IMAGING STRATEGY PAPER

Taking a holistic medical imaging approach at Blanchard Valley Health System

Serena Baum
Radiology & Cardiology PACS Administrator,
Blanchard Valley Health System

and

John Hally & Thomas Doherty,
Senior Product Managers,
Merge by Merative

Introduction:
A modern approach to medical imaging calls for a holistic strategy

Blanchard Valley Health System operates out of Findlay, Ohio, servicing eight counties across the state. Over the years, the organization has weathered numerous workflow and technological disruptions. What was once a health system predominantly composed of private practice providers has now shifted toward a largely employed provider base, spurred in part by government mandates like EHR, and a general industry trend towards consolidation.

This transformation created new opportunities for managing imaging studies and optimizing provider workflows – from phasing out paper-based systems and consolidating patient data and image access, to improving communications between providers, so that everyone operated as members of a single system, rather than as disparate private practices.

Doing so required a unified strategy that could consolidate the health system's multiple radiology PACS, hemodynamics software, cardiology PACS, and enterprise imaging archive needs. Where separate private practices once used different solutions from different vendors – with each application having its own siloed data archive – now BVHS saw an opportunity to eliminate these silos, and with them, the finger pointing between vendors and inefficiencies that they caused. This also opened an opportunity for economies of scale, more flexibility with cloud storage capabilities, and greater accountability from working with a single solutions provider.

This comprehensive imaging system would entail consolidating imaging solutions and data from across the entire health system, providing a single source of truth and seamless cross-department communications. For BVHS, successfully solving this problem depended on tackling two key challenges: workflow optimization and user adoption.

This paper will explore how BVHS went about building a comprehensive, holistic imaging strategy; how that strategy was focused on optimizing clinician workflows and easing user adoption across the organization; and how they worked with a single vendor to meet these needs.

Workflow optimization: How a unified imaging strategy drives new efficiencies, improves collaboration, and cuts costs across workflows

Workflow efficiency impeded by paper-based systems

BVHS wanted to discontinue paper-based systems across their workflows, such as imaging requisitions from their EHR. Paper-based records were unreliable and inconsistent, due to factors like bar codes, which needed to be scanned, or handwritten patient histories, which could be difficult to decipher. Care team members found it time-consuming and inefficient to use paper in increasingly busy and often geographically dispersed settings.

Implementing an enterprise-wide archive was a top priority for the BVHS team to support the move from multiple PACS and cardiology PACS systems to their current deployment. Standardizing on imaging solutions like a radiology PACS and a cardiology PACS was essential for injecting more reliability and consistency into their clinician workflows. More departments faced growing imaging needs and required common worklists to manage them effectively.

The introduction of unified and shared worklists provided by the unified PACS systems helped improve collaboration between staff within busy departments such as the Emergency Department, where the best way to manage the caseload is with a worklist accessible to all staff, so that everyone knows what has been completed, what is needed to happen next for the patient, and by whom.

This strategy brought additional efficiency by introducing the ability for multiple clinicians and technologists to complete findings on reports simultaneously, when needed, to help accelerate the progress of the case to the next workflow step.

"We were looking for something that would meet all of our current image archival needs, as well as provide the flexibility for archiving additional file formats as we grow our enterprise imaging strategy."

Serena Baum
Radiology & Cardiology PACS Administrator, BVHS

"Having an imaging archive that is always available and easily accessible is integral to how we deliver patient care."

Serena Baum
Radiology & Cardiology PACS Administrator, BVHS

Improving cross-departmental collaboration

Phasing out paper-based systems didn't just make workflows more efficient; it also made it easier for staff to communicate across the health system. With different providers and workstations spread across different floors, departments, and facilities, centralizing communications electronically made it easier for everyone to keep their finger on the pulse of what's happening with a patient, from the ER to outpatient services.

Studies are processed in one central hub, where everyone can see the status of the job and what the next steps should be – eliminating the need for people who are on different floors, sites, or shifts to meet face-to-face to determine what's next.

