

Economic possibilities for funding network transformation in the multicloud era



Multicloud realities and the need for enhanced performance and security are putting pressure on CxOs and IT departments.

Enabling success in this modern IT landscape means transforming your network to match the requirements of the multicloud model. Even when your organization is faced with significant financial restrictions.

We've developed an approach to network transformation called Cisco Performance IT to help enable the necessary transformation—in a way that pays for itself.

In this paper, we'll show you:

- **Why** your organization's network needs to change
- **What** makes network transformation financially challenging
- **How** to self-fund your network transformation

Why your network needs to evolve

Multicloud IT places unique strains on your network. Complexity increases. Data in transit does, too. Connecting your legacy systems and on-premises data centers to cloud resources brings risks and costs. You need new, agile network infrastructure to support these new IT realities—and a re-invented approach to security to protect corporate assets.

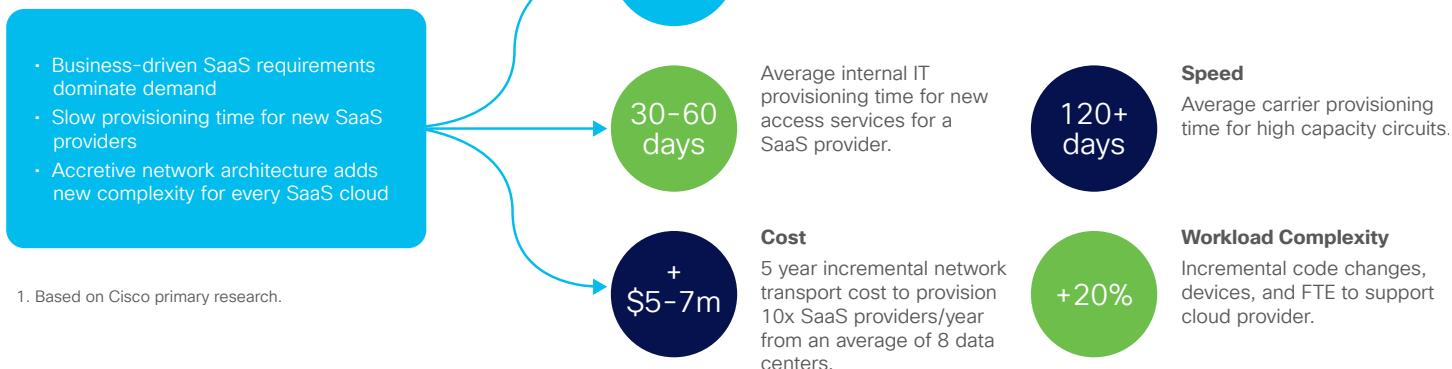
Most enterprises face technical debt. Business benefits (secure traffic, high-speed cloud connectivity, etc.) reside in new technology and software-defined architecture. The challenge today is that many existing networks are simply too limited to support new feature sets.

In reality, legacy networks require more physical infrastructure than new ones. And that leads to complexity and higher maintenance costs. For example, sporadic implementation of Wi-Fi in the campus results in both fixed and wired ports, plus cabling, maintenance, and project costs to keep it up-to-date—increasing costs, complexity, and impacting the end-user experience.

What to expect if you don't act

- **Poor user experience.** Simply connecting your existing network to the next SaaS provider, and backhauling all traffic through existing data centers to secure it, creates incremental network costs and support complexity. It also significantly impacts the end-user experience.
- **Slow deployment.** A side effect of access control in the private data center is needing to install dedicated circuits to every cloud provider. Provisioning times for high-capacity networks to cloud providers can stretch to several months, even in metropolitan areas.
- **Reduced benefits.** Not only does delaying projects (e.g., provisioning high-speed direct cloud access to new sales applications) impact the delivery of value to the business, it also severely impacts the business case. In large-scale transformation projects, the business case has shown decreases of \$5-7M in value as a result of a six-month delay.

Multicloud: the primary driver for network transformation¹



1. Based on Cisco primary research.

The financial barriers to network transformation

1 Transport is key to multicloud, but the upgrade costs are significant

Most enterprise organizations have a distributed user base in campus and branch locations. Typically, these IT ecosystems will encompass several hundred to several thousand small and large locations.

