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THE ULTIMATE GUIDE TO
OVERCOMING HURDLES IN SERVICE MANAGEMENT

● Establish AI-driven analytics to eliminate help desk challenges

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Introduction

Running IT is hard, but managing a complex and widespread help desk might be harder still.

Sit down with any help desk manager, and you'll hear countless tales of woes. When supporting employees and operations spread across a diverse geography, and when accounting for a widespread variety of hardware and software, it comes as no surprise that IT service management can be a difficult ordeal.

Besides the common woes of longer wait times or SLA violations, a help desk is fraught with several hurdles that impede an organization's ability to deliver outcomes.

The solution, however, doesn't involve heading back to the drawing board and continually reworking current processes but instead lies in the operational data at hand.

Through the course of its operations, a help desk accumulates mounds of data. By uncovering the valuable insights hiding within this data and correlating it with other facets of IT, you can execute data-driven strategies that streamline service operations and eliminate possible obstacles and inefficiencies.

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The challenges that arise within IT service management can be widely grouped into three categories:

- ○ Processes
- ○ Technicians
- ○ Resources

Let's break down each hurdle and build data-driven strategies to mitigate their impact on the IT environment.
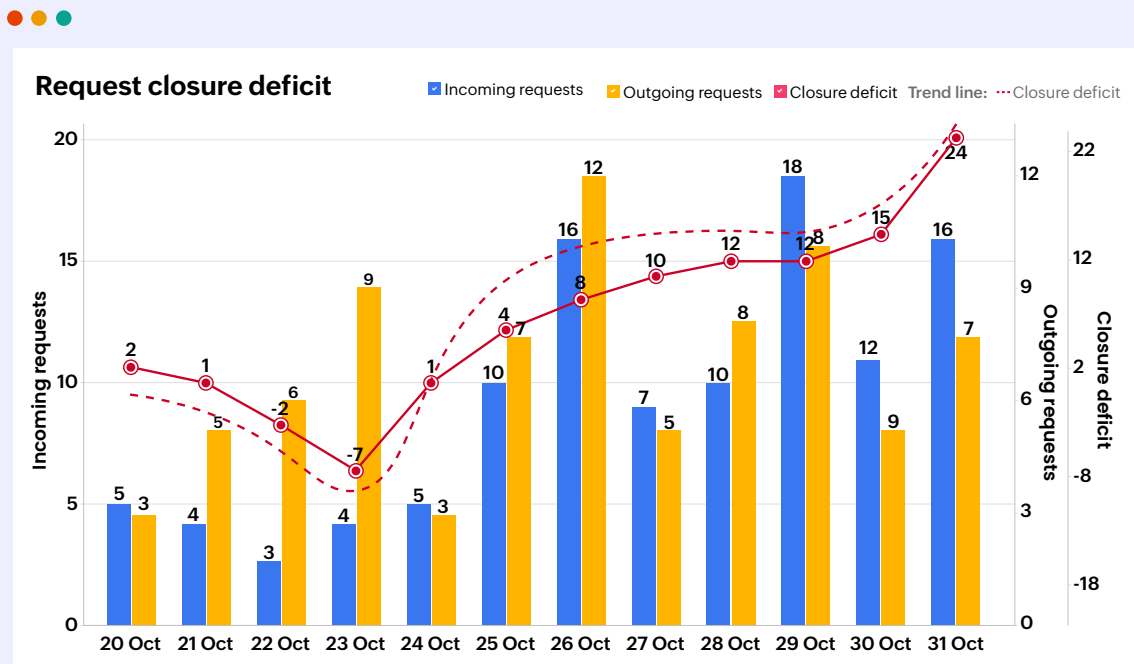
01 Inefficiencies in service processes

Various obstacles arise as a direct result of inefficient help desk processes, including but not limited to inefficient request resolutions and unsuccessful change implementations.

