

# FINsights

Technology Insights for the Financial Services Industry

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## IN THIS ISSUE

- Mobile Banking and Payments Security and Usability: What's in Your Mobile Wallet?
- Innovation in Retail Payments • Electronic Invoicing: How to Increase E-Invoicing B2B Transactions

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# CONTENTS

Preface

From the Editor's Desk

## Retail Payments

1. Innovation in Retail Payments 5
2. Mobile Payments: Sustainability of Business Models 15
3. Payment Cards: Trends, Challenges and Innovations 25
4. Mobile Banking and Payment Security and Usability:  
What's in Your Mobile Wallet? 35

## Wholesale Payments

5. Wholesale Payments: Trends and Transformation 43
6. Electronic Invoicing: How to Increase E-Invoicing B2B  
Transactions 49
7. Centralizing Wholesale Payment Services: The Key to  
Improved Growth, Efficiency and Risk Management 55
8. Money Movement Automation: A Case Study 69
9. Financial Institution Opportunities in Healthcare Revenue  
Cycle Management 73

## Payments Transformation

10. Enterprise Payments: Breaking Barriers 83
11. Top Transformational Trends in Check Processing 95
12. SEPA: Outsourcing - The Key to Changing Times 109
13. Payments Fraud 121



# 9

## FINANCIAL INSTITUTION OPPORTUNITIES IN HEALTHCARE REVENUE CYCLE MANAGEMENT

- ROBERT S. EICHLER
- SUJATA BANERJEE
- KRISHNAN  
RAJAGOPALAN

Ask any doctor, nurse, hospital manager, or even patient what they think of the healthcare industry's current payment system. Most likely, the response won't be positive, and it is obvious that changes need to be made. New approaches that can bridge the payment gaps among healthcare systems, payers and consumers need to be examined. In 2006, the U.S. healthcare system consumed USD 2.3 trillion<sup>1</sup>, and it is highly probably that this figure will nearly double over the next 10 years. Administrative expenses and bad debt continue to rise, and changes in benefits have imposed a greater burden onto individual consumers. The current structure of the revenue cycle has many gaps, incomplete and untimely information, and is facing increasing complexities. Financial institutions occupy a central position within the revenue cycle, with the potential to introduce new approaches to help bridge the gaps. Additionally, they have the capability to capture revenue and funds. However, they should not underestimate the differences and complexities involved in the healthcare revenue work stream, compared to traditional treasury management or retail banking services. Technology will be a key component to support a multi-pronged approach aimed at increasing efficiency, accuracy and collectability of funds.

## Introduction

By 2015, U.S. healthcare expenditures are expected to top USD 4 trillion.<sup>1</sup> As with all markets of this size and scale, the healthcare market is attracting potential new entrants, products and services. The financial services industry, in particular, has been provided many opportunities to capitalize on this skyrocketing growth. Many of these opportunities present themselves in the form of Consumer Directed Health Plans (CDHPs) and Health Savings Accounts (HSAs). Even so, other possibilities are beginning to show themselves.

A 2003 study, conducted by researchers at Harvard Medical School and Public Citizen, estimated that USD 399 billion, or nearly a third of the healthcare USD 1.3 trillion spent that year, was devoted to administrative paperwork.<sup>2</sup> Projections of healthcare costs now reach USD 4 trillion by 2015, nearly 20% of our GDP.<sup>1</sup>

Much of this USD 1.3 trillion is the result of operating inefficiencies. While the financial industry has a solid grasp of transactions, including the management of 'on-hold' credit and debit transactions, the healthcare industry is still in the early stages of developing mature Point-of-Service (POS) electronic transactions. "The country's medical payment system ... consumes 15 percent or more of each dollar spent on health care - compared with about 2 percent in retailing."<sup>3</sup>

Knowing this, it is easy to understand why revenue stream management has been and will be a critical business issue that affects the net profitability and the immediate cash flows of the healthcare industry. One-third of all U.S. hospitals are now operating on negative margins<sup>4</sup>, and the road isn't going to get easier. Changes in the healthcare industry - such as overall consumerism, increased positioning of

retail healthcare service outlets, redefined products that increase deductibles and coinsurance, and new products such as CDHPs - have increased the complexities of revenue management. The immediate consequences of the above are increases in administrative expenses for providers and payers in the Revenue Cycle Management (RCM), along with increasing volumes of bad debt.

