

# Transition from Legacy to Modern Technology

*The Hoteliers' Guide to a New Tech Stack*



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# Introduction:

## A new technology landscape

It's safe to say that hotel commercial teams have acutely felt the impact of two years of unprecedented challenges.

Closures and redundancies, staff shortages and supply delays, pent-up demand paired with a looming recession, and rampant inflation have dramatically shifted the operating landscape.

Through the chaos, consumer behavior has also changed. Traditional compsets have shifted and demand has become harder to predict with any level of certainty.

Consequently, legacy methods and technology that proved successful in the past are unable to deliver the same results that were assured pre-pandemic. In 2022 and beyond, antiquated software solutions face extinction – and for good reason.

It is time for hotel tech providers to modernize. Hotel software has earned an unfortunate reputation for being frustratingly far behind the times, and too little has been done about it. Software providers can no longer fall short of the mark; the hospitality industry simply needs better tools to surmount the ongoing challenges we collectively face.

**In this paper, we will examine the:**

- Key aspects of hospitality software that need to change
- Old approaches that software providers must retire
- Modern approaches that require broad adoption

# Integration

*It's critical that Hospitality systems—PMS, CRS, RMS, etc.—can connect with one another, share data, and work together.*

## The Old Way

“Seamless” integration is what hoteliers expect. But integrations are buggy, frustrating, and time intensive.

What's more, features and functionality are often lost when two systems connect. For example, some PMSs don't support inventory controls or overbooking functionality in RMSs.

All these problems stem from the fact that legacy integrations are proprietary. The “how to” part of the integration is a black box – like solving a Rubik's cube for anyone with a system wanting to connect to another one. (And you were at the behest of the software provider to do the work, according to their priorities and schedule.)

In the report h2c Research: The Future of Hotel Management Systems, when asked what improvements they would like to see in the PMS in the future, 58% of all chains rank a deeper integration with their existing technology landscape as the most important, followed by improved mobile functionalities (41%) and a more intuitive graphical user interface for operations (36%).

## The New Way

The solution is APIs (application programming interfaces) – the gold standard of integration in the modern software world.

APIs make the instructions on how to integrate public, so would-be integrators have a step-by-step guide for solving the Rubik's cube on their own. This makes integration simpler, faster, and even reduces bugs and improves security.

What's not to love?

Today, modern innovative tech providers have understood this but only a minority of hotel tech suppliers are using open APIs to allow other applications to easily connect their solutions. This makes building a fully integrated tech stack much simpler, cheaper and faster.

The benefits of these connected tools, such as saving time and making day-to-day business run more smoothly, are most often touted for front-of-house departments.

However, the same advantages apply to fields such as finance, sales and revenue management. Here, integrations allow for quick data sharing between tools and even among different departments.

# Integration

This means we finally have a solution that can help break up the well-established silo culture and enhance communication and collaboration between departments.

But there's even more ground to cover in the future.

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**“Tech providers, including PMS suppliers, have come a long way in opening up their systems for easier connections, but there's still much work to be done.**

**Some innovative suppliers are pushing the industry forward by building "API first" - planning and collaborating with stakeholders on the design of the API before any code is written.**

