COMMONWEALTH OF MASSACHUSETTS

APPELLATE TAX BOARD

AKAMAI TECHNOLOGIES, INC. **v.** **COMMISSIONER OF REVENUE**

and

BOARD OF ASSESSORS OF THE CITY OF CAMBRIDGE, INTERVENOR

Docket Nos. C332360
C334907
C336909

Promulgated:
December 10, 2021

These are appeals filed by Akamai Technologies, Inc. ("Akamai" or "appellant") under the formal procedure pursuant to G.L. c. 58A, §§ 6 and 7, G.L. c. 62C, § 39(c), and G.L. c. 58, § 2 from the refusal of the Commissioner of Revenue ("Commissioner"): (i) to abate corporate excise assessed against the appellant for the tax years ended December 31, 2010 through December 31, 2012 ("tax years 2010-2012");[1] and (ii) to classify Akamai as a manufacturing corporation in the Commissioner's annual List of Corporations Subject to Taxation in Massachusetts required pursuant to G.L. c. 58, § 2 ("Corporations Book") published in 2017 (effective January 1, 2017) and in 2018 (effective January 1, 2018). The Board of Assessors of the City

[1] Penalties were also at issue for tax year 2010.

of Cambridge ("Intervenor") intervened in these appeals as they relate to the appellant's classification as a manufacturing corporation.

Chairman Hammond heard the appeals and was joined in the decision for the appellant by Commissioners Rose, Good, Elliott, and Metzer.

These findings of fact and report are made at the requests of the appellant, the appellee, and the Intervenor pursuant to G.L. c. 58A, § 13 and 831 C.M.R. 1.32.

Joseph X. Donovan, Esq., *Richard L. Jones,* Esq., *Nicholas M. O'Donnell,* Esq., and *Caroline A. Kupiec,* Esq. for the appellant.

Celine E. de la Foscade-Condon, Esq., and *Brett M Goldberg,* Esq. for the appellee.

Anthony M. Ambriano, Esq. for the Board of Assessors of the City of Cambridge.

FINDINGS OF FACT AND REPORT

INTRODUCTION

The issues before the Appellate Tax Board ("Board") are whether, pursuant to G.L. c. 63, §§ 38 and 42B and G.L. c. 58, § 2, the appellant should have been treated as engaged in manufacturing for the tax years 2010 through 2012, and should have been classified as a manufacturing corporation commencing January 1, 2015, and in particular for 2017 and 2018

(collectively, all years will be referred to as the "periods at issue").[2]

These appeals were presented to the Board through: a Statement of Agreed Facts with exhibits; the testimony of fact witnesses and an expert witness; video demonstrations and the introduction of additional exhibits at the hearing of the appeals; and post-trial briefs and reply briefs.

The appellant presented five witnesses at the hearing, including four officers of Akamai: (i) Dr. Alejandro Caro, Vice President of Open Platform and Product Experience; (ii) Craig Adams, Senior Vice President and General Manager of Akamai's Web Security and Web Performance Business Units ("Web Security and Performance Officer"); (iii) Dr. Elizabeth Borowsky, Senior Vice President of Platform Engineering; and (iv) Laura Howell, CPA, Vice President of Corporate Finance. Additionally, Akamai offered David William Tollen, Esq., who was qualified by the Board as an expert in information technology contracts in the information technology ("IT") industry.

[2] A previously contested issue as to whether the appellant should have included research and development cost reimbursements in the numerator of its Massachusetts sales factor for the tax years 2011 and 2012 was conceded by the Commissioner prior to the hearing of the appeals. Penalties assessed by the Commissioner pursuant G.L. c. 62C, § 35A ("Section 35A") for the tax years 2011 and 2012 were also abated by the Commissioner in full on October 30, 2019, after the commencement of the hearing. Accordingly, these two issues were not before the Board.

On the basis of the evidence of record, the Board made the following findings of fact.

JURISDICTION AND BACKGROUND

I. Classification as a Manufacturing Corporation

A. Initial Determination

On August 14, 2014, after its new tax director determined that Akamai qualified for manufacturing corporation status under Massachusetts law, the appellant submitted a Form 355Q, Statement Relating to Manufacturing Activities ("Form 355Q"), to the Commissioner, seeking the Commissioner's official determination of its classification as a manufacturing corporation. In its application, Akamai pointed out that the Internal Revenue Service had found it to be a manufacturer of internally developed software eligible to claim the domestic production activities deduction under Internal Revenue Code Section 199, because Akamai's internally developed software was comparable to the software as a service ("SaaS") programs available from its competitors in tangible format and its software platform networks performed virtually all of the same functions as tangible software packages.

The Commissioner granted the appellant's request, indicating in a letter to the appellant dated November 20, 2014,

from the Supervisor of the Audit Division's Filing Enforcement Bureau that Akamai would be classified as a manufacturing corporation for purposes of state and local taxation effective January 1, 2015, in the absence of any significant change in activities. At the same time, the Intervenor was notified that Akamai had been classified as a manufacturing corporation effective January 1, 2015. The appellant was subsequently listed in the Corporations Book published for 2015 (effective January 1, 2015) and for 2016 (effective January 1, 2016).

B. Revocation

Only four days after the appellant was notified of its classification as a manufacturing corporation, another section of the Audit Division requested copies of the appellant's "Manufacturing Case Folder" in connection with an audit, discussed below, of the appellant's Massachusetts corporate excise returns for the tax years 2011 and 2012, which had been commenced by the Commissioner on February 25, 2014. Shortly thereafter, on January 5, 2015, the Commissioner's Office of Appeals requested the Manufacturing Case Folder in connection with an abatement application that the appellant had filed for the tax year 2010, also discussed below.

According to an Audit Log entry dated January 29, 2015, the Audit Division was having reservations about whether the

appellant was manufacturing software because "they [were] exclusively an Internet service provider of cloud computing services [and] their research of new software [was] exclusively for their own internal purposes so that they [could] provide new and better services to their customers." [3]

At the end of the following year, by email dated December 19, 2016, the Director of the Audit Division's Business Income Audit Bureau instructed the Commissioner's Taxpayer Service Division to revoke the appellant's manufacturing classification effective January 1, 2015. By letter dated December 20, 2016, the Commissioner notified the appellant that its manufacturing classification had been retroactively revoked effective January 1, 2015 for local tax purposes, and that the Department of Revenue might also review assertion of manufacturing status on previously filed corporate excise returns. A copy of the revocation letter was provided to the Board of Assessors of the City of Cambridge. Thereupon, for the fiscal years 2016, 2017, and 2018, the Board of Assessors of the City of Cambridge

[3] Later, in advance of a hearing regarding Akamai's abatement application for the tax year 2010, the tax examiner assigned to the audit of the appellant's corporate excise returns for the tax years 2011 and 2012 advised the Office of Appeals in a letter dated April 6, 2015, that the manufacturing classification issue for the tax years 2011 and 2012 would "have an Abatement Impact of an Estimated $9,000,000 dollars [*sic*] to be refunded to Akamai (emphasis in original)." The examiner pointed out that Akamai had filed both its Federal and State returns as "a computer service provider, cloud computing services, etc. not as a computer software manufacturer/developer (emphasis in original)."

assessed personal property taxes on certain personal property owned by Akamai in Cambridge, which are the subject of separate appeals before the Board to which the Commissioner is not a party.

On January 18, 2017, the appellant filed an abatement application appealing the revocation of its classification as a manufacturing corporation. Following a conference conducted by the Office of Appeals on February 15, 2018, the Commissioner issued a Letter of Determination dated May 11, 2018, in which the Commissioner notified the appellant that the revocation of its manufacturing classification was proper – stating, *inter alia*, that the appellant operated a network of servers around the world and rented capacity on them to customers, and provided "valuable services to its customers which [were] made possible by its internally developed software."