Challenges in request resolution

The success of a help desk hinges on its ability to resolve the requests that come in on a daily basis. Naturally, then, ticket backlogs are one of the biggest hurdles encountered in a large-scale help desk.

The common approach here is to identify and tackle backlogged tickets, but a strategic alternative is to anticipate and simply prevent backlogs from piling up.

Request closure deficit   ■ Incoming requests   ■ Outgoing requests   ■ Closure deficit   **Trend line:** ⋯Closure deficit

IT managers can utilize the analysis above to monitor daily closure deficit, which is the difference between the number of created and closed requests. This acts as a great way to catch backlogs before they reach alarming levels, and easily sidestep the entire ordeal.

In an ideal world, this visualization and the corresponding strategy would be sufficient to eliminate the mere occurrence of ticket backlogs. However, the reality is there is always an inevitable number of tickets that remain open, be it due to engineering complexities, resource requirements, or simply a lack of technical know-how.

The best way to account for such scenarios is by sifting through your ticket queue to hone in on backlogged tickets. The visualization below offers an efficient way to accomplish this.

Last activity bucket

	Days since last activity	Days since created	№ of requests
1.	0 - 30 days	0 - 30 days	3
		31 - 45 days	22
		46 - 60 days	12
2.	0 - 30 days		37
3.	31 - 45 days	46 - 60 days	37
		Over 60 days	10
4.	31 - 45 days		47
5.	46 - 60 days	Over 60 days	52
6.	46 - 60 days		52
7.	Over 60 days	0 - 30 days	1
		Over 60 days	1341
8.	Over 60 days		1342

This analysis identifies open tickets and intuitively categorizes them into buckets based on their last updated time, acting as a quick and efficient guide to understand ticket backlogs. Rather than working on random backlogged tickets, it is recommended to start with those that have not been handled in a long time, and work your way up the queue. This ensures both minimal disruption to your organization and improves SLA compliance rates. IT managers can turn to well-stocked knowledge libraries and implement automation mechanisms to tackle backlogged tickets in the long run.

Challenges in ticket assignments

Another hurdle that impedes a help desk's ability to resolve incoming tickets is an inefficient ticket assignment system.

When tickets are assigned to the incorrect technician or support group, the help desk faces inadvertent increases in resolution times, impacting the organization's daily operations and its users' satisfaction.

Reassignment trend

|	Category	Technician change	Request ID	Timespent in minutes
1.	Administrative	Jen Smith to Victor Zeke	170	153
2.	Application downtime	Admin to Shawn Adams	189	150
3.	Connectivity issues	Luke Ryan to Harry Penn	270	148
4.	Data handling	Harry Penn to Will Dyke	150	78
5.			350	92
6.			255	105
7.			262	145
8.	Network access	Jen Smith to Harry Penn	299	91
9.			160	89
10.		Will Dyke to Harry Penn	193	131
11.	OS corruption	John Stern to Jen Smith	400	140
12.		Mark Leed to Jen Smith	226	133
13.		Rob Matt to Jen Smith	176	85
14.	Software request	Luke Ryna to John Stern	357	180

Careful analysis of the above visualization unearths valuable trends in ticket reassignments. IT managers can leverage these insights to rework existing auto-routing mechanisms to ensure tickets are assigned to the right technician and support group from the get go.

While this strategy streamlines the auto-routing system's assignment accuracy, you can take this practice a step further to ensure accurate assignments happen in a timely manner.

A good way to measure and improve the swiftness of your auto-routing practices is by tackling ticket unassigned time. When there are several tickets in your unassigned queue, it either points to a lack of initiative among your help desk technicians or an inefficient ticket routing system.

Often, both scenarios go unnoticed as help desks are caught in the never-ending cycle of resolving incoming tickets and maintaining SLAs. As an organization scales and the scope of its operations expands, it becomes increasingly vital to catch all possible inefficiencies to tackle imminent obstacles.

