

(Optional) Analyze Software Spend

Lab 4.2

15-20 minute

Lab objectives

You will achieve the following objectives:

- Establish Content Service participation
- Analyze software spend data

Lab Dependency: *Requires the completion of Lab 1.1*

Required Resources: *None*

Scenario

Rick Lemm, the Software Asset Manager at CloudD, wants to use the ServiceNow Software Spend Detection application to track, analyze, and optimize CloudD's software spending from imported financial data.

To prepare for this, Rick would first like to opt-in to the Content Service for software spend transactions. Then they want to use Software Spend Detection to analyze their data and identify areas where they can reduce their overall software spend.

Requirements Summary

User Stories

- STRY040201 – Establish Content Service participation

As a software asset manager, I want to opt-in to the Content Service for software spend transactions so that CloudD receives more accurate predictions on software spend.

- STRY040202 – Analyze software spend data

As a software asset manager, I need to identify shadow software purchases, inefficient spend, and/or overlapping functionality in CloudD, so we can reduce our overall spend by consolidating duplicate or eliminating unneeded software.

STRY040201 – Establish Content Service participation

Section 1 Opt-in to the Content Service for Software Spend

Before importing any data, Rick wants to opt-in to the Content Service for software spend transactions to ensure CloudD receives up-to-date financial information from ServiceNow.



Note: When Rick provides details to ServiceNow on the software spend transactions in the CloudD environment, CloudD receives more accurate predictions back with regards to their own software spend detection to improve matching during any future imports.

1. Impersonate **Rick Lemm**.
2. Navigate to **Software Asset > Administration > Content Service Setup**.

Note: In Lab 2.5 you opted-in to support the Content Service for Discovery Models, Software Model Lifecycles, etc.

3. Expand the section for **Software Spend Transactions** by clicking on the arrow ► to the left of the data topic, and review details on what is sent back to ServiceNow.

Content Service Setup Save

SOFTWARE ASSET DATA

- Software Discovery Models ☒
- Software Product Lifecycles ☒
- Part Numbers and Discovery Maps ☒
- Processor Names ☒
- ▼ Software Spend Transactions ☐

Definition: Software Spend Transaction records that were imported for Software Spend Detection. Only the Vendor name, Description, and GL account, and prediction results will be transferred.

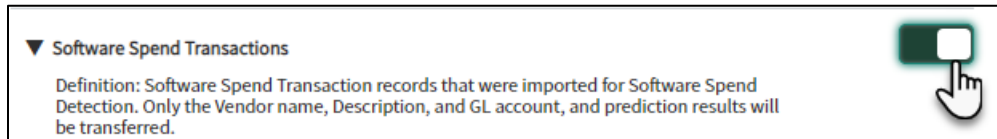
Details Transferred: Vendor name, Description, GL account, Is software, Is software probability, Publisher ID, Publisher confidence, Product ID, Product confidence.

[I would like to opt my company out of the Software Asset Management Content Service Program](#)

Knowledge Check: Refer to the Answer Guide at lab's end.

1. What details about installations are sent to ServiceNow?

- Slide the **toggle switch** for Software Spend Transactions to the right to enable this feature.



Note: Even though you already opted into the Software Asset Management Content Service in Lab 2.5 (for Discovery Models, Part Numbers, etc.), you must still manually enable data sharing for Software Spend Detection since this feature is disabled by default.

As in Lab 2.5, if you later decide to opt out, simply return to this screen and click, **I would like to opt my company out of the Software Asset Management Content Service Program.**

- Click **Save**.

STRY040202 – Analyze software spend data

Now that they have loaded and normalized what data they can, Rick wants to use the Software Spend Detection functionality to begin analyzing CloudD's software spending in three areas:

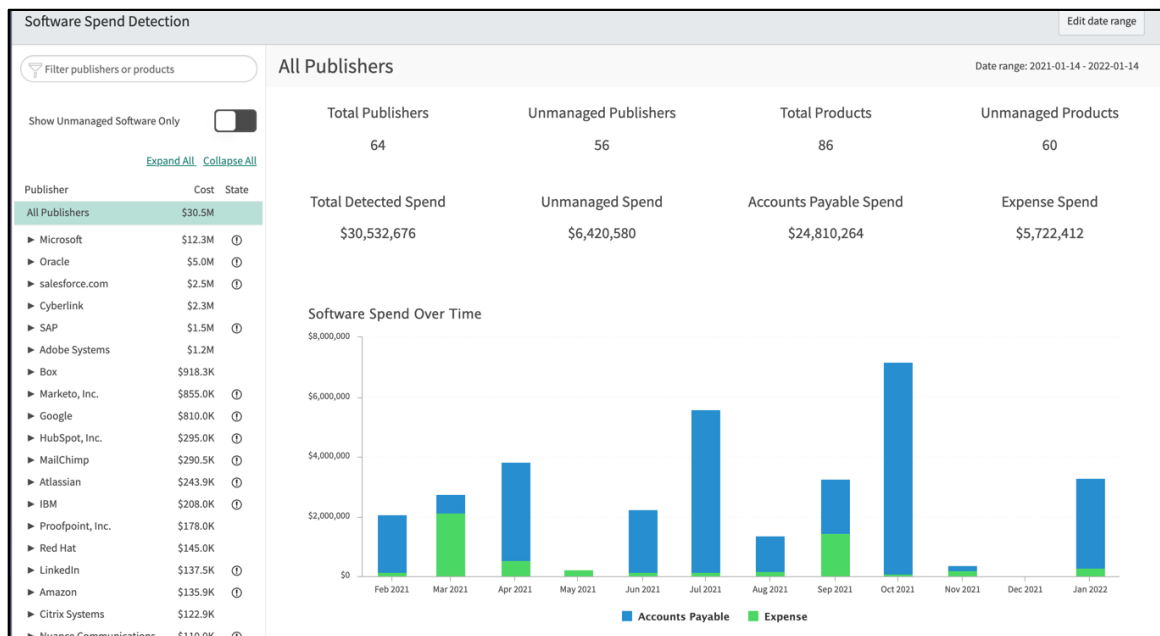
- Are they running any shadow software?
 - If so, they can eliminate costs (i.e., rogue spend) by eliminating unapproved software and reinforcing company software purchasing policies.
- Are they running software with duplicate functionality?
 - If so, they can streamline business processes and reduce costs by consolidating duplicate software.
- Do they have any other costs they are unaware of due to unmanaged software?
 - If so, they can start identifying unmanaged software and creating software models and entitlements for it with Software Asset Management.

