

# Writing an RFP for Communication Center Automation in Hospital Environments

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## Introduction

Writing a request for proposal, or RFP, represents the first step in the important process of defining what your institution's communications center requires in the future. Although RFPs are mainly considered a tool for letting vendors know what technology solutions your health care facility desires – and requires – they also provide a rare opportunity to study your communications center operations in a more detailed, methodical and insightful manner. New technology may, in fact, spur process improvements that lead to more cost-efficient and effective communications center management. Making an RFP a catalyst for change rather than just a paper document for vendors to peruse should be among your primary goals.

RFPs can take a great deal of time to conceive, write and execute. But taking the time to collect information to write a strong RFP is important because the technology you select will operate one of the most public departments in your institution. And health care communications centers have to excel because they provide information that can save lives -- or set up appointments, or simply offer callers a positive experience by sending them to the appropriate departments which can handle their inquiries. Treating callers quickly and professionally is the mark of distinction in a growingly competitive health care industry in which having a good communications center is a necessity.

Heavy pressure on costs have led health care providers to see hospital communications centers as an expense, not as a revenue generating source or a customer relationship tool. But in a health care market where consumers do have choices, operating a communications center efficiently and effectively – and with the customer in mind – requires technology that automates and integrates calls in a seamless process. And consumers are demanding helpful communications centers that will assist them in navigating a complex and sometimes baffling health care system.

Moreover, a driving element in health care has been the evolution toward consumer driven health care. Employers have transferred the responsibility of health care management to their employees, placing them in the role of managing their own health care treatment and costs in strategy similar to what has happened to retirement funds. Since employees are now spending more of their own money on health care than ever before they have more questions – about costs, about care, about physicians, about scheduling. And they have come to rely on hospital communications centers to relay to them the information they need to make important decisions about their health -- or for simple inquiries such as getting the name of a referring physician.

This white paper begins by offering suggestions in terms of strategizing prior to sending out an RFP. It offers readers a plan for conducting a competitive analysis involving directory integration, web-based applications, speech recognition, event notification, implementation and services. These features will vary from vendor to vendor – some may not offer all of them – but placing a wish list into an RFP can be a valuable tool. Vendors should offer scalable solutions that can be implemented over time and they should view your RFP an opportunity to create a long standing relationship with your institution rather than a one-off assignment.

The section of the white paper dealing with competitive analysis will do three things – define each communications’ center technology, offer a list of its features and attributes and give you a series of questions you should be asking vendors in regard to that technology. Communications center managers familiar with technology and terminology can skip the definitional section and move forward to the area of the paper we call “Things To Ask About.”

### **Before The RFP**

Writing an RFP is not the start of the story of focusing on the purchase of new communications center technology. In the arc of a story, an RFP represents, in fact, the middle. Before moving toward an RFP communications center managers and communications’ staffs need to garner support from executives, input and buy-in from staff. New technology breeds skepticism since it requires a new process management methodology and a substantial investment of money. Building a solid business case for new automated communications center technology will be crucial to your success. And these elements must occur prior to creating an RFP.

Getting executives to recognize the importance of automated communications center technology should be a first priority. Outlining the inefficiencies of the current communications center, however dispiriting, will offer executives an insight into why the institution requires new software applications. The kind of statistics – lost calls, waits, hang ups, and so forth – help you establish the case for an improved system. Furthermore, you should have a strong return-on-investment argument, even if it is only service-oriented. You may want to remind management that high touch service in health care environments can go a long way toward creating strong relationships with patients that will bring repeat business, referrals and general goodwill in your community. Healthcare, more than other industries, depends on being perceived as ethical and community-minded. Creating that image can start with something as simple as offering customers a good experience on the phone.

Seeking support from medical staff is an excellent second priority. By involving staff in the process and by seeking their input you can insure, or at least expect, they will work hard in learning and adapting to the new application. The selection project manager – the individual assigned to managing the process – should hold small group brainstorming sessions involving both management and staff. You should have conversations with individuals at other health care organizations, read trade journal articles and watch vendor demonstrations to assist in helping you define your needs in a new communications system. Capturing a strong, detailed list of requirements is an absolute necessity.

