

Osmose®

Joint Use Management Solutions

Triple
Play



Joint Use Audit



Double Wood &
Violation Remediation



Managing Third Party
Make-Ready Applications



Osmose Triple Play Solution

Joint Use Audit

- License agreement review to identify gaps in current agreements to maximize cost recovery
- Identify double wood or next attachment to move
- Clearance assessment: visual or measured
- Audit results posted online to support licensee billing remediation

Double Wood & Violation Remediation

- Review joint use agreements
- Identify double wood occurrences and latest status in the field
- Reconcile and manage pole transfer notification system backlog
- Coordinate (simple vs. complex) transfers with third parties
- Work order creation and coordinate with construction for removal

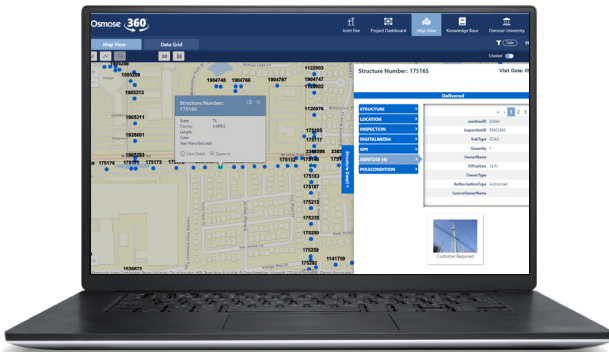
Managing Third Party Make-Ready Applications

- Establish online application request ticketing system
- Incorporate pole loading review into application process
- Support entire application review process as turnkey service
- Coordinate pole replacements
- Manage to volume, adhering to FCC requirements

There is increasing pressure on pole owners to respond quickly to applications for attachment, effectively manage their joint use billing and attachment records, and efficiently remediate double wood scenarios. These challenges place a strain on the pole owners ability to respond with the expertise and resources required to efficiently manage their joint use business.

Osmose works with structure owners throughout the United States to design a three phased approach to improve and streamline their joint use programs. Each phase represents a standalone engagement that delivers measurable financial and operational improvement to your program while improving data accuracy, billing, and system safety. Data collected during each phase feeds the next, reducing trips to the field and lowering overall costs.





Joint Use Audit

Osmose has developed a unique approach to joint use survey and clearance audits over the last 30 years. The traditional approach of collecting attachment information and simply updating billing is outdated and ineffective. Beyond the core effort of performing comprehensive field surveys, Osmose can support the entire audit process by providing:

- **Rental Agreement Review** – most contracts are expired or out of date
- **Cost Recovery** – you can share the cost of an audit with licensees
- **Online Mapping** – tools to view query and export results of the audit
- **Back Billing** – attachments without applications are considered unauthorized and have fines associated with them
- **Clearance Analysis** – improper attachments put you and the public at risk
- **Data Integration** – data drives decisions making, therefore accurate GIS data is critical
- **Double Wood Remediation** – double wood (stub) poles are a growing issue

Program Capabilities and Benefits

Our proven processes enable the pole owner and appropriate stakeholders to pick the right program to drive desired results while simultaneously supporting other initiatives.

Capabilities	Standard	Intermediate	Detailed	Benefit to Your Program
Pole attributes (GPS, height, class, owner)	✓	✓	✓	Verify and update asset registry
Attachments (type, count, owner)	✓	✓	✓	Verify and support billing and transfers
Pole top images	✓	✓	✓	Supports billing, evidence of violations, condition issues, and insight for design and construction
Violations, safety hazards, double wood	✓	✓	✓	Promotes compliance and safety
Osmose 360® Audit Online Portal	✓	✓	✓	Share results with project stakeholders and attachers
Attachment heights (power and communication)		✓	✓	Pole modeling, clearance evaluation, make-ready design
Annotated pole images (attachments, heights)		✓	✓	Visual depiction of attachments with heights as captioned information
Span lengths and angles			✓	Pole modeling, load assessment, and hardening
Pole load assessment			✓	Flag potentially overloaded poles

Double Wood and Violation Remediation

Many pole owners struggle with managing their double wood population. When a pole owner replaces a pole, all attachments, belonging to the pole owner as well as third parties, and equipment must be transferred to the new pole. When these transfers don't occur in an efficient manner, two poles remain. Over time, the number of double wood poles may grow to an unmanageable volume and coordinating all the remaining tasks to transfer the remaining attachments and pull the pole can become overwhelming.

Pole Owner Challenges

- Thousands of pole transfer tickets in the system and the ticket "status" may not reflect the current state of the pole in many cases
- Third parties slow to get off the pole
- Sending existing line crews to pull and dispose of poles that still require transfers is inefficient and costly
- Based on volume, unidentified double wood, and associated costs, it may take years to reduce the double wood population
- Public pressure to remove unsightly occurrences of double wood
- Cost recovery from attachers

Our Successful Track Record in Pole Transfer Management

Osmose can help pole owners address these challenges by acting as a single-service provider to identify, manage, and reduce double wood pole backlog by:

- Identifying double wood and otherwise stranded pole conditions that exist in the field
- Coordinating and managing transfer requests
- Coordinating construction and managing the pole removal process
- Completing construction invoicing and notification ticket closeout
- Keeping database up-to-date, tracking instances of double wood, next to move status, and closeout when work complete

Double wood conditions are a safety concern, an eyesore to the public, and can impact future construction.