## Revenue Cycle Management

### Participants

The healthcare RCM functional space is currently occupied by Electronic Data Interchange (EDI) clearing houses. The EDIs exchange batch billing and reimbursement information between providers and payers in a many-to-many relationship. As it stands, the formula provides an opening for financial institutions to support transactional activities, with an eye toward per-transaction revenues. An additional opportunity exists, to provide payers, providers and consumers with improved RCM cash flow management. By integrating typical clearing house functions with financial transactions, the financial industry will create additional revenue opportunities for itself and positively impact healthcare transactions.

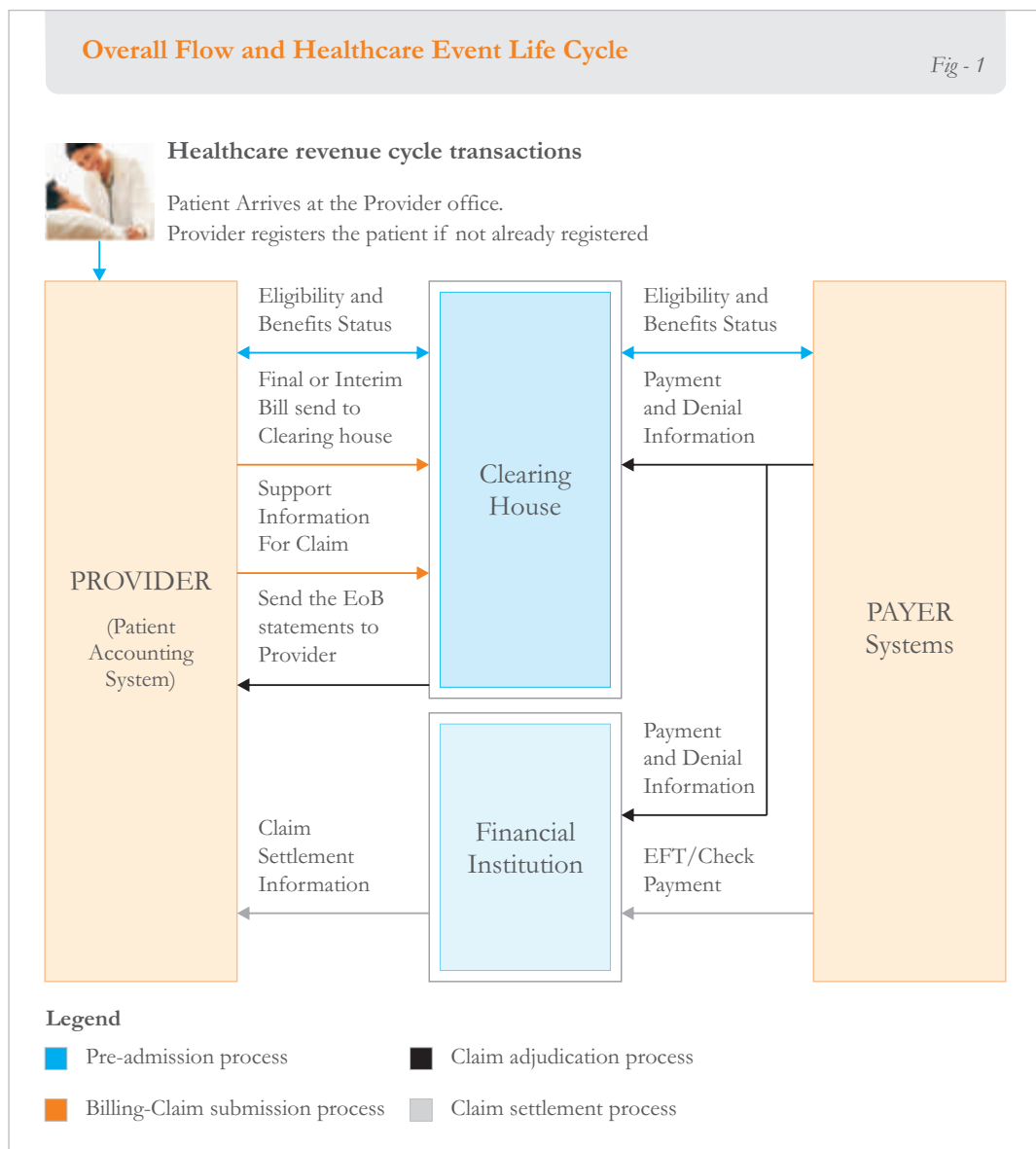
Many healthcare providers struggle with the number and relationship of payment options that the modern patient brings to the table. How much to expect from each payment source becomes a difficult question to answer when one is confronted with myriad insurance, employer, government, and private funding sources. The healthcare RCM is composed of four primary stakeholders - providers, patients, payers, and financial institutions. From these stakeholders come a number of funding contributions in the form of pre-paid health retainers, insurance premiums, per-capita reimbursements,

