SmartPay
Content audit: smartpay.gsa.gov

Discovery / Findings & Recommendations

November 1, 2022

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1.0 Purpose and process

1.1 Purpose

We chose a content audit as a key deliverable for the SmartPay team with three goals in mind:

1. Identify potential barriers and opportunities for migrating the site to an alternative tech stack and/or hosting service
2. Inventory and document the current state of smartpay.gsa.gov content
3. Identify content that may not be up to date, accessible, intended, user-friendly, or otherwise serving the mission of the SmartPay program or the needs of SmartPay users

1.2 Process

We accessed the publicly available SmartPay sitemap and imported it into a Google Sheet.

The sitemap includes only webpages (no documents or images), and is generated by a Drupal module configured based on content types.[1] Some content types were not included in the sitemap configuration, so we scraped the site[2] for pages that were not included in the sitemap, and for files, documents, and images.

We manually audited 471 of the 620 content assets[3] we identified, or 76% of the content assets we inventoried.

We manually reviewed and ran automated tests on every webpage of the site and included our findings. We audited and documented findings (when relevant) for the following:

- URL
- Title
- File type
- Description
- Parent
- Word count
- Reading grade level (formatted to show *higher* values in red)
- Accessibility score (formatted to show *lower* values in red)
- SEO score (formatted to show *lower* values in red)
- Tags
- Broken links
- Notes
- Last modification date
- Change frequency
- PDF pages

We also included general observations in the report.

Tools

In addition to manually reviewing each webpage and several documents, we ran automated tests for quantitative metrics for certain criteria. We observed several

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[1] The sitemap outputs only those content types selected in the Drupal module configuration.
[2] We wrote a python script to scrape the site.
[3] Content assets are essentially anything on the site that serves content. These are mostly webpages, documents (PDFs, PowerPoints, etc.), and images. There are videos on the website, but they are largely or exclusively YouTube embeds, and consequently hosted elsewhere. We did not review video content as part of this audit.

limitations with the automated tests—especially the accessibility test—which we've noted in the full report.

Here are the tools we used for the audit and their respective purpose:

Tool	Purpose
Google Chrome	Web browser
Lighthouse	Automated audits for accessibility and SEO scores
Broken Link Checker Chrome extension	Checks for broken links
Hemingway Editor	Word count and reading grade level
pa11y	Supplemental accessibility testing (used when Lighthouse results seemed incorrect or inconclusive)
VoiceOver	macOS screen reader (used for charts, forms, and other interactive elements)

2.0 Key findings

Our findings fall into two categories:

1. **Content migration opportunities and barriers**
   What content or tools are dependent on Drupal? This is content delivered via a feature that might be difficult or prohibitive to migrate or rebuild, such as a features tied to a Drupal module that can't be replicated or for which a rebuild would be arduous, including features that might preclude the use of a static site generator, such as database-dependent features.
2. **Content that could be improved (or needs further review)**
   This is largely content that is redundant, outdated, trivial, questionable, unnecessarily complex, or inaccessible.

2.1 Content migration opportunities and barriers

Opportunities

The website is effectively static, with no identified database-dependent features (other than the administration of the content management system itself). We'll need to do further discovery to determine the full scope of migration, but the site's purpose and structure is static content delivery, and that opens doors to several alternatives, including [Cloud.gov Pages](#).

Barriers

We discovered multiple potential obstacles to migration, either because some features appear to be driven by Drupal modules, the current markup would need to be cleaned or refactored prior to or during migration, or the information architecture isn't structured for ease of migration.

Drupal features

Several pages, including the homepage, contain data visualizations. These charts use the Drupal [FusionCharts module](#).[4] The charts, along with other interactive features (such as the [savings calculator](#)), could be rebuilt to work on a static site, but this will require developer resources.

Our team is conducting user research to determine the value of these features to users, which will furnish more information about which and how many (if any) of these features would need to be rebuilt should the SmartPay team opt for a static site as an alternative to the current Drupal site.

Unnecessary or unintentional markup

There are several instances throughout the site of unintentional or undesirable HTML artifacts. Many of these are likely the result of the Drupal WYSIWYG (what you see is what you get) editor. For example, there are multiple instances of non-breaking spaces and/or unnecessary HTML elements that may require cleanup when migrating content. Non-breaking spaces are common when content creators use double spaces when writing content in a WYSIWYG.

```
<div class="field field--name-bp-text field--type-text-long
field--label-hidden field--item">
```

---

[4] The [FusionCharts Drupal module is deprecated](#) and no longer supported as of Drupal 7, but it appears SmartPay is using a custom, updated GSA version of the module.

```
<p>How can your agency leverage the offered payment
solutions? There are many different areas of opportunity
that you can explore to implement strategic payment
solutions. The following are just a few examples of
potential areas to review and consider that may be a
practical next step in expanding your program.</p>

<p> </p>
```
```
</div>
```

We found an example on the homepage in which unnecessary elements broke link text into segments.[5]

```
<p class="text-align-center">
    <u><a href="/content/gsa-smartpay-refunds">LE</a></u>
    <a href="/content/gsa-smartpay-refunds">
    <u>ARN MORE</u>
    </a>
</p>
```

Migrating HTML with artifacts like these can have unpredictable results when applying new styling, and can have negative impacts for screen reader users and other assistive technology users.

