

IAITAM ACE
May 7-9, 2024 The M Resort Las Vegas, NV

Optimize your SaaS & Subscription license spend

Finding your IAITAM Oasis

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SAM Objectives

- Formerly mostly about compliance
- Today about cost optimization

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How much can you reduce your SaaS spend?

- Gartner says that at least 25% of purchased SaaS software is un-used
 - ▶ "Shelfware – The CIO's Missing Key Metric and Cost Cutting Imperative" – Gartner, May 2020



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Subscription licensing gives you more control

- Ability to transfer licenses
- Ability to scale up and down
 - ▶ Unlike perpetual licenses – difficult to scale down



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But you need to know actual usage

“Come on Adobe... I get why you don't want us to know when expensive licenses aren't being used because we'll cancel them and you'll lose money... but really! In this day and age I thought transparency was the way to a customer's heart 😊”

Adobe community message board (2022)






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Like this Adobe Usage report

SI Status	Computer	User	Email	Product	Edition	Version	License Type	Last Used Date (By Computer)	Last Used Days Ago (By Computer)	Last Used Date (By User)	Last Used Days Ago (By User)	Install Date
S A I	desk_1004	11401	bdjym.fmpchj@...	Illustrator	None	C56	cloud user	5/23/2021	500	5/23/2021	500	5/24/2017
S A I	desk_1146	11401	bdjym.fmpchj@...	Illustrator	None	2019	cloud user	10/10/2021	360	10/10/2021	360	3/30/2016
S A I	nb_985	23913	yewada.vk@leh...	Acrobat	Pro DC T	2018	cloud user	10/13/2021	357	10/13/2021	357	4/12/2018
S A I	nb_985	23913	yewada.vk@leh...	Acrobat	None	C56	cloud user	11/17/2021	322	11/17/2021	322	5/17/2018
S A I	nb_985	23913	yewada.vk@leh...	Photoshop	None	C56	cloud user	11/23/2021	316	11/23/2021	316	5/23/2018
S A I	desk_2290	14290	qjvzpc.aj@pqr...	Photoshop	None	C53	cloud user	12/21/2021	288	12/21/2021	288	12/22/2019
S A I	nb_449	21248	wraggs.n@qwr...	Captrite	None	11	cloud user	1/13/2022	265	1/13/2022	265	1/14/2020
S A I	nb_449	21248	wraggs.n@qwr...	Creative Cloud All Apps Pro	Enterprise	2020	cloud user	2/26/2022	221	2/26/2022	221	2/13/2020
S A I	desk_387	25217	vaar.ahhhuw@...	Acrobat	Pro DC T	2020	cloud user	4/19/2022	169	4/19/2022	169	2/16/2020
S A I	desk_387	25217	vaar.ahhhuw@...	Creative Cloud All Apps Pro	Enterprise	2020	cloud user	4/27/2022	161	4/27/2022	161	2/16/2020





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Software publisher portals

- Pros
 - ▶ Great if usage data is available, detailed and actionable
- Cons
 - ▶ Usage data may not be provided or detailed enough
 - ▶ Not provided by many software vendors:
 - ▶ Adobe products
 - Microsoft Visio, Project, Visual Studio, Power BI
 - Oracle Virtual Box, Java
 - JetBrains
 - Atlassian
 - Etc.



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Microsoft Endpoint Configuration Manager

- Tool used by operations to deploy software and patches
- User must create software metering rules
 - ▶ File Name, Original File Name, Version, Language
 - ▶ Identify specific .exe to target for usage.
- Wait 6, 9, 12 months for results
- Limited number of applications can be monitored at the same time



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Microsoft Endpoint Configuration Manager

- Pros
 - ▶ Everyone has Microsoft Endpoint Manager Configuration Manager
- Cons
 - ▶ Requires set up of discovery rules
 - ▶ Must identify correct file to measure usage for each application
 - ▶ Must wait for 6, 9, 12 months for results
 - ▶ Limited number of files can be monitored at the same time
 - ▶ Rinse and repeat



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Microsoft Endpoint Configuration Manager – usage discovery process

```
graph LR; A[App A] --> C[Create discovery rule]; B[App B] --> C; C --> S[Select files (exe, dll)]; S --> W[Wait 6,9,12 months];
```

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Microsoft Defender Vulnerability Management

- Software usage on some applications
- Available on the Microsoft Defender portal

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Microsoft Defender Vulnerability Management

- Pro
 - Only requires Microsoft Defender and endpoint detection service
- Cons
 - Not sure which applications are monitored.
 - Only last 30 days of usage data.
 - Not sure how data can be accessed automatically.