Section 2 Navigate the Overview dashboard

First, Rick would like to familiarize themselves with the Software Spend Detection Overview dashboard.



1. Navigate to **Software Spend Detection > Overview**.
2. When the dashboard displays, review the available data.



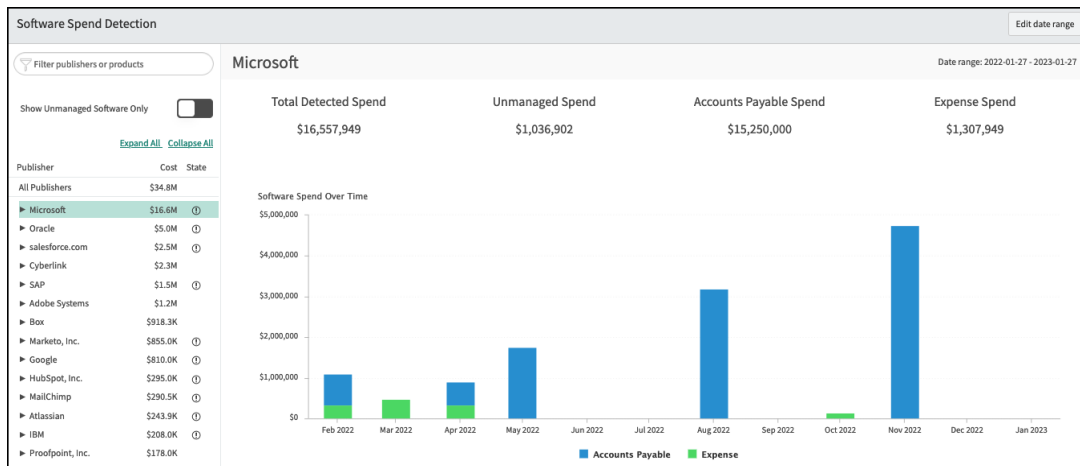
Note: Your values may differ slightly from the screenshot above depending on when you run the lab. The important thing is that you learn how to navigate the dashboard.

3. Review the menu on the left of the dashboard; this displays the list of publishers and their costs.
4. Expand a publisher (e.g., **Microsoft**) to see the list of their products for which you have imported transactions.

| | |
|------------------------|-----------|
| All Publishers | \$30.5M |
| ▼ Microsoft | \$12.3M ① |
| Azure | \$9.3M |
| Azure Virtual Machines | \$1.0M ① |
| SQL Server | \$750.0K |
| Office 365 | \$550.0K |
| Visio | \$450.0K |
| Virtual Server | \$145.0K |
| Azure Active Directory | \$126.0K |
| Virtual SourceSafe | <\$1K |

Note: The transactions that we normalized in a previous exercise above for Project have been added to the original transaction values that were pre-imported for these two products.

