

Contents

1. Introduction.....	1
2. Description of the Three Approaches	2
3. Comparing and Contrasting the Three Approaches in More Detail	3
4. Comparing the Effect of the Approaches on Tax Administration	7
5. Comparing the Effect on Exemptions, Bundling, and Sourcing.....	9
6. Interaction With the Internet Tax Freedom Act	11
7. How to Successfully Incorporate Digital Products into a Sales and Use Tax Base.....	11
8. Appendix: A Case Study Comparing Definitions of Data Processing Service.....	12

1. Introduction

All states’ sales and use taxes (referred to here simply as “sales taxes”) apply to tangible personal property, generally defined. Their application to other items, including digital products, varies. Sales taxes also vary as to the structure used. Like most taxes, sales tax laws will provide which items are included in the imposition of the tax and which items are exempted from tax.

Where this summary refers to the “tax base,” we are generally referring to the extent to which items are included in the general category of items on which tax is imposed—before any specific exemptions are applied. This summary also discusses the application of exemptions and how they may vary depending on what items are included in the general tax base.

The Three Approaches Matrix

The goal of the matrix is to differentiate between three approaches to developing a sales tax base. The matrix uses a series of topics relevant to tax administrators and taxpayers to explain how the approaches will impact the state’s overall sales tax system. The three approaches are the broad, medium, and narrow. They are each described in detail below.

What the matrix calls the broad approach would typically lead to a broad base, and the narrow approach would ordinarily lead to a narrow base, but not every time. Also, though only three approaches are described here, many more could be identified depending on how granular the description of each approach is. Also, the different approaches overlap, meaning some states’ taxes have concepts and characteristics of more than one approach.

The goal of the matrix is not to dictate direction or develop definitions. However, the philosophy behind each approach does affect the way definitions would be developed. So, development of definitions depends upon the approach chosen. The matrix should help the work group members and other observers to determine the appropriate way forward.

The Matrix Distinguished from the Tax Base Spreadsheet

The matrix and the spreadsheet are both based on comprehensive research into the extent to which state sales tax bases currently include digital products. ‘The spreadsheet’ organizes and presents the research into an Excel spreadsheet. The spreadsheet reflects what is included in the states’ sales tax bases currently, regardless of a state’s approach to building its tax base or how an item becomes included in the tax base. The spreadsheet presents the results of a survey of state taxation of digital products, broadly construed.

The matrix, on the other hand, categorizes states into three general approaches used in building a sales tax base. The matrix then compares these three approaches across several tax administration topics.

This should differentiate between the digital tax base (the spreadsheet) and the approaches (the matrix). More on each approach covered in the discussion below.

2. Description of the Three Approaches

The matrix addresses three general approaches—the narrow, medium, and broad. The prototypical narrow approach is one containing specific definitions that are certain to capture the intended items, but just as certain to never capture any other items that may develop or evolve in the future. A narrow approach may also have a definition or interpretation of the term “tangible personal property” limiting it to something physical.

The typical characteristics of the narrow approach are an insistence on a physical element for tangible personal property and tightly defined services and digital products, regardless of how many are enumerated.

The prototypical broad approach is one with definitions purposefully developed to capture currently identifiable items that is also flexible enough to capture future unidentifiable items. The poster child for the broad approach is the inclusion of tangible personal property in the sales tax base, generally. As various types of products have developed over time, the term “tangible personal property” captures the new products just as it did those that existed when the law was adopted. A broad approach may also have an interpretation of tangible personal

property that includes things that are not physical but can nonetheless be perceived by the senses.¹

The typical characteristics of the broad approach are an expansive interpretation of tangible personal property and definitions of services or digital products purposefully drafted to be flexible and adaptable.

The prototypical medium approach is somewhere in the middle. The definitions and impositions will likely have been developed to capture identifiable items that existed at the time, but not purposefully made to exclude all similar items that might exist in the future.

The typical characteristics of the medium approach are definitions and interpretations of tangible personal property and services that are not as detailed or tight as under the narrow approach but lack the purposeful flexibility of the broad approach.

3. Comparing and Contrasting the Three Approaches in More Detail

This section considers the structure that each approach lends to the sales tax base and will compare the three approaches based on their effect on tax administration.