utilization-based cost reimbursements, and supplementary payments (such as copayments and coinsurance). There are also the payment accounts of health payers and employers, Health Reimbursement Accounts (HRA), HSAs, Section 125 HRAs, and any number of patients' private sources of funds. Though the Healthcare RCM begins with processes internal to a provider's preparation of an invoice, it is easy to see why most of the complexities arise when the bill leaves the provider and becomes an Accounts

Receivable ledger item.

The healthcare revenue cycle typically has 4 stages:

1. **Preadmission and pre-service** activities focus on determining services eligibility, gathering clinical information to support authorizations, care management approval, and patient liability.
2. **Point-of-Service (POS)** activities focus on building foundational claims information, interactive care management,



dialogue with payers, and the verification of member liabilities.

3. **Completion of service** activities focus on completion of claims information, submission of clinical information and confirming receipt of member liability funds.
4. **Post service** activities include reconciliations, third party liability determinations, collections and, where necessary, submission of additional clinical information to close out pending claims.

Depending on the nature of the service, it is possible for all four of these stages to take place in rapid succession, within a single day. It is also likely that they span a much longer period of time. Similarly, some activities will simply initiate or execute a transaction, while others may require multiple steps and touch points.

Each of the above stages has associated activities and information needs, relating to three key dimensions. These dimensions represent the type of touch points and entities that are involved:

1. **Clinical activities:** information exchanges that establish the medical necessity. These transactions occur between the provider and the payer, and document the circumstances and the care required, while also determining payment potential.
2. **Finance activities:** facilitate cash flow and collections. These occur between patients and providers and also between providers and payers, with financial institutions acting as intermediaries. The transactions between patients and providers must be facilitated as a form of enhanced retail transaction. This is due to the fact that the patient may have multiple funding sources, including HSAs or HRAs, as well as traditional debit or credit accounts.

3. **Payer activities:** use both clinical and contractual information to make payment decisions that affect patients and providers.

There are also a number of additional factors that can complicate the transactions and the information exchange. A few examples are:

1. Each of the transactional segments are handled discretely by different participants. Accordingly, individual participants are supported by separate applications on different operational platforms - such as provider billing systems, clearing houses, claims coding software, payer adjudication, and pricing systems.
2. Many-to-many relationships are present for most of the aforementioned touch points. In these situations, providers must work with many payers. This is more complex than a typical retail transaction, in that a single provider may be reimbursed different amounts from the same payer and for the same service, depending upon other contextual elements. These are just some issues that challenge “real-time” adjudication for all but the most straightforward claims.
3. Separate streams of activities, offered by financial institutions, are focused on discrete market segments and capabilities - such as consumer credit and debit cards, treasury services, and consumer financing services. These activities are conducted without the coordination of other transactions in the RCM work stream.
4. There is an increasing need to involve the patients in the overall flow of transactions. Currently, the patients have access to very little of the information available to other parties. What information patients do receive is often of limited value because the data presented is not timely, clear, or actionable.

The fragmented data and processing, surrounding any transaction, compounds the rising expenses by creating an inability to forecast and manage the overall revenue cycle flows.

