



# The Technology Stack of the Future

By Matt Landau & Terry Whyte



## Introduction

Your relationship with technology is a strong indicator of your survival and growth.

If you understand what tools are available and right for the job, **you can solve almost any problem.**

Oppositely, if you fail to understand (or overlook) these options, you are at a tremendous disadvantage and prone to burnout (we see this happen all the time).

The tools available to you today are greater than any small business owner in the history of humankind-. but it is up to you to chose to start augmenting your business now with these tools so you are ready for what tomorrow brings

### **But here's the big problem...**

Unless you are a vacation rental software nerd like Terry Whyte, you're not out there doing demos with every software on the market. You don't enjoy the research process because that's not your job: you've got guests to take care of and owners to impress!

When it comes to building a technology stack you want to spend the **least amount of time possible** putting together the **best tech solution on the market** to fit **your unique needs.**

Tying to achieve this balance can be delicate, if not frustrating. Which is why it's helpful to have a guiding principle to calibrate your various decisions.

This short research paper introduces just that: a new way of looking at the software assembly process that we call "The Agile Approach." It's a principle you can use today and every step of the way to building your ultimate vacation rental tech stack. We've broken down the process into 5 steps.

First, the elephant in the room...



## Step 1. Accept The "All-In-One" Misnomer

No Rental Property Management Software (RPMS) does everything best-in-class.

Your dream would be one software that does it all. Just because a property management software says it does all the things, does not mean it actually does all those things best in class.

Sometimes the advertised features of "all in one" softwares are better replaced with a third-party company: a specialist or sharp-shooter whose sole purpose is doing that one job exceptionally well (we'll dive into this in a moment).

For example, many RPMS solutions will say "yes, we have a guest portal" to which you want to ask to see exactly what the guest will see upon logging in. Because oftentimes, it's not usable.

To be clear, anytime you streamline your operations with a property management software, you are moving in the right direction.

Accepting that no single software can do all the functions best-in-class shifts your focus to the next best thing: piecing together a lean, powerful, and agile technology stack.

## Step 2. Understand "The Agile Approach"

Leveraging technology without impeding your growth

Most tech-savvy vacation rental managers use a technology stack: an assembly of tools to maximize revenue and streamline or automate operations. The purpose of a great tech stack is not to replace you or your staff, but rather to augment what you do by helping to take care of certain things and freeing up time to focus on the Limited Edition hospitality activities that guests will notice -- the touches you "get credit for" in reviews and repeat bookings.

*The Agile Approach* is a method of building your technology stack so that you can move quickly and easily when you hit a roadblock

Maybe one function isn't working well: maybe a company lets you down or gets acquired or goes out of business.

By making your software selections with *The Agile Approach*, you prepare the opportunity -- now or whenever the time may come -- to use the best company available for the job.



Being agile is our favorite adjective for success in today's software climate because things are changing so quickly. *The Agile Approach* is a way to take advantage of all the innovation and ride the wave.

The Agile Approach is not a technique but a language: it provides a framework or a "safety net" for you to move beyond familiar limits. And while this research paper will apply the thinking to building your technology stack, we encourage you to go further and apply The Agile Approach logic to other spheres of your business.

## Step 3. Choose A Strong RPMS

Identify which features don't meet your needs

A strong RPMS is the core pillar of any agile vacation rental tech stack. Think of it like the transmission of your car: it takes all the parts together and puts the power to the road.

You cannot build a car (or a vacation rental tech stack) without one.

RPMS solutions handle the big, heavy jobs like distribution, accounting, taking online reservations and processing the payment...etc.

But our first mantra (*there's no true all-in-one*) reminds us: **there will be features (of even the best RPMS solutions) that do not meet your needs. No one RPMS is perfect.**

If you're already using a RPMS, you know which features are not satisfactory (move on to Step 4). If you're currently in the selection process, create a list of the critical features that a RPMS must handle (such as trust accounting), the features that you are open to working with a 3rd party tool, and the features which aren't important to you. We will cover this more in Step 4, but in order to build the tech stack that you need for your Limited Edition business, make sure the RPMS has a policy for allowing 3rd party tools to access the RPMS via an API integration (in simple speak, an API is a door that allows two pieces of software to pass information back and forth to one another).

