



# Introducing the Future of Branch IT

With Cisco UCS E-Series Servers and VMware vSAN, you harness hyper-converged infrastructure and virtualization to transform your remote offices into a low-cost, high-performing operation.

**Branch offices are critical extensions of every business, but they can also be challenging to support—especially on the IT side. Most legacy branch infrastructures fall short in delivering the cost-efficiencies, performance and agility that digital-era businesses need to compete. That’s why more businesses are looking at a new hyper-converged solution from Cisco and VMware that transforms branch and remote offices, enabling fast, flexible deployment of applications, cost-effective central management, and 100% compatibility with existing Cisco and VMware data centers. This is branch IT built for the digital era.**

## Empowering branches

- Businesses are facing unprecedented challenges to growth and profitability
- To thrive today, you need to optimize branch organizations by deploying a lean compute, storage, and networking platform
- Cisco and VMware offer class-leading, low-TCO branch solutions to drive performance, agility, growth, and innovation



## Challenges

- Reduce IT costs
- Address end-of-life support for existing branch infrastructure
- Deploy new business-enabling applications and complying with new regulatory mandates for data storage



## Solution

- Deploy a lean, high-performance IT infrastructure for branches
- Use virtualization and centralized management to drive operational agility
- Control costs with hyper-converged hardware and virtualization



## Why Cisco & VMware

- Industry-leading, hyper-converged branch infrastructure
- Lower TCO, faster, more reliable performance
- Uses same tools and processes as existing Cisco and VMware technologies

## A new paradigm for branch offices

More often than not, your branch offices are just as important to your business as headquarters. Often it's where many of your vital operations reside – and where you interact with customers and partners face to face. However, branches and remote offices can be complex and expensive to operate, especially when it comes to IT. An outdated, inflexible branch IT infrastructure can stifle employee productivity, elevate costs, and make it difficult to respond to fast-changing market conditions. It can even impact customer experience and put revenue at risk.

Now you can address these challenges with a lean branch office strategy that extends data center capabilities to all your branch and remote offices. The new paradigm leverages hyper-converged infrastructure and virtualization technology that empowers you to swiftly deploy new applications and capacity whenever and wherever your business needs it. At a time when lines of business are leading the charge for new IT capabilities, a hyper-converged, virtualized solution allows you to respond to every new demand with speed and authority, and maximize ROI for every initiative.



## Introducing Cisco UCS E-Series vSAN ReadyNode

For enterprises seeking faster, more reliable performance for their mission-critical branch operations while lower costs, there's a proven solution: Cisco UCS E-Series Servers with VMware vSAN. With Cisco's hyper-converged branch infrastructure, you get router-integrated compute, networking and storage—along with switching and wireless communications—that is specifically optimized for branch deployment. The result: a solution with proven TCO savings along with one of the highest compute-power-per-footprint in the industry.

Add to that VMware's proven leadership in data center virtualization, which can now be seamlessly extended to the branch, making it the best choice for modernizing branch and remote offices. If you have already invested in VMware, this solution will integrate effortlessly with your existing tools, processes and skills base, helping transform the cost and performance of IT for your remote and branch office operations.

### Easy to buy

The Cisco-VMware branch platforms can be bought as a turnkey solution under a single contract supported entirely by Cisco and added to an existing Cisco support agreement. In addition, Cisco Capital can help you optimize your CapEx and OpEx, which offers "cloud-like" periodic consumption models along with financing and leasing options.

## Powerful advantages/benefits

### Compelling TCO

No other branch solution can match the level of operational savings and ROI achievable with the Cisco UCS E-Series vSAN ReadyNode, especially if you have already invested in VMware technologies.

- **Dramatically simplified operations.** The Cisco-VMware solution simplifies branch IT operations by allowing administrators to centrally manage the entire infrastructure as a single logical entity, driving ongoing operational efficiencies and savings. Your virtualization administrators quickly provision new compute, storage and networking facilities without the need for specialized skills.
- **Capitalize on existing VMware investment.** With this branch solution, you can leverage your existing vSAN across your VMware-enabled environment—and the architecture is 100% compatible with Cisco-VMware data centers.
- **Consolidation savings.** Cisco's hyper-converged branch solutions, with the compute blade integrated into the Cisco ISR chassis, are designed to consume minimal space. The solution offers the smallest infrastructure footprint in the industry with exceptionally low power consumption. Infrastructure consolidation makes service and support easier, driving further savings. Cisco hardware's average five-year lifecycle provides an ROI extension of two years over the industry norm of three years.



## Class-leading performance

With Cisco UCS E-Series vSAN ReadyNode, you never have to compromise speed, performance, or resilience.

- **Unmatched compute power.** Cisco's hyper-converged blade architecture delivers compute performance equal to or better than leading stand-alone chassis designs. The solution's integrated compute, storage and networking also reduces deployment errors

and operational complexity while delivering exceptional business availability.

- **Optimized throughput.** The solution's software-defined WAN maximizes data throughput and application performance without changing the physical WAN infrastructure, helping control costs while delivering an optimal user experience. Using Akamai Connect, you also can provide local caching, reducing network congestion by 50-90%.

## The power of results

### U.S. aerospace company modernizes remote offices with Cisco and VMware

As the long-term owner and operator of a U.S. government broadband satellite facility, this aerospace company needs to ensure maximum infrastructure reliability and cost efficiency. So when its existing routers and more than two dozen servers were reaching end of life, the IT team began the search for a new virtualized infrastructure to serve its network of remote sites.

