

THE CIO'S HANDBOOK FOR **IT SPEND ANALYSIS**

- The complete guide to streamlining IT spend and budgeting

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Introduction

IT has the unfortunate tendency to be a money pit, and when considering the substantial investments that are put into technology and R&D, there is often a lack of understanding and visibility into how exactly the allocated IT budget is utilized.

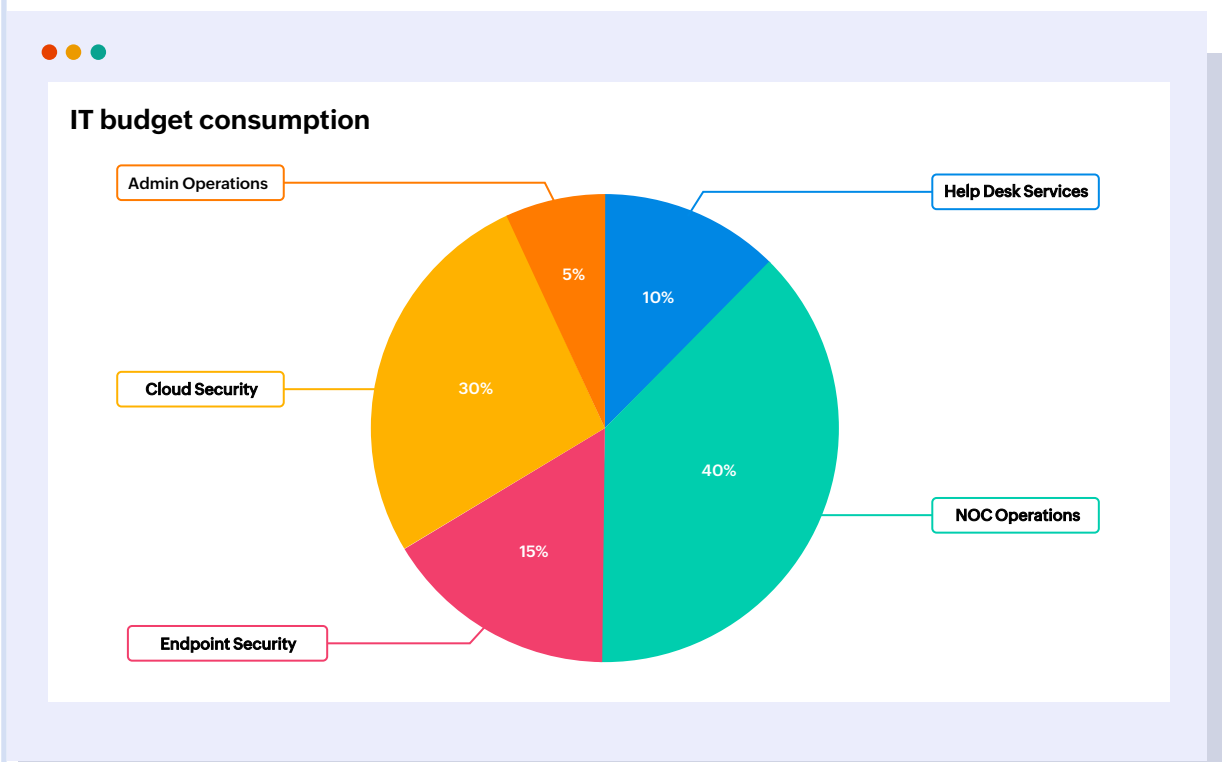
Generic IT budgeting reports revolve around budget consumption, with minimal information on much else. However, to strategize effective and accurate IT budgets, CIOs require comprehensive insights into the extent of IT spend, the budget wasted, and the ROI witnessed by the organization.

Enter AI-driven spend analytics.

This e-book details an intricate, three-pronged, analytics-powered strategy to understand IT spend and strategize successful IT budget plans for the upcoming year.