Once you know your prioritized list of features, to reduce uncertainty you need to dive in. We recommend demos with several companies before a final decision and during those demos, have them show you exactly what each function does, almost as if you were the guest on the other end. You must actually see this for yourself (as opposed to just taking their word for it). We're often surprised how many modules and functions are borderline unusable.



Identifying exactly which features of your chosen RPMS are not satisfactory is necessary before assembling your greater tech stack. If you don't know your problems, it can be distracting to look for solutions.

## Step 4. Assemble Your Tech Stack

Using “plug-and-play” third party tools

After identifying which functions of the RPMS do not satisfy your needs, you'll want to begin thinking about the spheres of third-party software that fill those voids.

The phrase “plug and play” describes the nature of most third-party tools that can be activated as soon as you plug them into your RPMS.

**Third-party “plug and play” tools is where the emerging vacation rental tech market really shines:** and depending on your tech fluency, this is when a healthy dose of demos and experimentation is worthwhile.

After all, taking advantage of this innovation is what *The Agile Approach* is all about: your ability to try new solutions, pivot when you hit a roadblock, and react quickly to opportunities and failures. Both today (with the options currently available) and in the future (whatever new innovations may arrive).

**The Agile Approach is about giving yourself options.**

Which leads us into the meat and potatoes of this research paper: the components of the ultimate technology stack.

## Step 5. Understanding The Main Components of the Ultimate Tech Stack

Understanding the main components of the vacation rental software market will make your research significantly less overwhelming.

A strong property management software is your backbone (check out our latest [Keystone Awards 2021](#) for some of our favorites).

But in addition to property management software, we've outlined the other categories of third-party software that we feel best fill in the gaps or areas for greatest improvement.



**Please keep in mind** that each of these categories are still evolving -- and there are others that may soon be added to the list -- but seeing them on paper is the important first step.

Each category consists of a brief description, as well as some questions you should ask during your demos.

**Note:** These are all very young companies (relatively speaking). And like any young company, they are trying their best to keep up with growth. It is not uncommon to encounter glitches or to experience longer-than-desirable wait times, but if we've learned one thing from research it's that being patient and supporting (both morally and financially) the companies that you like is necessary to get through growing pains.

## 1. Rental Property Management Software

A strong RPMS is the core pillar of any agile vacation rental tech stack. Think of it like the transmission of your car: it takes all the parts together and puts the power to the road. You cannot build a car (or a vacation rental tech stack) without one. RPMS solutions handle the big, heavy jobs like automation, accounting, taking online reservations, website building (unless you are building your own with Wordpress/Wix/Squarespace). It would be easy to write a full report only about this category, but for that we have the Keystone Awards 2021.

### **What to ask during demos:**

- Many vendors advertise a flat fixed rate on their website but then add on a plethora of additional fees, so ask about all of the following candidly up front (estimated numbers in parenthesis)
  - Channel Fee (1-3% of bookings to maintain an API connection with each channel like Airbnb & VRBO)
  - Website Fee (\$250/mth to host your website and maintain your booking engine for direct bookings)
  - Startup or Data Import Fee (\$5,000 to help transition all your listing data, images, and automations to the new application)
  - Training Fee (\$999 to train you and your staff on the new application)
  - Text/Data Fee (assessed per text sent to guest)
  - ESign Doc Fee (\$1 assessed per booking when using digital signatures)
  - Many times these fees can be 2-3x the base software rate advertised depending on your booking revenue. These fees are negotiable and should be minimized to get the most out of your software budget.
- If some feature is "Coming Soon!" Assume it doesn't exist until it is fully functional and live. Otherwise, you might be waiting a very long time for that feature you were banking on.
- Ask how many clients are actively using any "super cool new feature"
- Ask if you can demo the mobile app (many are funky)



## 2. Smart Home Automation

Smart home automation means smart locks, cost control measures with A/C thermostat control, A/C door and window sensors, connected intercoms, and protection from lost rental income and costly maintenance issues with leak monitors and more. In the post-covid era, a strong smart home automation solution is invaluable -- it's one of those total game changers that allows you to be the best steward of any homeowner's property -- you will never be able to go back.

