



Cisco TelePresence Creates a New Business Opportunity for the Japanese Hospitality Industry

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Introduction

The Japanese market is aligned to be one of the world's best test beds of new business-model ideas. It has all the basic requirements: sophisticated technology consumers, significant advertising budgets, a strong desire for social networking, consumer spending opportunities, and, perhaps most important, access to fixed and mobile broadband. The broadband infrastructure is available, with high fixed and mobile broadband usage rates and a key customer segment interested in human interaction. This interaction can happen virtually or physically, so both fixed and mobile broadband are excellent enablers of new business models.

Although Japanese broadband has changed consumer behavior, most companies have not yet made use of this innovative business landscape to improve revenues. This paper presents an alternative business model for the Japanese hospitality industry, employing Cisco TelePresence collaborative technology to generate profits through broadband-based networking innovation.

Ubiquitous TelePresence: A Transformative Business Model

Cisco TelePresence technology has the potential to transform business models by influencing the way people interact and collaborate with coworkers, partners, customers, family, or friends. It can influence how and where discussions are held, how groups of globally dispersed people get together, or how product demonstrations are presented. Below, we look at areas of the hospitality sector in Japan that could benefit from new ideas and applications of broadband technologies.

Benefits of Cisco TelePresence

Implementing new technology in the hospitality sector can provide many benefits. For example, Cisco Internet Business Solutions Group (IBSG) projected that TelePresence allows 5 to 6 percent of business participants to avoid travel. Overall, within the company, Cisco TelePresence replaced 36 percent of one-day trips, 6 percent of two-day trips, and 0.5 percent of three-day trips.¹ This translated into nearly 58,000 fewer business trips over a three-year period, saving approximately US\$42 million and helping Cisco meet its goal of reducing travel expenses by 20 percent. In addition, this effort reduced the company's carbon-emission footprint by 8.6 million cubic meters over the same three-year period.

1. Cisco IBSG Economics Practice, 2007.

Hospitality Industry Potential

Hotels

Japan's hotel market revenue reached US\$17.2 billion in 2006, with the top five hotels claiming 25 percent of the total share.² Within this sector, competition is fierce. Most hotel companies have three pillars of revenue: accommodations, food and beverages, and weddings, each of which generates about a third of a hotel's revenue.

Due to Japan's sluggish economy, hotel customers have reduced their spending on events, including business meetings and weddings. As a result, most major hotel companies, such as Imperial, Okura, and New Otani, are suffering a gradual decrease in revenue. Moreover, high-end western hotels, such as The Ritz-Carlton, have opened a series of establishments in Tokyo, Osaka, and Nagoya, Japan's three largest cities, increasing competition in difficult times.

Domestic players are trying to fend off these newcomers by investing in new exteriors and facilities. These measures, however, don't necessarily generate new revenue, so hotels must do something innovative to attract a wide range of customers.

TelePresence technology, enabled by high-speed broadband, could allow hotels to offer a service that customers would view as being both convenient and cost-effective. For example, a hotel company could host TelePresence rooms in multiple cities, enabling business meetings to be attended by a widely dispersed audience, creating a virtual experience while lessening travel requirements. One large TelePresence room with an eight-person capacity, along with one smaller room with a three- to four-person capacity, running several hours per day, would greatly benefit both the hotel and its customers. On weekends, when there are fewer business travelers, the TelePresence service could be used by wedding customers to gather with friends and relatives located in distant cities.

Estimate of Japanese Business Travel Market

About 12 million airline passengers travel between Tokyo and other Japanese cities each year, with business trips representing about 60 percent of these flights.³ Rough cost estimates for one traveler equate to about US\$700 for a round-trip ticket, including accommodations. When the business traveler's actual employment cost is added, the total rises to at least US\$1,000 per person. Alternatively, a hotel could host a two-hour TelePresence meeting for four to eight people for less than \$2,000—significantly less than the \$4,000 to \$8,000 it would cost to fly attendees to the meeting.

