MEET OUR CUSTOMERS: Hamburg, Germany



Radiologische Allianz: Expanding into new partnerships & business areas with PACSonWEB



Praxis-Service-Gesellschaft GmbH (PSG): Expanding efficiencies & business opportunities for radiology practices with cloud-based solution





VISIORAD:

Speed, efficiency and cost benefits for VISIORAD with PACSonWEB



Saving time, costs and improving the quality of care with PACSonWEB

How can we make our workflows more efficient? How can we leverage state-of-the-art technology to give us more time for critical tasks while managing ever-growing regulatory and cost pressures? How can we share medical images and reports, anywhere? How can we share them in realtime to improve treatment paths and the quality of care we provide to an increasing number of patients?

These are some of the challenges that radiology group practices Radiologische Allianz and VISIORAD, and IT integrator PSG are constantly facing. Read on to learn more about the gains they achieved with an innovative cloud-based solution.



Radiologische Allianz



Dr. Martin Simon, MaHM, has worked as a radiology specialist at Radiologische Allianz since 2012. In 2020, he joined the medical management team and is responsible for the cross-sectional imaging sector.

Radiologische Allianz is a physician-owned and independently managed regional group practice with **15 practice locations and two specialist centers in the German city of Hamburg.** It consolidates classic radiology, radiation therapy, nuclear medicine, and mammography as well as 75 highly qualified physicians under one umbrella. **Each year, more than 200,000 diagnostic studies including over 120,000 CT and MRI scans are performed here.**

CD-based workflow a drain on time, money and material

Before the PACSonWEB cloud solution with portals for referring physicians and patients was implemented at the locations of Radiologische Allianz, radiological images were burned onto CDs.

Dr. Martin Simon says: "Not only did this CD-based workflow cost us a lot of money and material, but also valuable time because the medical technical assistants needed to walk to the CD burner, burn the CD, print it and then hand it out to the patient after each examination. Another problem was that the CD burners failed quite often and required a lot of repairs and maintenance in general. This resulted in unnecessary work and delays for our employees, and for the referring doctors who usually couldn't view the radiological images until the patient showed up at their practice again."



Franziska Schröder, M.A., joined Radiologische Allianz as executive officer and head of project management. In this multifunctional role, she is also responsible for regularly reviewing and adjusting the ICT processes.

Taking the lead with an innovative approach

The PACSonWEB solution ticked multiple boxes for Radiologische Allianz, beyond the issues relating to the use of CDs. "Being one of the largest radiology practice groups in Hamburg, we are also strongly committed to constant innovation," says Franziska Schröder, executive officer and head of project management at Radiologische Allianz. "At the same time, we feel that the German healthcare system still has a long way to go when it comes to digitization, including both the digital health infrastructure and the electronic patient record. That is why we - whenever we can - take the lead in implementing innovative, progressive and useful solutions. We can lead by example and demonstrate to our partners which technical innovations are already available to improve the entire patient treatment path in radiology today. This includes the PACSonWEB cloud-based solution that dramatically speeds up and simplifies the cross-site viewing and submitting of radiological images and reports."

First-class support

Radiologische Allianz quickly decided in favor of PACSonWEB, and after a thorough preparation phase, the implementation was seamlessly completed without interrupting any ongoing processes from January to June 2021 at all 15 locations. "If we had questions or needed support, the PACSonWEB helpdesk was always there for us and immediately forwarded our request to the responsible project team," says Ms. Schröder. "As a result, we were able to solve most smaller problems on the same day."

More efficient treatment path translates into higher quality of treatment

"A key improvement is that the referring doctors can transfer the data directly into their own local health information systems, if desired. This is a huge benefit for everyone involved and the entire patient treatment path," says Ms. Schröder.

Dr. Simon adds: **"PACSonWEB makes it much easier for us** to integrate radiology images into the treatment path and also increases their visibility there. As a result, we can make decisions much faster when discussing them cross-site in real time and significantly improve the quality of treatment for our patients."



Since the employees at the locations of Radiologische Allianz no longer need to burn CDs, they can perform their daily tasks much more efficiently, faster and with a lot less stress. This gives them more time to care for their patients, and it also increases their general workplace satisfaction – another important aspect considering the ever-increasing shortage of professionals in the healthcare sector.

