

Overview

STR Helper was designed to help municipalities monitor and manage short term rental registration and compliance. Unable to find an adequate software solution priced reasonably, a group of city administrators, engineers and a mayor founded Bear Cloud Software in 2016 to build a platform for managing short term rental compliance. In January 2017, STR Helper began to openly sell and support the platform. In that time, dozens of municipalities have licensed and deployed STR Helper, making it by far the fastest growing platform for managing short term rental compliance available today.

The cornerstone of the system is registration, the end goal being to create a full roster of short term rentals within a proscribed geographic boundary, including the full name of the owner and the physical address of the unit. The system does this by scanning over 20 different rental sites, including global aggregators like HomeAway/VRBO, Airbnb, Turnkey.com, and Booking.com, national aggregators like Vacasa and Turnkey and small, local property management firms. It then matches those listings (which are carefully verified through a double-blind verification process to ensure that the advertised property is in fact linked to the correct tax id record) with local GIS and tax assessor data. The system internally stores and manages all of this.

With this in place, the system can then perform a few critical functions, including:

- Identification of any non-registered or otherwise non-compliant property (non-compliance simply means they are not operating within the parameters set forth by the municipality. That might mean they are outside an allowable rental zone, they have not completed the permitting process, they owe back taxes, etc.).
- Create reports that list all short-term rentals including name, address, contact information, etc.
- Provide a visual map of all listings
- Provide links to all the advertising, including the start date of the discovered ad, various sites it is listed on, etc.

With a baseline of compliant and non-compliant users, the system can then automate communication with non-compliant users, generating letters that cite areas of non-compliance. The system documents all of this in an audit trail. For people who refuse to comply, the system logs all correspondence, all offenses and provides a central registry for a city official to issue a citation, and if the case ultimately ends up in municipal court, it centralizes and tracks all evidence.

Each night, the system runs a cron job that sweeps all the listing sites and updates the registry, adding newly discovered properties and showing properties that have ceased advertising. Alerts are sent to the management dashboard so appropriate action can be taken and the registry is updated so all reporting is real time. As a monthly part of this process, the system also tracks occupancy on a per property basis.

Occupancy data is critical to determine a series of important functions:

- Estimating TOT or other relevant taxes
- Understanding usage patterns which supplies critical trend and usage reporting
- Tracking occupancy if there is a cap in place for the number of nights a property can be rented in a year

And while registration and permit compliance is a critical function within the system, it alone does not comprise a solution. Municipal codes often regulate things like parking, trash, noise and occupancy levels. It is nearly impossible for local officials alone to track and monitor all of this. As a result, we have enabled two community-based functions to report non-compliance in these areas. The first is a 24 x 7 hotline that can route calls directly via a voice switch to the appropriate official. For example, if there is a party going on in a house (a short-term rental or otherwise), a neighbor could call the hotline, report the infraction and then be

routed directly to the officer on duty for investigation. In many jurisdictions, there is a requirement that every property must have a local manager. The switch can also route calls (or alerts) to the local manager. Similarly, we are now building a portal that allows users to report an infraction on-line. The portal allows users to upload photographic evidence of non-compliance. This evidence is stored in the audit trail of the offending property, either for use as evidence in court, or because in some jurisdictions, multiple violations can result in the revocation of the STR permit.

Finally, we have partnered with other critical functions that we simply cannot provide, but for which there has been significant demand. To do this, we have developed a fully supported API that allows third party systems to access critical functions within the platform. In some cases, we have also written to other third party API's to bring information from their systems into STR Helper. In particular, there have been two areas of focus. This first is in urban planning. Destimetrics/Inntopia is a leader in resort data analysis. Inntopia has signed an agreement to use STR Helper as the central repository for all its short-term rental housing data. They settled on STR Helper after an exhaustive evaluation of all products on the market and a large-scale pilot in Vail, CO. In addition to data analysis, we have also partnered with leading tax collection firms. To date, we have done deployments/integrations with both HdL and MUNIRevs. We continue to develop these and other partnerships to provide a full suite of solutions to our customers.

