

Barco CTRL

The control room that just works

A guide to simplicity in KVM over IT



Simplicity



Scalability



Security

Start reading



BARCO

Complexity was never a feature

Control rooms are high-pressure environments. Operators make critical decisions, often under time constraints, with a constant flow of information coming from multiple sources. The last thing they need is technology that gets in the way.

For too long, control room platforms have been powerful but painful – complex to deploy, difficult to scale, and demanding to operate. **With Barco CTRL, Barco is introducing a completely new category into the market called KVM over IT.** Rather than sitting alongside the IT infrastructure as a separate system, Barco CTRL integrates with it, speaking the same language as the rest of the organization's technology ecosystem.

The result is a platform that is as powerful as it is simple. Simple for the operator who needs to focus on the task at hand. Simple for the installer who needs to get the system running fast. Simple for the IT manager who needs to keep everything secure and up to date.

Simple for the operational manager who can securely distribute content to remote workers or subsidiary control rooms. And simple for senior management, who need clear oversight of what is happening across the operation – without having to become experts in the technology that enables it.

**This e-book explores
14 ways in which
Barco CTRL removes
complexity from the
control room
for everyone involved.**

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Part 1

Simplicity for the operator



1. One canvas, one keyboard, one mouse

In many control rooms, operators work across multiple computers that are connected to separate, intentionally isolated networks. Historically, this meant multiple keyboards, multiple mice, and a lot of mental energy spent just navigating between systems – energy that should be directed at the actual work.

Barco CTRL solves this by creating a unified operational canvas. Although the underlying networks remain completely separate (as they should, for security reasons), operators experience everything on a single workspace, controlled with one keyboard and one mouse. Switching between sources from different networks is seamless and instant.

This is one of the defining advantages of **KVM over IT: the system does not just connect to the IT infrastructure, it integrates into it.** The result is a more natural, intuitive way of working that reduces cognitive load, limits errors, and keeps operators focused on what actually matters.

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2. One platform for desk and wall

Traditional KVM over IP solutions focus on the operator desk. The video wall is typically managed by a separate system from a different vendor, with a different interface and a different set of rules. This can create operational friction and administrative overhead that nobody wants.

Barco CTRL removes that divide. A single platform manages both the operator workstations and the large display walls, **with the same logic and the same controls throughout.** Information flows freely between desk and wall without workarounds or system-switching.

Additionally, the API library allows for **third-party integrations** and thus setting up an IT ecosystem. For operators, this means a consistent and predictable experience no matter where they are looking. For IT managers, it means one system to manage, one set of updates to roll out, and one support team to call.



That kind of consolidation fundamentally changes how manageable the control room is on a daily basis.

