WHITEPAPER

ITAM 2.0 - The Foundation for Efficient IT Management

Lansweeper

EXECUTIVE SUMMARY

A New Approach to Managing the IT Estate

As businesses adopt new technologies to drive transformation — everything from cloud computing and IoT to big data, remote working and more — CIOs are under tremendous pressure balancing spending and innovation. They must ensure IT teams are tracking, managing and maintaining the IT software and hardware assets through which those technologies are delivered, while at the same time ensuring the business is agile enough to innovate and adapt to constant change. On top of all that, managing costs and maximizing ROI is critical for long-term success. To this end, IT asset management (ITAM) continues to gain momentum as an enabling discipline, helping IT organizations to accomplish these goals.

30%

of all organizations are in a "chaotic" state, meaning they do not know what they own, where the assets are located or who is using them.

70%

About 70% of organizations have a 30% discrepancy between planned inventory and actual inventory.

Today's approach to ITAM is limited however. Despite governance IT frameworks providing guidance on ITAM and IT solutions providers incorporating ITAM into their product offerings, Gartner reports that 30% of all organizations are in a "chaotic" state, meaning they do not know what they own, where the assets are located or who is using them. About 70% of organizations have a 30% discrepancy between planned inventory and actual inventory. Even worse, organizations budget for that discrepancy, setting money aside to handle unforeseen issues — money that would be better invested in new technology and innovation.

To keep pace with digital transformation and provide the level of visibility and insight needed to ensure security, manage costs and support business initiatives, ITAM needs to evolve from a niche specialty into the foundation for a modern, well-managed IT organization.

In this whitepaper, we'll explore:

- The current state of ITAM and why it must evolve
- How ITAM 2.0 enables organizations to digitally transform with confidence
- A blueprint for ITAM 2.0 based on three activities: Discover, Manage and Connect

CHAPTER 1

Digital Explosion and Transformation

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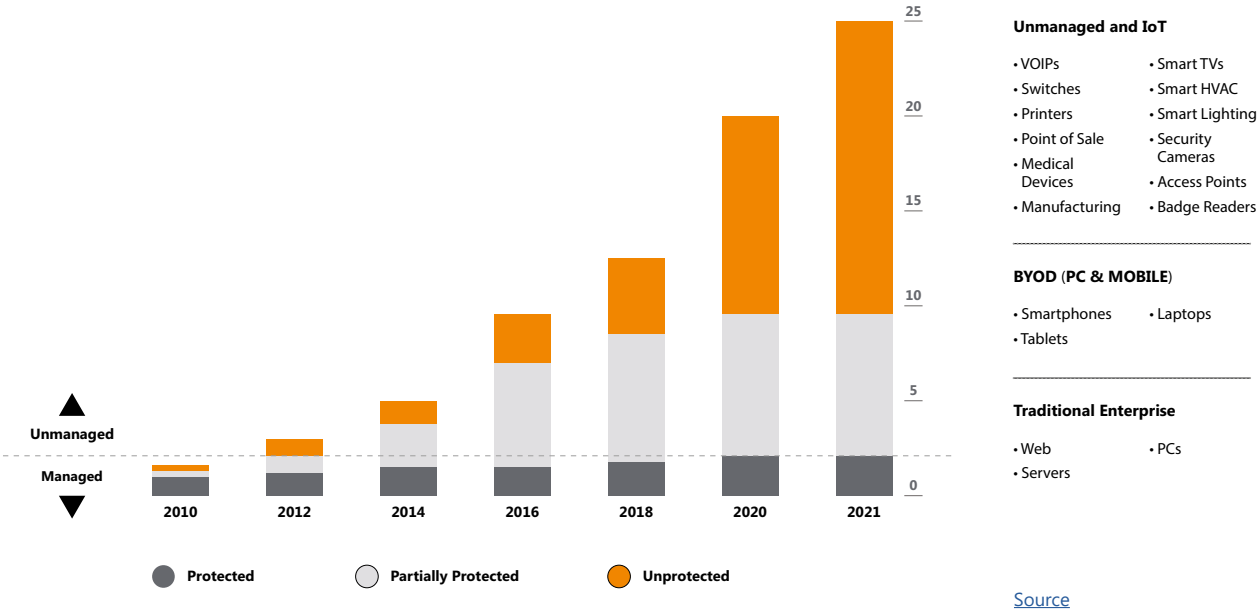
CHAPTER 1

Digital Explosion and Transformation

Since the 1990s, digital technologies have been proliferating at an astonishing pace. Internet users increased from 16 million in 1995 to over 4.8 billion in 2020. And the number of Internet-connected devices has exploded from 12.5 billion (or about 1 device per person) in 2010 to over 50 billion today. A new forecast from International Data Corporation (IDC) estimates that there will be 41.6 billion connected IoT devices, or "things," generating 79.4 zettabytes (ZB) of data in 2025.



