

# A mobility strategy for PLM users

**SIEMENS**

## White Paper

**Better decisions – anywhere, anytime**

Teamcenter® software's Mobility application seamlessly connects your mobile workforce to your Teamcenter-driven product lifecycle management (PLM) environment – enabling users to make critical decisions and participate in PLM processes regardless of whether they are on the production floor or travelling half-way around the world.

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## Executive summary

### Why mobility?

The scope and reach of PLM is increasing rapidly as more product information and development activities are being managed using product data management (PDM) software. PDM has become a fundamental repository for managing product knowledge used in all aspects of the product lifecycle – from capturing customer requirements to servicing and supporting products in use. The process of developing products requires thousands and thousands of decisions. To facilitate smarter decisions, and make them more quickly, people need to access the most up-to-date information when and where those decisions are made. Siemens PLM Software is answering this call with Teamcenter Mobility – a mobile client for accessing Teamcenter, the world's most widely used digital lifecycle management solution.

Access to product and process information has traditionally taken place from desktops or laptops connected to a hardwired network. But many tasks require users to leave the office for meetings, visiting the production floor or when performing field service maintenance. Mobile professionals need to access appropriate information and be able to act on that information as part of their workflow-driven processes. If they are not on the network, they can easily bottleneck a process by failing to respond in a timely manner with mission-critical decisions. As today's products increase in complexity, service teams need to reference detailed product information or repair instructions while in the field or even when they work in and around the product itself (for example, when

maintaining airliners, ships, trains, or automobiles). If they can't get answers to their questions, they may need to schedule repeat visits, wasting their time and jeopardizing customer uptime. As companies push for more lean operations by removing waste from their processes, the time lost by people being "out of the loop" can no longer be accepted.

Fortunately, wireless networking (WiFi) has become ubiquitous throughout our homes and public areas. In fact, it has become common in the workplace as an addition to traditional hardwired Ethernet networks. Mobile broadband has expanded the reach of connectivity as wireless service providers compete by offering ever greater speed, bandwidth and global coverage. Although previously limited to email or internet browsing, mobile broadband now enables users to stay connected to business topics while they are on the go. One key benefit of wireless technologies is the ability to provide significant coverage for a minimal capital expenditure.

Laptops and notebooks have been able to connect wirelessly through add-on "air cards" for some time. Recently, interest has increased in a new breed of tablets popularized by the Apple iPad and the Android platform. Seemingly overnight, product development companies are procuring tablets for their own mobile workforce and requiring their enterprise software solutions to support these mobile devices. According to Forrester Research, the enterprise mobile workforce represented 57 percent of employees in 2010 and is expected to grow to as much as 93 percent by 2015.<sup>1</sup>

## Siemens PLM Software's HD-PLM vision

As products – and the processes you use to engineer and manufacture them – become more sophisticated, your ability to build the right product and build the product right becomes more and more challenging. Those processes are comprised of *thousands* of decisions, which require you to reach the right conclusion as quickly as possible each and every time you arrive at a critical decision point. Simply put, effective decision making is crucial to your company's marketplace and financial success. Unfortunately, the knowledge you need to make successful decisions is often scattered, or worse, it's so voluminous that you don't know what's relevant and what's not. Siemens PLM Software's High Definition PLM (HD-PLM) helps you make smarter decisions by quickly delivering just the right information to each decision maker in the context of the decision he or she has to make. The result: better products. Better in the sense that they meet market and customer requirements, while being efficiently engineered, thoroughly validated and produced in plants that comply with your sustainability objectives.

Siemens PLM Software's approach to mobile technology enables you to establish a mobility strategy for your PLM environment that extends the HD-PLM vision to mobile professionals. Increasing numbers of today's decision makers are mobile, including:

- Engineers who meet with customers during early planning as well as during problem solving sessions
- Manufacturing engineers who work in plants and assembly facilities
- Service engineers who work in customer sites making field repairs
- Everyone who takes work-related information with them as they move around
- Anyone who works in and around large products such as ships and planes, where decisions need to be made so that a task or process can keep going

Siemens PLM Software's first mobility offering is Teamcenter Mobility. Teamcenter Mobility is not a new software product or platform but rather a logical extension of Teamcenter, the knowledge foundation



for all of Siemens PLM Software's PLM solutions, including NX™ software, Tecnomatix® software and Velocity Series™ solutions.

Teamcenter Mobility provides a simple, intuitive interface to Teamcenter functionality for mobile Teamcenter users; it extends the Teamcenter footprint to other traditionally disconnected use cases, including mobile service and support. Because of its streamlined user interface, Teamcenter Mobility is the perfect tool for mobile managers, directors, and even executives who want to stay connected to their company's product development operations and be more reactive when key decisions need to be made.

