



HOW AI AND AUTOMATION ARE REVOLUTIONIZING THE SHORT-TERM RENTAL INDUSTRY



Impressum

How AI and automation are revolutionizing the short-term rental industry

A PhocusWire report sponsored by Avalara.

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Introduction

Shaping the new era of short-term rentals

The short-term rental (STR) market is shifting from the pandemic-fueled growth phase to a more mature, competitive landscape. As inventory continues to grow and traveler preferences evolve, hosts and property managers (PMs) are encountering increased competition; not only from one another, but also from hotels and other accommodation providers. Succeeding in this new environment demands data-driven strategies and streamlined operations. AI and automation can help deliver both.

However, for many STR hosts and owners, profit is not a primary driver and as such tech investment is not always a priority. According to the [Phocuswright U.S. Short-Term Rentals 2025 report series](#), only 45% of STR hosts are seeking profit. Twenty-eight percent are looking to subsidize monthly home expenses and 27% want to cover their rental expenses, such as mortgages. Even for those looking for profit, it is more likely to serve as a part-time income or extra spending money, rather than a full-time salary.

Phocuswright's analysis, based on surveys and interviews, found that most tech adoption has taken place among hosts who are part of a larger property management portfolio or who have grown their portfolio beyond a small set of properties and are looking to drive efficiencies.

Yet even single-property hosts can benefit from tech investment—not only by improving profit but also in driving efficiency and ensuring regulatory compliance. There are many advantages of operating an integrated tech stack whereby solutions can work seamlessly to simplify the complex business of running a rental property. Such technology can help properties to gain competitive edge.

“Avalara’s lodging business covers the full STR community: the hosts and owners, the property managers and the platforms that distribute their inventory. Everyone is seeking less friction and clarity, with an aim toward making it easier to be tax compliant and optimize around the consumer,”





said Nicole Rogers, general manager of lodging at Avalara. The company provides solutions to help STRs automate and manage lodging tax calculations, compliance and filing to ensure accurate and timely tax reporting across multiple jurisdictions.

Operational best practices in the STR industry are still developing as new tools and technologies enter the market. Since the pandemic, STR operators have increasingly invested in direct bookings, experimented with AI and reassessed their balance of in-sourced versus outsourced services. And that tech adoption increases as hosts scale up and can no longer rely on manual processes.

While hotels have long used ancillary revenue streams to boost margins, STRs are still refining their core offerings and have been slow to adopt similar upselling tactics. Rising costs, tighter margins and increased guest expectations are pushing more STR operators to explore alternative revenue options.

[A 2024 report from Hostfully](#) revealed that 73% of vacation rental operators utilized AI tools such as ChatGPT, with 43% integrating AI features into their property management systems. AI is helping many streamline operations and improve revenue, especially in guest communication and marketing.

The Hostfully report highlighted an industry shift toward multi-channel strategies, tech adoption and direct

engagement with guests to sustain growth and profitability. Economic challenges are forcing market adjustments, with technology, particularly AI, proving crucial for competitiveness.

The Phocuswright report shows that more than two-thirds of STR hosts used AI for management last year, primarily for analyzing earnings and metrics.

Platforms such as Airbnb and Vrbo are using AI and automation to keep the industry front of mind, optimizing listings and delivering a more personalized search experience.

“With AI and automation, I believe we’re realistically in the first inning, but we’ve already identified ways it can help our travelers, partners and internal teams,” said Tim Rosolio, vice president of vacation rental partner success at Expedia Group.

“Today, AI is making the search and selection experience even more seamless for travelers. For partners, it’s making onboarding easier with tools that help create first drafts of property descriptions. Internally, it’s helping drive even more efficient service via AI-powered chatbots,”

There are many ways in which PMs are using AI for their portfolios, including sales, marketing and property management, regulatory compliance and tax automation.

This white paper covers each of them.

Streamlining property management

Property management systems (PMS) can help STR hosts and PMs to both manage their properties easier and boost profitability. Yet, according to the Phocuswright U.S. Short-Term Rentals 2025 reports, only a third of hosts currently uses as PMS, while 25% intend to adopt one soon.

Dedicated vacation rental PMS' such as Streamline and Hostfully provide a range of tools and features that can help hosts and PMs with common challenges like guest communication, pricing and maintenance.

Streamline by Inhabit is a PMS built for enterprise grade vacation rental businesses. The company launched its latest innovation, Streamline One, an all-in-one solution for STRs, in October 2023.

The all-in-one platform provides a unified solution, minimizing vendor complexities and offers simple process improvements like one invoice for simplified billing and a single point of contact to help if questions arise.

"Streamline One marks a pivotal step forward in short-term and vacation rental management. It merges our industry expertise with innovative technology to deliver a unified solution that meets the needs of large property managers through a simplified all-in-one solution," said Lisa Stinnett, CEO of Inhabit, at the launch. "Our goal is to provide property management companies with the means to efficiently grow their businesses while focusing on continuing to scale their business."

The Streamline PMS platform includes eight technology solutions handling everything from payments, integration of travel protection and property protection programs.