Source

And over the past decade, digital transformation has been gaining momentum in every industry — even those more reluctant to initiate change. It's undeniable that businesses that successfully transform processes and systems with digital technologies are better able to operate cost-effectively while innovating new products and offerings to compete in increasingly competitive marketplaces. In fact, according to Deloitte's 2019 Digital Transformation study, a higher level of digital maturity is correlated with above-average financial performance.

In 2020, digital transformation accelerated significantly for most organizations, due to the COVID-19 pandemic. Across every sector, new processes and modes of operation had to be adopted for organizations to survive. According to McKinsey, businesses jumped ahead about five years in their adoption of digital technologies and strategies in a matter of months.

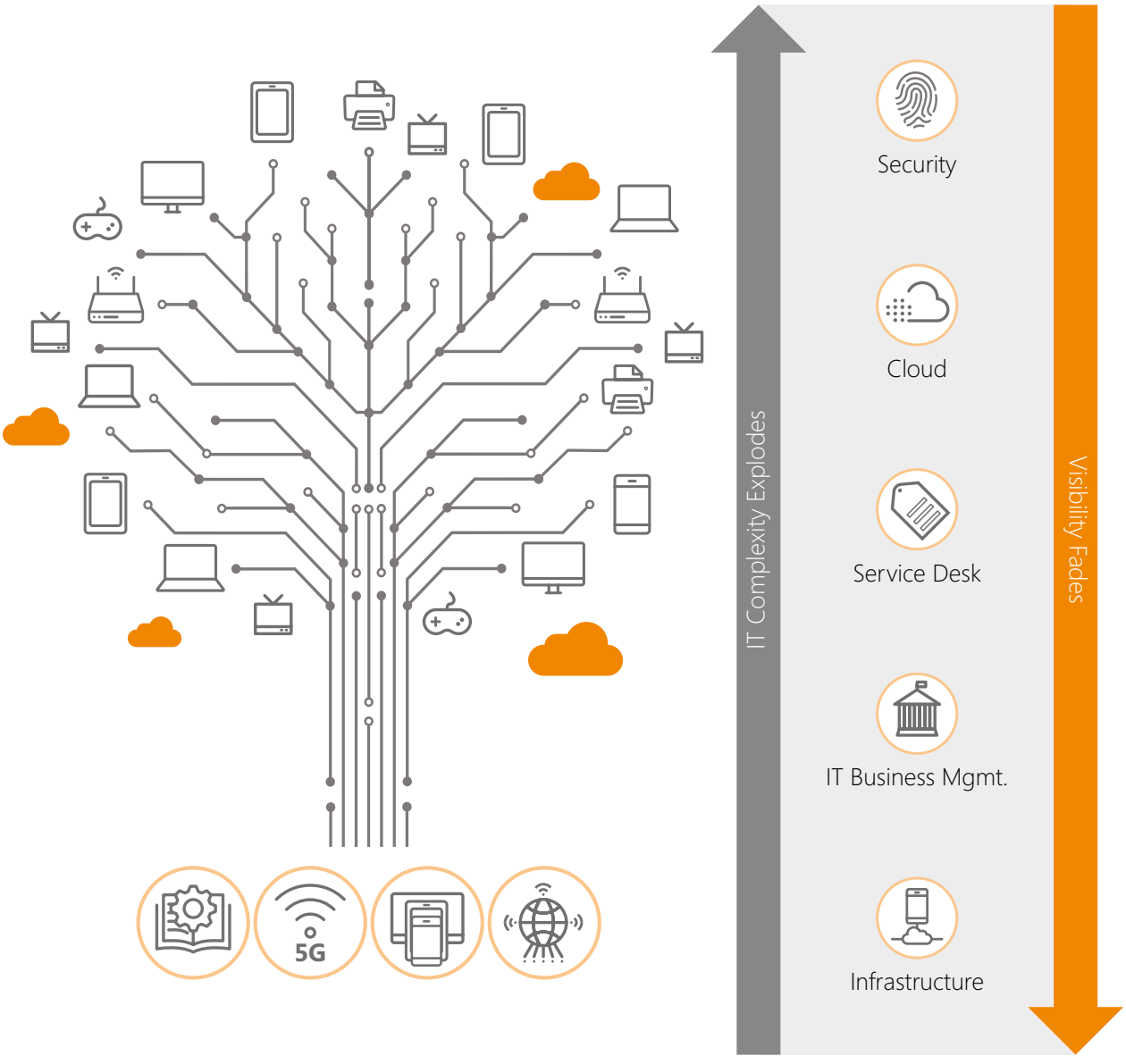
The benefits of digital transformation are numerous: It helps organizations be more agile and efficient, streamlines processes and operations, and realize cost-efficiencies. **However, in the wake of widespread and accelerated digital transformation is a proliferation of hardware and software assets, all of which — both the new and the old — must be managed and maintained.**

> By 2024, the number of enterprise internal and external hardware and software asset audit requests will increase by 100%, up from approximately two and a half to five requests annually.
>
> — Gartner

Worldwide spending on digital transformation technologies and services will increase by 10.4% this year.