**These products are built with APIs that are consistent and reusable.”**

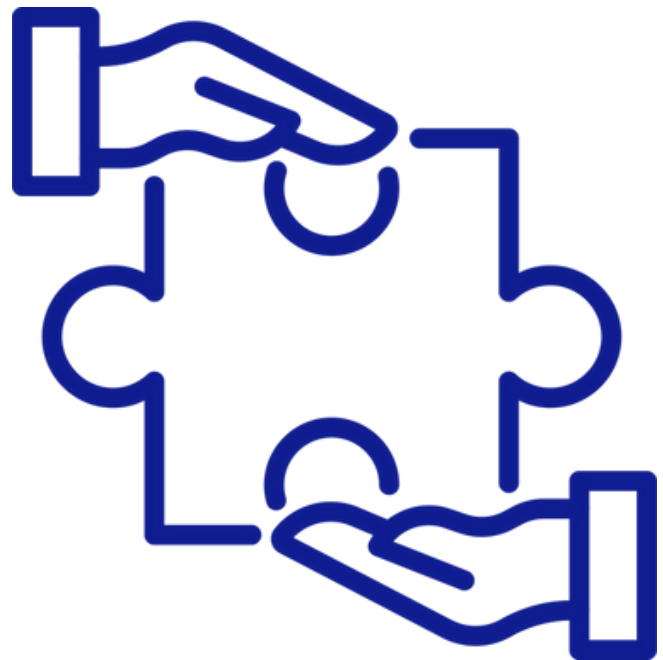
*- Brad More, CTO of Hapi*

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**58%** of all chains rank integration with their existing technology landscape as most important

**41%** of all chains want improved mobile functionalities

**36%** of all chains want a more intuitive graphical user interface for operations



# Cloud

## The Old Way

Many hotels run their PMS on a server in an IT closet – not exactly the picture of reliability. Or they have a big IT team managing data centers and servers somewhere – that’s a big, expensive effort.

## The New Way

Amazon invented cloud computing, or web services in 2006.

“Cloud” is everyone’s favorite buzzword today, but the value is very real. Cloud means you don’t need the server or the data center and team; you can instead effectively ‘rent’ as many computers as you want, when you want them, and you only pay for what you use.

This means hotels don’t need to worry about a lightning strike taking out their closet PMS, or what happens if it gets overloaded, or the overhead of a big IT/data center operation.

As stated in Hotel Tech Report's article about cloud computing, you don’t need a deep understanding of cloud technology to realize its benefits.

Cloud computing provides multiple advantages over traditional computing, such as:

No costly and painful installations

Minimal upfront investment required

The ability for software companies to focus resources on R&D/innovation

No more negative depreciation (in fact, the software gets better with age, since updates can be made at any time)

Chance to cancel at any time (plus lower switching costs for buyers)

Pushing software companies to stay focused on customer loyalty through innovation and great service

Cloud computing is also the key to embracing a modern way of working. Since teams can access cloud-based tools anywhere from any device, new opportunities in terms of clustering, outsourcing or remote working agreements abound.

In the case of revenue management, it is now easier than ever for teams in the regional office to oversee and manage multiple properties in real time. Not only do they get live access to data and performance reports from all their properties via the cloud. They can also compare data from their various hotels and use this information to form suitable strategies both at the property level and for their region.

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**“I don't even consider this whole ‘legacy vs. cloud’ thing as a problem worth discussing anymore. If you're running a legacy system, just change it. You'll have to, anyway, sooner or later. The pros? It will keep your hotel in business, and we'll be able to move on and talk about something else.”**

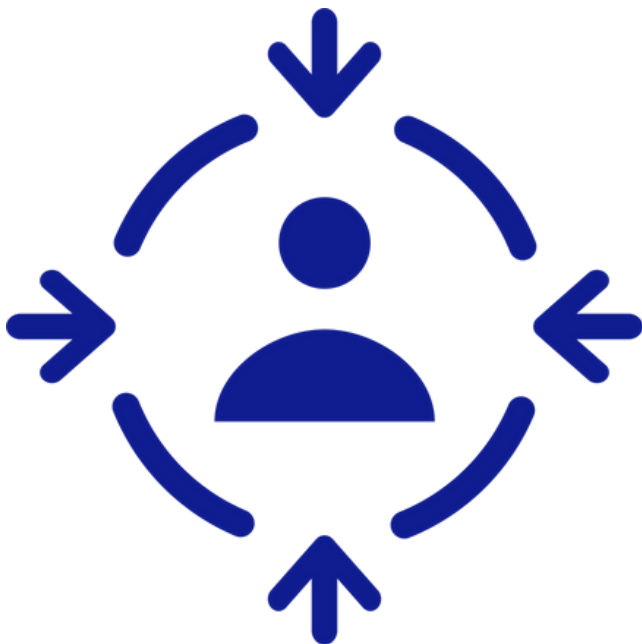
# User-Centricity

## The Old Way

Legacy technology focuses on making tasks accomplishable. How easy it is to accomplish them is secondary, if it's even on the menu.