*Author's Note: This category is where we fully endorse PointCentral, who's now made it [easier for smaller property managers to purchase](#) and use their professional grade secure and reliable property automation tool for keyless locks, thermostat control and much more.*

### **Brutally honest questions to ask during demos:**

- Which RPMs do you integrate with?
- What services do you provide (keyless entry on the home and in any common areas like intercoms at gates, contactless check-in/check-out, work order/cleaning tracking, , thermostat scheduling , predictive HVAC analytics, water leak detection, pool/spa heat scheduling, noise monitoring, WiFi monitoring, fridge temperature monitoring, voice control, lighting control, doorbell cameras, monitored life safety services for burglary/smoke/fire/CO,...etc.)
- How do you charge? Is it for hardware and software, up front or ongoing?
- What policies do you have around data privacy (is any data sold, are you CCPA compliant, is your firm follow SOC-2 Type II compliant, etc)?
- What type of audit history is available for guests, staff and vendors?
- What types of digital keys (codes, apps, etc) do you support for guests and staff? How do you make sure these keys are secure?
- How do you ensure reliable control of the devices in the home?
- When I need help, what are your support options?
- What ROI should I expect from your system? What drives this ROI (guest fees, shifting maintenance from reactive to predictive, removing key management and check-in/out desk costs, saving owners money, improving the value and marketability for the home)

## 3. Distribution

A good distribution tool alleviates the time and energy strain of trying to control multiple on multiple advertising outlets. Third-party distribution is most commonly associated with channel managers, which are tools that manage your various listings across any given Online Travel Agency (OTA) channel or "listing site." But distribution technology also includes email marketing & newsletters, and Pay-Per-Click Advertising (Facebook/Instagram, Google) integrations. There's a lot of room for third-party distribution specialists right now.

### **Brutally honest questions to ask during demos:**

- What channels do you connect with? (The more the merrier)



- What's the cost of the distribution? Is it subscription or pay-per-booking?
- Regarding "secure messaging" -- is the inquiry coming directly into my RPMS? Or do I need to log into the OTA to correspond with the inquiry?
- 

## 4. CRM

Archiving a guest's details after the booking is made, being able to communicate with them before arrival, when they're on-site, and after when they depart -- this is synonymous with retention! A great CRM solves your nurture marketing challenges by being more personalized in building rapport, automating Limited Edition gestures and generating more sales. Sadly, most rental property management softwares have suboptimal CRMs. A great CRM tool solves the pain of trying to piece together each step of the guest's journey across multiple platforms and personalize marketing to those guests.

### **Brutally honest questions to ask during demos:**

- Can I see the process of creating email marketing campaigns from the CRM?
- Do you integrate with any third-party dropshipping companies (great for gifts, surprises, or parting thoughts)?

## 5. Guidebook & Guest App

It's all about the guest experience, right? A digital guidebook or guest app should be where your guests log into their own guest portal and get every bit of information that they need: directions, restaurant suggestions, activities, tours, things to do, what they paid to date, their outstanding balance...etc. The guidebook or guest app is a great example of a module that most property management softwares offer that's unusable. Often, a guidebook or guest app is where you want to plug and play.

