

## Radiology Information Systems 2003: Market Performance

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**This extract**, from a recent Radiology Information Systems (RIS) study, provides a snapshot of today's market performance and industry trends through the eyes of both users and vendors. The result incorporates the opinions of 154 providers (42 chief information officers, two chief medical officers, 14 information system directors, 40 information system managers, 52 radiology directors and four "others"). The results of this study were published in May 2003 by KLAS. (KLAS 2003).

Early RIS focused on exam processing, charge capture, and film library functions. Today's RIS users are seeking radiology workflow management systems with the ability to automate information flow through the radiology department incorporating a diverse list of operational processes, including patient and resource scheduling, registration, order entry, exam tracking, charge capture, film tracking, transcription, electronic signature, report distributions, and management reporting. These systems must integrate with all radiographic modalities including x-ray, CT, PET, MRI, ultrasound, mammography and nuclear medicine, each with its own set of requirements. In addition, RIS users expect RIS applications to integrate with Picture Archiving Communication Systems (PACS) and voice-recognition technology, the latest tools in radiology automation.

This report features four vendor products: Cerner Millennium RadNet, IDX Imagecast v.

10, Misys Radiology and Siemens NOVIUS Radiology. Although the trend in healthcare computing is toward increased integration and interoperability, and the survey participants' comments suggest a move toward PACS, the majority of respondents indicated they purchased the RIS system as a stand-alone application – an indication of how quickly requirements and business needs are changing.

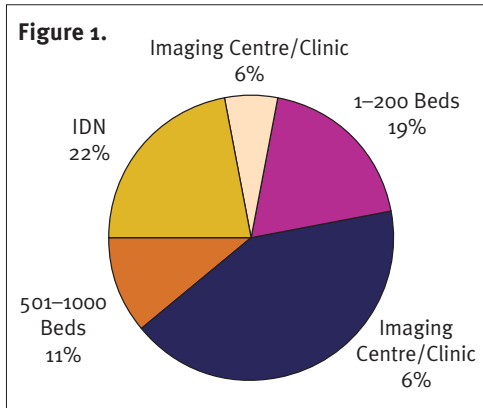
Performance measurements of the KLAS traditional 40 indicators, as well as technology overviews, client win/loss and pricing, provide the basis of the provider experience. Vendor overviews with information regarding product history and development, move-forward strategies, product strengths, market perceptions, web partnering and HIPAA strategies round out the vendor view.

Unlike their PACS counterparts, RIS vendors collectively score below the KLAS healthcare information technology (HIT) norm – the average of all HIT products in the KLAS database – for overall performance. Vendor ratings were compared to one another, the average radiology vendor and the average HIT vendor. Today's performance suggests an opportunity and room for improvement.

### **PUTTING CLIENT COMMENTS INTO PERSPECTIVE.**

The report enjoys a good cross-section of user experience, with 72% of provider participants

ranging in bed size from 200 to 1,000 beds, 22% IDNs, and the remaining 6% from imaging centres and clinics. While each vendor enjoys a good cross-section of provider organizations, only two, IDX and Misys, had a presence in imaging centres/clinics.



Survey participants were asked to rate their vendor on a scale of 1 to 9 (low-high) on 28 aspects of performance, and to answer 12 questions relating to customer satisfaction.

#### 14 Primary Indicators of Performance (rating 1-9, where 1=poor and 9=excellent)

- up to expectations
- product works as promoted
- vendor is improving
- quality of training
- proactive service
- quality of implementation
- quality: money's worth
- quality of telephone support
- commitment to technology
- quality of interface services
- executives interested in you
- third-party product works with vendor products
- good contracting experience
- helps your job performance

#### 14 Detail Performance Indicators (rating 1-9, where 1=poor and 9=excellent)

- worth the effort
- quality of documentation
- real problem resolution
- quality of releases and updates

- good job selling
- s/w errors corrected quickly
- product quality rating
- interfaces met deadlines
- implementation on time
- quality of custom work
- implementation within budget
- hardware vendor satisfaction
- quality of implementation staff
- response times

#### 12 Business Indicators (rating is a yes or no)

- implemented in the last three years
- contract is complete
- core part of IS plan
- contract administered fairly
- Would you buy it again?
- timely enhancement releases
- avoids nickel and diming
- support costs as expected
- keeps all promises
- ranked client's best vendor
- a fair contract
- ranked client's best or second-best vendor

**Top Performer.** Today's performance suggests an opportunity for improvement. Overall, Siemens outscored the competition in 37 of the 40 performance indicators, but radiology vendors, as a whole, score below average in comparison to HIT vendors. With the industry looking to RIS to increase productivity and reduce medical errors, and with an opportunity for PACS and voice transcription investment and integration, performance improvements are expected.