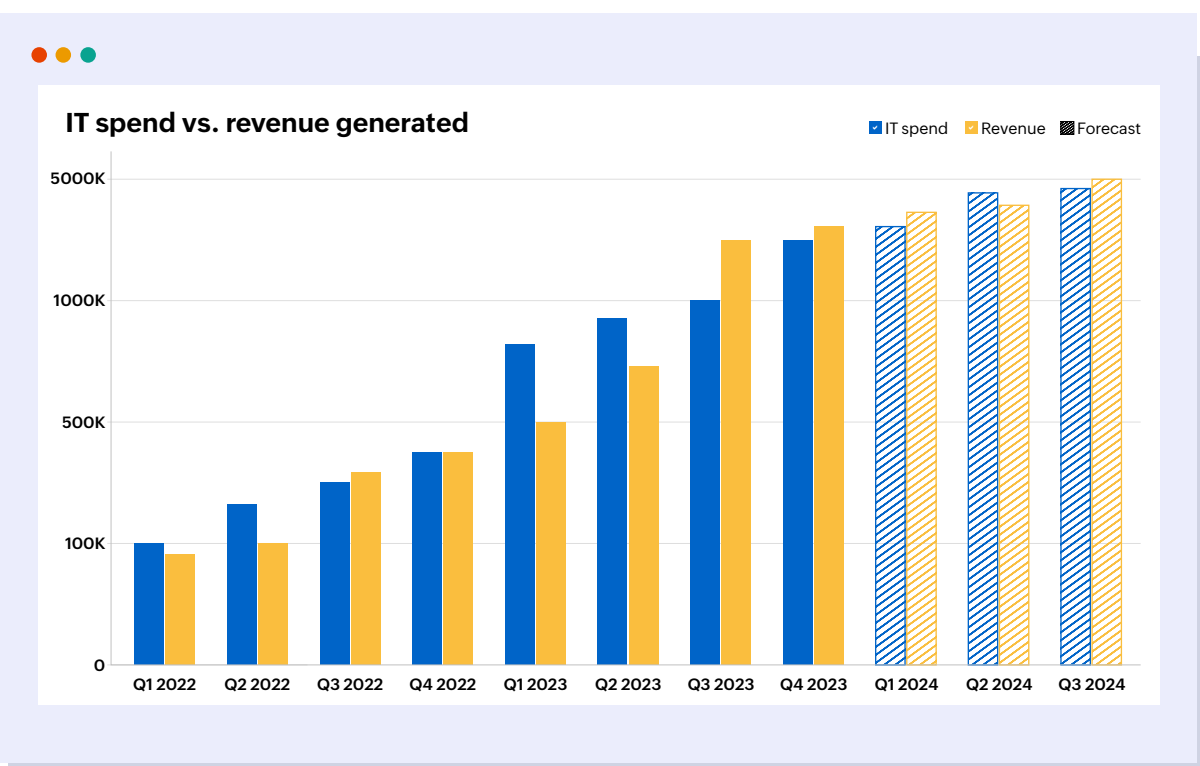
Comprehensively analyze IT spend

Every budgeting journey begins with understanding historical budget consumption. In addition to tracking how much of your budget was consumed, understanding how various departments in your organization consumed their allocated budget provides valuable insights.



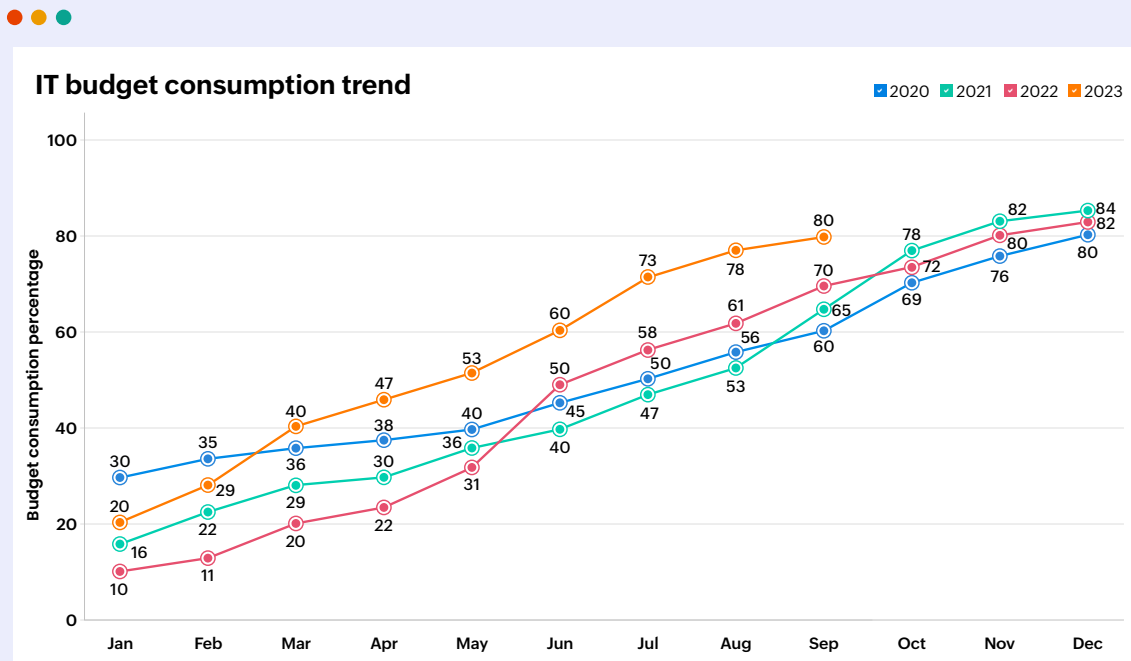
The analysis above proves beneficial in understanding budget consumption across an organization's departments, helping CIOs flag teams that consume the most resources. This is beneficial when running ROI calculations and allocating future budgets.