— Statista

Aftermath of Digital Transformation



Balancing Cost and Agility

As the number of IT assets continues to explode, CIOs need to find a balance between containing costs and providing the business with enough agility to innovate and compete. While providing agility is mission-critical, it will lead to chaos if IT loses sight of the assets they have and the assets they're adding.

It's critical for IT operations to be highly automated and cost-efficient to be able to continue to invest in Digital Transformation projects, while reducing costs and minimizing technology debt. And although additional technology investments will be necessary to achieve agility, CIOs will need to report on what they've done to offset the costs, and prove they're running as efficiently as possible. As a benchmark, a 5–7% decrease in operational costs will offset inflation and deliver measurable savings. This is where ITAM comes in.

In fact, the ITAM Forum suggests ITAM must become a de facto business practice and discipline, and be leveraged in recession planning to help save jobs and maintain growth, reducing IT spend across the S&P 500 by nearly $40 billion.

5–7%

As a benchmark, a 5–7% decrease in operational costs will offset inflation and deliver measurable savings. This is where ITAM comes in.

$40B

The estimated amount of IT spend reduction possible across the S&P 500 by developing an ITAM 2.0 discipline, according to the ITAM Forum.

Clients who successfully execute ITAM as a discipline typically achieve 30% cost savings in the first year of their initiatives, and at least 5% cost savings in each of the subsequent five years.

— Gartner

CHAPTER 2

The Current State of ITAM

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The Current State of ITAM

> It's all about bridging the gaps between silos by providing a single, trusted, common view for the IT team, so that individual IT departments can monitor, manage and control the parts of the network for which they are responsible.
>
> — Brett Draper, Managing Director at ITHealth UK

As new hardware and software assets are introduced into an organization's IT infrastructure, it becomes increasingly difficult to keep track of who is responsible for what. Over time, managing various IT scenarios underpinning the adoption of new technologies has resulted in the creation of silos, making it difficult to maintain a complete, universal view of all of the various technologies and tools used to manage them. And while new IT assets are introduced, old ones may become invisible to IT teams, leading to unnecessary operational cost and risk. What's more, the nature of IT assets is changing — there's more variety, and the average lifespan can be much shorter. For example, in the world of serverless computing, containers can live for just seconds.

The trend toward remote working adds another layer of complexity, as employees leave the physical office with devices in tow. They connect those devices to home networks, introducing additional vulnerabilities that are often completely invisible to IT — and out of their control. Additionally, the number of devices an employee touches for work-related tasks has increased significantly, as their personal lives and work lives intertwine.

In certain industries such as manufacturing, construction or healthcare, devices connected to the network extend beyond corporate computers to include specialized equipment, machinery, handheld devices and more.

Given the fast pace of business today, standing in the way of technology adoption can severely hinder an organization's ability to compete. But allowing the IT estate to expand without oversight is problematic and inefficient in terms of cost, energy consumption, space allocation and more — and can lead to rising operational overhead and increased risk. As such, IT departments are beginning to see the need for a more holistic approach to ITAM.

ITAM Emerges from the Shadows

For over two decades, ITAM lacked identity and importance as a standalone function, and adoption has been slow. Accurate asset inventories were technically difficult to achieve and weren't considered necessary unless IT was confronted with a specific challenge or scenario that required it, such as a cloud migration or a license audit. Perhaps an unexpected cyberattack required updating security software across the organization, and the IT team had to scramble to create an inventory out of fear of being vulnerable. The ROI for these activities was not convincing, because the approach was reactive rather than proactive. Every time a new scenario arose, a new ad-hoc inventory would need to be created that met the needs of that scenario, which was time-consuming and costly.

Common Challenge

ISO 27001 Inventory of Assets	HIPAA Inventory of Devices and Software	ISO 19770 Dedicated to ITAM
CIS Center for Internet Security Inventory of Hardware and Software Assets	The TOGAF Standard — Version 9.2 Physical Inventory of deployed technology	ITIL Service Asset and Configuration Management
COBIT 2019 Managed I&T Assets	NIST National Institute of Standards and Technology Special Publication on ITAM	IAITAM Dedicated Industry Body

Recently, new IT governance frameworks have emerged — and old ones have evolved — to help organizations get control of IT asset sprawl and provide best practices for managing the IT estate. At the core of most of these frameworks is the directive to "know what you have." To meet this requirement, many vendors who provide solutions for network monitoring, license compliance management and vulnerability management have added some IT asset discovery capabilities to support their specific offerings. **But as each tool collects only the data that pertains to its particular use case (cybersecurity, license compliance, helpdesk, etc.) none of the datasets are complete or universally applicable.**

For example, the data that is important for software management and compliance scenarios may not be relevant for cybersecurity, which involves not only computers and laptops but routers, switches and other networking equipment. What's needed to inform a helpdesk tool, may not be relevant for a cloud migration project, which requires information about servers and other IT infrastructure elements. Although some of the data might be reusable for a different IT scenario, other data will likely be missing.