"Patients are also excited that they can view their images in PACSonWEB immediately after their radiological examination. **Even patients who are not tech-savvy find it easy to use the Patient Portal.** Often, they retrieve their images on their smartphone while they are dressing in the locker room. We provide them with a short and concise instruction sheet at the reception desk which tells them how to log into the portal and retrieve their radiological images with their personal code," says Ms. Schröder.

"We also designed a small flyer that briefly explains the advantages and features of PACSonWEB, and how the patients can benefit from them. It also addresses data privacy aspects, which of course play an important role for many of our patients." She continues: "Most of our patients find our new cloud-based PACS solution very intuitive to use. However, should one of them need any help or support, we've set up a dedicated hotline for them."

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EXPANDING INTO NEW PARTNERSHIPS & BUSINESS AREAS WITH PACSONWEB

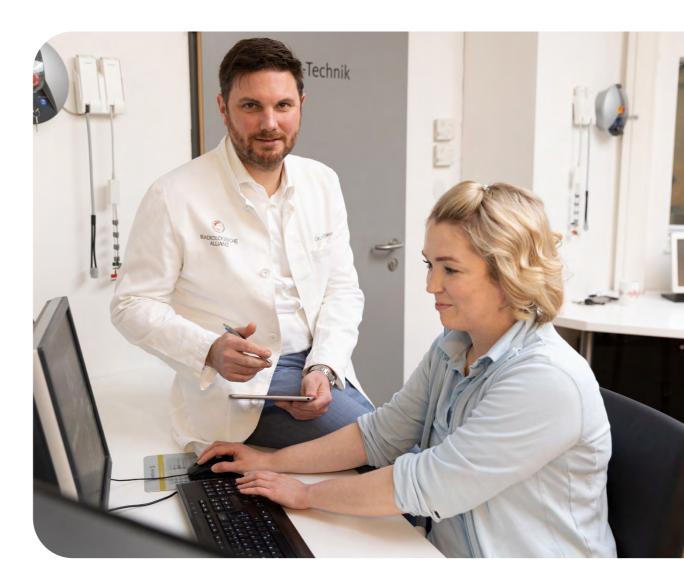
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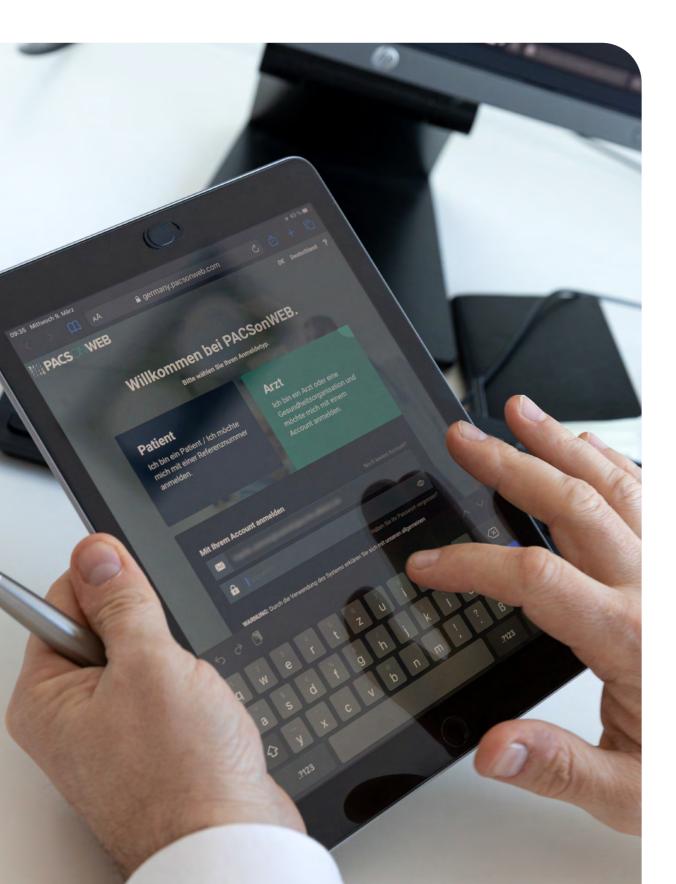
Opening up new partnerships and business areas