For competitive reasons, STR Helper also offers a down market reporting product , STR Reporter, which simply produces static reports that list all short term rentals in the community, the source of the ad, physical address and other pertinent information. The standalone reporting tool is not designed as a complete solution – it is just what its title suggests – a static reporting tool. It is designed to match the capabilities of our leading competitors for cities looking just for reporting. There is a simple and pain-free upgrade path to the full featured product which almost all customers ultimately opt for.

As such, we believe that STR Helper represents not only the best value on the market, but also the most comprehensive solution. We believe the following pages will substantiate that viewpoint.

Brief History of STR Helper/Company Mission and Culture

Bear Cloud Software was founded in Garden City, UT by the mayor (John Spuhler), city manager (Bob Peterson) and chief engineer (Kenny Peterson) to provide a solution to the problem of short term rental regulation. It is fair to point out that STR Helper was founded to solve a problem, - it was not a concept company. Company founder Kenny Jacobson's founding mantra was "Give me a problem, not an idea." The company was rooted in the real problems of a real town with real short term rental issues. This operational foundation continues to pervade the company.

Garden City transforms from a sleepy town of 700 full time residents in May to over 15,000 by July. There are only three small hotels in town so short term residential rental is an essential part of the housing mix to support the seasonal influx of visitors. Compliance rates with licensing and tax were less than 50% and issues with visitors abusing municipal regulations associated with trash, noise, occupancy and parking were a burden to full time residents. The pair looked around and found very expensive, closed-architecture systems that did not fit their needs. So they decided to build a system to tackle the problem. The result was STR Helper, which was subsequently re-written on the current platform. Commercial sales of the product began in earnest in January 2017 and the system has been adopted by cities and counties across the country.

From the outset, the culture of the company has been built around a commitment to customer success, a dedication to data and data science and a reluctance to grow beyond our ability to deliver on our commitments to customers. Underlying this culture is a philosophy that we are in the business of helping to

build better communities, not to being an outsourced police force. We believe strongly that STR's are a business and should be regulated as such. However, STR Helper is a tool to support city administrators to achieve core policy objectives, not an automated enforcement mechanism. Our product is priced and licensed to enable us to achieve a fair return and to provide outstanding value. We will never operate on the basis of a "bounty" or price based on "whatever the market will bare."

It is fair to say that we know what we are and what we are not. We are focused on the areas we add unique value and we have partnered with the industry leaders in areas we recognize as part of the solution, but are not well equipped to deliver services commiserate with our customers' expectations. We are a software company, first and foremost. Our principals all have 20+ years of enterprise software development, implementation and support experience. We also are focused on the short-term rental compliance problem and the role that plays in enabling better communities. We are not experts in tax collection, which we find is often an integral part of the problem we are asked to solve. As a result, we have partnered with leaders in this area including HDL Companies and MUNIRevs. We continue to develop new partnerships in this area as well. We are not a consulting firm. We work very closely with Destimetrics/Inntopia in this area. Destimetrics, which was recently acquired by Inntopia, has been the leader in lodging analysis and forecasting for 20 years. In the case of each of our partners, our relationship is exclusive. They have carefully vetted all vendors in the market and chosen to work with STR Helper. Likewise, we carefully vet our partners to make sure there is both cultural as well as functional alignment.

The company's headquarters remain in Garden City but we also have employees in the Los Angeles area and Austin, TX, as well as key partners/contractors in Colorado and South Carolina.

Product Architecture and Organization

STR Helper was designed as a set of core services with a set of core applications that leverage those services. The core services in the platform are: communication, reporting, alerting, property history and monitoring. The basis of this architecture was that compliance exists at three levels: permit compliance, tax compliance and nuisance management (sometimes called noise, occupancy, trash and parking).

Permitting

STR Helper includes a permitting system designed from the ground up for short term rentals. Not only is it fully integrated with the monitoring functions, it comprehends all the nuance of complex short term rental ordinances. In most municipalities, the issue of public safety is critical. Permits are designed to not only control the number of short term rentals in a neighborhood, but also to ensure public safety. The system is designed to flex to support the tracking and certification of all ordinance requirements. As simple examples, many ordinances include requirements around proof of insurance, fire inspections, parking plans, etc. The system is easily configured to support these or any other requirements your ordinance may require.