2. Source: Nikkei Sangyo (Nikkei Industrial), 2007.

3. Source: Ministry of Land, Infrastructure, Transport and Tourism, 2006, and Cisco IBSG Japan estimation.

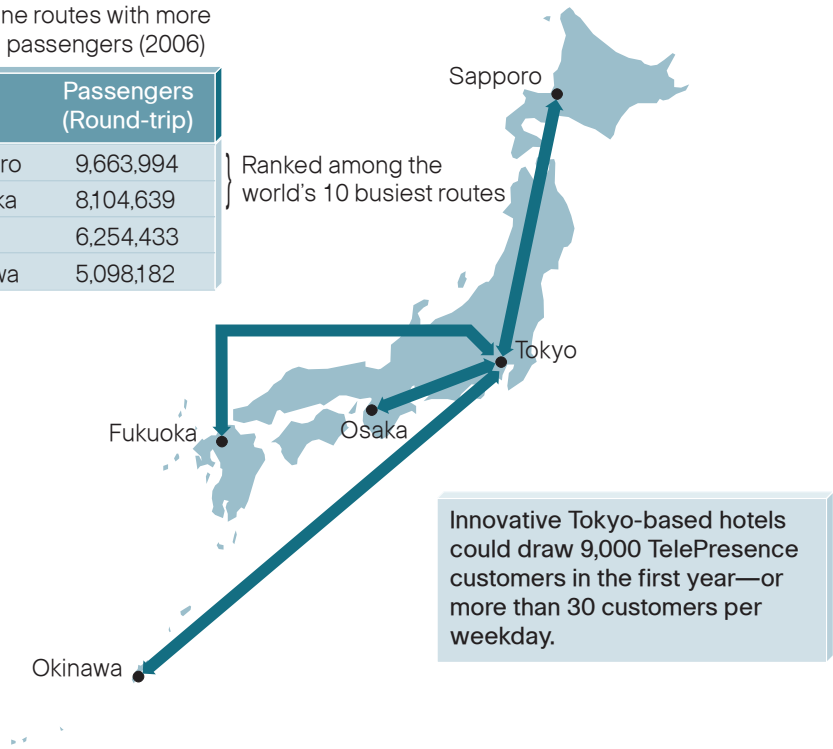
Figure 1. Potential Market: Business Travel

Japan's Business Travel Market and Estimation of Potential TelePresence Customers

Domestic airline routes with more than 5 million passengers (2006)

Route	Passengers (Round-trip)
Tokyo–Sapporo	9,663,994
Tokyo–Fukuoka	8,104,639
Tokyo–Osaka	6,254,433
Tokyo–Okinawa	5,098,182

} Ranked among the world's 10 busiest routes



Source: Ministry of Land, Infrastructure, Transport and Tourism, 2006.

Estimate of Potential Business Customers

For the base market, there are 7.2 million business travelers in Tokyo per year.⁴ Based on Everett Rogers' Innovation Diffusion Theory,⁵ we can assume 2.5 percent of these people are technology-positive innovators. This means that 180,000 business travelers in Tokyo alone can be influenced by new innovations and technologies. If, as statistics show, the typical hotel company has 5 percent market share, then we can assume it can acquire 5 percent of the 180,000 business travelers we have identified. That equates to 9,000 individual customers (or 2,250 groups of four people) in the first year alone.

4. Source: Cisco IBSG Japan estimation based on the statistics of Ministry of Land, Infrastructure, Transport and Tourism.

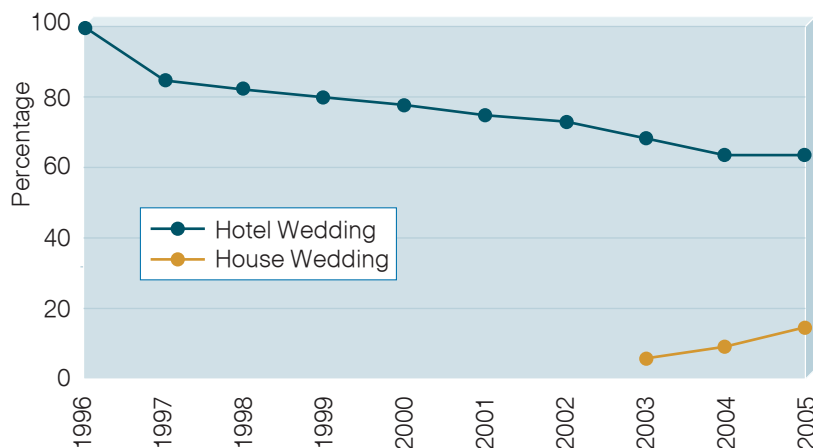
5. In his 1962 book, *Diffusion of Innovations*, Everett M. Rogers theorized that innovations would spread through society in an S curve, as the early adopters select the technology first, followed by the majority, until a technology or innovation is common. According to Rogers, diffusion research centers on the conditions that increase or decrease the likelihood that a new idea, product, or practice will be adopted by members of a given culture. Rogers stated that people's attitudes toward a new technology are a key element in its diffusion. Rogers' Innovation Decision Process theory states that innovation diffusion is a process that occurs over time through five stages: Knowledge, Persuasion, Decision, Implementation, and Confirmation.