The Narrow Approach

The narrow approach provides the ultimate in certainty. The Streamlined Agreement and accompanying rules provides the quintessential example of this approach. Streamlined's definitions are specific and loaded with qualifiers. The definitions ensure that the targeted products are captured in all cases, but that no products that were not contemplated during the development of the definition will be captured.

As an example, consider Kentucky's definition of digital audio-visual works, which is based on the Streamlined definition.²

- (a) "Digital audio-visual works" means a series of related images which, when shown in succession, impart an impression of motion, with accompanying sounds, if any.

¹ There are narrow, medium, and broad approaches to defining "tangible personal property."

² Ky. Rev. Stat. Ann. § 139.010(7).

- (b) “Digital audio-visual works” includes movies, motion pictures, musical videos, news and entertainment programs, and live events.
- (c) “Digital audio-visual works” shall not include video greeting cards, video games, and electronic games;

This definition is very detailed, which provides certainty, but also provides limiters on its application. To qualify, the audio-visual work must consist of a series of images, but not just any images, the series must be of related images. Plus, the images must be shown in succession, specifically, in a way to impress motion. On top of this, if there is any sound that accompanies the images, that sound must be included. These limiters and qualifiers ensure that the targeted products are captured, but they also ensure little to no flexibility for adaptation to future products.

The definition of digital audio-visual works also includes two lists. One is a list of items that are included as digital audio-visual works and another of items that are excluded. The excluded items are all items that would qualify as digital audio-visual works if not for the exclusion list, further limiting the applicability of an already narrow, but precise and certain, definition.

For another example, consider Arkansas’s definition of digital audio-visual works.³ Arkansas provides a unique administrative position on digital audio-visual works, through a legal opinion.⁴ The opinion states the definition of digital audio-visual work as “a series of related images which, when shown in succession, impart an impression of motion, with accompany sounds.” The opinion leaves out the “if any” that follows “with accompanying sounds” in the statutory definition. The legal opinion goes on to state that without sound, a product does not qualify as a digital audio-visual work and would not be subject to tax. This is another example how definitions with numerous qualifiers can limit their scope.

The Broad Approach

The broad approach provides the ultimate in flexibility. Washington’s definition of digital automated services is the quintessential example of the broad approach. The definition is flexible and broad. It was likely developed with intended products in mind but was also developed to ensure the capture of other products not contemplated at the time.

Washington’s definition of digital automated services, in relevant part, is as follows:⁵

- (3)(a) “Digital automated service,” except as provided in (b) of this subsection (3), means any service transferred electronically that uses one or more software applications.

³ Ark. Code Ann. § 26-52-103(10).

⁴ Arkansas Legal Opinion No. 20180123.

⁵ Wash. Rev. Code § 82.04.192.

- (3)(b) “Digital automated service” does not include:
- (i) Any service that primarily involves the application of human effort by the seller, and the human effort originated after the customer requested the service; *and various other topical and specific exceptions*

This definition turns on three important aspects of the item the state was attempting to capture: electronic transfer, the use of software applications, and the absence of human effort. Once these three aspects of the definition are included, the definition stops. The definition has no additional limiters. It does not specify further; it does not even include a non-exhaustive list. This maintains flexibility going into the future.

Comparing this to Kentucky’s definition of digital audit-visual work demonstrates the difference in philosophy between the narrow and broad approaches. As described above, digital audit-visual work is defined very specifically initially, but then is further limited by an inclusion list and an exclusion list. Notably, the items on the exclusion list are things that meet the general definition of digital audio-visual work. This all combines to prevent any significant flexibility in the definition of digital audio-visual work. Washington’s definition of digital automated services is more flexible and adaptable. However, as has also been stated, Kentucky’s definition of digital audio-visual work is clearer than Washington’s definition of digital automated services.

For another example of a broad approach-style definition, see India’s definition of Online Information Database Access Retrieval Services.⁶

There are even broader approaches, for example, a tax set up to capture all gross income from transactions generally, such as South Dakota’s sales tax or Hawaii’s General Excise Tax. However, given their breadth and relative lack of dependence on definitions, these approaches are less instructive for this white paper.

