



# Transform your growth strategy now

Remove barriers between hotel technology,  
marketing and operations

**RockCheetah**

**aMADEUS**  
Your technology partner

# Contents

1.	Foreword	3
2.	Executive summary	4
3.	Preface: the road to hotel industry recovery	6
4.	The collision of economics, technology and guest empowerment	8
5.	The industry perspective: focus on growth by fusing business needs and IT	18
6.	Introducing the IT pathfinder	24
7.	Techniques to ensure business transformation	27
8.	Conclusions	32
9.	About Robert Cole	33
10.	About Amadeus	34
11.	Appendix	35

# 1. Foreword



## **Growth is the new watchword for all those in the hospitality sector.**

While there has been a lot of discussion in the last three years about the global downturn, its impact and its lasting legacy, we are starting to see the narrative change.

In 2011, we are seeing all hotel groups and c-level executives embrace a more optimistic and determined approach to securing growth. And that is what this report is about.

Last year, we commissioned two reports that explored possible futures for the hotels sector by looking at the forces of change shaping the next decade. However, with this report, we wanted to explore the three-year horizon and the different approaches needed to make the most of today's market opportunities.

We wanted to investigate how organizations could transform their growth strategies by removing some of the barriers between hotel technology, marketing and operations. This paper looks at how best to go about this and the impact that a more integrated approach across these three disciplines will have on the guest experience.

By introducing the concept of the IT Pathfinder, which is a breakthrough idea designed to help organizations move beyond a silo approach to technology, this paper makes a valuable contribution to understanding how technology can best support hotel groups maximize efficiency and growth. Through exploring the different technologies, both from a back-end and front-end perspective, we hope that it will spark new thinking and new approaches both amongst hoteliers and those of us in the business of technology.

We hope that this paper provides some valuable insights as you plan for the next three years. And we look forward to exploring these ideas further with you in the coming few months.

A handwritten signature in black ink, consisting of a vertical line on the left, a horizontal line across the middle, and several horizontal strokes extending to the right.

**Jérôme Destors**  
Director, Hotel IT  
Amadeus

## 2. Executive summary

Amadeus engaged RockCheetah to explore how hotel companies can align business and IT strategies to drive business transformation during a period of economic recovery; specifically, the three year time period from 2011 through to 2013.

Having survived the most dramatic downturn in the history of the hotel industry, many hoteliers are undertaking new business initiatives that rely heavily on IT to drive business growth.

This white paper provides an overview of the current industry hospitality environment and key business drivers to provide insights into how hospitality executives can seek to bridge business and IT objectives. The report draws on desk research, a global survey and executive level hotel interviews.

**Transform your growth strategy now - Remove barriers between hotel technology, marketing and operations**

### Economics, technology and guest empowerment collide

The combination of constrained budgets, technological advancement and consumer empowerment between 2008 and 2010 presented challenges for the hospitality industry, but with the current recovery underway, opportunities now abound. Hotel IT environments are poised for transformation with cloud computing assisting hotel companies turning toward asset-light operations.

Broad consumer adoption of mobile computing technologies, social networking and location based services have given hotel guests tools to communicate marketing messages that are more trusted than traditional forms of advertising.

### Fusing business needs and IT

#### 1. Aligning business and IT priorities

Like most organizations, hotel business leaders are focused on discovering innovative methods to grow, attract new customers and reduce costs. Similarly, hotel IT leaders are also prioritizing cloud computing, virtualization and mobile technologies. However, hotel IT leaders are attending to core central and property system platforms before following other industries in developing collaboration and web 2.0 initiatives.

#### 2. Identifying key business drivers and the enterprise value chain

To bridge business objectives and IT objectives, a common vocabulary is required to open lines of communication across business units. Outcomes must be material results from clear actions and ideally reflecting measurable economic value. External growth and internal efficiency business drivers should relate directly with the customer value chain to maintain consumer focus.

#### 3. Defining strategic hotel business priorities

Hotel business leaders are seeking to expand their property portfolios by growing room counts and expanding into new territories. Brand development also rates high as a priority – both the repositioning of existing brands and the launch of new brands. Additionally improving guest satisfaction and improving operational efficiency are interrelated for hoteliers as both share the goal of enhancing the guest experience.

#### 4. Defining strategic hotel IT priorities

Hotel information technology leadership is prioritizing enhancement of core CRS and PMS platforms while strengthening direct distribution channels. From an infrastructure perspective, virtualization of systems, with migration to cloud computing and SaaS to increase security, reliability and scalability head the list of key goals.

## The IT pathfinder

By establishing the role, function and approach of the IT Pathfinder, hospitality groups may gain greater alignment between corporate business and technology objectives, identify appropriate solutions and implement the initiatives that create the greatest economic value.

The IT Pathfinders are tasked with three fundamental tasks: understanding how the operating environment impacts key business drivers; linking IT initiatives to corporate strategy; and road-mapping methods to create economic value from IT initiatives.

5. **Getting the ideal infrastructure in place**  
Hospitality executives on both the business and IT sides of the operation do not perceive infrastructure solely in the realm of hardware and software. There is also a highly perceptive acknowledgement of the importance of experienced management personnel to oversee the design and support of the platforms. Hotels interested in virtualizing systems are also seeking superior technical support of mission critical systems.
6. **Understanding the essential deliverables**  
The sentiment that IT Pathfinders must “speak business to business people and technology to tech people” was shared by several leaders. For hoteliers, it was essential that IT Pathfinders ensured delivery of core platforms and planning processes for the organizations to be successful.
7. **Quantifying business impact**  
A holistic approach to measuring performance is preferred by hoteliers. While business impact must be benchmarked against measurable statistics, hotel executives sought to reach beyond standard financial performance measures and track guest satisfaction, associate engagement, owner adoption, and technical service levels to provide a comprehensive perspective founded on measuring the economic value of various initiatives.

Aligning business and technology groups is the primary role of the IT Pathfinder. If the Pathfinder function can develop strategies that eliminate danger, leverage strengths and capitalize on opportunities, as measured by economic value, the probability of success is greatly enhanced.

In summary, the discipline of Hotel IT Pathfinders requires exceptional communication and analytical skills, a deep understanding of the organization’s unique value propositions and IT capabilities, and most importantly, a determined, goal-based mentality to provide the leadership necessary to map the course of action that delivers the greatest economic value to the organization.

## Ensuring business transformation

Every hospitality organization is different, with different product portfolios, competitive positioning and shareholder objectives. As a result, IT Pathfinders cannot rely on a one-size-fits-all approach to establish the optimal IT roadmap for a property, brand or management company.

8. **Eliminating dangers**  
While hoteliers cited future economic disruptions as a potential risk, internal risks were also frequently identified. Most significantly, resistance to change was highlighted by companies as a leading barrier to success, even by individuals that characterized management openness to change as an organizational strength. Strategic and executional failures are also areas of concern.
9. **Capitalizing on opportunities**  
Virtualization, with its promise of reduced data center, payroll, hardware, software and services costs presented a strong value proposition for IT. Mobile computing is seen as an important technology to enhance customer engagement, and most importantly, holding the prospect for monetization due to superior reach, targeting, transaction and viral capabilities.
10. **Leveraging organizational strengths**  
IT Pathfinders must accurately identify business dynamics and measure their impact from an organizational, staffing and partnership perspective. Commitment to change must be reinforced through the expression of economic benefits that can be shared as a common goal across diverse constituencies.

### 3. Preface: ‘the road to hotel industry recovery’

**Following the tumultuous events of the years 2008 through 2010, hoteliers around the globe are again optimistically focused on growth. Corporate plans to expand into new territories, attract new customers and improve service offerings have returned to the top of the boardroom agenda. The question is how best to go about it?**

Over the last three years, the scarcity of operating profits and investment capital resulted in budget constraints, headcount reductions and project deferrals. The economic downturn also delayed enhancement to or replacement of many legacy platforms that hinder hotel industry operational efficiency and strategic market differentiation.

Over the same period, the technology sector was undergoing a dramatic transformation. Mobile technologies, cloud computing and social computing all experienced unprecedented growth as the long-promised prospect of anything, anytime, anywhere access to information hit the mainstream. Rapid adoption of these new technologies by travelers also created a new generation of tech-savvy consumers with increased expectations.

As a result, a gap has emerged between the business goals of the marketing and operations teams to satisfy heightened guest demands and the goals of IT groups tasked with improving efficiency and reducing cost.

Having already cut non-essential spending, the overwhelming sentiment across executive boardrooms is that advanced technology represents the key to both containing operational spending and enhancing marketing effectiveness as the business climate improves. In many cases, the objectives are clear and the strategic “what,” “where,” “when” and “why” questions have been answered by executive leadership.

This however, leaves operations, marketing and technology leadership contemplating the “who” and “how” components of the equation.