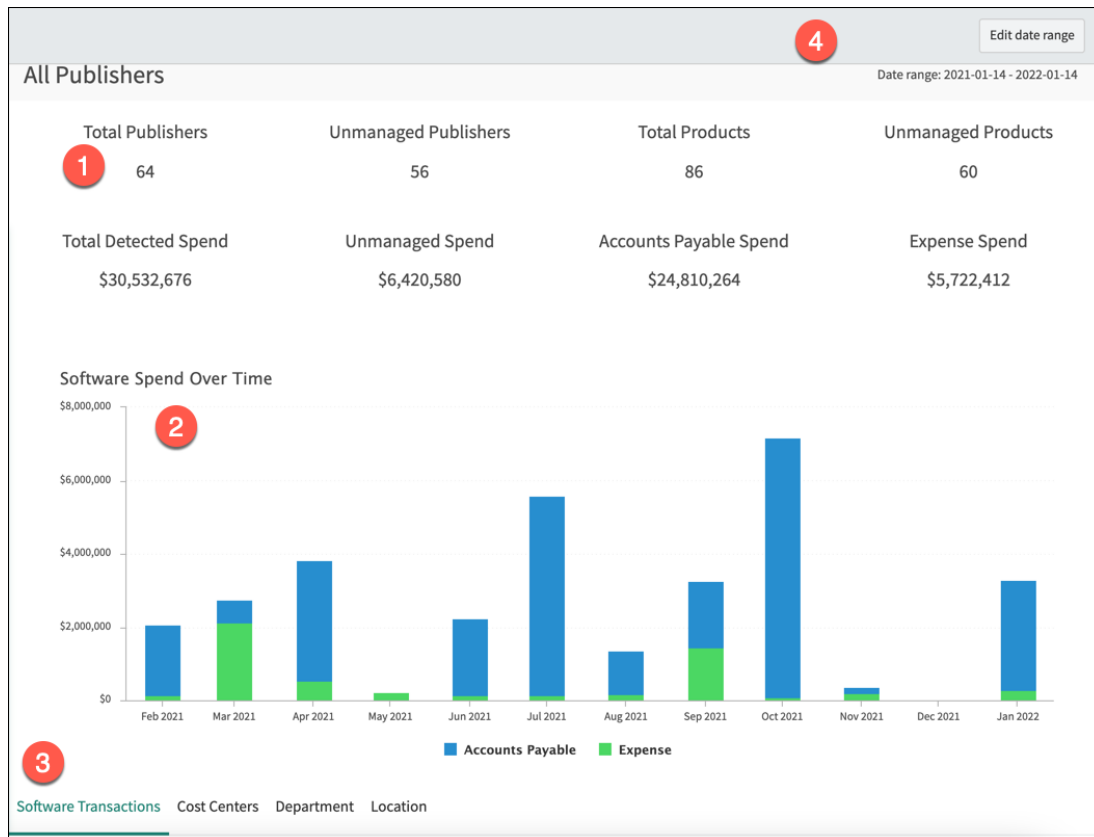
- Click a specific publisher (e.g., **Microsoft**) or product in the menu to display only those transactions in the content pane to the right.



Note: Note: Your results may vary slightly from the screen shot shown.

- Click **All Publishers** in the menu to return to the data for all publishers.

7. The content pane on the right displays (1) summary data at the top, (2) a bar graph providing a visual representation of the transaction information for **All Publishers** (or the selected Publisher or Product) in the middle, (3) individual transactions at the bottom, and (4) the selected date range in the upper right.



Note: Note: Your results may vary slightly from the screen shot shown.

8. Review the summary data at the top of the content pane. This data includes:
- **Total Publishers:** Includes those automatically detected from imported financial transactions, as well as those publishers manually added to transactions
 - **Total Products:** Includes those automatically detected from imported financial transactions, as well as those products manually added to transactions
 - **Total Detected Spend:** Total amount spent on software (i.e., Accounts Payable Spend plus Expense Spend)

Note: Your values may differ from the screenshot depending upon when you run the lab.

Knowledge Check: Refer to the Answer Guide at lab's end.

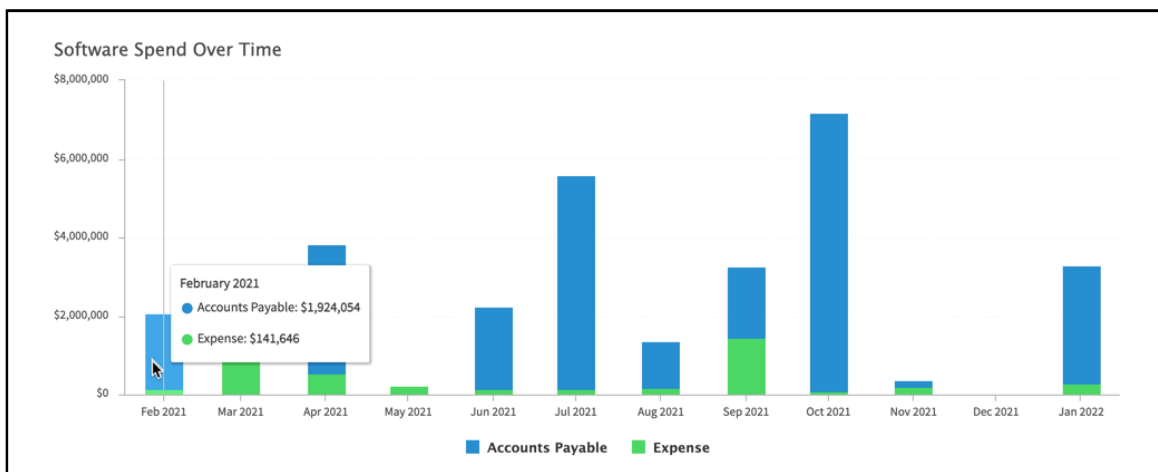
2. What is the total number of publishers identified in the environment (i.e., Total Publishers)?

3. How many Unmanaged Publishers are reported?

4. How many Unmanaged Products are reported?

5. What is the total Unmanaged Spend (i.e., potential savings)?

9. Mouse over the bars in the **Software Spend Over Time** graph.



Note: This displays the exact amounts spent during each month, for both Accounts Payable spend and Expense spend. Results may vary in your instance.

