Trimble Platform as a Service (TPaaS): An Integrated Subscription Service For Construction Technology

anaging numerous projects across multiple job sites can be challenging for any large organization, as contractors and fleet managers must navigate projectspecific technology, equipment management and tracking, and the unanticipated expenses inherent with any large construction project.

In addition, large fleets often include technology systems with multiple software and hardware versions spread out across various job sites. Tracking and maintaining these systems—and ensuring workers are adequately trained on the job-specific hardware or software—adds further challenges. As technology evolves, systems quickly become outdated, and contractors must weigh the benefits of an expensive upgrade with the risk of a significant investment that will ultimately become obsolete.





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TPaaS

Construction Tech as an Operating Expense

Purchasing construction technology such as machine control and asset management systems has historically been considered a long-term investment. While utilizing machine control is a wellunderstood advantage, the heaviest adopters of machine control tend to be large contractors and the most innovative smaller contractors. Until recently, this required a significant upfront or capital expense (CapEx). Contractors would then need to cover that overhead cost on the promise of improved productivity or new business. bids—effectively moving the cost of investment from corporate overhead to a customer's project costs, with full transparency and line items to support the expenses.

Whether it's machine control or construction surveying tech, the same reasoning applies. Technology investment as an OpEx can help contractors adopt technology faster and with less risk. Predictability helps contractors develop better estimates and avoid surprise expenses, and provides customers with a clearer understanding of project costs.

Technology as a Service

This new way of acquiring and using technology follows the increasingly popular "XaaS," or "everything as a service" model. By removing the large, one-time expense, and instead focusing on smaller, more manageable operation expenses, XaaS models like TPaaS offer users the ability to more efficiently manage their technology and budgets and better predict when expenses will hit their budget.

In a recent report, "Accelerating agility with XaaS," multinational professional services network Deloitte says, "With this approach, products and services are paid for based on usage —as opposed to the traditional IT model that involves an upfront purchase or licensing."



model. called Trimble Platform as a Service, or TPaaS, upends this traditional way of purchasing, instead creating a flexible, all-inclusive bundle of systems, service and support with a predictable payment schedule. Rather than tying up resources on a large CapEx, technology equipment is acquired on a subscription basis, which can then be charged as a line item on a specific project or

A new procurement

budget. This model makes expenses more predictable and affordable. Local expert support and upgrades through Trimble's SITECH dealer network are also included in the subscription.

By shifting the cost of these systems to an operating expense (OpEx) model, contractors can include the cost of technology in new project

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"TPaaS is precisely the kind of innovation Deloitte was talking about when discussing the agility benefits of XaaS," says Scott Crozier, Vice President of Trimble Civil Construction. "It allows contractors a predictable and affordable means to upgrade operations that were previously manual, expensive and potentially inefficient."

However, subscription service models offer more than just cost predictability, according to the study. They also give businesses more agility, allowing for faster evolution of their own products and services. This "democratizes" innovation by reducing the barriers to entry typically associated with advanced technology: cost and the resources to manage it.

According to the report, this trend toward XaaS offers distinct, tangible benefits:

- First, it is based on a consumption/subscription model. Instead of requiring a company to invest significantly for an outright purchase, the technology is paid for over the life of the contract, and can be budgeted as an ongoing expense. Because the software resides in the cloud and is maintained by the solution provider, there is little to no investment required for in-house IT support.
- Because resident resources—including personnel to install and maintain the software and support the servers to run it—aren't necessary, the company has access to **faster deployment and constantly up-to-date technology.** There is no need to store the software on local equipment. Software upgrades are seamless and handled by the software provider behind the scenes, as are maintenance and data security.
- Having a single, current version of software and hardware across the fleet means less time training workers to operate the systems on-site.



Applying XaaS to Construction Technology

The first step to applying an XaaS subscription model to a specific construction technology, such as machine control, is assessing the needs of the existing fleet. Most are comprised of machine control systems from various generations and may even be from different manufacturers. Using a traditional purchasing model, it is impossible to harmonize this mix of systems without a large capital outlay.

Trimble's TPaaS system addresses this problem by replacing older technology with the latest and greatest, along with the software needed to manage it and provide integrated reporting.



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Hardware and software upgrades are included in the subscription package and can be scaled and customized based on a contractor's specific technology and training requirements.

The customer selects a bundled package and pays a monthly subscription fee. This is a predictable allinclusive expense, so a fixed amount can be budgeted each month for hardware, software and support. At the end of the contract period, the customer owns the hardware outright and is recommended to renew their subscription to continue to use the software and benefit from services such as technology assurance and system support. This method enables contractors to replace their technology without any upfront investment.

There are distinct advantages to this harmonized approach:

- Training and support costs are included. As with any upgrade, workers must be trained to operate new systems. With TPaaS, training and onboarding costs are covered under the subscription. A local SITECH dealer, one of a global network of authorized Trimble dealers, will arrange for advanced training, setup on the job site, system installation and calibration. SITECH also provides best-in-class phone support—all included in the monthly subscription fee.
- Hardware and software are integrated with this method. Different software versions and generations of hardware create learning curves for operators, making it difficult to sync up data from the machines and survey crews. However, with TPaaS, all systems and software are crosscompatible and continuously upgraded, making it easy to manage, track and support the fleet across

multiple job sites. This standardized solution for the entire fleet simplifies communication between crews in the field and in the office.

- SITECH maintenance and repairs are included in the package, and the systems are warrantied. A TPaaS subscription offers accidental damage coverage and regular maintenance to make certain the fleet is always up-to-date and kept in top-performing condition. A local SITECH dealer provides a single point of contact for service and upgrades.
- It is easy to **locate and monitor technology equipment** across multiple job sites. The technology reports on where the equipment is physically located and how it is being used. It even identifies operators who aren't using the technology when they should be and can monitor their performance. TPaaS eliminates the need to drive to the field to check on progress or provide plan updates, as the data is immediately available in the office.

Building the Future From the Ground Up

By providing a scalable and flexible method of accessing state-of-the-art construction technology, contractors are able to do a better job of controlling costs, getting the work done on schedule, protecting their operators and the job sites and maximizing efficiency. The subscription-based model ensures that hardware and software are up to date and contractors benefit from the latest technologies.

"Not having to worry about unplanned repairs, budget overruns, software updates and managing a fleet of older, mismatched systems provides peace of mind," says Crozier. "This is definitely technology whose time has come." +

To learn more about Trimble Platform as a Service and connect with your local SITECH distributor, please visit: **heavyindustry.trimble.com/tpaas.**



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