Nearly every organization retains similar information that was tracked over recent years, but they often fail to utilize this historical data to fuel future strategies. By comparing current spend against previous years', CIOs can uncover essential insights into IT's performance and positioning. Considering technological advancements, IT spend would typically have increased when compared to past usage. However, this increased consumption must be substantiated by subsequent increases in projected revenue.



The analysis above uncovers the quarterly budget consumption and the corresponding revenue generated as a result of the increasing IT investment. However, certain investments require a longer payoff period. By visualizing the projected revenue trends, CIOs can account for such scenarios to get a ballpark estimate of the ROI using predictive analytics.

In addition to understanding budget consumption at these nuanced levels, it is recommended to also measure the pace at which IT budget is consumed. With the emergence of AI-generated discoveries and new innovations, IT teams tend to invest heavily in technologies to keep up with changing technological trends.



By keeping a close eye on the rate of budget consumption through an analysis like the one above, CIOs can ensure the team doesn't blow past the allocated budget before the year is up. By leveraging an AI-enabled analytics solution, CIOs can be notified of periods where budget consumption is higher than usual, which allows them to implement immediate changes like pausing R&D investments or purchasing economical hardware assets to curb IT spend.

These three analyses lay the foundation for a successful IT spend analysis strategy. However, stopping here, as most organizations are wont to do, would give rise to a rudimentary strategy.

In restricting spend analysis to merely tracking budget consumption, CIOs stand to lose valuable insights into IT's performance and growth, which in turn can be leveraged into streamlining the IT budget. To that end, it is recommended to hold IT spend against the organization's goals.

For instance, recent global trends witnessed enterprises placing heavy emphasis on migrating their operations to the cloud and investing heavily in AI-driven advancements. To stay profitable, your organization's IT spending must reinforce these shifting business goals. This implies that organizations migrating operations to the cloud should witness corresponding investments in purchasing, configuring, and maintaining cloud infrastructure.



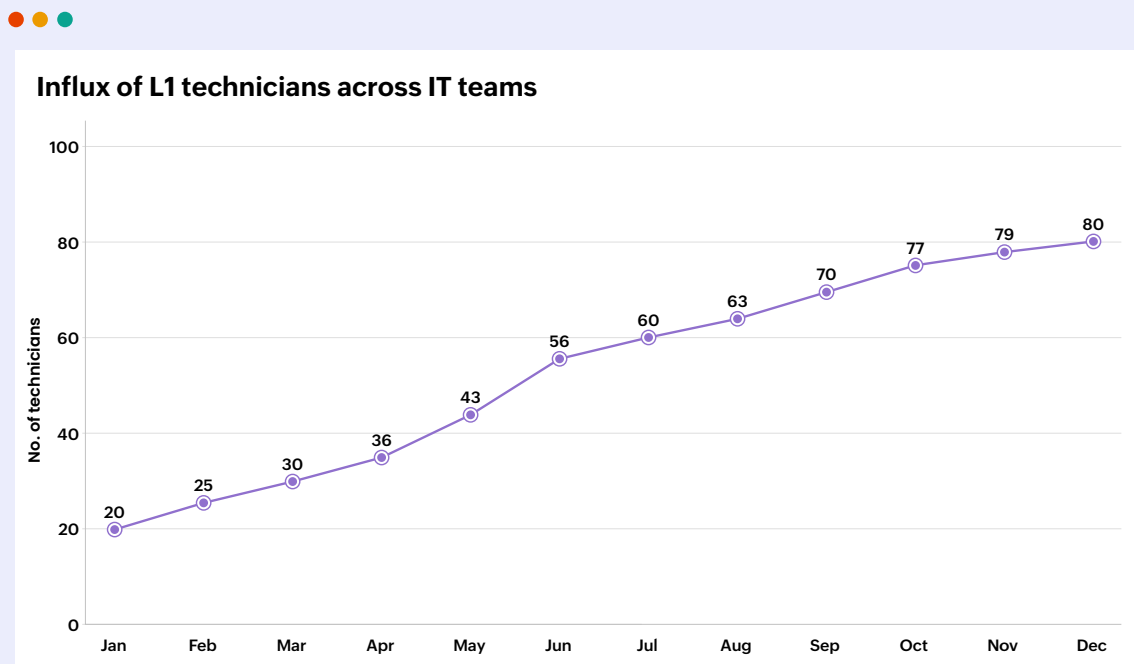
IT infrastructure spend analysis

	Purchased on	Resource	Purchase cost	Site
1.	January	Server	\$5000	London
2.	January	Database	\$950	New York
3.	March	Database	\$540	Tokyo
4.	April	Endpoint management software	\$1500	London
5.	July	Server	\$5800	New York
6.	September	Network monitoring software	\$650	Tokyo
7.	September	Storage instance	\$400	Sydney
8.	October	Virtual machine	\$750	Sydney
9.	October	Storage instance	\$580	New York
10.	October	AWS cluster	\$350	Sydney

The analysis above collates the organization's investments into purchasing and maintaining IT infrastructure, and uncovers evident trends that support the global shift to adopting cloud resources.