10. Scroll down and view the list of **Software Transactions** that have occurred during the past year.

| Software Transactions | | | | | | |
|-----------------------|-------------|-------------------------------------|-----------------------|----------------|-------------|-----------|
| Transaction date | Vendor name | Description | GL account | Amount | Is software | Publisher |
| 2022-01-31 | MSFT | Azure Enterprise Deal | Software Prepaid | \$4,250,000.00 | true | Microsoft |
| 2022-02-17 | MSFT | Azure Virtual machine payment | Software Subscription | \$345,634.00 | true | Microsoft |
| 2022-02-21 | MSFT | Azure Infrastructure | Engineering Ops | \$0.00 | true | Microsoft |
| 2022-02-25 | MSFT | MSFT SQL Server License | Software Prepaid | \$750,000.00 | true | Microsoft |
| 2022-03-21 | MSFT | Azure Virtual machine payment | Software Subscription | \$345,634.00 | true | Microsoft |
| 2022-03-23 | MSFT | Azure AD | Technology | \$126,000.00 | true | Microsoft |
| 2022-03-23 | MSFT | Azure Infrastructure | Engineering Ops | \$0.00 | true | Microsoft |
| 2022-04-04 | MSFT | MSFT Office365 Enterprise Licensing | Software Prepaid | \$550,000.00 | true | Microsoft |
| 2022-04-22 | MSFT | Azure Virtual machine payment | Software Subscription | \$345,634.00 | true | Microsoft |

Note: Your results may vary slightly from the screen shot shown.

11. Click the **Amount** column header to sort in descending order.

| Software Transactions | | | | | | | |
|-----------------------|-------------|-----------------------|------------------|----------------|-------------|-----------|---------|
| Cost Centers | | Department | | Location | | | |
| Transaction date | Vendor name | Description | GL account | Amount | Is software | Publisher | Product |
| 2022-11-02 | MSFT | Azure Enterprise Deal | Software Prepaid | \$4,750,000.00 | true | Microsoft | Azure |
| 2022-01-31 | MSFT | Azure Enterprise Deal | Software Prepaid | \$4,250,000.00 | true | Microsoft | Azure |
| 2022-08-03 | MSFT | Azure Enterprise Deal | Software Prepaid | \$2,750,000.00 | true | Microsoft | Azure |

Note: Your results may vary slightly from the screen shot shown.

Note You can also view expense transactions grouped by Cost Centers, Department, or Location using the other three tabs.

Knowledge Check: Refer to the Answer Guide at lab's end.

6. What product was the highest expense for and what type of expense was it?

12. Spend a few minutes reviewing the information available on the **Cost Centers**, **Department**, and **Location** tabs.

Knowledge Check: Refer to the Answer Guide at lab's end.

7. Which cost center had the highest number of transactions

8. Which department had the highest number of transactions

9. Which location had the highest number of transactions?

13. Click the **Edit date range** button in the upper right of the content pane.

Note: By default, one year's worth of data is displayed, but you can select alternate time periods to drill into more (or less) data; since Rick wants to start with the current year's worth of data, leave the default setting.

14. Click **Cancel** to return to the Overview dashboard.

Section 3 Identify shadow software purchases

Section 3.1 Review unapproved software

Now that Rick understands the basic layout of the dashboard, they want to identify potential shadow software running in the CloudD environment. First, they want to check if CloudD can reduce costs by eliminating any unapproved software.



1. If you are not there already, navigate back to **Software Spend Detection > Overview**.
2. Review the list of **All Publishers** in the navigation menu on the left.

Knowledge Check: Refer to the Answer Guide at lab's end.

10. What is the total spend of all identified publishers at CloudD?

3. In scrolling through the list, Rick immediately identifies the **5** unapproved publishers for software that CloudD has corporate solutions in place for: **SmartSheet, Airtable, Jitsi, Newscycle, Monday.com Ltd.**

Note: All products from these publishers are considered shadow IT that should be removed from the CloudD environment.

Knowledge Check: Refer to the Answer Guide at lab's end.

11. What is the total cost savings if this software had not been purchased?

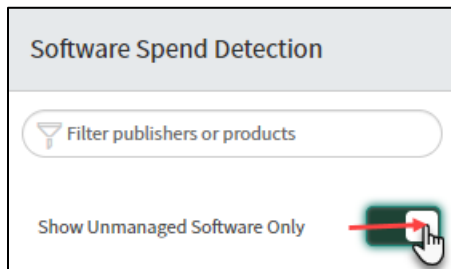
12. Which department purchased SmartSheet? Airtable? Jitsi? Newscycle? Monday.com?

4. Click **All Publishers** to return to the complete list of publisher and product transactions.
5. Rick's next step is to follow up with the departments that installed this non-approved software to ensure the corporate-approved solutions are installed and the non-standard software removed from their environments (as well as to also reinforce company software purchasing policies).