The IT asset data may overlap between solutions, creating duplication and inconsistencies, while leaving IT with blind spots, and there's no easy way to combine the disparate datasets into a single view. What's more, the breadth, depth and means of discovery vary widely between solutions, making it difficult to reconcile or normalize the data, and deviations in taxonomy and terminology between tools can create confusion.

CMDB and ITAM: A Power Couple

For years, larger IT teams have relied on Configuration Management Databases (CMDB) as their system of record. With a CMDB in place, why would you even need ITAM?

As it turns out, the two complement each other nicely. CMDBs, while useful for overall configuration management, governance and DevOps coordination, tend to lack what it takes to keep pace with dynamic modern IT environments. Without constant manual updating, they become outdated quickly, and they're not suited for tracking assets across the new distributed workplace.

By integrating your CMDB with an automated asset discovery solution, organizations can keep their database accurate and up-to-date, automatically. This reduces the time spent on manual updates, and frees up IT to work on other mission-critical tasks.

Every organization uses a CMDB and often rely heavily on the data in that CMDB. Unfortunately it has proven to be really difficult and time consuming to maintain an up to date CMDB. By integrating with an IT asset discovery solution, organizations can keep their databases accurate and up-to-date, automatically. This reduces the time spent on manual updates and frees up IT to work on other mission-critical tasks.

— Martijn Adams
General Manager EMEA at 4me

As long as the drive behind asset discovery is based on satisfying the needs of isolated IT scenarios, there will never be a universal, complete and always up-to-date system of record. And, you will need to build a new ad-hoc inventory each time a new question arises on the IT estate costing precious time and resources.

The High Cost and Risk of a Fragmented Approach

In addition to a lack of global visibility into an organization's IT estate, the scenario-based approach results in unnecessary — and typically high — operational overhead. This is a critical drawback, as the pressure on CIOs and CFOs to do more with less continues to mount. Some companies risk not creating an IT inventory, while others opt for using multiple tools that each provide limited visibility into certain assets, often leading to overlapping and inconsistent data. The buildup of legacy devices, overlapping tools and technologies results in increased and unnecessary overhead, without actually delivering trustworthy insights into the IT estate. Worse yet, complete IT asset discovery usually isn't a core function of scenario-driven tools, so accuracy can be lacking.

An incomplete, inaccurate inventory of the IT estate can result in hardware assets sitting idle or at half capacity. Organizations end up paying for software licenses they're not even using. Forgotten or missed assets may be running outdated software or even malware, creating security vulnerabilities that lead to huge financial losses and compromised data.

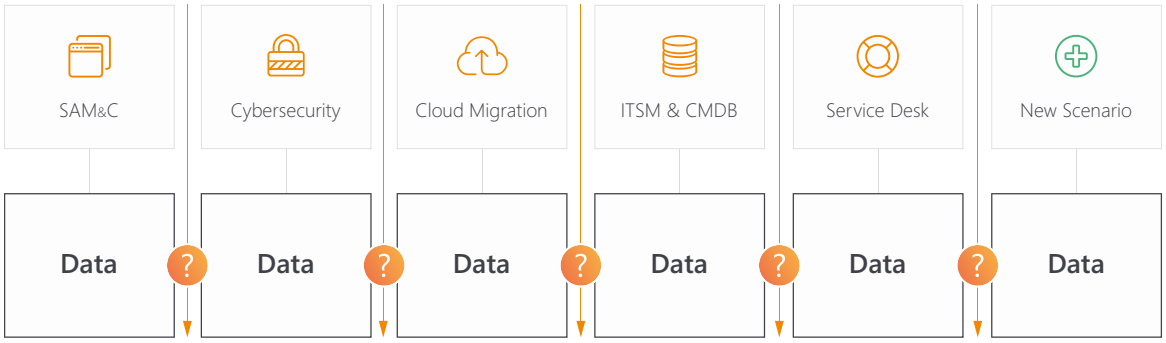
Some point solution vendors have broadened their approach to enable more comprehensive ITAM, by aggregating data from across different systems. But this approach still leaves blind spots, as it lacks consistency and depth in scope and accuracy. It also introduces more complexity, should any of the aggregated systems change. As ITAM is not a core competency for these vendors, the amount of research and development they're willing to devote to building a solution may be limited. In the end, their solutions fail to provide the accuracy and visibility needed to solve the problem.

At some point, they may offer a credible solution, though the cost of that solution may be prohibitive. As a result, many organizations will opt to build a solution themselves, and will likely encounter roadblocks when they realize the complexity and enormity of the task. Again, ITAM is not likely a core competency, and building a solution that works well may be unrealistic.

