COMPARING AND FORECASTING RIS/PACS VENDOR COSTS:
Using the RIS/PACS Exam Index (RPEI)

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Introduction

Hospitals and imaging centers considering purchases of medical imaging information technology today face more choices than ever: more vendors, more pricing models, more product definitions, and therefore, more confusion.

As RIS, PACS, Cardiology IS, Cardiology PACS, Scheduling, Reporting, Document Imaging, and Transcription systems continue to merge into more unified technologies, new opportunities open for substantial savings.

Pricing models vary today between software-only solutions, complete capital purchases, ASP models, fee-per-click, fee-per-exam, and blends thereof. Forecasting vendor costs in this milieu can be treacherous.
Tips for Comparing Vendor Costs

First and foremost, apply the same metrics to all candidate vendors. I suggest that the most important metric for comparing vendor costs is the:

**RIS-PACS Exam Index (RPEI):**

Defined as the RIS + PACS Exam Index, this refers to the value of the total sunk costs related to the vendor over the forecast horizon, including hardware you may need to purchase separately, hardware provided by the vendor, software, training, service, and upgrades, minus the expected residual value of your system at the end of the forecast term. By using the RPEI metric, you take into account growing imaging volumes, and most importantly, you differentiate a vendor that provides continuous upgrades at an agreed upon cost versus a vendor who requires a forklift upgrade periodically.

The RPEI shows significant differences between vendor costs that are not otherwise obvious when you simply compare “sticker price”. Why? Because the RPEI requires that you consider:

- The appropriate sum of all medical imaging I.T. vendor costs, so that you can compare a vendor that offers a unified RIS-PACS solution versus one that requires separate investments in RIS, CIS, Reporting, Scheduling, Tracking, Patient Flow, Registration, Voice Recognition, Document Imaging, and Advanced Image Processing solutions.

- The sum of all interface and training costs, usually much higher when you elect to integrate disparate solutions.

- Additional costs incurred when your imaging procedures grow or you add modalities under a fee-per-exam model.

- Additional costs related to system upgrades. Beware, for decades vendors have offered free updates as part of their service contracts, but then charged for upgrades separately. In this case, an update is often defined as “something that the customer doesn’t really value” and an upgrade is defined as “something the customer wants badly enough to pay for.”

- Decreasing costs per procedure over time for vendors that truly maintain and upgrade systems. This factor is often overlooked and can result in a huge difference in costs between vendors. To be more specific, when you purchase a CT or MRI, it may be valid to consider any new system as having a maximum lifespan of 7-10 years. No matter the vendor, the system eventually ages and must be replaced. With RIS/PACS technology, you are mostly purchasing intellectual property and support, not a device. Therefore, unlike an imaging modality device, with some vendors, a RIS/PACS may be brand new after 15 years use, because the intellectual property is maintained and updated over time, whereas with another vendor, you must budget for a new major purchase every 5-7 years. Of course, with all vendors, PC’s and network hardware will need to be replaced over time, but hardware typically represents under 35% of total costs.
Designs, Features, and Contracts that Support Customer Value

Look for comprehensive solutions, with leaner interface requirements and lower ongoing support costs.

- **Combined RIS/PACS, Cardiology, Mammography.** Marked savings can be achieved with a combined RIS/PACS, with even greater synergies when the system also includes Cardiology PACS, Mammography PACS and other niches that might otherwise require separate systems.

- **Combined advanced image processing.** Also, look for PACS that offer combined advanced image processing (3-D, virtual colonoscopy, dental CT, CTA, MRA, for example).

- **Free updates.** If free updates are offered, make certain you understand what that really means. If there are separate charges for upgrades or systems expansions, what is the vendor’s track record with other longstanding customers of upgrade or expansion costs over time, particularly any customers with a track record over 6-8 years?

- **Backup, archiving, system monitoring.** System backup, archival, system monitoring and disaster planning options vary tremendously between vendors, and in some cases, add another fee-per-exam fee. And don’t forget to budget for costs associated with unwinding a relationship with a vendor that has stored your exams for several years, as either primary storage or archive.

- **Contract coverage.** Some vendors service contracts cover hardware, others don’t. Some cover replacement of monitors, typically one of the more expensive hardware maintenance costs, some don’t.

- **Distribution.** Image and results distribution and teleradiology all require telecommunication costs. Vendor flexibility and efficiency with regard to data compression can result in significantly reduced telecommunications cost. Similarly, some vendors provide free software for referring doctor use in their homes and offices, some charge per doctor or per use. The different models yield radically different financial results as your practice grows.

- **Database of referring physicians.** A core feature of any RIS/PACS is a database of referring physicians, and an essential feature is the capacity to store referring doctor preferences with regard to exam type specific image printing or report output requests. This feature can result in far greater film savings as compared to systems where automated printing for referring doctors is either “all on” or “all off”.

- **Solutions for technologists and clerical staff.** Look for solutions for your technologists and clerical staff that provide these employees the vital tools and functions they need to do their jobs, without leaving the patient. “Time is money.” Cutting costs in a way that raises human resource costs is pennywise.
Conclusion

Using an RPEI provides tangible measures that enable comparison forecasts between vendors, and can reveal variances of up to 300-500% in long-term vendor costs, even among vendors that seem comparably priced.

In considering purchases, value comes from systems that have a proven track record of long-lasting endurance, vendor commitment toward comprehensive upgrades, complete solutions that combine RIS/PACS and more, and solutions that really enable all users to do their job. Beware of models where costs escalate over time.
About the Author

About Murray A. Reicher, M.D.

Dr. Reicher is a Board certified diagnostic radiologist with subspecialty CAQ in Neuroradiology. Dr. Reicher joined Radiology Medical Group in 1986 and continued to make numerous significant contributions of teaching, scientific publications, and research in the area of neuroradiology, musculoskeletal MRI, and related MRI technologies. In 1992, he founded one of the world’s most successful PACS companies, DR Systems, Inc. He is the past President of Radiology Medical Group, Inc. and currently serves as Chairman of Radiology Service Partners, LLC.

About DR Systems, Inc.

DR Systems, Inc. is a leading provider of film-free medical image and paperless information systems with integrated RIS/PACS that includes dictation, reporting and Internet-based distribution solution for hospitals and medical imaging centers. DR Systems’ DICOM-compliant system includes the Dominator Diagnostic Reading Station with available DR Instant Reporter (automated voice recognition, dictation, and report distribution), the Catapult Technologist QC Workstation, the RIS Admin Station, the DR Central Server and Communicator Web Server, the Ambassador Clinical Review Station, the Messenger Diagnostic Portal, and the Guardian Archive System. DR Systems’ ease of implementation and user training allows customers to rapidly achieve financial and clinical success. With a modular design scalable for growth, DR Systems RIS/PACS can handle current and future medical image and information management needs.