Similarly, organizations that are turning towards AI, automation, and all their built-in technologies should see an increased investment in AI technologies or even R&D. While IT leaders can quickly leverage similar analytics like before to track IT spend on AI and automation, they must also ensure the rest of the organization follows suit.

For instance, organizations that invest heavily on configuring hyperautomation should see reduced investments in hiring L1 technicians. By implementing various strategies powered by costly investments in AI, organizations can witness reduced repetitive and manual tasks. Continuing to hire L1 technicians across help desk and NOC teams then becomes a redundant IT expenditure.



The above visualization ensures IT managers keep a close eye on hiring trends, driving accountability and ensuring the budget allocated towards AI advancements provides tangible returns.

Understand and curb budget wastage

The second vital leg in streamlining IT spend involves uncovering the silent cost drains within an organization. Despite carefully laid-out plans, there are several avenues and strategies within IT that can bring about significant money wastage. Visibility into these avenues is crucial in understanding overall spend and in implementing effective budgets for the upcoming year.

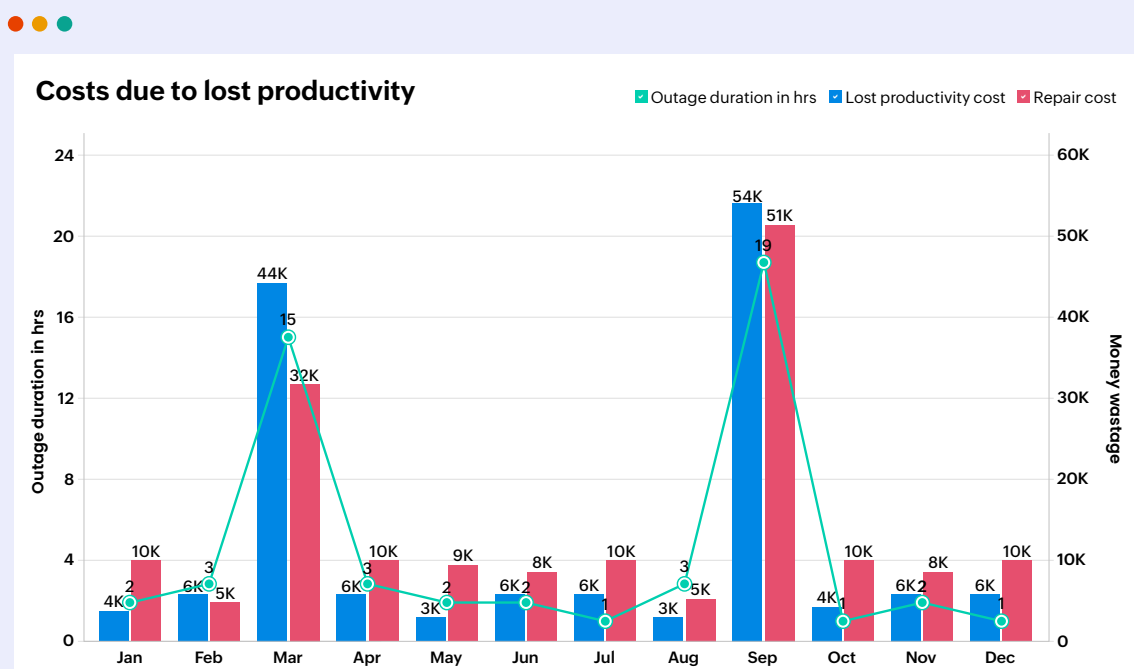
Costs associated with IT outages

A considerable chunk of the allocated IT budget goes towards addressing IT outages. However, in addition to the hefty costs incurred while repairing affected applications and devices, there are additional, often-forgotten downtime expenses that quietly drain the IT budget.