C. Appellate Tax Board Appeals

While the appellant's appeal was pending before the Office of Appeals, the appellant filed two Petitions under Formal Procedure with the Board regarding the Commissioner's revocation of its classification as a manufacturing corporation. On April 21, 2017, the appellant filed a Petition (i) appealing the Commissioner's revocation of Akamai's classification as a manufacturing corporation and his failure to classify Akamai as

a manufacturing corporation as of January 1, 2017, and (ii) requesting that the Board issue a decision determining Akamai to be classified as a manufacturing corporation as of January 1, 2017, and all other relevant periods. On April 26, 2018, the appellant filed a similar Petition regarding Akamai's classification as a manufacturing corporation as of January 1, 2018. At the time of the filing of these Petitions, the Corporations Books for each year at issue had not yet been published.

General Laws c. 58, § 2 provides that any corporation aggrieved by its classification appearing in the Commissioner's Corporations Book for the current year "may, on or before April thirtieth of said year or the thirtieth day after such list is sent out by the commissioner, whichever is later, file an application with the appellate tax board on a form approved by it, stating therein the classification claim." *See* 830 C.M.R. 58.2.1(10).

The appellant's appeals were filed before April thirtieth of 2017 and 2018, respectively, and as noted, the Corporations Book for each of these years had not yet been published. Accordingly, the Board found and ruled that it had jurisdiction to hear and decide the appellant's appeals relating to its

classification as a manufacturing corporation as of January 1, 2017 and January 1, 2018.

II. Corporate Assessments

A. Tax Year 2010

On September 15, 2011, the appellant filed its 2010 Form 355, Massachusetts Business or Manufacturing Corporation Excise Return, using a three-factor apportionment formula pursuant to G.L. c. 63, § 38 ("Section 38").

On October 14, 2014, after having filed its Form 355Q seeking classification as a manufacturing corporation but before having received the Commissioner's favorable determination, the appellant filed an Application for Abatement/Amended Return for the tax year 2010, amending its 2010 Massachusetts Form 355 to, *inter alia*: (i) report a Federal change from an audit completed on May 16, 2014 affecting the determination of its Massachusetts tax liability; (ii) identify itself as a manufacturing corporation within the meaning of G.L. c. 63, § 38(1)(1) ("Section 38 manufacturer"); (iii) apportion its taxable net income using single sales factor apportionment as required for Section 38 manufacturers; (iv) claim the investment tax credit available because it was substantially engaged in manufacturing in Massachusetts; and (v) request a refund of tax in the amount of $2,470,796, plus accrued interest. However, the abatement

application was filed beyond the period allowed for claiming a refund in excess of the amount due on account of the federal change, and the appellant's refund request was subsequently limited to the additional corporate excise attributable to the federal change.

On November 25, 2014, the appellant's 2010 abatement application was referred by the Commissioner's Customer Service Bureau to the Office of Appeals for a hearing. Prior to acting on this application, and prior to the revocation of Akamai's classification as a manufacturing corporation, the Commissioner issued a Notice of Assessment on November 30, 2015, for the tax year 2010, reflecting a corporate excise deficiency assessment in the amount of $206,734, attributable entirely to the Federal change, plus interest and a late payment penalty.

Over two years later, on May 29, 2018, following a hearing conducted by the Office of Appeals on February 15, 2018, the Commissioner issued a Letter of Determination informing the appellant that its requested abatement had been denied, stating that because the Commissioner had determined that Akamai was not engaged in manufacturing within Massachusetts in 2015, its same activities conducted during the tax year 2010 were not considered manufacturing. A Notice of Abatement Determination reflecting the denial was issued on the same date.

B. Tax Years 2011 and 2012

On September 15, 2012, the appellant filed its 2011 Form 355, Massachusetts Business or Manufacturing Corporation Excise Return and, on October 15, 2013, the appellant filed its 2012 Form 355U, Massachusetts Excise for Taxpayers Subject to Combined Reporting, in each case using a three-factor apportionment formula pursuant to Section 38.

On February 25, 2014, the Commissioner commenced an audit of the appellant's Massachusetts corporate excise returns for the tax years 2011 and 2012, notice of which was provided to the appellant on February 28, 2014. The audit commenced before the appellant's filing on August 14, 2014 of its Form 355Q seeking an official determination of its classification as a manufacturing corporation, and also before the appellant had filed its amended 2010 Massachusetts corporate excise return.

On April 7, 2015, during the course of the audit and after the Commissioner had determined that, effective January 1, 2015, the appellant qualified as a manufacturing corporation, the appellant filed an Application for Abatement/Amended Return, amending its 2011 Massachusetts Form 355 and its 2012 Massachusetts Form 355U to, *inter alia*: (i) report a Federal change from an audit completed on December 23, 2014 affecting the determination of its Massachusetts tax liability; (ii)

identify itself as a Section 38 manufacturer; (iii) apportion its taxable net income using single sales factor apportionment as required for Section 38 manufacturers; (iv) claim the investment tax credit available because it was substantially engaged in manufacturing in Massachusetts; and (v) request a refund of tax of $1,804,230 for 2011 and of $4,180,648 for 2012, plus accrued interest.

After filing these amended returns, Akamai received a document request from the Audit Division dated April 22, 2015, requesting copies of sales contracts and related invoicing for various Akamai "services" and written descriptions of the business functions of certain of its departments and groups. Akamai's Vice President of Corporate Finance testified that Akamai understood from this inquiry that the Commissioner might not adhere to his classification of Akamai as a manufacturing corporation and, therefore, although the company recognized its obligation to charge and collect sales tax on its software products sold to customers, it decided to wait until the issue had been resolved with the Audit Division before beginning to charge and collect sales taxes that it might be required to refund. She indicated, however, that starting with the fourth quarter of 2014, Akamai annually recorded an accrual for potential sales tax liability, an amount determined taking into

account that certain of their customers were self-assessing the sales tax.

Over two years later, following an audit exit conference held on February 21, 2017, the Audit Division advised the appellant in a letter dated May 23, 2017, that the Commissioner had determined that Akamai was not a manufacturer, noting, *inter alia*, that it provided "services for accelerating and improving the delivery of content and applications over the Internet," and did not license its software. The Audit Division described proposed audit adjustments and indicated the Commissioner's intent to assess a 20 percent substantial understatement penalty pursuant to G.L. c. 62C, § 35A ("Section 35A") for each of the tax years 2011 and 2012. In response, the appellant submitted a letter to the Commissioner's Audit Division on June 27, 2017, providing additional information and seeking a waiver of the Section 35A penalties. By letter dated August 21, 2017, the Audit Division advised the appellant that reasonable cause had not been demonstrated and that the appellant's request to waive the Section 35A penalties had been denied.

On September 1, 2017, the Commissioner issued a Notice of Intent to Assess additional corporate excise, a Section 35A penalties, and interest as a result of his audit findings for each of the tax years 2011 and 2012. Separate Notices of

Assessment issued on October 2, 2017 showed a current balance due of $997,397.48 (including tax of $676,900) for the tax year 2011 and a current balance due of $860,829.97 (including tax of $604,648) for the tax year 2012. The assessments were based in part on the addition to the numerator of the appellant's Massachusetts sales factor of intercompany research and development cost reimbursements and intercompany management fees.

On December 1, 2017, the appellant filed an abatement application appealing the Commissioner's corporate excise assessments for the tax years 2011 and 2012, stating that the appellant qualified as a manufacturing corporation entitled to single sales factor apportionment and that its sales factor had erroneously been adjusted by sourcing research and development cost reimbursements to Massachusetts.

Following a hearing conducted by the Office of Appeals on February 15, 2018, the Commissioner issued a Letter of Determination dated May 29, 2018, informing the appellant that its requested abatements with respect to its refund claims and appeals of corporate excise deficiency assessments for the tax years 2011 and 2012 had been denied, and that Section 35A penalties would be imposed. The Commissioner advised the appellant that because the Commissioner had determined that

Akamai was not engaged in manufacturing within Massachusetts in 2015, its same activities conducted during the tax years 2011 and 2012 were not manufacturing. Notices of Abatement Determination for each of the tax years 2011 and 2012 were issued on the same day, May 29, 2018.