This whitepaper will focus on exploring the role of technology in helping hotel groups to grow, engage customers and transform businesses over the next three years. A key consideration will be the leadership required to bridge the gap between business objectives and IT objectives over the three-year time frame.

A cross-section of hotel industry executives and senior management were contacted and asked to complete a survey describing key business and technology priorities, essential deliverables, environmental factors and ideal techniques for bridging business/IT gaps. Due to the strategic nature of the questions, participants were assured that strategically sensitive answers would be held in strictest confidence with no attribution to the respondent.

Mobile technologies,  
cloud computing and social  
computing all experienced  
unprecedented growth



## 4. The collision of economics, technology and guest empowerment

The perfect storm of economic decline, technological advancement and consumer liberation may have created considerable challenges for the hospitality industry, but the current recovery now presents unparalleled opportunities for organizations capable of allocating scarce resources to initiatives that reduce asset loads, improve information exchange and leverage customer self-service.

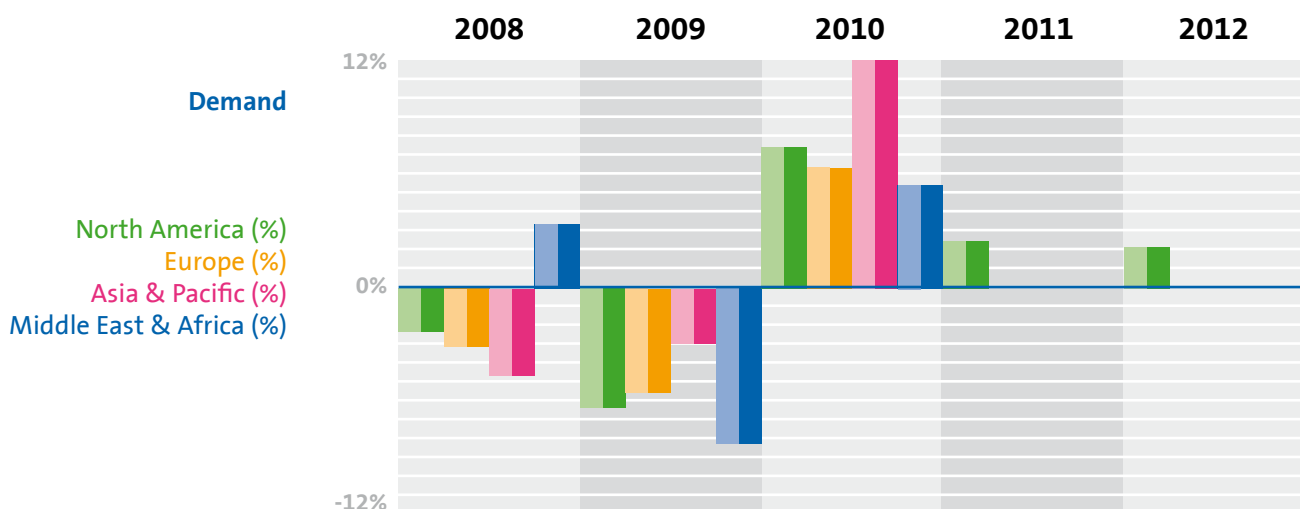
Before investigating methods to reach potential solutions, it is important to understand the external environmental factors that are responsible for both dictating limitations and introducing opportunities to facilitate change.

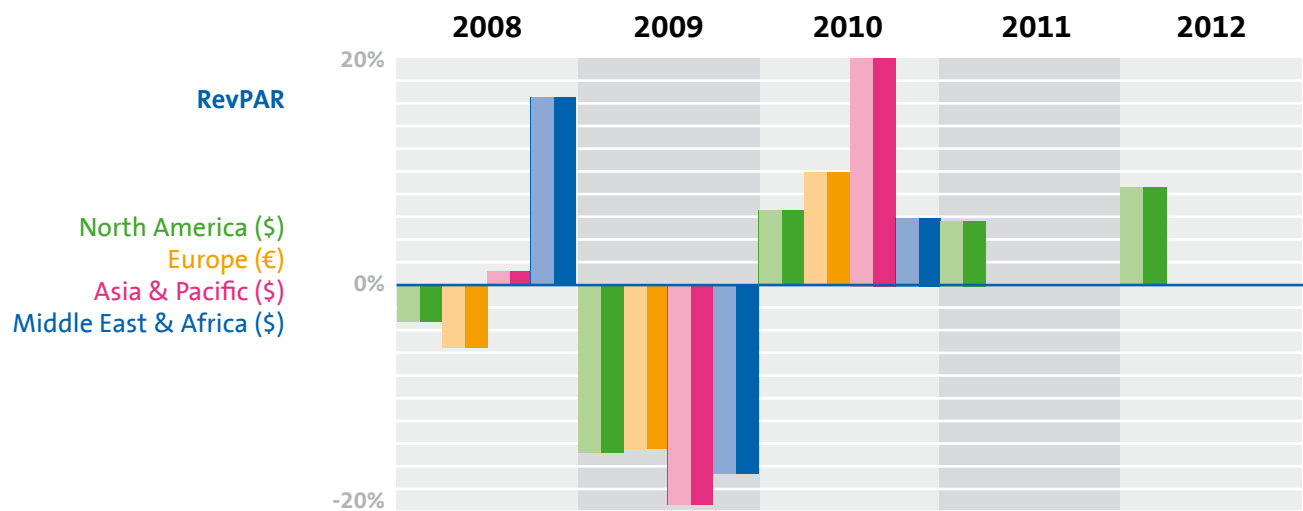
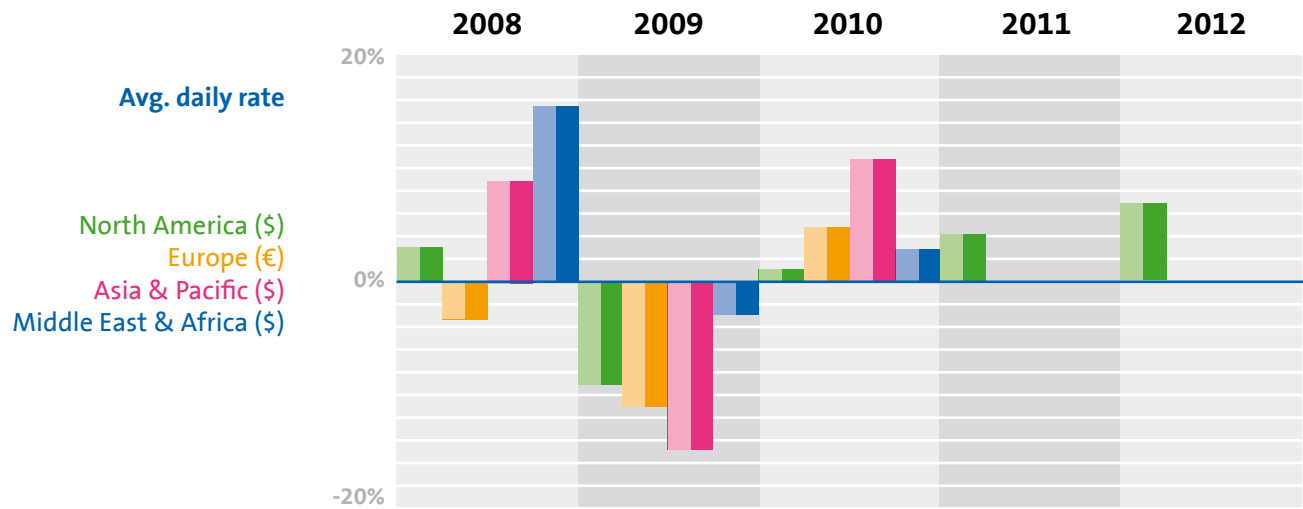
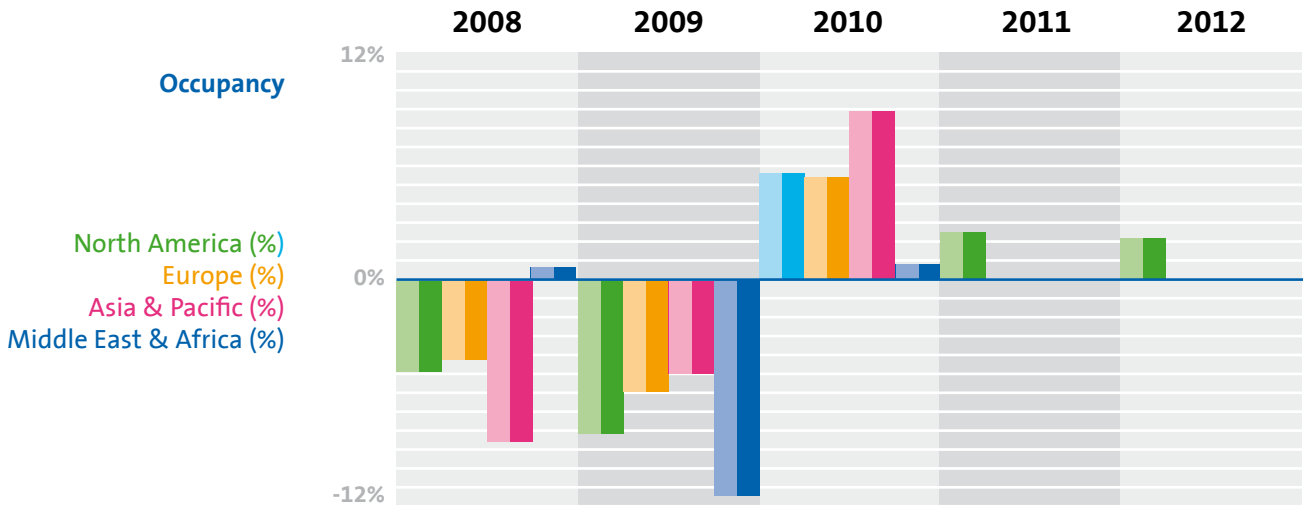
### Painting by numbers: Hotel industry recovery