Some of these unnecessary elements are benign in presentation and semantically inert (i.e., they have no impact on assistive technologies or search indexing), but are nonetheless unnecessary and can make migration more difficult. For example, h1 elements contain child span elements for no apparent reason.

```
<h1 class="page-header __web-inspector-hide-shortcut__">

    <span>Strategic Payment Solutions Examples</span>

</h1>
```

Most of these unnecessary elements will require manual review and cleanup, but given some of them are site-wide (such as the aforementioned span), you probably only need to edit a template to fix them.

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[5] We'll discuss link text more in the accessibility section.

Heading errors

Some headings are used incorrectly or out of order.

For example, some pages use exclusively h1 headings for subheadings. H1 headings are globally styled on the site as white text, appearing as they often do overlaid on a hero image. But when used outside that context, they visually disappear, as they're styled as white text on a white background.

For accessibility reasons, a page should only have one h1 heading, with subsequent subheadings used in sequential order.

Currently, there are several instances of headings used out of order, such as an h3 preceded by an h1, or an h2 leading to an h4. This results in a disruptive and confusing experience for users of assistive technologies, and can negatively impact SEO. Most of these instances are captured in the content audit spreadsheet under SEO score and in the notes.

Ambiguous information architecture

Content doesn't appear to be organized into categories or other taxonomies that would group similar content together. This is partially evident in the URL paths, where some pages are at the root level (e.g., `smartpay.gsa.gov/2022-gsa-smartpay-training-forum-presentations-and-videos-virtual-forum`), while several others are routed to a content subdirectory (e.g., `smartpay.gsa.gov/content/other-training`). These URL paths don't represent content relationships and hierarchies on the site.

URL paths should structurally group similar content together, and ease migration by providing an intuitive pattern for content of related subject matter.

Similarly, some pages are "grouped" with "parent" in-page navigation (these groups are captured in the audit spreadsheet under the column "Parent"), but they don't appear to employ Drupal's information architecture tools to associate grouped content, and they are inconsistently deployed. For example, several pages are grouped under
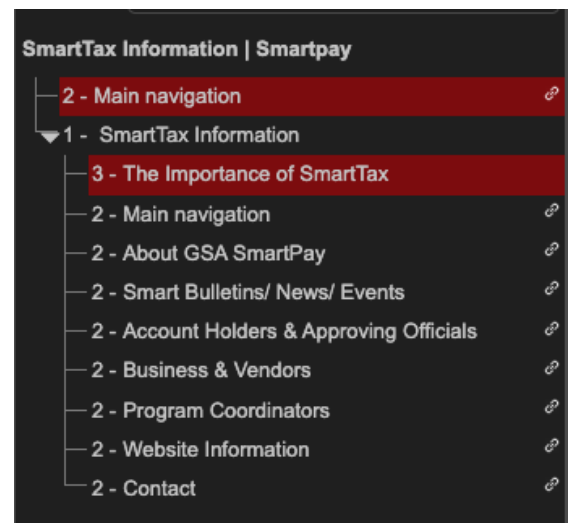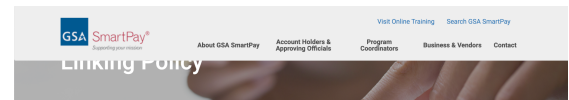
the navigation heading "Guides, Presentations & Publications" ([example](#)), while others are grouped under the similar (but different) heading "Guides, Presentations and Publications" ([example](#)).

There appear to be limited ways in which to programmatically identify related content, which will likely make migration more difficult.

2.2 Content that could be improved (or needs further review)

Overall, SmartPay's content is mission-focused, intuitive, and well designed. But we found several opportunities to improve content.

Duplicate content

We identified several instances of duplicate content, including similar content repeated on different pages, repeated verbatim with nearly identical URL paths.