C. Appellate Tax Board Appeals

Following receipt of adverse Notices of Abatement Determination dated May 29, 2018, relating to its abatement applications for the tax years 2010, 2011, and 2012, the appellant timely filed a Petition under Formal Procedure with the Board on July 26, 2018, seeking an abatement of its corporate excise for the tax years 2010 through 2012. More particularly, it sought an abatement and refund of its corporate excise overpayment in the amount of $5,984,878 and an abatement of additional corporate excise assessed by the Commissioner in the amount of $1,281,548, plus interest and penalties.

Based on the foregoing facts, the Board found and ruled that it had jurisdiction to hear and decide the appellant's appeals relating to the tax years 2010, 2011, and 2012.

CLASSIFICATION AND STATUS ISSUES

I. Overview of the Business

Akamai was founded in 1998 and incorporated in the state of Delaware. During the periods at issue, its corporate headquarters were located in Cambridge, Massachusetts, and it maintained another Massachusetts location in Westford. At all times relevant to these appeals, Akamai provided software-based solutions for accelerating, managing, and improving the delivery of web and media content over the Internet. The Annual Reports on Form 10-K ("Annual Reports") that Akamai filed with the U.S. Securities and Exchange Commission for 2010, 2011, and 2012 stated, in a section giving an overview of the company's business, that Akamai provided "services for accelerating and improving the delivery of content and applications over the Internet." Its 2016 and 2017 Annual Reports stated more descriptively that Akamai provided "cloud services for delivering, optimizing and securing content and business applications over the Internet." Unlike providers of infrastructure as a service, Akamai did not offer its customers access to its computer hardware, where they could run their own software applications or store their content.

Akamai operated in a "business unit structure" during the periods at issue, *i.e.*, its product design and sales operations

were divided into a number of different business units — specifically: Web Experience, Media, Emerging Products/Enterprise, Security, Services, Government Custom Engineering, Custom Engineering, Carrier Products, and Other. The parties agreed that the Web Experience, Media, and Emerging Products/Enterprise business units (collectively, the "CDN business units") were the focus of these appeals. As indicated by product line revenues stipulated to by the parties, in the tax years 2010 and 2011, Akamai derived 92 percent of its total revenues from its CDN business units and, in 2012, 2016, and 2017, 89 percent, 71 percent, and 66 percent, respectively. Except for a small portion of the revenues realized by the Media business unit from the sale of Akamai's NetStorage product, estimated by its Web Security and Performance Officer to range between 10 percent and 15 percent of that unit's revenues, almost all of the revenues that Akamai derived from its CDN business units were attributable to the sale of software products (the "CDN Software Products").

Akamai's software components and systems were paired with its extensive worldwide network of servers. Software designed and developed by Akamai was packaged so as to enable customers to choose software solutions powered by different software components, based on their individual business needs and

strategies. Akamai's officers testified that Akamai's software was pre-written and standardized — *i.e.*, "a software for all customers." With little or no interaction with Akamai or its personnel, Akamai's cloud-based software packages made available to customers virtually all of the same functions offered by tangible software packages or available by download to a customer's server.

Akamai's software architects, software engineers, and quality assurance personnel designed, developed, and tested the software distributed across Akamai's network of servers. The software development process was ongoing, to ensure that Akamai's software components and systems were performing in the desired fashion. Akamai's Web Security and Performance Officer testified that, from 2018 forward, Akamai employed about 2,000 software engineers, in contrast to 200 to 300 professionals who were employed to support its hardware. These proportions were not materially different throughout the periods at issue. Software architects designed new functionalities; software engineers wrote the source code necessary for their implementation; and quality assurance engineers tested the performance of the enhancements to make sure the desired functionality was achieved. During the testing process, component versions were bundled into a software release that,

upon completion of testing, was installed in phases on Akamai's network by its platform operations system engineers. New software products as well as software updates were made available to Akamai's customers, and its updates were seamless — a benefit not available to purchasers of tangible software packages or downloadable software.

Costs related to the development of "internal-use software" used by Akamai both to deliver its products and operate its network were indicated in the Form 10-K Annual Reports that Akamai filed for the corporate fiscal years relevant to these appeals. Akamai's Vice President of Corporate Finance explained in her testimony that, under generally accepted accounting principles, the term "internal-use software" referred to both (i) software that a company developed and used to provide an SaaS solution to a customer, and (ii) software developed for a company's own internal operations, such as for use in its administrative functions. Resources dedicated to the former exceeded those dedicated to the latter, and for the relevant years, "amortization of internal-use software" represented between 8 percent and 12 percent of Akamai's total reported "cost of revenue."

Purchasers of Akamai's CDN Software Products were generally billed monthly based on usage measured by megabits per second,

gigabytes delivered, or million page views — *i.e.*, on the amount of a customer's network traffic that was moved, directed, and/or managed. Typically, customers purchased an Akamai solution for a year or more, and paid a basic monthly fee that reflected anticipated usage; additional usage incurred an additional fee. Customer order forms indicated: the measure of usage; minimum usage, if any; the billing rate or rates; and any platform and other fees.

II. The Intelligent Platform

Akamai's sophisticated software technology, most importantly, as well as the expansive network infrastructure of servers on which it resided (together referred to by the appellant as its "Intelligent Platform") were the foundation of its business. In the tax year 2010, Akamai deployed over 80,000 servers located in over 900 networks around the world, with coverage increasing to over 125,000 servers in over 1,100 networks around the world in the tax year 2012. By 2017, Akamai had many more servers deployed in more than 1,700 networks across more than 130 countries. Akamai's servers, known as "edge servers", were tied together with complex software algorithms that ran automatically. They were principally owned and operated by Akamai.

Customers of Akamai's CDN business units were themselves unable to access or use these servers, which were spread around the world to house Akamai's extensive software components accessed and used by its growing customer base. Akamai's platform of servers was managed by network operation command centers ("NOCCs") which were staffed round-the-clock by professionals. These centers monitored and reacted to Internet traffic patterns and trends. During the periods at issue, one NOCC was located in Cambridge, Massachusetts.

The software that was housed on Akamai's servers consisted of five major interconnected functional components, known as the Luna Portal, GHost (Global Host), Mapper, DDC (Distributed Data Collection), and SysComm (System Communications). Akamai's Web Security and Performance Officer testified that, while Akamai could effectively operate on approximately half as many servers and could acquire new hardware if the entirety of its server network collapsed, the software capabilities that Akamai had spent over two decades developing could not so easily be replaced.

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The Luna Portal, referred to as the "Luna Control Center"[4] and, after the periods at issue, as the Akamai Control Center, was the interface software that acted as the main point of contact between Akamai and its customers. The Luna Portal gave Akamai's customers the ability, on their own, to engage and configure the underlying operating software components of its Intelligent Platform. Akamai's Web Security and Performance Officer testified that, from its inception, Akamai designed its software to be self-service.

Using the Property Manager feature of the Luna Portal or its earlier version, the "Configuration Manager," customers could control how their content and applications would be delivered to their customers, the end-users. Through the Luna Portal, customers could also plan and manage on-line events; self-diagnose and resolve website, application, and media delivery issues in real time; and configure reports giving key metrics such as traffic volume and audience demographics. Although Akamai customers could secure access to Akamai's interface software by navigating to its website through their web browser and logging in to their customer account with a user

[4] In the description of Akamai Services dated December 30, 2011, Akamai's customer portal is stated to be the "EdgeControl Management Center." In the October 5, 2012 revision of Akamai Services, the customer portal is stated to be the "Luna Control Center," the name referenced for purposes of these appeals. The Luna Control Center was launched in 2012 as a "reskinning of an already-massive codebase."

name and password, access was also available through an application programming interface.