Estimate of Potential Wedding Customers

For many hotels, weddings are an indispensable market segment, with about 33 percent of revenue coming from this highly profitable group of customers.⁶ Recently, a new competitor has begun to erode the profit potential of hotels: the house wedding industry, which plans events at high-end mansions. Wedding ceremonies and receptions are a US\$15 billion market. The hotel sector currently owns 63 percent of the market, with the house wedding industry claiming another 15 percent.⁷ To defend themselves, hotels have a strong incentive to equip their facilities with innovative communication technology to recapture customers. If hotels can take back 5 percent of current house wedding customers, 4,500 more ceremonies will be added to the hotel industry in a given year. For example, as greater Tokyo has created about a third of Japan's total GDP,⁸ we can estimate that about 1,500 wedding ceremonies will be held in Tokyo. If a top-ranking hotel has a 10 percent share within the greater Tokyo area, it could enjoy 150 additional ceremonies a year.

Figure 2. Potential Markets: Weddings

Estimate of Potential TelePresence Customers in Japan's Hotel Wedding Market



- **Overall Wedding Market Is \$13 Billion to \$20 Billion**

- House weddings have a 15% share. If the hotel industry could recapture 5% of house wedding customers, and if the hotel has 5% share, $\$15B \times 15\% \times 5\% \times 5\% = \$5.625M$

- **Yearly Total Wedding Ceremonies: 600,000**

- If the hotel industry could recapture 5% of house wedding ceremonies (based on house weddings' 15% share), $600,000 \times 15\% \times 5\% = 4,500$ ceremonies

Source: Wedding Market Research, Take and Give Needs, Inc., 2006.

6. Source: *Nikkei*, 2006.

7. Source: Wedding Market Research, Take and Give Needs, Inc., 2006.

8. Wikipedia Japan, Greater Tokyo Area, 2008.

Hotel TelePresence: Three Scenarios

TelePresence service at hotels shows great promise. A key factor in these scenarios is that the hotel provides the rooms while the service provider implements TelePresence functionality with the goal of attracting new customers and new revenue opportunities.

The first case is an extreme example with regard to revenue. This scenario does not count on the favorable business factors found in the feasibility research. But even by this assumption, the break-even point for the yearly operation is within reach.

The second case is more realistic as it uses true numbers on utilization. With this scenario, we know the size of the financial performance for the smallest service unit (two locations). The third case, also based on realistic assumptions, shows the most optimistic performance.