Section 3.2 Review unmanaged software

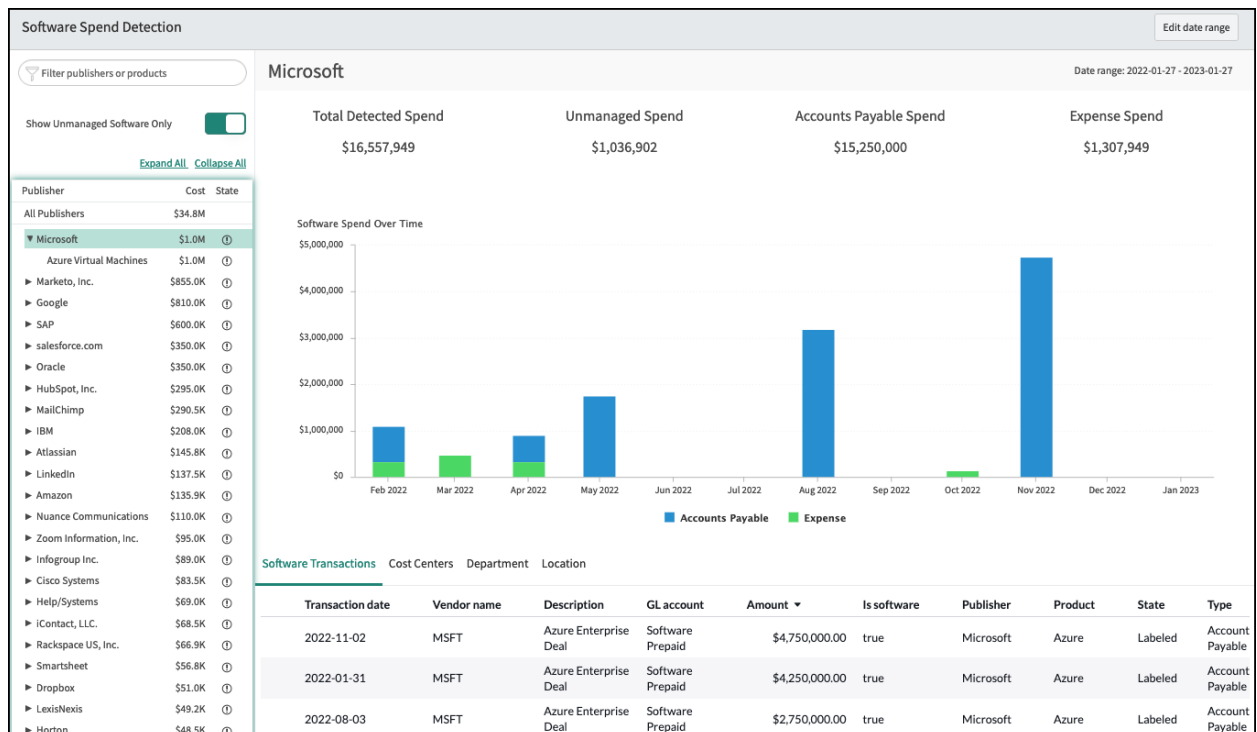
Next, Rick will start reviewing CloudD's unmanaged software in detail. This enables them to more accurately identify expenses that are potentially shadow IT spend.

1. At the top of the navigation menu on the left, slide the **Show Unmanaged Software Only** toggle switch to the right to view all currently unmanaged software at CloudD.



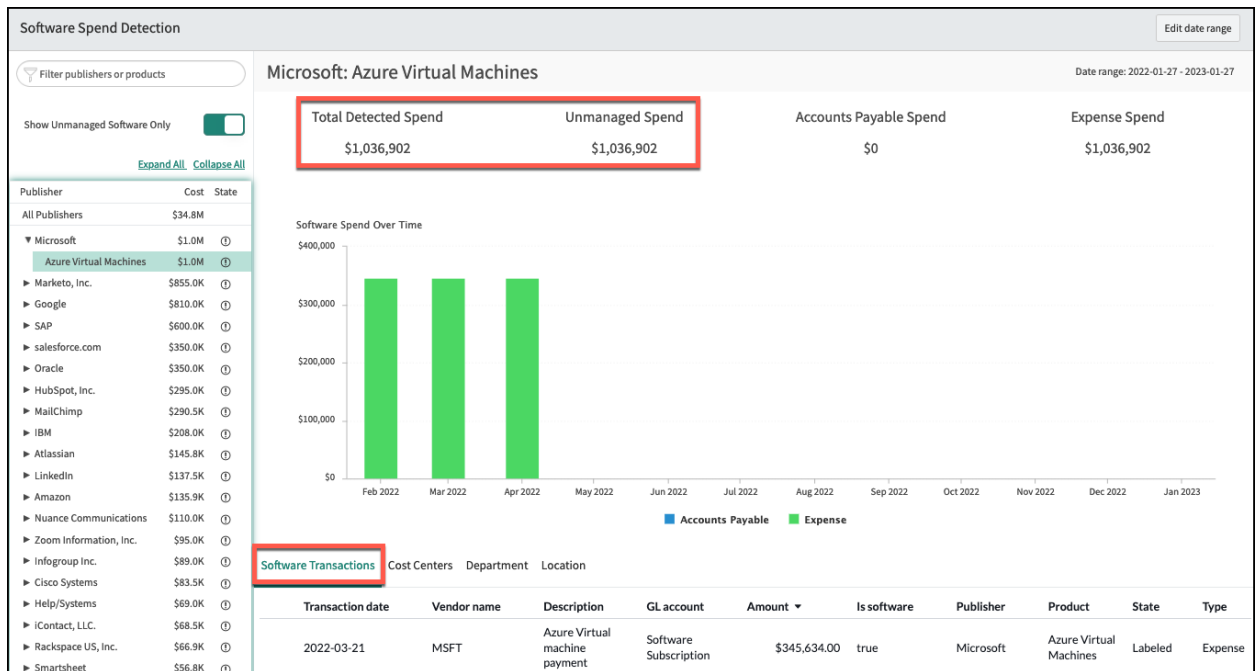
Note: If a transaction is unmanaged (i.e., no entitlements or software models exist for the associated product in SAM), then it is potentially shadow IT spend.