The traditional pre-cloud model uses a fixed-capacity, fixed route private network to link these locations to data-center-resident applications, to link data centers to the Internet, and to open extranet services via firewalls and other security appliances for cloud access.

The result is a high fixed-cost, fixed-capacity service which has a fixed-traffic routing model with manual or scripted change control processes and significant lead times for change. In fact, the evidence shows that transport spend makes up 35-45 percent of total network spend.

Often, organizations can achieve cost savings by renegotiating rates. But this yields no material difference in delivering the desired higher capacity and performance. The reality is as cloud service demand grows, transport costs increase to connect these disparate environments and to move data between them.

Even if they can squeeze within their budgets, CxOs find themselves unable to provide new differentiated services demanded by the business. The key is to lower legacy fixed-line costs enough to create headroom to invest in network transformation and modernization.

Why transport is a roadblock to network transformation²

- Lock in to single providers on multi-year contracts
- Global contracts involve margin-on-margin with regional providers
- Fixed capacity-fixed point-to-point service

40%

Network IT spend committed to regional and core WAN transport.

4-5x

Variation in high-capacity MPLS long haul circuit charges vs. commodity.

1.5MB vs. 5+MB

Variance in capacity provided for the same charge in regional WAN.

48 hrs

Business impact
Provisioning time, colocation cross-connect to cloud provider.

30-40%

Lower cost like-for-like MPLS vs Internet.

2. Based on Cisco primary research.

2 CapEx can be the investment of good money after bad

The historical trend in IT budgets has been year-on-year declines, both in absolute terms and as a percentage of total spend.

CapEx spend on technology, in most cases (excluding regulated industries), is not keeping technology assets up to date, within end-of-support, or in a state that can support new capabilities.

Examples of up to 45 percent of estates being end-of-life are not untypical. CapEx (including projects) often runs at 15-20 percent of total network IT spend and this cannot keep pace with aging estates. The money gets spent, but results are only partially achieved.

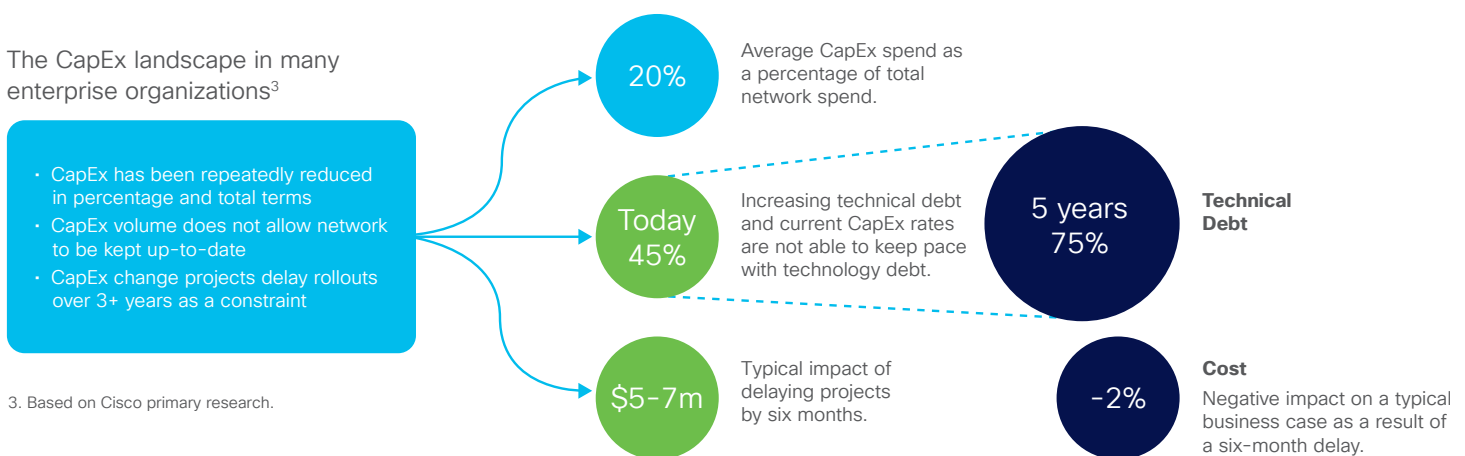
The practice of simply replacing like-for-like or adding infrastructure will result in this problem compounding over time. Good money after bad. Cisco research shows that if this is not addressed, aging estates will continue to increase up to 75 percent over the next 5 years.