When the pre-RFP process is complete, executives should understand why they need a budget allocation for a new communications center and managers and users should have had numerous opportunities to provide input to the selection manager. Everyone will have had their say. Whether each individual will be happy with the new communications technology applications remains to be seen.

### **Competitive Analysis**

An RFP outlines what you want and what you might like to have in the future. Remember, you will live with the decision for at least five years, and likely many more. You will want a vendor who will grow with you, offer you the kind of features that can help with growing communication requirements and increasing service demands without increased staff. Vendors may have this technology on the drawing boards but you will want to work with a partner who is constantly investing in research and new technologies.

In the first section of a competitive analysis of an RFP, you will want to seek an overview of a vendor’s technology. The granular detail can come later. You should ask vendors to explain their architecture, supported network protocols, service options, database platform, operating system, redundancy options and approaches, development language, voice cards, data security and serial services. You will want to know how

their operating system patches will be handled, their approach to system redundancy and system scalability. This general information can be placed into a question-and-answer format in the RFP, for instance, or simply requested via sentences such as: "Tell us about your architecture." In addition, look into what vendors' offer in terms of service and support.

After dealing with the broad notion of competitive analysis, you need information that differentiates vendors from one another. Below we will look in depth at the major features: Speech recognition, directory, paging, operator assistance and web-enabled applications. You will have to study and compare these features before selecting a handful of communications center finalists. From there you will make a final decision based on which vendor has best met the capabilities you outlined in the RFP.

### Speech Recognition

Vendors of communications center technology number many and provide customers dozens of options. Many of these feature computer telephony integration (CTI) applications and they share common attributes. The basis of nearly all CTI applications is speech recognition software which allows calls to be answered in an automated fashion by asking callers to respond to menus by saying a number or pressing it on a phone. Speech recognition holds the following advantages:

- It speeds connection time and reduces hold times.
- Users find it simple to understand.
- Abandonment rates drop substantially.
- Customer satisfaction improves. Gartner Research shows 84 percent of users say they are moderate to extremely happy with caller assistance; 43 percent of inbound callers prefer it to long waits for personal assistance.
- Measurable savings' accrue. Since 45 percent of communications center traffic goes to a main listed number, those calls can be handled by voice recognition without diminution of service. Another 25 percent of calls to assistants are

generated from internal "0" calls also can be addressed through voice recognition. By removing the burden of internal calls the communications center assistants can be freed to work on revenue generating and mission critical work.

- It improves physician and medical staff communications by moving messages through the system more rapidly.

A key feature in speech recognition is the ability to separate calls and assign assistants only those calls that require additional assistance, and which may be revenue generating – involving the scheduling of surgery, billing and so forth. An integrated speech recognition will separate internal and external calls by automatically routing the most common inquiries to the voice recognition system.

Consider, for example, a sophisticated communications center voice recognition application being used by employees in a health care facility. A voice recognition application will allow assistance calls from employees to be routed to a paperless directory. By dialing 411 – or some other assigned number -- on their wireless handset or Blackberry medical personnel and physicians can simply say the name of the individual, or department, they want to reach and they will be connected. The number 114 can be used for reaching a particular individual; the caller enters an ID, for security, and then requests to reach the individual via cell, pager, office or home phone number.

The voice recognition systems can be modified in different ways. An internal speech line might ask if a caller wants to "page" or "call" someone and then step the caller through a series of prompts which record the caller's responses.

The general public will be treated in a slightly different way. An automated script might ask those dialing a main number to say one of five options: Billing, Appointment, Medical Records, Patient Information or Name, the latter denoting what physician or department the caller wants to reach. The routing would then begin, without

any human intervention. Should the caller's question require personal assistance, an operator could then pick up and personally route the communications to the appropriate department, nurse or physician. Speech recognition software can be combined with other important modules aiding and abetting a communications center's efficiency. These modules, covered in the rest of this white paper, are integrated and add tremendous functionality to a communications center application, increasing productivity while reducing missed calls.

