

A woman with dark hair, wearing a light blue ribbed sweater, is looking upwards and to the right with a thoughtful expression. The background is a dark blue gradient with a large, semi-transparent white diagonal shape. Overlaid on this are various digital elements: a line graph with data points, a network diagram with nodes and lines, and several floating numbers like '995.28', '451.91', '743.06', and '536.85'.

NTT DATA

# TEAMCENTER GATEWAY SOLUTION

**INTEGRATING PLM,  
ERP AND BUSINESS SYSTEMS.  
BETTER END TO END  
CONTROL OF THE DESIGN,  
MANUFACTURE, DELIVER,  
MAINTAIN LIFECYCLE.**



## WHAT IS IT?

Teamcenter Gateway Solution (T4S), developed by NTT DATA in partnership with Siemens and SAP, which provides integrated solutions to customers, enabling them to unlock the full potential of both PLM and ERP in a single, high-performing solution.

It combines the capabilities of **Siemens Teamcenter**, the world's leading Product Lifecycle Management (PLM) software, used across multiple sectors, from critical infrastructure to discrete manufacturing to integrate design, build, sell and maintain; and **SAP S/4HANA**, the world's leading ERP software, the "system of record" that manages all aspects of operations for manufacturers and most other large enterprises, as well. S/4HANA is a cloud-based and delivered solution that creates a Bill of Materials for each product, manages supply chains for sourcing and logistics.

SAP and Siemens announced in 2020 that they would work together to make their two software solutions increasingly integrated in the future, with NTT DATA as a key strategic partner.



# THE BUSINESS CASE

## Points to be covered here:

**Growing challenges in the market**, including the need for Increasing customisation so that products accurately target the requirements of often very small user groups, much faster innovation and shorter production cycles, coping with deglobalisation in supply chains, making all manufacturing processes greener, and maximising the benefits of the move to Cloud.

**Need for speed and innovation** by reducing time needed for product development, targeting customer needs more accurately, responding to customer feedback faster, increasing agility through cloud-enabled ecosystem working, being more predictive/proactive in managing products in operation, especially where large capital equipment is concerned, and improving reuse/recycle to enhance product life and reduce environmental impact.

**Integration at all levels** by bringing together the two key software stacks for manufacturers and many other large businesses: SAP S/4HANA and Siemens Teamcenter. This delivers better speed, agility and responsiveness through integrated working, tailoring solutions to the exact needs of each individual client company, achieved by building customer-centric solutions that draw on the full capability of both S/4HANA and Teamcenter.

As strategic partner to both SAP and Siemens, NTT DATA is in the perfect position to build a solution that delivers the best of both these essential software environments to the market.



# FACING THE CHALLENGE

NTT DATA's Teamcenter Gateway Solution integrates the best features of both Teamcenter and S/4HANA with a customised solution tailor-made for each individual customer. We deliver the full benefits of PLM (integration across every stage of the design, build, produce, maintain value chain, with full integration into asset and supply chain management).

This provides a single digital thread, fully cloud based and enabled, that allows all relevant customer functions (R&D, Procurement, Engineering, Manufacturing, Sales, Logistics, Marketing, Customer Service, Maintenance), to collaborate within a single operational environment. Using NTT DATA's Teamcenter Gateway Solution ensures that the entire, integrated team works from the same data flows, receives consistent feedback and input, and collaborates effectively within a single process.

As we unlock the potential for automation in the near future, the solution will deliver a single Bill of Materials (BOM) with web-based cockpit and Integrated Product and Process Engineering. The Cloud-based design means that APIs are used to connect with new functionality as it emerges. The strategic partnership between NTT DATA, SAP and Siemens means that evolutionary changes will be implemented in an integrated way, so our customers will always have access to the most complete functionality that both SAP and Siemens can offer.

Enterprises using Teamcenter Gateway Solution in conjunction with their Teamcenter and S/4HANA investments will be able to take their products to market faster than competition, because NTT DATA's solution enables them to access full PLM benefits in a cloud enabled world with seamless integration, selling fully digitally from design to manufacture to sales to after sales.



# TEAMCENTER GATEWAY SOLUTION (T4S)

## Main Features

- Cloud-native. Scalable, instantly accessible, location agnostic, fosters collaborative working and rapid evolution.
- SAP/Siemens compatible. Developed expressly for these two critical software environments, remains fully aligned to Teamcenter and S/4HANA as they evolve.
- API-based. Highly flexible and agile solution that uses APIs for extensibility and connectivity to additional functionality.