Sometimes, these duplicates are the result of incremental, "generational" program changes, such as:

- https://smartpay.gsa.gov/content/fssi-office-supply-management (FSSI OS3)
- https://smartpay.gsa.gov/content/fssi-office-supply-management-0 (FSSI OS4)

Other times, the duplicate pages appear to be entirely unintentional:

- https://smartpay.gsa.gov/linking-policy
- https://smartpay.gsa.gov/link-policy

Also, as we covered in the [Heading errors](#) section, both of these link-policy pages include multiple h1 headings—which display as white text on a white background—resulting in the visual absence of headings and awkward gaps between paragraphs.[6]

🔍 **Track these down in the audit spreadsheet**

- We documented duplicates in the Notes column of the spreadsheet. You can easily find them by searching for the term "duplicate".

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[6] Additionally, the links to the training site on both of these pages are incorrect. Both go to smartpay.gsa.gov instead of training.smartpay.gsa.gov.

- Duplicate pages often have the same title, so sorting by the Title column in the spreadsheet will display duplicates together.
- Duplicate pages often have very similar URL paths, so sorting by the URL column will group many duplicates together.

SEO (Search Engine Optimization)

Fixing the major SEO errors should be relatively trivial. Most pages scored 85% in the automated SEO audit we ran, primarily because the site is missing a meta description, which likely can be fixed by adding one `<meta>` tag in the template.

A more comprehensive SEO review wasn't in the scope of this audit, but you may want to review your meta tags while you're in there to ensure you're meeting best practices and supporting the other digital platforms you may be using, such as social media.[7]

Keep in mind that search engines and assistive technologies behave in similar ways, so your SEO errors and accessibility errors often overlap, even though we presented them separately.

🔍 Track these down in the audit spreadsheet

- You can sort by the SEO score column to elevate the lowest SEO scores to the top of the sheet.
- Additional SEO errors (beyond the meta description) are described in the Notes column. You can search for "SEO" to find our notes.

Inconsistent styling

There are stylistic inconsistencies throughout the site, mostly related to capitalization and references to SmartPay (with and without ®). Several SmartPay references include the ® symbol, while many others do not. Sometimes, the use of the symbol is inconsistently applied within a given page:

- https://smartpay.gsa.gov/content/charge-coming-soon-2016-gsa-smartpayr-training-forum

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[7] Some social media platforms make use of specific meta tags to present links to your website more prominently in their feeds.

There are similar inconsistencies with capitalization, especially for words like "federal" and "government".

- https://smartpay.gsa.gov/content/federal-travel-regulation-ftr

This example refers to "federal agencies and employees" (using lowercase "federal"), but capitalizes "government" in a subsequent paragraph: "the Government contractor-issued travel charge card."

We'll address how to prevent these inconsistencies in the recommendations section.

> 🔍 **Track these down in the audit spreadsheet**
>
> - We didn't list in the audit every style inconsistency we found, but we noted some of them in the first row of the spreadsheet in our overall observations.

Structure

We noticed several opportunities to better structure content.

Organizing content under subheadings benefits all users, but especially screen reader users. Screen reader users can jump to subheadings on a page so they can quickly and easily skip body content that isn't relevant to them. Without subheadings, screen reader users might need to have all paragraph text read aloud until they find what they need.

For example, this page includes a long string of bullets with little structural organization:

- https://smartpay.gsa.gov/content/strategic-payment-solutions-fleet

There's some content that should be presented in a different format. For example, the Agency Bank Information page has a repeating pattern for each listing that might be more intuitive, scannable, and less repetitive if presented as a table instead:

- https://smartpay.gsa.gov/content/agency-bank-information

Images

Although we didn't list it under the migration-barriers section, images will be a challenge for content migration, particularly when accompanied by inline styling.

For example, Program Coordinator Spotlight pages contain inline styling that distorts the resulting image:

- https://smartpay.gsa.gov/content/us-forest-service-kelly-koeppe

```
<img alt="Kelly Koeppe" data-entity-type="" data-entity-uuid=""
src="/sites/default/files/KK_small.jpg" style="height:173px;
width:144px">
```

There are at least two instances in which an image contains a `src` attribute that links to a profile image of a different person:

- https://smartpay.gsa.gov/content/gsa-smartpay-3-transition-advice-transition-veterans-nasa
- https://smartpay.gsa.gov/content/gsa-smartpay-3-transition-advice-transition-veterans-navy

Floated images on the site often lack padding, such that the text uncomfortably bumps up against the images.

We'll discuss images in more detail in the accessibility section.

Test pages

There's at least one page that appears to have been created for testing purposes and never removed or revised. We didn't find any links to the page on the site, but we confirmed it's indexed in search results.

- https://smartpay.gsa.gov/content/travel-program-overview

🔍 **Track these down in the audit spreadsheet**

- When we found something particularly concerning, or that you might want to address immediately, we highlighted the cell in red in the Notes column.