Through configurations entered in the Luna Portal, the GHost software retrieved digital content and delivered it to end-users as directed by Akamai's customers. It was also through the GHost software that customer content could be temporarily replicated (cached) on servers close to anticipated end-users from which the content could be delivered, although customers were able to choose instead to require Akamai to pull content directly from their own origin servers.

The Mapper control system determined the most efficient routing and delivery of a customer's content in response to end-user requests, and the most appropriate server from which to retrieve a customer's content so as not to overload any one server. Customers could configure the Mapper software by flagging content, such as a large software download, to be treated with lesser priority for speed of delivery.

Akamai's DDC software tracked, collected, and processed customers' traffic log data and produced customer invoices. Through configurations entered in the Luna Portal, customers could request various types of reports and information, including diagnostic reports measuring end-user experience and software performance.

The final interconnected component of Akamai's Intelligent Platform, its SysComm software, facilitated communication between multiple Intelligent Platform software components. It would, for example, convert customer configurations entered in the Luna Portal into configuration files readable by the GHost software.

Customers were unaware of the various components and functions of Akamai's Intelligent Platform. They sought out Akamai for its seamlessly updated self-service software solutions, which they could independently access and configure to best suit their business needs.

III. The CDN Software Products

Instead of marketing its software solutions as a single product, as it had prior to the periods at issue, Akamai bundled its software products in different ways to create offerings suited to customer types. It began to sell more streamlined software products offering separate, discrete capabilities, or a specific subset of software functions geared toward specific industry groups. Akamai's Web Experience, Media, and Emerging Products/Enterprise business units sold the CDN Software Products, and its sales personnel assisted customers in selecting CDN Software Products best suited to their needs.

The Web Experience business unit was essentially designed for customers — particularly e-commerce vendors — wanting to make their websites fast and reliable. Among the users of Akamai's Web Experience packages were Staples, Inc. and Vitamin Shoppe. Others, such as IBM Global Services, purchased these packages for resale to their own customers. During the periods at issue, the products of the Web Experience business unit evolved over time – gradually changing in scope and identity. Akamai's Web Security and Performance Officer described products marketed under three different names. All offered core content delivery software capabilities found originally in Akamai's "EdgeSuite" software. The basic product, "Dynamic Site Delivery," also allowed customers to replicate their content and applications temporarily on Akamai's network. "Dynamic Site Accelerator" offered more features, enabling customers to increase the speed and reliability of their content. "Ion" added other features such as adaptive image compression, and the ability to direct content to end-users before being requested to do so. Akamai's Web Security and Performance Officer testified that at least 98 percent of the Web Experience business unit's revenues derived from Akamai's CDN Software Products during the periods at issue.

Akamai's Media business unit was designed primarily for businesses wanting to stream media, including broadcast networks, and software companies selling software by download or remotely. The offerings of the Media business unit became more expansive and diverse over the periods at issue. In the tax years 2010 and 2011, Akamai's "Media Delivery" solution allowed customers to bypass internal constraints to better handle peak traffic conditions, and included a platform designed to enable customers to offer live and on-demand high-definition video to viewers on-line in one format, regardless of the device used by site visitors. In those same years, Akamai's "Electronic Software Delivery" solution facilitated the distribution of a customer's content in a manner designed to withstand large surges in traffic. An incremental product gave customers the ability to determine whether or not downloads had been received.

In the later years, Akamai's Media business unit offered more focused products, marketed under various names, including "Media Services," "Media Analytics," and "Download Delivery." As a minor portion of its business, the Media business unit also offered NetStorage, which provided persistent, replicated storage of web content and which was not considered to be a CDN Software Product. Akamai's Web Security and Performance Officer testified that approximately 85 percent to 90 percent of the

Media business unit's revenues derived from Akamai's CDN Software Products during the periods at issue.

New innovations were the subject of Akamai's Emerging Products/Enterprise business unit. The Emerging Products business unit, which derived revenue during the tax years 2010, 2011, and 2012, sold new innovations – all software products. Akamai's Enterprise business unit, which derived revenue in 2016 and 2017, offered solutions designed to make organizations more secure.

IV. Other Products

Akamai derived some revenue from the operation of other business units during the periods at issue – principally its Security, Services, Government Custom Engineering, and Carrier Products business units, some of whose offerings were purchased separately by customers that bought its CDN Software Products.

Akamai derived a small, but increasing, share of its revenues from its Services business unit, which separately sold enhanced support services as well as training and configuration services. Customers could optionally purchase these services, for which they were billed separately.

In general, less than 1 percent of the revenues that Akamai derived during the periods at issue came from its Carrier Products business unit, which marketed "on-premise" content

delivery software that customers could download. Akamai's so-called net operator solutions, dating back to 2011, grew in number and scope over these periods, and included its "Aura" product offerings.

The parties agreed that the revenues derived by Akamai from the operation of its Security, Services, Government Custom Engineering, and Carrier Products business units were not at issue in these appeals.

V. Product Functionality and Access

Various customer information documents described the numerous functionalities that were available to purchasers of Akamai's CDN Software Products, as well as their accessibility. A product brief for the Luna Control Center (the Luna Portal) explained that "Luna [made] it easy for businesses to configure their Akamai services, monitor performance, analyze traffic, and resolve end user issues – all in real time." Regarding the Luna Property Manager in particular, it pointed out that through this function customers could "easily create, edit, and deploy their Akamai service configurations on their own, without having to involve Akamai support teams."

Various drop-down menus, templates, and test fields were available in the Luna Portal. Using the Luna Property Manager's "if/then" logic, customers dictated how their CDN Software

Product would respond to end-user requests and perform other functions. Only a limited number of advanced features were not directly available to a customer. The desired configurations (business rules) set by a customer were saved and activated in the Luna Portal, and once deployed to Akamai's servers were executed automatically without involvement from Akamai or its personnel. Akamai's CDN Software Products could not function until customers set the initial configurations through the Luna Portal – configurations that they could later modify as often or as infrequently as desired to suit their own particular needs, and which they tended to update frequently.

After having completed an initial configuration process, customers were asked to implement a change in their Domain Name System, so that end-users could be re-routed to Akamai's servers. This change also allowed Akamai to pull content from the origin servers of customers who chose not to authorize the caching of their content on Akamai's servers.

The CDN Software Product that a customer purchased determined the specific capabilities that the customer was able to configure. Among the many available functions were the ability to specify: (i) the particular digital content to be served when an end-user's request met various criteria; (ii) the resolution of videos and images to be delivered based on an end-

user's device and quality of Internet connection; (iii) what digital content requests from end-users in specific countries were to be denied; and (iv) whether to keep or erase a temporary copy of specified digital content. The encryption of digital content to make digital data transferred more secure was another option available to customers, who could also request information on how quickly their digital content was delivered in response to end-user requests, and define and direct quality assurance tests to be run to ensure that their digital content was functioning appropriately.

Notably, these functions – known as redirect, adaptive image compression, deny access by location, caching or purge caching, certificates (at the core of encryption systems), performance testing, and test center – were available for purchase from other vendors of standardized software, whose products were marketed in tangible format, were downloadable, or were remotely accessible. Akamai's officers testified that: (i) Apache's software allowed purchasers to redirect content and create and control the cache of their content; (ii) IBM WebSphere included a redirect functionality; (iii) adaptive image compression packages were available from others; (iv) MaxMind allowed customers to discern the location of an

end-user; and (v) both Dynatrace and Selenium software offered quality assurance testing capabilities.

Akamai's Web Security and Performance Officer analogized Akamai's core software service platform to other remotely-accessed SaaS products — in particular, Intuit which marketed TurboTax and salesforce.com which marketed customer relationship management software.