Radiologische Allianz continues to expand its network of referring doctors and clinics, which includes many longstanding partnerships, based on trust through quality. **"Since we implemented PACSonWEB at our locations, we have been able to work together with our medical partners much faster and easier also in a digital way," says Dr. Simon.**

"For example, for one year we have been providing the radiological and nuclear medical care with our network for LungenClinic Grosshansdorf in Schleswig-Holstein, an internationally recognized specialist clinic for all diseases of the lungs and respiratory tract. PACSonWEB has also greatly simplified this new collaboration across federal states," he says.

"The doctors on duty can now easily access all radiological images of both outpatients and inpatients from anywhere, anytime via a single sign on, even if these images are stored in different local PACS systems. Moreover, the images and reports can now be provided quickly on a mouse click via digital means. This translates into a major time and efficiency benefit for all sides – which has been even more beneficial during the pandemic."





Advantages for everyone

Both Dr. Simon and Franziska Schröder were convinced of the benefits of PACSonWEB from the start. Would Dr. Simon recommend this cloud-based solution to other practice groups and clinics? "Absolutely," he says.

"First, the referring doctor who needs to decide on further treatment for the patient can simply access the entire portal on his or her mobile device anytime they need to – no matter where they are currently working, and regardless of where the radiological images were taken and are actually stored. In addition, it allows him or her to view all radiological images and reports of their patients, and to use many other functions of a typical PACS system within a single portal. This means they are integrated into the image creation and evaluation process from the very beginning," he says.

"At the same time, radiology as a medical discipline gains substantially higher attention and visibility in the entire treatment path. This makes PACSonWEB not only a perfect solution for submitting and viewing radiological images and reports cross-site, but also a new, invaluable link between the examining and referring doctors and their patients."



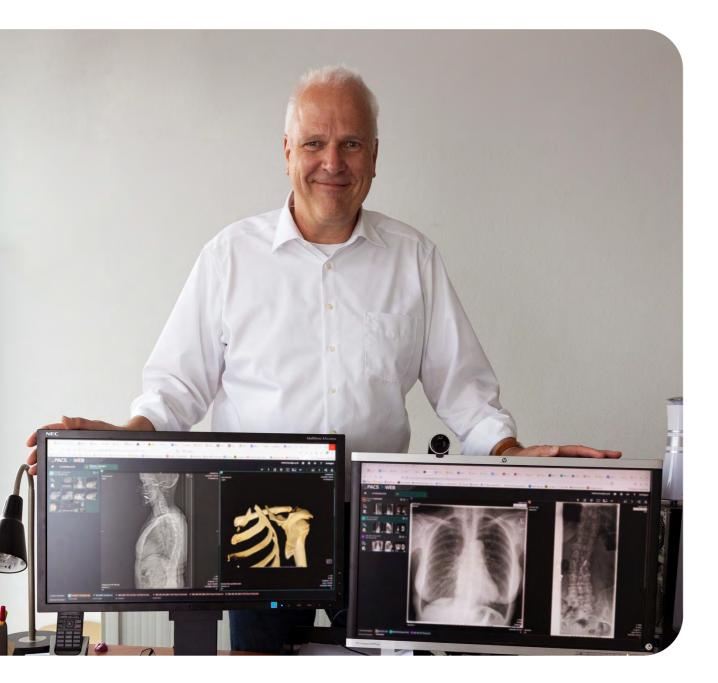


EXPANDING EFFICIENCIES & BUSINESS OPPORTUNITIES FOR RADIOLOGY PRACTICES WITH CLOUD-BASED SOLUTION

Praxis-Service-Gesellschaft GmbH (PSG)

EXPANDING EFFICIENCIES & BUSINESS OPPORTUNITIES FOR RADIOLOGY PRACTICES WITH CLOUD-BASED SOLUTION

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Stefan Kraus is a computer scientist who has worked as an IT manager for PSG since 2009.