External content

We found at least one page that republishes in a full a private-sector blog post. In the Recommendations section, we'll share some tools and methods to help ensure your content avoids unnecessary risks, and that's it's aligned with your mission, values, and user needs. This one stuck out as questionable to us:

- https://smartpay.gsa.gov/content/blockchain-could-reshape-travel-management

🔍 **Track these down in the audit spreadsheet**

- Review the Notes column for comments on content decisions and look for cells in the Notes column highlighted in red.

Broken links

We ran automated link tests on every page, and found multiple broken links. This is a problem for most websites and not specific to SmartPay, but broken links are often indicative of stale or outdated content. When you review these broken links, consider reviewing the rest of these pages' content.

🔍 **Track these down in the audit spreadsheet**

- You can sort the Broken links column to find them. We found up to six broken links on a given page.

Plain language

We used reading grade level as a proxy for plain language. It's an imperfect metric, but it can point you to the content that is likely more difficult for users to read and understand.

Some of the content that had the highest reading grade levels (which is indicative of complex, jargony, or difficult-to-understand content) appeared to be articles republished from other sources, usually private-sector ones.

- https://smartpay.gsa.gov/content/wex-chargepoint-boost-ev-charging-fleets-nationwide

It's questionable to us if articles like this should be republished on SmartPay at all, especially given how demanding they might be for many readers.

> 🔍 **Track these down in the audit spreadsheet**
>
> - You can sort the Reading grade level column to review content with the highest reading grade levels.[8]

Accessibility

Most opportunities to improve content fall under accessibility.

Automated accessibility tests are a baseline, but they're insufficient if your goal is to build a truly accessible website. Automated tests can inform you of common and obvious accessibility issues, but they fall short if you're relying on them to build and maintain a truly accessible website.

SmartPay's website scores well overall on automated accessibility tests, but we found several ways the SmartPay team can improve accessibility to make sure everyone can access and use SmartPay's content.

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[8] Higher values are higher reading grade levels, so higher scores indicate content that is likely more difficult for users to comprehend. Reading grade levels above 16 are marked "post-graduate," so keep that in mind if you sort the column. "Post-graduate" is the only non-numerical value. The values are color-coded to show lower values in green, middle values in orange, and higher values in red.

Link text

Multiple pages use "click here", "learn more", or "here" as link text, none of which when used alone promotes accessibility. Here's [a video from our team using a screen reader](#) that demonstrates why.

To make your site content more accessible, link text should describe (by itself) where the user will end up if they interact with that link. In other words, if you *only* read the link text and none of the surrounding words, the link text should be self-explanatory about where the user will end up if they interact with the link.

You also want to avoid using a full URL as link text. Screen readers will often read aloud each character of the URL one at a time, leading to a poor experience for screen reader users.
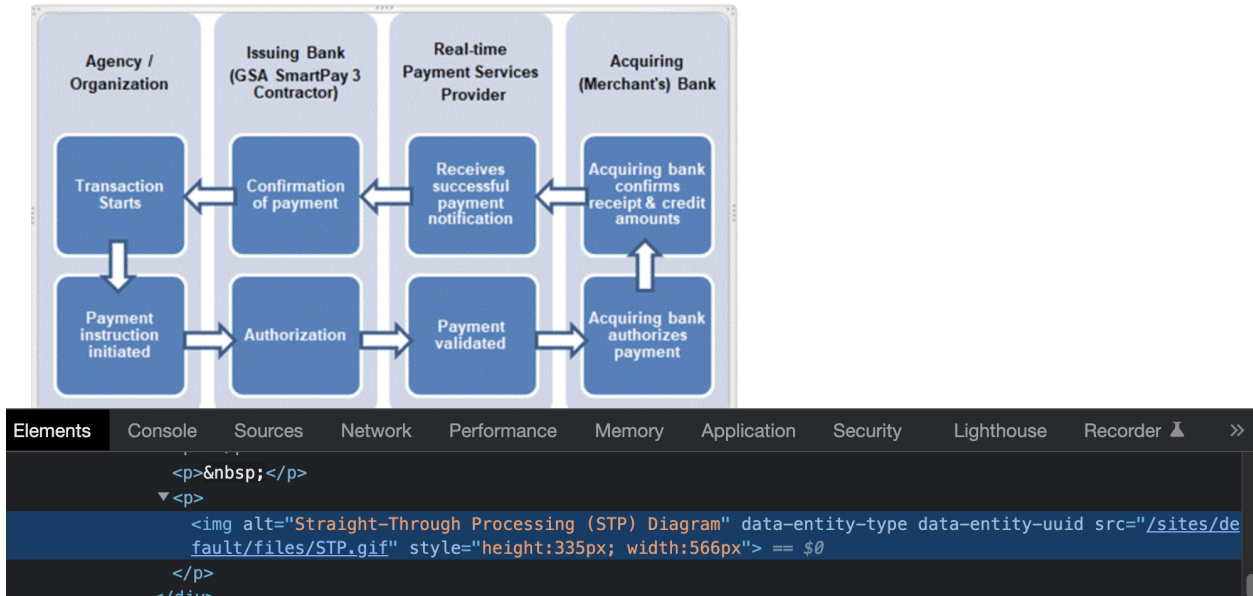
Alt text

Automated accessibility tests will usually flag images that are missing alt attributes altogether,[9] but they don't and can't tell you if the alt text, when present, is *actually accessible*. In other words, they won't tell you if the alt text describes the content of the image.