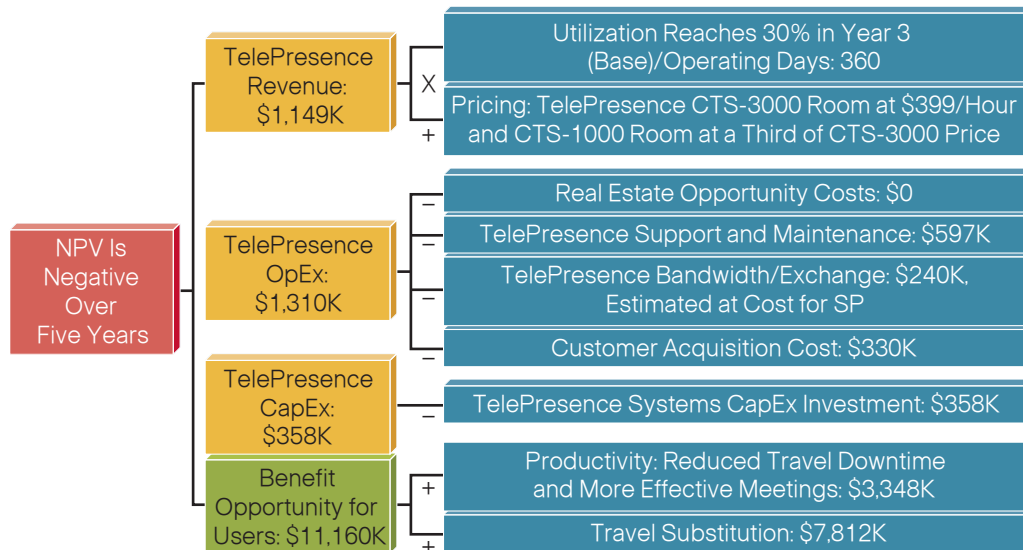
Scenario I: Base Case

In this case, TelePresence room utilization is based on 10-hour availability per day. Since the cost factors are almost the same for each of the three scenarios, the most important factor is how many hours the TelePresence rooms will be used. In this scenario, we assume very modest numbers. As seen in Figures 3 and 4, the results produce a negative net present value (NPV) over five years. It would take four years of operations before profitability ensued. Obviously, this scenario would not be acceptable to any business owner.

In Figure 3, below, the “benefit opportunity” is about 10 times larger than “TelePresence revenue,” implying that there is ample opportunity to raise the TelePresence room charge.