2. Expand a publisher (e.g., **Microsoft**) to view the specific products and transactions for which unmanaged transactions were imported.



Note: Your results may vary from the screen shot shown.

- Click product **Azure Virtual Machines** and review the data.

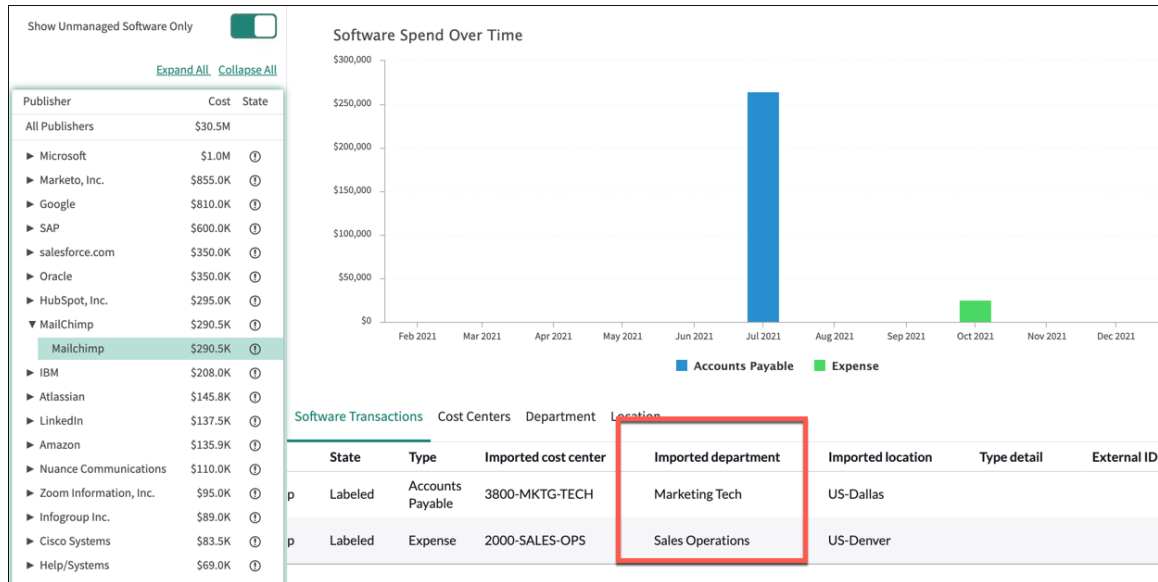


Note: At the top of the content pane, Total Detected Spend matches Unmanaged Spend and Expense Spend, so all three are in-line.

The data in the bar graph matches the three Expense transactions logged in the Software Transactions tab at the bottom of the content pane.

- Rick knows that this is a valid purchase for a project that the R&D team made for a project they are working on, and it was paid for out of cost center 5000-ENG. Their next steps are to track down the entitlement information for this purchase and ensure they create the appropriate software model and software entitlement for this product.
- Rick continues their review and spots **MailChimp** which is not an approved software in their package, they open to examine the transactions. They see the unapproved expenses were made by Marketing and Sales; CloudD has other, corporate-approved software that can meet this need.

6. Their next steps are to ensure this software is removed from the CloudD environment, the corporate-approved solution is installed and correctly licensed, and that going forward, this team follows the appropriate company software purchasing policies.



Note: Your results may vary slightly from the screen shot shown.

At the top of the content pane, Total Detected Spend matches Unmanaged Spend and Expense Spend, so all three are in-line.

7. Rick needs to repeat the above analysis for every unmanaged transaction listed in the Software Spend Detection Overview.

Section 4 Identify redundant software

Finally, Rick wants to analyze the CloudD environment for redundant/ overlapping software. Once they understand their existing software footprint, they can consolidate applications with similar functionality to reduce CloudD's unnecessary spend and streamline their business processes, to reduce the number of vendors they support, and to gain visibility to potential risks due to unapproved software installed in their environment.



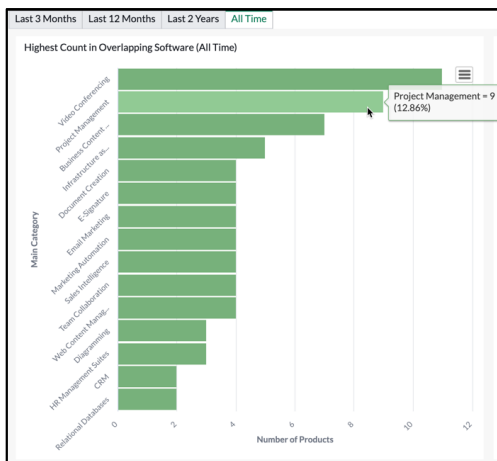
1. Navigate to **Software Asset > Software Spend Detection > Overlapping Software**.