Things to ask vendors about:

- Do you have speech-enabled paging application?
- Do you have a speech enabled meet-me paging and can callers update their availability via speech?
- What is their experience, with the speech modules in particular?

### Directory Services

Directory services help operators locate members of an organization through one-key searches (for example, last names starting in "C"), or by name, title, department and location. Directories appear instantaneously on the screen so attendants can transfer calls to internal or external numbers with a keystroke. Many attendants can use the same database. Screens can be customized by color, layout and descriptions. Physicians or nurses can update their information through password protected screens.

Other features of directories include:

- Multiple contact points for individuals or functional departments which a caller selects from a list of options.
- A single database administration shared by other departments as well as the speech system.
- Patient directories for transferring calls quickly and accurately.
- A physician registry providing doctors a way to locate colleagues, update availability, receive and leave messages, view schedules and access patient census.

- Physician referrals generated by location, gender and insurance – and shuffled based on usage so no one physician receives too many referrals. Referrals options include mail, e-mail or fax, along with reports.

Things to ask vendors about:

- Does your directory integration link with other servers and host computers?
- Do you require an additional server?
- Does the system allow for expansion, scalability and flexibility of the platform?

### Paging

Since many physicians and nurses are constantly treating patients they have few opportunities to pick up all their calls during the day. Paging is still used in health care environments more than other business settings. Voice recognition systems generally recognize the high value of paging in health care and offer a rich assortment of features. Many vendors allow users to page a party by name, rather than I.D., to request the "on call person" get back to them and to speak rather than program callback numbers.

Paging features should include:

- Support of alpha-numeric, numeric, voice, tone and two way pagers, as well as personal digital assistants (PDAs) and cell phones with built-in paging options. Support extends to various paging protocols.
- Ability to distribute pages from any kind of input devices ranging from cell phones to the web.
- Two-way paging, which allows assistants to send pages and receive confirmation from recipients. In addition, some applications allow senders to submit information back with the request.
- Priority paging, which gives agents the option of sending low priority pages once, high priority pages several times at five minute intervals.
- Re-beep and paging escalation capabilities. If a page is sent and no response is received the system will automatically resend the page for a prescribed number of times and then move to an alternate means, such as a home or cell phone. If there is still no response, the system notifies appropriate personnel.

- Group paging. Applications provide the ability to send messages to pre-defined groups. If an individual in a group has signed out, the page will be sent automatically to the person covering his position.
- Combined paging and calling. An agent can contact an individual by page and then patch him into a call once he enters the CTI system. The two parties can then conference. Another option allows the called parties to accept and reject pages asking them to pick up a call. The messages are routed to voice mail.
- Call routing options for person who initiated the page, such as operator, voice mail or secretary.
- A system for keeping track of all pages by date, time, sender's name, sender's device, IP address of sender and other information.

Things to ask vendors about:

- Does your system require an additional PC or server for paging applications?
- What types of devices can receive pages – cells, PDAs, pagers?
- What paging protocols does your application support – TAP, TNPP, SMTP, SNPP, SMS, WCTP?
- How do you send a page to various pagers – alphanumeric, digital, voice?
- How do you track pages and how do agents look up old pages that have been sent?
- How far back can pages be searched?

### Operator Assistance

Voice recognition can handle many but not all calls. A fair number of callers to health care facilities will require a human being on the other end of the line to help them navigate the system, reach a physician or find a department. This is not a bad thing, by any means. Human interaction can help a frustrated caller and reflect well on the institution. The hellish stories about being stuck in endless interactive voice recognition

menus only reinforce the need for human operators to intervene to help patients and the public.

Still, voice recognition and database access plays an important role in an agent's work. Many vendors use pre-recorded greetings that can be time-of-day sensitive and greet callers based on where the call was directed. ("Good Morning. Welcome to the Internal Medical Department of St. Luke's....") Features such as "call parking" allows an operator to enter notes and the caller's name into the system while the call is on hold and a page is sent out. When the paged party calls in a different operator can then finish processing the call. This frees up the originating operator to take a different call and have a colleague finish off the current call.