Customer case studies posted on Akamai's website reflected the various solutions that Akamai could provide. An advertising agency headquartered in Dublin, Ireland, for example, chose Akamai's Media Delivery, Web Performance, and NetStorage solutions to facilitate its delivery of high-quality on-line and mobile advertising to some of the world's largest gaming companies. According to the agency's CEO, the agency "[used] a distributed architecture for [its] ad servers, and Akamai [enabled the company] to select from the closest server in order to further improve response times." Another case study indicated that, using Dynamic Site Accelerator and NetStorage, the Virginia Department of Elections was able to reduce its server load and handle a large increase in average traffic during a June primary election. The study concluded that based on its success using these products, the Virginia Department of Elections was "evaluating the use of other Akamai services."

VI. Testimony of the Appellant's Expert

The appellant's expert, David William Tollen, opined that Akamai was a vendor of standardized computer software provided remotely and hosted by Akamai through the Internet. Its business model was SaaS, not infrastructure as a service — *i.e.*, it did not make its servers available for customers to do with what they liked.

Mr. Tollen explained that the critical "prime clause" in an IT contract consisted of the customer's promise to pay and the vendor's promise to provide the subject of the contract. The "prime clause" in Akamai's arrangements with its customers was found both in Section 3.1 of its Terms and Conditions, which indicated "the Services" to be provided, and in its Service Order Forms, which identified the products to be purchased. Mr. Tollen stated that, taken together, these granted to customers "a subscription to computer software, remotely hosted software," giving them full access to and use of Akamai's system, a necessary component of which was the user interface that was "how the user tells the software what to do."

Mr. Tollen stated that remote access to and use of software has come to be known as a "service." He characterized it as "software . . . serving your computers." Unlike a purchaser of software sold in tangible format, a purchaser of

remotely-accessed software did not, according to Mr. Tollen, acquire rights with respect to a copyrighted product. There being neither an intended nor an actual transfer of "a copy of software or any possession of the technology to the customer," he indicated that it would be incorrect as a legal matter to license the software. Moreover, regarding the colloquial use of the term "sale," Mr. Tollen stated that the IT industry was very cautious about using that word "because of the intellectual property implications it [had]."

With respect to the billing methods employed by cloud services vendors, Mr. Tollen testified that they were "unusually flexible because of the unique nature of their business," citing a number of different pricing methods, including per seat, per concurrent users, and per location charges. Although Akamai employed a few different billing metrics, all of them, according to Mr. Tollen, measured the amount of content processed by Akamai's software in one way or another — *i.e.*, how much valuable use a customer derived from a software product. He described Akamai's billing methodologies as an example of value or consumption-based pricing, like per transaction billing used by some providers of SaaS.

VII. The Board's Findings

Based on the evidence presented and the reasonable inferences drawn therefrom, and for the reasons set forth in the Opinion below, the Board found and ruled that: (i) for the relevant periods, the revenues from the appellant's CDN business units were derived from the development and sale of standardized computer software within the meaning of G.L. c. 63, § 42B, the use of which was by remote access; (ii) as of both January 1, 2017 and January 1, 2018, the appellant qualified as a manufacturing corporation and should have been classified as such pursuant to G.L. c. 58, § 2 and G.L. c. 63, § 42B; and (iii) the appellant was entitled to status as a manufacturing corporation for the tax years 2010 through 2012 pursuant to G.L. c. 63, §§ 38 and 42B.

The Board based these findings and rulings on numerous documents, including sworn statements in Akamai's Form 355Q, its corporate tax returns and supporting schedules, its Annual Reports, and other exhibits, as well as the credible uncontroverted testimony of Akamai's witnesses. The evidence presented unequivocally established that Akamai engineers created, modified, improved, and oversaw the development and production of standardized software products that were provided to Akamai's customers via an SaaS model to meet the needs of

their respective businesses. In sum, Akamai was engaged in manufacturing in Massachusetts from the commencement of the periods at issue forward, and its manufacturing activities were at all times substantial.

The Board therefore ordered the parties, in accordance with Rule 33 of its Rules of Practice and Procedure (831 C.M.R. 1.33), to compute the amounts to be abated for the periods at issue based on its findings and rulings. On the basis of the parties' Joint Submission in response to the Board's Order Under Rule 33, the Board granted abatements of $206,734, $2,481,130, and $4,785,296, respectively, for the tax years 2010, 2011, and 2012, consisting of overpaid tax amounts of $1,804,230 for the tax year 2011 and $4,180,648 for the tax year 2012, and assessed tax amounts of $206,734, $676,900, and $604,648, respectively, for the tax years 2010, 2011, and 2012.

OPINION

Pursuant to Section 38, a "manufacturing corporation" that derives income from business activity that is taxable both within and without Massachusetts is required to apportion its taxable net income for tax years beginning on or after January 1, 2000, using a single-factor formula, based entirely on its sales, rather than a three-factor formula based upon property,

payroll, and sales, for purposes of determining its Massachusetts corporate excise. G.L. c. 63, § 38(l)(2), added by 1995 Mass. Acts c. 280, § 2.

Section 38 defines the term "manufacturing corporation" as "a corporation that is engaged in manufacturing," and states that:

> In order to be engaged in manufacturing, the corporation must be engaged, in substantial part, in transforming raw or finished physical materials by hand or machinery, and through human skill and knowledge, into a new product possessing a new name, nature, and adapted to a new use.

G.L. c. 63, § 38(l)(1), added by 1995 Mass. Acts c. 280, § 2, as amended by 2008 Mass. Acts c. 173, § 62.

Effective for taxable years beginning on or after January 1, 2006, the statute provides that for purposes of Section 38, "the development and sale of standardized computer software shall be considered a manufacturing activity, without regard to the manner of delivery of the software to the customer." This language, which now appears in G.L. c. 63, § 42B(c) ("Section 42B(c)"), was added to the statute in 2005.[5] Accordingly, a business corporation that both develops and sells standardized computer software will be characterized as a Section 38 manufacturer if its manufacturing activities are "substantial," applying one of four specific tests found in the statute, or if

[5] *See* 2005 Mass. Acts c. 163, §§ 27, 29, and 59; note 6, *infra*.

they are deemed to be substantial under regulations promulgated by the Commissioner. G.L. c. 63, § 38(l)(1); *see* 830 C.M.R. 63.38.1(10)(b)2 and 3; 830 C.M.R. 58.2.1(6)(e)1-3.

Pursuant to G.L. c. 63, § 42B(a), a business corporation that is engaged in manufacturing in the commonwealth, where it has a usual place of business, is also considered to be a "manufacturing corporation," and if classified as such by the Commissioner, may benefit from a limited exemption from local property taxation. All property other than real estate, poles, and underground conduits, wires, and pipes owned by a "manufacturing corporation . . . as defined in section 42B of chapter 63" is exempt from local property taxation if its manufacturing activities performed in the commonwealth are substantial and it is classified by the Commissioner as a manufacturing corporation. G.L. c. 59, § 5, Clause Sixteenth (3) ("Clause 16(3)"); *see* 830 C.M.R. 58.2.1(4)(a) and (6)(a). If the Commissioner classifies a business corporation as a manufacturing corporation (G.L. c. 58, § 2), machinery used in the conduct of the corporation's business is expressly exempt from local property taxation (*see* G.L. c. 59, § 5, Clause Sixteenth (5)). A Section 38 manufacturer that does not apply for manufacturing corporation classification by filing a Form 355Q, or that is not classified by the Commissioner as a

manufacturing corporation, will not be entitled to benefit from the Clause 16(3) property tax exemption, although it will retain its "status" as a Section 38 manufacturer eligible for certain other statutory benefits (830 C.M.R. 58.2.1(5)(a)).