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Single Sign-On (SSO)

- Single authentication provides access to multiple applications
- Use SSO logs to determine application usage



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Single Sign-On (SSO)

- Pros
 - ▶ Many organization are using SSO
- Cons
 - ▶ SSO Logins ≠ Software Usage
 - ▶ Accuracy & Completeness
 - ▶ Does not cover non-SSO apps
 - ▶ No indication of which app is being used if part of a package
 - M365, Adobe CC



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Network traffic analysis

- Firewalls with Cloud Access Security Broker (CASB) capabilities
- Used to allow or block applications
- Identifies SaaS applications by analyzing network traffic
 - ▶ Application signatures
 - ▶ Application protocols
 - ▶ Heuristics



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Network traffic analysis

- Pros
 - ▶ Many organizations are using advanced firewalls with this feature
- Cons
 - ▶ Accuracy and completeness
 - Problems in identifying applications based on network traffic
 - ▶ Manual effort
 - Viewing and analyzing log files.
 - Mapping signatures to applications.
 - ▶ Application Layer Encryption will prohibit use of this method.
 - ▶ Many subscription licenses not based on network access
 - Adobe, Microsoft, ...



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Employee monitoring tools

- Used to monitor employee behavior and activity
- Became very popular since Covid and WFH
- Based on active Agents and Web browser extensions



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Employee monitoring tools

- Pros
 - Can gather software usage data based on signature catalog.
- Cons
 - Needs signature catalog to be updated.
 - Always on active agents on client machines.
 - Needs employee approval in the EU.
 - Possible employee pushback.



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SAM tool A – active agent based

- Identify executable files to monitor
 - ▶ "Key files" in an MSI package
 - ▶ Add/Remove programs registry settings
 - ▶ "Manual Mapper" to create registry entries to identify executables
- Enable or Disable usage tracking on assets
 - ▶ Via Registry entries
- Wait 6, 9, 12 months for results
 - ▶ Data aggregated by week, not by day
 - ▶ Executable may not identify software package use (Adobe, Microsoft)



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SAM tool A – active agent based

- Pros
 - ▶ ???
- Cons
 - ▶ A lot of continual manual efforts
 - ▶ Usage reported on wrong application
 - ▶ Per-user installed software not discovered
 - ▶ Suite applications not reported as used when components used
 - ▶ Usage not tracked for non-key MSI component files
 - ▶ Wait 6, 9, 12 months for results
 - ▶ Always on active agent.



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SAM tool B – browser extension

- Similar to other Employee Monitoring tools
 - ▶ Popular since Covid and WFH.
- Software application installed on popular web browsers
 - ▶ Chrome, Edge, Firefox
- Analyze browsing history for software usage



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SAM tool B – browser extension

- Pros
 - ▶ SaaS apps which use a web browser
- Cons
 - ▶ Many SaaS apps do not use a web browser
 - Adobe, Microsoft, ...
 - ▶ Fairly easy to avoid or remove history
 - Incognito mode, Extensions that remove history
 - ▶ GDPR requires consent by users or browser history data must be anonymized
 - ▶ Possible push-back from employees




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SAM tool C – passive agent based

- Automated discovery of last used times of all apps
 - ▶ No set up required
- Results available immediately
 - ▶ No need to wait for 6, 9, 12 months for results
- Patent (US8473607B2) based on forensic techniques
- Currently applicable to Windows only




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SAM tool C – passive agent based

- Pros
 - ▶ Automated - no manual set up steps required
 - ▶ Results available immediately – no need to wait for 6, 9, 12 months
 - ▶ Covers all apps which have a footprint on the host machine
 - Adobe, Microsoft (O 365, Visio, Project, Power BI), Oracle (Java, OVB), JetBrains, Salesforce, Zoom...
 - Passive agent – dormant most of the day.
- Cons
 - ▶ Does not cover apps which have no footprint
 - Avalara, Bloomberg, Capterra, Momentum, ServiceNow, Zoominfo, Zylot, ...
 - ▶ Non-Windows environments

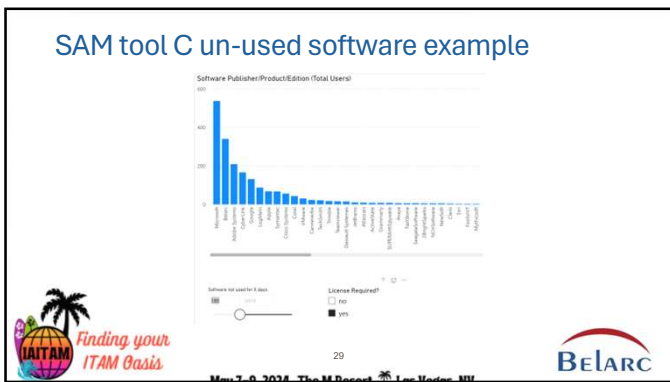

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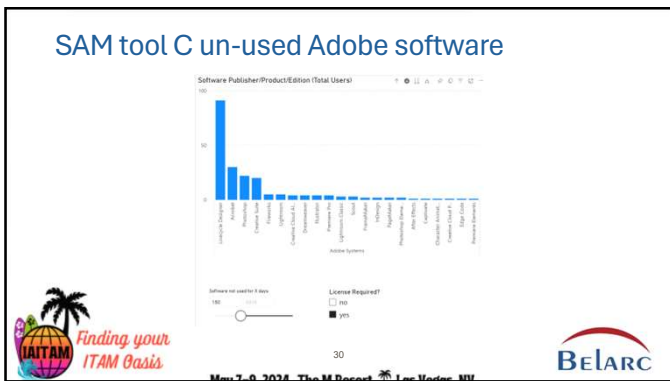
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SAM tool C un-used Adobe software