Features of Streamline One include revenue management, payments and guest verification, insurance, website design and marketing solutions and call solutions.

Hostfully offers cloud-based business management software for PMs. Its solutions distribute rental inventory to Airbnb, Vrbo and Booking.com, manage payments with Stripe and provide a personalized guest experience with emails, SMS and a digital guidebook.

At its core, Hostfully serves as a centralized platform that automates and organizes many of the time-consuming tasks involved in running STRs. For example, it enables users to manage bookings across multiple channels through a single dashboard, reducing double bookings and manual updates. It also simplifies guest communication with automated messaging, digital guidebooks and scheduled responses, helping deliver a more professional and consistent guest experience.

On the backend, Hostfully helps with task co-ordination, such as scheduling cleaning, assigning tasks to team members and syncing calendars—all of which reduce operational friction. It also integrates with a range of tools for pricing optimization, payment processing, marketing and analytics, giving hosts and managers better insight into their performance and helping them make smarter business decisions.

Dedicated vacation rental PMS' help STR operators save time, reduce errors, scale their operations and offer a more seamless guest experience, all from one powerful, cloud-based solution.



Boosting business, improving market reach

Dedicated STR marketplaces such as Expedia Group's Vrbo or Airbnb can help hosts and PMs to better promote their properties, using AI and machine learning. Most hosts (80%) distribute their properties via these specialized STR marketplaces.

These marketplaces use AI to analyze guest reviews, property features and listing data to help hosts optimize their listings. AI tools can autogenerate interesting descriptions, select the best photos and adjust keywords to improve visibility and attract potential guests.

"Guest experience is key when enhancing visibility. At Vrbo, we like to reward hosts who consistently provide exceptional traveler experiences. We help hosts do this by providing intuitive listing tools and performance insights to help partners fine-tune their listings and make data-driven business decisions," Rosolio said.

In 2025, Expedia Group is expanding its promotions suite, which will enable its vacation rental partners to target the travelers they want and better drive bookings. Expedia Group also offers STR hosts and owners AI-driven revenue management insights, to help them price competitively.

"It's no secret that AI and automation give hosts a distinct edge in today's competitive lodging market. We work hard to give our partners the right tools for success, including AI-driven pricing recommendations that adjust rates based on real-time insights of supply, demand and seasonality in the market," Rosolio said.

AI-based recommendations can also improve the experience for both hosts and guests. Expedia Group offers its One Key loyalty program, which uses information about travelers' previous clicks, trips and experiences to personalize future search results.

"This leads to more seamless selection and more satisfying stays for guests and ensures that hosts' listings are shown to travelers most likely to convert. It's all about creating better alignment and boosting success for everyone," Rosolio said. "We know that gen AI recommendations will be a big part of the shopping experience in the future and we're leaning into that."

According to Rosolio, Expedia Group is seeing rapid innovation in areas like predictive analytics, which enable hosts to anticipate demand and adjust their strategies. In addition, AI-generated content, such as property descriptions, headlines and image selection, is reducing the time and effort required to create high-performing listings. However, Rosolio stressed a human touch is still required.

"One interesting test we did was on hero images," he said.

"While AI recommended images of oceans and pools, which is great for hotels, we know a large part of our value proposition for vacation homes is its actual home features. The lesson learned here is to use AI, but make sure you get it right."

Driving tax efficiency and regulatory compliance

Technology can help hosts and PMs to simplify administrative tasks, such as invoicing, reporting, accountancy and taxation.

Cost management is a major challenge for STR hosts, with many struggling with maintenance, operational, and unexpected expenses, according to Phocuswright's U.S. Short-Term Rentals 2025 report series.

More than half of STR hosts are still improving their budgeting skills. While most hosts are confident in their regulatory compliance and want to be seen as responsible community members, regulations remain a significant concern: nearly half have had to change their business models and over half worry about future impacts.

Most hosts feel confident about their permits and tax filings. Hosts of investment properties more commonly use tax software while those with three or more listings typically use accountants.

"Whether you are a small property manager, a large-scale property manager or an individual owner with a couple of properties, you've got to understand the compliance landscape, because the costs associated with an audit are real, and they can be quite painful," Rogers said.

"There's always going to be new tax changes and obligations for OTAs, marketplaces and also the STRs and the owners themselves," she added.



Rogers advises that STR hosts and PMs participate in their local community so that they are aware of upcoming changes and can play a role in shaping change.

“Engage with your local STR advocacy groups. Get familiar with the legal processes in your community. Talk to policymakers, and make your presence known. Be part of the conversation,” she said.

While hosts and property managers work to stay on top of changing regulations, their state and local governments are beginning to utilize modern, AI-powered systems to track tax collections and identify those not complying. Now, more than ever, STR operators need to do their due diligence when it comes to tax remittance.

In the United States, [GovOS](#), for example, provides software to state and local governments to track rentals in their communities. This enables them to identify who has paid taxes, holds relevant permits, etc. and those who do not.

GovOS provides end-to-end support for compliance management, helping state and government entities connect with property owners directly, while also facilitating online tax payments for STRs.