Technical debt (the hidden, future cost of choosing expedient and less-costly IT solutions today over costlier but smarter long-term solutions), is growing, not declining. Transformation should deliver at least a 20 percent reduction in physical infrastructure, taking pressure off future CapEx spend.

This leads to:

- **Functionality gaps**—e.g., security and being able to segment and encrypt sensitive data, automation of operations to ensure compliance, and security and efficient routing for cloud-based hosting.
- **Project drift**—missed deadlines as a result of higher complexity and time-intensive manual changes, directly impacting the ability of the business to take advantage of new applications securely and with the expected end-user experience.
- **Labor constraints**—projects treated as CapEx are often constrained by a fixed-cost workforce. This significantly limits the ability to complete transformation and deliver benefits at speed. Unstable and complex legacy networks will distract resources from “change” to “run.”
- **Lower ROI**—slowing the rollout of technology change increases the total costs and delays the benefits, making business cases hard to justify. Delayed projects run a higher risk of never reaching full completion, leaving further disparity between the desired and actual state of network services.

The CapEx landscape in many enterprise organizations³

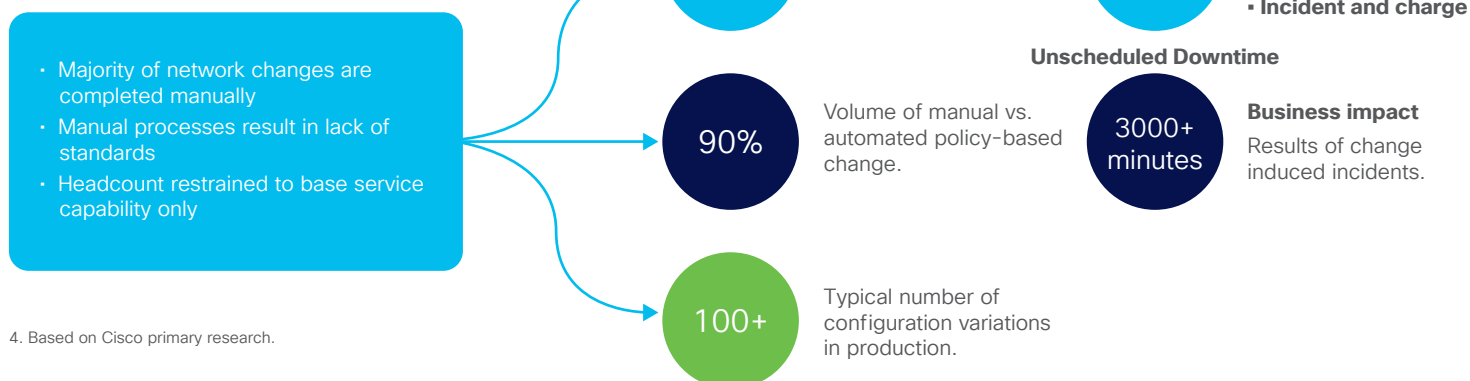


3 Configuration and operational complexity

One of the key features of a legacy network with a high or growing technical debt is a high variation of configurations and a high number and volume of configurations. Our research shows that most legacy environments have over 100 active configurations in production for the network, and a variable level of control over patches and upgrades with over 90 percent of changes being configured manually.

Not only does this increase workloads, it increases the time to troubleshoot and remedy errors. The large volume of legacy rules in place adds to the complexity of change and incident management. Every SaaS provider added to the network creates a workload around security, access control, maintenance, and upgrades.

Complex IT operations are frequently supported by a fixed-capacity workforce model⁴



4. Based on Cisco primary research.

How do you transform your network for multicloud?

We offer a transformational process called Cisco Performance IT that helps organizations evolve their networks for the multicloud world. This approach shows you how to obtain the network you need by optimizing your network spend with the efficiencies of Cisco solutions.

Cisco Performance IT

Step 1: Change the way you think about transformation

Use a zero-based approach to build a stronger business case.

Don't
Leverage an incremental approach to transformation



This approach addresses domains or technologies one at a time (e.g., wireless in the campus or SD-WAN to reduce circuit costs).

Unfortunately, the incremental approach may not yield a convincing business case in many cases.

