Fixed vs Mobile OR Integration: Which Approach Fits Your Hospital?

by Editorial Team

Choosing the right OR integration approach is one of the most consequential infrastructure decisions a hospital can make. As operating theatres evolve into data-driven, connected environments, the question is no longer whether to digitise – but how. Should your hospital invest in a fixed, architecture-embedded system, or deploy a mobile solution that avoids infrastructure changes altogether?

The answer depends on your hospital's physical setup, budget, surgical volumes, and timeline. This guide breaks down both paths to help you make an informed decision.

What Is Fixed OR Integration?

Fixed OR integration refers to AV, imaging, and data systems that are embedded directly into the operating theatre's architecture. Rather than standalone units, the technology becomes part of the room itself. Typical components include:

- Wall-mounted or ceiling-mounted 4K cameras
- Built-in medical-grade monitors
- Integrated data ports for PACS, HIS, and EMR systems
- In-wall control panels or rack-mounted AV routers
- Touchscreen control interfaces for surgical teams

Best Suited For:
- New hospital builds or greenfield surgical suites
- High-volume surgical centres requiring always-on availability
- Robotic or hybrid ORs with advanced AV routing needs
- Teaching hospitals that need permanent, multi-room integration

Advantages:
- Always-on availability with no setup between cases
- Clean, seamless room design with zero visible clutter
- Supports advanced automation

Considerations:
- Higher upfront investment
- Requires planned downtime and structured cabling during installation

Fixed integration is well-suited to hospitals planning long-term scalability. For a deeper look at what a fully integrated OR setup involves, explore CREA OR Integration – a modular platform designed to accommodate both mid-scale and complex hospital environments.

What Is Mobile OR Integration?
Mobile OR integration brings the same core AV and recording capabilities to the operating room – without requiring any changes to the room's infrastructure. Self-contained units on wheels typically deliver:

- 4K and Full HD surgical recording and streaming
- Single or dual medical-grade monitor support
- Optional overhead articulating camera arms
- Footswitch or touchscreen control
- Seamless data export, tagging, and case documentation

Best Suited For:

- Existing ORs where downtime for renovation is not feasible
- Hospitals with rotating surgical teams across multiple rooms
- Teaching scenarios that require flexible, room-to-room deployment
- Budget-conscious setups or phased digitisation plans

Advantages:

- No renovation, cabling, or structural changes required
- Rapid deployment – operational within days, not months
- Portable across ORs, floors, or even facilities

Considerations:

- Requires designated storage and charging logistics
- Physical footprint within the OR, unlike embedded systems
- Aesthetically less seamless than a fully fixed installation

Mobile OR integration is an increasingly common choice for hospitals that want to digitise quickly without committing to major infrastructure changes. The CREA Cart is one example of a mobile-first OR integration unit, offering full recording and streaming functionality in a compact, self-contained form.

How to Choose the Right OR Integration Approach

There is no single right answer – the best OR integration approach depends on a combination of factors specific to your institution:

- **Timeline:** If you need to go live within weeks, mobile is the faster path. Fixed integration requires planning, cabling, and installation time.

- **Budget:** Mobile units have a lower upfront cost. Fixed systems require higher initial investment but often deliver better long-term ROI for high-volume ORs.
- **Surgical volume:** High-volume centres with dedicated ORs benefit from the always-on nature of fixed systems. Shared or rotating rooms are better served by mobile units.
- **Infrastructure availability:** New builds give you the flexibility to design OR integration in from the ground up. Retrofitting an active surgical floor often makes mobile the practical choice.
- **Future scalability:** Some hospitals start with a mobile unit and later transition to a fixed setup as they expand – a phased approach worth considering.

What to Look for in Any OR Integration System

Whether you choose a fixed or mobile approach, certain capabilities should be non-negotiable in any OR integration system:

- IEC 60601 certification for medical-grade electrical safety
- Native integration with HIS, PACS, and EMR systems
- Vendor-neutral architecture to avoid technology lock-in
- Reliable on-site support and software ownership
- Scalable design that accommodates future requirements

For reference, the CREA platform by Esbee Dynamed supports both fixed and mobile configurations under a single, standards-compliant architecture. The Unified Communications Platform (UCP) also provides a vendor-neutral layer for centralised media management and communications across OR environments.

Final Thoughts

If you're planning a new surgical block or hybrid OR, a fixed system delivers long-term performance, cleaner aesthetics, and deep workflow integration. If you need to upgrade without disruption – or want to start quickly and scale later – a mobile OR integration unit gives you modern functionality with complete flexibility.

The best OR integration strategy is one that aligns with where your hospital is today and where it's headed. Speaking with a specialist early in the planning process can help you avoid costly rework and ensure the system you choose serves your teams for years to come.

Have questions about OR integration for your hospital? Speak with our team – we're happy to walk you through the options and help you find the right fit.

Esbee Dynamed specialises in OR integration and connected surgical instrument tracking solutions. To learn how we can support your operating theatre, contact our team.

Write to us at info@esbeedynamed.com for more info.