Unfortunately, many hospitality systems are hard to use, with cluttered and clunky user interfaces that require a ton of repetitive clicks to get simple things done.

It's often said of legacy software that it requires the user to adapt their processes and workflow - when it should be the other way around.



## The New Way

In contrast, modern applications that we use every day, like Amazon and Google, are designed and continuously optimized to adapt to the needs of the user.

Ease-of-use is crucial. This is especially important because demands on staff continue to grow and many of them need multiple tools for their work. For example, most revenue managers use the hotel's PMS, a BI solution, a channel manager, and a CRS, just to name a few.

Having easy-to-use tools makes their work more straightforward, reduces the risk of errors, and helps the team to spend more time on what really matters - adapting strategies and tactics to maximize revenue.

A key piece of usability is learnability - how quickly and easily a new user becomes proficient with the software. The better a tool is, the faster the setup and onboarding time will be, both because the support is good, and the tool is easy to use.

That's why today's software should be as intuitive as Google Maps - straight-forward enough that non-experts can start using it successfully right away, by following their intuition - no user manual or complex training needed.

# Innovation

## The Old Way

Hospitality technology has earned a reputation for stagnation. It's not uncommon for software providers to tout the features they released 5-10 years ago as 'innovative' today – a sorry state of affairs in an industry that is changing moment to moment.

## The New Way

Continuous development, iterations, and innovation are the core of modern software. Product roadmaps should improve the software quarterly, if not monthly – not every few years – to respond quickly to the needs of users.

Today's modern agile software development also ensures quality; software releases that are small and frequent make it possible to find and fix defects sooner.

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**“The story of BlackBerry’s demise is one that should be heeded by hotels who question the benefits of technological change. They should ask themselves, would they rather be an iPhone, or a BlackBerry?”**

*– HotelTechReport*

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Testing new solutions has also become simpler as cloud-based systems can be demoed and even tested without a lengthy on-site installation process.

This opens the door for more hotels to get on board with novel approaches and build the tech stack that will allow them to be more competitive in terms of pricing, strategy, and customer experience.

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**“A true future-oriented platform is using a radically different approach based upon a MACH architecture. Standing for Microservices, API-first, Cloud-native, and Headless, this is a proven structured approach across industries and verticals. It opens up the freedom for any hotel group to put the ideal hotel tech stack together by selecting existing and new innovative apps, while also providing unlimited opportunities for customization and developments by using this type of platform.”**

*– Ulli Pillau, Founder apaleo*

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# Automation

## The Old Way

Completing routine, repetitive tasks one-by-one and trying to solve hard computational problems without the aid of a computer is the hallmark of legacy software.

(For revenue management professionals, one example would be updating room type and rate plan differentials by hand every time demand shifts.)

## The New Way

Modern software aims to reduce the amount of work and input required by the end user by taking on the work computers are ideally suited for – like making short work of repetitive and manual tasks and bringing enormous computational power to bear on hard problems.

This gives users the ability to repurpose their time for other work that computers are not well suited for. In the world of business, that's often strategy, creativity, collaboration, and planning.

Given that the pandemic forced many hotel teams to do more with less, this is especially important today. Automation is the best way to make this new and lasting reality easier on your staff.

In operations, this leaves teams with more chances to engage with guests meaningfully instead of focusing merely on administrative tasks. Behind the scenes, commercial departments will get more opportunities to strategize within and even across departments.