The Medium Approach

The medium approach brings the broad and narrow approaches together, both their strengths and weaknesses. Utah’s definition of a product transferred electronically is a good example of the medium approach.⁷

- 103(a) Except as provided in Subsection 103(b), “product transferred electronically” means a product transferred electronically that would be subject to a tax under

⁶Integrated Goods and Services Tax Act, No. 13 of 2017, India Code section 2(17) (definition of Online Information Database Access Retrieval Services (OIDAR)). OIDAR is “services whose delivery is mediated by information technology over the internet or an electronic network and the nature of which renders their supply essentially automated and involving minimal human intervention and impossible to ensure in the absence of information technology.”

⁷ Utah Code Ann. § 59-12-102(103).

this chapter if that product was transferred in a manner other than electronically.

103(b) “Product transferred electronically” does not include:

- (i) an ancillary service;
- (ii) computer software; or
- (iii) a telecommunications service.

Rather than trying to define the term on its own, Utah’s definition relies on the breadth of the state’s sales tax base by using the language “that would be subject to a tax under this chapter.” By doing this, the new term retains all the flexibility and breadth of the greater sales tax base. Any changes made to the sales tax base, impositions or exemptions, that apply to products not transferred electronically, will apply to products transferred electronically. We excluded this as an example of the broad approach due to the limiters included in subsection (b).

Another example of the medium approach is Texas’s definition of Data processing service:⁸

- (a) “Data processing service” includes:
 - (1) word processing, data entry, data retrieval, data search, information compilation, payroll and business accounting data production, and other computerized data and information storage or manipulation;
 - (2) the performance of a totalizator service with the use of computational equipment required by Subtitle A-1, Title 13, Occupations Code (Texas Racing Act); and
 - (3) the use of a computer or computer time for data processing whether the processing is performed by the provider of the computer or computer time or by the purchaser or other beneficiary of this service.

Part (b) of the definition goes on to exclude several items, including the transcription of medial dictation by a medical transcriptionist and certain things related to electronic payments.

The Texas Comptroller’s Office indicates in a longstanding publication that this definition captures cloud products providers, including software as a service providers and application service providers.⁹

Texas’s definition here demonstrates the opposite of the typical narrow approach. For example, under subsection (3), there is no qualifier, instead there is an expander. The language “whether the processing is performed by the provider of the computer of computer time or by the purchaser” expands rather than limits the applicability of the definition. Meanwhile, the clarity of the main phrase under subparagraph (3) reading “the use of a computer or computer time for data processing” is undiminished.

⁸ Tex. Tax Code Ann. § 151.0035.

⁹ Comptroller Publication 96-259.

Another example of a medium approach characteristic comes from Nebraska.¹⁰ Nebraska includes gross income from “security” and from “detective services” in its tax base, however, the statute provides no definition for these terms.¹¹ The Nebraska Administrative Rules provide detail to these inclusions.¹² The administrative rules provide that security services:

includes those services to protect property from theft, vandalism, or destruction or to protect individuals from harm including physical attack or harassment. Security services include, but are not limited to:

A Body guard, security patrol, or armored car services;

B Planning for or consulting on security services;

C Training in security measures or training persons or animals to provide security services; and

D Monitoring and maintenance of security or surveillance systems, including installing, testing, cleaning, adjustment, or repair of the equipment.

To complete the picture, in 2015 the Nebraska Department of Revenue stated in a General Information Letter that a cloud-based application allowing customers to control locks, cameras, outlets, and other devices remotely was a security service because it qualified as the monitoring and maintenance of security or surveillance systems as described in the administrative rule.¹³

This demonstrates the concept behind the medium approach. That concept being the flexibility that can be provided even without the conscious forethought required for the broad approach. The definitions were added to the statute in 2002¹⁴ and the administrative rules were promulgated in 2003, so it is unlikely anyone contemplated the cloud services that would eventually be included in the tax base as security services.

4. Comparing the Effect of the Approaches on Tax Administration

¹⁰ Note that we would characterize Nebraska as having a narrow approach notwithstanding this example. The example here is not wide ranging enough to affect the entire approach for the state, but it demonstrates the concept of the medium approach.

