

Equipment- as-a-Service

OEM Guidebook to a Profitable
Service-Based Business Model



Hitachi provides a roadmap for building a successful servitization strategy for industry

INTRODUCTION

Original equipment manufacturers' (OEM) sales margins have been declining over the years due to several factors. First, increased competition from low-cost countries has made many OEMs less competitive on price. Additionally, many cost-conscious customers are placing more value on short-term ROI over total cost of ownership and as a result, are looking for ways to reduce their upfront investment costs. Finally, increasing regulatory pressures, the global pandemic, and supply-chain volatility are also eroding OEM profits.

Servitization, or "Equipment-as-a-Service" (EaaS), can help alleviate the gap. EaaS refers to industries or OEMs that use their products to sell an "outcome as a service" rather than a single sale of that product. This type of service-based model is an opportunity for manufacturers to create new sources of revenue and profit and is generally more stable than the sale of products, which tend to be more sensitive to economic cycles.

EaaS differentiates OEMs from the crowded market by allowing them to transition their customers from a CapEx to an OpEx business model. In other words, their customers don't have to commit to a large upfront investment for a piece of equipment. Instead, they are committing to receiving and paying for an outcome — the outcome that they expect from that product or equipment. In an EaaS model, this outcome is what an OEM, who has produced the product, promises to deliver. The benefit to the customer is that since they don't have to invest in a product, they are not required to maintain or become an expert in that product. The benefit to the OEM is that they retain a very close connection to the customer by maintaining and servicing the product and ensuring the delivery of the expected outcomes.

This type of service-based model provides a recurring revenue stream and a closer customer relationship, which offers additional opportunities to upsell, cross-sell, and other value-added services. For customers, additional advantages include payments based on usage, ongoing service, and lower capital investment. To summarize, a manufacturer that pursues servitization is shifting its primary focus from creating value by making and selling a product to creating value by delivering a service through a product.

However, switching from a traditional product-based business model to an EaaS model does carry some complexity and requires a thoughtful transition. Adopting an EaaS model requires new competencies and capabilities, including implementation planning, building trust with customers, and moving from a reactive to proactive service model. This white paper outlines the benefits of EaaS, and the steps OEMs can take to make servitization a reality.

6 REASONS TO CONSIDER SERVICE-BASED MODELS

Among the top reasons to adopt an EaaS model is customer demand. Simply put, manufacturing customers want the flexibility that servitization offers and the ability to share risk with asset manufacturers.¹ But EaaS offers many other key benefits, including:

1. Value creation

OEMs can compete on value creation rather than price. As profit margins drop, ROI and competitive advantage are becoming more important to corporate investors, and organizations are more concerned about guaranteed output and results.² In a service-based model, customers only pay for what they're using. For example, if a customer encounters seasonal demand fluctuations, in a service-based model, they would not pay for equipment that is sitting idle or underused.

2. Recurring revenue

For OEMs, EaaS provides a recurring revenue stream. This is because the services OEMs provide span the entire product life cycle, with a more predictable and steady cash flow.³ For example, using an EaaS subscription model can result in a 25% increase in revenue compared to a standard product sale.⁴

3. Circular economy

Since OEMs own the equipment, when the machine has reached the end of its useful life, they have opportunities to refurbish equipment for another customer or remanufacture it into a new product. This is an opportunity for another revenue stream for the OEM, and can also help both the customer and OEM meet sustainability goals.⁵

4. New products and services

A service model allows OEMs to monitor customer needs and usage throughout the product's life cycle, and to collect valuable data on their interactions with the product. They can use this data to improve product design, customize service levels, and tailor products and services based on their usage trends.

5. Improved margins and growth

Service models can produce higher average gross margins and new avenues for growth. As more customers "subscribe," services can be bundled and the OEM's output matches customer needs more accurately. "EBIT margins of services can be up to four times higher than those of original equipment, with a doubling of margins possible in three to five years," according to a McKinsey & Co. report. Also, "OEMs can double their services revenue within three to five years."⁶

6. Increase in customer loyalty and satisfaction

McKinsey & Co. estimated a 10 to 20 percentage point rise in customer satisfaction and cost reduction of 15% to 25% for OEM customers who agree to a service plan.⁷



¹ Deloitte, "Equipment-as-a-Service: From Capex to Opex – new business models for the machinery industry," 2021.

² *ibid.*

³ McKinsey & Co., "Introduction: The services solution for unlocking industry's next growth opportunity," 2019.

⁴ Bain & Co., "Choosing the Right Pricing Model for Equipment as a Service," 2019.

⁵ McKinsey & Co., "Introduction: The services solution for unlocking industry's next growth opportunity," 2019.

⁶ McKinsey & Co., "Introduction: The services solution for unlocking industry's next growth opportunity," 2019.

⁷ *ibid.*

EaaS ADOPTION IS GAINING GROUND

The benefits of servitization are already clear for many OEMs, with 20% expected to support EaaS models by 2023, up from a “current base of near zero,” according to Gartner.⁸ Also, the EaaS market is expected to grow at a 54% CAGR between 2020 and 2025.⁹

Numerous changes in the market are contributing to this growth, including:¹⁰

- **IloT advancements:** Connected equipment allows manufacturers to deploy EaaS business models at a much lower cost because they have real-time access to usage data due to connectivity driven by the industrial internet of things (IloT).
- **More mature financing tools:** In recent years, more banks have begun specializing in EaaS business models, including projects focused on energy reduction.
- **Increased competition from third parties:** Tech companies have begun reselling existing products as EaaS, prompting more OEMs to enter the market.