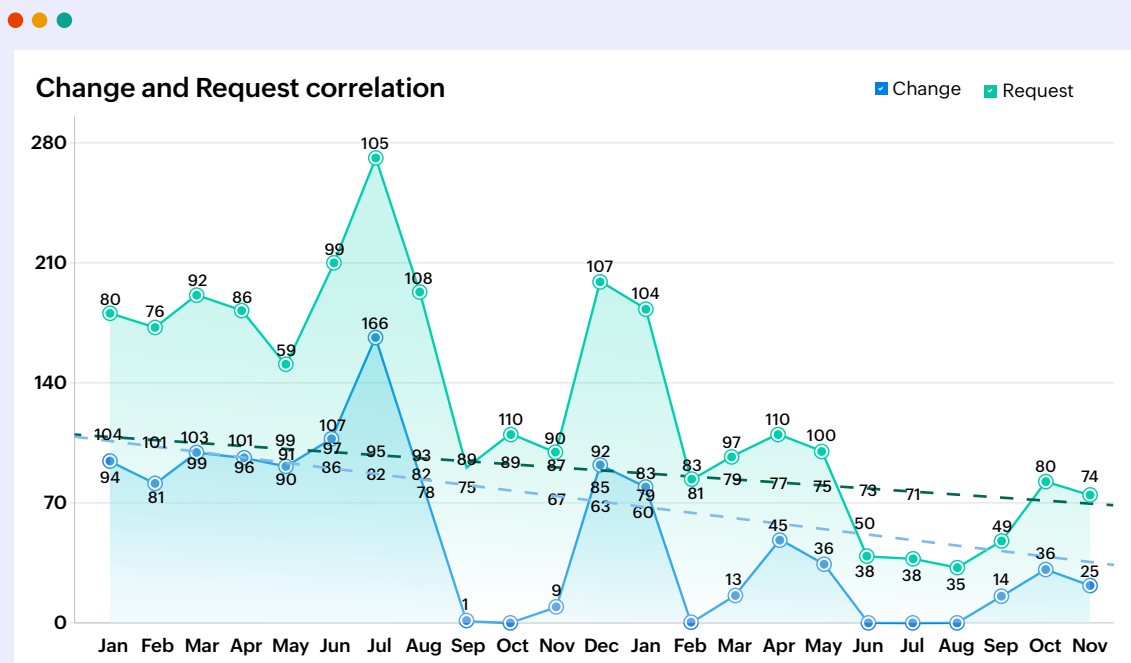The following visualization acts as a nifty way to measure a help desk's unassigned time over the years. Increasing trends indicate tickets are not assigned promptly, pointing to an inefficiency in the auto-routing mechanism. At this point, IT managers should step in and rework static rules to reduce unassigned time and, in turn, avoid backlogs and SLA violations.