### Gaps in Current Process

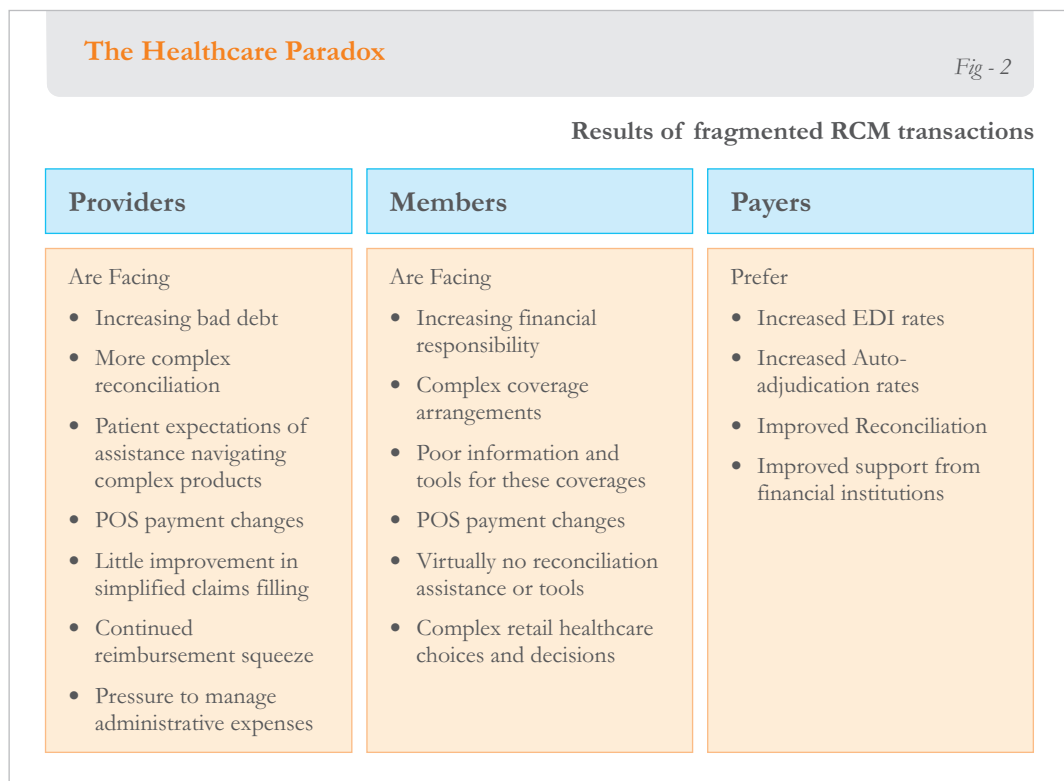
Healthcare RCM starts before an invoice is prepared; member eligibility must be validated, supporting documentation needs to be assembled and patient liability amounts must be established. To further complicate things, the revenue cycle extends beyond the POS. Post-sale, the payer is given the opportunity to consider and apply additional circumstances of eligibility, benefit definition, third-party payments, and contractual pricing arrangement. These activities can extend through several of a provider's revenue cycles, prompting the submission of additional duplicate claims, which further congest the process. Figure 2, below, highlights some pain points in the process.

At this time, neither providers nor payers are positioned to address the gaps, as too many of the RCM pieces are beyond the scope of their control. Independent corrective actions may merely aggravate the situation, raising additional administrative questions and operational challenges as information accuracy or timeliness in one area shift with respect to other areas.

### New Revenue Opportunities

Financial institutions are in a unique position to address the discussed issues in a consolidated manner, taking over the traditional clearing house EDI transactions and enhancing them with supported banking services. Table 1 illustrates how a financial institution may address various RCM shortcomings.

A financial institution backed consolidated approach would benefit all parties - the providers, payers, patients, and the financial institution itself. In addition to streamlining the EDI clearing house functions, the



