A close-up portrait of a man with short, light brown hair and a goatee, wearing a dark suit jacket, a white shirt, and a dark tie. He is looking directly at the camera with a neutral expression. The background is a soft, out-of-focus purple and blue gradient.

““ The workflow has definitely sped up for us: multimodality exams are available on any workstation, and we don't have to switch workstation to find a different type of exam. And more radiologists can work at the same time. ””

**DR. DMITRY BURENCHEV, PHD MD**

Head of the Radiology Department, Moscow's Outpatient clinic #12, Russia

## Ending the paper chase

Moscow Department of Healthcare consolidates and enables sharing of radiology results across the city, with a regional imaging solution comprised of Agfa HealthCare VNA, XERO Viewer and the Enterprise Imaging for Radiology suite

## Ending the paper chase

Interview with DR. DMITRY BURENCHEV, PhD MD, Head of the Radiology Department, Moscow's Outpatient clinic #12, Russia

“Agfa HealthCare's solutions are 'plug and play': you can just sit down and work, with very little training.”

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Some 100 general and specialist hospitals, more than 400 outpatient clinics (for children and adults alike), and several dozen sub-stations for urgent medical care, all under the umbrella of the Moscow Department of Healthcare... This comprehensive network assures that residents and visitors to the capital of Russia – home to 12.2 million people – receive high quality care at any moment.

That care includes and relies on radiology, but the sheer size of the system created very specific challenges for radiologists across the city. “Firstly, there was no organized archive for medical images,” comments Dr. Dmitry Burenchev, Head of the Radiology Department, Moscow's outpatient clinic #12. “In our clinic, for example, we obviously needed image storage, but the workstations for the modalities weren't set up for it. So we used arrays of hard drives. Each study was saved as a separate independent case. This took a long time to do, and also made accessing the archived studies time-consuming. And to find all of one patient's studies, we had to first figure out the timeframe for each exam, then check the relevant CDs. Work efficiency definitely suffered.”

Radiologists faced another difficulty, as well: a lack of sufficient and unified workspaces for reading and reporting. “Each workstation seemed to have a different interface, and the radiologist had to learn each one and then keep in mind the visualization and processing tools when using that specific workstation,” explains Dr. Burenchev. “Plus, there were a limited number of workstations: essentially one for each scanner. We added third-party free viewers, but there was no direct connection between the various workstations. The radiologist had a very limited amount of time in which to do his reading tasks and consulting.”

Overall, says Dr. Burenchev, “we were working with a massive, paper-based workflow, which, on the scale of a city, is a very big problem.”

### Multisite imaging IT, delivered as a managed service

As part of its goal to provide efficient medical care based on modern equipment, qualified specialists,

and the latest methods of diagnosis and treatment, the Moscow Department of Healthcare decided to update the radiology technology to support the consolidation and sharing of radiology results across the city. Agfa HealthCare was chosen to provide the central imaging repository and teleradiology solution, in the first multisite imaging IT solution in Russia to be delivered as a managed service.

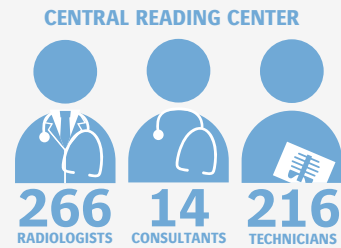
“The Moscow Department of Healthcare has been making some significant changes to improve healthcare efficiency and the use of resources,” says Dr. Burenchev. “Outpatient clinics designed to detect diseases at an early stage facilitate patient recovery but also help hospitals better manage bed usage. And when patients arrive at the hospitals, they have already had many of their needed examinations completed at the outpatient clinics. Centralizing the digital imaging repository is a key part to the success of this approach.”

The Department chose a solution comprised of the Agfa HealthCare vendor-neutral archive (VNA), XERO Viewer and Enterprise Imaging for Radiology suite, all delivered as a managed service; implementation began in February 2015, with local integrator Laval.

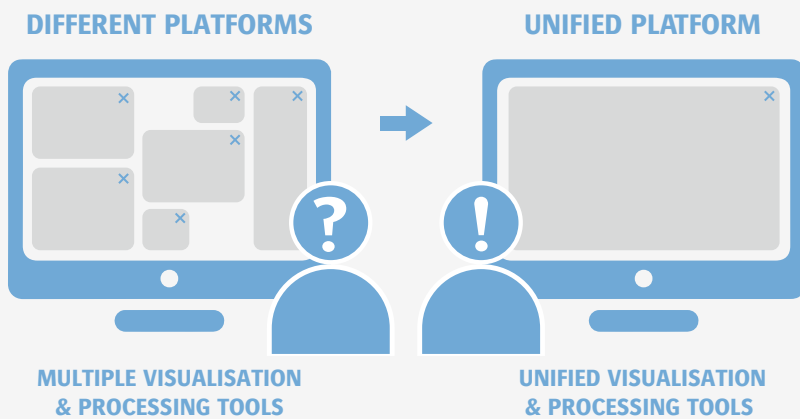
### Connected and accessible imaging and data, across the city

The VNA connects and consolidates radiology modality data from multiple sites; the project started with those modalities for which there is a shortage of qualified personnel, CT and MRI tomography in particular. In total the scope of the project includes more than 60 outpatient medical facilities, counting a total of more than 100 modalities, including 59 CTs and 39 MRIs.

