

PACS 2002

FOCUS: Picture Archive and Communication Systems (PACS) Market Performance

This extract, from a recent PACS study, provides a snapshot of today's market performance and industry trends, through the eyes of both users and vendors, as the market continues to grow and its vendors and products mature. Clients interviewed were from more than 130 sites, and the results incorporate the opinions of over 225 PACS imaging managers, medical directors, radiologists, CIOs, department directors and vendor executives. The full report contains over 350 pages of rankings, commentaries and analysis and was published in November 2002 by KLAS (the 2002 PACS report is the second such report from KLAS; initial report June 2001).

The driving force behind this report reflects the continued interest and deployment of PACS by healthcare providers, suggesting a sincere and sustaining interest in such systems. Synergies are anticipated in complementary venues, such as cardiology. As well, the lines between PACS and RIS show evidence of merging as PACS begin to deploy "traditional" RIS functionality.

The report details 10 vendors. Repeat vendors (from the 2001 report) include: Agfa, Canon, DR Systems, GE, Kodak, Philips and Siemens. Vendors newly qualifying (minimum of 10 live multi-modality sites) for inclusion in today's full market comparison include eMed, Fuji and McKesson. In addition, three other vendors (Amicas, Cerner and Stentor) were in various stages of development, and their information was reported accordingly.

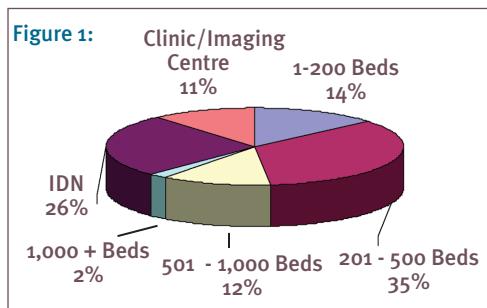
PACS vendor ratings seem to be "settling in" as measurements from 40 indicators, special questions, technical assessments, client win/loss and pricing provide the basis of the provider experience. Vendor overviews with information

regarding product history and development, move-forward strategies, product strengths, market perception, Web, partnering and HIPAA strategies round out the vendor "view." Together, PACS vendors continue to outperform the KLAS norm (with the exception of one vendor), even though their 2002 scores are slightly lower than 2001's rather stellar marks – a commendable accomplishment. The most movement was demonstrated by two vendors: Canon, whose scores increased by 17%, and Kodak, whose scores decreased by 12%.

PUTTING CLIENT COMMENTS INTO PERSPECTIVE

The report enjoys a good cross-section of user experience: 63% of clients are providers that range in bed size from less than 200 to over 1,000; 26% are IDNs; and the remaining 11% are imaging centres and clinics (Figure 1). Amicas and Canon report the largest proportion of clients coming from imaging centres/clinics (43% and 29% respectively), while Kodak and McKesson report none. Perhaps one user said it best: "You just need to realize that this is not a small project, and you need to have the whole team behind it."

Survey participants represented a broad cross-



section of PACS users. Every vendor had a substantial number of interviewed clients reporting 100,000 to 300,000 studies annually, with 10% reporting over 500,000. Ten of the vendors had at least 50% of all studies being handled by their PACS solution, and one vendor, DR Systems, had over 75% of its sites handling almost 100% of all studies via the PACS system. Each of the customers was asked to numerically rate on a scale of 1–9 (low–high) its vendor on 28 aspects of performance, as well as answer 12 questions relating to customer satisfaction.

14 Primary Indicators of Performance

- Lived Up to Expectations
- Produce Works as Expected
- 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 Detailed Performance Indicators

- Worth the Effort
- Real Problem Resolution
- Good Job Selling
- Product Quality Rating
- Implementation on Time
- Implementation within Budget
- Quality of Implementation Staff
- Quality of Documentation
- Quality of Releases & Updates
- Software Errors Corrected Quickly
- Interfaces Met Deadlines
- Quality of Custom Work
- Hardware Vendor Satisfaction
- Response Times

12 Key Indicators of Satisfaction

- Implemented in the Last 3 Years
- Core Part of IS Plan

- Would You Buy It Again?
- Avoids Nickel and Diming
- Keeps All Promises
- A Fair Contract
- Contract Is Complete
- Contract Administered Fairly
- Timely Enhancement Releases
- Support Costs as Expected
- Ranked Client's Best Vendor
- Ranked Client's Second Best Vendor

In addition, special survey questions were asked regarding:

1. Study Volumes (PACS vs. Non-PACS)
2. Quantifiable Benefits
3. Interfaces
4. Exceptional Challenges
5. Voice Recognition
6. Remote Access
7. HIPAA Compliance

TOP PERFORMERS AND RESULTS

The results of the PACS study identified a strong field of competitors. While each vendor demonstrated its strengths, two vendor products, McKesson Horizon Medical Imaging (formerly ALI) and Philips PACS, set the scoring stage for performance monitoring in PACS.