Worse still, the desire to make incremental short-term savings can result in cul-de-sac design decisions, which do not support the longer-term objectives, such as cloud, data center rationalization, or taking advantage of mergers, acquisitions, and divestitures.

Do:
Employ a zero-based approach to transformation



Unlike the incremental approach, the zero-based approach looks at every aspect of the network holistically, end-to-end, and redesigns to achieve maximum benefit and results.

The key principle is that no spend is “moved” from “As-Is” to “To-Be” by default. Every part of the To-Be spend should be calculated from bottom up. Businesses don’t assume a budgetary number from previous years to inform the To-Be.

Instead, they build the case in cash first. This makes it simple to understand exactly when and where cost is being incurred, aligned with the agreed-upon technology transformation roadmap.

Once those metrics are understood and meet the business needs, then organizations can decide on the optimal consumption model and its impact on the P&L view, including treatment of outstanding capital.

Keys to the zero-based approach

Include all costs. Many savings are found in eliminating small routines repeated thousands of times. Finding ways to completely remove those costs is key. For example, externally paid small change-and-add charges (typically \$50–\$100 per occurrence) may be completely removed with automation—with the added benefit of less risk of human error.

Consider hard costs vs. cost avoidance. The basis for the business case is hard cost only. This means that only savings to the existing hard-cost baseline are considered. Once the hard costs are identified, we can examine cost-avoidance opportunities. An example of cost avoidance is unbudgeted costs for upgrades/refresh.

Iterate and let the business case influence the architecture. Refreshing/replacing technology that has recently been changed will weaken the business case. Every design decision in the To-Be of the architecture workstream needs to be challenged against a financial benefit.

Understand the value of fast deployment. Most business cases are over a five-year term with differing thresholds for ROI, break even, etc., depending on the organization's thresholds and hurdle rates. Being able to complete the transformation work in shorter timeframes can make a material impact to the business case.

Embrace an agile approach. Quickly (4–5 weeks maximum) design the architecture of the key components and key changes with a small core team involving architecture, engineering, operations, and finance. Test the assumptions: Will it deliver the capability required? Will it be operationally achievable in the To-Be state? Does it meet the CISO's security policy?

Step 2: Build a 2- to 3-year transformation roadmap

Next, Cisco Performance IT builds out a 2- to 3-year plan, which can be implemented in phases. In this stage, we ensure that organizational stakeholders:

- Understand and define dependencies between major architectural elements of the transformation. With a siloed approach to technology (e.g., branch design separate from Core WAN and multicloud), it's easy to miss requirements such as direct Internet access.
- Consider security end-to-end. Compliance requirements, such as PCI, may well dictate segmentation and encryption of traffic. They may also require that group-tags are passed from the user all the way to the application provider and back.
- Clarify priorities and dependencies. The Cisco Performance IT process clearly draws out the priorities and what should be done first.
- Baby steps vs. giant leaps. Your organization's willingness to adopt new technology and take bold rather than incremental steps to upgrade the legacy network can generate significant cost differentials. Ensure the steps are aligned to the overall goals set out in the architecture.

Step 3: Build a five-year, cash-based business case

We believe a five-year business case is required to demonstrate that, once transformation is completed, the operational run rate of spend is significantly different from today.

This long-term view is one of the primary reasons why a transformation will make sense for your organization. This term and model will also demonstrate the overall value of the program inclusive of investment. The timing of when benefits will be realized is an important consideration; demonstrate early benefits and value.

To build the business case for transformation, we use a cash flow statement that shows the As-Is annual baseline spend and the projected (To-Be) spend over a five-year term.

We use a cash flow rather than a P&L view as it simplifies the data collection process (avoids development of a depreciation schedule and having detailed install-base data) and also is easier for most non-financial audiences to understand. We are comparing cash expenditures in the baseline year to projected reductions over the five-year term.

Cisco Performance IT: the expected results

The outcome of the Cisco Performance IT process is a major program of transformational change that delivers significant new capability to IT operations and the business.

