

► OR Integration

Automation systems designed to control the routing of audio and video signals via a common interface within the operating room.



**Many Requests.
Overwhelming Options.
Fuzzy ROI.**

**What are
other hospitals
doing?**



Hospital C-suites are hearing numerous requests for OR Integration systems - and have a challenge. First, each installation is different - lots of options. There are also 3 different types of vendors that supply these systems. And, there are questions about ROI.

What are other hospitals doing? To help sort this out we define 3 typical OR Integration configurations - 3 scenarios. We then provide you with percentage market interest and pricing as shown by ECRI Institute's 2,500 SELECTplus™ technology advisory members on the 3 types of vendors, as well as the vendor breakdown. Lastly, we address ROI and offer 6 cost savings tips.

Market data charts in this whitepaper are based solely on price points submitted to ECRI Institute in the past 18 months by SELECTplus™ technology advisory members. This data is not validated market share data, and there is no data for manufacturers of OR integration systems for whom we have not received any data. Please note that quoted costs for each scenario are not linked to hospital type or size. In addition, quoted costs for Extended and Advanced Scenarios do not include room-status monitoring or data for a nurse scheduling station. The data provided is time sensitive and may not be accurate or timely at a future date.

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OR Integration Systems are Customized for Each Installation. Here are 3 Typical Configurations:

SCENARIO 1 IN-ROOM

Goal: To modernize a general OR

EXAMPLE: Route video sources (e.g., endoscopic camera, in-light camera, PACS) to flat panel video displays in the OR. Route audio sources (e.g., mp3 player, microphones) to speakers or recorders in the OR. May offer centralized control of clinical devices such as insufflators and electrosurgical units.

SCENARIO 2 EXTENDED

Goal: To integrate a specialty OR (e.g., cardiovascular, hybrid, urology)

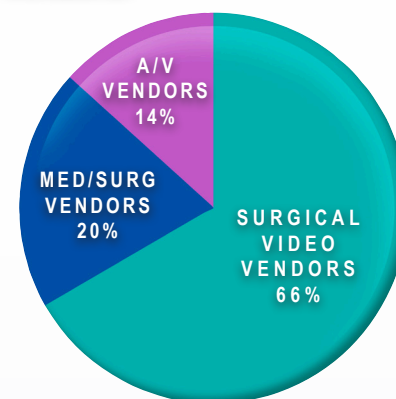
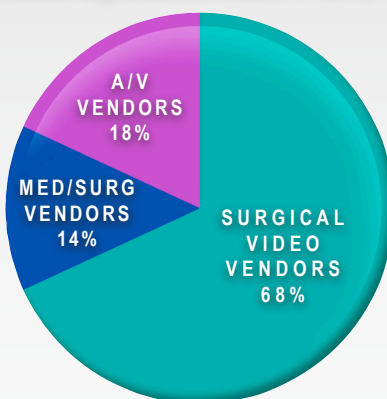
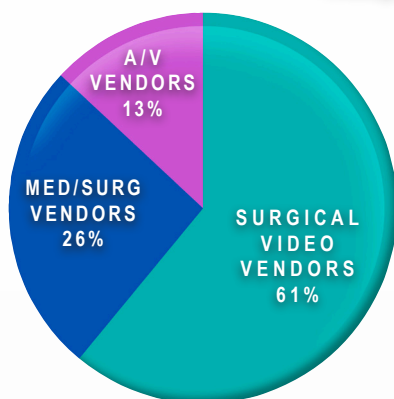
EXAMPLE: In-room integration plus the ability to route video and audio sources to destinations outside the OR such as conference rooms, doctors' offices, and scheduling nurse stations. Typically includes teleconferencing, bidirectional communication between ORs, and/or room status monitor.

SCENARIO 3 ADVANCED

Goal: To build a state of the art integrated OR for educational purposes

EXAMPLE: All general features of an extended system plus enhanced features such as remote access, IP video networking, room observation, a network hub, or a central media server.

