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The IT Asset (R)evolution

EBOOK

The digital age has fundamentally transformed the term “asset”. We must evolve how we track, monitor, and govern the new “cyber asset” universe.

The Changing Asset

Michael Jordan. A laptop. Your GitHub repo. All three are assets, but not in the same way.

- Michael Jordan was an amazing **asset** for the Chicago Bulls, in that he provided tremendous value to the franchise.
- A laptop is a physical **asset** in the traditional IT asset management view.
- Your GitHub repo is a cyber **asset** in the digital universe.

In business, assets are how we operate. We discover, manage, and govern assets to maximize revenue and the growth of our business. However, the definition of asset is undergoing a major change. Cloud and digital transformation have fundamentally upended the definition of an asset. Where it used to be simple, businesses must now reinvent how they track, monitor, and govern the new “cyber asset” universe.

Software-Defined Assets

Modern cyber assets go beyond moving the traditional asset model to the cloud. Nearly anything that is defined by software – that provides value to the business – is a cyber asset.

- A workload is a cyber asset.
- The configuration of your infrastructure is a cyber asset.
- Your code repo, as well as the code commits are cyber assets.
- Identities of the users and employees are cyber assets.
- Cloud datastores and crypto keys are cyber assets.

These assets do not operate in isolation. Cyber assets communicate with each other, they rely on each other’s existence, and they build upon one another to create a stack of assets that work best for the business. These relationships must also be tracked and defined in the new world of cyber assets.

To understand why we need to shift to this new definition of asset, we should first look at what is driving the change in how we define our assets.

Three Driving Forces Behind The Cyber Asset

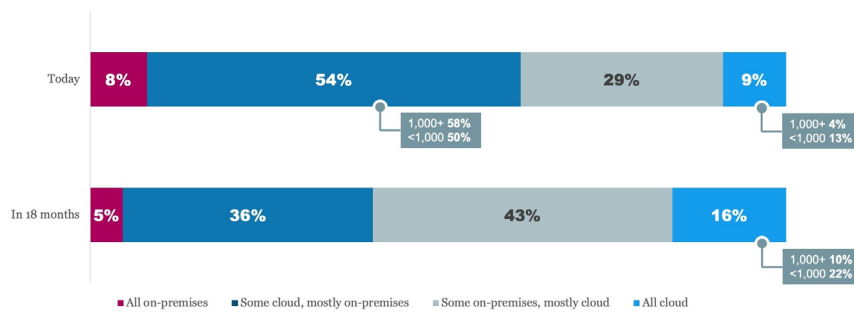
Cloud adoption, digital transformation, and API-based infrastructure and security tooling are fundamentally changing how we build, manage, govern, and secure the enterprise. These three shifts in technology dictate the transition to an updated definition of cyber asset.

Nearly anything that is defined by software – that provides value to the business – is a cyber asset.

Cloud Adoption

We all know that the move to the cloud started long ago. IDG cites that 92% of businesses are at least partially deploying their IT infrastructure in the cloud today with that number expected to be 95% in the next 18 months. Cloud environments will grow in sophistication to fuel business growth, thus increasing the number of software-defined assets that teams must manage. With the shift to cloud comes the shift to software defined everything - configuration, code, workloads, applications, and business processes are now all software defined. Each and every one of these objects is a cyber asset.

The Shift Continues to Cloud



Q. Which statement below best describes your organization's total IT environment (infrastructure, applications, data analytics, etc.) today? Which statement best describes your organization's total IT environment 18 months from now?

Source: Infoworld, ["The 2020 IDG Cloud Computing Survey"](#)

Digital Transformation

Digital transformation lives on the back of the transition to the cloud. Organizations are rapidly changing their business models, streamlining operational processes, and overhauling customer experiences to better optimize and future-proof their businesses. Companies such as Nike, Hasbro, Target, and many others have instituted very public digital transformation projects and watched their revenue and stock prices grow in the following years. From a security and asset management vantage point, digital transformation is increasing the need to broaden the definition of asset to enable the rapid pace of change in their digital universe. As more companies engage with digital transformation, more assets become software driven, increasing the need for a transition to a true cyber asset model.

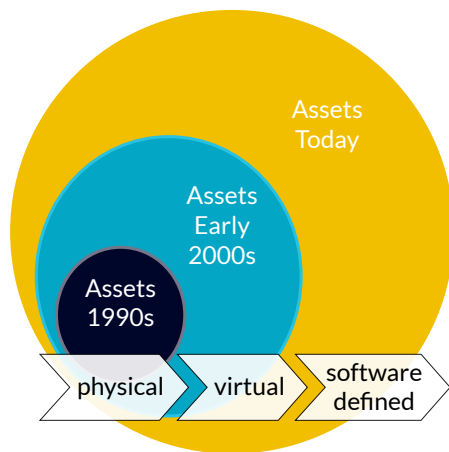
API Economy

As we've moved into the cloud and software-as-a-service (SaaS) models, the use of application programming interfaces (APIs) has exploded. Organizations not only use APIs to build core elements and innovate more quickly, but also allow customers to build extensions and connect these core elements with other technologies and workflows. This shift to API-based architecture has created a new way to collect, assess, and govern cyber assets. It's way easier than ever before to collect cyber asset information along with the relationships between these assets. We're no longer limited to traditional CMDB models.

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Remove Complexity with Modern Cyber Asset Management

Modern cyber asset management requires a broader definition of asset. The new definition must include everything that has become software defined and is now trackable in the new model. We still retain the original scope of the term asset and should consider any physical hardware in our environment, but in modern times, the physical hardware, servers, and systems have become virtual. The routers are gone, the servers are embodied by infrastructure providers in the cloud, and the systems that run on those servers are now hosted in the cloud via containers, serverless systems, and even individual functions as a service.



Traditional asset management tools are often siloed and do not scale to the needs of digital transformation. They often provide limited information, if any, on the relationships between assets. Relationships between assets are the real value. In isolation any asset can be defined and tracked, but if we are able to ask questions of our asset management system and include the relationships between assets in our answer, we find a much more meaningful value in what we are tracking.

Strong Security Programs Require Cyber Asset Visibility

In order to create a highly functioning security program, organizations need an automated way to discover cyber assets in their growing digital universe, a graph-based view to understand the relationships between these assets, and an integrated way to orchestrate remediation, all at the speed of innovation. Business must automate the collection of cyber asset data, analyze and alert on issues, and integrate these results with optimized workflows.

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