Additionally, the permitting system supports core functions around what we call "caps and zones." In many municipalities, short term rentals are either limited or prohibited in certain zones. The system manages all aspects of this, including prohibiting the issuance of a permit in an excluded zone or in one which the allotment of permits has already been issued.

Tax

The issue of tax compliance is paramount to most municipalities. Generally, the first objective of cities and counties is to identify those people who are either not filing or who are egregiously under-reporting taxes

owed. STR Helper has a comprehensive set of services and reporting designed to identify the anticipated tax liability and compare that to the actual remittance. This system is highly effective in identifying egregious tax dodgers.

However, tax compliance is a complex issue with respect to short term rentals. Unlike hotels or other conventional lodging providers, short term rentals have legitimate, non-taxable uses. Discerning this use at the margin can be a complex and difficult puzzle. We continue to explore ways to discern these uses, but there are both legal and technical limitations that everyone must acknowledge.

In certain municipalities, Airbnb has agreed to remit taxes, which makes lots of sense. However, they will not itemize the remittance, which makes it impossible to discern who may be reporting through other channels. So until HomeAway and other large booking sites agree to do the same, tax remittance will continue to be a challenge.

Nuisance

Perhaps the single most common complaint about short term rentals relate to the imposition to neighbors concerning noise, occupancy limits, trash and parking. STR Helper provides multiple avenues to help ensure compliance.

The first is a complaint portal that allows neighbors to submit photographic evidence of non-compliance. The second is a set of API integrations to leading third party products designed to detect decibel levels and occupancy. Third, we support an interactive voice response system that provides 24 x 7 support for complaints. In each case, complaints are logged in a history file. If the property owner must be taken to municipal court, the city has a convenient, documented history of not only complaints about the property, but all communication and other compliance issues.

Key Features

Discovery and Monitoring

Ability to monitor and analyze the local short term rental market

STR Helper provides a central dashboard with intuitive meter graphics that allow users to see at a glance critical metrics of the STR market, particularly as they relate to compliance. These gauges at a glance show overall number of short term rentals, compliance levels, non-compliance levels, newly discovered (but not yet validated listings), and License status for pending licenses. This dashboard also provides a jumping off point for detailed reporting, visual maps, individual listings, and detailed property information. All relevant data and alerts are surfaced to this level, while more detailed information is available as links from this point.

For example:

BC Links

- Properties
- Listings
- Property Management
- Licenses
- Map
- Reports
- Maintenance
- Configuration

Shortcut

- Unresolved Items

Recent Items

- BCA-2087
- BCP-0481
- BCP-0502
- BCA-2089
- BCP-1721
- BCL-9977
- BCL-0265
- BCL-2259
- BCP-73947

Validation Status

- N** New: 7 | [map](#) | [list](#) |
- C** Confirmed: 445 | [map](#) | [list](#) |
- I** To Investigate: 4 | [map](#) | [list](#) |
- F** Not Found: 4 | [map](#) | [list](#) |
- O** Outside City: 6 | [map](#) | [list](#) |

Needs Validation

Current Listing Compliance

- Compliant*: 69
- Not Compliant: 60
- Exemption: 2

View all three on [Map](#)

*Compliant = Approved, Expiring Soon, New, Pending, and In Process

Not Compliant

[Print Non-Compliance Letters](#)

Ability to aggregate and de-duplicate short term rental listings from short term rental websites, both national listing sites and local property management sites

STR Helper aggregates all listings on a nightly basis. As a part of that process, it culls through all listings and eliminates duplicate listings. For example, if a property is listed on both VRBO and Airbnb, it will show as a single listing. However, in the details page, it will record ALL sites the property is listed on, including links to the ad.

For example, in the following example, the property is listed on Booking, HomeAway and Airbnb. Each tab provides links to the appropriate ad. It should also be noted that each of these provides a link down into the property details within STR Helper.