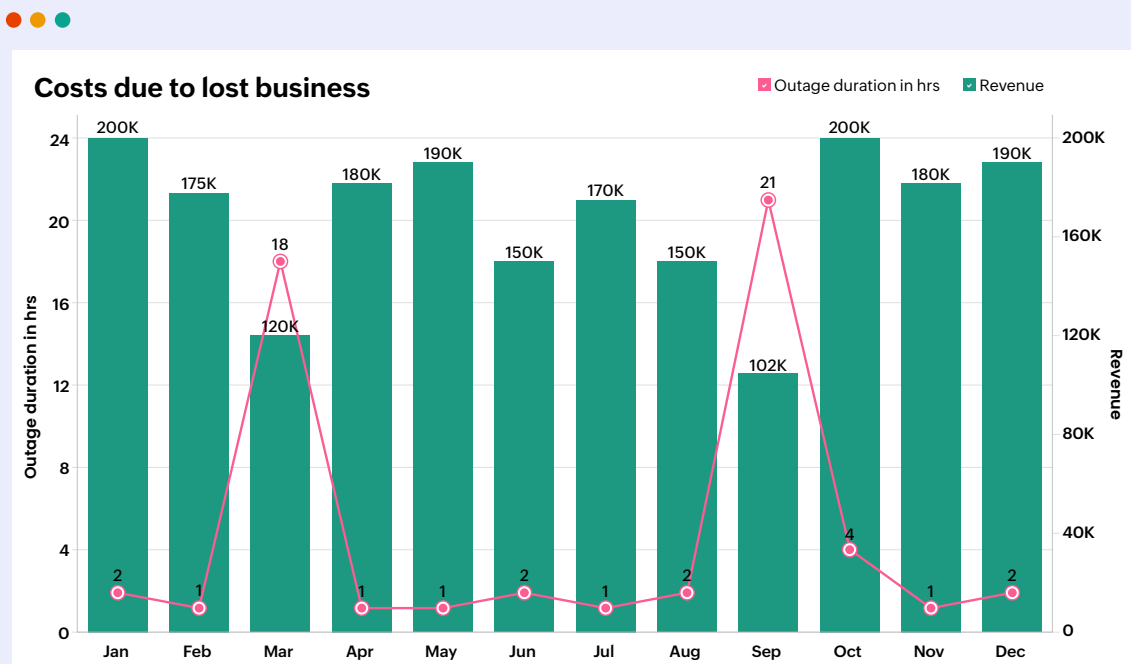
IT outages can be broadly summarized into two categories—those affecting internal resources used by employees, and those impacting customer-facing applications and servers.

Generally, organizations account for the repair costs for internal outages. However, there is an important caveat that is often overlooked—the costs incurred due to productivity loss. When employees are unable to access the resources required for daily operations, productivity takes a hit, resulting in an indirect cost drain. To understand this cost, let us assume an employee is paid \$30/hour on average. A large-scale outage impacting 100 employees therefore results in a \$3,000 loss per each hour of downtime.

With an analysis like the one below, CIOs can easily monitor the cost associated with loss in man hours. Looking at this sum in addition to the repair costs provides an understanding of the true money wasted due to internal outages.



Understanding the budget wastage in handling customer-facing outages requires a different approach. In addition to incurring direct repair costs, outages in external resources such as webpages, chatbots, and other applications can incur costs across other departments in the organization. From the obvious loss in revenue when customers are unable to purchase goods and services via e-commerce applications to the increased bounce rate when webpages and chatbots crash, outages in customer-facing resources have a considerable impact on overall revenue.



The above visualization uncovers evident drops in the revenue generated when the organization encounters outages in customer-facing applications. To gain accurate insights into downtime costs, CIOs must account for this loss of revenue in their spend analysis.

Costs associated with underutilized software and hardware

Software licenses are not unlike gym memberships: purchased with the best of intentions but often remain unused or even forgotten. Insufficient licenses can land organizations in hot water during audits and sometimes open the door to security breaches. IT teams therefore ensure a running stock of licenses for widely used applications, but unlike physical assets, these licenses prove harder to track.

In addition to over-purchasing software licenses, IT admins also tend to provision software assets to employees and then fail to track their usage. In most cases, not all of these users utilize the software issued to them. Both scenarios of unused and underutilized software licenses can result in considerable money wastage.

Software license usage

	Software	Assigned to	Purchase cost	Last accessed on	Days since access
1.	TechSmith Camtasia	ella-9450	\$350	15 Jun 2022	530
2.	CRM	jack-4301	\$5000	01 Nov 2021	756
3.	Adobe Illustrator	ryan-2210	\$360	16 Dec 2022	356
4.	SublimeText	owen-1105	\$650	05 Jul 2022	510
5.	Figma	kyle-2545	\$900	22 Jul 2022	493
6.	Google Ads	anna-3812	\$800	10 Jan 2023	321
7.	Adobe Illustrator	In store	\$3600	Unused licenses	Not accessed
8.	FortiClient	In store	\$4000	Unused licenses	Not accessed
9.	TechSmith Camtasia	In store	\$3500	Unused licenses	Not accessed
10.	Figma	In store	\$9000	Unused licenses	Not accessed

The above analysis pulls in data from your asset management software to list every software license in your IT environment, and it zeros in on those that are unused. This analysis also lists the last access time for licenses associated with employees, allowing IT admins to easily spot licenses that have remained unused for longer periods. This analysis therefore acts as the one-stop solution to track the wastage associated with both unused and underutilized software licenses.