A key indicator of hotel demand, worldwide real Gross Domestic Product (GDP) growth should be good news for the hotel industry. North America and Europe are expected to lag behind global averages, with Asia Pacific's pace more than doubling European and North American growth over the next three years. Renewed growth may be welcome, but slimmed expense budgets have not been returned to pre-recession levels. Also, one should not disregard the damage incurred to the underlying fundamentals of the industry during the recession. The severity of the recession was vividly illustrated by declines across all key hotel industry operating metrics across all geographic regions in 2009 (Fig 1) <sup>1,2</sup>.

Based on the bell-weather Revenue per Available Room (RevPAR) statistic, the setbacks have already been overcome in Asia Pacific, but progress is slower elsewhere. Positive outlooks for operating performance including demand growth outpacing supply growth and rates exceeding occupancy growth are encouraging, but do not paint an accurate picture of the industry's capability to support investment. <sup>3</sup>

**Figure 1.** Comparison of Key Global Hotel Industry Metrics <sup>1,2</sup>





## Capital investment or capital punishment?

In 2009, the impact of operating performance on industry profitability caused Cornell University School of Hotel Administration professor Jack Corgel to remark that the only time unit-level hotel profits declined more than 20% was 72 years earlier. “Needless to say, profit declines in excess of 30% have a wide-ranging impact on hotel values, debt coverage, default covenants, and solvency”<sup>4</sup>.

Hotel investments funded through Commercial Mortgage Backed Securities (CMBS) provide a glimpse into the extent of the problems. In March 2011, FitchRatings reported one in seven US CMBS hotels was unable to meet its mortgage obligations – this lack of cash flow from operations limits an owner’s ability to fund capital investments<sup>5</sup>.

Publicly traded Real Estate Investment Trusts (REITs), owners of large hotel portfolios were devastated during the global financial crisis, with many forced to reduce shareholder dividends to conserve capital as the credit crisis eliminated sources of debt financing. Since January 1, 2008, the cumulative return on the Hotel REIT index was -28.7%; the sector underperformed the Standard & Poor’s 500 index by -24.3%<sup>6</sup>.

Given that REITs create value through the appreciation of underlying assets or from operational cash flows, they tend to dedicate capital to property acquisitions and on maintenance of their property portfolios.

It is also important to note that after a sustained period of belt tightening, property or brand level capital expenditures for technology enhancement or replacement are competing with deferred repairs & maintenance, replenishment of depleted reserves for replacement and brand-driven Property Improvement Programs (PIP).

Share prices of hotel brands were also punished on exchanges during the financial crisis, but not to the same extent as the Hotel REITs. While performing better than the Hotel REIT’s, their total returns since January 1, 2008 have been -13.0%, lagging behind the S&P 500 by -8.5%<sup>7</sup>.

Hotel brands continue the trend of reducing the number of owned properties to focus on managing or franchising hotels. Freeing capital from commitments to long-term real estate investments generally allows hotels to dedicate resources to directly support branding or business generation initiatives.

With tight credit markets, limited cash being produced from operations, hotel owners focusing on real estate and hotel brands losing interest in tying up capital in hard assets, the stage is set for moving IT investments off the balance sheet and onto the income statement. There is also considerable structural interest in the industry transitioning IT investments into pure business services.

**Hotel brands continue the trend of reducing the number of owned properties to focus on managing or franchising hotels. Freeing capital from commitments to long-term real estate investments generally allows hotels to dedicate resources to directly support branding or business generation initiatives.**

## Budget constraints aren't just for hotels

The hotel industry has not been alone in its aggressive cost cutting. Global investment in IT has also been squeezed by economic downturns. Figure 2 presents the drastic reduction of IT spending in 2009, but also the more subtle pattern that post-recession, IT spending growth tends to remain lower than pre-recession growth rates.

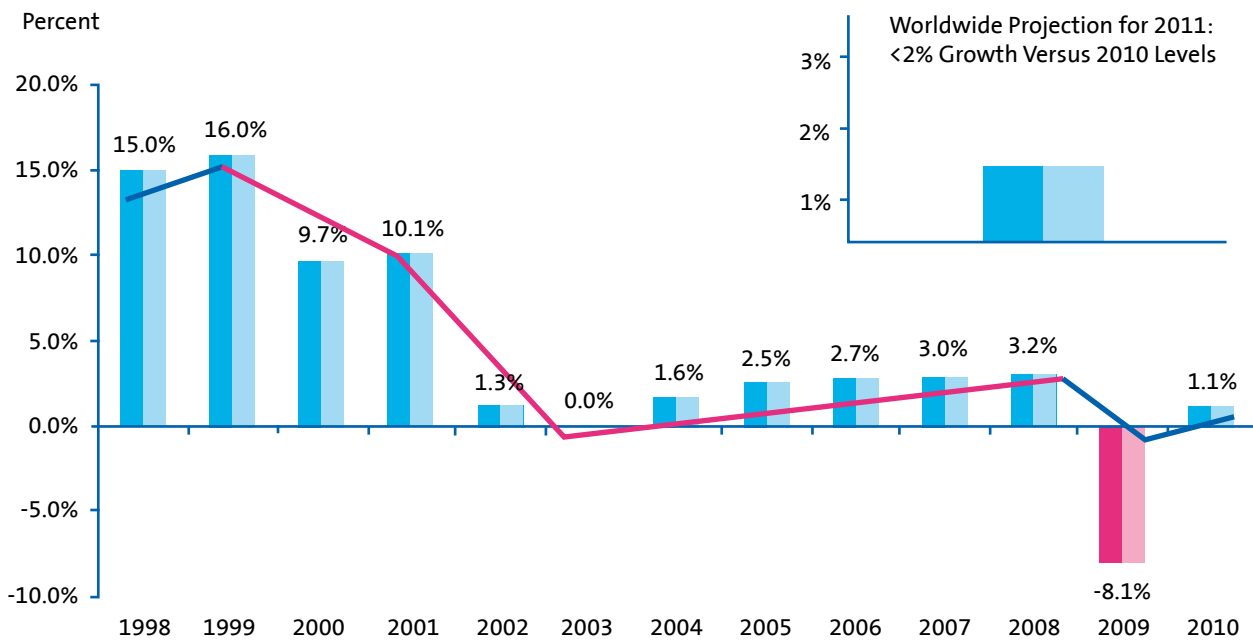
After experiencing a 4.6% year-over-year decrease in technology spending during 2009, Gartner reported worldwide IT spending quickly stabilized to increase 5.4% in 2010 and is expected to grow at 5.1% in 2011.

**Figure 2.** Worldwide IT Spending Forecast (Billions of U.S. Dollars)<sup>8,9</sup>

Category	2009		2010		2011	
	Spending	Growth	Spending	Growth	Spending	Growth
Computing Hardware	\$326	-13.90	\$364	8.9%	\$391	7.5%
Enterprise Software	\$221	-2.10%	\$236	6.1%	\$254	7.5%
IT Services	\$781	-3.50%	\$782	2.5%	\$818	4.6%
Telecom Equipment	N/A		\$427	14.0%	\$465	9.1%
Telecom Services	N/A		\$1,593	3.9%	\$1,647	3.4%
Total Telecom	\$1,888	-3.60%	\$2,020	7.0%	\$2,113	4.6%
All IT	\$3,216	-4.60%	\$3,402	5.4%	\$3,576	5.1%

While IT spending is increasing, not all that incremental spending is falling under the control of CIO's. A separate Gartner study indicates deeper cuts to CIO budgets were incurred in 2009 and that spending growth rates have not rebounded to exceed the levels experienced prior to the downturn. (Fig. 3)

**Figure 3.** Changes in CIO budgets over previous year, 1998 to 2010 (worldwide and by percentage)<sup>10</sup>



Another pattern emerging from the data indicates that in the years immediately following recessions, while overall IT spending growth rates may recover to earlier levels, CIO budgets tend to be more highly constrained. Based on the growth rates above, global CIO budgets are projected to recover to 2006 spending levels in 2011. There is no indication given recent and projected hotel industry performance that hospitality CIO budgets will outpace the global averages.

