## Emerging Risk: Paradigm Shift in the Industrial IoT Businesses

Part I: Description of industry trends:

1.1 The future of IoT opportunities are in applications, consulting, and services

The market demand for Industrial Internet of Things ("IoT") has been growing rapidly over the last decade, especially in the areas of manufacturing, transportation, and high tech sectors. Recently though, due to COVID, the supply-chain crisis, 5G rollout, and AI trends, traditional industries are trying to adopt IoT technologies to fast-track their own operations and boost business competence. That means there are many promising opportunities for the IoT market to grow steadily for years to come. According to Gartner, while hardware IoT devices still enjoy high growth rates, the majority of the new opportunities will be in three segments: first, platforms and security; second, applications and consulting; and third, implementation and managed services. The expected ratio of their market share in 2025 will be approximately 1:5:10:10.
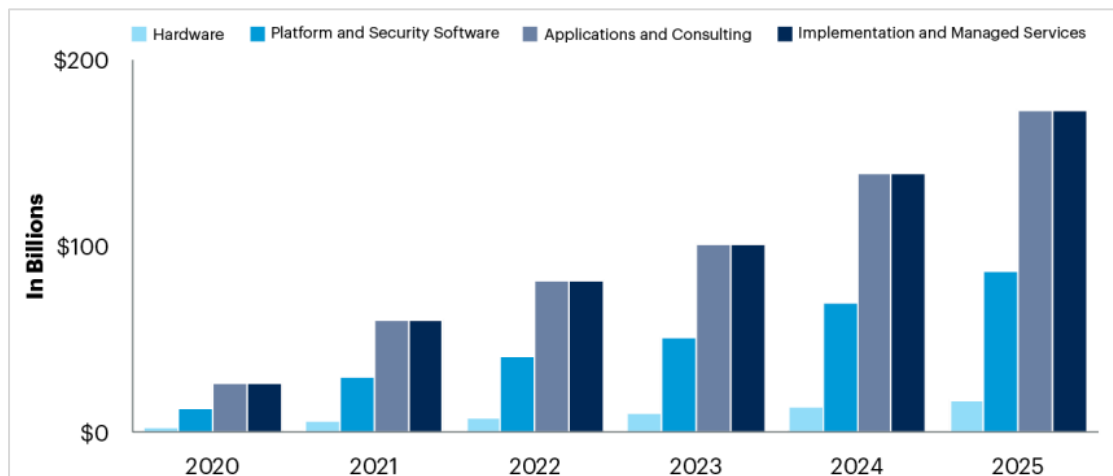
Source: Gartner Report "Tech Provider 2025: The Future of Edge", Oct-5-2020

1.2 Customers shift focus from IoT platforms to IoT-enabled applications

In this paradigm shift, IoT platforms are the primary systems at the core of development, implementation, and operation of IoT technologies. While trends in IoT create intensive competition between IoT technology providers, there is a concern that they could jeopardize how tech providers are going to survive and sustain their business in such a heated market.

End customers are now expecting to see IoT solutions that provide real business outcomes. In addition to the connectivity, automation, data mining, analytics, and visualization features enabled by IoT platform technologies, customers want to know

the exact value of their return on investment. This is a new phase and its impact is considerable to all technology-focused industrial IoT platform vendors, including Advantech.
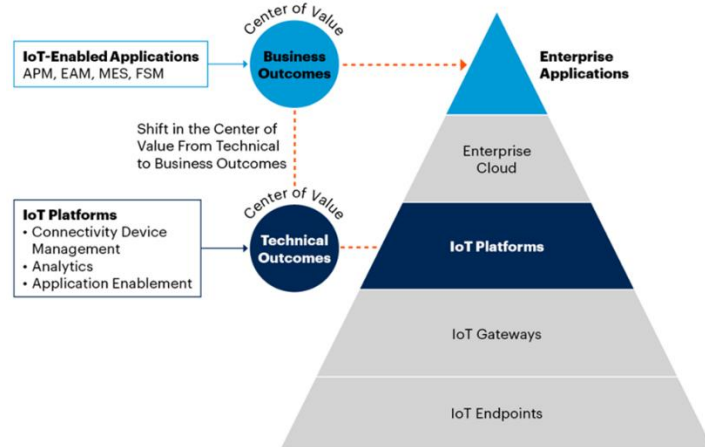
Source: Gartner Report "Market Trend: Moving from IoT Platforms to IoT-Enabled Applications", Oct-11-2021