Many messaging options exist. With a keystroke agents can send a message via email, fax, pager or to a printer. With voice-assisted transfers an agent sends a caller away with the number or extension they are being transferred to, allowing the agent to take another call more quickly. Additionally, it gives the caller a direct dial number: "To reach this number directly in the future, dial..."

If necessary, agents have the ability to record calls at any point during a conversation. Some software packages automatically compress the voice files. Administrators can determine where to place saved calls and when to delete them.

Things to ask vendors about:

- Do you offer after call transfer announcements to inform callers of the number they are being transferred to?
- Are agents on line during voice-assisted transfers or are they off-loaded so they can take another call?
- If off-loaded, where is the call while the announcement played?

- If the call is off-loaded to a server, will the same database server be used or will another server be required?
- Can some numbers be marked as private so they are not given to callers?
- Can you prevent some numbers from being transferred, such as to off-premise numbers?
- If we have extensions in our database can you provide 10 digit numbers?

### Web Enabled Applications

Web enabled applications your entire communications center staff can use are an important device in reducing time per call and gaining efficiency. For example, paper calendars can be rendered a thing of the past through on-call calendaring, which is part of most voice recognition applications. Agents can see who is on call in various departments, offices and clinics, or who is covering for those employees in their absence. The system notifies users updating coverage when inaccuracies are found.

Calendars can be maintained by departments, clinics and individuals and changed by phone or through the web by authorized employees. They can be hosted on the web, where authorized users can make updates. This saves a great deal of time and money and allows for call operators to assist in scheduling of staff.

Good voice recognition application providers understand that the web, ideally, serves as a way for a health care center's employees to avoid using the communications center, freeing up agents to deal with the public. Some vendors create one database for use by staff and by agents to locate and message staff. This allows staff to do its own search to find an individual – by name or ID number -- for sending messages, faxes or voice mails. For institutions it avoids the necessity of having to print and distribute directories which inevitably become out-of-date within months of publication.

Using a password, staff can access the facility's database from anywhere with a standard browser. They can page individuals or groups without ever having to contact an operator. They can scroll through names to find a particular employee. They can update their own status. They can register for classes by offered by their employer. And for physicians a web application provides them a way to update their availability and that of colleagues. They can receive and leave messages, view on-call schedules and access patient information.

Things to ask vendors about:

- How many calendars can be stored in the database?
- Can you have sub-groups within a given calendar?
- Do you accommodate different coverage shifts within the same day?
- Can you pre-schedule on-call assignments, and how far in advance?
- Is this a real-time scheduling package?
- When will people have access to new information that is entered?
- Can two people be on-call for something at the same time?
- Can you prevent two people from covering the same function if this is forbidden by a clinic or department?
- How do agents enter on-call information?
- How are on-call changes tracked in your system?
- Can departments, clinics and offices enter their own on-call information?
- Can departments, clinics and office personnel view on-call information via a browser? What methods do you support?
- Can end users download on-call schedules or calendars to their PDAs or cell phones?
- Do you have a tool to manage on-call residents' hours?

## Other Factors

A few other points are worth considering during vendor selection. One is to look closely at each vendor's implementation approach and platform scalability. You should inquire about training, length of implementation, testing, hardware setup and hardware acquisition. Secondly, ask about service and on-going support, from warranty periods to whether they have 24/7 coverage and how they manage software upgrades. Thirdly, take a look at customer loyalty and ask to speak to health care clients. Fourth, have vendors describe their maintenance rates and contracts.

Finally, inquire about the future applications they are working on. You will want to work with a vendor with a keen eye on developing applications you can use years down the road. It's hard to change vendors. If you can find one that will grow and change with you you will have a long-term relationship in which you and your vendor will flourish.

(Amcom Software, Inc. is a Minneapolis-based provider of computer telephony integration voice recognition applications, among them directory and service integration, patient directory, on-call calendars, physician registry, physician's consult, physician's answering service and "smart console" workstations.) information—where that person is at—now we can see on a screen where they are calling from and what section of the hospital they're in." Prior to digitizing its communications, he adds, code teams sometimes were dispatched to the wrong part of a building, or even the wrong facility entirely. "This has cut risk to a minimum," Johns says.



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