With technology spending increasing more rapidly than CIO budgets, a strong case exists for tight alignment of IT spending across the organization. Despite CIO budget growth lagging behind IT spending, there is some reason for optimism as hotel information technologies are poised to realize savings and efficiencies from new technological advancements.

## Transforming hotel IT

As hotel performance suffered and IT budgets were being slashed, three pillars of a technological revolution were being established. Mainstream adoption of cloud, mobile and social computing, in concert with location based-services have not only changed the IT landscape, but the lives of every employee and hotel guest.

### Cloud computing shifts capex to opex

With tight IT budgets and the predisposition of hotel companies to migrate toward asset-light operations, cloud computing would appear to provide an ideal fit for the hotel industry.

While IT professionals are intimately familiar with cloud computing and virtualization, many hotel marketing and operations leaders remain unfamiliar with the concept. Simply defined, cloud computing is an approach to IT where processing capabilities are provided on demand as a service using Internet technologies to access remote networks that are shared across multiple customers.

Software may also be provided as a Service (commonly abbreviated as SaaS) and provided on demand – also reducing the amount of on-site support required. With SaaS implementations, the software and its associated data is typically hosted in the cloud and accessed using a browser.

For the hospitality industry, the combination of capital expenditure (CapEx) constraints during a post-recession period where customers are demanding support for increased traffic and computing capabilities, creates a pinch for CIO's. Thanks to virtualization technologies like cloud computing and SaaS, CapEx costs per computing unit (calculation and processing) and per networking unit (routing and communications) continue to decline. As the number of networking and computing devices increases, operating expenses (OpEx) would increase proportionally.

### Mobile computing – anything, anytime, everywhere

2011 can finally be described as “The Year of Mobile”. After five years of pundits predicting that the following year would be the year that mobile computing became mainstream, the evidence is overwhelming. Morgan Stanley Research calculated that smartphone and tablet shipments exceeded desktop and notebook computer sales for the first time in the 4th quarter of 2010. Fueled by the 1-2 punch of Apple iPhones, iPads and Android smartphones, mobile technologies achieved critical mass.

Like every computing step-change, five factors drove the revolution for broad consumer adoption: greater processing power, smaller form factors, enhanced functionality, improved user interfaces and lower prices. The ubiquity and importance of mobile communications is showcased by the following info-graphic transitioning from global usage down to hotel bookings.

**Mainstream adoption of cloud, mobile and social computing, in concert with location based-services have not only changed the IT landscape, but the lives of every employee and hotel guest.**

# Mobile computing – anything, anytime, everywhere

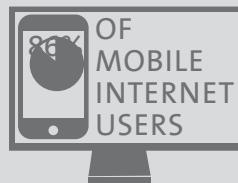
## Global adoption

**TWO BILLION PEOPLE**  
O N L I N E E N D O F 2 0 1 0

MOBILE NETWORK ACCESS AVAILABLE FOR OVER **90%** OF THE WORLD'S POPULATION



**50% OF NEW INTERNET CONNECTIONS**  
WERE FOR MOBILE DEVICES



**OF MOBILE INTERNET USERS** ARE ON THE INTERNET WHILE WATCHING TELEVISION

## Travel usage



**29.7 MILLION** MOBILE RESEARCHERS PROJECTED BY **2012**

**74%** **GROWTH** WITH MOBILE BOOKERS FROM 2010 TO 2012

23% OF INTERNATIONAL TRAVELERS HAVE USED MOBILE **CHECK-IN**

**50%** **SEARCHED FOR TRAVEL** AT LEAST ONCE IN THE PAST 6 MONTHS

## Hotel search


**19.5%**

  
**OF HOTEL**  
 SEARCH QUERIES

ARE ON  
 MOBILE  
 DEVICES

**70% OF MOBILE WEB USERS**  
 BOOK A SINGLE HOTEL ROOM FOR A  
 SINGLE PERSON FOR THE SAME NIGHT

## Hotel booking



**82% OF HOTELS BOOKED**  
**ON DAY OF ARRIVAL**

vs.



**45% HOTELS BOOKED ON**  
**DESKTOPS**

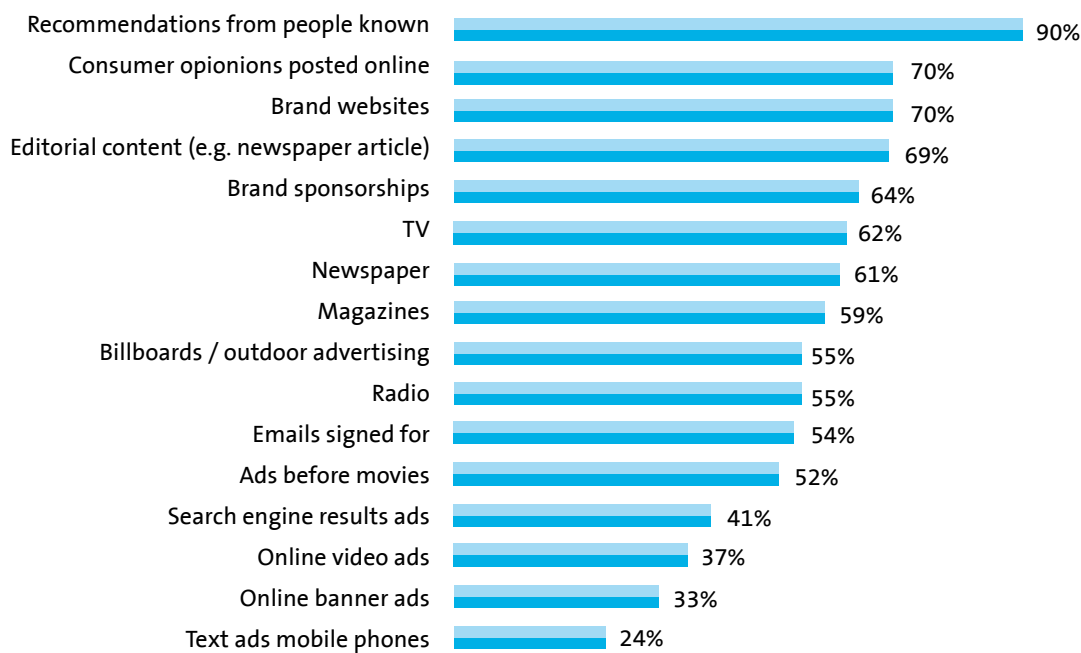
**58% OF MOBILE HOTEL BOOKINGS WERE WITHIN**  
**20 MILES OF THEIR HOTEL**

## Social computing & location-based services

Venture capitalist John Doerr coined the term “SoLoMo” to describe the convergence of social networks, location-based services and mobile computing. These three technologies serve as the cornerstones of the connected lifestyle that empowers consumers by facilitating real-time communication with an individual’s social graph (members of that person’s social network) plus the added context of relative proximity.

The importance of mobile and social computing is not solely based on site traffic. Again, the ability to engage with the consumer in real-time and monetize that traffic is dictated by a user’s receptivity to the hoteliers message or inducements to transact. Nielsen Company research indicates that individuals tend to trust personal recommendations far more than any other form of advertising. Interestingly, they also trust the reviews of strangers and editorial content approximately as much as a branded web site. (Fig. 4)

**Figure 4.** Degree of trust across various forms of advertising<sup>11</sup>



Venture capitalist John Doerr coined the term “SoLoMo” to describe the convergence of social networks, location-based services and mobile computing.

This lack of trust in advertising presents a paradox for both marketers attempting to create relevant, compelling advertising and technologists attempting to efficiently deliver the message online and accurately track the results. Aside from user-generated content, all other forms of online advertising ranked appreciably lower in trust compared with traditional media, with text ads on mobile phones scoring worst.

This represents a significant challenge for hotel brand CMO's. With inherent distrust of advertising messages, social media becomes an even more important tool for engaging with customers to build trusted relationships.

Social media drives three distinct stages of customer engagement with brands:

- > Brand reputation
- > Brand relationship
- > Brand trust

A number of properties and hotel brands are using social media monitoring tools in an attempt to more effectively manage brand reputation through third party hotel review sites and travel-related blog comments. In many cases, these interactions are reactionary as opposed to being proactively initiated by the hotel.

As social media matures, a few hotel brands are becoming more aggressive at identifying influencers via social media to nurture positive brand perception that will translate into endorsements to followers.

Most hotel brands utilize guest loyalty programs to support customer interaction, most often with frequent guests. However, tracking guest stay/spend history and point rewards is a bit like measuring an interpersonal relationship solely based on the number of dates or the gifts given/received.