Improving staff communications has helped everyone act more responsively and has increased efficiency for collaborating with satellite offices, urgent care, and ERs, regardless of the geography of each site. Now, IT and clinicians of different specialties, across all sites, can access the same imaging data from the same central hub.

By making it possible for physicians across the health system to access the same records and images about patients, whether in an outpatient facility, a sister hospital, or a satellite office, BVHS has improved patients' experience and enabled their information to be readily retrieved at any location, with any physician.

Cost savings

Moving to an enterprise-wide system isn't just an efficiency play; it also saves costs. The volume of paper and ink needed to run a multi-site health system adds enormous costs to the bottom line – and being to reduce these line items has the potential for enormous savings. BVHS saw a **50% reduction in paper costs** as a result of turning off their paper-based requisitions.

User adoption: Achieving universal buy-in and trust

Deploying a systemwide enterprise imaging strategy required buy-in across various stakeholders, from physicians to administrators to IT leaders. How do you bring doctors into the fold who don't necessarily want, or have time, to learn how to use a new imaging PACS or hemodynamics solution? How do you instill trust in the new, while also unwinding reliance on the old (i.e. film)? How can does one strategy answer the disparate needs of different stakeholders?

Accommodating user needs while introducing change

Early in this journey, physicians who were accustomed to operating with paper resisted changing to new digital systems. Those who still needed a physical representation of an imaging study would request printouts of digital files. To build and protect trust, accommodations like these helped the clinical staff transition over time toward fully accepting electronic-based workflows.

Over the years, through natural attrition and changing demographics, the composition of BVHS's staff has changed. It now includes a growing proportion of staff who are comfortable with digital solutions and systems. Fewer staff members today have prior experience with physical media, like print outs or film.

Not only did these solutions succeed at getting care providers what they need and making their jobs easier in the process, their impact could be felt even after a physician had left BVHS. Physicians would frequently call back, after leaving to work elsewhere, to want to know which PACS or CPACS they had used at BVHS so they could try to deploy that same solution at their new job.

A speedy, responsive support team

In bringing their imaging needs under one umbrella, BVHS had to partner with a vendor with robust customer support services, prioritizing communication and quick access to information. Being able to help physicians work through an issue – providing quick answers to their questions, helping them troubleshoot issues – was key to getting buy-in and building trust. Ensuring there were trustworthy people working behind the scenes that could be reached at a moment's notice helped Blanchard Valley gain trust in their new, across-the-board imaging strategy.

"Our providers heavily use Merge PACS. They have a huge affinity for it. We've had providers move away but continue using Merge PACS at their practice because it's so easy and comfortable for them."

Serena Baum
Radiology & Cardiology PACS Administrator, BVHS

"As the radiology and CPACS administrator, one of the biggest advantages has been the ability to customize the hemodynamics and PACS system. The ability to add fields for ACC or facility needs, or create a custom status within the PACS, helps us meet our ever-changing workflow needs, without the fear of additional costs."

Serena Baum
Radiology & Cardiology PACS Administrator, BVHS

Building a medical imaging strategy with a transformation partner

To create this centralized imaging strategy – one that would unite all of their imaging solutions behind one vendor, optimize physician workflows, and facilitate a glide path for user adoption – BVHS turned to Merge.

The Merge origin story

BVHS first started with Merge back in 2003, adopting Merge PACS as their radiology PACS and maintaining it ever since. In 2008, BVHS partnered with two other vendors to provide their cardiology PACS and hemodynamics software.

But by 2012, changes with their cardiology vendor – loss of support and being acquired by a competitor – combined with the impending end of life of their hemodynamic system, inspired a rethink: finding one vendor that could support all of their imaging needs – radiology, cardiology, hemodynamics, and enterprise image archiving – all at once.

This shift also aligned with a change in BVHS's provider base, which started to include more members of the practices' support staff – nurses, secretaries, medical assistants. Not only did this expansion allow those team members to better prepare for office visits with patients, it also provided Blanchard Valley an opportunity to train providers on how to import images received during office visits for better comparison review.