Unassigned time over the years

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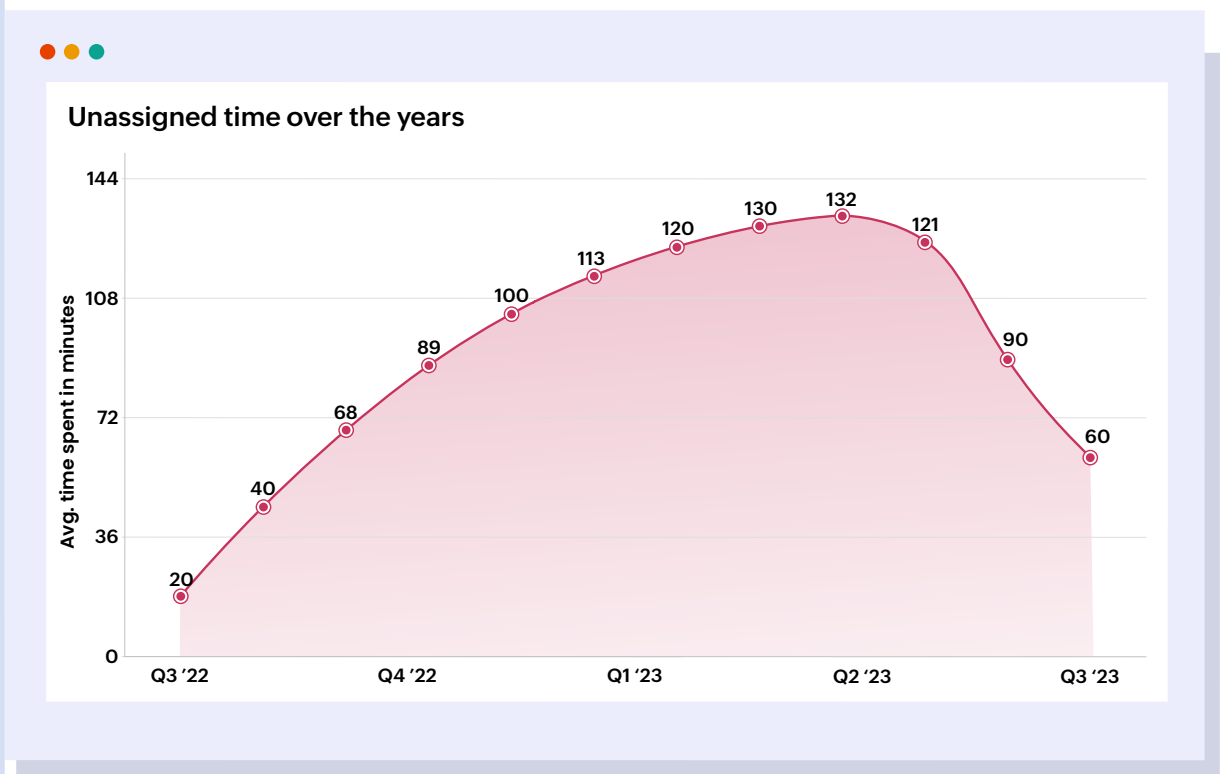
Challenges in change implementations

Changes are introduced in the IT environment to introduce new technologies, establish improvements, and facilitate overall business growth. But what if the reverse rings true in your IT environment, and your help desk is indirectly impacted due to inefficiencies in change implementations?

With an intuitive visualization like the one below, IT managers can overlay change implementations with variations in incoming request volume. This mapping sheds immediate insights on the unseen impact an ineffective change implementation has on your organization's daily operations.

Change and Request correlation

☑ Change ☑ Request

Month	Request	Change
Jan	80	94 / 104
Feb	76	81 / 101
Mar	92	99 / 103
Apr	86	96 / 101
May	59	90 / 99 / 91
Jun	99	107
Jul	105	166 / 97 / 86 / 95
Aug	108	82 / 93 / 82 / 78
Sep	89	1 / 75
Oct	110	89
Nov	90	87 / 67 / 9
Dec	107	92 / 85 / 63
Jan	104	83 / 79 / 60
Feb	83	81 / 13
Mar	97	79
Apr	110	77 / 45
May	100	75 / 36
Jun	38	73 / 50
Jul	38	71
Aug	35	14
Sep	49	
Oct	80	36
Nov	74	25

Understanding this correlation establishes accountability for change owners and drives the success rates of change implementations within your organization, in turn reducing unaccounted-for spikes in a help desk's ticket volume.

02 Problems in technician management

Challenges in technician and workload management are aplenty in a mature help desk. However, it can all be tied back to two underlying pain points—lack of skilled technicians and high turnover rates.