**Vendor Performance – Highs and Lows.** Drilling down into the low and high scores of each vendor, across all indicators, provides additional insight. The extent of the range from low to high and the variability among the vendors as to individual indicator criteria begins to provide insight into the successes and challenges of both the product and, collectively, the RIS industry. Technology represents both the strongest and the "tightest" (least variable) scoring category among the vendors, and "enterprise commitment to technology" was the highest score in three out of the four vendors.

**Table 1.**

	LOWEST	HIGHEST
Cerner Millennium RadNet	5.04 S/W errors corrected quickly	7.33 Enterprise commitment to technology
IDX Imagecast v.10	4.64 Implementation on time	6.91 Enterprise commitment to technology
Misys Radiology	5.38 Service: proactive	7.14 Implementation within budget/cost
Siemens NOVIUS Radiology	6.37 Service: proactive	7.81 Enterprise commitment to technology

**Business Indicators.** Figure 2 represents the survey results of business indicators measured. Siemens received the highest score in nine out of the twelve business indicators. The category of least variability among the vendors is “core part of IS plan,” while the most is “keeps all promises.”

**Why Vendors Are Selected or Not Selected.**

Analysis of client win/loss commentary provides insight into the vendor selection process and the reasons why or why not a vendor is selected. The percentages may not add up to 100 because of multiple comments from the same respondent.

**Why Vendors Are Typically Selected.** Drilling down into the reasons of why a vendor is selected adds to each vendor’s product profile. As compared to one another:

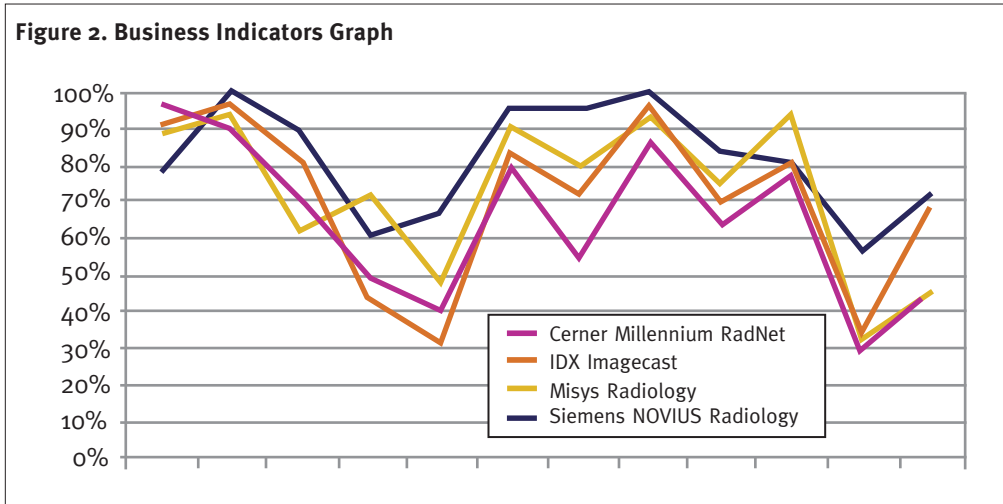
- Cerner scores high in “single vendor/full clinical package,” “integration/interfacing” and “vision.”

- IDX scores high in “integration/interfacing” and “technology.”
- Misys scores high in “functionality,” “references/track record” and “pricing.”
- Siemens scores high in “prior experience with vendor.”

