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Get the Most Out of Your Infrastructure Investments with

CISCO SMART LICENSING

WHITE PAPER

Prepared by
Zeus Kerravala

ABOUT THE AUTHOR

Zeus Kerravala is the founder and principal analyst with ZK Research. Kerravala provides tactical advice and strategic guidance to help his clients in both the current business climate and the long term. He delivers research and insight to the following constituents: end-user IT and network managers; vendors of IT hardware, software and services; and members of the financial community looking to invest in the companies that he covers.
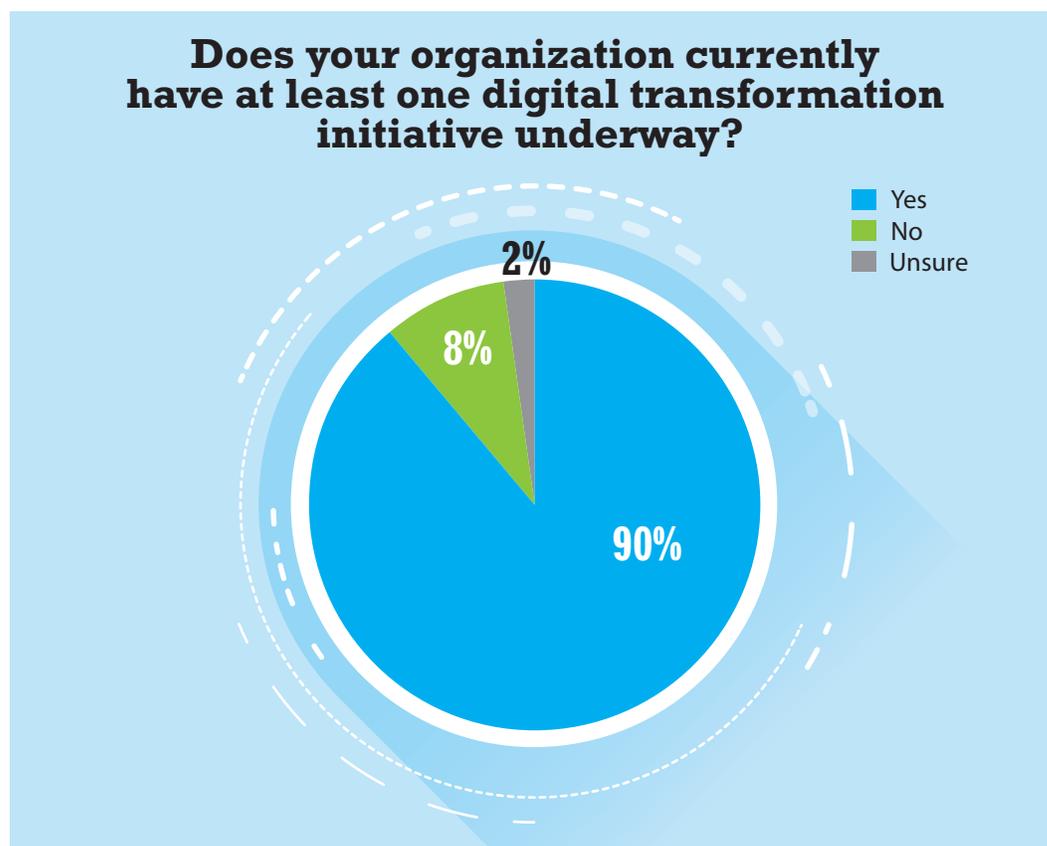
INTRODUCTION: DIGITAL TRANSFORMATION REQUIRES SOFTWARE AGILITY

Digital transformation has become a top mandate for almost every IT and business leader. The ZK Research 2019 IT Priorities Survey found that 90% of businesses currently have a digital transformation initiative in progress (Exhibit 1). In the digital era, competitive advantage is no longer determined by which company has the best products or even the best people. Market leadership is based on an organization's ability to analyze information, gain insights and make fast decisions to capitalize on market transitions.

A critical step on the path to becoming a digital business is to transform into an agile organization, which requires an IT foundation that is dynamic and can change to accommodate business needs. This is why companies spent more than $14 billion on technology in 2019 to make IT more agile, according to ZK Research.

Today, software dominates IT spending because it is a key component of digital transformation. Almost all areas of IT are sold as software today including applications, servers, networks and security. However, purchasing software is not simple and is filled with traps and pitfalls that

Exhibit 1: Digital Transformation Is Widespread

Does your organization currently have at least one digital transformation initiative underway?

