PLANTFORMANCE CASE STUDY · SECURITY AND INFRASTRUCTURE

FactoryBrain Gen 2: 240+ servers deployed with a 99.5% smooth commissioning rate

Plantformance · Multiple industries

Plantformance re-engineered FactoryBrain from scratch with client input, shipping 16 field-driven improvements and scaling the second generation to 240+ servers worldwide with zero manufacturing issues.

240+
Gen 2 servers deployed worldwide

99.5%
smooth global commissioning rate

5 min
deployment per preconfigured unit

THE PROBLEM

FactoryBrain 1.0 was reliable for baseline Ignition tasks, but it had limits. A single CPU and a constrained memory ceiling left little headroom for heavier concurrent workloads. First-generation fabrication methods also left room for tighter mechanical tolerances, cleaner internal integration and better overall finish. In the field there were practical gaps too: little extendability, awkward physical access to internal drives, no clear status feedback for local users, and an obsolete IPMI version that complicated on-site troubleshooting and remote out-of-band management.

HOW WE DID IT

Instead of patching the first design, Plantformance re-engineered the whole server from scratch. The team worked directly with clients to audit field pain points and found 17 potential improvements, then implemented 16 of them. Changes include a stronger primary CPU and more RAM, a second specialized processor, more extendability, redesigned drive access, clear local user feedback and a modern IPMI stack. Every component was vetted down to the silicon level to use the chipset's native high-speed networking, Intel QuickAssist Technology (QAT) and other hardware-accelerated features without adding board complexity.

BEFORE

Deployments were held back by FactoryBrain 1.0's limited CPU and RAM, minimal extendability, hard-to-reach drives, no local status feedback and an obsolete IPMI version.

AFTER

Gen 2 ships with swappable drives, modern remote management and an integrated touchscreen for on-site and remote collaboration, preconfigured for a 5-minute deployment with an emergency reconfiguration bypass procedure.

RESULTS

- Scaled to 240+ servers deployed worldwide with zero manufacturing issues
- 99.5% smooth global commissioning rate with zero production downtime
- 16 of 17 client-identified improvements implemented
- Preconfigured units deploy in 5 minutes
- Lower total cost of ownership (TCO), per Plantformance's assessment

Plantformance products and services: FactoryBrain

PLANT FORMANCE

NEXT STEP

Planning a project like this?

Talk to an Ignition engineer about your sites, timeline and architecture. We will tell you honestly what it takes.

Contact Plantformance

Read this case online and see more Ignition projects: plantformance.com/case-studies/factorybrain-gen-2-edge-servers · all case studies

Plantformance is an Inductive Automation Alliance Partner that helps enterprises deploy, secure, and scale Ignition across sites through plug-and-play modules, turnkey zero-maintenance HMI hardware, and 24/7 managed infrastructure.

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