Social media opens customer communication channels before, during and after the stay, providing the hotelier with valuable context, resulting in an ability to anticipate guest needs, exceed expectations and provide an exceptional guest experience.

True brand relationships transition individuals from customers to brand advocates. Social media gives staunch supporters a voice to persuade other consumers to establish a closer relationship with the brand.

Ultimately, brand advocates may evolve further as trust in the brand increases. In many cases, brand evangelists not only promote the brand, but independently defend the brand against detractors, again through social media.

The challenge of social media for hoteliers is how to effectively scale an increased degree of customer engagement to a larger base of customers through more frequent and more substantial interactions.

## Location, location, location

Ellsworth Statler, the father of the modern hotel industry, once famously described the three keys to making a hotel famous as “location, location, location.” 90 years after that remark, the emergence of location-based services –capitalizing on mobile and social computing growth has redefined the term “checking-in.” Between 2009 & 2010, SNL Kagan reported the number of location-based service users tripled to 33.2 million, with Foursquare leading the way with 273% average quarterly growth<sup>12</sup>.

## True brand relationships transition individuals from customers to brand advocates.

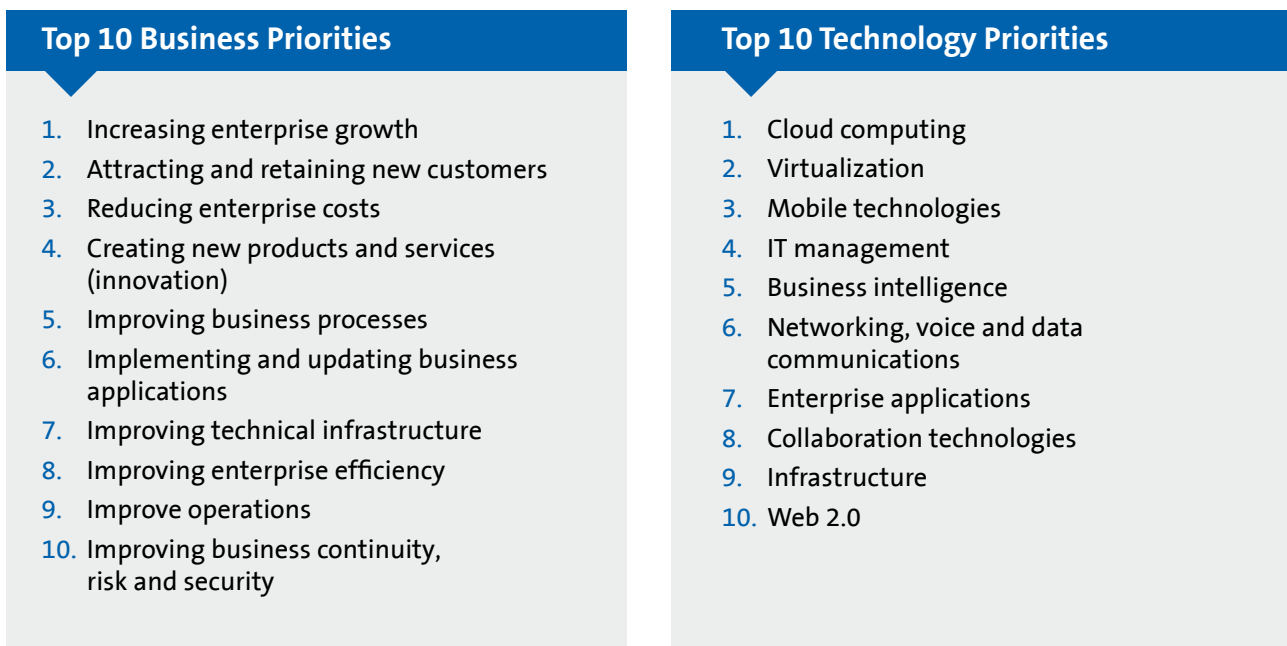
## 5. The industry perspective: focus on growth by fusing business needs and IT

As the research has progressed, some clear and consistent insights have emerged from c-level executives across marketing, operations and technology functions as they investigate how best to implement their growth strategies in the next three years.

### Insight 1: Aligning business and IT priorities

In late 2010, Gartner group canvassed over 2,000 CIO's worldwide and identified the top business and technology priorities for 2011. (Fig. 5)

Figure 5. Top 10 Business and Technology Priorities in 2011<sup>13</sup>



The priorities identified by a cross-section of prominent hotel industry Chief Information Officers, Chief Marketing Officers and Chief Operating Officers surveyed in Q2, 2011, were similar to these two top 10 lists, with two exceptions - both on the technology list. Hoteliers, both from a business and IT background, failed to mention collaboration technologies (#8) or Web 2.0 (#10 as top priorities). Instead, several industry specific priorities exist – primarily improving brand perception on the business side and updating core CRS & PMS information processing platforms on the technology side.

There would appear to be two fundamental reasons for the difference in hotel industry-specific responses. First, the hotel industry's reliance on legacy technologies to support a highly fragmented industry caused hotel companies to avoid dramatic replacement/enhancement initiatives for systems that, for the most part, reliably supported a majority of traditional business processes. For years, decisions were made to forego logistically complex and expensive upgrades as incremental performance and functionality enhancements were not cost-justified. The triumvirate of returning demand, technological step-change and customer empowerment has now tipped the scales in favor of broad system enhancement initiatives.

The reason for hotels not fully embracing the interactive two-way conversation with customers provided by Web 2.0 and hesitancy to implement more collaborative technologies are a byproduct of the legacy systems. With a surprising number of these platforms developed using 1970's and 1980's technologies, in many cases, the industry is experiencing a generation gap. The systems were developed in environments that did not consider the existence of the other generation. They literally don't play by the same rules or speak the same language. Without a platform capable of enabling simplified interfacing to new technologies, the cost and time associated with custom integration work undermined approvals. Again, cloud computing and SaaS have now produced economic models that give rise to vastly improved returns on investment (ROI).

Over the next three years, many major hotel organizations will be getting their core central and property system platforms in order. Once the new platforms have been deployed and the ecosystem of hotel systems is powered by 21st century capabilities, hoteliers will rapidly embrace the integration of more collaborative interactivity – with customers, employees, business partners and vendors.

## The triumvirate of returning demand, technological step-change and customer empowerment has now tipped the scales in favor of broad system enhancement initiatives.

### Insight 2: Identifying key business drivers and the enterprise value chain

The first step to bridging the gap between the objectives of the operations/marketing teams and the IT group is to identify the true goals of each division. With all due respect to corporate protocol, the true departmental goals are probably not the list from the CEO's letter in the last employee newsletter, talking points from an investor earnings call or the latest press release from the corporate development team.

True business objectives are often the unpopular, difficult changes that must be made to solve the most pressing strategic challenges facing the company. True objectives may relate to recapturing market share lost to a competitor, sun-setting an established product line, or capitalizing on an opportunity that was previously rejected considered too radical. Ideally, the true objectives should be determined independently within each respective group, leveraging the subject matter expertise of those responsible for departmental success.

True business goals should share three distinct characteristics:

### True business goals should share three distinct characteristics

1. Represent outcomes resulting from clear actions; if there is not a definitive result, it's not truly an objective.
2. Enhance the guest experience by enhancing customer benefits; at a minimum, it should bear direct impact on the business value chain.
3. Possess measurable economic value; all objectives must be measurable, but those that generate direct economic benefit offer the best opportunity for success.

Once the respective business goals have been identified, many groups might immediately engage in a gap analysis. However, when evaluating any business/technology priorities gap, a structured approach is required to effectively link what may potentially be two very different approaches to addressing business challenges. Identifying enterprise business drivers will help provide valuable context to establish a common ground that unifies discussions around core principles. Understanding the key business drivers responsible for generating specific outcomes such as volume, margin, profit and customer engagement will also highlight company objectives and help eliminate potentially distracting subsets of elements supporting departmental priorities from consideration.

Linking business drivers to the value chain is particularly beneficial. To quote management guru Peter Drucker, "A company's primary responsibility is to serve its customers. Profit is not the primary goal, but rather an essential condition for the company's continued existence." Tying business goals to business drivers and ultimately the value chain provides a common vocabulary for discussions and unites all aspects of the business in customer focus.

The umbrella of the value chain facilitates resolution of ideas within planning, governance or execution processes regardless of their application to product development, supply chain or customer relations aspects of the business.

Framing business drivers within the value chain can also be helpful in bridging business/IT gaps by surfacing potential solutions that were not apparent to the individual teams.

Finally, for each business driver, a metric is required to ensure that benchmarking, goal setting and gap analyses may be based on measurable criteria that are mutually agreed by all parties involved. It is by these measures that success will be evaluated.