**RCM Challenges**




























*Table - 1*

<b>Participants</b>	<b>Challenges to RCM</b>	<b>Opportunities for Financial Institutions</b>
Provider/ Patient	<p>At POS, the provider and patient often do not know the patient's liability amount beyond a co-payment amount. In many cases, the patient's liability may differ from the co-payment.</p> <p>Patients have little to no information of health spending account balances and no flexibility at POS to select or access accounts.</p>	<p>Consolidate the ANSI 270 transaction with the provider's submission of the patient's debit/ credit information.</p> <p>Use hotel-model card holds to support POS payment capabilities.</p> <p>Provide HSA balance amounts at the POS.</p>
Provider/ Payer	<p>When the provider submits an invoice, there is no information on the amount of reimbursement to expect or the payer's turn-around time for reimbursement.</p> <p>The payer may require additional information to substantiate the necessity and appropriateness of the services.</p>	<p>Use calculations based on prior transactions between provider and payer to disclose a trial-adjudication amount to the provider.</p> <p>Improve the provider's cash flow via short-term credit funding.</p> <p>(Note: Real-time claim adjudication continues to be the industry's 'stretch' goal - and is starting to be a reality for the simplest professional services office visits.)</p>
Provider/ Financial Institution	<p>When payments are received in batch, AR reconciliation is problematic - particularly where billed amounts seldom result in equivalent receipts.</p>	<p>Include the transmission of the ANSI 835 Statement of Remittance (SOR) to the provider in conjunction with the commensurate electronic funds transfer transaction.</p> <p>Better support of provider receivables processing through services such as provider financing, enhanced retail lockbox, automated reconciliations/ exception management.</p>
Payer/ Patient	<p>Confusing EOB statements often conflict with the provider's invoice for the patient's balance for the same services.</p>	<p>Centralize communications between the provider, patient, and payer.</p> <p>Consolidate presentation of reimbursement with contributions from all funding sources.</p>
Payer/ Financial Institution	<p>Settlement is separated from the settlement information in the transmissions to the provider.</p>	<p>Include the transmission of the ANSI 835 SOR to the provider with the applicable electronic funds transfer.</p> <p>Provide remittance management and enhanced and integrated information reporting services.</p>

<p>Patient/ Financial Institution</p>	<p>The Patient may have several funding options available but at the time the provider is requesting payment will not know:</p> <ul style="list-style-type: none"> <li>• How much of the owed amount should or could legally come from which source</li> <li>• The fund balance amounts available from each source</li> </ul> <p>Only 34% of patients with HRAs or HSAs formally track their monthly healthcare expenses.<sup>6</sup></p>	<p>Present the patient with available balances in all accounts, together with the balance amount that will be owed.</p> <p>Offer multiple payment options such as debit/ credit.</p> <p>Offer patients other relevant services: consumer loans, electronic bill presentment and payment.</p>
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**Healthcare Stakeholder Interest in Improved RCM Outcomes**

Fig - 3

Opportunity for Financial Institution(s)	Providers	Payers	Members
Efficient claims processing			
Eligibility verification			
Support complex reconciliation			
Full revenue cycle visibility			
Enhanced revenue management			
Reduced rework, resubmit, duplicates			
Liability identification & management			
Credit facilities			
Integration on both sides of the lockbox			

 High Interest   
  Medium Interest   
  Low/No Interest

financial institution could provide value-added financial services to capture the associated revenues and deposits.

One revenue-creating example presents itself in all situations where clearing house functions are taken over. Here, the financial institution would also take over per-transaction fees. In cases where the financial transaction reimburses patient-component charges to the provider, normally by extending credit and collections activities, providers would be treated the same as any other merchant. When the transaction is authorized, the financial institution assumes responsibility for paying the bill, including collecting receivables from members.

The financial institution may also provide a value-added service when claims are filed with the payer, and the provider desires to reduce its accounts receivable amounts and aging times. In this situation, the financial institution may forward a portion of the expected reimbursement on the basis of a short-term business loan.

It is also possible that some payers, in conjunction with some employers, might be willing to guarantee small sums of money on behalf of the patient. This “loan” could be guaranteed and repaid over time through the use of payroll deductions.

Through a tighter relationship with the health insurer, financial institutions may strengthen their positioning as the financier of choice for the HSA component of high-deductible health benefit plans. Health spending accounts, in their many forms, are now a mainstream phenomenon. 30 percent of US on-line commercially insured consumers indicate that they use some form of health spending account.<sup>5</sup>

Finally, in addition to housing regulated and tax-advantaged health payment accounts,

financial institutions can leverage their new relationship and establish credit or debit-enabled accounts for the patient.

### Technology Role

Technology will play a significant part in the overall streamlining of the RCM operations. Various technology components to support streamlined RCM operations are already in place, though in a disjointed manner.