To be classified as a manufacturing corporation by the Commissioner and to qualify for the Clause 16(3) exemption, a Massachusetts business corporation must establish that it is engaged, in Massachusetts, in manufacturing (*see* 830 C.M.R. 58.2.1(6)(a)), applying a regulatory definition of manufacturing (*see* 830 C.M.R. 58.2.1(6)(b) and the provisions of Section 42B(c)), which includes the development and sale of standardized computer software. The corporation's manufacturing activities must also be "substantial." 830 C.M.R. 58.2.1(6)(a)(2); *see also* ***Noreast Fresh, Inc. v. Commissioner of Revenue***, 50 Mass. App. Ct. 352, 354 (2000). A manufacturing activity will ordinarily be deemed to be substantial if any one of four tests can be met, or the Commissioner is otherwise satisfied that the standard has been satisfied. 830 C.M.R. 58.2.1(6)(d) and (e). These four regulatory tests parallel those found in the provisions of Section 38 defining a Section 38 manufacturer, but require that the qualifying activities be conducted in Massachusetts.[6]

[6] There is no dispute that the activities in question in these appeals were in sufficient part performed in Massachusetts to satisfy this requirement.

A corporation's classification as a manufacturing corporation for property tax purposes takes effect on January 1 of a calendar year. A business corporation must apply prior to or during January of the calendar year for which it seeks to be classified as a manufacturing corporation. 830 C.M.R. 58.2.1(7)(b)1. Once granted, the Commissioner may revoke an entity's manufacturing corporation classification for the current year or any open prior tax year if he determines that it was not engaged in manufacturing at any time during that year or those years. 830 C.M.R. 58.2.1(9)(a); *see* ***John S. Lane & Son, Inc. v. Commissioner***, 396 Mass. 137 (1985). This is what the Commissioner chose to do in the instant case.

The parties agreed that if the revenues derived by the appellant from its CDN business unit solutions were found by the Board to derive from the sale of standardized, remotely-accessed computer software, then during the periods at issue: (i) the appellant was engaged in manufacturing activities; (ii) those manufacturing activities were substantial; and (iii) the appellant qualified as a manufacturing corporation and should have been classified as such pursuant to G.L. c. 58, § 2 and G.L. c. 63, §§ 38 and 42B, entitling it to use a single sales factor apportionment formula for purposes of the Massachusetts corporate excise tax and to local personal property tax

treatment under Clause 16(3). The pivotal question before the Board was whether the revenues derived by Akamai from the sale of its CDN Software Products derived from the sale of standardized computer software.

The Massachusetts Legislature has chosen to grant certain tax benefits to corporations that undertake manufacturing activities. While historically, manufacturing was initially limited to traditional smokestack industries, through case law and legislative developments, the meaning of manufacturing has evolved. Consistent with the Legislature's intent to promote "the general welfare by inducing new industries to locate in Massachusetts and by fostering an expansion and development of our own industries" (*see* ***Joseph T. Rossi Corp. v. State Tax Commission***, 369 Mass. 178, 181 (1975)), the Legislature, as previously noted, amended Chapter 63 in 2005 to expand the traditional concept of manufacturing to include the development and sale of standardized computer software, without regard to its manner of delivery to customers. The provisions of the 2005 addition to the statute, now found in Section 42B(c),[7] allow a business corporation to qualify as a Section 38 manufacturer and

[7] The provisions of G.L. c. 63, § 42B applied only to foreign corporations until the repeal of G.L. c. 63, § 38C by 2008 Mass. Acts c. 173, § 66, and the amendment of G.L. c. 63, § 42B by 2008 Mass. Acts c. 173, § 85. Prior to the 2008 legislation, the provision now in Section 42B(c) relating to standardized computer software was also found in G.L. c. 63, § 38C, dealing with the taxation of domestic manufacturing corporations.

to be classified as a manufacturing corporation by the Commissioner if, assuming other statutory and regulatory requirements are met, it can establish, first, that it develops standardized computer software and, second, that it sells that software to customers. As noted, a sale of standardized computer software occurs without regard to the manner of delivery, reflecting an expansive view of transactions that constitute sales.

The evidence presented in these appeals established that during the periods at issue Akamai developed computer software, a conclusion the parties do not dispute. The evidence also indicated that Akamai's CDN Software Products were standardized. They were not designed and developed to the specifications of a specific purchaser. *See* 830 C.M.R. 64H.1.3(2) (defining pre-written computer software, also known as canned or standardized software, for sales tax purposes); *see also* **Directive** 00-1 (addressing the treatment for corporate excise purposes of computer service agreements usually bought with canned software). Purchasers of Akamai's CDN Software Products could and did set their own desired configurations and "interact[ed] with the software in order to reach an objective . . . by navigating, choosing and using tools made available through the

software." *See* **Letter Ruling** 12-10. In sum, remote access to Akamai's standardized software was what its customers purchased.

Akamai also presented credible testimony establishing that the functionalities offered by Akamai's CDN Software Products were found in standardized software products offered by other vendors of software — products that were disseminated in tangible format or by download from the Internet, or that were accessible remotely as well. Among the standardized software capabilities afforded by Akamai's CDN Software Products and available elsewhere were the ability to redirect digital content, control the resolution of images, deny access to certain end-users, direct the temporary storage of content, and perform quality assurance tests.

In the Commissioner's view, there remained the question whether Akamai "sold" its CDN Software Products to customers. Section 42B(c) recognizes software sales without regard to the manner of delivery to a customer. While not expressly referring to an "electronic, telephonic, or similar transfer" — words appearing in the addition to the sales tax statute (G.L. c.64H, § 1) also made by the Legislature in 2005,[8] when transfers of "tangible personal property" subject to the sales tax were extended expressly to include transfers of standardized computer

[8] *See* 2005 Mass. Acts c. 163, §§ 34, 61.

software — the Legislature made it clear by its wording of the provision now in Section 42B(c) that the method of transferring standardized computer software was not a critical element of a sale.

The Legislature contemplated diverse methods of transfer. Interpreting the change made by the Legislature to the sales tax statute in 2005, the Commissioner concluded that transfers of pre-written software subject to the Massachusetts sales tax included "transfers of rights to use software installed on a remote server." 830 C.M.R. 64H.1.3(3)(a); *see also* **Technical Information Release** 05-15. There is no basis for interpreting the concept of "sale" for purposes of Section 42B(c) any differently. "[T]he [corporate excise] statute should be construed, if reasonably possible, to effectuate the legislative intent" (***Commissioner of Revenue v. Houghton Mifflin Co.***, 423, Mass. 42, 47 (1996), quoting ***Joseph T. Rossi Corp.***, *supra* at 181). Moreover, "[t]he statutes granting exemption from the local tax on the machinery of corporations engaged in manufacturing must be fairly construed and reasonably applied in order to effectuate the legislative intent and purpose" (***Assessors of Boston v. Commissioner of Corporations and Taxation***, 323 Mass. 730, 741 (1949); *see also* ***Commissioner of***

Corporations and Taxation v. Assessors of Boston, 324 Mass. 32, 36 (1949)).

During the periods at issue, customers of Akamai obtained access to its CDN Software Products installed on its network of servers and hence software installed on a remote server. Akamai's Service Order Forms, incorporating its Terms and Conditions, gave customers the full benefit of the integrated components of Akamai's software portfolio - more than sufficient to satisfy the sale condition in Section 42B(c).

Although the Intervenor argued otherwise, neither the transfer of title to software nor a license giving possession is required under Section 42B(c). Indeed, the appellant's expert testified that licensing would have been inappropriate for a vendor, such as Akamai, that provides software as a service. Had the Legislature intended an actual transfer of title or a transfer by way of license for corporate excise purposes, it would not have stated that the manner of delivery of the software was irrelevant. Indeed, the Commissioner acknowledged in his post-trial brief that the SaaS business model involved a transfer of property, stating that if a transaction involved a transfer of the right to access software installed on a remote server, the transfer was considered to be a sale of software.