¹¹ Neb. Rev. Stat. § 77-2701.16(4)(a) & (h).

¹² 316 Neb. Admin. Code 1-101.01 & .02D.

¹³ Neb. Gen. Info. Ltr. GIL-1-15-1.

¹⁴ L.B. 1085 (2002); see also, https://nebraskalegislature.gov/app_rev/source/narrative_salestaxhistory.htm; see also, <https://revenue.nebraska.gov/sites/revenue.nebraska.gov/files/doc/info/6-396.pdf>.

The previous section described and compared the three general approaches and how they might affect the tax base. This section looks at each approach's effect on tax administration and various economic considerations.

Adaptability and Agency Guidance

The adaptability of each approach to changes in technology is straightforward. The narrow approach, while providing the most clarity at the start, will not be adaptable to changes in technology. The broad approach will be adaptable to changes in technology and the equitable treatment of similar products (or new products that may effectively replace older products). And as usual, the medium approach will fall in the middle.

The broad and narrow approaches may still require the administering agency to issue guidance interpreting and applying the law to specific products. But, arguably, the medium approach puts a greater burden on tax administrators as there may be more uncertainty as to what products were meant to be included in the tax base.

Role of the Legislature

The broad, narrow, and medium approaches also have implications for state legislatures. The broad approach, once adopted, ensures that similar products that arise in the future will be included in the tax base unless the legislature acts. The narrow approach, in contrast, generally means these new products will not be included in the tax base unless the legislature acts. The medium approach may effectively shift the burden from the legislature to the executive agency or the courts to determine when new products are included in the tax base.

Taxpayer Compliance

Definitions created under the narrow approach will be able to capture and tax the items targeted, no more and no less. This provides clarity. The broad approach provides clarity in the opposite way. Definitions created under the broad approach will clearly capture the items intended to be captured, but the extent to which new items will be captured cannot be known until those other items exist. This is an uncertainty. However, the eventual capture of those products is certain and clear, and that clarity is worthy.

The medium approach is the toughest for taxpayers to deal with. A state pursuing a medium approach is likely to draft definitions targeting specific items but not be as clear as under the narrow approach nor as broad as the broad approach. This would leave the state with a lack of clarity initially and a lack of clarity regarding future products going forward.

Equity and Parity Considerations

Equity and parity generally refer to ensuring similar tax treatment of competing items. The narrow approach will typically lead to fewer different items becoming subject to tax,

increasing the chances that, over time, a traditional item is taxed while its modern, competing counterpart is not.

The opposite is true for the broad approach. Therefore, compared to the narrow approach, the broad approach will likely increase parity. Additionally, the broad approach provides more flexibility to consider the equitable treatment of competing items. The medium approach may present the biggest challenges for equity and parity given that the result will depend on how the definitions of items are interpreted and applied.

5. Comparing the Effect on Exemptions, Bundling, and Sourcing

This section compares potential effects of each approach on exemptions, bundling, and sourcing rules.

Exemptions

Generally, the broader approach will lead to a broader tax base, which, given a target amount of pyramiding, will increase the need for exemptions. This is true for subject matter exemptions, e.g., those for favored products or industries, as well as for exemptions based on favored use, and for business-to-business exemptions. [See section on business-to-business exemptions here.](#)

Given a target amount of pyramiding, the narrow approach will necessitate fewer and less complicated business-to-business exemptions than the broad or medium approaches. This is because, under the narrow approach, only TPP and a limited set of narrowly defined services and other products are taxed, meaning that, at most, only a subset of those items would need to be exempted. On the other hand, the broad approach might include a flexible and adaptable definition of a taxable item, leaving the detail to the exemption. Pyramiding is discussed in the business-to-business exemptions section, [available here.](#)

In other words, when it comes to exemptions, the broad approach switches the burden. The broad approach applies a higher burden on defining exemptions from the tax base whereas the narrow approach places a higher burden on defining the tax base itself.

Bundling

The principle behind bundling is determining what is taxable when a group of items, some taxable and some not taxable, are sold for a single price. One example of a bundling rule is taxing the full price of a bundle if any component of the bundle is taxable. [See section on bundling here.](#)

The narrow and broad approaches will interact with bundling in different ways. The broad approach will typically tax more items, making it more likely that a given bundle will contain at least one item that is subject to tax. The narrow approach will tax fewer items, lowering the likelihood that a given bundle will contain a taxed item. Under the narrow approach, fewer bundles will be taxed.

