



Computer Resources' Application with Avaya CEBP Solutions Enhances Doctor-to-Doctor Communication, Makes Hospitals More Efficient

Challenge	Scenario
<p>In the healthcare industry, timely communications may be a matter of life and death. Doctors at healthcare facilities lose untold time trying to network with one another. Communication delays may jeopardize patient care, undercut patient satisfaction and reduce hospital profitability.</p>	<p>By facilitating doctor-to-doctor contact, Doc2Doc, a Computer Resources application powered by the Avaya Communications Process Manager and supported by Avaya Global Services, is expected to improve patient care and hospital efficiency by enabling doctors and other healthcare professionals to communicate more quickly and reliably. This will expedite patient care and treatment while improving the medical facility's bottom line.</p>
Value Expected	
<ul style="list-style-type: none"> • Consistent, branded customer experience by improving timeliness and efficiency of doctor-to-doctor communications. • Intelligent, personalized interactions with customers by expediting patient care and treatment. • More productive internal collaboration by facilitating networking between all necessary physicians and healthcare personnel in support of patient care. • Faster linkage of people, processes and resources by automating doctor-to-doctor communication. • More agile and reliable operations by instantly locating the necessary medical personnel and automating conferencing as needed. 	

Walnut Creek, California, USA – In the healthcare industry, where timely communications could well be a matter of life and death, new Intelligent Communications solutions from Avaya are enabling doctors and other healthcare personnel to communicate with one another and with their patients more efficiently than ever before.

Avaya is partnering with Computer Resources to develop "Doc2Doc," a revolutionary, new application that will improve collaboration and communication between doctors and healthcare facilities. Together, they are tapping into Intelligent Communications' potential to improve hospital efficiency and patient care, while containing costs and boosting revenues. Doctors at local healthcare facilities, including Pacific Urology, Concord, Calif., and John Muir Health Network, Contra Costa County, Calif., are in discussions to begin trialing this innovative communication solution in March 2007.

Computer Resources' Daniel Thiel, chief technology officer, explains, "Intelligent Communications holds the key to improving overall efficiency in the healthcare industry. By facilitating doctor-to-doctor contact, Doc2Doc, powered by the Avaya Communications Process Manager, is expected to ultimately improve patient care and hospital efficiency by reducing the amount of time that doctors and other hospital personnel spend trying to locate one another. Everyone wins – doctors, patients and hospital administration."

Partnering for Success

Thiel explains that Computer Resources has enjoyed a long association with Avaya. "We implemented our own Avaya IP Telephony Solution in 2001 and implemented another for Pacific Urology in 2006. We chose Avaya because Avaya has the communications knowledge and expertise we need. The company is 'easy to do business with' and is one of the best vendors I have ever found in my 36-year career."

So when it came to finding a communications partner to develop Doc2Doc, Avaya was the natural choice. "With its communications knowledge and expertise, Avaya is uniquely able to derive the maximum value from our combined, leading-edge technologies," Thiel says.

Thiel credits Avaya with enabling Computer Resources to bring Doc2Doc to market in a quarter of the time that it would have taken them to create the software themselves.

"Working with Avaya, we predict it will take us just six months to develop Doc2Doc and take it to market. I estimate that it would have taken us two years had we attempted to go it alone. The Avaya Communications Process Manager had 90 percent of what we needed; Avaya worked with us to customize the solution to our needs.

"In our business, time to market is a critical differentiator. It's not surprising that this work has also networked us to other major accounts," Thiel says.

Dr. Judson Brandeis, a urologist and surgeon with Pacific Urology, conceived the idea that eventually led to Doc2Doc. Affiliated with John Muir Health Network, Dr. Brandeis defined the need to reduce non-productive physician time as a means of improving patient care and the hospital's bottom line. Dr. Brandeis is also a member of John Muir's IT physician committee.