Nearly all clients interviewed spoke to benefits realized. The most common benefit mentioned was the immediate access to studies, which was the foundation for most of the other benefits. A decrease in film cost was the common ROI, identified by virtually every site. Increased productivity was the third most common benefit, with many sites noting specific staff reductions.

Response to the question “What interfaces are live?” followed by “What exceptional interface challenges did you face?” validated that PACS clients have the same issues with integration and interfacing that other ancillary systems encounter. The goal of being 100% interfaced/integrated with all applicable systems has not been achieved. The most common and most challenging (unique issues depending on the mix) PACS interfaces were RIS, HIS and then EMR.

Digital dictation and transcription are in

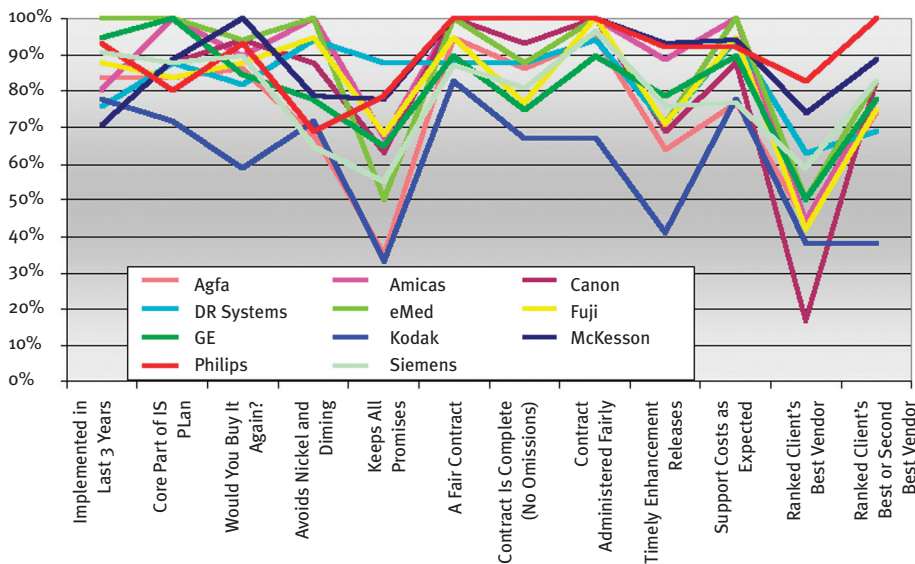
common use across the board, without any real influence on the PACS vendor, and less than 10% report productive use of a voice recognition system. Web or remote access, on the other hand, is in wide use and contributes significantly to the benefits realized. The majority (75%) report using access solutions (Web or other options) from their PACS vendor, but some

report using a third party solution. HIPAA is an issue for every site, and every vendor has some clients reporting concerns about meeting HIPAA regulations with their PACS solution.

BUSINESS INDICATORS

Figure 2 illustrates the survey results of business indicators measured.

Figure 2: Business Indicator Graph



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. (Figure 3). Percentages may not add up to 100% because of multiple comments from the same respondent. As compared to last year, the prior