Yes
No
Unsure

2%
8%
90%

ZK Research 2019 IT Priorities Survey

can complicate the process and cause companies to overspend. If businesses are to be agile organizations, the way software is purchased and licensed needs to change.

SECTION II: THE CHALLENGE WITH TRADITIONAL SOFTWARE LICENSING FOR IT INFRASTRUCTURE

The current model of licensing infrastructure has been in place for decades. Typically, a router, switch or server is purchased in a perpetual model in which the company owns the hardware and software until the product is refreshed. At that time, the company must purchase new hardware and software, and then the cycle repeats itself. Although this methodology has been the norm for infrastructure purchases for decades, it does have several limitations including the following:

Companies have poor visibility into what they own. There are many ways to license software. It can be done on a per-user, per-device, per-core or per-memory model, or sometimes it is unlimited. This makes tracking the licenses very difficult. Unless a robust inventory management system is in place, it is very hard to be aware of everything that has been deployed, particularly for large, global organizations. ZK Research estimates that only 35% of companies have the tools to meter software usage and understand whether they are getting full value from the products they purchased.

Software is tied to a person or device, not the company. The network device registration to activate software is often tied to the engineer who is working with the equipment. Alternatively, the device itself may be designated as the "owner" of the software. In either case, if the business upgrades the underlying infrastructure, new licenses must be purchased, as the existing ones are tied to people or devices.

The process of ordering and managing licenses is complex. The lack of understanding regarding what is being purchased and the ad hoc manner in which licenses are tracked make it very difficult for companies to understand what to order. They face a difficult choice: either risk non-compliance or overspend. ZK Research found that about 70% of businesses have been audited by a software vendor in the past 12 months. Fear of an audit combined with uncertainty regarding what has been purchased has caused organizations to exceed their software budget by an average of 28% annually. The difficulty in managing licenses also makes reconciling them a long, laborious process.

Manual management is impractical. One method of tracking licenses, hardware and license agreements is to throw a team of people at the problem. This might seem like a good idea, but it does not work. Infrastructure is often very specialized, and businesses must frequently

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call upon subject matter experts to understand why things were purchased. This is a waste of valuable resources.

Activation keys limit flexibility. The use of activation keys is common in the software industry. They were designed to prevent unauthorized use of software and have accomplished that goal. However, because the activation keys are tied to a specific product, their flexibility is limited, as upgrades or new purchases often require an upgrade of the keys.

SECTION III: INTRODUCING CISCO SMART LICENSING

San Jose–based Cisco is changing its approach to software licensing. The company has been at the forefront of innovation in the areas of compute, security and networking for decades but is now transforming the end-to-end software lifecycle to make it easier for customers to purchase and manage Cisco equipment. A significant change is the move away from legacy product activation key (PAK) licenses to a "Smart Licensing" model that makes the license registration process agile and fast.

Smart Licensing is a major change in the way software licenses are managed across all Cisco product families. It's important to understand that Smart Licensing is not another traditional licensing system; it's more akin to a software asset management system in that licenses are not installed on the individual Cisco products. Instead, a pool of software licenses is defined, and individual devices use whatever licenses they require based on their configuration.

Cisco's Smart Licensing is significantly more flexible than traditional software models, and it simplifies the way IT professionals activate and manage licenses across their company. This new approach streamlines the way companies procure, deploy and manage Cisco software licenses.

The simple, concise answers provided by Smart Licensing give Cisco customers and partners the right data to make informed decisions about their current and future investments. When compared to legacy licensing models, Cisco Smart Licenses provide a simpler and more agile method for customers and partners to purchase, activate and manage licenses for their Cisco infrastructure.

Cisco Smart Licenses differ from traditional licensing models in four ways:

Knowledge: Traditional licensing methods involve using spreadsheets or homegrown tools. Consequently, customers rarely understand what they own. With Smart Licenses, all Cisco software, services and devices are available via an easy-to-use portal.

Registration: Activation keys require each device to be registered manually. With Smart Licensing, the concept of the PAK has been eliminated, and the products self-register for easy activation and are ready to use.

Ownership: Traditional licenses are device specific, so there must be one license per device. Smart Licenses are designed to be flexible and put in a pool, which means they can be moved

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around to different devices and can be redeployed. The concept of pooling is what gives customers the agility and flexibility they require to deploy new products and services without having to worry about license compliance.

Flexibility: Traditional licenses only provide access to devices that have been paid for. Smart Licenses enable customers to "burst" and temporarily overuse the software, allowing licensing issues to be resolved later.