ITAM Should Not Be an Afterthought

Although historically, IT asset management wasn't a priority for executive leadership in many organizations, that's changing. CIOs and other executives are realizing the tremendous impact ITAM can have on reducing cost and risk — and the significant ROI that can result from doing it right. In these organizations, ITAM has been elevated enough to merit a strategic discussion, and forward-thinking IT leaders are realizing that to manage today's IT environments effectively and keep them secure, ITAM can no longer be an afterthought.

ITAM 1.0



CHAPTER 3

ITAM 2.0: A Scenario-Independent Approach

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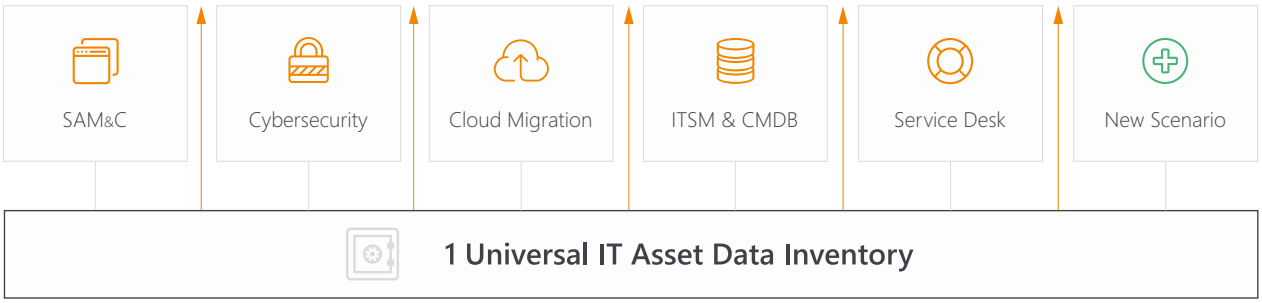


The next evolution of ITAM — ITAM 2.0 — turns the process of creating asset inventories on its head. Rather than collecting IT asset data to meet the criteria of specific IT scenarios, we believe **IT asset management should be a scenario-independent endeavor, with the goal of creating a single source of truth that informs all systems and use cases.**

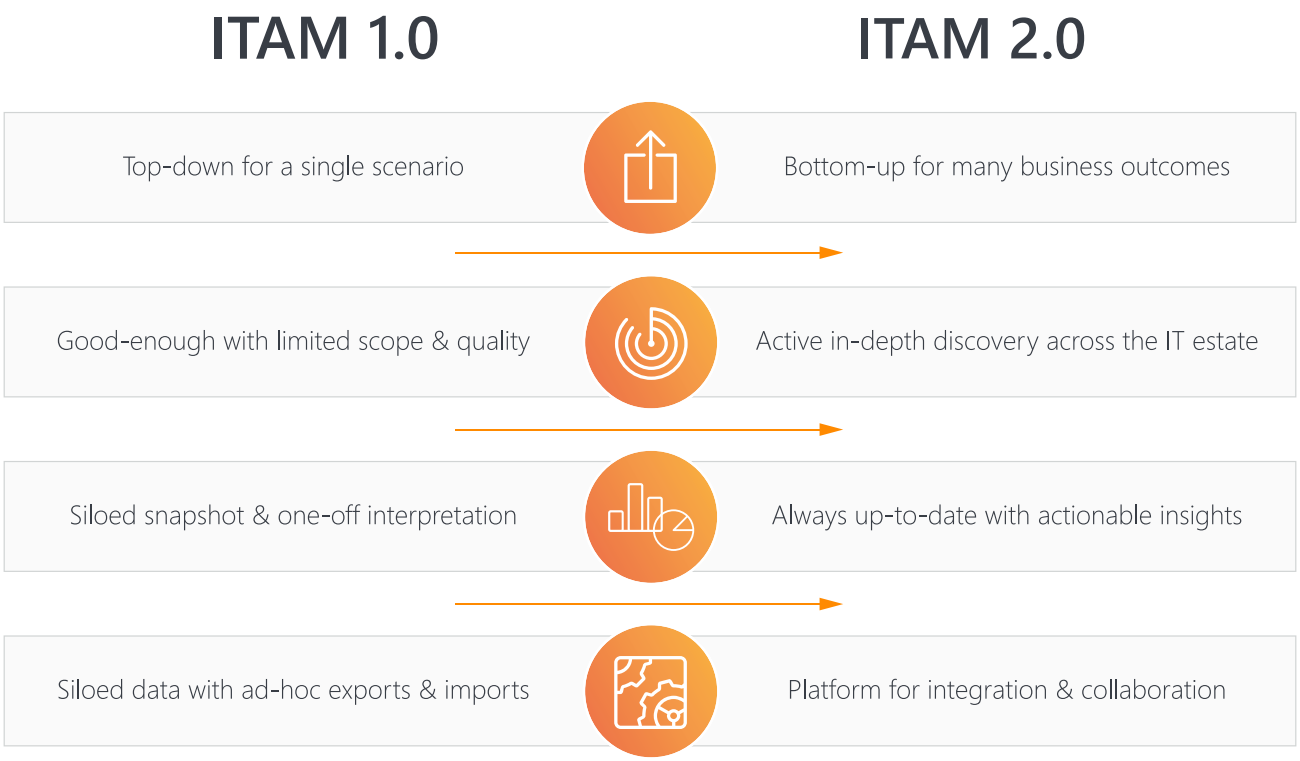
In ITAM 2.0, the goal is to capture all the core objects of the modern IT infrastructure, software and users within an organization — not only hardware and software assets, but servers, mobile devices, virtual machines, containers and more. Solutions that specialize in specific use cases — cybersecurity, cloud migration, IT Service Management, compliance, etc. — are then layered on top, and draw from the data layer that acts as the foundation. ITAM 2.0 abstracts the data layer to ensure consistency, accuracy and completeness, eliminating operational overhead and complexity, while improving the quality of the data.