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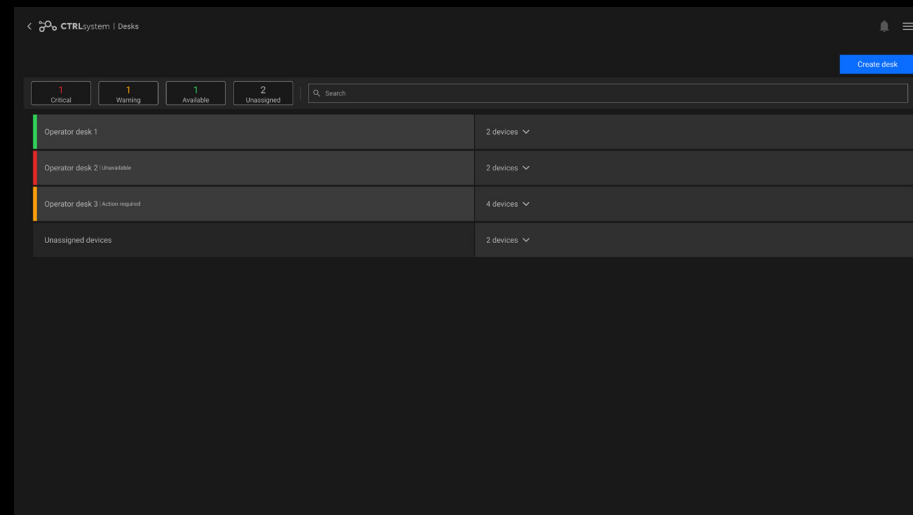
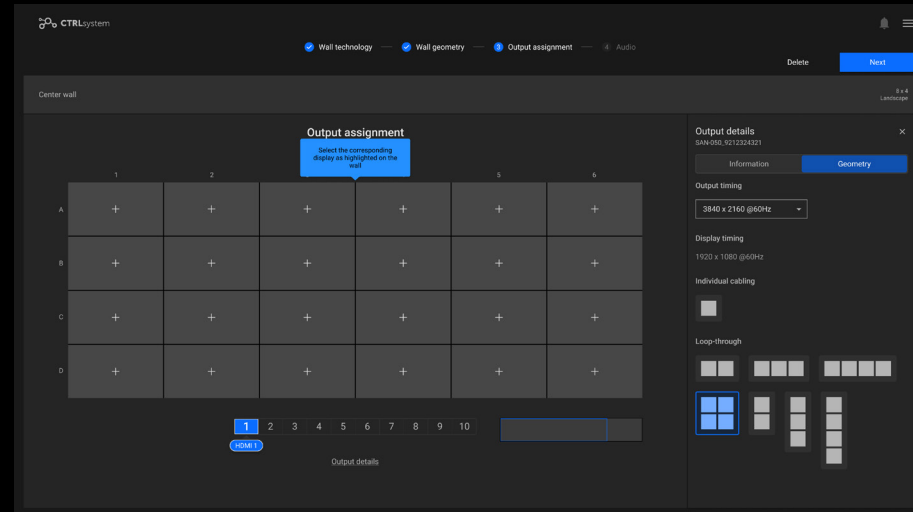
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3. A consistent user interface across the entire control room

Consistency is one of the most underrated aspects of good design. When every screen, every desk, and every display in a control room looks and behaves the same way, **operators do not have to think about the technology. They just use it.**

Barco CTRL extends the same intuitive look and feel across the complete control room and beyond – including breakout rooms, remote locations, and subsidiary control rooms. Whether an operator is working at their regular desk, stepping in at a colleague's station, or managing a crisis from a remote location, the experience is identical.

In high-pressure situations, familiarity with the interface can make the difference between a swift response and a costly delay. When operators know exactly where to look and what to click, the technology fades into the background – exactly where it belongs.



4. Multi-factor authentication that simplifies, not complicates

Security and simplicity are often positioned as opposites. More security, the thinking goes, means more friction. Barco CTRL challenges that assumption.

Because Barco CTRL integrates natively with corporate identity providers, operators log in using the same credentials they already use across the organization. Multi-factor authentication (MFA) is supported as part of that same familiar process – not as an additional layer bolted on top of a separate system. **Our security system is built around Authentication, Authorization and Accounting**, making sure people have easy access to the information they need for their jobs – and nothing else.

This means stronger security without extra passwords to remember, without separate usernames for the control room, and without the risk of credential sprawl. When someone changes role or leaves the organization, access is revoked through the same central process as any other corporate system.



Authentication

Are you who you say you are?



Authorization

Are you allowed to do this action?



Accounting

Audit log available of a chronological set of activities

**Authentication
becomes something
that just works:
secure by default,
invisible in practice.**

5. Flexible monitor configurations

No two operators work exactly the same way, and no two control rooms are set up identically. Some operators prefer landscape monitors; others work with portrait screens for monitoring long data feeds. Some desks have two displays; others have four arranged in unusual configurations.

Barco CTRL welcomes all of this without complaint. **Any monitor configuration is supported** – portrait, landscape, or a mix of both – giving users the freedom to work in the way they feel most comfortable. There is no need to adapt the workspace to suit the software.