Booking | **HomeAway** | **AirBnB**

HomeAway

Inn At The Lake (New)
 (41.94688000, -111.39353900)
[Open Listing on Web](#) | [Open Listing in STR Helper](#)

Inn at the Lake, Sleeps up to 65, Winter Rate is 35% off...
 \$ 1499

Internet Listing

Booking | **HomeAway** | **AirBnB**

HomeAway

Seventeen-Bedroom Villa (New)
 (41.94732000, -111.40500000)
[Open Listing on Web](#) | [Open Listing in STR Helper](#)

This villa has a dishwasher, barbecue and hot tub...
 \$ 1759

Booking | **HomeAway** | **AirBnB**

HomeAway

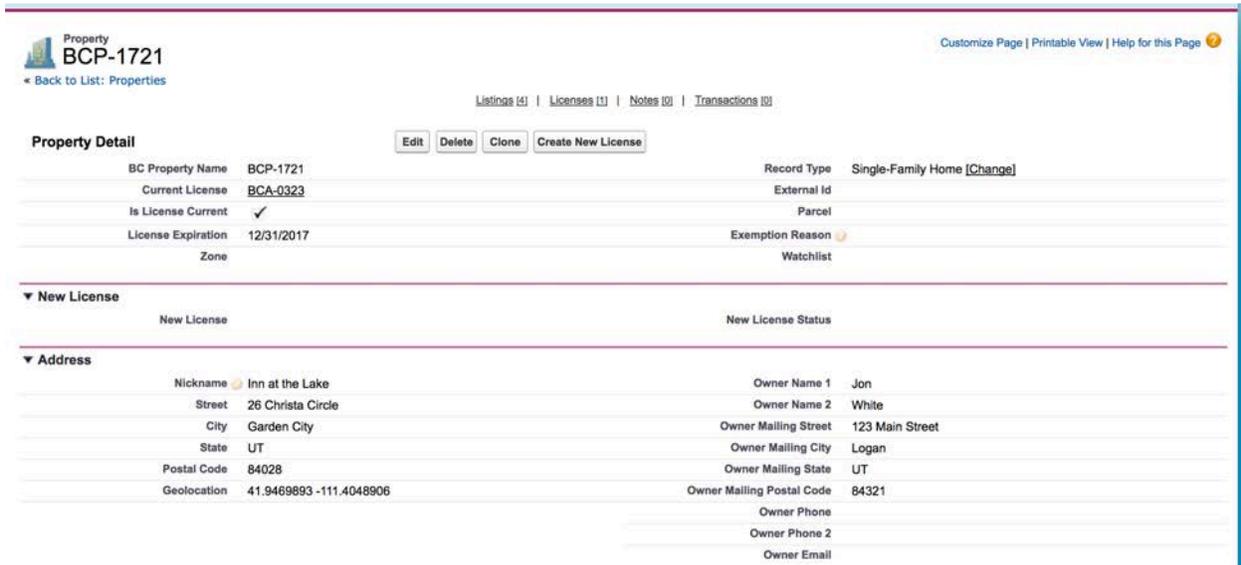
Inn At The Lake (Confirmed)
 (41.94792560, -111.40462500)
[Open Listing on Web](#) | [Open Listing in STR Helper](#)

Off-Site parking....
 1499

In addition to well known, national listing sites, STR Helper also monitors local property management sites. We support the leading property management systems and can pull listing data from each of them. If there is a significant need to support a currently non-supported property management system, we are happy to evaluate that support in partnership with the customer.

Quick and accurate identification of STVR properties listed in the boundaries of the city including identification of the exact physical addresses, unit numbers and parcel numbers.

The primary key in the database structure for the properties table is a property id. This property id links STR Helper to records imported from the city’s GIS or Tax assessor database. From there, STR Helper extracts critical details. As a result, it is simple to drill down into property details including the exact physical address, unit number and parcel number.



Zones

In STR Helper, zones are geo-marcated districts, with distinct properties. Generally, zones are geographic subsections within the larger municipality. The system is then able to append unique rules to each zone. For example, it may be that one sub-division in town allows no short-term rentals. The system knows this and will not allow a permit to be issued to anyone in that zone. Similarly, a different zone may allow no more than 300 rentals. Similarly, the 301st permit will not be issued. However, in this case, the 301st request may be put on a “waiting list” that will prioritize it when a permit becomes available.

