accuracy, completeness, and integrity of network asset data is a key consideration for all communications service providers. Synchronoss' data management applications were designed to support these elements with several data-focused applications.

spatialCONFLATOR

Designed for GIS technicians, engineers, mappers, and engineering contractors who are responsible for maintaining network asset data, spatialCONFLATOR delivers a sustainable methodology for improving the accuracy of the physical network inventory.

spatialCONFLATOR is an interactive tool that "conflates" spatial data in a spatialSUITE database by using control points to adjust source data with landbase of other control data in such a way that positional accuracy of the source data aligns with the control data. Users create a grid of "control points" that designate matching locations in each dataset, such as street intersections, and the system uses those points to incrementally adjust the source data according to the calculated difference from the corresponding control data at every point.

CONTROL POINTS

spatialCONFLATOR provides a flexible interface for developing control point files of any complexity, with tools to identify areas with large errors, preview the impact of the control points, and rapidly extend the control point network. Users can save control point files for use with other datasets and even other systems. A robust control point file is the most important input to the conflation process, and generally one of the most complicated to achieve. spatialCONFLATOR has the user-oriented tools to make this task easy to complete with visual feedback at every step.

PREVIEW CONFLATION RESULTS

At any time during the control point creation process, conflation results can be previewed to assess accuracy. Being able to preview the conflation saves time from having to perform the conflation and then roll back the results if they are not what was expected. The preview capability allows control point files to be developed quickly and accurately.

CONFLATE STANDALONE CAD FILES

spatialCONFLATOR is designed to be able to conflate CAD drawings in a standalone environment with any database connection. Users can select multiple files to conflate in a single operation based on a set of control points. spatialCONFLATOR will open each CAD drawing, conflate if necessary, and then save the drawing in a new folder.

CONFLATE DATA SAFELY IN A JMS ENVIRONMENT

spatialCONFLATOR works within a long transaction Job Management System (JMS) environment, allowing the results of a conflation to be reviewed and approved before posting the changes to the database. Working within a JMS job preserves data integrity by preventing conflation from impacting other users, and allows the conflation results to be rolled back if necessary.

Key Benefits

- Significantly reduces the manual labor associated with traditional rubber sheeting approaches
- Seamless, in situ conflation that does not require import/export routines on the database
- Automatic preservation and adjustment of symbols and annotation within the source data
- Flexibility to adjust portions of the database by area and feature type
- Database management with Synchronoss' Job Management System (JMS) to allow conflation results to be rolled back

QC Framework

Data integrity plays a crucial role in maintaining a functional network and meeting ever increasing customer demands. Unfortunately, inaccurate data conversion efforts, manual drafting errors, and changes to the network that are not correctly documented can all lead to errors and non-standard data in the physical network inventory. To combat these issues, Synchronoss has developed QC Framework, an interactive tool designed to improve the integrity of the spatialSUITE database through the asset lifecycle. Through the application of QC Framework, services providers can improve several areas of operation to:

- Ensure data quality during migration projects, accelerating acceptance and promotion to production, saving time and rework
- Act as a design validation tool within a job, eliminating design errors, minimizing as-built changes, and lowering overall construction costs
- Manage consolidation of data from multiple providers, streamlining the acquisition process and allowing business processes related to network asset data to be consolidated quickly, improving return on investment

KEY SERVICE AREAS

- **Reports:** QC Framework supports the generation of summary and detailed reports to facilitate processing of test results
 - The summary report creates a spreadsheet for each test and saves them in a single folder for easy access once all tests have completed
 - The detailed report can also be generated after running each test that captures the results for each entity and details of the entity. This report can also be saved as a spreadsheet for analysis
- **Data Quality:** QC Framework delivers value to any organization by providing a platform for managing and improving physical network inventory data quality and accuracy. With QC Framework, customers can:
 - Shorten time and increase accuracy of data conversion projects
 - Maintain data quality through ongoing drafting and data updates
 - Lower construction costs by validating data during the design phase
 - Raise confidence in decisions made from physical network inventory data
- **Configurable Data Quality Tests:** With QC Framework, users are able to encode and enforce any number of data-related business rules as tests, including attribute standards, symbology, and network connectivity. Tests available “out-of-the-box” include:
 - Verify that equipment names meet established naming standards
 - Confirm that equipment information includes all required attributes
 - Analyze equipment that has been orphaned but not marked as abandoned
- **Test Coverage Area:** The user can select the extent of the test coverage for each QC Framework run. Coverage areas include:
 - Job boundary
 - Node boundary
 - Selected boundary
 - Current view extents
 - Entire database