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**“So many operationally critical yet repetitive tasks exist. And those tasks require training staff when there is turnover. The more of these types of processes hotels automate, the more human staff can focus on the guest experience and guest retention, while simultaneously helping with pressure on staffing costs and ensuring consistency across operational processes.”**

*– Stephen Burke, Founder of Robosize ME*

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# Intelligence, Mobility, and Affordability

*The following are also important characteristics of modern software that set it apart from legacy technology.*

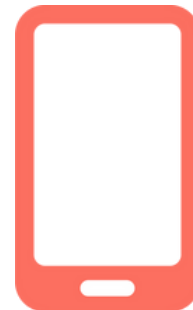
## Intelligence

Many consumer and business applications today are “smart” and employ artificial intelligence/machine learning. They instantaneously find patterns and insights in large data sets to make recommendations (ex: online product recommendations). This contrasts with legacy software that relies upon rules-based frameworks.



## Mobility

Today, users work across a variety of devices – desktop computers, laptops, and smartphones – and expect a seamless experience from one to the other. Historically, software was not built to create an optimized or even friendly experience for mobile devices.



## Affordability

Modern systems can take advantage of the efficiencies delivered by cloud technology and modular software design to pass lower costs through to the market.



# Conclusion

On top of the many other ways the pandemic impacted the hospitality industry, it exacerbated the need for hoteliers to upgrade their tech setup and leverage innovative solutions.

Staff shortages, rapidly changing guest expectations, and the need to make up for revenue lost over the past two years mean you can no longer kick the can down the road when it comes to building your modern custom tech stack.

Now is the time to take advantage of cloud-based solutions and the many benefits they offer; implement modern tech software to automate manual tasks like data collection and collation, reporting, and even rate updates; use their integrations to share data easily between tools and with your team; and invest the time you saved in optimizing your long-term strategies.

But as you explore today's wide array of hotel tech vendors, look behind the curtain and vet and evaluate key considerations. Be sure to examine how each new tool is built. Does it really have an open API that lets you connect your other tools? Is it easy to learn and use for your team? And finally, is the tech provider dedicated to providing quick support as well as regular updates?

If so, you've likely found yourself a worthwhile partner that can support your hotel in the quest for success in a rapidly developing and ever-more competitive hospitality industry.



# About the Authors



Headquartered in Sweden, Atomize offers a Lean Revenue Management Software built for hoteliers that want to do more with less. The Atomize product offering fits well with hotels and hotel groups that are facing a new reality of fewer staff resources and the increased need for automation and enhanced profit margins.

In 2019, Atomize was the first RMS to solve real-time price optimization, which opens up incredible possibilities for our customers to gain a competitive edge in their respective markets. Used in more than 50 countries across five continents, by properties in the range of 50 to 1,250 rooms.

Visit [atomize.com](https://atomize.com)

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Lighthouse empowers hoteliers to deliver smarter revenue, distribution and marketing outcomes through its market-leading commercial platform. With live updates, 24/7 support, and highly intuitive and customizable dashboards, Lighthouse integrates with industry tools including hotel property management systems, leading RMS solutions and data benchmarking providers.

Lighthouse's team of international experts support more than 60,000 properties in 185 countries. Winner of the Best Rate Shopping & Market Intelligence Solution, Parity Management Software and Business Intelligence categories in the 2021 and 2022 HotelTechAwards, Lighthouse is widely recognized as a leader in hospitality business intelligence.

Visit [mylighthouse.com](https://mylighthouse.com)

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Revenue Analytics invented yield management in 1984 while partnering with Delta. They went on to build custom revenue management solutions for enterprise brands like Marriott, IHG, Hyatt, and Starwood.

Today, Revenue Analytics is the brains behind N2Pricing™ - the first modern SaaS RMS. Combining best-in-class analytics with an intuitive workflow, N2Pricing simplifies and automates revenue management, giving revenue managers 50 hours back each month for high-impact work. With N2Pricing, hoteliers can stop losing profit and start tapping into their people's full potential.

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