Continuous monitoring for new active short-term rental listings, with updates provided to the city in real time.

The polling interval for new active listings is configurable within STR Helper. Typically, this is a nightly process but it can be configured to bi-daily or weekly. Once a new listing is found, an alert is sent up to the dashboard and the date of discovery and all pertinent property information is recorded. As a result, the system operates in near real time, alerting administrators on a regular basis to new listings and their compliance status.

Ability to detect a permit id within a listing

STR Helper does provide the capability to detect and pattern match a permit id within a listing. The system not only detects the existence of the permit number, it validates that the number is in fact a valid permit number and that the permit in fact belongs to the advertiser (in other words, the system

detects if someone has in effect stolen a valid permit from someone else and is trying to spoof the system).

Capture of full-resolution, full screenshots of all active short-term rental listings on a weekly basis. Provide link to the website of the STVR properties advertised.

Today, the system supports a full index of the link to the advertisement, initial date of discovery of the ad and if applicable, the date the ad was taken down. We have also recently implemented a feature that allows us to capture full screen shots of the listing, including calendaring data. This allows us to create an archive with photographic evidence of the ad, which has been timestamped.

Licensing and Permitting

Provide a robust, STR-centric permitting system that accommodates requirements for public safety documents associated with the permit (for example, fire inspection, parking plan for the property, proof of insurance, etc).

STR Helper has an integrated permitting system designed from the ground up for Short Term Rentals. It supports up to 8 configurable supporting documents that are required by the ordinance. Additionally, the product supports a registration portal that allows individuals to apply for a permit on-line.

Provide an easy to use interface for STVR market data allowing city staff to search, correct and append additional information to identified address matches.

There are two functions in the system that are relevant to the question. The first is the property data itself. Much of this data is brought into STR Helper from the County GIS data. However, it may be that for whatever reason, that data is either outdated or incomplete and the city wants to update that information in STR Helper. The system allows city staff to add or edit this data. Additionally, there is a notes field that could be used to record any specific information an administrator wanted to record.

The second part of the question relates to STVR market data. All information in the system can be reported on. We provide 20+ canned reports and can easily add new reports as requirements dictate. STVR market data reporting might relate to things like all non-compliant listings, trends in compliance, all listings in a certain zone, Listing sources, etc. The interface for running these reports is simple to use.

All information within the system is searchable, optionally editable and free text fields are available for notes.

Ability to accurately and continuously cross reference STVR database of active short-term rentals with the city's database of registered short-term rentals.

At the core of STR helper is the concept that registration and discovery must be deeply integrated. As a result, STR Helper provides the most comprehensive short term rental registration system available. This system is tightly integrated to the discovery process and will flag any property that is non-compliant for any reason.

We also recognize that some municipalities want to continue to use their legacy registration systems. In these cases, STR Helper provides a full features API for integration to the legacy system. In rare cases, we simply import data from the registration system via a batch process.

Have the capability to allow homeowners to apply for a STR permit on-line.

STR Helper provides a registration portal also allows users to apply for permits on-line. The application is inserted into the STR Helper workflow for permit approval, communications etc. The interface also allows municipalities to configure and users to submit required documentation (e.g. proof of insurance, parking plans, inspection reports, etc). The municipality can configure the system for whatever required documentation is needed.

Communication

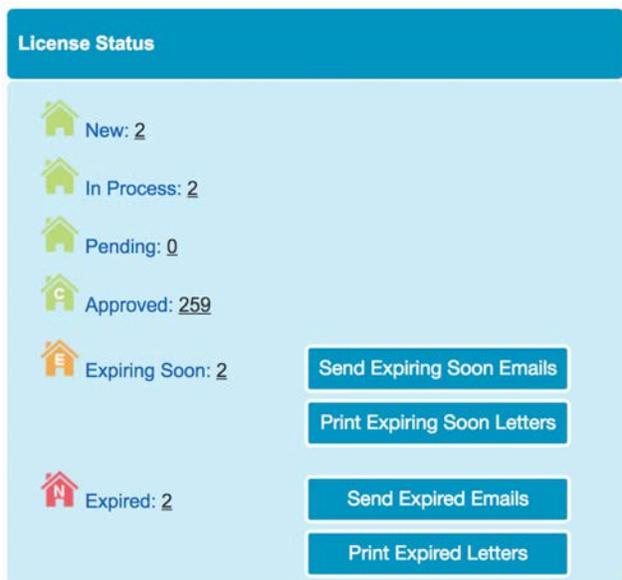
Ability to execute continuous outreach mailing campaigns to all types (single family, condo and apartment building) of unpermitted and non-compliant short-term rental property owners.