In a similar manner, CIOs can apply AI-powered analytics to uncover the costs associated with purchasing and maintaining underutilized hardware resources. Similar to unused software licenses, these resources can rake up hefty costs throughout their lifetime.

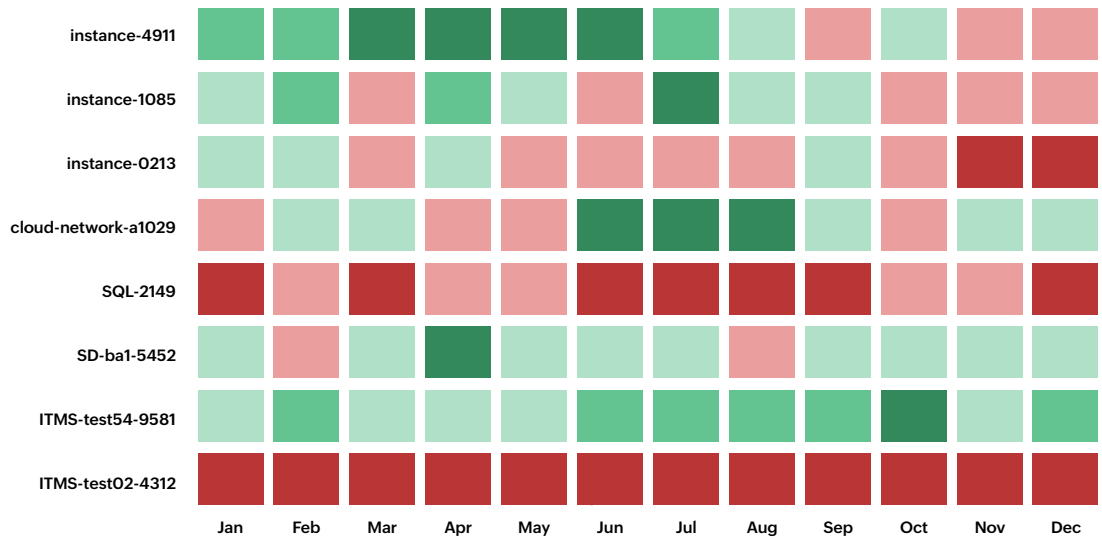
Identifying unused hardware resources (i.e., assets placed in storage) is fairly straightforward. However, underutilized resources can be akin to the proverbial needle in a haystack: harder to discern through standard reporting.

CIOs can instead employ an intuitive analytics platform to track resources' various utilization levels in the form of comprehensive analysis like the ones below.



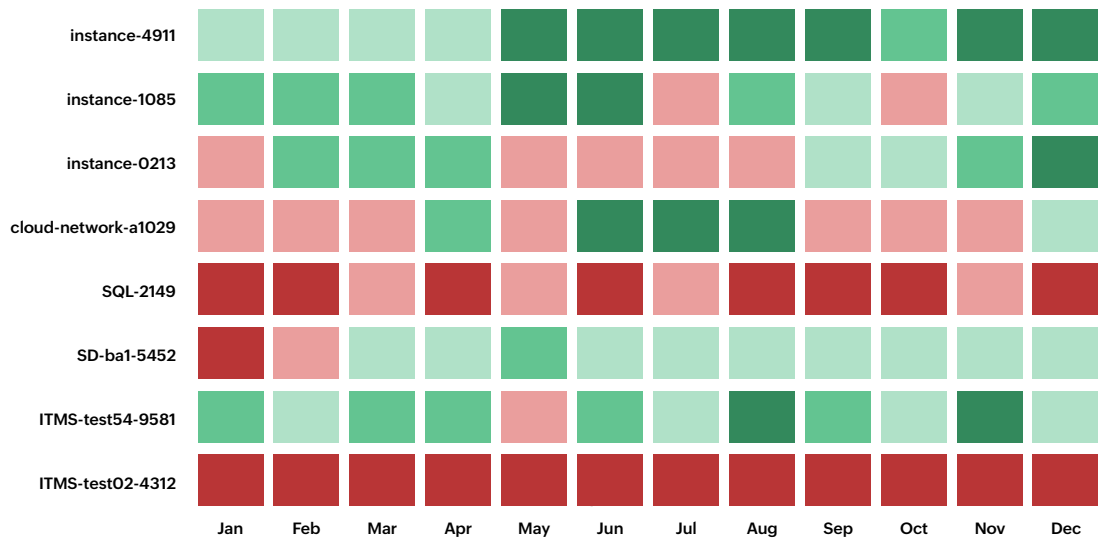
CPU utilization

Below 30% 30% to 45% 45% to 60% 60% to 80% Above 80%



Memory utilization

Below 30% 30% to 45% 45% to 60% 60% to 80% Above 80%



This heat map filters out the least-utilized resources within an organization, computed based off each resource's CPU and memory utilization levels. CIOs can drill down into this analysis to uncover the purchase and maintenance costs associated with these underutilized resources.