A financial institution, with a vision for this relatively new line of business, could follow any of the below-mentioned three strategies to streamline the RCM and create value-added products:

1. **Outsourced approach:** wherein the overall process itself will be outsourced and the integration with resident payers and provider systems will be executed through standards - based interfaces. The leaders, under this approach, would likely be the EDI-based exchanges - the clearing houses of today-that have a clearly defined roadmap for the vertical integration of retail healthcare transactions, rather than being limited to batch-based payer-provider transactions only.
2. **A managed services approach:** where in the interoperability software will be used on-demand (Software as a Service or SaaS) basis by the end-users (primarily providers) to integrate with resident clinical systems. The technology leaders, under this approach, will be the interoperability component producers that have standards-based open systems architecture and the maximum number of interfaces pre-built for data exchange between clinical (Cerner, EPIC, etc.), payer (Amisys, FACETS, QCSI, etc.) and financial systems.
3. **A software licensing and custom**

**interface approach:** wherein the typical System Integration (SI)-based implementation and development of interfaces process will be adopted, due to existing portfolio of custom applications and concerns regarding PHI data protection. This segment of the market will continue to be dominated by large system integrators and consulting partners with deep domain knowledge.

The technology challenges faced under all three approaches will be quite similar in nature, with a few unique nuances for each approach. To mention a few:

- A strong master patient/ member index will be required to uniquely identify a patient/ member across systems.
- A standards-based framework to correlate the clinical data with financial/ administrative triggers.
- Interactive retrieval links between provider billing and accounts receivable systems, payer administrative systems for managing real-time eligibility checks, expected fee schedules, co-pay/ cost-share determinations, etc.
- Integration between clinical data (codes, procedure costs, etc.) and financial products (HSA, FSA, etc.) in real-time during service delivery, to support each patient's choices for payment from their health care spending accounts.
- For outsourced and SaaS-based approaches, the technology approaches will need to cover both clinical and financial security related issues. Traditional security concerns, related to abuse of financial and clinical (PHI) data, will still hold sway.
- Regulatory compliance for HIPAA healthcare mandates would be another challenge for financial institutions.

In conclusion, the technology required to streamline the RCM process, though not very different from existing technology, will have to be brought together in a radically different form and viewed as a single interoperable unit rather than the disjointed parts that power the industry today. A successful technology solution would be:

- Standards-based, to avoid a tremendous customization and interfacing effort.
- Plug-and-play, for scalability as well as extendibility.
- Use best practices such as Service Oriented Architecture (SOA).

Last, but not least, a successful solution will have the least impact on therapeutic workflows, especially if one hopes to see any significant level of adoption with the single most important stakeholder, the physician provider.

Financial institutions have every incentive to position themselves as the keystone in the healthcare RCM process. Doing so will broaden the revenue footprint of existing business lines, while also capturing new revenues as an EDI clearing house. Because the potential of combining these functional activities is such an upgrade over the current status quo, healthcare stakeholders would be more than willing to consider financial institutions backed proposals.

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### **Robert S. Eichler**

*Principal Consultant  
Infosys Consulting*

*Rob is a Principal Consultant with the Insurance, Healthcare, and Life Sciences Group at Infosys Consulting. He has over 20 years of experience with healthcare payer organizations. Through combined efforts of application implementation and business process improvement, he has improved the administrative operations in claims adjudication, customer service, other party liability, and premium billing and accounts receivables. He has co-authored the Claims and Benefits Administration chapter of "The Managed Health Care Handbook," 3<sup>rd</sup> and 4<sup>th</sup> editions.*



### **Sujata Banerjee**

*Principal Consultant  
Infosys Consulting*

*Sujata is a Principal Consultant with the Banking & Capital Markets Group at Infosys Consulting. She has 11 years of industry and consulting experience in the areas of consumer banking, treasury services and wealth management. She has worked on assignments with large US banks, driving business process design, IT strategy and requirements. She has been involved with on-boarding and payments solutions development at Infosys. Sujata has a CTP certification from the AFP, USA, an AAP certification from NACHA.*



### **Krishnan Rajagopalan**

*Senior Project Manager  
Infosys Technologies Limited*

*Krishnan is a Senior Project Manager in the Healthcare practice at Infosys. He has over 8 years of experience in Healthcare Payor and PBM operations. He was involved in developing pre-built components for Healthcare consumerism and its associated impact areas, including portal development, impact on financial institutions and development of self service tools.*

*Authors would like to thank Rajiv Sabharwal for his contributions to the article. Rajiv is a Lead Solutions Architect at Infosys Technologies Limited.*



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contact: [bcm@infosys.com](mailto:bcm@infosys.com)

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