There is a corollary to this. For the broad approach, because more items will be taxable, there is an increased likelihood that *all* items in a bundle will be taxable independently. In these cases, there will be no bundling question as every item within the bundle is taxable. The broad and narrow approaches will lead to less overall questions about bundling than the medium approach.

A bundling rule will be more important for the medium approach. The medium approach will not have the advantages of either the narrow or broad approaches. Compared to the narrow approach, the medium approach will typically tax more items. This means that given a bundle, the medium approach is more likely than the narrow approach to tax at least one item in the bundle, leading to increased invocation of the bundling rule. However, the medium approach will typically tax less items than the broad approach, reducing the likelihood that *all* items in a bundle are taxable.

Sourcing

Sourcing is an important concept for sales tax generally. However, for digital products, the sourcing concept of “multiple points of use” is particularly impactful. The term multiple points of use generally refers to the sourcing treatment of a product that is purchased centrally but is used decentrally.

A common scenario: a business headquartered in State A purchases a piece of software in State B, but the software is used at the business’s offices located in States A, B, and C. The sourcing of this purchase might be to the headquarters, to the place of purchase, or, if sourced using multiple points of use, to the various offices on an apportioned basis.

The commonly prescribed solution to items that are used in multiple locations is to source the product to the location of its individual uses, based on employee workstations, a ratio of office space, or some other measure. [See section on sourcing, including detailed information on multiple points of use, here.](#)

The broad approach is the one most likely to require treatment of multiple points of use. However, the issue is possibly more appropriately considered an issue within the business-to-business exemption category. [See section on business-to-business exemptions here.](#) If a broad approach incorporates a business-to-business exemption, this will remove many of the digital product-specific sourcing issues, including multiple points of use.

The narrow approach is less likely to require addressing multiple points of use as the narrow approach is less likely to tax the relevant items anyway.

To no surprise, the medium approach could go either way and, therefore, create confusion and disputes. A medium approach might avoid the multiple points of use issue by either not taxing the items at all, like the narrow approach, or adopting a broad exemption for business-to-business purchases, as may be seen under a broad approach. The medium approach might require a less complicated business-to-business exemption than the broad approach, however.

6. Interaction With the Internet Tax Freedom Act

The narrow and broad approaches each risk violating the Internet Tax Freedom Act's (ITFA) antidiscrimination provision less than the medium approach will. [See section on ITFA here](#). The narrow approach tends to tax fewer items, including online items, and thus, at least statically, is less likely to violate ITFA's antidiscrimination provision. However, from the other viewpoint, that of trying to add items to a tax base that was created using the narrow approach, the risk becomes higher because it is likelier that a similar, non-online item will not be taxed.

The broad approach results in a similar outcome. Under a true broad approach, nearly any offline equivalent to an online product will be taxed, defeating an ITFA discrimination challenge. However, as the tax base expands through a broad approach, the demand for exemptions expands; exemptions can violate ITFA just as impositions can. If a state exempts an offline item without exempting a similar online item, this will likely violate ITFA's discrimination provision.

The medium approach is the riskiest because it carries the risk of both the narrow and broad approaches. Additionally, the medium approach will never be so broad as to tax nearly any potential offline equivalent, as the broad approach would.



ITFA's Discrimination Provision Paraphrased

The Internet Tax Freedom Act prohibits taxes that differentiate between commerce conducted online and commerce conducted offline.

[See section on ITFA here](#).

7. How to Successfully Incorporate Digital Products into a Sales and Use Tax Base

For the narrow approach, the first step is to understand the definitions from the Streamlined Agreement and include those in the tax base.¹⁵ The second step is to incrementally adopt

¹⁵ See, e.g., H.B. 8, 2024 Leg., 3d Extra. Sess. (La. 2024).

specific definitions of existing items or transactions that stand out and the state wants to tax or exempt.