Additionally, IT managers can leverage this analysis to curb underutilized resources and cut down on money wastage. For instance, two servers with less than 20% utilization over a period of three to four months can be rightsized into one server that hosts both server's applications.



Tip

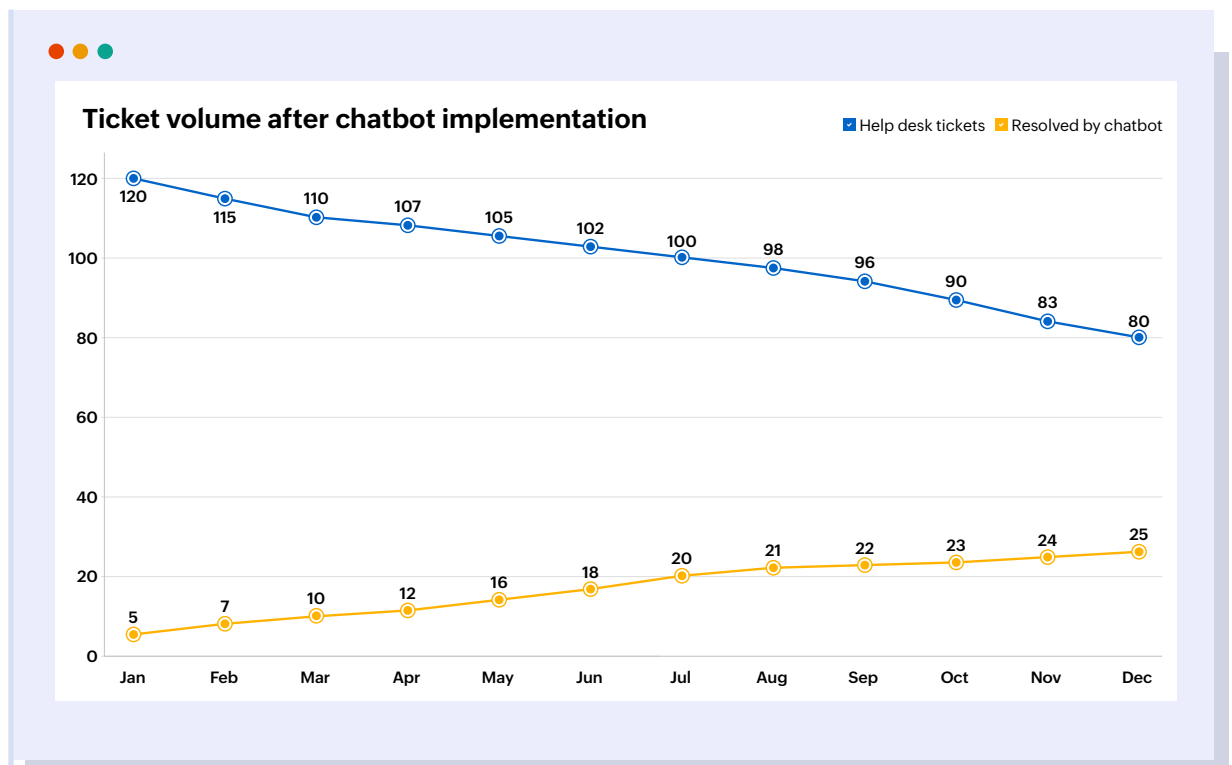
In the march to curb unused and underutilized resources, it is a good practice to implement this disposition process in stages to ensure minimized disruption to daily business operations. Ensure resource owners are notified of disposition plans, and post a grace period of a few days, decommission the resources. This practice helps organizations sidestep costly business interruptions and also avoid the emergence of shadow IT resources.

Implement ROI calculations

For a department that is often branded with the unfortunate tag of being a cost center, measuring the ROI of IT investments must become an integral cog in any IT spend analysis. In addition to understanding yearly IT expenditure and identifying avenues of cost wastage, CIOs should execute effective ROI calculations to demonstrate tangible returns and discern better investment avenues for the coming years.

IT introduces several initiatives aimed at improving existing operations and increasing employee productivity. To quantify the ROI of these initiatives, IT leaders should then look for direct improvements in efficiency or cost savings.

For instance, organizations that have introduced, or streamlined, a self-service portal for customer interactions can carefully examine the trend in help desk ticket volume to detect improvements in terms of reduced calls.



By comparing the historical volume of help desk tickets with the number of chatbot interactions, IT managers can tie back the reduced ticket volume to the chatbot's effective implementation. Such drastic reductions in incoming tickets reduce the number of technicians required to address employee woes. Not only does this provide immediate and tangible results in terms of reduced help desk costs, this IT initiative also ensures employees attain immediate resolutions, driving employee productivity.