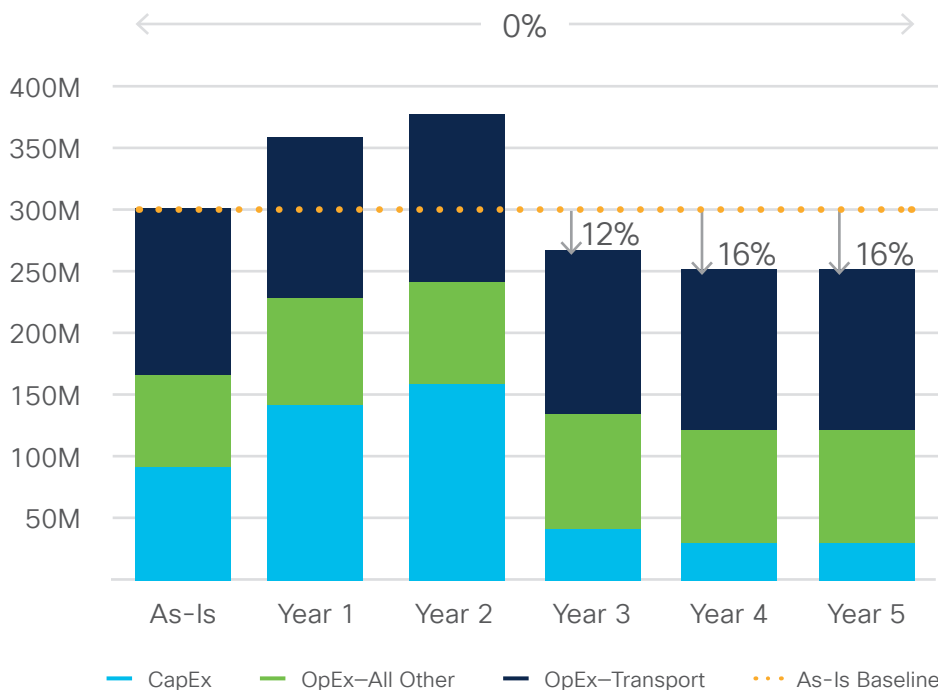
Our experience shows that Cisco Performance IT produces business case results that align to one of three scenarios.

Possibility 1: Self-funded transformation

Here, the overall business case, inclusive of the investments required to complete the transformation, shows current spend equal to future spend over a five-year period. Based on the work that Cisco has done, 80 percent of business cases fall into this category.

The key to self-funding is that once transformation is complete, the ongoing cost to operate is significantly lower than today, leaving infrastructure in a better state with lower ongoing operating costs.

Cost: 5-Year Cash Flow⁵



Financial summary

- This represents a cash flow view
- As-Is 5-Year total baseline spend of \$1507M
- To-Be 5-Year total projected spend of \$1510M
- To-Be cumulative 5-Year investment of 0% or -\$3M
- To-Be End-State annual savings of 16% or \$49M

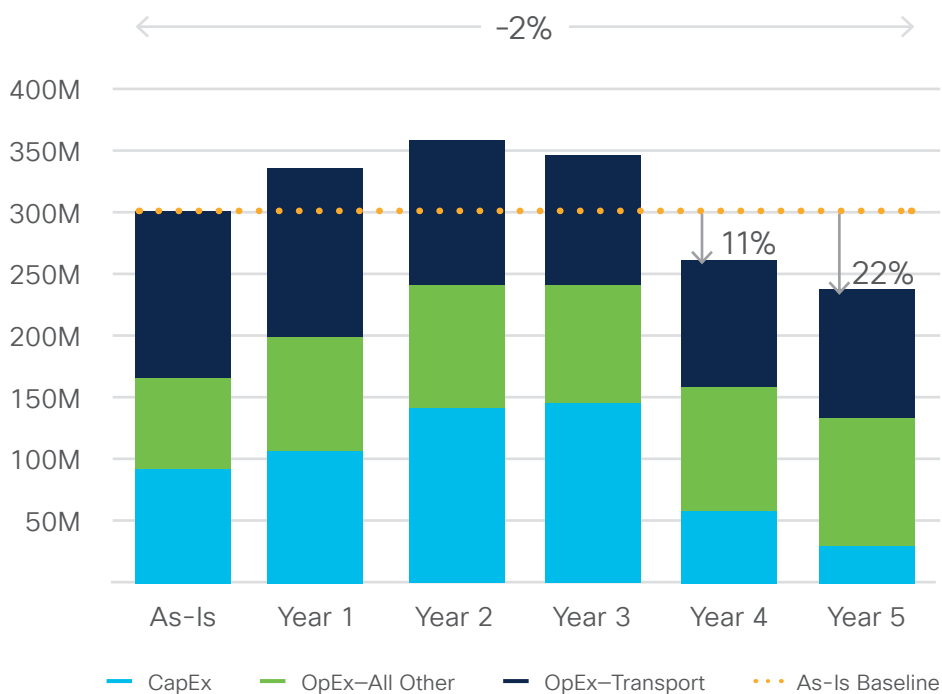
5. Based on Cisco primary research.

