



Gateway To Creativity: Important Factors In Upgrading A Live Digital Mixing Platform

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The overarching goal is to elevate the audio experience – whether in a live venue, a house of worship, a corporate ballroom, or anywhere audiences listen.

Stepping up to a modern console is less about replacing hardware and more about expanding possibilities. The goal isn't just more faders or DSP; it's crafting mixes that connect with audiences and band members through greater clarity, dynamics, and control.

While an upgrade might be triggered by aging gear or changing production demands, the deeper purpose is equipping teams to deliver consistent, high quality audio under pressure – with more headroom, more options, and more confidence.

Whether you mix tours, worship, corporate events, or run a rental inventory, an upgrade benefits from thoughtful alignment. Success typically balances:

- Performance – expanded channel counts, immersive tools, and networked workflows.
- Reliability – redundancy, stability, and long term durability.
- Adoption – training and UX so every operator works smoothly.

"Be practical about it – needs determine the choice, and not every desk meets every need," says J.R. Friesen (FOH, Terri Clark), noting that some consoles are better for volunteers, others excel with complex systems or music driven environments. He also flags the broader ecosystem – satellite rooms, streaming, multitrack capture – because "updates don't happen in isolation anymore."

FOH engineer Brian Frost frames the tipping point as opportunity, not failure: "You don't outgrow a console with a crash – you outgrow it with workarounds. If you're counting buses before doors, you've got your answer." The upside of moving forward is fewer workarounds and more room to be creative.



Management & Workflow

Modern desks deliver deep automation – scenes, snapshots, and macros – so transitions become faster, smoother, and repeatable. The payoff is control with confidence: a well scoped snapshot never surprises you at showtime.

Get intentional with Recall Safe and Focus (safe your preamps where appropriate), establish a clear recall hierarchy (shows for the event, snapshots for songs or segments, and macros for targeted moves), and rehearse transitions so there are no surprises during the show.

"Learn how each manufacturer handles recalls; they aim for the same outcomes but approach them differently," advises Cliff Skinner (MON, Twenty One Pilots). Studying other engineers' show files shortens the learning curve and helps you adopt best practices sooner. "Don't try to reinvent the wheel while you're still learning to drive," he adds.

Frost keeps his showday workflow focused on speed and predictability: "I build my surface around the show – so everything I need is right in front of me when it matters. The goal is no searching, no surprises, just staying ahead of the moment." The result is confident show flow and more attention where it belongs – on the mix.

Beyond Input Count

Upgrades expand channel availability and flexibility, but they also reward disciplined system thinking. The modern input list often spans RF mics and backups, multiple playback paths, remote contributors, ambient capture, and utility sources for measurement and comms.

Planning holistically, across stage racks, remote I/O, and multiple destinations, prevents last minute compromises. Label and color code physical and digital patch points so anyone can troubleshoot quickly.

Start with the problem statement, Friesen suggests: "What are you trying to achieve – or solve?" With tight input limits, decide whether to dedicate inputs or use digital patching to create unique channels for shared sources. File portability within a console family matters when a surface or engine change is forced by venue, inventory, or tour logistics.

As Skinner puts it, "If you can fit on a smaller engine, structure the show so it moves without reshuffling channels or buses." Frost recommends an outputs first mindset: design for where audio leaves the desk – broadcast, recording, backstage, translation, and more. "If every destination lives on a matrix, your upstream choices translate everywhere. It means your PA, record, and broadcast feeds stay consistent without having to chase each one individually," he says. That approach keeps every feed coherent and reduces downstream surprises.

Outboard Gear

Top-tier desks now include premium plugins and advanced DSP that rival racks of external gear, making it possible to streamline without sacrificing sound. Verify insert points and consider conversion latency carefully – especially for in-ear monitors and broadcast chains. Compare onboard processing or FPGA based options for their reliability and speed.

"The flexibility and processing power are enormous – built-in effects, dynamics, and broad interfacing mean the limitations get fewer," says Skinner. Even so, discipline matters: "The temptation to keep adding is strong; keep the setup as simple as possible for as long as possible."

Frost is pragmatic: "When I'm tight on load-in time or travel weight, I know I can lean on a modern, top-tier desk to get me where I need to go. The onboard tools are strong enough now that I can move fast and still get a result I trust." The net effect is a simpler rig, faster load ins, and cleaner shows that travel well.

Networking & Redundancy

Networked audio broadens system capability, and with the right preparation, it broadens confidence. Build primary and secondary paths, align sample rate and clock across all devices, and enable redundant engines where possible. Redundancy serves the technical need and the human factor.

"When the network is bulletproof, you can mix instead of monitor alarms," says Frost. That mental headroom keeps the focus on artistry rather than firefighting, especially in high pressure, one off environments.

Virtual Soundcheck & Recording

Multitrack playback refines EQ, dynamics, routing, and scene transitions offstage and on your schedule, while stress testing the network at show channel counts. Frost: "Multitrack recording means the show doesn't end at FOH. Having isolated sources give you the flexibility to refine, remix, and deliver clean content after the event."

Engineers who invest in this loop typically see faster show days and more polished results, with fewer guess and check moments once the audience is in the room.

Training & Transition Management

Smooth adoption multiplies the benefits of new gear. Configure user defined keys and simplify layers to reduce menu diving; lock essential routing and DSP to prevent accidental changes; utilize offline editors to build navigational memory; and standardize templates and naming for consistency across events and operators.

"The first step is training – manufacturers offer strong online options," notes Friesen. Map every integration and gather feedback from impacted teams so edge cases get surfaced early. Finally, build margin into the schedule: "Give yourself extra time for install, testing, and training... plan really well, but plan to have not planned something," he adds.

Documentation then turns individual expertise into an organizational asset; as Frost puts it, "Clear documentation is everything. A well-built audio workbook – patching, Dante, sources and destinations, comms – becomes a live document the whole team can reference in real time, so everyone stays aligned and the system moves together."

The Payoff

Once operators are comfortable, modern consoles deliver speed, flexibility, and power, often with less external gear. "You can usually do what you want quickly and with less gear – which means fewer headaches and more smiles," says Friesen.

The learning never truly ends, Skinner adds: "You already have the tools in top tier desks; learning to use them to your advantage is a never ending adventure."

On show day, Frost keeps the priority clear: "In high pressure, one-off shows, reliability takes priority over novelty – familiar, rehearsed workflows win." In short, upgrading isn't just good – it's liberating. It simplifies the path to great sound and opens up new creative and sonic possibilities.

Final Notes

Keep it simple for stakeholders. Frame the upgrade around value of investment (fewer workarounds, faster setups, greater reliability, longer service life), the value of sonic fidelity (cleaner mixes, better translation to broadcast/streaming, more consistent experiences across venues), and the value to the audience.

The overarching goal is to elevate the audio experience – whether in a live venue, a house of worship, a corporate ballroom, or anywhere audiences listen. With deliberate planning – scene design, I/O strategy, redundancy, training, and virtual rehearsal – you unlock more creative headroom, cleaner mixes, faster transitions, wider distribution, and the confidence to scale.

The more intentional the preparation, the more expansive the opportunities.



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