

# Case Study



Intel® Xeon® Scalable Processors  
Cloud Computing Solutions

## How TCS Reimagined its Infrastructure Landscape to Enhance Business Agility

### Migrating to an open, flexible, scalable, resilient & future ready IT infrastructure based on Intel® Xeon® Scalable processors

“ In the era of Business 4.0, continuously transforming TCS and provide the finest solutions to our clients was the goal of TCS Corporate IT (Ultimatix). The collaboration with Intel, helped us in improving performance and agility while lowering the TCO by migrating to an open, flexible, scalable, resilient & future ready IT infrastructure. ”

#### Mehul Janodia

Program Director,  
Tata Consultancy Services



Tata Consultancy Services (TCS) is an IT services, consulting and business solutions organization that has been partnering with many of the world's largest businesses in their transformation journeys for the last 50 years. TCS has over 448,000 of the world's best-trained consultants in 46 countries and offers a consulting-led, cognitive-powered, integrated portfolio of business, technology and engineering services and solutions. This is delivered through its unique Location Independent Agile™ delivery model, recognized as a benchmark of excellence in software development.

Ultimatix, the TCS Corporate IT unit, is responsible for keeping TCS running by handling its day-to-day employee services and functions through a large number of applications. It supports all TCS functions including Sales, Delivery, Marketing, Finance, HR, Learning, Collaboration and Communication and is the key enabler for TCS the Enterprise Agile 2020 vision.

With advancement in technology, there has been a rise in operational complexity and data influx. This coupled with the need to drive disruptive digital-first solutions, prompted TCS to undertake the Infrastructure Reimagination program. As part of this program, TCS migrated from a legacy deployment to an open, scalable and resilient infrastructure based on the Intel® Xeon® Scalable processors—laying a robust foundation for digital transformation.

TCS was looking to address the challenge of complexities arising out of legacy IT deployment. The way forward was to migrate TCS' legacy infrastructure to a future-ready IT infrastructure. TCS embarked on an IT modernization journey through the Infrastructure Reimagination program, with the primary objective to simplify the IT infrastructure, support more advanced levels of cloud-based automation at scale and a digital-first innovation-driven environment in service of broader business objectives.

## Business Objectives

- **Simplify and future-proof IT infrastructure:** Efficiently run mission-critical workloads, remove the dependency on legacy platforms, reduce operating costs, achieve flexibility by removing vendor lock-in and be future-ready for evolving needs.
- **Support TCS' vision and emerging business imperatives:** Minimize the infrastructural footprint across the IT landscape to achieve sustainability targets while enhancing performance to deliver business agility, infra scalability and delivery velocity.
- **Accelerate application deployment:** Support advanced levels of cloud-based automation at scale and a digital first innovation-driven environment.

## Solution

- Open platform with industry-standard servers based on Intel® Xeon® Scalable processors: TCS migrated its core products from legacy server architecture to a Linux based operating system running on servers equipped with Intel® Xeon® Gold 6152 processors. This enabled TCS to take advantage of scalable performance with more hardware, software, and service options.
- **Agile methodology to collaborate better and deliver faster:** The Infrastructure Reimagination program included application migration, recertification and technology upgrades as well as ensuring that the migration process was compliant with the various Data Privacy and Protection regulations. Given this scale and complexity, multiple migration methodologies were deployed to suit the varying needs of diverse applications by adopting a scaled agile framework®.
- **Leveraging partner ecosystem:** Harnessing abundance through partner capabilities combined with the cloud capability provided by the Linux environment enabled TCS in rapid production, testing and deployment of applications.

## Business Value

- **Boosting productivity and propelling digital transformation:** The modernized internal Infrastructure platform is helping TCS increase productivity while decreasing complexity. There has been a significant increase in compute capacity leading to faster and seamless delivery and management of internal applications across all functions.
- **Accelerating application deployment:** Standardizing on Intel® technologies along with other TCS partners, has helped to shorten concept-to-release cycles and cut down application deployment times.
- **Shrinking the data center footprint:** The combination of high performance, large-scale memory and I/O throughput delivers the hardware density to help conserve floor space while maximizing energy savings.