This flexibility matters especially when control rooms are being expanded or reconfigured. New desks can be set up with whatever monitor arrangement makes sense for the role, without any constraints imposed by the platform. **The system adapts to the operator, not the other way around.**



Part 2

Simplicity for the installer and IT manager



6. One encoder, one decoder, one server

Hardware complexity is the enemy of simplicity. When a system requires multiple different types of encoders for different sources, different decoders for different destinations, and different servers for different scales of deployment, the number of decisions – and potential mistakes – multiplies quickly.

Barco CTRL takes a radically streamlined approach. There is one type of encoder, one type of decoder, and one type of server (with a variant for larger installations). That's it. The encoder handles any type of source. The same decoder can drive an operator workstation or a 4K section in a video wall (which is usually four display tiles). **There is no need to choose between a power model and a budget model – you get a powerful device that does the job, every time.**

A simple licensing model allows you to let the system grow easily, exactly to the size you need. This simplicity has a cascading effect. Spare parts management becomes easier. Training is faster. Troubleshooting is more straightforward. And when it comes time to expand the system, you already know exactly what to order.

7. Guided setup wizard

Setting up a large networked visualization system used to be an expert-only job that took days. Complex configurations, manual IP assignments, and bespoke setups made deployment a stressful, time-consuming exercise.

Barco CTRL changes this with **a guided setup wizard that walks the installer through every step of the process** – including the configuration of encoders and decoders and the arrangement of video wall tiles. No deep technical expertise is required to get the system running. The wizard handles the complexity; the installer follows the steps.

What used to take days can now be completed in hours. This is not just a convenience: it translates directly into lower installation costs, faster time to operation, and less risk of configuration errors. When upgrading an existing system, downtime is limited.

As one early adopter put it, the ease of deployment was among the best ever seen for a professional AV solution in a control room environment.



8. Auto-discovery of devices

One of the most time-consuming aspects of traditional control room deployments is the manual configuration of each individual device. IP addresses need to be noted, entered, double-checked, and rechecked – a process that is not only slow but prone to human error.

Barco CTRL eliminates this entirely. Devices are discovered automatically on the network, with no need to configure each component by hand. **Adding a new encoder or decoder is as simple as connecting it – the system does the rest.** There is no manual fiddling with IP addresses, and no need for installation teams to treat the control room as a special case requiring bespoke configuration.

Because Barco CTRL speaks the same language as the existing IT infrastructure, it relies on services already in place. **This makes deployment faster, smoother, and far less dependent on specialized knowledge on-site** – which is good news for both installers and the organizations that need their systems running as quickly as possible.



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9. One-click system upgrades

System upgrades are a source of anxiety for IT teams. In environments where continuity is critical, these are not abstract concerns. Barco CTRL makes upgrading a one-click process. A single action triggers a system-wide update, rolled out from a central location.

The downtime involved is minimal – **a typical complete system upgrade takes about as long as a coffee break.** No maintenance windows that stretch into the night. No need to visit individual hardware components with USB drives.



Will everything still work afterwards?

Has every device been included?

How much downtime is acceptable?

This approach also has a direct impact on security. Because updates are so easy to apply, organizations are far more likely to stay current.

Delayed patching is one of the most common vulnerabilities in critical infrastructure – and Barco CTRL effectively removes the main excuse for it. Staying secure and staying simple turn out to be the same thing.

10. Centralized device management via SNMP

In traditional control room setups, the AV and visualization systems exist in their own silo. They have their own management console, their own tooling, and their own view of the world – separate from the IT infrastructure that surrounds them. This creates blind spots and extra workload for IT teams who have to manage two parallel environments.

Because **Barco CTRL is IT-native**, all hardware components – encoders, decoders, the server node – can be monitored and managed from a single IT dashboard via SNMP, just like any other networked device. There is no separate management console to learn and no proprietary tooling to install.

Everything appears in the same monitoring environment the IT team already uses, giving them a complete and consistent picture of the entire infrastructure. When something needs attention, they see it in the same place they see everything else. **The control room stops being an island and becomes a natural part of the broader IT ecosystem.**



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11. Seamless migration from legacy systems

For organizations that have invested in previous-generation control room platforms, the prospect of migration can feel daunting. New hardware, retraining, downtime – the costs can seem to outweigh the benefits of moving to a modern platform. environments.