Part II.   Impact to Advantech

Advantech as a leading provider of IoT hardware and appliances has invested substantially in developing IoT platform. Recently, they released their IoT platform called WISE-PaaS, which is a fully featured software suite with data processing, storage, analytics, visualization, and low-code tools and functions to support IoT application development.

Emerging risks:

- Competition is more intensive

  Long established industrial technology providers like Siemens, are working on new innovative strategies to try the lead market, while new software start-ups are entering the market and targeting niche areas such as condition monitoring for industrial equipment. Furthermore, local system integrators who serve regional markets are offering customized projects that fulfill customer expectations much better. Despite high development cost, system integrators enjoy a significant share of the market.

- Falling short of customer expectations

  Many IoT solution providers are already contributing to their customer's business outcomes and Advantech is falling short because they are not fully prepared to change the customer offer from technical solution based to outcome based.

- Changes of business models

  Recently, new start-ups and many IoT service providers started offering flexible options for a subscription-based, or usage-based charging model. This significant lowers the financial barriers to adopting IoT solutions on customer premises. Online sales are another approach that has been successful in consumer sectors. Advantech is not fast enough in responding to these changes and as a result faced strong challenges in business development.

Part III: Actions that Advantech has taken:

Since customers expect ready-to-use solutions and quick return on investment, in the past year Advantech started to realign its engineering and business teams to invigorate the business with a better fit-for-purpose business model:

- **Formation of solution BUs:** Dedicated solution teams have been formed in addition to product development and sales teams. Solution teams have created Service-Ready Packages (SRP) specially developed for three major sectors: industrial, medical, and smart cities. All of these solutions are customer-facing packages derived from the core industrial IoT platforms we already have. In the past years, the solution business were organized under the business group called WISE-IoT, led directly by the CEO, in order to best consolidate the resources of engineering, marketing, and channels, in design and deliver the solutions to the market in an unified approach.

- **Encouraging close partnerships**: We are engaging with new system integrators (SI) and business allies in each of the main industrial domains and designing programs to serve these new partners, who are entirely different from existing hardware channel partners. Programs include such things as technical training, online/offline support, and business incentive development. For examples there was the WISE-IoT LEAP camp held in our HQ in Taiwan. More than 100 partners from 20 different countries participated, who not just took most updated information from our BU, but contributed their insights of how to conduct the right IoT business in their regions.

- **Investment in IoT solution providers**: Advantech corporate investment arm will also be onboard to support and strengthen relationships with designated domain experts. The strategic partnerships and/or acquisitions with partners or new IoT service companies that are created can synergize with Advantech to make it stronger in the market.

- **IoT solution ready systems**: Revisiting our core products, Advantech has started to work on more connectivity and management features for our hardware appliances in 2021. The latest release can support not just the feature of remote

management but with flexible business models of subscription. Soon these developments will be integrated into both our hardware products and SRP offerings.

- **Recruit talent for IoT services:** More software developers and new service-engineering employees are being actively recruited to further strengthen the service-driven IoT business models. In addition to that, we also actively recruit senior managers and business leaders to guide the team and confront the challenges in the markets.

- **Building and growing an online sales business:** For years, Advantech has sold and promoted all its products and offers online as part of a web storefront. Starting recently, the team will focus more on designing a fully-fledged e-commerce business that will require a whole new workflow and management system. In 2022, the new e-commerce platform (i.e., IoTMart) over Salesforce was established to serve the North America market, and will be soon expanded to Europe and other markets.

- **Establishment of Advantech Service+:** Advantech service capability has been restructured. While the solutions transformed from appliances to packaged ready application systems, last year Advantech also re-organized a new team specialized in professional services, namely Advantech Service+ to lead the development of a new IoT service business and the generation of new opportunities.