The first step in shifting to Smart Licenses is setting up a Smart Account on cisco.com. A Smart Account is a repository where licenses can be viewed, stored and managed. The goal of the program is to provide answers that have historically been unanswerable by companies of any size. The first is "What has my company purchased?," and the second is "What is my company currently using?"

The Smart Account is also where users can set up profiles and organize their licenses and devices using subfolders called "Virtual Accounts." A feature within the Smart Account, Virtual Accounts enable more granular organization of licenses. As Exhibit 2 shows, Virtual Accounts can be arranged by business unit, product type, geography or any other method that makes sense for

Exhibit 2: Virtual Accounts Enable Granular Management of Smart Licenses

Primary Smart Account

Virtual Account 1

Virtual Account 2

Virtual Account 3

Virtual Accounts organized by business unit, geography, product, etc.
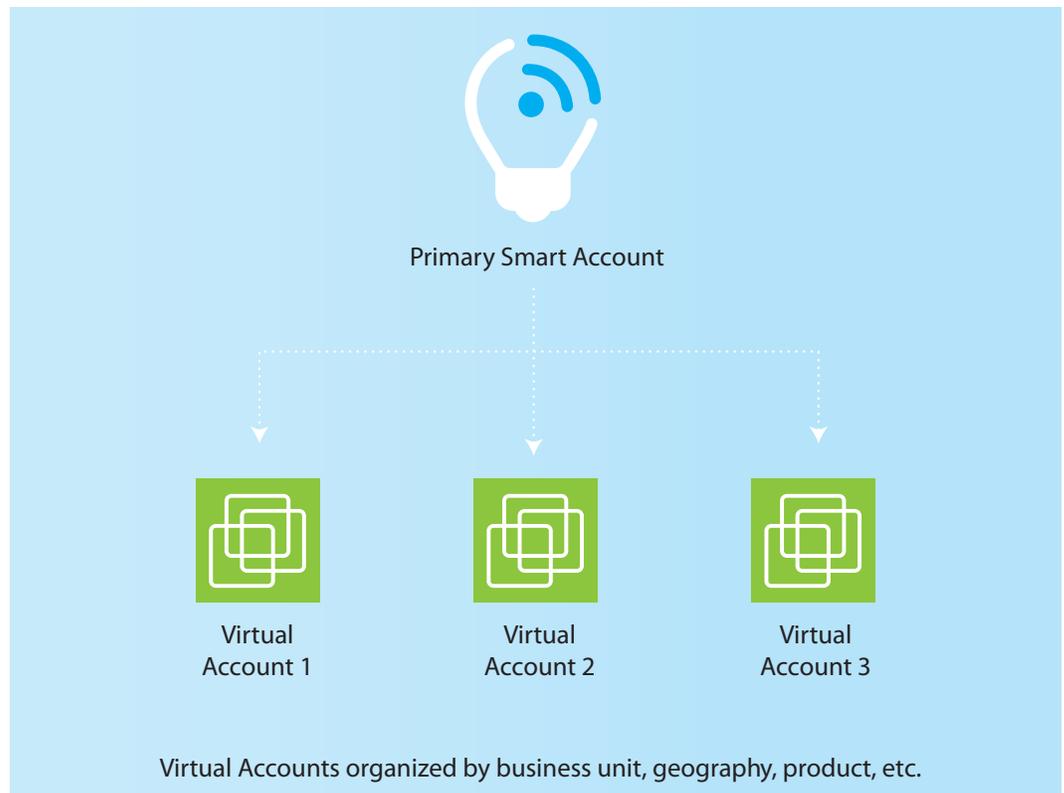
Cisco and ZK Research, 2019

the company. Smart Account administrators can create and manage Virtual Accounts. From a best practice standpoint, Virtual Accounts enable local administrators to access only the licenses they need versus allowing access company-wide, resulting in better utilization and more efficient planning.

There are five different roles within Smart Accounts:

Smart Account approvers can edit Smart Account properties, view all users, accept agreements and view logs. The approver plays an oversight role and cannot conduct license-management activities.

Smart Account administrators can edit properties, add and edit users and Virtual Accounts, accept agreements and view event logs. The administrator can conduct license-management activities for the entire Smart Account.

Smart Account users are similar to administrators but cannot create new or Virtual Accounts.

Virtual Account administrators are similar to Smart Account administrators but limited to the assigned Virtual Account.