### T4S carries out four key tasks, through interfacing with S/4HANA and Teamcenter:

- **Monitoring**, providing a dashboard-based view on real time status of tasks on a cross-platform basis, helping ensure that all functional capabilities stay fully aligned.
- **Data view**, using data federation tools and procedures to aggregate information from every stage in the value chain, enabling queries, integrating feedback and providing consolidated and comprehensive updates on progress.
- **Management and scheduling**. Creates integrated workflows that cover everything from Bill of Materials to Change Management to Inventory and beyond without the need to transfer data and updates from one system to another.
- **Integration and synchronization**. T4S collates data in real time, manages transfers between systems and synchronizes data to ensure that workflows are accurate and consistent.

The result is effective Multilevel Material Requirements Planning (MRP), that enables higher levels of speed, efficiency and agility across the integrated PLM/ERP process landscapes.

# HOW IT WORKS

**Production Planning and Materials Management.** Using T4S integrated with Teamcenter and S/4HANA, customers can implement a “straight through” production process using inputs from both core systems to develop and execute process workflows to cover:

- **Product specification**, defining the product characteristics and developing.
- **Integrated bill of materials**, identifying the components to be made, sourced and delivered to the assembly site.
- **Production planning**, at parts production location, for managing logistics and for assembly into the completed product.
- **Materials management**, to ensure that all the materials defined in the bill of materials are built, transported, delivered, stored, checked for quality and prepared for assembly.
- **Sales and distribution**. Products are pre-marketed, with orders and variations in specification logged and integrated in production. Payment is taken and orders fulfilled through delivery.
- **Feedback and updates**. A feedback loop is created so that opportunities for process improvement are identified and actioned. Market feedback is used to inform product design to drive continuous improvement.

**Field engineering.** A new level of proactive intervention can be brought to predictive maintenance.

- Issues can be revealed before they become obvious via functionality that is enhanced and aided by PLM.
- This will help field engineers in particular to identify specific points of actual or upcoming failure in very complex systems.
- They will be able to pin-point at risk assemblies or components in real time and go Using the combined capabilities of Teamcenter and S/4HANA, it is then possible to order replacements, manage the logistics and timing...
- Carry out (largely through automated processes) all of the financial and compliance issues involved...
- And ensure systems stay operational more easily and at lower cost.

# DELIVERING BUSINESS BENEFITS

- **Flexible ordering.** Customers (external and internal) can create orders on virtually any platform that suits them.
- **Dashboards.** Users at any stage in the value chain can see the true status of any process, including manufacturing capacity, orders and materials.
- **Straight through communication.** A single view of the truth based on integrated workflows across all connected platforms.
- **Active workspace.** Personalised to suit the individual user, with potential to use AI for automated features in the future.
- **Supplier management.** Fast and active support and intervention at any stage in the end to end process, enhancing quality, compliance and operational efficiency.