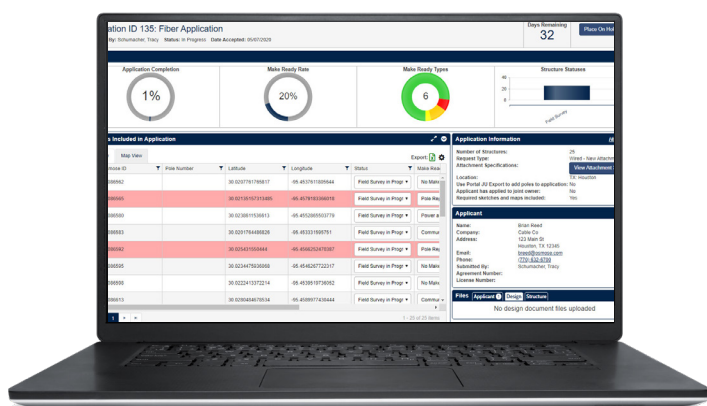
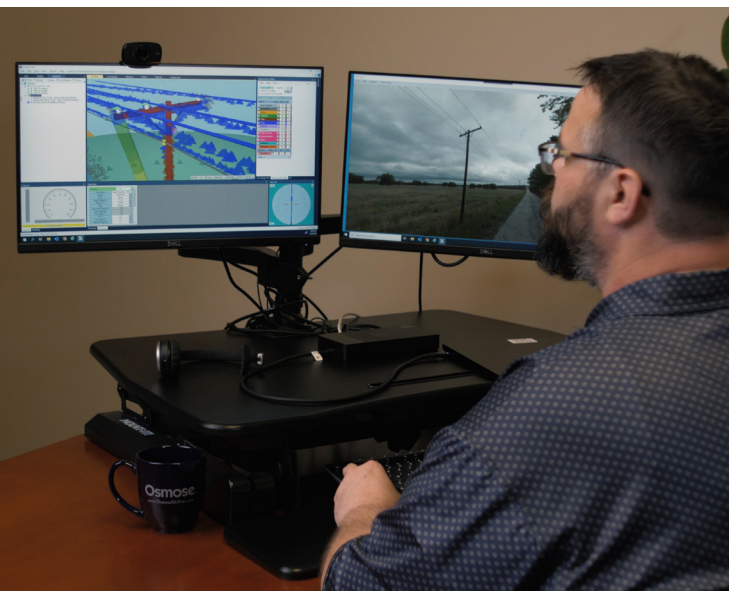
Managing Third Party Applications for Attachment

There is increasing pressure on pole owners to respond quickly to regulatory agencies, applications for attachment, and other significant design initiatives. These challenges place a strain on pole owners to respond with the expertise required within prescribed timeframes, as well as third party applicants who may need to submit proper applications to gain approval to attach. Osmose make-ready survey and design services help pole owners solve these challenges which include:

- Reductions in workforce and increased workloads due to continued broadband and fiber buildouts
- Lack of experienced resources to incorporate pole loading into the program
- Difficulty in track permitting costs, which are often not fully recovered
- Inconsistent post-construction reviews, which potentially adds risk to your system
- Ensuring systems of record are updated to ensure proper billing
- Consistent enforcement of the pole owners' design and construction standards and make-ready design remedies.
- Demand to meet FCC-mandated timeframes

Osmose can help manage and meet deadlines with accurate, comprehensive analysis and make-ready engineering services, including:

- License agreement review and consulting
- Application process review and streamlining
- Efficient review of incoming applications for completeness
- Make-ready field surveys, designs, and cost estimates
- Pole loading analysis to help pole owners integrate into attachment process
- Clearance analysis
- Timely application reviews
- Transfer coordination
- Ensuring systems of record are updated properly (GIS, attachment records, work management)
- Post construction audits



Osmose Innovative Tools and Technologies

Osmose has invested in innovative technology to help pole owners effectively manage their joint use programs. Our technology balances cost and efficiency, while successfully achieving pole owner program goals.



Speed

Osmose has hundreds of trained inspectors who can be deployed to meet the tightest of project timelines



Scale

Osmose visits millions of poles annually, proving we have the ability to scale to any size project



Accuracy

Osmose applies the latest technology to deliver the accuracy required for our customers

Osmose 360® for Joint Use Audit

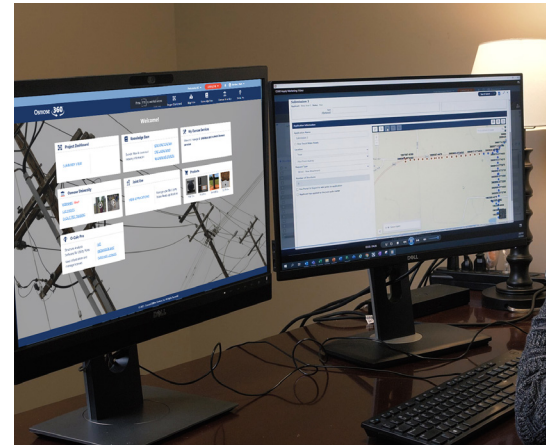
Osmose 360 Joint Use Audit provides secure access to audit results and supports a unique cost-recovery process tying attachment invoices to specific map views showing each attaching company where they are located. Our online portal quickly highlights violations, identifies attachers, provides comprehensive pole details and images, and drives quick remediation between attachers and pole owners.

Osmose 360® for Joint Use Apply

Osmose 360 for Joint Use Apply is designed to provide pole owners a common platform for attachers to submit and track applications for attachment. Combined with easy to read status dashboards and reports, our innovative portal ensures all stakeholders are fully connected throughout the attachment process, eliminating confusion about status and allowing for easy monitoring of performance and deadlines.

OsmoVision®

OsmoVision is an industry-leading technology solution designed to effectively transform accurate LiDAR point clouds, pole images and GPS into actionable data to improve the integrity and reliability of your distribution network and to improve the application for attachment process for telecommunication providers.



Osmose®

Resilient Grids. Strong Networks. Safe Energy.

For more information:

Call: 770.632.6700 | Email: technicalservices@osmose.com

Osmose Utilities Services, Inc. • osmose.com