Peggy McCormick, business manager, Pacific Urology, comments: *"Doc 2 Doc will revolutionize the way physicians communicate. After 35 years in the healthcare field, I am finally seeing a product that will allow our offices the ability to contact physicians rapidly when the need arises. Enabling our physicians to be contacted directly by the hospitals and other physicians will increase their productivity and allow them to handle emergencies without a middle man. It is a great concept with the maximum potential for many other elements to be added."*

Doc2Doc enables hospital personnel – both in-house and off site -- to discuss and collaborate on patient and case information. It will reduce the amount of time and effort it takes for doctors and other personnel to collaborate, thereby saving money and conserving hospital resources.

By providing a better way to link doctors, medical specialists and hospital administrators, Doc2Doc removes inefficiencies in patient handling and fosters faster patient processing and discharge. So it will enable doctors and hospitals to handle more patients and become more profitable.

Versatile Applications

Doc2Doc will facilitate doctors' ability to view one another's availability. They will be able to communicate with one another via text and voice on whichever device they happen to be using -- a standard computer, laptop, or a smart device such as a cell phone/PDA combination. Finally, the solution, which will include a custom reporting tool, will also facilitate confirmation of appointments with patients.

Doctors will be able to check availability of other physicians directly on their smart devices. After entering their identifying information, the doctor will receive a directory grouped by medical department. The doctor chooses the desired department and will then see a list of all of the doctors in that department who are available at that time.

Picture This

Avaya Global Services' Software and Custom Applications (SCA) team worked with Computer Resources to identify the scenarios that would deliver the greatest potential return to health systems, doctors, healthcare professionals and administration in the least amount of time.

Avaya adapted its Avaya Communications Process Manager to streamline hospital processes, which in turn positively impacts a hospital's bottom line. Initially, this new technology is expected to prove invaluable in two scenarios:

- **Expediting patient handling:** Anyone who has ever spent a morning or an entire day waiting for the necessary paperwork to be completed before they can be discharged from the hospital will appreciate the difference that Doc2Doc can make. A patient – let's call him Bill Smith (this name is fictional) – has been in the hospital for three days. He has been seen by a urologist, an oncologist and perhaps a cardiologist. At 10:00 a.m., Bill's urologist determines that Bill can be sent home. But before he can discharge Bill, he must first get agreement from Bill's oncologist and cardiologist. Without Doc2Doc, it might take the urologist hours to locate the two other physicians and obtain their buy-in to sending Bill home.

With Doc2Doc, Bill's urologist can use his PDA, telephone, or computer to locate the other doctors and send them his request to discharge Bill. They, in turn, will instantly be able to reply, using an automated menu that lets them press "1" to agree, "2" to disagree, or "3" to send a comment. With Doc2Doc, Bill might be home by noon. Without Doc2Doc, he might be lucky to make it home in time for the evening news.

Dr. Brandeis comments that, *"We expect Doc2Doc to expedite the requisite approvals when a patient is ready to be discharged by enabling doctors to communicate more readily with one another than ever before."*

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– Dr. Judson Brandeis, urologist and surgeon,
Pacific Urology

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– Daniel Thiel, chief technology officer,
Computer Resources