The company's IT team—which included a virtualization manager and various database, infrastructure design and integration specialists—quickly saw that Cisco UCS E-Series Servers were significantly more powerful than the company's existing hardware, and better equipped to run its critical applications.

To address the company's cautiousness about deploying new hyper-converged technology,

Cisco and its partner ran a proof-of-concept that showed how the Cisco UCS E-Series would meet its performance goals for critical applications while helping reduce capital and operational costs. The aerospace firm is now on track to replace its existing routers and more than two dozen services across two data centers and 12 remote locations. Significant returns are expected through:

- Hardware consolidation
- Reduced maintenance and support costs
- Greater infrastructure reliability
- Lower training costs
- Simplified application support processes
- Reduced IT resource consumption

## Thin, lean, or full-service branch IT? You decide.

Cisco UCS E-Series vSAN ReadyNode is a complete solution for lean branch IT. Depending on your business needs (such as cost preferences, and latency and data-storage requirements) the hyper-converged solution can support three types of branch IT configurations:

- **Thin:** No servers in the branch, workloads are processed at the data center with WAN delivery
- **Lean:** Core IT workloads processed at the data center with delivery over the WAN + scalable compute/storage at the branch for business-critical applications
- **Full-service:** High-end compute/storage in the branch



- **Resilience at the edge.** Branch infrastructure based on UCS E-Series vSAN ReadyNode extends your data center to the edge. And the solution's all-flash storage can be monitored with VMware's witness appliance, safeguarding data integrity in the event of a link failure. A full stack of security and threat-protection services can also be deployed to cover all remote locations.

### Greater agility

Branch and remote office solutions based on Cisco and VMware empower your organization to quickly and cost-effectively meet the technology needs of your business.

- **Up and running fast.** You can stand up Cisco's branch infrastructure in less than 60 minutes from power-up. With Cisco and VMware, you can quickly deploy and move workloads to rapidly meet your evolving business requirements. You eliminate "IT lag" when responding to new demands from the business.
- **Streamlined management.** Once your branches are online, you can centrally manage the entire multi-site operation using VMware vCenter. Site visits are all but eliminated during regular operations. Plus, your VMware virtualization team can easily deploy applications—and provision

### The power of results

#### IaaS company cuts IT costs with lean branch strategy

This leading provider of infrastructure as a service was experiencing rising IT support costs and shrinking operating margins for key customer contracts. So the company's engineering team met with Cisco to look at options for modernizing its remote sites. The company had been running Dell servers and storage infrastructure at each of the sites, but the systems were reaching end of life.

The Cisco UCS E-Series server with VMware vSAN emerged as a strong alternative, despite having been introduced relatively recently. To choose the best course of action, the team compared an infrastructure comprised of

Cisco UCS E-Series Servers with VMware vSAN against a comparable solution running new Dell servers, vSAN, and separately acquired routers.

The results were clear: Cisco's hyper-converged architecture generated a \$100,000 saving versus the alternative approach, which required separate purchases of routers and servers. The proven reliability of Cisco hardware and the team's familiarity with VMware virtualization sealed the decision and contributed to achieving the targeted ROI. The company is now well on its way to replacing the legacy infrastructure.



virtual storage—using the same familiar tools and processes they already employ in the data center.

- **Flexible, secure deployments.** With the Cisco-VMware solution, application owners have the freedom to deploy in locations that best suit the business, safe in the knowledge they have dependable and resilient infrastructure underpinning business continuity. Central IT becomes the “service provider of choice,” eliminating “shadow IT” and providing greater control over system security and governance.

## Empowering growth and innovation

In the face of increasing customer expectations, competition, regulations, and financial constraints, businesses need to equip their offices with the latest IT capabilities. With the Cisco E-Series vSAN ReadyNode, you can extend your data center to all your branches and optimize the infra-structure to boost performance, flexibility and cost-efficiency. Now you have the power to meet—and exceed—the expectations of everybody you serve:

- **Your customers.** With the Cisco-VMware solution, your branch employees get the applications and data they need to provide leading-edge customer service, as well as the power to rapidly launch new applications and capabilities to attract new customers.

- **Your business colleagues.** As business leaders become more involved in investing in applications, Cisco and VMware helps IT provide infrastructure solutions that are responsive to their needs while optimizing cost and performance. You can become trusted partners with the business in the pursuit of growth and innovation.
- **Your IT team.** The solution allows your team to manage the entire branch infrastructure efficiently from a central location, meaning far fewer visits to the field. And for firms that already use Cisco and VMware, your team will feel right at home.

## Make it happen

To learn more about how Cisco UCS E-Series vSAN ReadyNode can transform your remote and branch office operations, visit the [Cisco E-Series web page](#).

## Already invested in VMware? Even better!

If you're running VMware for virtualization, the Cisco UCS E-Series vSAN ReadyNode is the perfect choice for your branch infrastructure. The combination of Cisco and VMware offers operational consistency and cost savings that can't be achieved with competing solutions—most of which do not include networking as a built-in component of hyperconvergence.

## Cisco products and services

- [Cisco UCS E-Series Servers](#)
- [Cisco 4000 Series ISR platforms](#)
- [vWAAS](#)
- [Akamai Connect](#)
- [Cisco SD-WAN](#)

## VMware products and services

- [VMware vSAN](#)
- [VMware vSphere](#)
- [VMware vCenter](#)
- [VMware Horizon Desktop Virtualization](#)