We noted in the audit where alt text was present, but it didn't describe the content of the image. This is a especially problematic with diagrams and charts presented as images:

- https://smartpay.gsa.gov/content/epayables-solutions

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[9] Alt attributes are text descriptions that describe images for people who are blind or visually impaired. Search engines also use alt text to index images for search results.

There are two diagrams on this page, and neither of them have sufficient alt text. Because the text in the diagrams is *part of the image* (and consequently not machine-readable), the alt text for each image needs to include all of the text in the image, along with a description of the "flow" of steps.

We did find a few instances of alt attributes missing entirely, and some instances in which an alt attribute is present, but doesn't include any alt text, such as with the card image on this page:

- https://smartpay.gsa.gov/content/integrated

GSA SmartPay offers a variety of tools and information for A/OPCs when implementing an integrated solution into your program.

We also found some really good alt text! 🎉 The alt text for the infographic "How does a GSA SmartPay Transaction work?" captures all of the image text in the alt text, which makes the content of the image accessible to users of assistive technology.

- https://smartpay.gsa.gov/content/how-gsa-smartpay-works

If your team is ever unsure about how a screen reader will behave with an image (or any other element or feature), try using one! Most operating systems now come with screen readers installed and we'd be happy to give a demo.

Color contrast and link styling

There are a few contrast errors on the site, including on the homepage. Interface elements, including text, need to have sufficient contrast to be legible to low-vision users.

Interactive elements (such as links) should also have more than one visual indicator (such as color *and* underline).[10]

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[10] Two different visual styles ensure that, for example, users who are colorblind can visually distinguish interactive text without relying on color.

For example, the inactive tabs on the homepage have insufficient contrast to be accessible to all users.

We found a few instances where link text isn't styled to distinguish it from surrounding text, resulting in links that lack any visual styling at all to indicate they're interactive.
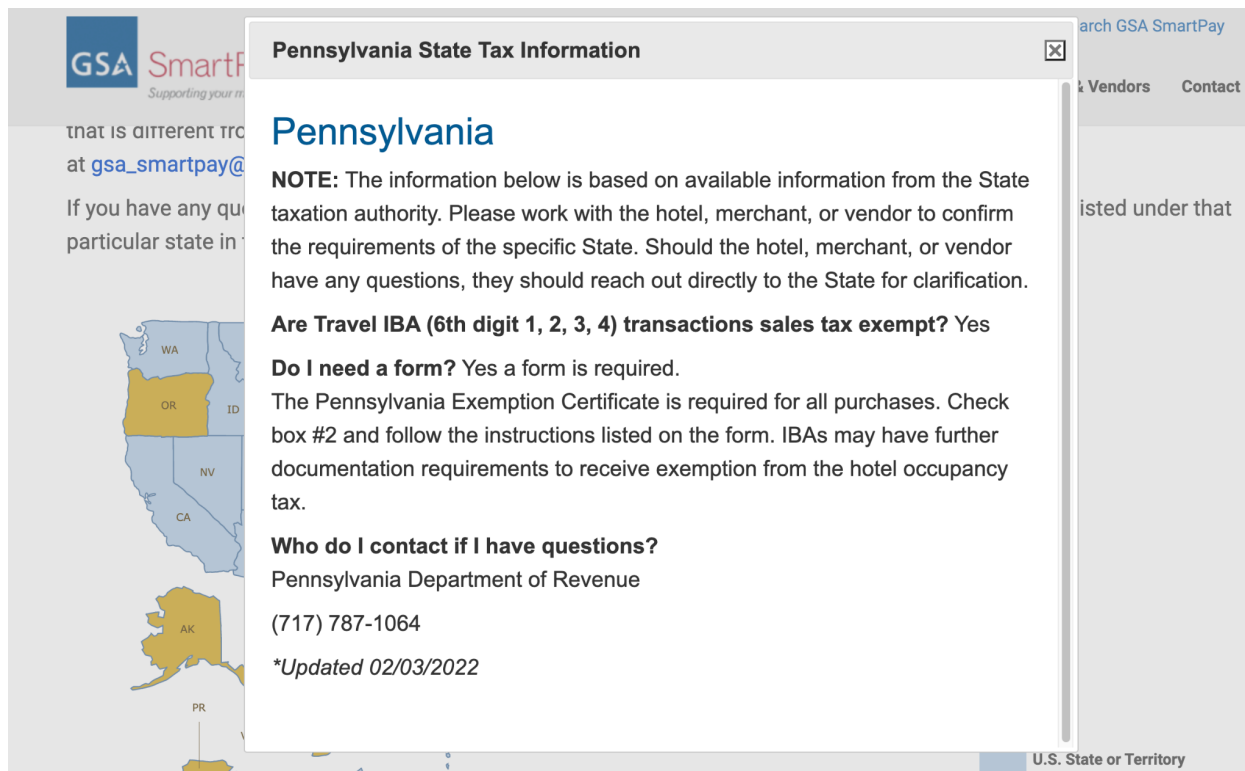
In this example, the link text for "Pennsylvania Exemption Certificate" is indistinguishable from the surrounding text. Unless the user hovers on every word, or tabs through, they're unlikely to discover this link.[11]