Praxis-Service-Gesellschaft GmbH (PSG) is a Hamburgbased IT solutions integrator and full-service provider. For many years, PSG has partnered with radiological group practices like VISIORAD, Radiologische Allianz and Radiologie Blankeneser Bahnhof in the German city of Hamburg and the federal state of Schleswig-Holstein, handling all non-medical aspects of their daily business with maximum efficiency. This includes the IT resources, infrastructures, networks and systems which are required for performing radiologic examinations, viewing and evaluating the generated images, and documenting the findings.

Taking away the burden of all non-medical tasks from the doctors and radiology technicians

The question for PSG's Stefan Kraus was: how can we – in spite of increasing staff shortages and number of patients – use innovative solutions to take the burden of all non-medical tasks away from the doctors and radiology technicians so that they can work more efficiently and have more time for their patients? **"We need to ensure that these resources and systems are available 24/7 on all supported sites and that these are always perfectly networked," says Mr. Kraus. "That includes all major applications from information or patient systems to radiological image archives, where users need to be able to access huge amounts of data quickly and reliably."**

More efficient and state-of-the-art workflows

PSG takes great care in ensuring that the state-of-the-art tools and solutions which support the users with innovative and more efficient workflows also minimize the IT administration effort. Identifying and validating solutions that seamlessly align with clients' needs and requirements is a key part of PSG's expertise. "Visiorad was very interested in using PACSonWEB and asked us to closely evaluate the benefits and implementation requirements of this cloud-based solution," says Mr. Kraus. "As our feasibility review came back with positive results in every respect, we were able to recommend PACSonWEB not only to Visiorad, but also to other radiology group practices that we consult with and support."

A cloud native solution

As a cloud native solution, PACSonWEB offers doctors a wealth of advanced features that allow them to much more quickly, flexibly, and efficiently view and evaluate radiological images. If required, they can also easily filter them by relevant subsets. "With PACSonWEB, a doctor can quickly and easily compile an album with selected radiological images – for example, if he or she is participating in a special study with his or her department, or visiting a tumor conference and wants to present a set of single or follow-up images there," explains Mr. Kraus.

Patients can also view their radiological images immediately after their examination. "However, if the referring doctor, e.g. during oncological follow-up monitoring, does not want them to see their pictures before he or she evaluates them or only after a certain period of time, we can also easily configure this in PACSonWEB," says Mr. Kraus.

Opening up new business areas and revenue opportunities

PACSonWEB is available anywhere and anytime. If needed, a radiologist can for example instantly view the images of an emergency CT on PC, tablet or smartphone at home even in the middle of the night. This benefit also opens up new and unprecedented revenue opportunities and business areas for the group practices, such as in the field of teleradiology or Al.

"With PACSonWEB, radiology practices with the necessary staff and expertise can temporarily or permanently provide teleradiology services for other practices or clinics, even if these are hundreds of kilometers away. This also opens up other potential new business areas like **providing pseudonymized and anonymized data in conformity with GDPR to AI providers for secondary use, for example for educational purposes, or to further develop AI," says Mr. Kraus. "These are just some of the expanded ways to create ROI with the implementation of PACSonWEB."** (2)

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"Cloud technology has made excellent progress recently and is used much more frequently. For the future, it would be great if we could also use innovative cloudbased solutions like PACSonWEB as a long-term archive for radiological images – either as an additional backup or mirror solution for the local image archive, or by eventually fully replacing it." - **Stefan Kraus**

Responsive helpdesk

PACSonWEB was **implemented within a few months at all the group practice locations without interrupting any important applications or business processes.** Extracting and transferring the image data from the local image archive to the cloud also went smoothly and quickly. Setting up the HL7 interface for the image registration and follow-up processing, which is triggered by the radiology information system when new image data are received from the image archive and generated for PACSonWEB, was also completed on time and on budget.

"When we had any questions or issues before, during or after the implementation, the PACSonWEB helpdesk always immediately forwarded our request to the project team," says Mr. Kraus. "Issues were resolved within 48 hours."

Before the new cloud native PACSonWEB solution was implemented, few users had questions about security of access and data protection. Mr. Kraus says: "The fact that the radiological images and reports were suddenly available in a closed local environment, and also in the cloud 24/7 was certainly a big novelty at first. After a short while, **it became obvious for everyone in their daily work that storing and accessing these data in the cloud was just as secure, and it's much easier and faster to access from anywhere**."