There is one intuitive analysis that can account for and overcome both obstacles.
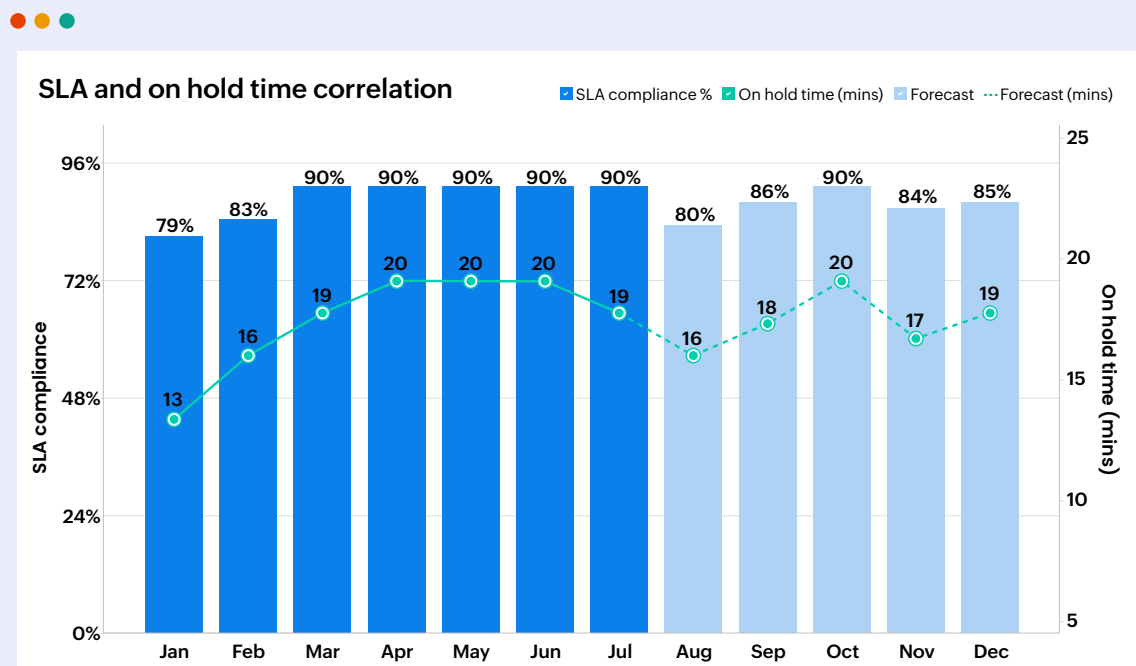
Tech load share

	Technician	22 - 28 Oct 2023		15 - 21 Oct 2023		08 - 14 Oct 2023		01 - 07 Oct 2023		Summary of last 4 weeks	
		Requests	Load share	Requests	Load share	Requests	Load share	Requests	Load share	Requests	Load share
1.	Brad	0	0%	2	9%	2	9%	1	3%	5	4%
2.	Bruce	2	9%	1	4%	1	4%	2	6%	7	6%
3.	Ed	2	9%	3	13%	1	4%	5	16%	12	11%
4.	Frederica	1	4%	0	0%	0	0%	2	6%	3	2%
5.	Heather	3	14%	5	22%	1	4%	2	6%	11	10%
6.	Howard	3	14%	0	0%	4	18%	4	12%	11	10%
7.	Joe	1	4%	3	13%	1	4%	2	6%	7	6%
8.	John	1	4%	1	4%	3	13%	2	6%	7	6%
9.	Lynn	2	9%	3	13%	2	9%	1	3%	10	9%
10.	Robert	1	4%	1	4%	2	9%	2	6%	7	6%
11.	Williams	1	4%	0	0%	2	9%	4	12%	8	7%
12.	Roger	1	4%	1	4%	1	4%	2	6%	5	4%

Rather than simply looking at the number of tickets in each technician's queue, understanding their contribution to the help desk's monthly workload sheds valuable insights into technician behavior. Technicians who have consistently contributed to a larger portion of the pie could be approaching burnout, while the inverse can point to the slackers within your team. Infusing your workload management practices with these insights effectively reduces high turnover rates and accounts for slackers.

This strategy accounts for a technician's workload and proficiency to overcome challenges in technician management. But the reality is that some technicians, while appearing skilled, could be cutting corners to finish their daily tasks. And while your help desk might continue to meet its targets, if this practice is left unchecked it can impact your operations in the long run and derail scalability.