Data visualizations

The site has several charts and other data visualizations. Data visualizations are tricky to make accessible, because they are inherently visual.

The automated accessibility tests we used didn't report any errors on the charts we tested, but we used a screen reader to manually test a few of them. While we found

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[11] This content isn't in the audit because it displays in a modal and doesn't have its own URL. This is true for all state-specific content on this page that uses the same pattern, and for other content that appears in modals we might have missed. We found this by using the site, and not from the sitemap inventory. Modals can result in other accessibility barriers, so consider manually testing with a screen reader.

that most of the chart data is available to the screen reader, it isn't intuitively ordered, and some chart data isn't available to a screen reader at all.

For example, when using the screen reader on a bar chart, the screen reader read through all the labels on the y-axis, then all the labels on the x-axis, and then through the data points. This makes it difficult to associate an x-axis value, say 2014, with an associated data value, for example $27B.[12]

We found that with stacked bar charts—those with multiple data points on each bar—only the top data point was available to the screen reader, since the other data values are activated on mouse hover.

- https://smartpay.gsa.gov/statistics-inception
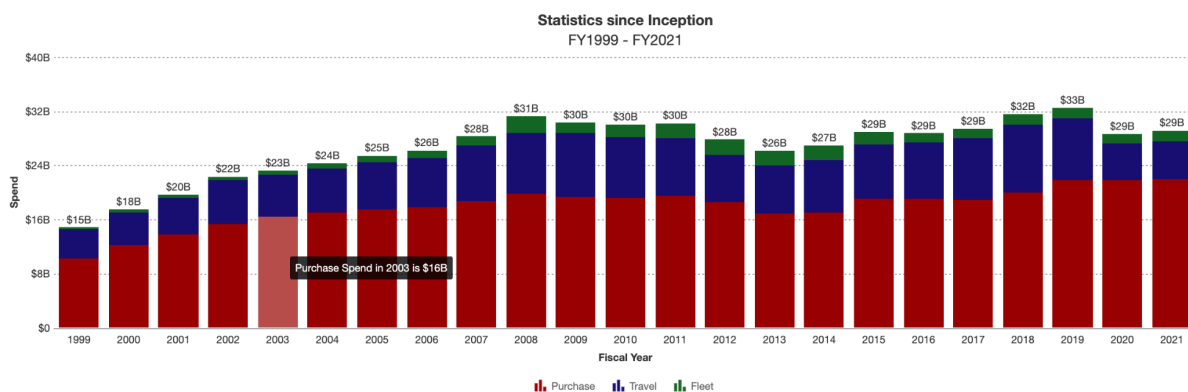
Any feature or interaction that relies on the use of a mouse (or other visually driven "pointer") is unlikely to be accessible to all users.

While not explicitly an accessibility problem, we also found discrepancies between page headings and chart titles, as with the fiscal years in this example:

- https://smartpay.gsa.gov/content/fy20-travel-spend-top-airlines

Video

Most of the embedded YouTube videos on the site have at least one accessibility error in automated tests, usually because they lack a `title` attribute.

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[12] One option to mitigate this problem would be to use a visually hidden table, so sighted users could access the chart, and screen reader users can access a table, the latter of which would help order values in a more intuitive way to a screen reader.

Some embedded videos are the only content on a given page, which makes it difficult for users to determine if the video is relevant to their needs (without committing to starting the video). Consider adding brief text descriptions on these pages to help users decide if they want to watch the video or not.

Semantic HTML elements

The HTML structure underuses semantic elements for key landmarks.

For example, instead of using the HTML5 `<main>` element, the template uses `<div role="main">`. How these elements are used (or not used) has implications for both accessibility and SEO. Users of screen readers depend on these elements to communicate the structure of the page in the absence of visual information allowing them to quickly navigate the site. Search engines use the semantic structure of the HTML to understand what is most important on a page and index the results accordingly.