To consolidate their imaging functions under a single vendor and accommodate the needs of an expansive provider base, BVHS turned to Merge, now a part of Merative, in 2013. Consolidating all these functions eliminated the finger pointing that came with having multiple vendors. And it provided BVHS with the flexibility to expand and upgrade their radiology, cardiology, hemodynamic, and archiving solutions in the same direction, rather than managing disparate solutions on the disparate timelines of multiple vendors.

BVHS's suite of Merge solutions

BVHS currently uses Merge PACS for its radiology PACS; Merge Cardio for its cardiology PACS; Merge Hemo for its hemodynamics; Merge Universal Viewer for viewing and sharing images; and Merge Cloud Archive for its enterprise imaging archive. All cardiology and radiology exams are stored in the Merge VNA. An established project management office (PMO) helps ensure stakeholder alignment and transparency for all technology decision-making made across imaging systems and EHRs.

The importance of recognizing each organization's unique journey

Effective technology transformations happen when vendors remain steadfastly committed to meeting clients where they are in their unique technology adoption journeys. Whether imaging organizations are using different vendors for different PACS or embarking on a strategy that unites all imaging applications under one vendor. Whether their systems are on-premises, cloud-first, or a hybrid of the two. Whether they're keen to explore innovations like cloud and AI or prefer staying rooted in legacy PACS with years-long track records. Whatever the situation, each healthcare organization's needs and concerns will be different and require solutions that are unique to them.

As BVHS's story shows, careful attention to workflows and user adoption were critical success factors for fostering an enterprise-wide imaging strategy in an environment where most of the clinicians were accustomed to working in independent practices based on paper and film. Their tenacity over many years paid off with improved care team collaboration, smoother workflows to better support patient experience, with greater efficiencies and cost savings.

More about Merge

Whatever your needs and aspirations, Merge provides an award-winning suite of imaging solutions for radiology, cardiology, and orthopedics, using vendor-neutral cloud and AI technologies to reimagine workspaces, transform workflows, mitigate burnout, and create better experiences for clinicians, IT, and patients. Learn more about how Merge imaging solutions are helping physicians, IT administrators, and provider leaders to conquer workflow challenges and face the future with confidence. Read about our imaging vision.

Check out other imaging technology success stories for best practices from organizations that have reduced downtime and click fatigue, simplified workflows, and consolidated imaging data. Explore case studies.

Experts are ready to help you learn about ways Merge can support your imaging transformation journey. Chat now.

"The worklists for ER, urgent care, and individual practices all work fantastically. The specialists find time savings from their worklists, which are utilized within their practices, and have requested additional worklists to save them time when they are on call, allowing them quicker access to the ER patient."

Serena Baum
Radiology & Cardiology PACS Administrator, BVHS

About Merge

Merge medical imaging solutions, offered by Merative, combine intelligent, scalable imaging workflow tools with deep and broad expertise to help healthcare organizations improve their confidence in patient outcomes and optimize care delivery.

Learn more at merative.com/merge-imaging

About Merative

Merative is a data, analytics and technology partner for the health industry, including providers, health plans, employers, life sciences companies and governments. With trusted technology and human expertise, Merative works with clients to drive real progress. Merative helps clients orient information and insights around the people they serve to improve decision-making and performance. Merative, formerly IBM Watson Health, became a new standalone company as part of Francisco Partners in 2022.

Learn more at merative.com

About Blanchard Valley Health System

Blanchard Valley Health System is a not-for-profit, connected care network providing comprehensive healthcare to individuals of all ages and needs in Northwest Ohio. Based in Findlay, a unique micropolitan community, BVHS offers quality care without patients ever having to leave the region. Along with Blanchard Valley Hospital and Bluffton Hospital, the network of care includes primary care and specialty offices as well as home health, hospice, long-term care, imaging, laboratory, rehabilitation, and expedient ambulance services.

BVHS is one of the largest employers in the area with more than 3,200 associates and serves an eight-county area that includes Hancock, Allen, Putnam, Henry, Wood, Seneca, Wyandot, and Hardin Counties.