- This dashboard groups all software spending into categories based on the main function of the software (e.g., video conferencing, project management, etc.).
- Applications within a given category are candidates for overlapping software.
- By default, all data shown on the Overlapping Software dashboard is from software transactions within the Last 2 Years.
- The two bar graphs at the top of the page: **Highest Count in Overlapping Software** and **Highest Spend in Overlapping**, display the highest count and highest spend for software products with overlapping functionality.
- Use this data to prioritize your analysis based on the number of applications and spend; the higher the number, the more likely you are to be able to consolidate some and reduce spend.
- The **All Categories with Products** section at the bottom lists *all* categories for which there are transactions.



| All Categories with Products (Last 2 Years) | | | |
|---|------------------------------|-------------|---|
| | | | 75 total Overlapping Software Summaries |
| Product | Number of spend transactions | Total spend | Spend transactions |
| ▶ Main category: Application Performance Monitoring (APM) (1) | | | |
| ▶ Main category: Application Server (1) | | | |
| ▶ Main category: Business Content Management (7) | | | |
| ▶ Main category: CRM (2) | | | |
| ▶ Main category: Diagramming (3) | | | |
| ▶ Main category: Document Creation (4) | | | |
| ▶ Main category: E-Signature (4) | | | |

2. Hover over a bar in the Highest Count graph to see the number of transactions for that category (e.g., Project Management).



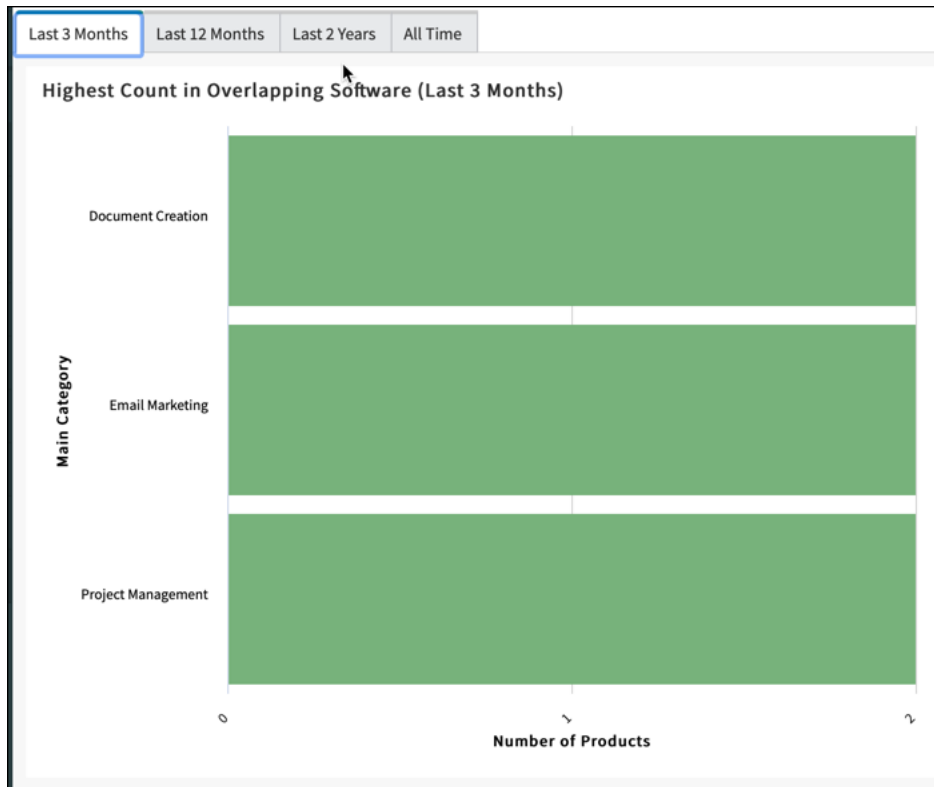
3. Click a bar in either graph (e.g., **Project Management**) to view a list of software products in each category.
4. Click **back** <- in your browser to return to the previous page.
5. Change the view (located below the graph) by clicking **Expand all groups**.

| All Categories with Products (Last 2 Years) | | | |
|---|------------------------------|-------------|---|
| | | | 75 total Overlapping Software Summaries |
| Product | Number of spend transactions | Total spend | Spend transactions |
| ▶ Main category: Application Performance Monitoring (APM) (1) | | | |
| ▶ Main category: Application Server (1) | | | |
| ▶ Main category: Business Content Management (7) | | | |
| ▶ Main category: CRM (2) | | | |
| ▶ Main category: Diagramming (3) | | | |
| ▶ Main category: Document Creation (4) | | | |

- Expand any product and click **View Spend Transactions** to see a list of transactions for that product.

| Product | Number of spend transactions | Total spend | Spend transactions |
|---|------------------------------|----------------|---|
| Main category: Application Performance Monitoring (APM) (1) | | | |
| Cloud Console | 8 | \$63,514.53 | View Spend Transactions |
| Main category: Application Server (1) | | | |
| WebLogic | 2 | \$567,000.00 | View Spend Transactions |
| Main category: Business Content Management (7) | | | |
| Box | 12 | \$1,838,785.11 | View Spend Transactions |
| Business Catalyst | 7 | \$175,000.00 | View Spend Transactions |
| Deliver Now | 2 | \$69,001.00 | View Spend Transactions |
| Document Management | 4 | \$9,430.00 | View Spend Transactions |
| Drive | 7 | \$56,021.00 | View Spend Transactions |
| Dropbox Business | 13 | \$107,138.40 | View Spend Transactions |
| Metalogix Expert | 8 | \$9,812.00 | View Spend Transactions |