We didn't document every instance of these elements in the audit, but it's something to keep in mind if you decide to migrate the site or edit the template for the existing site.

🔍 **Track these down in the audit spreadsheet**

- Sort the Accessibility score column to find errors in our automated testing.
- You can search for "click here" in the audit spreadsheet, and it will bring up the instances we identified in the Notes column. You can also search for "link text".
- Some automated accessibility tests will flag "click here" and "read more" links (as they occasionally did for us when working on this audit), but manual audits are more reliable.
- You can search for "alt" to find alt text issues in the Notes column.
- You can search for "contrast" in the Notes column. If you want to check contrast yourself, you can use several free online tools, such as the WebAIM contrast checker.
- Search for "chart" in the Notes column.

3.0 Recommendations

We'll cover these in more detail as we continue to work together (some of them are already in progress!), but here are a few recommendations resulting directly from the content audit.

But first, we'll begin with the question you're probably asking yourself right now…

3.1 How should we even start?

It's a fair question…there's a lot in this report, and even more in the audit spreadsheet. It's hard to know where to start.

This isn't particularly helpful right now, but one of our recommendations will be to do content audits like this every year. You can address issues incrementally, instead of trying to deal with an accumulation of issues over time.

To make this more manageable in the meantime, we would break the audit findings down into three actionable categories:

- Things to address right now
- Tools to create and practices to adopt to help you consistently develop accessible, user-friendly content going forward
- Chip away at the rest over time

Let's dig into those.

Things to address right now

We recommend you look into and address certain issues right away.

- Duplicate and unintentional pages
- Major accessibility issues
- Quick wins

Duplicate and unintentional pages

There aren't many of these, but they often contain additional problems. There's also a chance users are finding outdated versions of pages instead of the current ones, since those older or duplicate pages are still indexed by search engines.

These should be relatively straightforward to fix, either by eliminating pages or consolidating them. And remember, every duplicate page is one you don't have to audit in the future (should you accept our recommendation to do yearly content audits 😉).

Major accessibility issues

We encourage you to address the more flagrant accessibility issues as soon as possible. Ensuring your content is accessible to everyone makes the content better for everyone, and it will help you be more thoughtful of what content you create in the future.

There are a lot of accessibility flags in the audit, so consider starting with alt text and link text, and then chip away at the rest as you can. And make sure embedded videos have captioning and that the captioning is accurate.

Quick wins

As we noted earlier in this report, you can resolve some issues relatively easily. For example, you should be able to clear most of the SEO errors with one or two additions to the site's template. That will fix the most prominent SEO errors on every webpage of the site.

Tools to create and practices to adopt

We think the SmartPay team would benefit from developing tools to support content development and management.

Tools

We think the most useful tools will be:

- Product framing (example)
- Style guide (example)
- Analytics

Product framing

Product framing is often the foundation of a content strategy, and for good reason. It's composed of several elements that will help your team think about what content you're going to publish, why, and how.

At a minimum, it includes a problem statement and vision statement, but can and should include other elements that help your team focus your collective efforts around a common vision.

We recommend documenting how content is developed, reviewed, approved (or not), and published. This is often referred to as content governance, and it may prove valuable for the SmartPay team.

Style guide

Even when you don't have many content authors, it's useful to develop or adopt a style guide to think about and be more consistent with how you present content.

Style guides can be as comprehensive or limited as makes sense for your team and your content, but they're useful either way. Some style guides include voice and tone guides. A voice and tone guide is useful for thinking about how formal or informal your content should be, how your tone should change when presenting regulatory content compared to training content, or how you want people to think about the SmartPay as a brand.

Style guides also help create consistency on how things are referred to in the site — such as "account holder" versus "card holder".

Analytics

We know the team is already paying attention to analytics, but analytics are more useful if you first determine the website's role in the execution of your overall mission. Once you develop your product framing, you can use that framing to establish success metrics against which you can compare your analytics. Your analytics will be more useful to you if you first determine how you should measure success and which analytical categories are most indicative of success.

You can also use analytics to evaluate trade-offs. For example, if charts and infographics are difficult or time consuming to make accessible, you can use your analytics to help you decide if they're worth that additional effort.

Practices

We think the most useful practices will be:

- User research
- Content auditing
- Testing

User research

You'll never know if your content is actually working for users unless you ask them. A full user research strategy is beyond the scope of this report, but it's crucial to developing an effective content practice.

Some teams use analytics as a proxy for user research, but analytics aren't sufficient, mostly because, while they can inform you of the "what" (e.g., number of pageviews), they can't tell you "why" (e.g., what motivated users to visit the page and did they find what they needed?).

Testing

Automated tests, like analytics, are limited, but they're still useful when combined with user research and manual audits.