The rapid digital transformation that occurred during the COVID-19 pandemic is a great example of a new, unexpected scenario that emerges and exposes the need for this approach. When the pandemic hit, companies scrambled to find asset management tools and solutions so they could assess and track the rapidly expanding number of devices used by employees outside the four walls of the corporate workspace. IT had to know what was connected to the network in order to secure it and protect the organization. Unfortunately, this was a huge challenge, since the old scenario-specific approach to ITAM was the norm. Agents had to be installed on laptops, and anything without an agent was invisible to IT. This opened up the possibility for bad actors to exploit vulnerabilities, putting organizations at risk.

ITAM Needs to Graduate

We believe that the only viable solution for enabling ITAM 2.0 is one that is laser-focused on accuracy, breadth and depth to provide complete visibility into the IT estate. In this way, organizations can create an always-accurate single source of truth to inform all IT scenarios and strategic decision-making across the entire organization. It becomes a system of record that feeds not only conversations and decisions, but all the other individual solutions and systems that rely on rich data to achieve their objectives.

Changing the Approach



> In the ITAM 2.0 model, ITAM graduates from an afterthought to a complete function, in and of itself. Now, no matter what the IT scenario, the data is there, it's accurate, and it's ready to use.
>
> — Roel Decneut, CMO of Lansweeper

CHAPTER 4

Lansweeper: Paving the Way to ITAM 2.0

Lansweeper

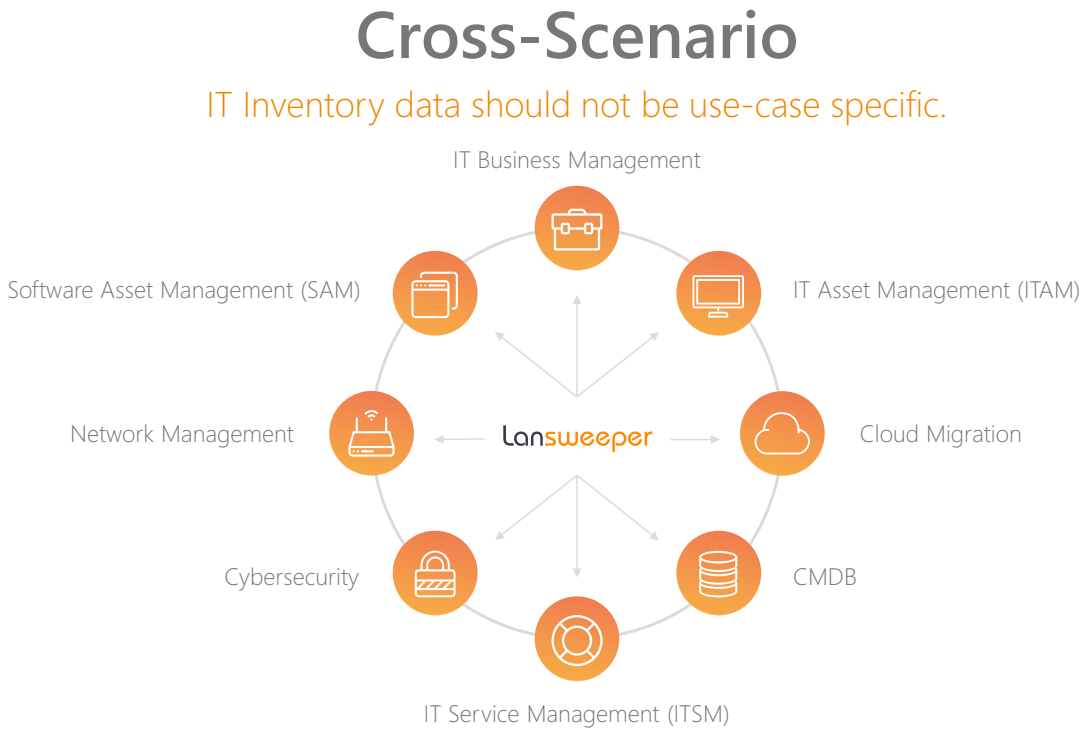
CHAPTER 4

Lansweeper: Paving the Way to ITAM 2.0

Lansweeper is helping companies elevate ITAM from a niche specialty into the foundation for a modern, well-managed IT organization. Discovering IT is our core function — not an afterthought to support specific IT use cases. We help organizations create an always-accurate single source of truth that can be leveraged to support any and every IT use case.

