



December 18, 2023

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Assistant Secretary for Export Administration
Bureau of Industry and Security
US Department of Commerce

Re: Docket 231013-0248: Implementation of Additional Export Controls: Certain Advanced Computing Items; Supercomputer and Semiconductor End Use; Updates and Corrections

BSA | The Software Alliance (“BSA”) welcomes this opportunity to provide comments to the US Department of Commerce’s (“Commerce”) Bureau of Industry and Security (“BIS”) in response to its Interim Final Rule (“IFR”) and solicitation of comments regarding the implementation of additional export controls on certain advanced technologies.¹ BSA is the leading advocate for the enterprise software industry before governments and in the international marketplace.²

Enterprise software—or business-to-business (B2B) software—enables the commercial operations of other companies. It helps organizations of all sizes and across all industries operate more safely and efficiently, enhance product and service development, and increase opportunities to innovate and grow. By offering trusted and responsible software solutions to support their business clients’ needs, enterprise software companies enable other organizations to service their own customers in turn.³

I. Introduction

¹ <https://www.govinfo.gov/content/pkg/FR-2023-10-25/pdf/2023-23055.pdf>

² BSA’s members include: Adobe, Alteryx, Asana, Atlassian, Autodesk, Bentley Systems, Box, Cisco, CNC/Mastercam, Databricks, DocuSign, Dropbox, Elastic, Graphisoft, IBM, Informatica, Juniper Networks, Kyndryl, MathWorks, Microsoft, Okta, Oracle, Palo Alto Networks, Prokon, PTC, Rubrik, Salesforce, SAP, ServiceNow, Shopify Inc., Siemens Industry Software Inc., Splunk, Trend Micro, Trimble Solutions Corporation, TriNet, Twilio, Unity Technologies, Inc., Workday, Zendesk, and Zoom Video Communications, Inc.

³ BSA, *How Enterprise Software Empowers Businesses in a Data-Driven Economy*, at: <https://www.bsa.org/files/policy-filings/011921bsaenterprisesoftware101.pdf>

BSA strongly supports the Bureau's mission of advancing US national security, foreign policy, and economic objectives by ensuring an effective export control and treaty compliance system.⁴ This includes the Bureau's development of controls to "stem the proliferation of weapons of mass destruction and the means of delivering them, to halt the spread of weapons to terrorists or countries of concern, and to further important US foreign policy objectives."

BSA also welcomes the Bureau's commitment to ensuring that its "regulations do not impose unreasonable restrictions on legitimate international commercial activity that is necessary for the health of US industry," and its commitment to avoiding "actions that compromise the international competitiveness of US industry without any appreciable national security benefits." Finally, BSA supports the Bureau's "partnership with the private sector"; its openness to "public-private partnerships and market-based solutions"; and its recognition that US security and continued US technology leadership are mutually supportive.

In respect of the IFR at issue here and the Bureau's activity over the past 12-18 months, BSA offers three general recommendations:

First, we encourage the Bureau to be cognizant of the challenges created by the incremental expansion of increasingly complex license requirements. Such complexity and a lack of legal clarity impacts business continuity and jobs.

Second, we encourage the Bureau to include industry stakeholders in its deliberations regarding future controls as early as possible in the process. US export controls have evolved very rapidly in recent months, with many new controls being proposed in rapid succession. The range and frequency of these updates creates an increased risk of unintended consequences.

Third, in this dynamic and evolving environment, we encourage the Bureau to seek to institutionalize greater engagement with industry. Such engagement would be important to support BIS' partnership with the private sector and to ensure that planned controls are effective in achieving their intended aims. Such engagement is also important from an economic perspective, as commercial commitments in any supply chain business model are made many months, or even years, in advance. These may include new investments in real estate, digital infrastructure, and complex contractual arrangements with new product and service suppliers.

Greater future BIS-industry communication and engagement will promote better security and technology leadership.

II. Comments on Cloud Computing Controls

BSA understands that BIS is considering additional restrictions on "remote access" to Advanced AI Chips. Historically, BIS has taken the position that such a "cloud service" does not involve an export and therefore would not be subject to export control restrictions. Those advisory opinions are summarized below:

- January 13, 2009 Advisory Opinion on application of the Export Administration Regulations (EAR) to grid and cloud computing services, stating, "The service of providing computational

⁴ <https://www.bis.doc.gov/index.php/about-bis/mission-statement>

capacity would not be subject to the EAR as the service provider is not shipping or transmitting any commodity, software, or technology to the user.”

- November 13, 2014 Advisory Opinion on Cloud-based Storefronts, stating, “Consistent with the January 13, 2009 Advisory Opinion there is no export of software in the cloud-based storefront fact pattern described above. Instead of downloading the software and processing data locally the foreign user of a U.S. server sends its data to the cloud for processing, and causes its processed data to be transmitted back to it. Although there may be export of technology in this context, there is no export of software.”
- January 11, 2011 Advisory Opinion stating, “the service of providing computational capacity through grid or cloud computing is not subject to the EAR, since the service provider is not shipping or transmitting any commodity, software, or technology subject to the EAR to the user. Because the service provider is not an ‘exporter,’[company] would not be making a deemed export....”

For continued legal certainty, we strongly urge the Bureau to reaffirm that it will maintain these legal precedents.