With jurisdictions now adopting AI-based systems to monitor compliance through solutions such as GovOS, hosts and PMs need to be even more attentive to tax and permits. Not being on top of compliance could lead to costly fines and permit suspensions.

Getting to grips with taxes

Almost one in five hosts cite difficulty grappling with tax rates and one in 10 with tax regulation compliance, according to the Phocuswright U.S. Short-Term Rentals 2025 report.

Hosts have an increased likelihood to struggle with tax regulation compliance if:

- They have larger portfolios (8% 1-2 properties, 15% 3+)
- Properties are fully managed (14% fully managed, 13% partially managed, 8% independently managed)

Avalara provides cloud-based solution to calculate U.S. sales tax rates, prepare returns and manage documents.



Lodging tax compliance is a growing challenge for STR operators, especially as tax regulations become more complex and portfolios expand across multiple jurisdictions. A comprehensive, all-in-one compliance solution allows operators to manage licensing, tax calculations, filings and remittances seamlessly through a single platform.

Avalara's MyLodgeTax solutions help STR owners and property managers keep up with tax rules and rates, due dates, filing requirements and more.

This approach simplifies compliance by reducing manual effort and helping businesses stay current with evolving regulations. It enables operators to maintain accuracy, avoid costly penalties, and operate more efficiently, even as market demands and regulatory environments shift. The system's scalable design easily accommodates new properties, ensures compliance and tracks filing statuses across regions, minimizing administrative overhead.

By consolidating revenue and booking data from platforms like Airbnb, Vrbo and integrated property management systems, operators gain centralized visibility into their compliance obligations. This improves reporting accuracy, streamlines workflows and ensures that tax-related tasks are completed on time and in line with jurisdictional requirements.

Regularly updated tax rates and jurisdiction-specific rules further support accurate filings. The platform not only automates licensing, permitting and remittance but also reduces the risk of errors that could lead to financial or reputational damage.

Additionally, expert support is available to guide operators through complex tax agreements, manage communication with tax authorities and stay informed about changes in local and national tax policies. Whether managing a single property or a large portfolio, STR operators can ensure compliance with this end-to-end solution.



Harnessing AI and automation to elevate the short-term rental business

AI and automation provide substantial benefits to STR operators by streamlining operations, improving guest experiences and increasing profitability. These technologies enable dynamic pricing based on real-time demand, automate guest communication and reviews and optimize scheduling for cleaning and maintenance. They also support smarter decision-making through predictive analytics and revenue forecasting.

“There has certainly been a shift toward more sophisticated, data-driven tools and hosts are now able to truly curate what they need. Whether they’re looking for a light touch or full-service options to scale their business, hosts are now able to ‘choose their own adventure’ when it comes to choosing tech-enabled solutions for everything from housekeeping to pricing and distribution to servicing,” said Expedia’s Rosolio.

By reducing manual tasks, such as responding to inquiries, adjusting rates or managing bookings, operators save time, minimize errors and can scale more efficiently. Ultimately, AI and automation help STR businesses operate more professionally, stay competitive and deliver consistently high service across properties.

Operating an integrated tech stack, combining platforms like Streamline, Vrbo and Avalara, simplifies the complexities of running a STR business by centralizing operations, automating key processes and improving overall efficiency.

“Vrbo integrates with Avalara to automate the complex process of lodging tax compliance. The integration helps ensure that the correct taxes are calculated, collected and remitted. Not only does Vrbo use it, but I use it as a host myself. It’s an easy-to-use piece of tech, and it does everything for me,” Rosolio said.

An integrated tech stack enables data to flow seamlessly between systems, reducing manual work and errors, while automating tax compliance and reporting across jurisdictions.

Adopting technology and harnessing AI and automation helps STR operators to manage more properties with ease, make smarter decisions through real-time insights and enhance the guest experience. Ultimately, it allows STR businesses to scale efficiently, stay compliant and focus on growth.





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Technology and distribution form the backbone of travel, tourism and hospitality, the planet's largest industry. The PhocusWire team and our colleagues at Phocuswright have been immersed in travel technology and the ongoing digitization of the industry for decades.

PhocusWire's daily content keeps our readers up to date on breaking news while also providing broad coverage of every sector of the global travel industry, including data, expert analysis and a strategic focus on innovation and startups, all supported by Phocuswright's deep, research-driven assets.

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Avalara

About Avalara

Avalara is redefining how businesses manage tax and compliance by embedding AI agents directly into the tools, systems, and workflows where compliance occurs, including ERPs, ecommerce platforms, POS solutions, email applications, and web browsers.

Backed by a legacy of 20+ years of providing innovative solutions for tax and compliance, these agents don't just assist — they complete tasks and do the work. Using expertise, speed, and precision, Avalara agents calculate taxes, file returns, validate data, and manage jurisdictional rules and global e-invoicing requirements for businesses worldwide.

With one of the largest and regularly updated collections of tax content, Avalara Agent Tax and Compliance™ is trusted by over 43,000 businesses in 75+ countries. Learn why at Avalara.com.

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