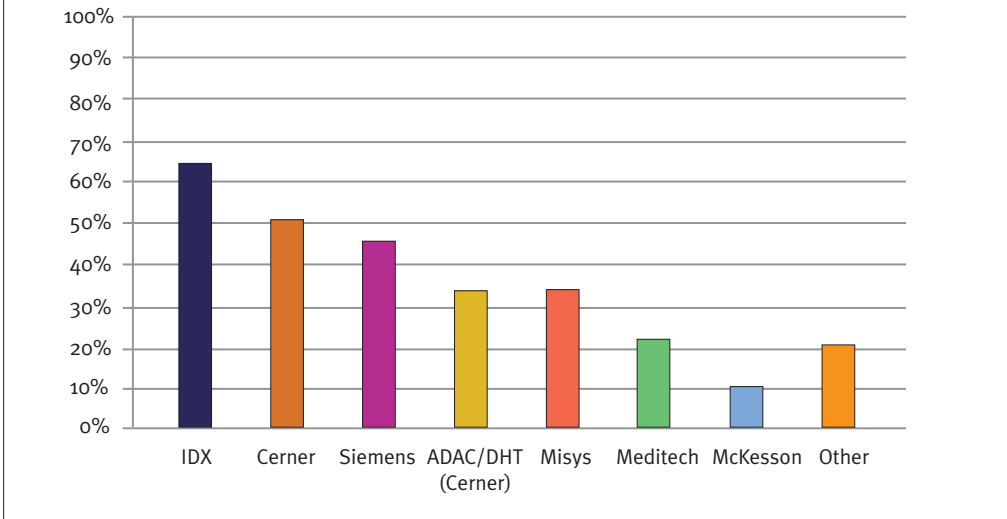
**Why Vendors Are Typically Not Selected.**

Remarkable observations as to why a vendor is not selected vary by vendor and add to each vendor product profile.

“Vendors Considered” in the RIS selection process, by survey respondents, are listed in order of frequency mentioned (highest to lowest). The percentage refers to the number of time a vendor was specifically mentioned by a respondent. IDX, followed by Cerner and Siemens, are the most frequently considered vendors.



**Figure 2. Business Indicators Graph**



**Offer to Canadian Healthcare Facilities.** Many Canadian healthcare facilities and organizations use vendors who supply solutions unique to Canada. KLAS – the organization rating IT vendors in this and subsequent issues of ElectronicHealthcare.com – is willing to gather confidential and candid data from Canadian healthcare executives and provide all data con-

tributors with access to results. The vehicle that will be used is the web-based KLAS vendor evaluation form found at [www.healthcomputing.com](http://www.healthcomputing.com) under the “rate your vendor” button. If you have comments, suggestions or questions about this vendor-rating feature, please send an e-mail to [editors@longwoods.com](mailto:editors@longwoods.com).

**Table 2.**

	Cerner	IDX	Misys	Siemens
Single Vendor/Full Clinical Package	55%	0%	8%	18%
Integration/Interfacing	36%	33%	8%	29%
Functionality	18%	33%	50%	24%
Technology	0%	47%	8%	0%
Prior Experience w/Vendor	0%	27%	17%	35%
References/Track Record	0%	7%	25%	0%
Demo/Sales Team	9%	7%	0%	6%
Vision	18%	7%	0%	0%
Pricing	9%	0%	25%	18%

**Table 3.**

	Cerner	IDX	Misys	Siemens
Functionality	58%	56%	60%	43%
Integration	17%	33%	40%	14%
Price	8%	11%	0%	14%
Prior Experience w/Vendor	17%	0%	0%	0%
Full Clinicals	0%	22%	20%	29%
Technology	17%	11%	0%	14%
Demo/Sales Team	0%	11%	0%	14%

**About KLAS.** KLAS, founded in 1996, is a research and consulting firm specializing in monitoring and reporting the performance of healthcare's information technology vendors (HIT). Staff and advisory board average 25 years of healthcare information technology experience.

**How We Serve the Healthcare Industry** KLAS, in concert with thousands of healthcare executives, CIOs, directors, managers and clinicians, has created a dynamic database of information on the performance of HIT vendors. The KLAS database represents the opinions of healthcare executives, managers and clinicians from more than 3,000 healthcare facilities on more than 180 vendors and 300 different products. The information is continually refreshed with new performance evaluations and interviews daily. The KLAS database is dynamically and effectively used by:

- Healthcare organizations to align expectations with a vendor's actual performance, to assist in strategic planning and to validate decision processes
- Vendors to monitor their performance in comparison with competitors
- Consultants for current performance information on a specific company or product
- Healthcare investment firms to evaluate publicly traded HIT company trends

Contact KLAS at [www.healthcomputing.com](http://www.healthcomputing.com) or call toll-free 866-268-9438 for the *CPOE Digest*.