Comparing the Business Impact of Various Video Solutions

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Introduction
Many businesses are currently introducing remote collaboration video solutions for a broad range of benefits, ranging from travel-cost reduction and productivity to business transformation. Video solutions, however, come in many configurations, ranging from large, three-screen executive systems to desktop and mobile solutions, at different price points. With such a variety of choices, how should business executives decide which solutions are best for which users?

Understanding the Value of Improving the Video Experience
There is an intuitive understanding that improving the “immersive quality” of video collaboration increases adoption and the scale of business benefits achieved—but few have quantified this relationship. The experience with earlier video telephony technology suggests that adoption of these video solutions (utilization) is the most important factor for realizing these benefits.

The question of the appropriate video configuration is complex and depends on a number of factors. Our analysis focused on the likely primary driver: How does the “immersive quality” of video-based remote collaboration increase adoption and the scale of business benefits achieved?

The Cisco IBSG Research & Economics Practice examined Cisco® TelePresence® utilization metrics for the 1,000+ systems deployed over the past four years within Cisco, and also undertook a survey of smaller-screen video users. We found that screen size is well correlated with (1) utilization and (2) travel avoidance.

The overall logic flow used to develop a business case—from experience drivers to business benefits—is shown below in Figure 1.
This short paper looks at the hypothesis that the most easily measurable benefit, travel substitution, is directly correlated with the video collaboration experience. Cisco’s four-year experience with TelePresence use, combined with a survey of the newly introduced Tandberg screen video collaboration solutions, provides evidence for this position.

**Impact of Screen Size on Utilization**

Cisco TelePresence utilization metrics for the 1,000+ systems deployed over the past four years are shown below in Figure 2. This shows that a more immersive experience based on video-screen size and resolution leads to higher usage.

**Figure 2.** Cisco TelePresence Usage by Solution Type, 2006-2011.

<table>
<thead>
<tr>
<th>Solution type</th>
<th>Daily usage</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTS 3210 / CTS 3200</td>
<td>6.9 hours / day</td>
<td>Immersive – 3-screen</td>
</tr>
<tr>
<td>CTS 3010 / CTS 3000</td>
<td>5.7 hours / day</td>
<td>Immersive – 3-screen</td>
</tr>
<tr>
<td>CTS 1300</td>
<td>4.6 hours / day</td>
<td>Multipurpose – 1-screen</td>
</tr>
<tr>
<td>CTS 1100 / CTS 1000</td>
<td>4.2 hours / day</td>
<td>Multipurpose – 1-screen</td>
</tr>
<tr>
<td>CTS 500</td>
<td>3.8 hours / day</td>
<td>Personal – 1-screen</td>
</tr>
</tbody>
</table>

Source: Cisco IBSG Research & Economics Practice, 2011

Figure 3 below shows the same utilization data graphed against the solution’s screen width. Here the scatter plot shows a strong relationship between utilization and screen width.
Impact of Screen Size on Travel Substitution

The larger Cisco TelePresence units such as the CTS 3000 and 3200 provide immersive experiences with life-size images supported by comprehensive, customized lighting, sound, and furniture.

As detailed utilization figures for smaller screens are not available, the Cisco IBSG Research & Economics Practice, in partnership with Cisco Emerging Technology IT, undertook a survey of smaller-screen video users. This survey was designed to test the hypothesis of declining travel substitution against screen size, and the results are presented below in Figure 4.
Figure 4. Travel Substitution by Screen Width.

Though there are only a few data points, we see a correlation between the experience (as measured by screen width) and benefits (as measured by trips avoided). One, possibly bold interpretation of this graph is that the avoided monthly air trips can be estimated by multiplying the screen width of any solution (in inches) by 0.0613.

**Implications for Accelerating Enterprise Video Benefits**

The findings of this analysis support our working hypothesis of business benefits being correlated with the immersive experience. While the data demonstrate this for travel substitution, it is possible that other benefits—such as improved productivity, process speed, agility, innovation, and decision quality, along with reduced greenhouse gas emissions—also accompany the experience.

With this in mind, organizations implementing video collaboration solutions should:

- Start Cisco TelePresence deployments with large, immersive rooms to drive cultural change and adoption
- Target key locations, using business travel between city pairs as an indicator of remote collaboration
- Target key individuals with specific expertise to deploy additional, smaller personal units and extend the reach of collaboration capabilities
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