Integrating the zero-footprint XERO Viewer and Enterprise Imaging for Radiology with the Department's cloud-based electronic medical record (EMR) will make those results accessible across Moscow's health information exchange (HIE) infrastructure, to enable unique patient identification, allow referring physicians to place orders via the EMR and give authorized users from the Moscow healthcare community seamless access to results.



“The faster throughput means patient waiting times are considerably shorter. And having access to all of their exams, taken at any polyclinic, will also speed up and improve the efficiency of their care.” **DR. DMITRY BURENCHEV, PHD MD**



**The Agfa HealthCare portfolio for Moscow Department of Healthcare project comprises the following systems:**

- Enterprise Imaging for Radiology Suite
- VNA
- XERO Viewer

**Agfa HealthCare’s contribution**

Agfa HealthCare is providing the first multisite imaging IT solution in Russia delivered as a managed service to the Moscow Department of Healthcare. The solution, which is based on high availability and disaster recovery best practices, is deployed in two redundant datacenters. Its load-balancing architecture enables the delivery of high performance and failover protection. The project will provide optimized radiology workflow in line with approved standards and global best practices. The solution covers 63 sites with over 110 imaging modalities, including 59 CT and 39 MRI. State of the art PACS (picture archiving and communication system) and RIS (radiology information system) components will be deployed locally and in the cloud.

**VNA**  
VENDOR NEUTRAL ARCHIVE



## Ending the paper chase



### Did you know?

- Moscow is the northernmost and coldest megacity and metropolis on Earth. It is also one of the fastest growing tourist destinations in the world.
- The largest city (by population) entirely on the European continent, Moscow is among the world's largest and most expensive cities, and boasts one of the world's biggest urban economies. It has 12.2 million residents within the city limits and 16.8 million within the urban area.
- The first reference to Moscow dates from 1147, while the first Kremlin, a wooden wall surrounding the city, was built in 1156. Today the Moscow Kremlin is a fortified complex in the heart of the city, which houses the official residence of the President of the Russian Federation and the Kremlin Museums. Tourists have been allowed in the Kremlin since 1955.

### Easy to learn, easy to use: up & running 'in no time'

The selection of a vendor for the project was competitive and based on a number of criteria. Agfa HealthCare was chosen thanks to its vendor-neutral approach for modalities and content, its ability to update and customize tools for Russia, the ease of use of its solutions and intuitive interface, and the high availability of services. "Agfa HealthCare's solutions are 'plug and play': you can just sit down and work, with very little training," Dr. Burenchev comments.

Agfa HealthCare's broad experience in implementing regional projects also played a key role, Dr. Burenchev continues. "The success of a project such as this one depends not only on the quality of the solution itself, but also on the coordination of the tasks and activities, and on the expertise of the implementation team. We had a tight schedule, which meant that the Agfa HealthCare and Laval teams had their work cut out for them. Making it even more challenging was the need to organize the work in different types of facilities with different physical and infrastructure set-ups."

With the experienced teams at work, the implementation went smoothly. "Of course, with such a large-scale project we can't always foresee everything beforehand, but it all followed the planned stages."

### Quicker workflow means faster, better delivery of patient care

Now, 266 radiologists, 216 technicians and the 14 consultant radiologists at the Central Reading Center, are involved in the project. The Central Reading Center provides remote viewing and second opinions, with consultant radiologists automatically receiving tasks in the Enterprise Imaging for Radiology suite.

The new system has been well-received across the board, says Dr. Burenchev. "The radiologists in particular appreciate the image visualization tools, report creation and ability to send studies to the Central Reading Center for review and consulting. Overall, the workflow has definitely sped up for us: multimedia exams are available on any workstation, and we don't have to switch workstation to find a different type of exam. Plus, more radiologists can work at the same time."

Dr. Burenchev sees other benefits at his outpatient clinic: "Before, there was no simple way to search for a patient's previous exams; we had to look directly on the discs. The easy to use search engine makes it much faster now. And there is no risk of confusing patients: each patient can be easily found in the system from any of the clinics in the cluster."

Patients, as well, experience the benefits: "They may not realize it at first, but the faster throughput means that their waiting times are considerably shorter. And having access to all of their exams, taken at any clinic, will also speed up and improve the delivery of care."

Dr. Burenchev also sees the new solution creating new – and unexpected – opportunities on a broader scale. "This system is a tool for work, but for the city it is also a path to development. New strategic opportunities are being explored, and at the city-level, there is a determined readiness to take advantage of the opportunities. For example, we have a fantastic opportunity to organize independent radiology consultancy at the city level. What's more, the teaching features of the solution allow us to expand our educational goals. All of this allows us to move even more forward with our efforts to enhance the quality of healthcare we provide to the people and visitors of Moscow."

[www.agfahealthcare.com](http://www.agfahealthcare.com)

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