Figure 3 Why Vendors are Typically Selected

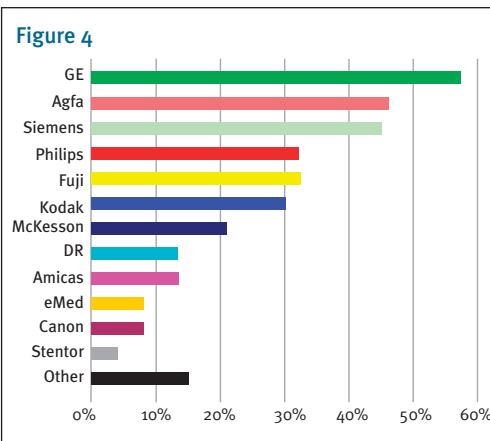
	Agfa	Canon	DR Systems	eMed	Fuji	GE Medical System	Kodak	McKesson	Philips	Siemens	Amicas
Best Fit for Our Environment	31%	11%	0%	8%	15%	0%	0%	0%	18%	0%	13%
Functionality	23%	0%	40%	8%	0%	45%	60%	36%	45%	60%	33%
References/Site Visits	15%	11%	10%	0%	8%	0%	10%	7%	0%	0%	0%
Personal Attention/Cust. Service	8%	0%	10%	42%	0%	0%	0%	21%	9%	0%	7%
Prior Relationship/Exp. w/Vendor	15%	33%	20%	17%	15%	9%	30%	7%	9%	20%	7%
Price	8%	33%	40%	50%	31%	18%	0%	21%	18%	0%	33%
Sales Team/Demo.	0%	11%	10%	8%	0%	9%	0%	7%	18%	0%	13%
Flexibility	0%	0%	10%	0%	0%	0%	21%	0%	0%	20%	7%
Radiologist Preference	0%	22%	10%	8%	8%	0%	10%	7%	9%	0%	0%
Technology/											
Web Capability	23%	22%	0%	8%	69%	9%	10%	21%	9%	30%	0%
Vision/Commitment	0%	0%	20%	0%	0%	27%	0%	7%	0%	10%	0%

Fig 3 cont'd: Why Vendors are Typically Not Selected

	Agfa	Canon	DR Systems	eMed	Fuji	GE Medical System	Kodak	McKesson	Philips	Siemens	Amicas
Functionality	40%	50%	50%	75%	50%	32%	29%	33%	60%	41%	50%
Too Small a Player	0%	0%	25%	0%	7%	0%	0%	33%	0%	0%	0%
Prior Relationship/ Exp. w/Vendor	0%	0%	25%	0%	7%	3%	0%	0%	10%	5%	0%
Price	48%	0%	0%	0%	43%	39%	29%	33%	30%	36%	0%
Prefer Smaller Company	0%	0%	0%	0%	0%	6%	5%	0%	0%	0%	0%
Technology/Proprietary											
Arch/DICOM	12%	50%	25%	25%	7%	35%	38%	0%	10%	27%	50%
Sales Team/Demo.	12%	0%	0%	0%	0%	3%	14%	0%	0%	5%	0%
Flexibility	4%	0%	0%	0%	7%	6%	0%	0%	0%	0%	0%
Radiologist Dislike	0%	0%	0%	0%	0%	27%	10%	0%	10%	9%	0%

relationship with a vendor and company size has less of an impact, while price, functionality and technology have much more of an impact.

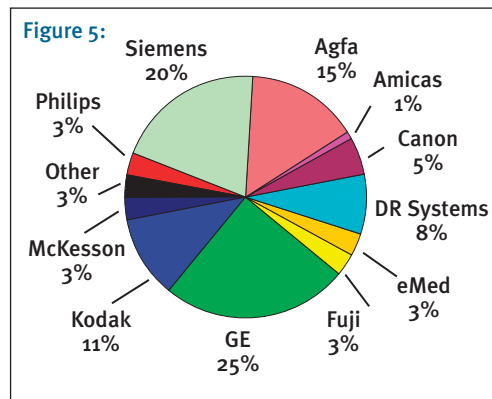
“Vendors Considered” in the PACS selection process, by survey respondents, are listed in Figure 4 in order of frequency mentioned (highest to lowest), and the percentage refers to the number of times a vendor was specifically mentioned by a respondent. Last year’s survey respondents clearly indicated an advantage to those vendors that were also providers of medical equipment and/or film, and while they are among the top still considered today, survey respondents, as indicated above, are focusing more on functionality, price and technology for the final decision.



SURVEY PARTICIPANT MARKET SHARE

Trying to assess the PACS market itself, and a particular vendor’s market share within that market, is difficult based upon each vendor’s definition of a full PACS implementation. Figure 5

shows the market share for the vendors included in the study, based upon the number of live sites qualifying for the survey as reported by the vendor and estimates from information KLAS has acquired over time and with other industry resources.



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* – is willing to gather confidential and candid data from Canadian healthcare executives and provide access to the results to all the data contributors. The vehicle that will be used is the Web-based KLAS vendor evaluation form found at <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>.