Possibility 2: Business growth transformation

In this case the business is experiencing high annual compound growth in revenue, typically through increased access to existing markets and extension into new markets. The business case in this situation will show an increase in network spend, but at a lower rate than would have been the case if the baseline kept pace with revenue/business growth.

The benefits are derived mainly from cost avoidance.

Cost: 5-Year Cash Flow⁶



Financial summary

- This represents a cash flow view
- Option to use Cisco Capital to smooth initial investment
- As-Is 5-Year total baseline spend of \$1507M
- To-Be 5-Year total projected spend of \$1540M
- To-Be cumulative 5-Year investment of -2% or -\$33M
- To-Be End-State annual savings of 22% or \$66M

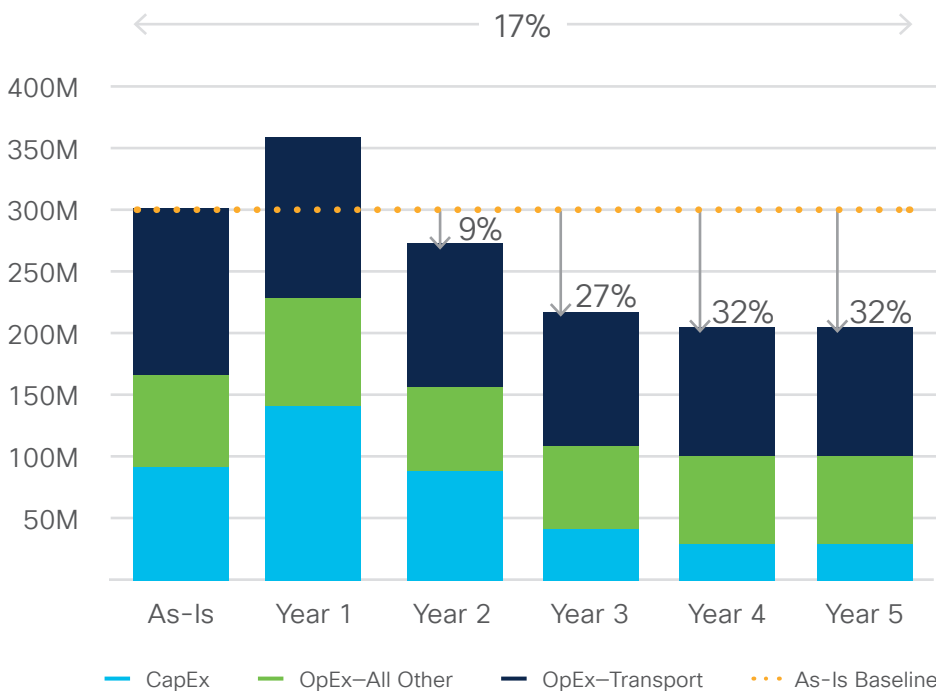
6. Based on Cisco primary research.

Possibility 3: Cost-out transformation

In this case the business is mandating hard-cost reduction in IT services. Typically, the business will need to sacrifice capabilities to deliver the desired cost benefits.

The goal is to find a hard reduction in costs, with simplification and asset reduction being key drivers.

Cost: 5-Year Cash Flow⁷



Financial summary

- This represents a cash flow view
- As-Is 5-Year total baseline spend of \$1507M
- To-Be 5-Year total projected spend of \$1256M
- To-Be cumulative 5-Year savings of 17% or \$251M
- To-Be End-State annual savings of 32% or \$98M
- Positive ROI from month 33

7. Based on Cisco primary research.

Begin your network transformation with Cisco Performance IT today

Multicloud and the acceleration of applications and services represent a significant challenge to CXOs and IT professionals.

But using the Cisco Performance IT approach, you can evolve your network for the future—while navigating the economic realities of your organization.

Read more about this new methodology at cisco.com/go/performance-it

Contact your Cisco account manager today to learn more.