STR Helper features a robust communications module. The system enables either printed mail campaigns and/or email campaigns. The merge function allows the system to take an official letterhead template and merge fields into a form letter. An example might be that the city wanted to enumerate exactly why a certain property was non-compliant. In our example, let's assume one permit was not granted because the person never provided the necessary parking plan. The letter would notify them of that fact. To be clear, this is an integrated, sophisticated letter merge system. It uses mailing data from county tax rolls for contact information and draws real time data to merge into the form. It is not emailing people based on some "Contact Host" button, or some other shimmed implementation.

Canned campaigns also exist. For example, there is a canned campaign to send out notification letters 3 months (configurable) in advance of an expiring permit.

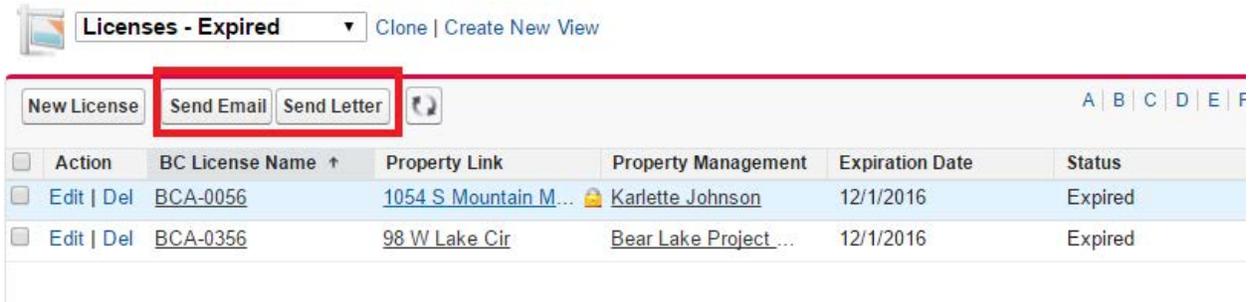
And because STR Helper is linked to the county GIS database, the letter is mailed to the owner's address, not necessarily to the physical address of the advertised property.

There is no limit on the number of letters that can be generated.



Send STVR correspondence on behalf of the City. Correspondence must be saved in a secure manner and be easily reviewed and retrieved.

STR Helper can send communications based on criteria that you specify. For example, you might want a mailing to ALL permit holders. Similarly, you might want a mailing to all non-compliant advertisers. You can specify the criteria and build the template for the mailing (email or printed mail), and the system will manage the merge function to send the communication, filling in the relevant variables, such as name, address, parcel number, etc. So long as the variable is a column in the database, it can be merged into the communication. There is no limit on the number of copies that can be generated.



Tax Compliance

Capability and tools to identify Transient Occupancy Tax (TOT) under-reporting based on publicly available information.

STR Helper provides a series of alerts which flag property owners suspected of under-reporting transient occupancy tax (and other applicable taxes). It should be noted that there is NO definitive means of identifying under-payment based on publicly available information. This may be further complicated if the town is working with Airbnb on collections. These remittances are non-auditable and *anyone* can plausibly claim that all their listings are coming through Airbnb and short of a detailed bank audit, there is no way to disprove it. However, there are algorithms that we have developed to identify people that appear to be under-reporting. Based on several factors – placement in the sort order, reviews appearing during a certain period, etc – that when combined with occupancy data can reveal whether all taxes are being paid appropriately. This is one area where integration to tax collection systems can work particularly well (see earlier comments on our API).

To be clear, we can report on the *ESTIMATED* tax, based on occupancy, average nightly rate during a given month and the local tax rate. However, this is just an estimate. It may be that days shown as booked in the calendar are for personal use and are therefore tax exempt. We then are able to import *actual* remittances and select candidates for audit.