The Commissioner maintained, however, that the implicit nature of what Akamai provided was a service, not a sale of software — noting that Akamai deployed server clusters in multiple locations around the world, as close to end-users as possible, making it possible for customers to enjoy levels of reliability and performance not possible with more centralized data centers. The Commissioner argued that Akamai did not sell the computer software that it developed — rather it used this software and its worldwide network of servers for the purpose of providing services to its customers, who engaged Akamai to deliver their content faster and in a more reliable way. In short, Akamai sold automated services performed by software, like vendors considered in certain private letter rulings issued by the Commissioner — such as, the Commissioner argued, providers of data restoration and cloud computing services found to be exempt from sales taxation. *See* **Letter Ruling** 12-11; **Letter Ruling** 12-8, as revised.

Albeit developed in the context of the sales tax, the Commissioner's own factors distinguishing a taxable sale of pre-written software from a non-taxable sale of services provide little support for his conclusion. These factors were evident in 2013, when the Commissioner issued **Draft Directive** 13-XX, dated February 17, 2013, Criteria for Determining Whether a

Transaction is a Taxable Sale of Pre-Written Software or a Non-taxable Service. Among the factors indicative of a taxable transfer of pre-written software included a customer's ability to: (i) access pre-written software on the seller's server, enter the customer's own information, manipulate it, and/or run reports, and (ii) use software that functioned with little or no personal intervention by the seller or the seller's employees other than "help desk" assistance for customers having difficulty using the software. Though the draft directive was never finalized, these factors, as well as others, can be found in various public written statements issued by the Commissioner both before and after publication of the draft directive, and each favors characterization of Akamai's business as involving taxable transfers of standardized software.

Particularly instructive are cases involving vendors whose customers can "modify the parameters of the [software] Platform to accommodate personal preference and maximize the effectiveness of the solution" (**Letter Ruling** 12-13), or whose customers can "operate, direct, and substantially control the software" (**Letter Ruling** 12-6), where the vendors were found not to be service providers. Nor have vendors whose software products operate on an automated basis with little interaction

with them or their employees (**Letter Ruling** 13-2; **Letter Ruling** 12-10).

Regarding the manner in which a customer obtains access to software, a customer's failure to acquire software by download or to otherwise install software on the customer's own computer or device (**Letter Ruling** 13-2, and **Letter Ruling** 13-5) and the integration of a provider's software platform directly with a customer's software via a plug-in application (**Letter Ruling** 12-13) have not negated a finding that the customer purchased pre-written computer software.

The Commissioner's letter rulings further indicate that the wording of a software provider's contractual arrangements with its customers is not necessarily reflective of the nature of the software solution purchased. While a license may evidence a transfer of property rather than a service (**Letter Ruling** 12-13), a subscription not formally structured either as a license or as a right to use or control software has been found to be sufficient to transfer property (**Letter Ruling** 13-2). Also, the marketing description of a product as "software-as-a-service" does not determine the taxability of the product (**Letter Rulings** 13-5, 13-2, and 12-13). Further, optional services for which a customer is separately charged are disregarded for purposes of determining the character of a

provider's software products (**Letter Ruling** 13-2), while the fact that those products are not designed or modified to meet a customer's particular specifications is indicative of the transfer of a standardized software product, not a service (**Letter Ruling** 17-1).

When considered cumulatively and applied to the present appeals, the various factors provide clear support for the conclusion that Akamai was not a service provider during the periods at issue. These factors minimize the significance of words used in marketing materials, as well as the need for a transfer of software to be by download or in the form of a license or an express right to use. Further, they draw attention to factors present in the instant case, which are indicative of a transfer of property — in particular: Akamai's CDN software products operated almost automatically without the interaction of Akamai's employees; customers entered their own configurations on the Luna Portal, a step required before Akamai's software could respond to requests from a customer's end-users; Akamai charged separately for its personalized professional services; and the software products it sold were not designed or modified to meet the needs of any particular customer.

The Commissioner argued, nevertheless, that Akamai's CDN Software Products and services were so inextricably intertwined that the focus should be on what customers sought, which he characterized as a service. The Commissioner maintained that the object of the transaction test, developed by the Supreme Judicial Court in the context of the sales tax, was relevant for purposes of these appeals as well. In ***Houghton Mifflin Co. v. State Tax Commission***, 373 Mass. 772 (1977), where the characterization of reproduction proofs bought by Houghton Mifflin from independent contractors was at issue, the Court stated:

> [W]here the services and the property are inseparable, because of the integrated nature of the transaction, the character of the transaction must be analyzed to ascertain whether the buyer's basic purpose was to acquire the property which was sold to it, or to obtain the services.

Houghton Mifflin Co., *supra* at 774 (1977). The Court concluded that, although "personal services [were] an important part of the process of preparing reproduction proofs," the publisher "was seeking an end product conforming to its own specifications." ***Id.*** at 775. The sale of personal property not being "inconsequential," the transaction could not be considered one for personal service. ***Houghton Mifflin Co.***, *supra* at 775.

While services were found to be inconsequential in ***Houghton Mifflin***, the Commissioner argued the converse to be true in the

instant case. The Commissioner, although conceding that remote access to Akamai's a Luna software through the Luna Portal involved a transfer of software, maintained that such access was incidental to the faster and more reliable content delivery service that Akamai's customers sought and that Akamai provided.

As a threshold matter, the object of the transaction test set forth in ***Houghton Mifflin*** may well not apply to these appeals. The Supreme Judicial Court explained in ***Browning-Ferris Industries, Inc. v. State Tax Commission***, 375 Mass. 326, 329 (1978), that the test applied where "a single charge was made and 'the services and the property [were] inseparable' because the services created the property." *See* ***Information Services, Inc. v. Commissioner of Revenue***, 48 Mass. App. Ct. 197, 198-99 (1989). In the instant case, the Commissioner does not assert that services created the property sold. Moreover, admitting that Akamai separately billed for its services rendered by its personnel, the Commissioner does not assert that the services sold by Akamai were integrated or bundled with its software products such that the object of the transaction test set forth in his regulation applied. *See* 830 C.M.R. 64H.1.3(14)(a); **Letter Ruling** 13-5, (indicating that where "both services and the right to use software [are] integrated or bundled in one transaction .

. . , the Commissioner looks to an 'object of the transaction test' to determine taxability").

Even assuming that the object of the transaction test is relevant, "when the testimony and written materials [are] 'considered in the broader context of all available facts,'" the evidence clearly establishes that purchasers of Akamai's CDN Software Products bought and intended to buy standardized computer software, rather than a service. *See* ***Citrix Systems, Inc. v. Commissioner of Revenue***, 484 Mass. 87, 96-7 (2020). In substance, Akamai sold access to and the use of standardized computer software to the purchasers of its CDN Software Products, which is exactly what purchasers wanted to buy. It was "the functionality of standardized software that customers [sought] and that enable[d] them to complete specific tasks." ***Citrix Systems***, Mass. ATB Findings of Fact and Reports, at 2018-538, 558, *aff'd*, 484 Mass. 87 (2020). The incidental services provided by Akamai personnel, such as recommendations on what product to buy and help desk assistance, were inconsequential and not relevant to the determination of the issue before the Board. Purchasers of Akamai software bought an end product that they could conform to their own specifications.

The Commissioner also maintained that Akamai held itself out to be a service provider — pointing to customer invoices

describing its charges for "services," and to wording from its public documents and marketing materials. The Commissioner pointed also to the fact that Akamai's large computer server network was expensive — with costs exceeding its software development costs, supporting its conclusion that software was not the critical element of the solutions that it sold to its customers.

However, the amounts that Akamai spent to maintain its network hardware were part of its overhead, which was necessary to its provision of the standardized software products that it sold. *See* ***Citrix Systems***, Mass. ATB Findings of Fact and Reports at 2018-557; *see also* Letter Ruling 12-10 (addressing ordinary and necessary overhead involved in maintaining a network of servers, storage, database and connection).