Virtual Account users are akin to Smart Account users with the restriction of being limited to the Virtual Account.

There are two types of accounts within the Smart Account framework:

Customer Smart Accounts are where licenses are deposited for a customer to access and use. The licenses can be managed by the customer directly or by a designated third party such as a value-added reseller (VAR) or managed service provider.

Partner Holding Accounts can be thought of as temporary holding accounts or storage where licenses can be deposited before they are transferred to a Customer Smart Account.

The reporting of license information back to Cisco is done in three different ways to meet any kind of compliance and security requirements. These options include the following:

Direct cloud access is the default. With this model, Cisco sends usage information directly over the internet to the Cisco cloud. This is the simplest model, as no additional infrastructure is required.

Smart Licensing provides customers with flexibility and options— which are key requirements for digital organizations.

Access via an on-premises license server entails Cisco products sending usage data to a local server. Periodically, the data is synchronized with the Cisco cloud either in a connected environment or manually if the server is disconnected.

Full, offline access with license reservation uses a manual copy-and-paste method between the local server and the Cisco cloud to handle the check-in and check-out of licenses. This option is available when there is no internet connection.

SECTION IV: BENEFITS OF SMART LICENSING AND SMART ACCOUNTS

The Cisco Smart Licensing program is a new paradigm in software management. Instead of being built on the principles of rigidity and holding customers accountable for software (even if it's not being used), Smart Licensing provides customers with flexibility and options—which are key requirements for digital organizations. Customers will no longer be bound to refresh cycles and the limitations of traditional licensing models that carry with them big penalties for non-compliance. Instead, businesses that embrace Smart Licensing will realize the following benefits:

Real-time visibility of Cisco software license ownership and consumption across the entire organization

Centralized management and visibility of software licenses, which improves the utilization of assets under management

Cost-effective program that reduces the cost of license management via lower overhead and significantly better planning

Organizational flexibility, as licenses can be grouped by business unit, geography or any other organizational designation

Smarter decisions made regarding infrastructure including when to upgrade, refresh or replace (Smart Licensing provides the data and insights to make not just a good decision, but the best decision.)

Easy-to-use system with an intuitive portal that simplifies all aspects of license management

Alignment with digital transformation, enabling infrastructure purchases and changes to be made in real time so as to not hold the company back

Migrating to a licensing model that can accelerate the journey to digital transformation should be at the top of every business and IT leader's priority list.

License portability, which enables customers to easily move licenses within their installed base, including the need for replacing hardware products through Return Materials Authorization (RMA)

Customers are obviously the primary beneficiaries of Cisco Smart Licensing. However, they aren't the only constituents that can benefit. Cisco reseller partners will recognize the following advantages:

Simplified sales motion for Cisco infrastructure, as the barriers created from activation and management are eliminated

Increased value to customers when partners are given permission to manage entitlements via Smart Accounts on their behalf, which allows partners to deliver entitlement management services at their customers' request

Becoming a strategic partner to customers by helping them to optimize spending on infrastructure and software

SECTION V: CONCLUSION AND RECOMMENDATIONS

The digital business era is here, and it's putting a premium on business agility. However, companies are only as agile as their IT infrastructure. Historically, the network and other infrastructure have been static and rigid, causing organizations to miss out on new opportunities. What's required is a new infrastructure licensing model that can better address what businesses need.

Cisco Smart Licensing and Smart Accounts help customers better manage their infrastructure by enabling businesses to purchase the right software capabilities to address their needs today while offering a flexible model to meet the unknown demands of tomorrow.

Migrating to a licensing model that can accelerate the journey to digital transformation should be at the top of every business and IT leader's priority list. ZK Research makes the following recommendations to help organizations begin this initiative:

Consider the network a strategic asset. IT is shifting to a network-centric model, and the network will ultimately determine the success or failure of initiatives such as cloud computing, mobility and the Internet of Things (IoT). The network should be viewed as a strategic platform that can be the foundation for competitive advantage.

Simplify the process of managing software. Businesses waste hundreds of hours managing software. Despite that, they risk either overspending or vendor non-compliance. IT professionals should make every effort to simplify the software management lifecycle.

Embrace Smart Licensing and Smart Accounts. Cisco Smart Licensing and Smart Accounts provide both cost and innovation advantages over traditional purchasing models. ZK Research believes these new Cisco programs are the right infrastructure purchasing models for the digital business era.

CONTACT

zeus@zkresearch.com

Cell: 301-775-7447
Office: 978-252-5314