Another important factor to consider in EaaS growth is the decline in OEM asset margins and sales volumes.¹¹ Margins for aftermarket services are about 2.5 times greater than the operating margin for new equipment sales.¹² As a result, many OEMs are actively seeking alternative sources of revenue.¹³



⁸ Gartner, “Gartner Identifies Top Five Business Trends in Manufacturing for 2021.”

⁹ IoT Analytics, Equipment as a Service Market Report 2020-2025.

¹⁰ IoT Analytics, “Entering the decade of equipment as a service – characteristics of the machine outcome economy,” 2020.

¹¹ Deloitte, “Equipment-as-a-Service: From Capex to Opex – new business models for the machinery industry,” 2021.

¹² Deloitte, “Aftermarket services: Transforming manufacturing in the wake of the COVID-19 pandemic,” 2020.

¹³ Deloitte, “Equipment-as-a-Service: From Capex to Opex – new business models for the machinery industry,” 2021.



SERVICE MODEL REQUIREMENTS TO CONSIDER

Offering subscription services requires a change in mindset from a transactional, one-time sales approach to a services way of thinking. Making this transition requires close collaboration with customers and often involves conducting some small pilots to gain their trust for future offerings. Key requirements to consider include:

- **Solution monitoring:** The product must have real-time sensing capabilities to enable proactive maintenance. OEMs must know where their products are and how they're performing.
- **Spare parts availability:** In a servitization model, OEMs must have the right spare parts on hand at the right time to service equipment when needed and perform preventive maintenance to optimize machine performance.
- **Service level agreements:** Transitioning from selling equipment to a service model means the provider must be capable of continuously monitoring equipment for accurate usage-based pricing and providing necessary maintenance and upgrades.
- **Pricing:** Accurate pricing requires the use of real-time data to build adaptable and robust pricing models that ensure OEM profit.
- **Financing:** OEMs and their customers need real-time transparency into usage to ensure accurate budgeting and forecasting. In addition, OEMs may need insurance to transfer risk. For example, banks and insurance companies have begun collaborating with OEMs when it comes to risk sharing.¹⁴
- **Circular economy and recycling:** A successful service model also requires product traceability and recycling/remufacturing capabilities as well as return logistics to manage the entire life cycle.

Adding these services and functionality comes with its share of challenges, including start-up costs, risk, market uncertainty, and buy-in from the OEM customer base. The successful launch or transition to a servitization model often depends upon partnerships and collaboration with suppliers, technology integrators, and financial institutions.

¹⁴ Deloitte, "Equipment-as-a-Service: From Capex to Opex – new business models for the machinery industry," 2021.

PATH TO SERVICITIZATION: 4 KEY STEPS

There’s no question that a service model is a considerable departure from traditional asset sales. Demand exists for servitization but many companies lack the expertise to launch this type of business model, digitize their equipment, meet tight SLAs, and manage the inherent complexity and risk.

Hitachi’s deep experience in the manufacturing industry, combined with our digital/IT experience and strong ecosystem of partners, allows them to help customers bridge that complexity and risk. Their IIoT technology and operational technology experience helps OEMs to launch EaaS business models one step at a time, helping to minimize risk while providing the building blocks and framework for successful implementation. The steps include:



This step-by-step model allows OEMs to gradually transition into a service offering. They can test ideas, manufacturing feasibility and market demand before committing to a completely new business strategy. Hitachi applies this incubation process to a new transport-as-a-service business development program that provides a launching point for OEMs that are looking to adopt an EaaS model for material handling equipment.



INTERNAL TRANSPORT-AS-A-SERVICE: THE FUTURE OF MATERIAL HANDLING

Internal transport is the process of transporting raw materials, products under manufacture, and finished products inside an industrial plant. In an industrial company, internal transport is necessary for a well-functioning production flow. We know that automating simple tasks, such as the movement of pallets in a warehouse, can have a significant impact on efficiency. However, internal transport is generally considered a support process, and it can sometimes be difficult to justify investment in activities that are typically considered non-value-creating tasks.

Hitachi has created an offering called Internal Transport-as-a-Service (ITaaS) that OEMs can offer to their customers without requiring a capital investment. The primary technology is an autonomous mobile robot (AMR). Hitachi works with an OEM that builds the mobile robots and integrates its Lumada IIoT technology into the AMR solution. Using these IIoT-enabled capabilities, Hitachi can monitor the health of the robot to determine any service needs and track performance. The primary goal is to ensure efficient operations and financial transparency. The operational performance monitoring is used as part of a pay-per-use model.

Hitachi's ecosystem of partners includes insurance and financing companies, which this holistic approach helps ensure customer success with ITaaS. Key ITaaS components include:

- A pricing model simulator that collects operational data and generates a recurring usage-based invoice, which ensures the service provider remains profitable and mitigates risk
- Fleet management capabilities that allow Hitachi to adjust the number of robots in fleet to support management of asset efficiency and utilization
- Remote monitoring and management of equipment, so the OEM can service the equipment as needed
- IIoT connectivity and infrastructure, including analytics
- A portal for the OEM and end user, so they can access status updates and pricing, and monitor financial key performance indicators and other information

Benefits for the end customer include flexible capacity, transparent costs, no impact on the balance sheet, no depreciation, and no upfront investment.



SERVITIZATION: THE NEXT STEPS

Established OEMs already understand the advantages of service models. They have experienced the benefits of IIoT within their own four walls and want to extend those capabilities to their products. But switching even a portion of their business to a servitization offering requires considerable planning and development. This is where Hitachi comes into play. Hitachi lays the groundwork and provides the support OEMs need to get started. And the process doesn't require a major transformational change. OEMs can start with small iterations and validate them before going to market.

For more information on how to adopt an EaaS model, or if you are interested in an ITaaS pilot, contact Hitachi at

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