**Tying business goals to business drivers and ultimately the value chain provides a common vocabulary for discussions and unites all aspects of the business in customer focus.**

Business drivers can typically be categorized into external and internal factors. External business drivers are normally associated with growth, whereas internal business drivers are related to the efficient management of resources allocated to supporting the external business drivers. The following are the top business drivers most mentioned by the c-level executives polled:

### External (growth)

#### Global expansion

- > Number of properties
- > Number of rooms under management
- > Geographic coverage

#### Revenue capture

- > Occupied rooms
- > Average Daily Rate
- > Revenue per Available Room  
(RevPAR = Rate \* Occupancy %)
- > Total guest spend  
(F&B, recreation, entertainment, etc.)

#### Guest experience

- > Guest satisfaction surveys

#### Maximizing brand

- > Competitive positioning
- > Brand perception

### Internal (efficiency)

#### Staffing

- > Headcount
- > Manhours

#### Operating expenses

#### Customer acquisition costs

#### Distribution costs

#### Process rationalization

## Insight 3:

### Defining strategic hotel business priorities

The market segmentation, geographic disparities and local customs characterizing the highly fragmented global hotel industry creates an environment where cookie-cutter solutions are neither appropriate nor efficient. Strategic business priorities are highly situational, impacted by localized demand, competitive supply, product innovations and perceived value by target market segments.

The panel of hotel executives, when asked to identify the top business priorities for the 2011-2014 period, provided responses encompassing four categories: grow the hotel portfolio, enhance the brand, improve guest satisfaction and run more efficient operations.

<p><b>Hotel portfolio</b></p> <ul style="list-style-type: none"> <li>&gt; New territories</li> <li>&gt; Global room growth</li> </ul>	<p><b>Customer satisfaction</b></p> <ul style="list-style-type: none"> <li>&gt; Increase guest spend</li> <li>&gt; Increase return guest frequency</li> <li>&gt; Strengthen customer value proposition</li> </ul>
<p><b>Brand development</b></p> <ul style="list-style-type: none"> <li>&gt; Launch new hotel brands (in specific geographic markets)</li> <li>&gt; Refresh/revitalize existing brands (selected brands)</li> </ul>	<p><b>Operational efficiency</b></p> <ul style="list-style-type: none"> <li>&gt; Achieve operational excellence</li> <li>&gt; Improve quality of staffing</li> <li>&gt; Deploy technology to enhance guest experience</li> </ul>

Each respondent, including the technology leaders, all tied business strategies back to the satisfaction of guest needs. Notably absent were objectives that reduced costs in isolation from the guest or brand experience. Perhaps owing to experience gained over the past 36 months, hotel executives appear to be supporting the notion that the guest is king and profits are derived from efficiently satisfying needs.

*Top strategic business priority over next 36 months:*

**Increasing EBITDA through increased guest frequency and increased guest spend**

”

Anonymous CMO, Name withheld by request

## Insight 4:

### Defining strategic hotel IT priorities

Similar to the business priorities, hotel industry fragmentation assures that no two operations are identical and the single most reliable constant is that one size does not fit all. Executives queried regarding hotel IT priorities typically provided responses in one of two categories – platform and infrastructure.

It is interesting to note that all of the platform priorities mentioned share a common characteristic – they are all heavily customer focused. Despite operational differences and situational complexities, the executives maintained complete directional agreement. In terms of prioritizing platforms development efforts, responses were understandably widely divergent, with some placing the CRS first, while others placed the PMS first, however, enhancement to at least one of these two systems ranked near the top of every hotel IT priority list.

#### Platforms

- > Central Reservation System update
- > Virtualize PMS systems
- > Re-launch of direct channels (web, mobile, apps)
- > Sales technologies
- > Social networking
- > Enabling guest care/communication systems - cloud, database, campaign, tribal, etc.
- > Enabling trigger based marketing - cloud, database, campaign management

#### Infrastructure

- > Security
- > Reliability
- > Scalability
- > Response time

On the infrastructure side, there was also alignment – again, even from the CMO's, with all reporting that hardening system security/reliability and investigation of cloud migration processes were top priorities. The importance of security may have stemmed from the well reported accounts of the industry being a target of hackers and several high profile data breaches. While perhaps a subtlety, similar to business priorities, comments tended to focus on the guest satisfaction, with “protecting personally identifiable information” trumping internally focused priorities like “PCI compliance”. It would seem the economic downturn reminded industry executives that hotels are built for guests.

*Top strategic business priority over next 36 months:*

**Relaunch of direct channels  
(web, mobile, apps)** ”

Anonymous CMO, Name withheld by request

## 6. Introducing the IT pathfinder

Driven by an overarching need to bridge business and IT objectives, organizations require a resource to help them to assimilate a multitude of environmental factors and formulate actionable strategies that produce measurable economic results. This function is best described as an IT Pathfinder.

To be clear, the IT Pathfinder can be seen as a role, function or approach. One could argue that the CIO should, as the ultimate arbiter of IT direction, serve as IT Pathfinder. For some organizations, this may be an effective approach. In others, the business may be better served having a separate analytical resource or function that is free to work across divisional boundaries to propose strategy and make recommendations independent of c-suite politics. In essence, the IT Pathfinder should be responsible for three critical functions:

In essence, the IT Pathfinder should be responsible for three critical functions:

- > Understanding how a dynamic operating environment impacts key business drivers
- > Strongly linking IT initiatives to corporate strategy
- > Managing a roadmap to generate economic value from IT initiatives

*Traits of an IT Pathfinder*

**A strong technician  
with business  
knowledge** ”

Tom Conophy, Executive Vice President & CIO –  
InterContinental Hotels Group

Using an IT roadmap as a guide, IT Pathfinders should be tasked with three forms of output:

- > Identifying ideal IT infrastructure
- > Prioritizing sequencing of essential deliverables
- > Quantifying business impact of IT initiatives

Responsible for bridging the business-technology chasm, the role of IT Pathfinder yields two distinct strategic benefits – first, ensuring that the business group understands the rationale for the structure and prioritization of IT initiatives, and most importantly, the economic value derived from the initiatives. The second strategic benefit is derived by IT teams that benefit from an end-to-end planning process that manages to translate business goals and customer needs into actionable projects, with assurances of a mutual business/IT understanding of ROI targets.

While initial alignment on ROI scoping and project prioritization is important, the IT Pathfinder creates the greatest enterprise value when incorporated into the change management process. The IT Pathfinder links resource allocations to business processes and economic value. If changes occur to a technology development plan or a business unit alters the planned deployment of the technology, the organization is able to proactively model the impacts of these changes to avoid unanticipated losses.

To be clear, the IT pathfinder can be seen as a role, function or approach.

Additionally, the IT Pathfinder provides an invaluable resource for business analysts accountable for developing business cases and managing requirements processes. Based on the high level work of the IT Pathfinder, developing business cases is simplified by the road mapping process, with the alignment of business and functional requirements improved through more open communication channels between business units and their IT counterparts.

The following sections provide an industry level perspective on the outputs an IT Pathfinder might produce if an assessment was made of current hotel industry operations, using the panel of hotel executives as a proxy:

## Insight 5: Getting the ideal infrastructure in place

If an IT Pathfinder was to look at the industry as a whole, the first conclusion would be that the industry is indeed very interested in moving to an asset-light model including outsourced data centers, cloud based applications, and Software as a Service.

One additional and particularly insightful conclusion from the hotel executives was that infrastructure is not limited to the technology – the key is actually the people running it. Hotel leadership has discovered that similar to the hardware and software portions of the technology, the human leadership managing the infrastructure must also be responsive, reliable, scalable and secure.

### Asset Light

- > Dynamic, web-based applications
- > Virtualization
- > Off premises hosting
- > Strong architecture expertise
- > Strong and redundant network
- > Service oriented architecture

### People

- > Positive, results-oriented culture
- > Well trained staff
- > Strong guest orientation
- > Balanced between internal and external expertise
- > Willingness to consider external solutions

The hoteliers' responses underline the critical importance for an IT Pathfinder to encourage collaborative, open and honest dialogue with the business units. Complex challenges involving architecture are rarely solved by applying simplistic solutions. While the business units do not desire understanding the detailed nuances of the IT infrastructure, it is important that they gain an appreciation for the benefits provided or any risks that may remain. Decisions based on common understanding of the issues create an environment more focused on accomplishing corporate objectives than keeping score in departmental won/lost columns.

**Infrastructure is not limited to the technology – the key is actually the people running it.**

## Insight 6:

### Understanding the essential deliverables

The essential deliverables identified by an IT Pathfinder will always be highly specific to each operation and the business environment for its particular geographic region. Over the next three years, hotelier essential deliverables were broken down into two categories – platforms and planning:

#### Platform

- > Delivery of Central Reservation System
- > Delivery loyalty program
- > New branded websites
- > Delivery on direct booking objectives
- > Property-based technology revamp
- > Delivering trigger based marketing/ predictive analytics

#### Planning

- > Streamlined capital and resource prioritization process
- > Processes well understood
- > Aligned compensation and incentive metrics

Inclusion of the planning aspect within the essential deliverables reinforces the need for the IT Pathfinder role. The items suggested underline the need for improved communications, particularly for processes and the alignment of metrics.