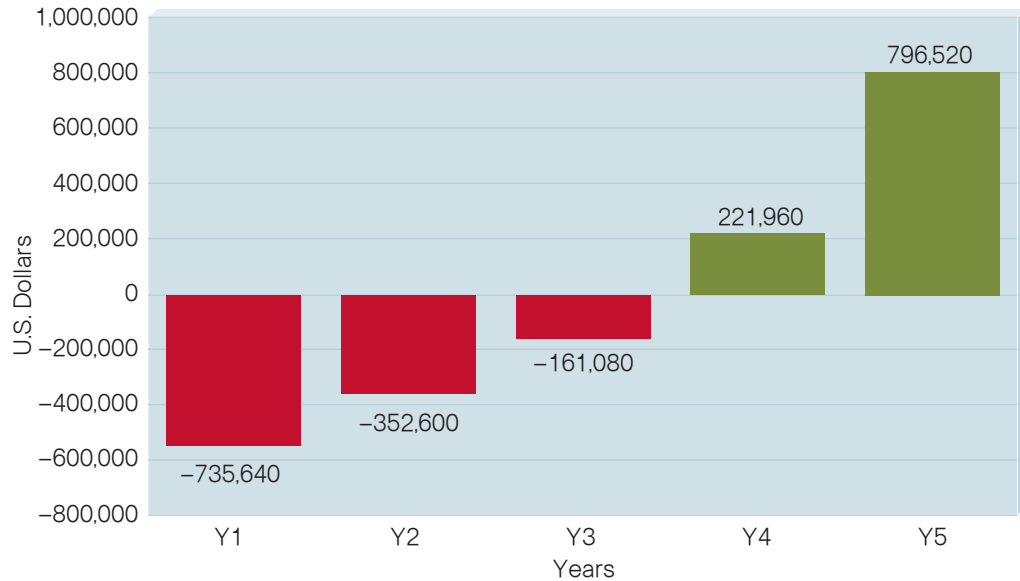
Figure 3. Assumptions: Scenario I

Base Case



Source: Cisco IBSG Economics Practice, 2008

Figure 4. Operational Profit: Scenario I



Source: Cisco IBSG Economics Practice, 2008

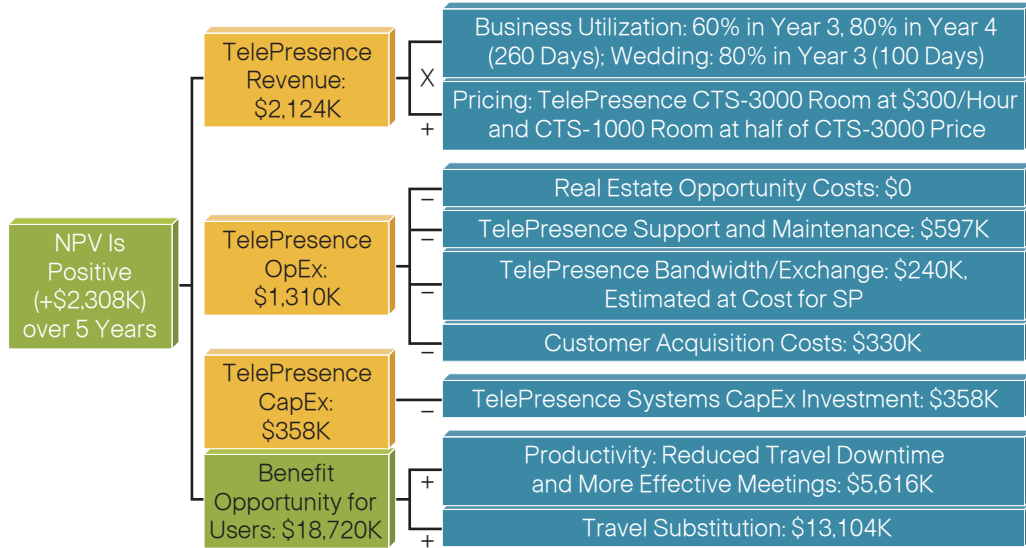
Scenario II: Moderate Case

In this case, considering Japan's potential business and wedding needs (see Hotel Wedding Market, above), we increased the utilization numbers. We calculated business use and wedding use separately, since we believe wedding group users would employ the large and small TelePresence rooms concurrently for four hours at a time to enjoy life-sized communication with friends and relatives around the globe. In this case, however, TelePresence room pricing was lowered according to the Tokyo-based hotel conference room standard. In short, utilization increased while pricing decreased.

Scenario II assumptions greatly improve overall financial performance. This scenario is profitable by year two of implementation. The operational profit of year five, US\$1.28 million, is large enough considering the initial investment of just US\$358K. A project like this should gain approval given its positive net present value.