Barco CTRL addresses this directly. With the release of version 1.11, existing OpSpace hardware (decoders and encoders still within their service window) can migrate seamlessly into a Barco CTRL ecosystem. The migration budget is, in many cases, virtually nothing. Licenses are fully transferable, and the operator experience remains unchanged – no retraining required.

During the transition period, AV sources can even operate simultaneously in both environments, ensuring zero downtime. This makes the migration not just affordable but genuinely low-risk. Barco CTRL builds on the same recognizable interface operators already know, so **the move to a next-generation platform feels like a natural evolution rather than a disruptive overhaul.**

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Simplicity by design

12. Software-first architecture

At its heart, Barco CTRL is a software platform. The hardware – one encoder, one decoder, one server – is deliberately minimal. The real power lives in the software, and that changes everything about how the system grows and adapts over time.

Want new capabilities? A software update delivers them, with no hardware swap required. This is fundamentally different from traditional hardware-centric KVM systems, where adding features often meant adding boxes, cables, and compatibility headaches. **With Barco CTRL, the platform evolves the way software does – continuously, incrementally, and without disruption.**

Quarterly updates – or more frequent releases when needed – bring improvements and new features on a predictable schedule. Organizations always have access to the latest capabilities without having to plan a hardware refresh cycle. In a world where control room requirements can change quickly, that kind of adaptability is not just convenient – it is a strategic advantage.



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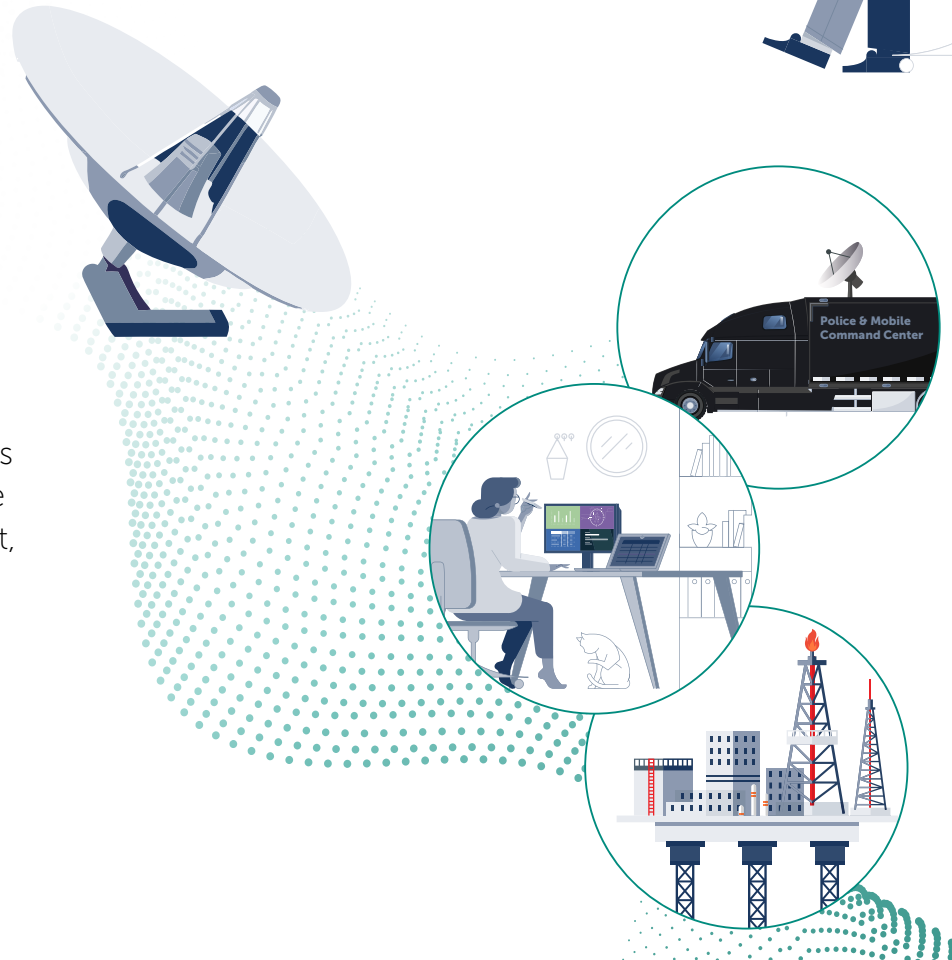
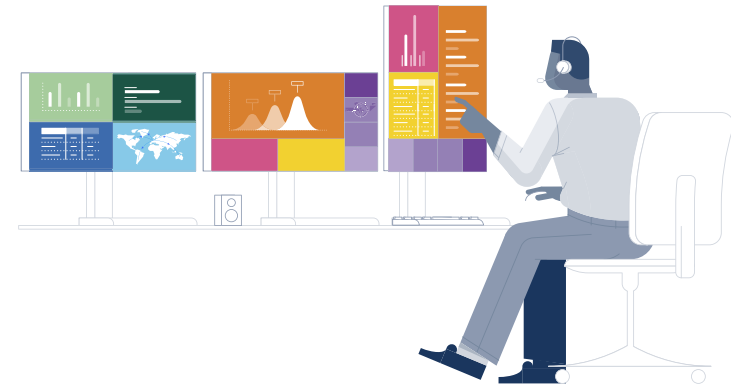
13. Scalability without complexity