3 SPEED, EFFICIENCY AND COST BENEFITS FOR VISIORAD WITH PACSONWEB

VISIORAD

SPEED, EFFICIENCY AND COST BENEFITS FOR VISIORAD WITH PACSONWEB



Dr. Maik Jörgensen has been with VISIORAD for 18 years as a radiology specialist focusing on cross-sectional image diagnostics (MRI and CT) and interventional radiology. He is also a management spokesperson. VISIORAD is a regional group practice with eight locations in the greater Hamburg metropolitan area, offering classic radiology, radiation therapy, and nuclear medicine under one umbrella, managing a combined total of 130,000 radiological studies each year. All eight VISIORAD locations are closely connected, working with an ever-expanding network of referring physicians and clinics.

The primary goals in implementing PACSonWEB

For Dr. Maik Jörgensen, the speed and efficiency benefits of digitization were the primary goals in implementing the PACSonWEB web-based PACS solution, including portals for referring physicians and patients, across all VISIORAD locations.

"Nowadays, radiological images and reports should be available for the referring doctor in the best quality, immediately after they are created," he says. "This allows us to save valuable time and instantly exchange important information via digital channels. At the same time, we can eventually get rid of the high additional workload and costs associated with burning, printing and sending CDs."

Slowdowns and costs associated with a CD-based workflow

There were multiple problems with the previous workflow: apart from the mostly **insufficient quality of the paper printouts**, **CDs can also cause unexpected technical problems or delays**, **especially considering that many computers are no longer equipped with a CD drive.** In addition, this outdated process caused significant administrative, material and postage costs for the examining clinic or practice. **Given the ever-growing cost reduction pressure and workload burden in radiology today**, the **reality is that CDs are too material-, time- and cost-intensive to work with.**

State-of-the-art radiology requires digital solutions

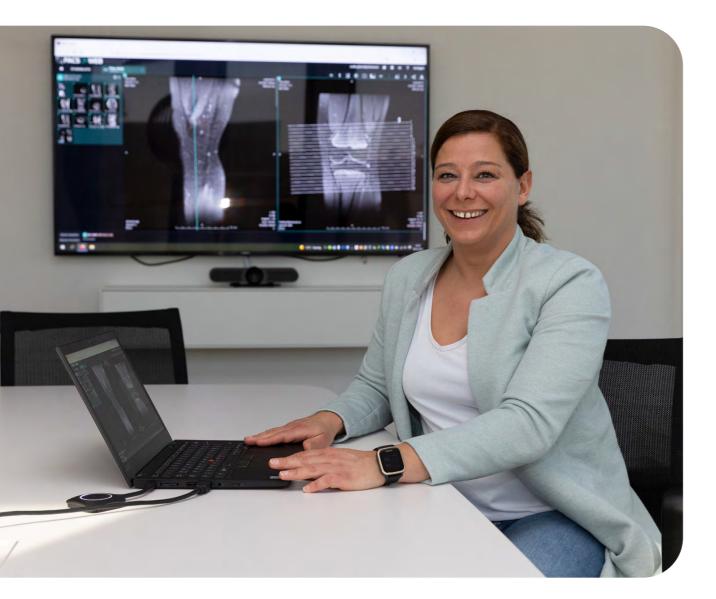
The German healthcare system still has a long way to go to catch up with the emerging and ever-growing digitization needs, particularly in radiology, says Dr. Jörgensen. "In the examining clinics and practices, too many processes are still carried out with outdated, non-digital means like snail mail or fax," he says. "And this keeps everyone who is involved in the patient treatment chain from working as quickly and efficiently as we could. In radiology, this especially affects how images and reports are submitted and viewed. The solution: powerful digital systems that allow us to quickly and easily access images and reports anywhere and anytime when we need them. This will improve the workflows in the examining practices and clinics, and enable us to provide added value for both our referring doctors and patients."

