



VLSI SERVICES

STATE OF THE MARKET

The semi-conductor industry is in the midst of a major disruption, with reports forecasting the economic infeasibility of miniaturizing traditional transistors in microprocessors post 2021.¹ In light of this seismic shift, enterprises are collaborating with equipment and materials suppliers to optimize operations and provide greater end-value to customers. Additionally, manufacturers are formulating design strategies that incorporate a vertical chip geometry, while adopting shrinking technologies for current market requirements. This will mean streamlining production—capable of delivering more derivatives from a single product line, ensuring IP customization and SoC integration, among others.

As a result, enterprises need to partner with very-large-scale integration (VLSI) service providers to meet demanding time-lines, while simultaneously ensuring quality and conducting R&D for future technology manufacturing needs.

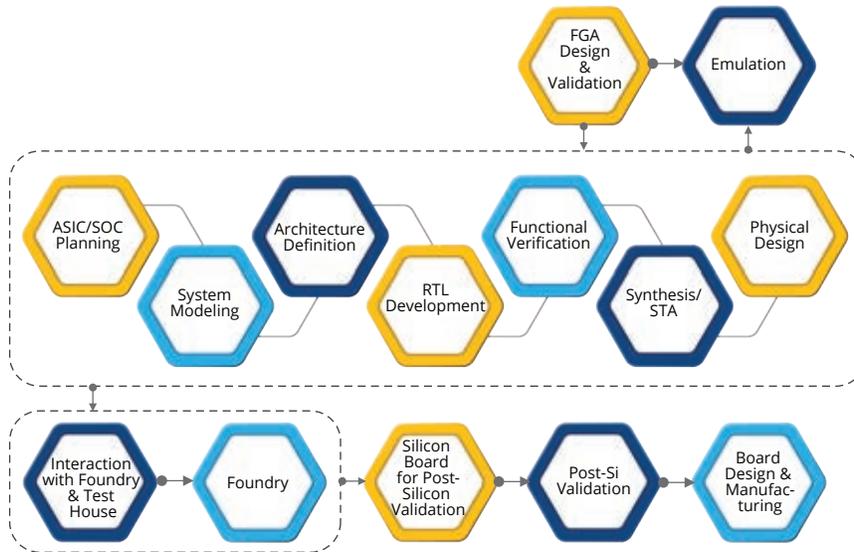
SERVICE OFFERINGS

L&T Tech Services (LTTS) offers a host of specialized VLSI, IC design and FPGA support services that effectively meet varied design, validation, and integration requirements. We provide complete spec to GDSII ownership through a variety of functions including chip planning, microarchitecture, RTL design and implementation, and more. We also deliver customized IP services through our vast experience in third-party IP integration. Our one-stop solution for end-to-end ASIC/SoC design ensures diversification and complete ownership across the product lifecycle. Backed by our long-standing partnership with Tier I manufacturers, we ensure our clients meet current and future technology needs.

Footnotes:

1. IEEE Spectrum, <http://spectrum.ieee.org/semiconductors/devices/transistors-could-stop-shrinking-in-2021>, accessed on 17 January, 2017

COMPREHENSIVE PROCESS FLOW FOR ASIC/SOC DESIGN SOLUTIONS



KEY DIFFERENTIATORS

- Over 15 years of experience with multi-million gate designs
- More than 70 successful tape-outs of up to 28nm, including low-power designs
- Extensive experience with mixed tool set flows and in-house repositories of EDA tools licenses
- Strategic partnerships to fortify fixture manufacturing and enable joint GTM

BENEFITS

- Produce energy-efficient, high-performance devices with our end-to-end design services
- Ensure timely delivery of customized integrated solutions with our robust chip planning, micro-architecture, RTL integration support
- Adopt the latest shrinking technology to manufacture chips at minimal costs by leveraging our partnership with Tier I manufacturers

CASES



Provided image processing (SoC) support for industrial camera application. Developed test bench and test cases using SV/UVM. Ensured final product was cost-effective, configurable, scalable, and capable of multi-site execution.



Provided functional verification support for an accelerated Ethernet adapter. Developed configurable test bench with BFM. Detected over 430 bugs.



Provided FPGA prototyping services for consumer device and gaming application. Developed clocking and reset scheme for the chip. Leveraged in-house IP address and board design to reduce integration time.

For more information visit us at www.Inttechservices.com

Reach us at info@Inttechservices.com



About L&T Technology Services

L&T Technology Services Limited is a subsidiary of Larsen & Toubro Limited with a focus in the engineering services space, partnering with over 50 Fortune 500 companies. A leading pure-play Engineering, Research and Development services company, we offer design and development solutions through the entire product development chain, across various industries such as Industrial Products, Medical Devices, Transportation, Telecom & Hi-tech, and the Process Industry. We also offer solutions in the areas of Mechanical Engineering Services, Embedded Systems & Applications, Engineering Process Services, Product Lifecycle Management, Engineering Analytics, Power Electronics, Machine-to-Machine (M2M), and the Internet-of-Things (IoT).