Many benefits arise from your ability to mobilize your workforce. Anywhere-anytime decision-making enables users to capture decisions at the right time, the right place and in the right context of the decision at hand. Rather than waiting until they get back to their desk – and risk being distracted by other pressing issues – users can contribute their input to an active work stream that lets everyone downstream continue their participation without interruption. Eliminating the lag time caused by travelling contributors can significantly shorten the time to resolve many open issues. Workforce mobilization enables you to optimize multiple processes and thereby

facilitate overall process improvement. Doing more in less time is the epitome of increased productivity.

Teamcenter Mobility is designed to deliver an optimum mobile user experience by providing just the right amount of functionality through an intuitive user interface. Teamcenter Mobility is purpose-built for total digital freedom by seamlessly switching from WiFi to mobile broadband and back without missing a beat. Equally important, you can download pertinent data and work with it offline if you wish – and automatically synchronize with Teamcenter when you go online again. You can use Teamcenter Mobility to:

- Review, sort and filter your change items and tasks or view them in pie chart dashboard
- Review related materials, such as documents, 2D drawings or 3D models, with built-in viewers
- Drill down into the details of these changes
- View the attributes or metadata of any object
- Search to find other information
- Approve or disapprove a task as required

Just as importantly, you can do all of this while syncing your favorites with your “home” Teamcenter user profile.



## Use cases

You can use Teamcenter Mobility to facilitate a wide range of use cases.

### Change orders

If critical reviewers are travelling, they can hold up a whole process. With Teamcenter Mobility, users can review, filter and sort their tasks as well as associated documents and then approve or reject these documents as required. Teamcenter Mobility identifies these users and automatically populates their responses using appropriate role and user information controls. Project managers can stay in touch with the various processes and even monitor a change-related dashboard to monitor current status before issues turn critical.

### Design reviews

Design engineers often need to travel to design reviews, customer sites or supplier facilities and bring back questions, ideas and issues that need resolution. With Teamcenter Mobility, users can take notes on their mobile device during a design review – such as assigned action items – and download the necessary supporting information (including 2D drawings, 3D product data, analysis results and specifications) to their mobile device. Action items can travel with them – enabling design engineers to immediately begin the issue resolution process while issues are fresh in their minds. Users can pull up the latest designs to show specific details and collaborate on issues or improvements. They also can perform their tasks in off-line mode and automatically execute them when they get online again.

### Manufacturing processes

Shop floor workers often need access to detailed product engineering and manufacturing planning/process information, as well as assembly/disassembly instructions and animations, and quality information. With Teamcenter Mobility, shop floor workers can digitally review the most current version of this information – rather than working with static and cumbersome paper drawings – thereby benefiting from greater accuracy and timeliness. With a mobile device in hand, they can access what they need, at the time and place they need it, even in off-line mode – eliminating the time spent trying to find a computer or terminal where they can log-in.

### Field service and repair

Maintenance technicians can use Teamcenter Mobility in off-line mode while on site to facilitate better customer responsiveness. For example, when servicing an airplane in the field, technicians can access the instructions for the task at hand from a mobile device – wherever they are – whether under the vehicle or inside of a bulkhead. With access to digital information such as 3D exploded views or assembly/disassembly animations, technicians can be more effective and complete repairs more quickly. Mobile technology enables field technicians to react more quickly to product service and support issues to get the customer back up and running faster.

## Conclusion

As your product development process continues to become more mobile, you need to leverage mobile technology. Mobilized teams enjoy better responsiveness by decreasing the time needed to respond to open issues. Teamcenter Mobility facilitates decision-making when and where a decision needs to be made so you can make smarter decisions that result in better products.

Support for mobile devices and platforms will emerge as devices are accepted by the market as viable business platforms. Additional apps will follow as customer and market demands emerge.

## References

1. The Rise Of Wannabe And Maverick Mobile Workers  
(February 16, 2011).



## About Siemens PLM Software

Siemens PLM Software, a business unit of the Siemens Industry Automation Division, is a leading global provider of product lifecycle management (PLM) software and services with 6.7 million licensed seats and more than 69,500 customers worldwide. Headquartered in Plano, Texas, Siemens PLM Software works collaboratively with companies to deliver open solutions that help them turn more ideas into successful products. For more information on Siemens PLM Software products and services, visit [www.siemens.com/plm](http://www.siemens.com/plm).

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