Moreover, Akamai's use of a layperson's term — the word "services" — when describing its software products is not determinative of the nature of the transactions that Akamai entered into with its customers, nor is the financial reporting description of its "internal-use software" costs. Although the IT industry refers to SaaS products such as Akamai's CDN Software Products as services, and generally accepted accounting principles broadly define internal-use software to include software internally developed to meet an entity's own needs, the

substance of what Akamai sold to its customers is the relevant question. What Akamai in substance sold to purchasers of its CDN Software Products was standardized, remotely-accessed computer software.

As indicated by the Supreme Judicial Court in ***Bell Atlantic Mobile of Massachusetts Corp., Ltd, v. Commissioner of Revenue***, 451 Mass 280, 288 (2008), "where a complex and technical system of regulation and taxation is concerned, the layperson's definition is not controlling." Nor do "[a]ccounting methods or descriptions, without more, . . . lend substance to that which has no substance." *See* ***Bayer Corporation v. Commissioner of Revenue***, Mass. ATB Findings of Fact and Reports 2005-491, 517 quoting ***Frank Lyon Co. v. U.S.***, 435 U.S. 561, 577 (1978); *see also* ***The Interface Group v. Commissioner of Revenue***, Mass. ATB Findings of Fact and Reports 2008-1343, 1359 (indicating that internal accounting practices are not dispositive for tax purposes).

Although dealing with the applicability of the sales tax to subscriptions to on-line software products accessed through downloaded endpoint software, the decisions of the Supreme Judicial Court and this Board in ***Citrix Systems*** are instructive. Customers of Citrix sought remote access to one or more of three standardized software products offered by Citrix, the specific

functions of which varied, but all of which created and maintained a screen-sharing connection between a host computer and one or more remote computers connected to the Internet. The Supreme Judicial Court, agreeing with the Board, concluded that Citrix sold tangible personal property — standardized software — subject to the Massachusetts sales tax, finding an actual transfer of title to or possession of the on-line products to be unnecessary, and dismissing Citrix's argument that the true object of its offerings was the provision of a remote connection service. ***Id.***

Like Citrix, Akamai, during the periods at issue, sold software that resided on its servers. The differences between the business models of Citrix and Akamai do not derogate from this conclusion. The Commissioner makes much of the fact that users of Citrix's products were required to download Citrix's endpoint software on to both the host computer and one or more remote computers, unlike Akamai's customers who were required to delegate to Akamai part of their Domain Name System during the on-boarding process so that end-user requests could be re-routed to Akamai's servers, and Akamai could access requested content not cached on Akamai's servers. The Commissioner also makes much of the fact that Citrix's customers were charged a fixed monthly or annual fee giving an authorized number of users an unlimited

right to "access and use" named Citrix software products during a defined subscription period, unlike Akamai's customers who were charged based on the usage of software products that they typically did not request by name and to which they were not expressly granted the right to access and use. The Commissioner asserted that these factors were indicative of a service. However, Akamai's approach to billing, the details of access procedures, and whether or not customers identified a particular software product by name are not alone determinative of the substance of the transactions entered into between Akamai and its customers, as made evident by the decision of the Supreme Judicial Court in ***Citrix Systems***. Moreover, notwithstanding the Commissioner's suggestion that no generic software vendor obtained direct access to a customer's computer system in order to run the software bought by the customer, the Commissioner has ruled that a provider sold tangible personal property notwithstanding the integration of the provider's platform with a customer's software via a plug-in application, allowing the platform to extract data from the customer's software. *See* **Letter Ruling** 12-13.

The support for the Commissioner's position claimed by both the Commissioner and the Intervenor in the opinion of the Supreme Judicial Court in ***First Data Corp. v. State Tax***

Commission, 371 Mass. 444 (1976), is misplaced. There, the Court found that the operator of an electronic digital computer system was not a manufacturing corporation because, according to the findings of the Board, it "render[ed] a service to customers by supplying them with information or intelligence, for a charge." ***Id.*** at 446. The holding in this 1976 decision is inapposite, not because it interprets prior law, but because the business conducted by First Data was dissimilar to Akamai's. The reports produced for customers of First Data, to which the Commissioner makes reference, were the product of the manipulation of customer information transmitted to First Data's computer for a specific purpose, such as the writing of construction specifications or producing payroll calculations. First Data simply provided the results to its customers for a charge, unlike Akamai which sold software to customers that they could configure for their own particular purposes, including securing reports on completed or failed downloads — reports cited by the Commissioner — that were clearly dissimilar to the results of computer manipulations provided by First Data to its customers.

Recently proposed Federal guidance cited by the Commissioner is also not dispositive of the issue before the Board. In 2019, the U.S. Treasury Department proposed a new regulatory provision (Proposed Treas. Reg. § 1.861-19, 84 Fed.

Reg. 40317), which would classify cloud transactions as either a lease or a service for purposes of various Federal Code provisions relating generally to the foreign activities of U.S. taxpayers. The Commissioner argued that an example in this proposed regulation (Proposed Treas. Reg. § 1.861-19(d), Ex. 9, 84 Fed. Reg. at 40328) supported his position. The example involves a corporation that streamed videos and music to end-users from servers located in a data center owned by a data center operator, whose content delivery network facility serviced multiple customers — including the corporation, which looked to it for storage and computing power required for its content streaming. Although the example concludes that the operator provided a service, this conclusion cannot inform the nature of Akamai's business activities. Apart from the fact that the guidance is merely proposed, and Akamai does not operate a data center, more fundamentally, the proposed regulation seeks to interpret only specific Federal Code provisions bearing no relevance to the Massachusetts corporate excise and local property tax matters before the Board.

Finally, the Board found no basis for the Commissioner's assertion that, because Akamai failed to collect sales taxes on its software products sold to Massachusetts customers once it had been classified as a manufacturing corporation, it

considered itself to be a service provider. Indeed, as a seller of standardized, remotely-accessed computer software, Akamai recognized its obligation to collect sales tax but deferred doing so in light of the Audit Division's almost immediate challenge to its classification as a manufacturing corporation, knowing that it would have a primary obligation to refund sales taxes were they found to have been erroneously collected. *See* **Technical Information Release** 16-12 (indicating that a purchaser seeking a sales tax refund is generally required to request a refund of the amount paid from the vendor, leaving the vendor to seek a refund of the tax from the Department of Revenue).

Based on the evidence presented and the reasonable inferences drawn therefrom, and for the reasons set forth in this Opinion, the Board found and ruled that for the periods at issue, the revenues from the appellant's CDN business units were derived from the development and sale of standardized computer software within the meaning of G.L. c. 63, § 42B, the use of which was by remote access. The Board therefore further found and ruled that (i) as of both January 1, 2017 and January 1, 2018, the appellant qualified as a manufacturing corporation and should have been classified as such pursuant to G.L. c. 58, § 2 and G.L. c. 63, § 42B, and (ii) the appellant was entitled to

status as a manufacturing corporation for the tax years 2010 through 2012 pursuant to G.L. c. 63, §§ 38 and 42B.

Therefore, in accordance with Rule 33 of its Rules of Practice and Procedure (831 C.M.R. 1.33), the Board ordered the parties to compute the amounts to be abated for the periods at issue based on these findings and rulings. On the basis of the calculations submitted by the parties pursuant to the Board's Rule 33 Order, the Board granted abatements aggregating $7,473,160 for the tax years 2010, 2011, and 2012, consisting of overpaid tax amounts totaling $5,984,878 for the tax years 2011 and 2012, and assessed tax amounts of $1,488,282 of the tax years 2010, 2011, and 2012.

THE APPELLATE TAX BOARD

By: */S/ Thomas W. Hammond*
Thomas W. Hammond, Jr., Chairman

A true copy,

Attest: */S/ William J. Doherty*
Clerk of the Board