*Looking back from 2014,  
what three goal must be accomplished?*

**Delivering new loyalty program that also drives increased share of wallet** ”

Anonymous CMO, Name withheld by request

## Insight 7:

### Quantifying business impact

The principal methods of measuring business impact provided by the group of hoteliers was relatively predictable. For the IT Pathfinder, the principal issue is ensuring that the business impact is quantified utilizing the most pertinent benchmarking statistics available. Again, the hotel panel exhibited admirable perspective by taking a more holistic approach and including perception based statistics for guests, employees and partners so all stakeholders were considered in addition to the hard financial measures.

#### Financial performance

- > Delivery of Central Reservation System
- > Delivery loyalty program
- > New branded websites

#### Guest perception

- > Guest satisfaction levels

#### Employee perception

- > Associate engagement/satisfaction

#### Partner perception

- > Owner adoption of technology

#### Technical performance

- > System availability
- > Adherence to budget/timelines

Now that the role of the IT Pathfinder has been defined, let's investigate some techniques that may be employed by the Pathfinder to close gaps between the objectives of the business units and the IT teams.

## 7. Techniques to ensure business transformation

**From a strategic perspective, if the IT Pathfinder can efficiently focus effort on accomplishing three particular tasks, there will be a high probability of success. The effective IT Pathfinder must work within the organization to:**

1. Eliminate dangers
2. Capitalize on opportunities
3. Leverage organizational strengths

Every hospitality organization is different, with different product portfolios, competitive positioning and shareholder objectives. As a result, IT Pathfinders cannot rely on a one-size-fits-all approach to establish the optimal IT roadmap for the organization.



## Insight 8: Eliminating dangers

The key to eliminating danger is prioritization. Many organizations get bogged down picking “low hanging fruit” – dedicating the minimum resources necessary to address obvious issues that are easily resolved. The IT Pathfinder works at the opposite end of the business spectrum – on the largest, most complex issues that pose the greatest challenges for the organization. IT Pathfinders are not fruit pickers, they are dragon slayers.

Realistically, dangers may exist either external to or within a business and eliminating them is no simple task. IT Pathfinders should operate on the assumption that if a danger was easy to eliminate, it probably would not be described as a danger.

IT Pathfinding requires constant vigilance. Competitive dangers may arise at any time or from any quarter. Particularly where technology is involved, a large, dominant competitor may launch an unanticipated global initiative just as easily as an unknown startup may release a highly disruptive technology that undermines a fundamental business driver.

The most difficult dangers to eliminate may be those that manifest themselves within the company. First, the danger may not even be recognized as it is may be fiercely protected by executive leadership, masked by long established operating procedures, or simply unrecognized.

*Greatest danger that would prevent goal accomplishment:*

**Militant minority not willing to change** ”

Mike Blake, CIO – Hyatt Hotels & Resorts

The following areas were identified as the greatest dangers facing the hotel industry in the 2011 to 2014 period:

### Economic disruption

- > Another lapse into recession
- > Downturn related to Middle Eastern turmoil,
- > oil price hikes

### Resistance to change

- > An organization unwilling or unable to change
- > Militant minority not willing to change
- > Limited hotel adoption of guest facing technologies

### Strategic failures

- > Changing executive focus
- > The rise of “do it yourself” applications

### Poor execution

- > Inability to deliver on technology initiatives
- > Complexity and integration challenges with central and supplier systems
- > Network instability or significant data compromise

Note that the resistance to change issue will be revisited below.

## Insight 9: Capitalizing on opportunities

While IT Pathfinders must maintain a defensive guard against dangers, the function must also be on the watch for both business and technology-centric opportunities. Surfacing opportunities from throughout the organization must also be a priority. The IT Pathfinder needs to encourage staff contributions and vetting processes that recognize the value of contributors to inspire participation.

While hoteliers are currently expressing confidence that future prospects are improving, a surprisingly limited array of opportunities were named. This contrasts with the greater quantity and variety of dangers identified. This would seem to indicate that the true sense of the hoteliers is cautious optimism.

The following areas were identified as the hotel industry's greatest opportunities over the next three years:

### Virtualization

- > Cloud technology - trigger based and analytics support
- > Third party technology solutions
- > Favorable economics around tech cost
- > Capital cost elimination

IT Virtualization hypothetically makes information processing a utility where customers pay only for the services consumed. Virtualization centralizes many administrative tasks, enabling more consistent and potentially better trained support, improves systems scalability and makes workloads more predictable. Improving these three factors produces more efficient IT operational environments.

The appeal of virtualization is reduced data center, payroll, hardware, software, and/or services costs. Cloud-based platforms offer superior system availability, scalability and disaster recovery as a primary value proposition. Of course, cloud computing is not a panacea, it is still relatively new and the optimal balance of flexibility, control and security is still being sought.

An interesting application for hotels is the cloud-based Property Management System (PMS). While a relatively new development, virtually all PMS vendors and major hotel companies are in the process of investigating or deploying virtualized PMS environments.

### Mobile

- > Increased usage of mobile devices

All indications are that mobile will continue to grow at exceptional rates for the foreseeable future. Cisco VNI Mobile predicts that global mobile data traffic will grow at a staggering average annual rate of 92% between 2010 and 2015, resulting in a 26-fold increase in the total amount of mobile data traffic over that period.

These mobile trends do not purely reflect a consumer's desire for real-time communications, but impacts the business community as well. In addition to demanding smartphones, many knowledge workers are requesting tablet computers. Despite iPads only being made available for sale in April 2010, Gartner predicts that by 2013, 80% of businesses will support a workforce using tablets<sup>14/15</sup>.

If the mobile growth trends fail to capture the imagination of hoteliers, there is another significant reason to think very seriously about the future of mobile computing. Advertising will enable monetization of the platform.

2009 data from NA Technographics indicates that the online channel (mobile+internet) captured 28% of media consumption time, but only garnered 13% of advertising revenues, a figure that was on the rise. Print media currently enjoys an approximately inverse ratio of 26% of media spend for 12% of the time allocation.

Mobile could play an important role in correcting that imbalance. Due to the real-time nature of mobile, it possesses a more attractive profile than any other channel in terms of reach, targeting, transactions and viral capability. Mobile follows television and internet in engagement due to its smaller form factor – an area that tablets will begin to challenge.

Again, the world of mobile computing is far from perfect. Different operating system software, hardware capabilities and form factors create challenges for developers striving to produce a consistent brand experience. Specialized mobile applications (Apps) providing hardware specific functionality may provide the ability to maximize the utility of a particular mobile device, but the programming code may not be transferable to provide the same experience on a similar device. Conversely, mobile websites may provide a common experience across a wide variety of devices, but may lack the ability to control specific features as well as native apps.

The combination of explosive growth and a highly fragmented solution set provides yet another source of challenges for the hospitality CIO.

The “Lo” aspect of “SoLoMo” provides an important contextual framework that helps organizations increase relevance. Proximity awareness enables highly granular interactions to provide exceptional guest value and help hotels communicate time-sensitive offers for inventory that normally risk going unsold. Remembering 82% of mobile hotel bookings are made within a day of arrival and 58% within 20 miles of the property, if highly targeted, location potentially becomes an opportunity for guest room sales in addition to more typical food & beverage promotions.

Adding the substantially uncharted location-based functionality to the nascent capabilities of social media within the rapidly growing mobile space creates yet another integration dimension for IT groups while marketing and operations teams start setting objectives for mobile commerce. The complex interrelationships between hotels, guests, mobile platforms, social networks and location-based services will surely give many leaders across several disciplines sleepless nights.

## Insight 10:

### Leveraging organizational strengths

Organizational strengths are the fuel that powers the success of IT Pathfinders. A top priority for the IT Pathfinder needs to be identifying not only the features that rank highly, but the individuals who are responsible for nurturing those strengths.

Most hotel executives categorize corporate strengths into three categories – organizational, staff and partners. Several hotel groups have recently reorganized various divisions since the recovery has begun. In one case, the business and IT groups have been reorganized to work with a greater degree of interaction.

#### Organizational

- > New marketing organization and insights
- > Optimised IT organization
- > Joined up business and technology groups

#### Staffing

- > Leadership alignment
- > Corporate sponsorship and commitment
- > Commitment to change
- > Quality of the people
- > Majority are eager to embrace change

#### Staffing

- > Relationship with the hotel owners group
- > Strong property marketing organizations
- > Strength of our vendors/partners

It is interesting to note that “commitment to change” is listed as a strength, while “organization unwilling or unable to change” was included as a danger. The interesting aspect is that the same individuals provided both responses. Another highlighted “Relationship with hotel owners” as a strength and “Hotel resistance to adoption of guest facing technologies” as a danger. Perhaps this indicates that the respondents were conflicted, however, a better explanation might be that the strength is actually a corporate talking point as opposed to a legitimate strength.