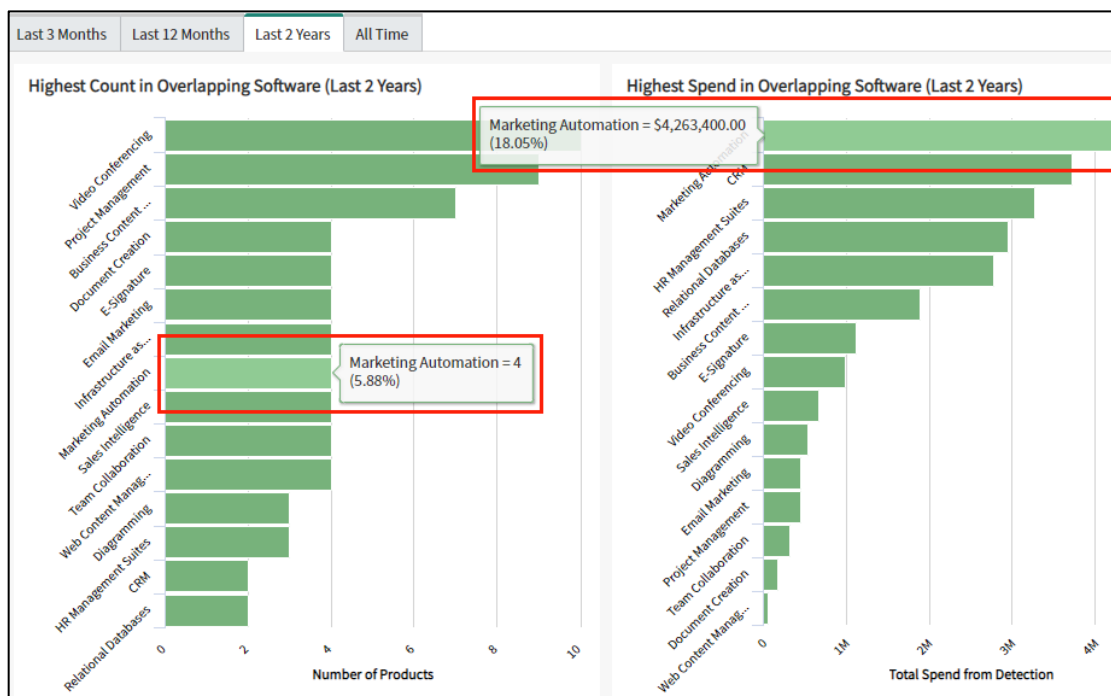
- Click **Overlapping Software** on the left-hand navigation panel to return to the dashboard.
- The date range tabs enable you to filter the time range captured in the bar graphs; click **Last 3 Months** to see how it changes the displayed data.



- Since the Document Creation category has moved up in terms of spend over the last three months, scroll down to the **All Categories with Products (Last 3 Months)** section, and click **Document Creation** to see the list of specific transactions these expenditures were for.

| Product | Number of spend transactions | Total spend | Spend transactions |
|--------------------------------------|------------------------------|--------------|---|
| Main category: CRM (1) | | | |
| Main category: Document Creation (2) | | | |
| OmniPage | 1 | \$110,000.00 | View Spend Transactions |
| Pages | 1 | \$18,500.00 | View Spend Transactions |
| Main category: E-Signature (1) | | | |

- Spend a few minutes exploring the data available and then return to the **Overlapping Software** dashboard.
- Once Rick has more visibility into the software installed in the CloudD environment and where their main areas of overlap are, they can start analyzing whether these applications are approved and/or required in the organization and create a consolidation plan with the other stakeholders in the organization.
- Given that the over the last two years the **Marketing Automation** category is high in both the number of applications installed (#8) and the highest spend (#1), this would be a good category to start with to determine whether any consolidation could potentially occur.



Note: Your results may vary slightly from the screen shot shown.



Congratulations! You have completed this lab!

You are now ready to begin learning about publishing software in the Service Catalog.

Knowledge Check Answer Guide

1. What details about installations are sent to ServiceNow?

- Vendor name
- Description
- GL account
- Is software
- Is software probability
- Publisher ID
- Publisher confidence
- Product ID
- Product confidence

Note: Any details such as Employee ID, Employee name, or Employee email included in imported transactions are not sent to ServiceNow.

2. What is the total number of publishers identified in the environment (i.e., Total Publishers)?

- 64

3. How many Unmanaged Publishers are reported?

- 52

4. How many Unmanaged Products are reported?

- 54

5. What is the total Unmanaged Spend (i.e., potential savings)?

- Approx 5.9M

6. What product was the highest expense for and what type of expense was it?

- Microsoft Azure (\$4.75M), Accounts Payable

7. Which cost center had the highest number of transactions?

- 1001-G&A (39)
8. **Which department had the highest number of transactions?**
 - General & Administrative (40)
 9. **Which location had the highest number of transactions?**
 - US-SanFrancisco (50)
 10. **What is the total spend of all identified publishers at CloudD?**
 - ~\$34.5M
 11. **What is the total cost savings if this software had not been purchased?**
 - \$166.8K
 12. **Which department purchased SmartSheet? Airtable? Jitsi? Newscycle? Monday.com?**
 - Sales Field Ops (1)
 - Marketing Tech (1)
 - R&D : UX (1)
 - Marketing Tech (1)
 - Legal Operations (4)

Lab takeaways



- What value does analyzing software spend deliver?
- Why is it important to establish Content Service participation?