### **Brutally honest questions to ask during demos:**

- Can I see what the interface looks like: both as a manager and as a guest?
- Is your software accessed via an app or is it browser-based? (We prefer web-based)
- Does everything have a place inside the guest book (reservation details, balance, money owed, photos of property, clock countdown to booking arrival, activities/tours, restaurants...etc.)
- How easy is it to populate and edit the guidebook or guest app?
- Can guests communicate back with you from inside the service? (This makes it easier for guests to reach out)





## 6. Revenue Management

Revenue management can be broken down into two main categories: Pricing tools (also known as dynamic pricing) & market data (tools that aggregate data) which work in conjunction with one another to make for the ultimate revenue maximization. As a whole, revenue management is probably the most sought after component of the agile tech stack because it's the single component that will generate the most profit. A great pricing tool solves the chaos of trying to adjust your rates manually (it does so automatically) and great market data gives you intel to make human decisions. The difference in cost structures (and impact to your bottom line) from revenue management companies can be staggering, however.

### **Brutally honest questions to ask during demos:**

- For the pricing tools, ask "where is your data coming from?" Too often it comes from only Airbnb. The more channels the better.
- For the pricing tools, ask if they are subscription-based or percentage of booking (and take this into account: paying a percentage of every booking versus a recurring fixed rate can be massively different numbers)
- For market data companies that often will show "too high" or "too low" pricing suggestions, ask them if they can suggest a specific price per night?

## 7. Housekeeping & Maintenance

Almost all property management softwares offer a housekeeping/maintenance module and few are even usable: without having a housekeeping & maintenance app bolted onto your RPMS, you're just asking for big trouble (reviews can kill). This is a component of the ultimate tech stack where it's REALLY WORTH taking a deep, deep dive and have a clear understanding of what the third party company can and cannot do. Plug and play agility is flexing here.

### **Brutally honest questions to ask during demos:**

- What RPMS do you integrate with?
- What features do you offer? (such as checklists, photo validation...etc.)
- Can I see the interface (as a manager and as a housekeeper/maintenance)
- How do we communicate: app, email, text messaging?
- Can I see the work order scheduling process (for a manager and a housekeeper)?

## 8. Credit Card Processor

An agile property management software should have several credit card processors so if something goes wrong with one of them, the ability to move in another direction is available to you. The single biggest mistake we see here is a RPMS with an integration with a single credit



card processor. The 10:1 chargeback rule is where one credit card processor will drop you (so if you have no back-up integrations, you're screwed). If your RPMS does not have an integration with at least three and preferably four processors your business is vulnerable. This third-party credit card processor is as close to "a given" component in any tech stack.

**Brutally honest questions to ask during demos:**

- Walk me through the chargeback process? What happens from start to finish?
- Do you demand to see financials seeking chargeback liability (future deposits don't count)?
- What is the chargeback ratio that you'd drop me as a client? (Example: 10:1 chargeback rule is average)
- How supportive are you with chargebacks and disputes?

## 9. Text Messaging

The preferred mode of communication in most of our researched destinations (regardless of age of gender) is text messaging/SMS. So be careful when a property management software says they have text messaging capabilities. Often, that means you can set-up a text automation for a door code or directions or some kind of communication, **but it's one way** (meaning, the guest cannot reply). This is where a third-party tool comes in super handy. Mostly it is one way meaning your guest cannot communicate with you via the most desirable form of communication.

**Brutally honest questions to ask during demos:**

- What RPMS do you integrate with?
- Is it one-way text messaging or two-way?
- If two-way, does this feature come at an additional cost (ask for clarifications)?
- How much? Is it per text or a subscription with limit?

## 10. Call Center Technology

Vacation rental management companies with 100+ properties should consider a call center because of the sheer volume of communications and the economies of scale (with regards to inquiries, bookings, and customer service). A good call center includes voicemail, texting/chat messages all in one centralized location. And when bolted onto your RPMS, it solves the near-impossible task of responding to guests quickly and accurately.

**Brutally honest questions to ask during demos:**

- Does it integrate with my chosen RPMS?
- Does it sync my emails, live chat, text messaging, emails, phone?



# Principles For Assembling Your Ultimate Tech Stack

Now that you understand why agility is such a virtue in navigating the vacation rental software landscape; you also know a strong property management software is the first step, but that a whole slew of third-party or ancillary tools are also now at your disposal; you're in a really good position to move forward.