## Unlocking the Benefits of Modernization On Intel® Xeon® Processors

The Infrastructure Reimagination program was implemented

strategically in multiple phases, harnessing TCS' in-house expertise. It was implemented across a complex ecosystem spanning many global applications catering to a plethora of users. By adhering to the aforementioned Agile Framework, the TCS team completed the migration of 130 applications & 105 servers in a short period of 15 months.

The TCS migration journey started with retrospection to identifying the roadblocks in the existing ecosystem and defining a strategy & implementation framework. TCS decided to harness its partner ecosystem to drive solution implementation using best practices. After an extensive hardware selection process in collaboration with Intel's technical experts and comparison against the legacy systems across multiple performance parameters, the TCS team chose the Intel® Xeon® Gold 6152 processor-based platform running Linux. Hence, the Corporate IT team was able to take advantage of scalable performance with more hardware, software, and service options.

During the application migration process, the focus was on successful implementation without compromising on performance and security. Beyond the primary objective of simplifying and consolidating IT infrastructure for higher efficiencies and performance, the objective was also to improve the flexibility of IT environments. Additionally, by combining virtualization with migration, the team was able to improve scalability & availability. TCS can now utilize physical resources more effectively and add virtual resources as the need arises.

## Achieving Great Results, Enabling High-Impact Benefits

The Infrastructure Reimagination program, powered by Intel® architecture, delivered great business value and benefits for TCS. The benefits include:

- **3.6X increase in compute capacity:** The scalable performance delivered by the Intel® Xeon® Scalable processor-powered modernized platform is helping TCS increase productivity while decreasing complexity. There has been as much as 3.6 times increase in compute capacity leading to faster and seamless delivery and management of internal applications across all functions. Also, this has reduced the hardware bundle costs by 86%, enabling TCS to do much more with efficient hardware.
- **97% faster new environment provisioning:** TCS enabled shorter concept-to-release cycles and reduced application deployment times by standardizing on Intel® technologies. The cloud environment and open source software also provide the flexibility to quickly roll out new capacities when required. New environments can now be provisioned 97% faster, allowing IT to respond quickly to changing user demands, enable faster time-to-market, accelerate innovation and boost responsiveness.
- **10X reduction in floor space:** The combination of high performance, large-scale memory and I/O throughput delivers the hardware density to help conserve floor space while maximizing energy savings. Overall, the team has been able to achieve better utilization of available IT infrastructure, resulting in a 10X reduction in floor space. Additionally, the power consumption went down to a factor of 1/6.

“ TCS and Intel have been engaging closely to accelerate business transformation through a strong relationship that we immensely value. Intel's data center product portfolio provides a strong foundation to augment the power of TCS Ultimatix. Our collaboration is key to driving maximum value for TCS' IT deployment. ”

---

**Prakash Mallya**

VP & MD - Sales, Marketing and Communications Group, Intel India



**Find the solution that's right for your organization. Contact your Intel representative, visit Intel's Business Success Stories for IT Managers, or explore the Intel.com IT Center.**



The information provided in this document is provided on a "as is" basis with no warranties whatsoever, express or implied, including any implied warranty of merchantability, fitness for a particular purpose, and non-infringement of intellectual property rights. TCS & Intel shall not be responsible and liable for the use of the information provided and any implication arising out of the use of the information."

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations, and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more information go to <http://www.intel.com/performance>.

Intel does not control or audit the design or implementation of third-party benchmark data or Web sites referenced in this document. Intel encourages all of its customers to visit the referenced Web sites or others where similar performance benchmark data are reported and confirm whether the referenced benchmark data are accurate and reflect performance of systems available for purchase.

© Intel Corporation. Intel, the Intel logo, and other Intel marks are trademarks of Intel Corporation or its subsidiaries.

Other names and brands may be claimed as the property of others.