Unlike existing scenario-based ITAM solutions, Lansweeper leverages best-in-class agentless discovery and agent-based scanning to rapidly compile a complete, always up-to-date asset inventory. This independent survey of the IT estate can subsequently be enriched with input from various existing systems, not only raising the inventory's fidelity but also providing an end-to-end overview of each system's awareness on the IT estate. This approach makes Lansweeper the single source of truth, the baseline for every IT scenario.

Fifteen years in the making and enterprise-ready, Lansweeper's platform leverages a vast partner ecosystem and provides open APIs to integrate a broad range of point solutions, making this IT asset data available and useful for the full range of IT use cases — from cloud migrations to compliance audits, cybersecurity checks, IT Service Management and more.



Discover, Manage, Connect

Lansweeper creates the foundation for ITAM 2.0 — a single source of truth for the entire IT estate — through the following three core activities:

1. **Discover:** Build an overview of the IT estate by continuously listening in the environment to pick up assets as soon as they appear, recognize them without requiring credentials, scan high-fidelity information if appropriate credentials are at hand, match and merge data from existing systems with the independent overview. Agents to scan individual assets are an exception to the rule and only address scenarios where an agentless approach can't reach.

2. **Manage:** Organize and contextualize the discovered IT Asset Data by layering in company-specific as well as external industry-standard data feeds on internal service-dependencies, procurement data, vulnerabilities, lifecycle, and more, to create a complete IT Asset Inventory that provides immediate insights through advanced analytics both readily available and tailor-made for the organization.

3. **Connect:** Empower an organization's operational systems by connecting a wealth of information through API integrations and leverage complete visibility across the IT estate everywhere.

With this single source of truth, data can be leveraged across all IT scenarios to drive and inform processes, support strategic decisions and ensure alignment of internal and external IT teams. In this way, Lansweeper future-proofs IT organizations for any new challenges that may arise.

> Our approach is to build and maintain a single source of truth on the IT asset inventory. It is the baseline for recurring processes, projects of all kinds, and rapid action when needed. Creating a new inventory every time a new IT-specific use case is introduced is an enormous waste of time and resources.
>
> — Maarten Saeys, CPO, Lansweeper

The Importance of Agentless Discovery

An automated network discovery solution is a much more time- and cost-efficient way to create an IT asset inventory than doing it manually. But most automated solutions require you to install a client on every machine before you can get started. Not only is this extremely time-consuming, it assumes you already have a complete, up-to-date list of all your existing assets.

Lansweeper employs agentless, deep-scan technology to automatically explore any IT environment using a wide range of network protocols. Lansweeper features a credential-free initial scanning method, that intercepts network traffic to discover devices within seconds without the need of configuring targets or credentials, even devices only connected for a few seconds are recorded and scanned.

Lansweeper retrieves device-specific hardware information, as well as an extensive list of installed software and user logon information. Built-in reporting tools help you identify risks, inform cost-saving decisions and much more.

Because Lansweeper works without agents — and can do an initial scan without the need for credentials — it's fast and easy to implement. In fact, customers can be up and running in minutes, instead of weeks or months with an agent-based solution, and the data is far more complete and accurate.

"Keeping your asset inventory (data and systems) up to date is a foundational requirement in cybersecurity. Common sense, but often neglected.

Examples ? Vulnerability and Patch Management, Identity and Access Management (IAM) and Business Continuity Management (BCM) rely heavily on asset management. Remember: You can't protect what you don't know you have. Lansweeper ensures this foundational requirement is met efficiently and almost effortless."

— Jan De Bondt, Head of Cybesecurity Advisory at Orange Cyberdefense

ITAM 2.0 in Action: Pyramid Consulting

Pyramid Consulting is a global supplier of talent and technology services with over 5,000 employees in 21 offices around the world. Pyramid's unique approach to serving its customers have made them a trusted source for hundreds of enterprise organizations, including over 20% of the Fortune 500, many of which have been customers for 15 years or more.

Pyramid's Infrastructure service practice areas include Information Security, Platform, Cloud & Licensing and Microsoft 365. Pyramid's Application practice areas include Digital Development and Operations, Data and Intelligence and Quality Assurance and Testing. Each of these services begins with an assessment of the customer's IT estate and a roadmap to either stabilize or transform their IT.