However, before you do, keep in mind several principles that keep popping up over and over again in our research. These are rules or mantras to calibrate your decisions. Before going into any demo or having any discussion about your next moves, keep the following in mind:

- **APIs foster innovation:** The importance of the API is to connect two devices, two computers, two companies talking together. The more open a company embraces open APIs, the more agile and successful their users can be. However, truly open APIs are rare in the nascent software sector: many third-party or ancillary tools will be open, but many PM softwares have filters in place (in many cases, fees of large sums), which does tend to stifle innovation. Look for the companies who have increasingly open APIs -- these are the companies that you want to grow with.
- **There are two kinds of costs (sometimes more):** Be aware of the two different costs associated with every software: (1) the advertised cost and (2) the actual cost of using it (channel integration fees, credit card processing fees, text messaging fees, signature fees...etc.) Further, as you build your agile tech stack, be conscious of the impact on your margins: tools must generate money (or reduce costs) in order to justify prolonged use.
- **Not all third-party or ancillary integrations are critical.** It's best to rank your integration needs so you know which ones get precedent:
  - *Critical:* integrations between a RPMS and smart home automation is critical because you need codes and temperatures synced to the status of the property. Whereas an integration between a RPMS and
  - *Would be nice to have:* integration between a RPMS and noise control would add great value but could also work independently
  - *Strings attached:* integrations in which you need to sacrifice a workflow due to unintended side-effects
- **This is hard.** Assembling a tech stack requires patience and curiosity. The good part is that the solutions are there! It takes work and a lot of research, but knowing what you're looking for and finding the right mix is not insurmountable. The companies that are using the best tools excel beyond competition.



## Conclusion

In conclusion, The Agile Approach is a way of building your ultimate tech stack today and into the future: it is a method or prism that helps you make decisions that make more money using optionality or the agility to pivot quickly when you hit a roadblock. In this research paper, we have learned that in order to embrace agility we must...

- Accept there is no true “all in one” property management software if you want to do everything best-in-class, and so...
- Choose a strong property management software as an agile core (if you choose one from the Keystone Awards, you’re on the right track) which allows you to...
- Take advantage of the bountiful emerging third-party software market...
- By bolting on the best tool for any given job.

Because this third-party tools market is so new, the options are all over the place and overwhelming.

And so, we broke down 9 main categories you’ll want to be aware of. Like a roadmap or blueprint, just about any company on the market falls into one of these spheres.

This means, that as long as you know the area of your business you want to improve, there is likely a software to help you do just that

We encourage you to use The Agile Approach to orient yourself when you’re feeling overwhelmed: recognize that while the vacation rental software market may seem haphazard, you now have a map to the galaxy and that galaxy is maturing day-by-day.

Use our demo questions to truly understand any given product you are looking to use.

- Ask them to repeat anything you don’t understand
- Repeat stuff back to them in your own words to truly grasp the functionality
- Demand to know the pricing structures up front

Chances are, the representative from that company will love you for it!

And lastly, if you are in need of a suggestion in any of these categories, simply email matt [at] vrmb.com with a description of your business and we’ll point you in the right direction.

Thank you for taking the time to read through The Agile Approach.

Sincerely,  
Matt Landau  
Terry Whyte, [www.vacationrentalsoftwareguy.com](http://www.vacationrentalsoftwareguy.com)



## HIDDEN TRACK

When we used to buy records and cassette tapes and even CDs, we loved the hidden track at the very end of the album: not mentioned anywhere on the playlist or promotion, this “lagniappe” (Cajun French, from Spanish la ñapa, meaning a small gift or additional quantity given to a valued customer) was always a pleasant surprise.

And we’ve decided to borrow that idea in sharing with you one last segment we’re calling BUYER BEWARE. It’s a two-part warning from one of our esteemed software advisors Mark Driskell of Mountain Time Vacation Rentals in Colorado. Mark loves technology and has experienced the prizes and pitfalls of our fragmented space. His thoughts will help guide you in the right direction.

### Part 1: Pitfalls to Consider When Selecting An Agile Property Management Software

Coming Soon!