For the broad approach, the first step is to identify an item that is not currently taxed or exempted, but that the state wants to tax or exempt. The second step is to determine its essential elements and define it by those essential elements only. For an example of this, consider Washington's Digital Automated Services (DAS). As described above, the definition contains only the essential elements of electronic transfer, the use of software applications, and lack of human effort. The definition has few limiters. This maintains flexibility into the future, the hallmark of the broad approach.

The medium approach is the most difficult. To do it, the broad and narrow approaches are mixed. The first step might be to study the Streamlined definitions. The next would be to either adopt the Streamlined definitions and supplement with further, less restrictive definitions, or, to adopt modified versions of the Streamlined definitions at the outset. The next step would be to incrementally adopt additional definitions.

As should be clear, the medium approach will be difficult to get right. It risks including the relative lack of clarity of the broad approach while also including the relative lack of breadth and flexibility of the narrow approach.

8. Appendix: A Case Study Comparing Definitions of Data Processing Service

Comparing the Texas and Washington definitions of data processing service might reveal other ways to approach developing broad or narrow definitions. Note: there is no evidence the two definitions were intended to describe the same activities when adopted; do not be distracted by that question.

Washington defines data processing services this way:

“Data processing service” means a primarily automated service provided to a business or other organization where the primary object of the service is the systematic performance of operations by the service provider on data supplied in whole or in part by the customer to extract the required information in an appropriate form or to convert the data to usable information. Data processing services include check processing, image processing, form processing, survey processing, payroll processing, claim processing, and similar activities.¹⁶

Texas defines data processing services this way:

¹⁶ Wash. Rev. Code § 82.04.192(3)(b)(xv).

"Data processing service" includes: (1) word processing, data entry, data retrieval, data search, information compilation, payroll and business accounting data production, and other computerized data and information storage or manipulation; (2) the performance of a totalisator service with the use of computational equipment required by Subtitle A-1, Title 13, Occupations Code (Texas Racing Act); and (3) the use of a computer or computer time for data processing whether the processing is performed by the provider of the computer or computer time or by the purchaser or other beneficiary of the service.

"Data processing service" does not include:

- (1) the transcription of medical dictation by a medical transcriptionist;
- (2) services exclusively to encrypt electronic payment information for acceptance onto a payment card network described by Subdivision (3)(E) to comply with standards set by the Payment Card Industry Security Standards Council; or
- (3) settling of an electronic payment transaction by:
 - (A) a downstream payment processor or point of sale payment processor that routes electronic payment information to an entity described by Paragraph (C) or (E);
 - (B) a person who is engaged in the business of money transmission and required to obtain a license under Section 152.101 , Finance Code;
 - (C) a federally insured financial institution, as defined by Section 201.101, Finance Code, that is organized under the laws of this state, another state, or the United States, or an affiliate of the institution;
 - (D) a person who has entered into a sponsorship agreement with an entity described by Paragraph (C) for the purpose of settling that entity's electronic payment transactions through a payment card network; or
 - (E) a payment card network that allows a person to accept a specific brand of debit or credit card by routing information and data to settle an electronic payment transaction.

Washington's definition provides a formal definition, with various limiters, and then provides a list of what is included in data processing. Texas's definition, on the other hand, defines data processing services only by inclusion and exclusion. The definition provides what is included in data processing and what is not included in data processing. A definition by inclusion and exclusion leaves more flexibility than a formal definition with limiters, like Washington's.

The Washington definition includes limiters, like "by the service provider" and "provided to a business or other organization." The Texas definition avoids limiters in its inclusion section. The Texas definition does include limiters in its exclusion provisions, for example, limiting the exclusion for medical transcription to that done "by a medical transcriptionist," and limiting the exclusion to services that are "exclusively" for encryption of electronic payment information.

Removal of limiters would broaden the Washington definition. Condensing the formal definition down to only the essential elements will provide a broader and more flexible definition. Removal of the limiters from Texas's exclusion list would expand Texas's exclusions, narrowing the definition.

The Washington definition includes "and similar activities" to close its inclusion list, whereas Texas's definition does not. Obviously, inclusion of this language provides flexibility to the Washington definition and reduces its certainty. Exclusion of this language will reduce flexibility and result in a fixed list, increasing certainty. The opposite is true of similar language included or excluded in an exclusion list.