In a similar manner, CIOs can quantify the ROI of various IT initiatives by measuring the success rates of these strategies. It is also recommended to look for similar initiatives that were implemented across other departments and their corresponding returns. These organizational insights can provide IT leaders with quantifiable benchmarks that can be configured as thresholds to measure the ROI of similar initiatives within IT.

Conclusion

Today's IT operates in multiple silos, executing numerous initiatives to meet growing demands and technological improvements. By breaking free of siloed operations, CIOs can acquire granular insights into IT expenditure, establishing effective IT budget plans and eradicating excess expenditure.

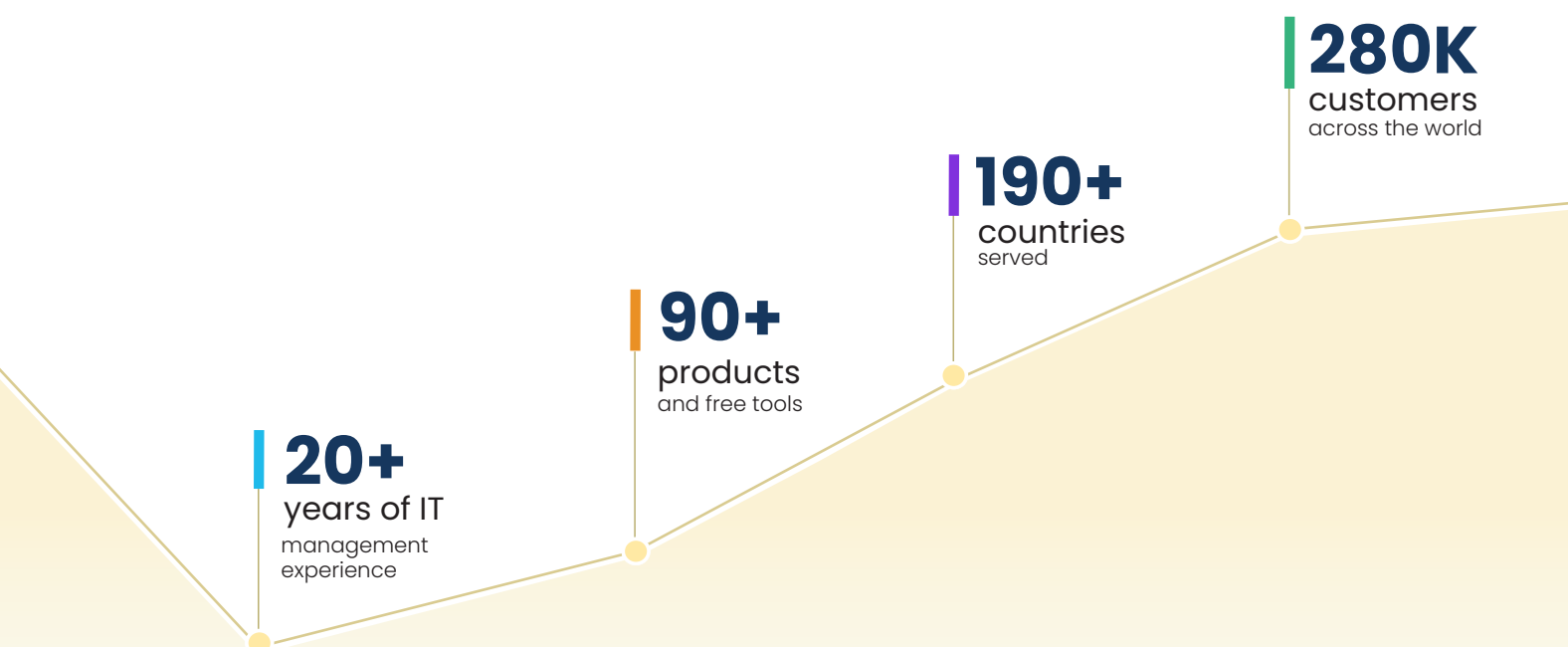
About

ManageEngine Analytics Plus is a self-service, AI-driven IT analytics solution that helps organizations implement complex initiatives that address the requirements of expanding businesses. Available on-premises and in the cloud, Analytics Plus visualizes IT data from several applications and integrates out of the box with several popular IT applications such as ManageEngine ServiceDesk Plus, Jira, ServiceNow, Zendesk, and ManageEngine Endpoint Central. Analytics Plus features an AI-powered analytics assistant that responds to voice and text prompts to provide meaningful visualizations. This eliminates the need for a data analyst to aid help desk managers and reduces report building time while enabling organizations to make faster, data-driven decisions.

Kickstart your IT analytics journey with a free trial of Analytics Plus.

Want to learn more about the product before giving it a try?

Sign up for a free, virtual tour with one of our solution experts.





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