This illustrates the need for IT Pathfinders to dispense with lip-service to accurately identify legitimate business dynamics and measure their impact.

There is no single prototype that describes the ideal IT Pathfinder for any organization. Effective IT Pathfinders may differ in strengths, with the fit determined by the alignment of those strengths with the needs of the enterprise. One critical aspect is that an IT Pathfinder must work within the corporate culture. An IT Pathfinder cannot be successful if working outside of existing organizational frameworks.

## 8. Conclusions

**With the recovery progressing, the global hotel industry will now be playing catch-up to harness the technological advancements of the past three years. An opportunity exists for organizations that can effectively bridge the business objectives defined by operations and marketing teams, with the IT objectives defined by hotel industry IT leadership.**

Pressed to accomplish more with constrained budgets, CIO's will rely on the virtualization of IT operations to drive cost savings while utilizing cloud computing and Software as a Service at all levels of the business to improve operational efficiencies and improve guest engagement. Marketing and operational teams will need to capitalize on new technologies to further empower guests to customize and control their stays and help customer contact personnel satisfy the needs of an increasingly demanding guest.

By establishing the role, function and approach of the IT Pathfinder, hospitality groups may gain greater alignment between corporate business and technology objectives, identify appropriate solutions and implement the initiatives that create the greatest economic value. With an effective IT Pathfinder helping to develop a customer-centric IT roadmap, organizations will reap the benefits of improved inter-departmental communication including improved understanding of corporate objectives and greater transparency relating to business strategies and IT requirements.

Armed with an understanding of business objectives, quantified by their respective economic impact, and framed by consumer needs, IT Pathfinders can help identify appropriate infrastructure components and configurations to produce a prioritized set of deliverables in the necessary sequence to make the greatest contribution. By creating awareness of dangers, identifying opportunities and leveraging organizational strengths, IT Pathfinders can help drive business transformation to the mutual satisfaction of business and IT personnel.

The IT Pathfinder plays a critical role in helping companies succeed in a post-recessionary environment. The secret is working closely with operations and marketing teams to better communicate needs in a structure that is more easily assimilated by technologists, and rationalizing technology initiatives through alignment with business metrics. By establishing the role of IT Pathfinder, hotel industry CIO's, CMO's and COO's alike will benefit from increased organizational alignment by closing the gap between business and technology objectives.

**An IT pathfinder should speak business to business people and technology to tech people** ”

Lisa Fues, Director of Reservations, Inventory, and Distribution – Marriott International

## 9. About Robert Cole



**Robert Cole**  
Founder of RockCheetah

**Robert Cole is the founder of RockCheetah, a leading travel industry marketing strategy & technology consulting practice. Robert is recognized for his ability to help organizations develop innovative product and customer engagement strategies by successfully aligning marketing and IT.**

Robert specializes in eCommerce and distribution for the hospitality and destination sectors, with a focus on emerging technologies. Robert's unique travel industry perspective is a result of his wide range of experience with travel suppliers, technology providers and both B2B and B2C travel sellers.

His career highlights include serving as corporate director of marketing planning for Four Seasons Hotels & Resorts; leading marketing for Canadian economy lodging brand Journey's End; launching Travel Resources and growing its marketing services portfolio to represent more than 600 independent hotels; overseeing Sabre's global hotel program; establishing industry-first direct interfaces when leading distribution at Budget Rent a Car; introducing dynamic packaging to the travel industry at Neat Group; and running global product contracting for The Mark Travel Corporation, a leading North American wholesaler/tour operator.

Robert has also held leadership positions or been an active participant active in several industry associations including HFTP, The Open Travel Alliance, HSMAI, HEDNA, HITIS and the Cornell Center for Hospitality Research. A frequent speaker at travel industry conferences, Robert is also the author of the Views from a Corner Suite blog and a self-professed disciple of the global travel industry.

## 10. About Amadeus

Amadeus is a leading transaction processor for the global travel and tourism industry, providing advanced technology solutions to our travel provider and travel agency customers worldwide. Amadeus acts as an international network providing comprehensive real-time search, pricing, booking, ticketing and other processing solutions to travel providers and travel agencies through our Distribution business area, and we offer other travel providers an extensive portfolio of technology solutions which automate certain mission-critical business processes through our IT Solutions business area.

Customer groups include **travel providers** (e.g airlines, hotels, rail, ferries, etc.), **travel sellers** (travel agencies and websites), and **travel buyers** (corporations and individual travellers).

The group operates a **transaction-based business model** and processed 850 million billable travel transactions in 2010.

Amadeus has central sites in Madrid (corporate headquarters and marketing), Nice (development) and Erding (Operations – data processing centre) and regional offices in Miami, Buenos Aires, Bangkok and Dubai. At a market level, Amadeus maintains customer operations through 73 local Amadeus Commercial Organisations covering 195 countries.

Amadeus is listed on the Madrid, Barcelona, Bilbao and Valencia stock exchanges and trades under the symbol “AMS.MC”. The Amadeus group employs over 10,130 employees worldwide, with 123 nationalities represented at the central offices.

# 11. Appendix

1. International Monetary Fund (April 2011)  
[www.imf.org](http://www.imf.org)
2. STR Global -European Lodging Overview (March, 2011)  
[www.hotelnewsnow.com/media/File/PDFs/Industry\\_presentations/20110307\\_IHIF\\_STR.pdf](http://www.hotelnewsnow.com/media/File/PDFs/Industry_presentations/20110307_IHIF_STR.pdf)
3. International Monetary Fund (April 2011)
4. HotelNewsNow.com - PKF Hospitality Research releases updated forecast (June 2009)  
[www.hotelnewsnow.com/Articles.aspx/1340/PKF-Hospitality-Research-releases-updated-forecast](http://www.hotelnewsnow.com/Articles.aspx/1340/PKF-Hospitality-Research-releases-updated-forecast)
5. Fitch Ratings - U.S. CMBS Delinquencies Begin to Stabilize on March Decline (April, 2011)  
[www.pr-inside.com/fitch-u-s-cmbs-delinquencies-begin-to-r2526618.htm](http://www.pr-inside.com/fitch-u-s-cmbs-delinquencies-begin-to-r2526618.htm)
6. TickerSpy - Hotel REITs (\*REITT) Jan. 2008 – Apr. 2011  
[www.tickerspy.com/index/Hotel-REITs](http://www.tickerspy.com/index/Hotel-REITs)
7. TickerSpy - Hotel Stocks (\*HOTEL) Jan. 2008 – Apr. 2011  
[www.tickerspy.com/index/Hotel-Stocks](http://www.tickerspy.com/index/Hotel-Stocks)
8. Gartner - Gartner Says Worldwide IT Spending to Grow 4.6 Percent in 2010 (January 2010)  
[www.gartner.com/it/page.jsp?id=1284813](http://www.gartner.com/it/page.jsp?id=1284813)
9. Gartner - Gartner Says Worldwide IT Spending to Grow 5.1 Percent in 2011 (January 2011)  
[www.gartner.com/it/page.jsp?id=1513614](http://www.gartner.com/it/page.jsp?id=1513614)
10. Gartner - The 2011 Gartner Scenario: Current States and Future Directions of the IT Industry (January 2011)  
[www.gartner.com/DisplayDocument?id=1526219](http://www.gartner.com/DisplayDocument?id=1526219)
11. The Nielson Company \*E.g. 90 percent of respondents trusted “completely” or “somewhat” recommendations from people they know
12. SNL Kagan – Cashing Out on Check Ins: Mobile phone location-based services (October, 2010)  
[www.snl.com/Sectors/Media/WhitepaperLibrary.aspx](http://www.snl.com/Sectors/Media/WhitepaperLibrary.aspx)
13. Gartner Executive Programs (January 2011)  
[www.gartner.com/it/page.jsp?id=1526414](http://www.gartner.com/it/page.jsp?id=1526414)
14. Cisco –Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2010–2015  
[www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white\\_paper\\_c11-520862.html](http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-520862.html)
15. Gartner - Gartner’s Top Predictions for IT Organizations and Users, 2011 and Beyond: IT’s Growing Transparency – November 2010  
[www.gartner.com/it/page.jsp?id=1480514](http://www.gartner.com/it/page.jsp?id=1480514)

**For more information please contact:**

Jérôme Destors  
E-mail: [jdestors@amadeus.com](mailto:jdestors@amadeus.com)  
Tel: +33 (0) 497 154 895

Vic Pynn (Americas)  
E-mail: [vic.pynn@amadeus.com](mailto:vic.pynn@amadeus.com)  
Tel: +1 312 873 1140

**aMADEUS**  
Your technology partner

[www.amadeus.com](http://www.amadeus.com)  
[www.amadeus.com/hotelit](http://www.amadeus.com/hotelit)