To tackle this nuisance, IT managers can utilize the following visualization to closely monitor ticket on-hold time and SLA compliance rates.

SLA and on hold time correlation

Legend: SLA compliance % · On hold time (mins) · Forecast · Forecast (mins)

Month	SLA compliance %	On hold time (mins)
Jan	79%	13
Feb	83%	16
Mar	90%	19
Apr	90%	20
May	90%	20
Jun	90%	20
Jul	90%	19
Aug	80%	16
Sep	86%	18
Oct	90%	20
Nov	84%	17
Dec	85%	19

While your SLA compliance appears to be on track, careful analysis of the corresponding on-hold time shows that technicians appear to be placing tickets on hold to resolve them before the timer runs out.

Troublesome IT resources

We've accounted for people and practices, but there's another vital element that can throw a wrench in streamlining help desk operations—your assets.

The widespread adoption of technology and AI has seen a subsequent boom in the variety of hardware and software resources deployed within an organization. While these assets are utilized to witness operational improvements, what if the inverse inadvertently rings true?

Problematic assets

	Vendor	Asset name	User	Department	Site	Requests in the last 6 months
1.	Microsoft	zylker - 2134	Andrew Richard	Finance	New York	9
2.		ella - 1340	Ella Hendrickson	HR	Singapore	9
3.		zylker - 0039	Gabriel Paul	IT	London	13
4.		stern - 0195	Howard Stern	Finance	Singapore	8
5.		jenn - 5494	Jennifer Louis	Finance	London	8
6.	Epson	Epson - EB - 34	Sasha Gomez	IT	London	12
7.		Epson - EB - 10	William Tate	IT	New York	15
8.		sunny - 1456	Sunny Taphouse	IT	Singapore	14
9.	Adobe	gia - 1983	Giavani Elsby	HR	Singapore	15
10.		druc - 1258	Drucy Ferreli	IT	London	11
11.	Kaspersky	ash - 1479	Ashbey Asquez	Finance	New York	10
12.		dan - 1599	Danya Heskins	IT	New York	13

The visualization above analyzes every resource employed within your organization to identify ones that result in a higher number of help desk incidents of late. While a couple of tickets are understandable, especially when pertaining to complex and widely used assets, when a larger number of help desk incidents and requests stem from a single resource or category of resource, it can point to a significant underlying issue or incompatibility.