We recommend running automated tests when you publish new content to help make sure you didn't introduce any new accessibility or SEO errors.

We also recommend reviewing the HTML of new pages to make sure it doesn't include any unexpected or unwanted elements.

Content auditing

We recommend taking the time to audit your website content every year. Doing so will make it easier each time, because you'll prevent the accumulation of multiple issues over time.

Once you develop some of the tools we've recommended, such as product framing, your audit should include an assessment of how your content aligns with your product vision, user needs, and other goals.

Chip away at the rest over time

Before you start chipping away at the rest of the audit's findings, we encourage you to finish the audit itself. As we noted, we didn't audit all of the documents on the website.

From there, we recommend reviewing the full audit. Even though we've shared how we would go about addressing the audit findings, we're not on the SmartPay PMO team, and consequently there may be ways to use the findings that align better with your team's mission and goals.

As we mentioned earlier, how you decide to use the findings will also be influenced by what you learn in ongoing user research and when drafting your product framing.

4.0 Appendix

4.1 Documents

We noticed that several documents are in proprietary formats that require software that some users might not have access to (e.g., docx; pptx; xlsx).

You might find during user research that there's value to users in publishing documents in these formats, but be mindful of the tradeoffs of doing so:

- Documents in general aren't as mobile-friendly as web content, so think about use cases where someone might want or need to access that content on a phone.
- Documents are often larger file sizes than web content, so consider if a document format is necessary.
- Some documents have alternative formats that may be accessible to more users, such as converting PowerPoint files to PDF documents.
- Documents are more difficult to make accessible to all users than web content.

4.2 Taxonomies

A taxonomy is essentially an instrument to organize content. Sometimes called "controlled vocabularies" or "tags", taxonomies are most often used to apply terms to related content. When done well, taxonomies also enable website features, such as auto-generating pages or sections that aggregate similar content together.

We included in the audit a "tags" column in which we attempted to categorize similar content, but because taxonomies reflect content relationships, it's difficult to determine what your taxonomy terms should be until you've reviewed most or all of the content on a given site.

4.3 Beyond content

Performance

Our automated audit pointed to other considerations beyond content. Most notably, the site scored especially poorly on performance, which measures how quickly the website loads and when users can interact with the content and features.
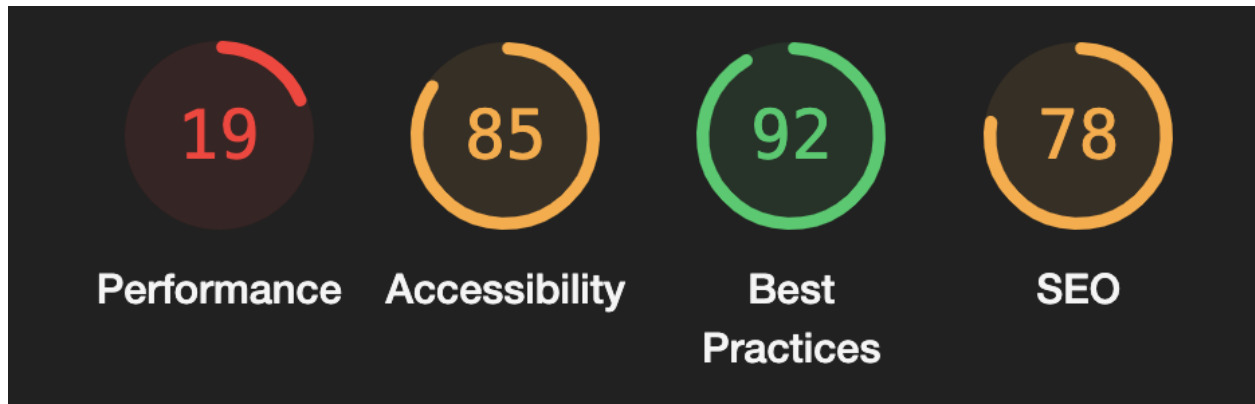
The Lighthouse audit details performance issues, and we encourage you to run the audit and review them with your vendor to find opportunities to improve site performance.

Visual design

There are opportunities to improve visual design as well. We already noted image and text styling, but tables could use design attention as well, especially padding between table borders and text.

Is Reimbursable	Is NOT Reimbursable
Airfare and baggage fees	Business or First Class air fares without prior written approval
Maximum lodging amount allowed for the per diem locality excluding lodging tax	Amount in excess of lodging amount allowed for the per diem locality unless previously approved

4.4 About GSA Service Delivery

The Service Delivery team works with GSA programs to help deliver digital services that are easy to use and support.

Team

Vicki McFadden, Lead

Jessica Marine, Product

Jeff Fredrickson, Engineering

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Ryan Johnson, Content

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