Manage network asset data quality more efficiently with a flexible, rule-based test framework

MAPupdater

MAPupdater works alongside Synchronoss' asset management platform, spatialNET, to automatically keep the spatial database current as the network evolves. Administrators can conveniently schedule MAPupdater to run automatically at any time of day or night to accommodate large or small data synchronizations. With automatic data synchronization, MAPupdater eliminates the need for manual file handling when updating the database.

MAPupdater loads updates from CAD maps into the database and remembers data files, locations, and time stamps each time it runs, eliminating manual checks that are required when bringing thousands of maps into a central repository. Using MAPupdater erases the possibility of missing any important information during map synchronization. Additionally, MAPupdater generates a log of all imported files to ensure that any updates are not overlooked. Built-in diagnostics can also be used to troubleshoot errors that may have occurred during synchronization.

Subsequent data synchronizations run quickly and efficiently to save time and money. MAPupdater compares data files to the previous synchronization log, rejects duplicate files, and writes only new information to the database. MAPupdater also knows when files are deleted from source maps, and makes the appropriate updates to the database. Smart synchronization effectively eliminates the manual effort associated with updating the database, cutting down data import time and errors that often occur when updating spatial databases with maps that are stored on traditional file servers.

KEY BENEFITS

MAPupdater is designed to save time and money, and increase serviceability accuracy. Additional features and benefits include:

- Increased accuracy of mass mailings
- Reduced need for costly truck rolls
- Increased commercial and residential customer base
- Improved customer services time and response to customer questions
- Production of more accurate and readable maps
- Management of multi-dwelling unit business and residential addresses

A smart, configurable, and reliable tool that keeps the spatialNET database current as the network evolves.

CAD designers can continue to work as they always have in AutoCAD or Microstation, saving their files to disk



MAPupdater

MAPupdater performs a nightly sync of the CAD files with the Oracle database, creating, updating, or deleting data as required to keep the Oracle database up-to-date

spatialSUITE Database



CAD Data

Sync Log

spatialNET

spatialWEB

spatialOFFLINE

spatialWEB Mobile

ADDRESSserver

Address and demand point management is a critical business activity which affects all upstream and downstream operations in the communications OSS. Inaccurate or out of date address or demand point information results in missed revenue opportunities, slower MTTR, and inefficient operations.

The ADDRESSserver product provides an enterprise address and demand point management platform to enable accurate addressing information for all systems within the business including operations, billing, client management, and workforce management. ADDRESSserver includes the following capabilities:

- A rich data model that satisfies country-specific formats, multiple address per location, unique persistent identifiers, source tracking, and a full premise model based on an international standard
- Defines and enforces an address lifecycle with status and confidence values as the address evolves through time
- Version-managed changes with a complete historical and temporal view of the address
- Basic integration APIs including web services to enable external systems to query the current version and historical views
- Validation tools for address attributes with exception reporting and conflict reporting

BUSINESS BENEFITS

Significant business benefits can be achieved in the following areas:

- Avoid duplicate entries, resulting in a single point of truth
- Revenue opportunities
- Efficient network planning and build out
- Location accuracy for network and addressing required for all business units, including billing, operations, assurance, construction, and planning
- Call before you dig
- Provide accurate data and attributes to support serviceability applications
- Analytics and reporting on address locations for business intelligence
- Generate reports, calculate, and identify trouble status
- Identify and track current and future revenue
- Standardized address data eliminates poor or misleading results for queries and reporting