Hospitals Purchase Systems from 1 of 3 Types of Vendors:



Quoted Price Per Room by Type of Vendor:

SURGICAL VIDEO VENDOR	Avg. \$103,031	HIGH \$172,560 LOW \$60,534
A/V VENDOR	Avg. \$102,806	HIGH \$149,600 LOW \$65,965
MED/SURG VENDOR	Avg. \$56,511	HIGH \$81,550 LOW \$24,236

Average Across All Vendors **\$90,867**

SURGICAL VIDEO VENDOR	Avg. \$144,333	HIGH \$191,786 LOW \$109,395
A/V VENDOR	Avg. \$136,342	HIGH \$167,500 LOW \$105,456
MED/SURG VENDOR	Avg. \$139,284	HIGH \$162,502 LOW \$125,216

Average Across All Vendors **\$142,192**

SURGICAL VIDEO VENDOR	Avg. \$230,626	HIGH \$294,816 LOW \$195,331
A/V VENDOR	Avg. \$203,316	HIGH \$212,881 LOW \$193,752
MED/SURG VENDOR	Avg. \$219,052	HIGH \$228,065 LOW \$206,512

Average Across All Vendors **\$224,670**

ECRI Institute Member Interest in the Leading Vendors - by Percentage within in Each Configuration:

SURGICAL VIDEO VENDOR

Karl Storz	24%	36%	32%
Olympus	2%	18%	7%
Smith & Nephew	2%	4%	7%
Stryker	33%	10%	20%

A/V VENDOR

Black Diamond	9%	4%	7%
Other A/V	4%	14%	7%

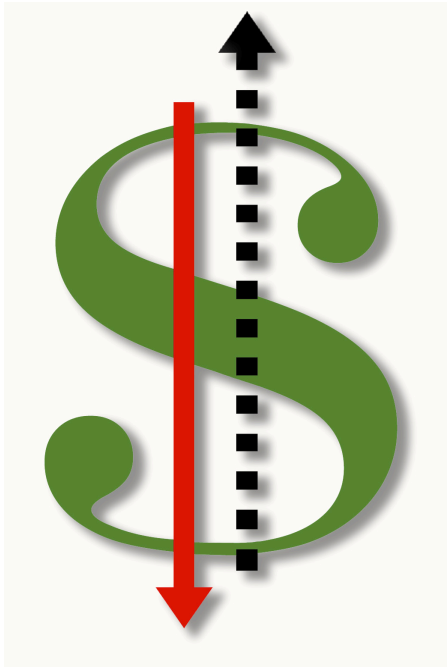
MED/SURG VENDOR

Skytron	6%	4%	7%
Steris	20%	10%	13%
	100%	100%	100%

Other A/V vendors include: Banyan, Image Stream, MedVision, OASYS, and VTS.

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WHAT ABOUT ROI?



No question OR Integration is a hot topic across the country. This may not only be because there are numerous requests for this capital equipment, but there are also real questions about Return-On-Investment. Unlike other capital requests that can come with hard ROI expectations, nobody is making a convincing quantifiable ROI case for OR Integration systems. In a resource-limited environment should your hospital budget for OR Integration?

While it may be difficult to quantify ROI, there are benefits.

These include: **reducing medical errors, attracting or retaining competent OR personnel, improving OR efficiency, and providing new educational tools.**

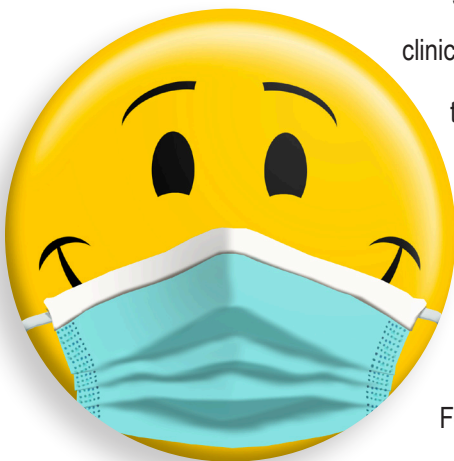
Reduced medical errors and near misses can come through improved communications. OR integration systems can also make surgeons, anesthesiologists, nurses, and other OR

clinicians “feel more comfortable and more confident that things are going well,” says Warren Sandberg, M.D., Ph.D., formerly associate professor of anesthesia,

Harvard Medical School and a program leader of the Operating Room of the Future project at Massachusetts General Hospital.