In other cases we have found people suspected of under-reporting claim that they are renting for more than 30 days. In many cases, we can use things like multiple reviews in a given month as proof that they are renting for shorter increments.

Nonetheless, this is nothing more than an estimate. We are extremely reluctant to accuse anyone of tax fraud. We will however provide a basis for selecting properties for audit.

Have the capability to allow complainants to easily share evidence of alleged short term rental ordinance violations (i.e. video, photo and audio evidence) with the city.

STR Helper offers a complaint portal that allows community members to document and submit evidence of ordinance violations, particularly as they relate to noise, trash, parking and occupancy limits. The interface requires that the user enter the address of the property in question. The system records the date/time stamp of the submission. This evidence could take the form of video, photo or audio files, along with a description of the violation. The evidence is routed both to appropriate administrators and is also archived in the property file.

System

Provide city personnel 24/7 access to the City's short-term rental related data and services through a secure web interface.

STR Helper is built on Salesforce's Force platform. All interfaces are browser based and responsive top mobile devices. This of course means that the interface is always available from any device from any place. One of the primary reasons we chose to build on Force is the built-in security. The system has world class security protection that includes among other things authentication/login and administrative rights that provides robust access control facilities, restricting certain functions to certain users. Passwords can be changed and administered on-line. In addition to being secure, STR Helper is hosted on AWS which provides massive redundancy and global mirroring. The result is a highly secure platform with 24/7 uptime.



To access this page, you have to log in to Salesforce.

Username

johnspencer@strhelper.com.test

Password

.....

Log In to Sandbox

Remember me

[Forgot Your Password?](#)

[Use Custom Domain](#)

Conclusion

We have built a product focused on the myriad complications associated with regulating short term rentals in a rapidly evolving marketplace. We are candid about what we do, what we will not do and what we are in the process of implementing. We partner very closely with our customers at all phases of the sales, implementation and support process – we are confident that our references will testify to that.

The process of building and implementing short term regulation software is fraught with problems. We come from the world of municipal government and understand those issues. We have also hired engineers and product managers with decades of enterprise software experience. The combination of first-hand operational knowledge of short term rental regulation and enterprise software experience makes us unique among our competitors.

We have taken the approach of building depth into our product to ensure that when we say someone is non-compliant, we are very certain they are non-compliant. We take great pains to communicate to our customers the limitations of our model, which we continue to address daily. However, today, the limitations are the limitations. For example, our process for verification of listings is both unique and as close to fool proof as exists. We go through an exhaustive technical and manual process to link any advertised property to a known GIS parcel id. There is no question that the ad we have identified is in fact the record in the tax rolls. Sending a notification to someone who honestly is not renting their house is something we take great pains to avoid.

In other cases, for instance tax under-reporting, we work closely with our customers to communicate the limitations of the system. We continue to explore statistical measures that will allow us to better identify under-reporting but today we are limited to elements we track within the advertisement universe. However, today the approach has its limitations.

Our product and affiliated services continue to evolve. We are constantly working with both customers and prospects to implement new features. Our Agile-based development methodology allows us to identify and implement new features continuously. However, we will not intentionally misrepresent any feature set or sell “vaporware.” As we grow, we also continue to add resource. We are well financed and growing revenues quickly, which allow us to add development resource. That said, as in any software enterprise, the more code that is developed, the more maintenance and support is required, so this is not necessarily a linear cycle. For example, our implementation of zones *today* is simplistic and limited. We are in the process of developing a far more sophisticated approach to this problem as multiple jurisdictions have requested the same feature. We believe that in the next 6-8 weeks we will deliver the most sophisticated solution to this problem available.

Finally, there are some features that we will continue to work with customers and prospects to prioritize. If it is deemed to be critical for either legal or operations reasons, we will commit to the feature and communicate an expected delivery date.

Software, more so than most conventional products, is constantly evolving. As a result, our relationship with our customers is critical. Our ability to understand the needs of the marketplace, implement those features that meet those needs and communicating closely with customers to set expectations will determine our success. We are committed to an open, honest relationship with our customers.