A personal experience highlighted the benefits and capabilities of a cloud-based PACS system for Dr. Jörgensen

"During a vacation abroad, someone from my private circle had an accident and needed to undergo a radiological examination," he explains. "Even though I was thousands of miles away, I was able to easily view his images in the clinic's cloud-based PACS system with a personal online access code – immediately after the images had been created. I was totally excited about this time advantage and how simple and intuitive it was for me to display the images and findings report in my browser. This incident opened my eyes, and I was convinced that VISIORAD could also benefit from such a cloud-based PACS solution."



SPEED, EFFICIENCY AND COST BENEFITS FOR VISIORAD WITH PACSONWEB



Malika Gharred, Head of Operations at VISIORAD, led the implementation of the PACSonWEB solution together with Dr. Jörgensen.

Fast and smooth implementation

The implementation of PACSonWEB required minimal effort, and didn't interrupt any important business processes at VISIORAD. **"If we had questions or issues during the implementation, the team at the PACSonWEB helpdesk was always there for us and took care of our request immediately," says Ms. Malika Gharred, pictured at left. "Currently, we hold an online meeting every two weeks which we also use to discuss desirable customizations or future enhancements. The PACSonWEB team is always open to hear and consider them."**

"The new cloud-based solution is easier and much more stable to use," she continues. "It is also more cost-effective, which is an important factor in view of the increasing cost reduction and efficiency increase pressures that most hospitals are facing."

In addition, besides its consistent high user acceptance, PACSonWEB offers further convincing arguments to strengthen collaboration with existing partners and win new partners. "We gladly pioneered in implementing this innovative cloudbased solution in the federal state of Schleswig-Holstein," says Ms. Gharred. "Of course, we hope that many other group practices and clinics will soon follow our example."

Putting patients at the center with reduced waiting times and quick image access

By implementing PACSonWEB, VISIORAD has not only been able to reduce its time effort and cost burden, but also significantly **shorten the time patients need to spend at practice locations**. **Now patients can leave immediately after the radiologic examination, instead of spending more time in the waiting room while their CD is being burned**. In addition, the referring orthopaedist, oncologist or neurologist already has all images at his or her disposal when the patient shows up in their practice again, and can usually also access the associated report in the same system within 30 minutes.

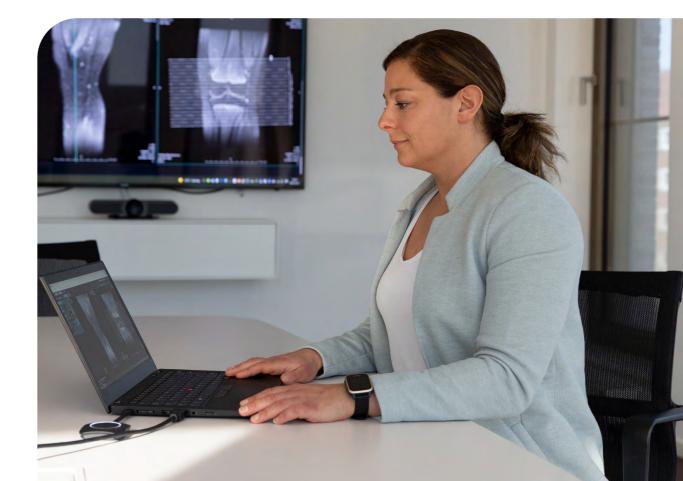
Easy access to additional expertise and opinions

Dr. Jörgensen says: **"For example, in a case that involved obtaining a second opinion I was able to use PACSonWEB to give a colleague from a far-away region of Germany immediate access to all existing radiological images and reports**. As a result, he didn't need to wait for days until our CD was finally in the mail, but could simply compare the old and new images in PACSonWEB in a central overview in his browser while we both viewed and discussed them in real time. Of course, such **opportunities for cross-site collaboration have a very positive impact on the treatment quality we can provide."**

Charting a path to the electronic patient record

With PACSonWEB, the patients are involved in the examination and reporting process, giving them completely new insights and opportunities to have their say.

"PACSonWEB as a cloud native solution in this medical field already provides them with all the important and useful features of the electronic patient record today, which we hope will soon be rolled out in Germany," says Ms. Gharred.





For more information, or to try a demo of PACSonWEB, visit our website at:

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