“From a human factors perspective, that is hugely important.”*

For those systems with central scheduling monitoring, more efficient use of OR suites can occur. And outside-the-room video can be a useful educational tool.

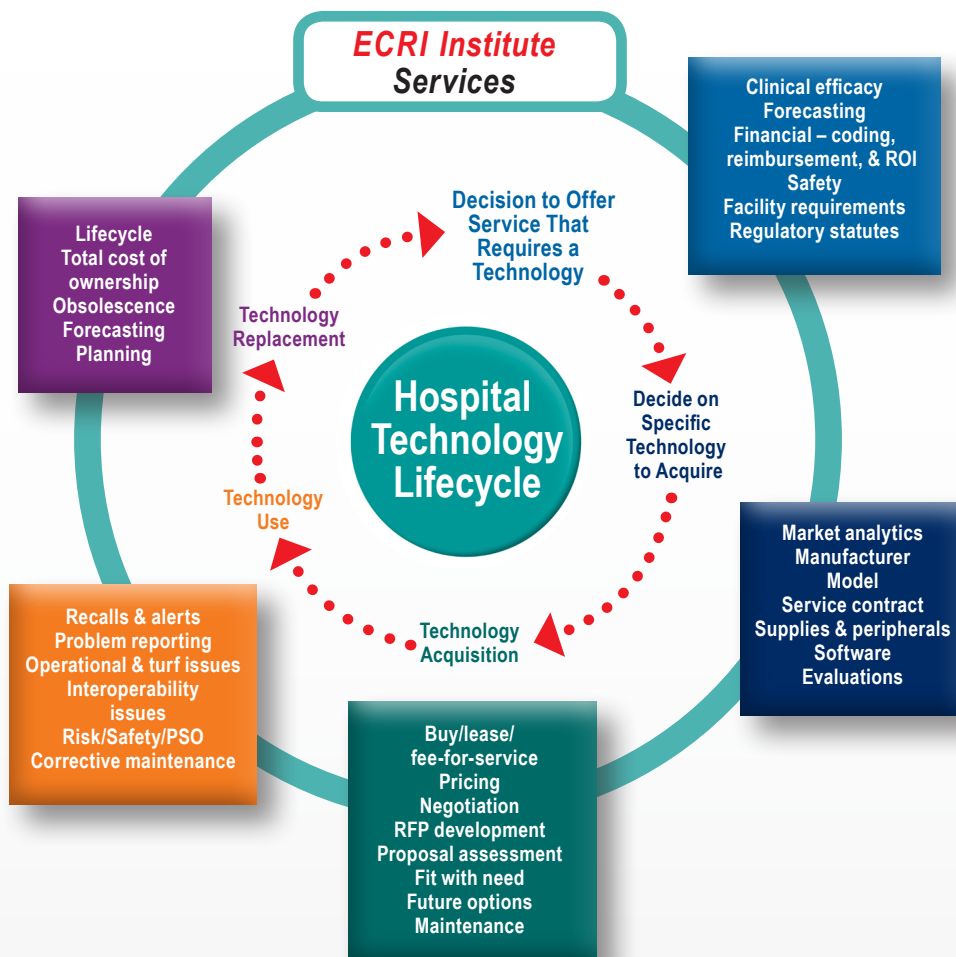


*From “How Could OR Integration Affect Patient Care?” ECRI Institute Trends January 1, 2008



HOW CAN **ECRI Institute** HELP?

We support you at every stage of your hospital's technology lifecycle.



6 **OR** Integration COST-SAVING TIPS:



- 1 Purchase your wall-mounted displays from a local video equipment retailer
- 2 Keep room-status monitoring separate from OR integration system
- 3 Don't use the integration system to control room lighting
- 4 Don't use the integration system to control surgical lighting either
- 5 Don't use the integration system to control HVAC
- 6 Don't use the integration system for audio communications

Whether you'd like to find out more about the data described in this white paper, or you need tools to help you meet your technology challenges, our experts can help.

For more information

contact Jennifer Myers, jmyers@ecri.org, or call us at 610-825-6000, ext. 5287

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ECRI Institute is a 43 year old independent, nonprofit organization that researches the best approaches to improving safety, quality and cost-effectiveness of patient care.

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