Scalability is often talked about in the context of capability. Can the system handle more? But there is another dimension that is just as important: can it scale without becoming more complex to manage?

With Barco CTRL, the answer is yes.

Growing the system is as simple as adding encoders for more inputs or decoders for additional operator positions and video walls. No complex reconfiguration, no compatibility checks, no extended maintenance windows. The system grows the way an IT network grows, organically and without drama. This scalability extends beyond the walls of a single control room.

Through the **Connected Control Room** concept, developed in partnership with **Extreme Networks**, Barco CTRL can securely share critical information across multiple sites, regardless of geographic distance. Multiple Barco CTRL installations (for example the fire department, the police and emergency services) can even be linked through the federation feature, allowing them to share sources and operate as one coherent system when needed. Scaling up never means complicating the day-to-day operations.



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14. Open APIs for third-party integration

No control room operates in isolation. Operators rely on video management systems, access control platforms, data feeds, and a range of other tools that are central to their workflow. A platform that does not integrate well with these systems creates friction – and friction is the enemy of effective operations.

Barco CTRL integrates easily into third-party video management systems through open APIs. This enables users and integrators to leverage the full power of all the leading solutions in their environment, without workarounds or middleware compromises. **The system is fully prepared for new technologies and integrates naturally into different IT networks.**

This openness is a direct expression of the KVM over IT philosophy: rather than being a closed system that everything else has to adapt to, **Barco CTRL is designed to fit into the world as it already exists.**



API

The goal is not to replace the ecosystem – it is to make it work better together.

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Conclusion: simplicity is a choice

Complexity in control rooms is not inevitable. It is the result of systems that were built around technology constraints rather than human needs – platforms that required operators and installers to adapt to the software, rather than the other way around.

Barco CTRL makes a different choice. By building a KVM over IT platform that integrates natively into the IT ecosystem, and by designing every aspect of the experience around the people who use it, **Barco has created a control room solution that is genuinely simple – without sacrificing any of the power, security, or scalability that critical environments demand.**

From the operator who just wants to focus on their work, to the installer who needs to get the system running fast, to the IT manager who needs everything under control from a single dashboard – Barco CTRL delivers simplicity at every level.

Ready to see Barco CTRL in action?

[Request your personal demo](#)

and discover how Barco CTRL simplifies your control room from day one.

Because in a control room, the technology should never be the problem.

It should always be part of the solution.