To assess and generate roadmaps, Pyramid relies on Lansweeper to find every asset in the customer's environment – both hardware & software - inventory those assets, and provide an actionable level of detail to create meaningful insights and recommendations for their customers.

"Lansweeper's unique value proposition to us," says Rich Cannon, Sr Director of Channel Development at Pyramid, "is that you've done integrations with most of the different reporting and migration tools we're using. So it doesn't matter what type of output the customer needs, we can leverage one complete and consistent set of accurate data from Lansweeper for a wide variety of customer scenarios. That saves us tons of time and money and helps deliver a higher quality assessment for our customers."

What's more, Rich recommends keeping Lansweeper running to maintain continuous optimization. "Once the assessment is done, you don't want to just shutdown Lansweeper. You're going to want to be able to pull the data directly from the source throughout the project because things change - someone may turn off a server or move something from one cloud to another. If you don't have Lansweeper constantly running, it's easy to miss important changes or worse, you'll have to start from the beginning again to find what you need."

Be Ready for What Lies Ahead

No one knows what the future holds, but if the year 2020 has taught us one thing, it's that we must be prepared for the unexpected. As the modern enterprise is increasingly reliant on technology to remain operational under any circumstance, a flexible, comprehensive approach to IT asset management is essential.

ITAM 2.0 will enable organizations to build a rock-solid foundation for supporting new business initiatives and IT scenarios, with the flexibility and agility to pivot when necessary, and rise to the challenge of the unknown.

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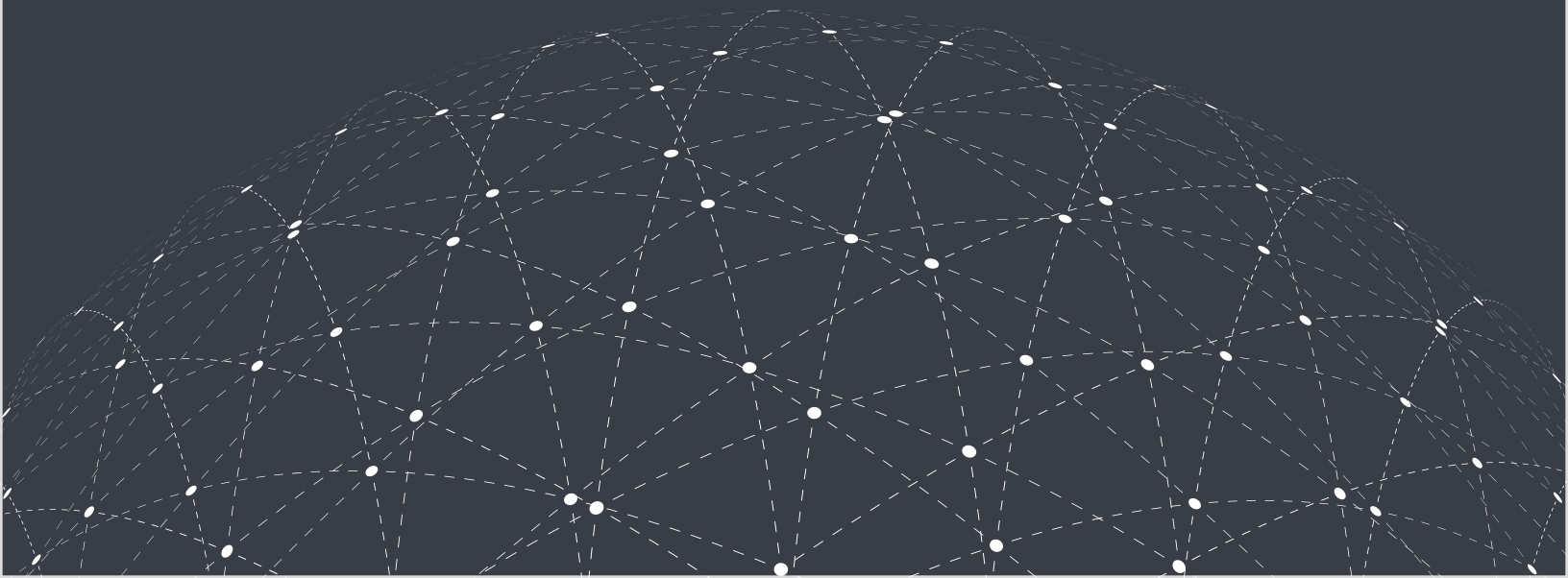
— Rich Cannon
Senior Director of Channel Development at Pyramid

Know Your IT!

You can't manage and protect what you don't know you have.
IT is most agile with a reliable asset inventory on-hand.

- Future proof approach to ITAM
- Agentless discovery
- Aggregating data across IT systems
- Cloud based for scalability and accessibility
- Leverage data for any IT scenario or use case
- Ability to integrate with other applications and services

For more information about Lansweeper, visit www.lansweeper.com.

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