In addition to resulting in an avoidable increase to your help desk's load, these problematic assets also leave a considerable impact on an organization's ability to run smooth operations. It is recommended to dig deeper into this analysis to understand if a specific category or type of asset is resulting in repeated incidents. Armed with these insights, IT managers can streamline upcoming IT purchase plans to acquire and deploy better alternates as required.
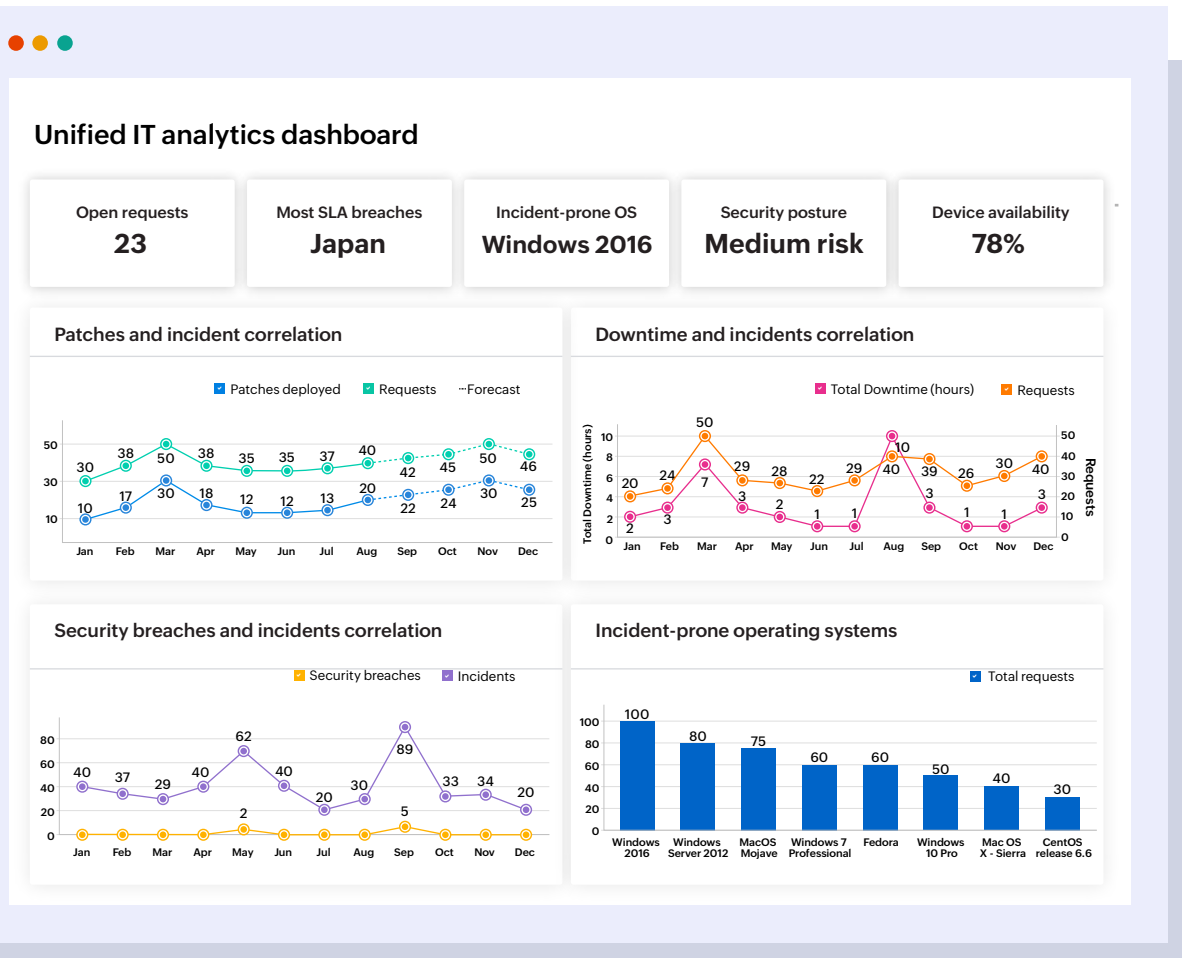
💡 Tip

04

Overcome limited visibility and siloed operations with unified insights

Despite executing the strategies detailed so far in this e-book, if your help desk still encounters several challenges with its daily operations, it might be time to look beyond the help desk and attain unified insights into IT operations.

Today's IT operates with several intricate, cross-functional interconnections, with strategies executed in one sub-department, like the NOC team, causing a ripple effect across the other sub-departments within IT.

With a record of all IT operations, the help desk can be mined to determine critical correlations. Through an AI-driven analytics tool, you can consolidate all IT data into a single pane of truth, effectively overcoming the obstacles that are a direct result of a siloed mode of operations.

The dashboard below is built on unified IT data, funneled in from various IT departments like the help desk, endpoint management, and security and NOC teams. With the help desk positioned as the central or common point, you can easily visualize the impact and the subsequent hurdles faced due to a strategy implemented across other teams.

Unified IT analytics dashboard

Open requests	Most SLA breaches	Incident-prone OS	Security posture	Device availability
23	**Japan**	**Windows 2016**	**Medium risk**	**78%**

Patches and incident correlation

Legend: Patches deployed, Requests, Forecast

Downtime and incidents correlation

Legend: Total Downtime (hours), Requests

Security breaches and incidents correlation

Legend: Security breaches, Incidents

Incident-prone operating systems

Legend: Total requests

Security teams hold detailed, step-by-step frameworks to tackle security breaches, while NOC teams are equipped with various blueprints to handle application downtime. However, none of these steps or strategies account for the evident impact these activities have on the help desk. This dashboard fills that void by correlating spikes in ticket volume with security breaches and application downtime, measuring the impact of failed patches on incident volume and more.