Software List

Company	Product	Edition	Version	License Model	License Regional	Reason Not Req	Subscription assigned	ProductKey	signature	ipAddress/FQDN/URL	ComplianceName	LastCallTime/Comp
Adobe Systems	Photoshop	Name	CS2	user	usa	no		1110-1046 7645-8739 4889-0744	110887	A7632020-04000-002	Adobe,Adobe	12/16/2012 7:10:00
Adobe Systems	Photoshop	Name	CS	user	usa	no		5465-1040 8716-2089 4758-0882	5465	17A42019-82700-004	Adobe,Adobe	11/16/2019 8:27:00A
Adobe Systems	Photoshop	Name	CS6	float user	usa	no		1040-1040 4758-2089 7645-8739	52785	67700101-03000-004	Adobe,Adobe	6/7/2019 1:00:00P
Adobe Systems	Photoshop	Name	CS6	user	usa	no		5465-1040 8716-2089 4758-0882	51384	10101019-03000-004	Adobe,Adobe	10/31/2019 10:00:00A
Adobe Systems	Photoshop	Name	CS2	user	usa	no		5465-1040 8716-2089 4758-0882	52380	67161019-03000-004	Adobe,Adobe	6/19/2019 10:00:00
Adobe Systems	Photoshop	Name	CS2	user	usa	no		4924-1041 8716-2089 8445-1041	4919	67161019-03000-004	Adobe,Adobe	6/11/2019 2:48:00P
Adobe Systems	Photoshop	Name	CS2	user	usa	no		5465-1040 8716-2089 4758-0882	4919	67161019-03000-004	Adobe,Adobe	6/11/2019 2:48:00P
Adobe Systems	Photoshop	Name	CS2	user	usa	no		5465-1040 8716-2089 4758-0882	4919	67161019-03000-004	Adobe,Adobe	6/11/2019 2:48:00P
Adobe Systems	Photoshop	Name	CS6	float user	usa	no		5465-1040 8716-2089 4758-0882	52920	67161019-03000-004	Adobe,Adobe	12/16/2019 8:02:00A
Adobe Systems	Photoshop	Name	CS6	float user	usa	no		5465-1040 8716-2089 4758-0882	52919	67161019-03000-004	Adobe,Adobe	12/16/2019 8:02:00A
Adobe Systems	Photoshop	Name	CS6	float user	usa	no		5465-1040 8716-2089 4758-0882	52919	67161019-03000-004	Adobe,Adobe	12/16/2019 8:02:00A
Adobe Systems	Photoshop	Name	CS2	user	usa	no		4758-2089 7645-8739 5465-1040	505	47582017-03100-004	Adobe,Adobe	8/14/2017 8:10:00P
Adobe Systems	Photoshop	Name	CS2	user	usa	no		4758-2089 7645-8739 5465-1040	505	47582017-03100-004	Adobe,Adobe	8/14/2017 8:10:00P
Adobe Systems	Photoshop	Name	CS2	user	usa	no		4758-2089 7645-8739 5465-1040	505	47582017-03100-004	Adobe,Adobe	8/14/2017 8:10:00P
Adobe Systems	Photoshop	Name	CS6	float user	usa	no		5465-1040 8716-2089 4758-0882	54485	67161017-03100-004	Adobe,Adobe	6/16/2017 8:32:00P
Adobe Systems	Photoshop	Name	CS6	float user	usa	no		5465-1040 8716-2089 4758-0882	54485	67161017-03100-004	Adobe,Adobe	6/16/2017 8:32:00P
Adobe Systems	Photoshop	Name	CS2	user	usa	no		5465-1040 8716-2089 4758-0882	54485	67161017-03100-004	Adobe,Adobe	6/16/2017 8:32:00P



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Software usage data is critical to optimize costs

- Significant cost savings by optimizing SaaS software spend
- Usage is foundation for optimizing SaaS and other subscription license spend
- Needs to be automated, accurate, and up to date
- Single method may not meet all your requirements
 - ▶ Software publisher portals
 - ▶ Microsoft Endpoint Configuration Manager
 - ▶ Single Sign-On (SSO)
 - ▶ Network traffic
 - ▶ Employee monitoring tools
 - ▶ SAM tools



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Belarc

- Over 1,800 customers worldwide
 - ▶ Autodesk, Environmental Protection Agency, Federal Aviation Administration, NASA, Patent & Trademark Office, Department of State, Travelers Insurance, US Air Force
 - ▶ Many long term >10 years
 - ▶ Located in over 50 countries
- Eight US and Worldwide Patents



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Questions and contact

Request our white paper – “Reduce your SaaS spend with accurate usage data”.
Come by to chat with us on the show floor.

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