

CADENCE AND MARCONI COMMUNICATIONS

“PARTNER THROUGH PRODUCTION” APPROACH YIELDS NEW PCB DESIGN ENVIRONMENT

The Network Components business unit at Marconi supplies network power systems to some of the world’s largest telecommunications and Internet service providers. They have a long-standing reputation for quality, service, and value in their market.

When it came time to upgrade their PCB design environment, they faced a significant challenge with the migration of their library infrastructure. They did not have the expertise in house for this project. They partnered with Cadence Engineering Services to assess their PCB design system needs, migrate their system and associated library structure, and train their employees on the new tools.

CORPORATE PROFILE

- Marconi Communications is a global telecom equipment, services and solutions company

CHALLENGE

- Migrate to a new PCB design environment with advanced board design methodologies
- Translate INCASES libraries to new platform

CADENCE SOLUTION

- Provided complete assessment and translation of EDA library infrastructure
- Trained team on new platform

CADENCE PRODUCTS AND SERVICES

- Cadence Engineering Services
- Cadence Allegro® Design Entry HDL and Allegro PCB Editor silicon-package-board solutions

DEPENDABLE POWER FOR COMMUNICATIONS NETWORKS

When considering options for telecommunications, Internet, and cable television services, dependability is a key attribute to consider. Marconi has been working in this industry for more than 65 years, earning a strong reputation for quality, service, and value. They supply network power systems to the world’s largest providers of these services.

To keep their edge in this growing market, the PCB development team in Marconi’s Network Components business unit needed to increase their productivity and decrease design iterations. Their existing design suite did not use simulation, and was on a soon-to-be obsolete INCASES platform. Their goal was to migrate to a new development environment with advanced board design methodologies, eliminating delays and iterations, and increasing their chance for first-pass success.

PARTNERING FOR THE TOTAL SOLUTION

To successfully make this transition, the Marconi team needed to find a resource with the expertise to assess their existing structure, migrate them to a new environment, and train the team on the new tools and processes. “We chose Cadence as our partner for the total solution – services, tools, and training,” said Steve Shoureas, Director of Engineering Services for the Marconi Network Components business unit. “They began with a detailed assessment of our needs, and then worked with us to devise a plan to address those needs within our time frame.”

COMPLETE EDA ASSESSMENT CREATES PLAN FOR LIBRARY DEVELOPMENT

Cadence Engineering Services spent the first six weeks of the engagement identifying the needs of the Marconi PCB development team and creating a plan for the library development. To enhance their understanding of the current solution, Cadence pulled in a team from France that was familiar with Marconi's existing toolset. "Cadence recognized the importance of having people on the project who understood our old tools," said Shoureas. "I know that our team appreciated this, and it saved a lot of time, particularly in the assessment phase."

With the assessment complete, Cadence Engineering Services turned its attention to the library translation. Marconi was migrating to the Cadence Allegro Design Entry HDL and Allegro PCB Editor silicon-package-board solutions. The INCASES libraries would need to be converted over to the Allegro platform, pulling in constraints for simulation, etc.

LIBRARY TRANSLATION WITHOUT A HITCH

The library translation was of particular concern to the Marconi team. It was the linchpin in the project. The legacy library was an unorganized collection of parts with roots into the early days of Computer Aided Design. A massive "ground-up" reorganization was needed to logically structure the library and make it more useful to Marconi's design team. A successful translation would mean that they would have an updated, standardized, production-ready library that would increase efficiency. If, however, the data transfer was not complete or accurate, and the newly created Allegro library parts did not match their existing systems, Marconi could lose significant time and run the risk of incurring substantial unplanned expense.

Cadence Engineering Services converted all library components and addressed any structural issues that they encountered. "I have seen many translations, and usually information is lost in the process or errors are introduced that require extensive effort to make the parts useable," said Tim McGee, Electrical CAD Administrator at Marconi. "This process was the smoothest I've seen."

"Our team came back from training to a defined process for the use of the new toolset, an organized and logical part library, and support from the Cadence team on our first projects using the tools. Cadence Engineering Services provided cost-effective, quality expertise that was critical to this project's success."

Steve Shoureas
Director of Engineering Services
Marconi Network Components business unit

PARTNER THROUGH PRODUCTION

To better facilitate the Marconi team's transition to the Cadence Allegro PCB Editor and Allegro Design Entry HDL solutions, Cadence Engineering Services took a "Partner Through Production" approach. This meant that the Cadence team walked the Marconi team through the first use of the tools in their actual design environment. Having this added support allowed projects to continue without interruption.

"We are very happy with the Cadence PCB design flow and libraries," said Shoureas. "Our team came back from training to a defined process for the use of the new toolset, an organized and logical part library, and support from the Cadence team on our first projects using the tools. Cadence Engineering Services provided cost-effective, quality expertise that was critical to this project's success."



FOR MORE INFORMATION

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