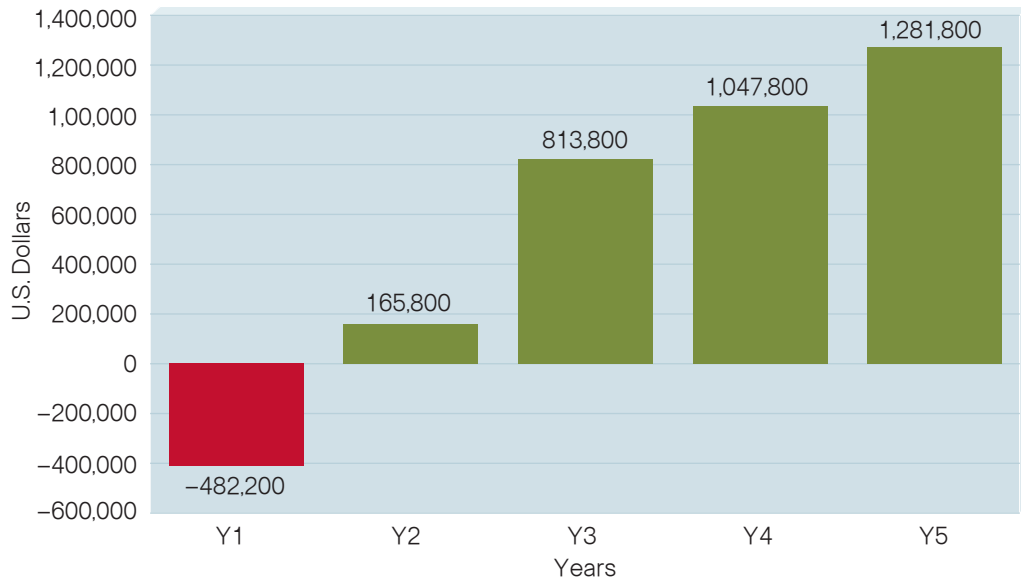
Figure 5. Assumptions: Scenario II

Moderate Case



Source: Cisco IBSG Economics Practice, 2008

Figure 6. Operational Profit: Scenario II

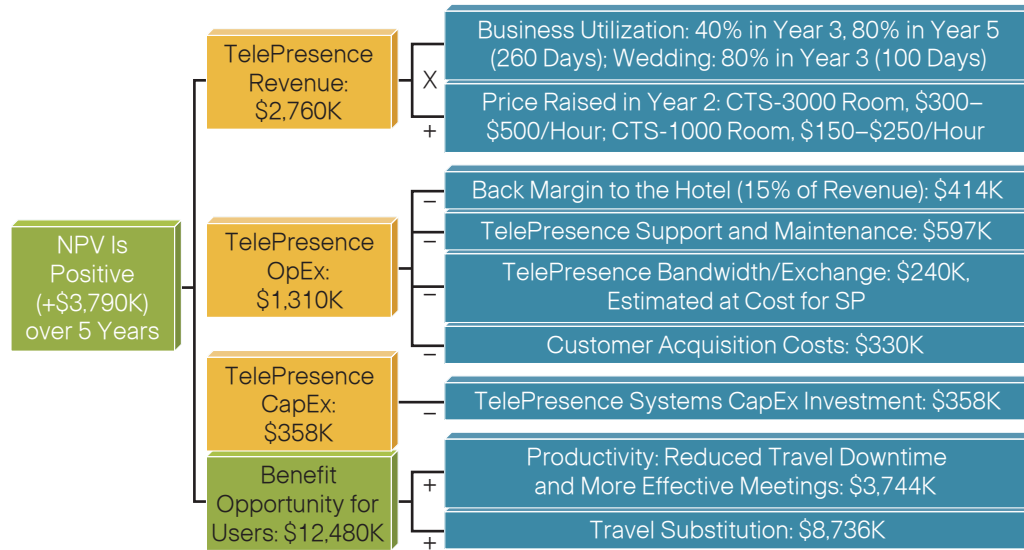


Source: Cisco IBSG Economics Practice, 2008

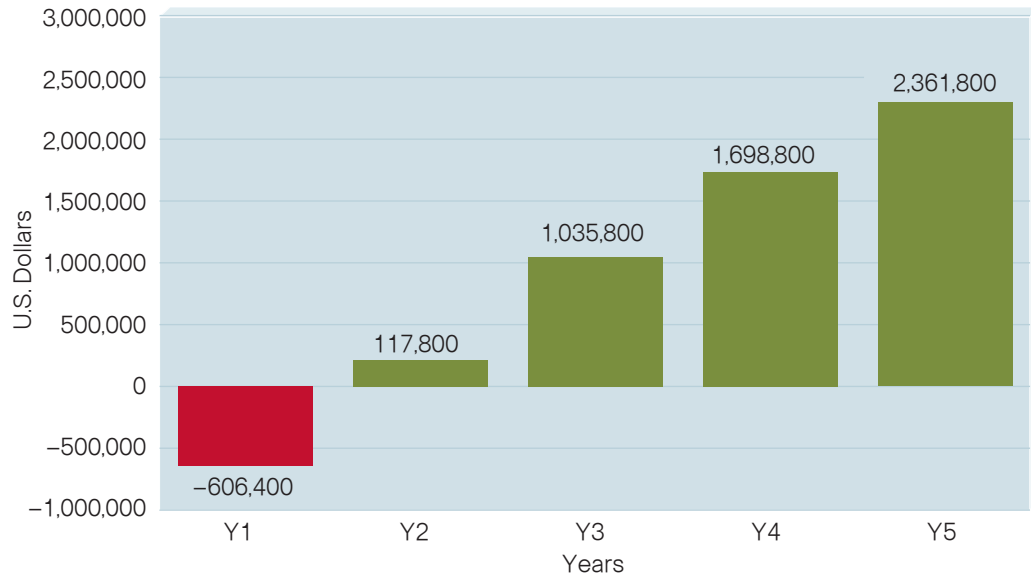
Scenario III: Best Case

In this scenario, as the economic benefit to business users grows, we increased room pricing by 66 percent—and decreased utilization, based on these higher hourly room charges—starting in year two. As a result, this increases revenue and has a large, positive effect on the financial numbers (Figures 7 and 8). To provide an even more realistic scenario, we returned 15 percent of total revenue to the hotel, assuming that hotel owners could ask for such a reciprocal benefit after seeing the success and attraction of the implemented technology. Regardless of the back margin, the NPV is larger than that of the second scenario. After realizing the potential profits from TelePresence technology, business owners would expand the service network to other major cities.

Figure 7. Assumptions: Scenario III
Best Case



Source: Cisco IBSG Economics Practice, 2008

Figure 8. Operational Profit: Scenario III

Source: Cisco IBSG Economics Practice, 2008

Conclusions

Japan, where the technology is mature, available, and cost-efficient, provides a perfect test ground new business ideas whose success could be a source of competitive differentiation.

TelePresence service in hotels provides a new experience for customers—and significant opportunities for businesses. Simple calculations show that six rooms (three small and three large) in one location, with 20 separate locations in total, would create US\$240 million in revenue by the fifth year of operation, with an operational profit of greater than 50 percent by year five.

TelePresence-gearred business models have the potential to positively recast the broadband playing field, providing profitable avenues for innovative companies.

Acknowledgments

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More Information

The Cisco Internet Business Solutions Group (IBSG), the global strategic consulting arm of Cisco, helps CXOs and public sector leaders transform their organizations—first by designing innovative business processes, and then by integrating advanced technologies into visionary roadmaps that address key CXO concerns.

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