At the same time, we understand that certain entities (Entity Listed entities and Military End Users) may pose a heightened national security threat if they access the Advanced AI Chips for weapons development or military purposes. Additional controls may be warranted for such Entity Listed entities and Military End Users where Advanced AI Chip access is used for military purposes. To this end, BIS (and interagency participants) should also commit to explicitly listing entities of concern to avoid gray areas for risk determination.⁵

We strongly discourage BIS from implementing broad country-wide prohibitions on remote access. Such a requirement would be much more encompassing than is necessary to address any national security threat. This could produce serious unintended consequences. For example, such a requirement would also likely further create incentives for Chinese users and multinational businesses doing business in China and other countries to choose Chinese Infrastructure-as-a-Service (IAAS) providers. Such overbroad requirements could also have the unintended effect of accelerating Chinese development of its own Advanced AI Chips and/or promoting efforts to misappropriate technology from overseas.

Bureau policy that promotes such outcomes is not in the best interests of the United States.

III. Comments on Deemed Exports

BSA appreciates the decision to exempt deemed exports from the IFR. Had deemed exports not been exempted, it would have created major logistical and implementation challenges and broad, unintended consequences for the US economy. Some of the most talented AI researchers, scientists, and engineers in the United States, whose work requires access to

⁵ Where there is evidence that cloud services are not being used for these purposes, however, the merit of additional controls may be less clear. Furthermore, the treatment of subsidiaries and/or entities controlled by such entities is another issue to consider – including whether their activities are for military or non-military purposes.

Advanced AI technology, would have been deprived of the ability to support continued US technology leadership.

Additionally, having to obtain a license for each of these researchers would drastically slow down innovation; moreover, because there is a presumption of denial for licenses for China, a meaningful proportion of our workforce would be unable to contribute to innovation. Rather than attracting Chinese talent to the United States, this would drastically entice Chinese engineers to remain in or return to China.

If these researchers had been deprived of the ability to continue to work in the United States, those individuals would potentially have been persuaded to leave the United States to work in other countries that are technology competitors or adversaries vis-à-vis the United States. Such an outcome would have had a severe negative impact on US national security and technology leadership.

IV. Comments on Enterprise Software Solutions

BSA urges the Bureau to refrain from overbroad restrictions that would unnecessarily block access to commercial enterprise software services and related artificial intelligence (AI) applications. Enterprise software solutions, which are often enhanced with AI tools, are typically delivered via the cloud and provide crucial support for US and multinational businesses around the world. Enterprise software solutions include customer relations management (CRM) software, human resources management (HRM) software, enterprise resource planning (ERP) software, creativity and special effects software, computer-aided design (CAD/CAM), productivity and database management software, commercial cybersecurity software, business intelligence software, building information modeling (BIM) software, and other software services used in a business-to-business context. In short, these software solutions are not of the type that should concern BIS.

When delivered over the cloud, these software solutions enable companies and their employees to access one hub globally to manage various business processes. Under this model, a US-headquartered multinational company can purchase an enterprise software service via their US organization, and their employees can access the central company cloud-based organization module from countries all over the world (where legally permissible). Additionally, companies using enterprise software services can partner with enterprise software service providers in the US and globally to build their own applications on top of cloud platforms to provide additional features and services to global customers.

We believe that such commercial cloud-based enterprise software services, including business process automation software and platforms, should not be subject to any new export restrictions. Continued access to such commercial business applications is of critical importance to US businesses. These services and software do not facilitate the development or production of dual-use AI foundation models and pose little risk to US foreign policy interests.

Enterprise software offerings increasingly incorporate the use of AI, but the AI used in these software offerings poses little risk from a national security perspective. While companies engaged in providing such enterprise management products may sell commercial AI-enabled

software, these commercial platforms are tailored for specific business use applications and do not enable customers to build and train dual-use foundational or advanced AI models.

For example, certain enterprise Software-as-a-Service (SaaS)-based solutions allow customers to train their own AI models for commercial applications such as predicting financial pipelines, lead generation, and identifying contacts likely to close a deal. However, customers cannot build or train an AI foundation model using typical CRM, ERP, database management or other enterprise software services, as such services do not provide sufficient computational capacity and are tailored for narrow commercial purposes.

Similarly, commercial Platform-as-a-Service (PaaS) or Integration Platform as a Service (iPaaS) software in enterprise software services, even when powered by LLM AI models, is designed for customizing, configuring and building business applications, and does not provide broad and open foundational AI model creation capabilities.

Finally, we also note that the aforementioned enterprise software solutions are often offered as SaaS, such that no export of software is involved. Even where these solutions involve the export of software, such commercial software is commonly designated EAR99 or qualify as mass market software as they do not incorporate advanced encryption or technologies. These software service offerings therefore have not historically warranted significant export controls given the nature of the software and services involved.

For the foregoing reasons, we caution the Bureau against the broad application of controls to “cloud services,” and we emphasize the importance of maintaining clear exclusions for commercial cloud-based offerings and AI applications common in providing enterprise software services. These types of services pose no risk from a national security standpoint, and the imposition of export controls on these categories of services would only inhibit the operations of the many US companies that use or provide them.

V. Conclusion

Thank you for the opportunity to provide this submission. We hope that BSA can serve as a resource to BIS in these cloud and enterprise technology areas, which are characterized by rapid innovation and change. Please direct any additional any questions or comments to Joseph Whitlock, Director, Policy (josephw@bsa.org).