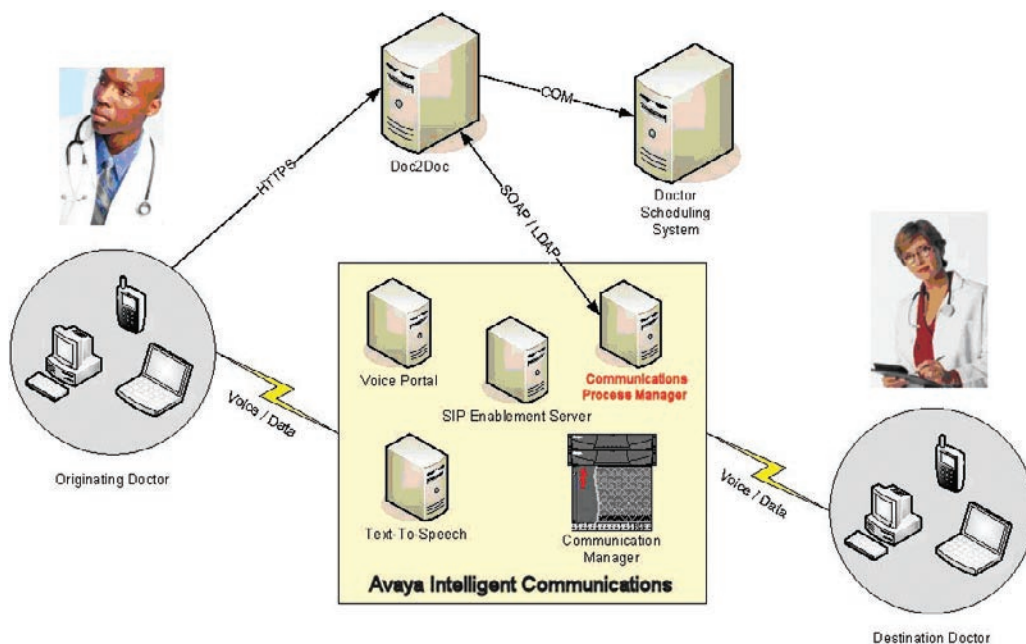
- **Expediting treatment:** Doc2Doc can help doctors initiate life-saving measures even before they are able to arrive on the scene. A 3-year-old patient – let's call her Suzie Tomkins (this name is fictional) – was rushed to the hospital after swallowing antifreeze. Doc2Doc facilitates locating the doctor on call (it keeps working its way down the queue of available doctors). It then automatically conferences the doctor on with the head nurse so that the doctor can prescribe the necessary treatment. Suzie has a better chance at recovery because treatment was able to be initiated faster than ever before.

The solution will also be used to automate patient notification about upcoming appointments. Doc2Doc will monitor the patient scheduling systems of participating doctors and will automatically remind patients of their appointments at a pre-determined interval in advance of the appointment date.

How it Works

“Doc2Doc” leverages the new Avaya Communications Process Manager. This application eliminates downtime by making business processes “smarter” and embedding real-time communications right into the processes themselves.

Built on Service Oriented Architecture, the new Avaya Communications Enabled Business Processes (CEBP) Solutions, which includes the Avaya Communications Process Manager and Avaya Global Services, provides business processes and applications with the ability to initiate and track real-time, multi-channel communication with both process users and decision makers. Leveraging SIP, the Avaya CEBP Solutions allow Avaya communications applications to be integrated into business processes through customizable Web services.



Thiel says, "The Avaya Communications Process Manager is a powerful enabler for the state-of-the-art communications we need in order to enhance Doc2Doc to provide the best healthcare to our communities. The Avaya communication Web services approach, along with Avaya's services team, makes it simple to embed communications into Doc2Doc."

Learn More

For more information on how Avaya Intelligent Communications can take your enterprise from where it is to where it needs to be, contact your Avaya Client Executive or Authorized Avaya BusinessPartner, or access other collateral by clicking on **Resource Type** under "**Do Your Research**" at www.avaya.com.

ABOUT COMPUTER RESOURCES

Founded in 1998, San Francisco-based Computer Resources is an IT consulting firm. It specializes in setting up networks in healthcare offices and also offers a broad range of support services, including office design, website development, and electronic systems including paperless office software, multi-line phone systems and complete media servers. For more information, please visit www.node11.com.

ABOUT PACIFIC UROLOGY

Pacific Urology provides urology services at locations throughout Contra Costa County, Calif. The premiere urological practice of Contra Costa County, Pacific Urology is comprised of six physician/surgeons who are highly committed to excellence in care. The physicians of Pacific Urology have expertise in all areas of urologic care for men, women and children. They were instrumental in bringing Robotic surgery to Mt. Diablo Hospital. Their expertise spans the treatment of prostate/bladder/kidney cancer, kidney stones, laparoscopic surgery, vasectomies and vasectomy reversal, urinary incontinence in men and women, and impotence, and infertility treatment for women. For more information, please visit www.pacific-urology.com.

All statements in this Case Study were made by Daniel Thiel, Chief Technology Officer, Computer Resources; Dr. Judson Brandeis, Pacific Urology; and Peggy McCormick, business manager, Pacific Urology.