Have you ever heard something like “Of course we offer that feature, just not now, but probably in December... of 202ish, or so... I think?” Some call this “vaporware” for applications and features that don’t yet exist but advertised as “right around the corner.”

*Pro Tip:* Assume it doesn’t exist until it is fully functional and live. Otherwise, you might be waiting a very long time for that feature you were banking on.

It’s also important to create a list upfront and distinguish between the “must have” vs. “nice to have” features. “Must Have” features are foundational to the operation of your business and may include things such as Trust Accounting and Owner Statements.

“Nice to Have” features are desirable but you can operate just fine without them. I’ve noticed a lot of PMs rule out otherwise great options because they were lacking desirable features. Distinguish between desirable and critical features and be willing to “settle” on a solution that has the best balance.

#### Hidden Fees

Many vendors advertise a flat fixed rate on their website but then add on a plethora of additional fees, so ask about all of these candidly up front.

- Channel Fee (1-3% of bookings to maintain an API connection with each channel like Airbnb & VRBO)
- Website Fee (\$250/mth to host your website and maintain your booking engine for direct bookings)
- Startup or Data Import Fee (\$5,000 to help transition all your listing data, images, and automations to the new application)
- Training Fee (\$999 to train you and your staff on the new application)



- Text/Data Fee (assessed per text sent to guest)
- ESign Doc Fee (\$1 assessed per booking when using digital signatures)
- Many times these fees can be 2-3x the base software rate advertised depending on your booking revenue. These fees are negotiable and should be minimized to get the most out of your software budget.

### Varying Quality of Features

Most vendors suggest they offer all the key features you will ever need, but a closer look will reveal many of those features can be very glitchy and even abandoned by most clients upon release. Make sure to ask how many clients are actively using this “super cool new feature”? Then ask if you can speak with those PMs.

### RPMS Fixed Price vs. Introductory Rate

Many of you may already be using a RPMS and received the unfortunate news that your 2019 “special” rate is over. Your new 2020 “special” offer comes with a 200% price increase. Yikes! Request a fixed rate upfront if possible or negotiate a tiered pricing structure with a not to exceed cap.

### Mobile Friendly or Mobile Foe?

Some applications look great on the desktop but aren't optimized for mobile. With so much traffic going mobile it's critical to have a mobile friendly application for your housekeepers, maintenance staff, guests, owners, and reservation agents. Make sure you're able to demo the mobile application on all devices as well as the desktop version when comparing options and features

## Part 2: How To Select a Property Management Software Without Going Crazy

Selecting a new property management software can be a daunting task for most business owners. However, it's probably one of the best opportunities to dramatically transform your company. Follow these suggestions to get the most out of your search.

### Get Educated

First and foremost understand the key features of a RPMS and how each of them will be used within your business (i.e. 2 way direct vs. 1 way direct integration for channel management, housekeeping/maintenance modules automations, unified inbox and CRM management, permission controls and security). I would highly recommend starting with this article from Inner Circle member Terry Whyte --> <https://www.vrmb.com/choose-software/>



Demo 3-4 good solutions, not 20!

Identify a few good solutions for your size company. With a little online research you should be able to rule out several options quickly without scheduling a lengthy demo. A basic RPMS solution for 0-50 properties should run you <\$500/mth, while an advanced RPMS can cost anywhere from \$1000 to \$10,000/mth.

Talk with other PMs, Not Just the Software Providers

Meet with 2-3 other PMs who are using the software solutions you're considering. Ask how long they have been using the software? Are there any red flags to be aware of? How quickly does the software provider address issues?

Dive In and Get Started Now!

If this is your first property management software just know that there are some great low cost solutions available right now and improving every month. Pick one and get going. You will most likely change in 1-2 years if starting small and growing fast. In general, the advanced enterprise level RPMS solutions tend to be cost prohibitive until you scale closer to 50+ properties.

Gaining experience on a basic RPMS will prepare you for operating more efficiently when you are ready to switch to a more advanced platform.