# WHY CHOOSE NTT DATA FOR YOUR SAP MANUFACTURING PROJECT?

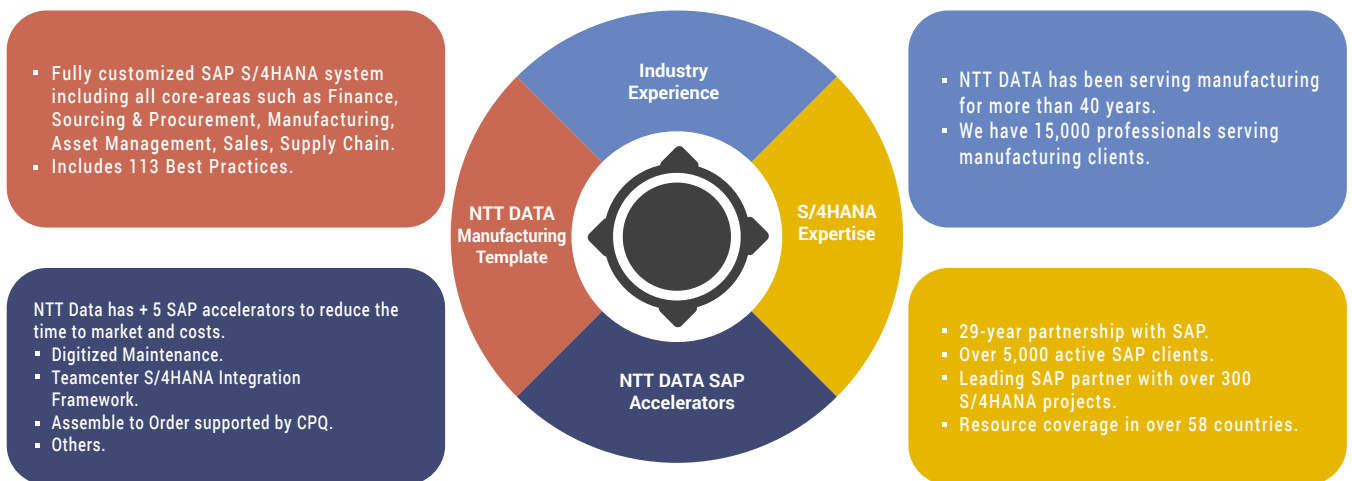
## We are experts in Manufacturing

NTT DATA has worked with the manufacturing industry for more than 40 years, and we have 15,000 professionals dedicated to serving our manufacturing clients worldwide. Alongside our global delivery capabilities, we have a proven track record in the sector and an end-to-end approach to integration that helps manufacturing companies of every size and in every segment overcome maximise the potential of increasingly disaggregated value chains and the need to target and customise in a more granular way.

To accompany manufacturing companies on their SAP S/4HANA journey, NTT DATA has a team dedicated to S/4HANA transformation and an S/4HANA Center of Excellence that establishes the most appropriate evolution strategy for companies that want to evolve to S/4HANA and other SAP solutions, platforms and technologies. NTT DATA has developed an SAP manufacturing template for S/4HANA and accelerators to help life sciences companies overcome specific challenges and reduce time to value.



- **NTT DATA is a formidable force in SAP services with more than 20,000 SAP professionals, 2,700 SAP clients worldwide, 21 delivery centers and operations in 41 countries.**
- NTT DATA has achieved the highest accolade by SAP, Global Strategic Service Partner, which recognizes its ability to offer a wide range of best-in-class business consulting and solution implementation service in support of SAP technology.
- NTT DATA is in the Top Ten of SAP Services providers worldwide according to Gartner.
- Our solutions leverage our business-specific expertise and skillsets in SAP technologies but also in other digital technologies, such as AI and IoT, for example.



## SAP global strategic service partner

NTT DATA is a formidable force in SAP services with more than 20,000 SAP professionals, 2,700 SAP clients worldwide, 21 delivery centers and operations in 41 countries. It is a truly global organization committed to seamlessly working together with its clients to deliver SAP-centric projects that can be delivered at scale and across multiple locations.

Our solutions leverage our business-specific expertise and skillsets in SAP technologies but also in other digital technologies, such as AI and IoT, for example. NTT DATA has achieved the highest accolade awarded by SAP, Global Strategic Partner, which recognizes its ability to offer a wide range of best-in-class business consulting and solution implementation services in support of SAP technology.

# THE NTT DATA DIFFERENCE

## NTT DATA SAP Manufacturing Template

- Fully customized SAP S/4HANA system including all core areas such as finance, procurement, sales, logistics and production.
- Includes new SAP modules such as EWM, IBP, TM, VMS, etc.
- SAP Business Technology Platform and Cloud Integration.

## NTT DATA SAP Manufacturing Accelerators

- **Digitized Maintenance** enables manufacturers to use IoT and other sensor data to monitor the condition of their production machines, to schedule maintenance to avoid unplanned downtime and use predictive tools to optimise their use of resources and levels of availability, while extending machine life.
- **Assemble to Order** uses Configure-Price-Quote (CPQ), which is a powerful software toolset that enables manufacturers to target production, customise more accurately and deliver individualised products that have been accurately costed and quoted.
- **Fiori RPA-based** payment automation leverages the key SAP technologies of SAP S/4HANA, SAP Intelligent RPA 2.0 and Fiori to create an easy-to-use cloud-based automation solution for the Accounts Payable function, eliminating the errors, delays and costs associated with manual invoice processing.
- **Among others.**

## ABOUT NTT DATA

NTT DATA – a part of NTT Group – is a trusted global innovator of IT and business services headquartered in Tokyo. We help clients transform through consulting, industry solutions, business process services, IT modernization and managed services. NTT DATA enables clients, as well as society, to move confidently into the digital future. We are committed to our clients' long-term success and combine global reach with local client attention to serve them in over 50 countries.

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