IT mangers can leverage this AI-backed unified analysis to fine-tune their help desk operations.

By clearly outlining the actual challenges faced by one sub-department due to operations and strategies that are executed in other sub-departments, this dashboard boosts visibility and drives accountability, streamlining overall IT operations. It also sheds critical insight into the root cause behind unforeseen spikes in ticket volume, arming help desk managers with the weapons required to prepare their team for future challenges.

Conclusion

Help desk management does not have to be hard. With the right tools and data in place, help desk managers can efficiently eliminate current obstacles and inefficiencies. IT leaders can further improve their efforts with unified insights into cross-functional IT operations, and construct strategies to anticipate and eliminate future hurdles in service management.
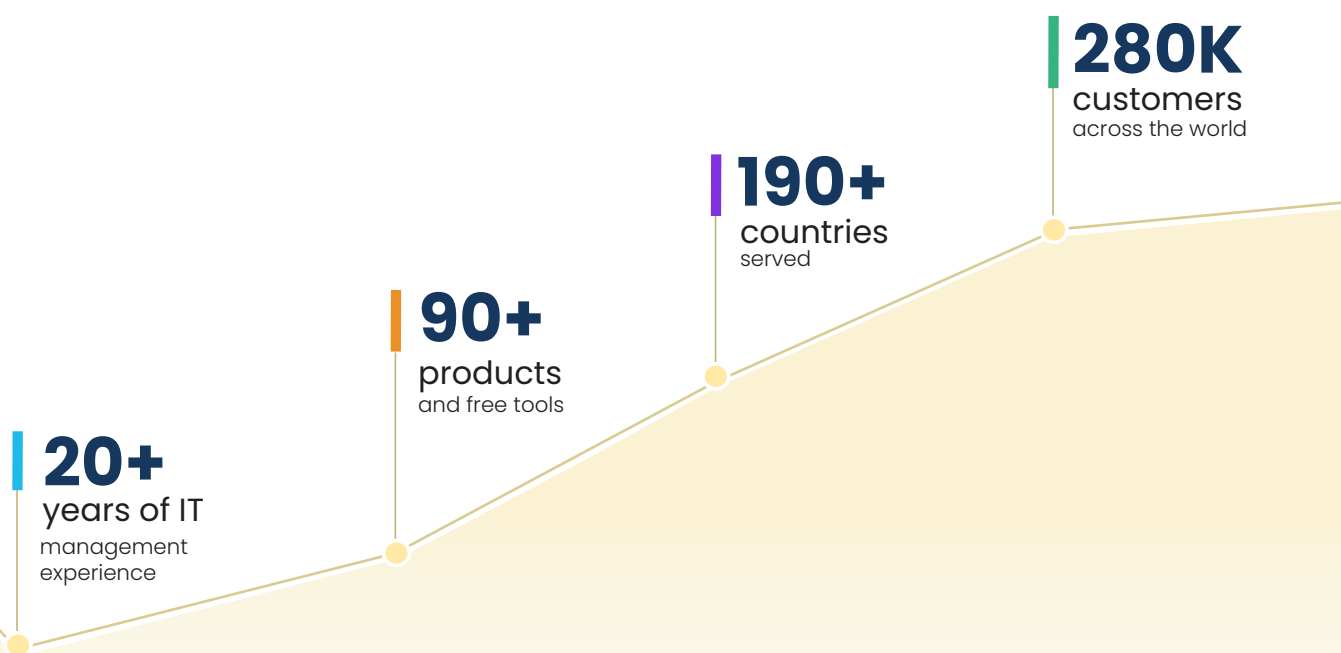
About

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.

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