

# Make your network as nimble as your business needs to be



**Enabled by Network Function Virtualization and backed by the AT&T network cloud platform, AT&T FlexWare applications will take you to the next wave of networking and help you transform how you manage your network infrastructure.**

In traditional networks, specific functions require specialized hardware, typically proprietary, and usually from different vendors. Routers, firewalls, SD-WAN configurations – each demand unique and costly skill sets to configure and manage. Changes are made manually, box-by-box, often across several locations, which is time-consuming and prone to human error.

But what if you could deploy these functions on one general-purpose piece of hardware and manage them via software, in a streamlined and centralized manner?

Network Function Virtualization (NFV) increases business agility and adaptability by virtualizing key

network functions so they can be deployed quickly via software running on industry-standard, high-volume servers. By deploying Virtual Network Functions (VNFs) on virtualized hardware, you minimize the time, labor, and cost associated with configuring separate, physical and proprietary network equipment.

AT&T FlexWare Applications are AT&T-certified VNFs that run on our industry-standard x86 server – the AT&T FlexWare device. It's our solution for companies looking to implement NFV capability quickly, efficiently, and effectively.

## Optimize your solutions with high availability designs

Commonly, businesses use their NFV solution to implement SD-WAN capabilities. AT&T SD-WAN on FlexWare offers network efficient designs that improve the ability to split traffic by critical applications while also offering virtual security firewall (vFW) options and high availability resiliency at all sites. AT&T SD-WAN on FlexWare is the virtualization solution that provides:

- **High availability** – Dual transport connections and dual uCPE device management with active/active and active/passive SD-WAN on AT&T FlexWare and virtual firewall designs to minimize any outages at application critical sites.
- **Best-of-breed virtual firewalls** – Supports a variety of secure virtual firewall vendor designs, including Palo Alto, Fortinet, and Juniper.
- **Multi-function customer-premise equipment (CPE)** – Universal CPE (uCPE) competitively priced hardware platforms supporting a variety of software VNFs including AT&T SD-WAN, vRouter, vFW and more.
- **Global availability** – available in 200+ countries and territories

Pairing your SD-WAN solution with AT&T FlexWare simplifies your branch office networking and helps ensure your mission-critical connections stay up and running.

## Improve application performance and simplify SD-WAN deployment

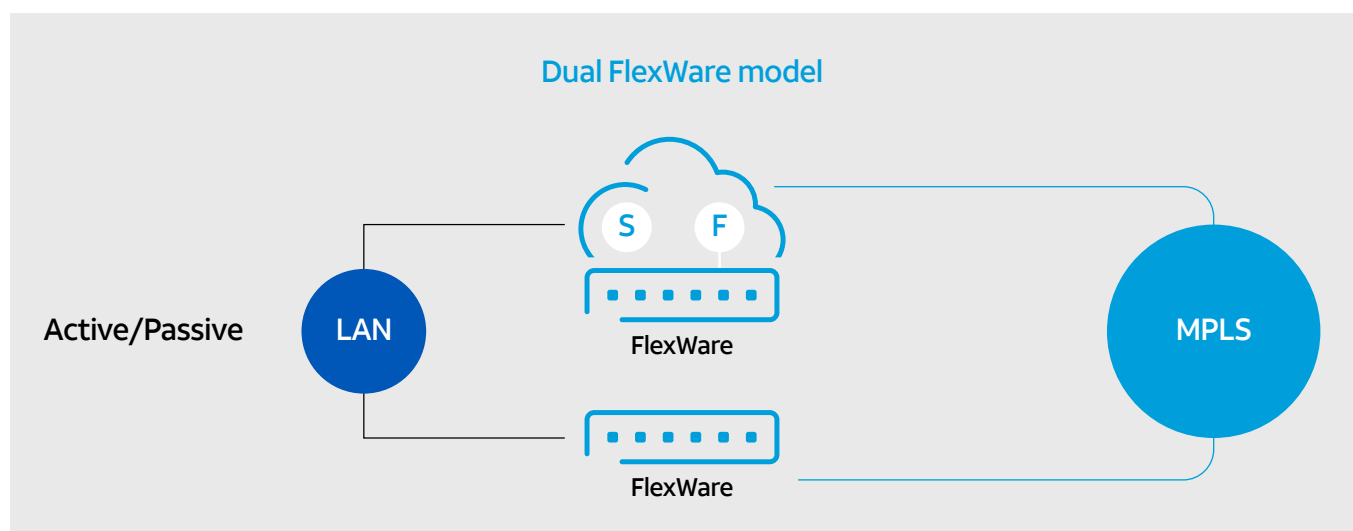
### VMware SD-WAN by VeloCloud

The optimal choice for future-ready SD-WAN capabilities on the AT&T FlexWare platform. The VMware SD-WAN by VeloCloud VNF combines MPLS quality and lower-cost internet at every installation site for an optimal balance of performance, security, and cost. It's network agnostic, equipped with IPSec-based end-to-end encryption, and offers dynamic, policy-based routing that can also be combined with an additional vFW security VNF to provide extra security.

### Discover the real benefits of going virtual

Mix and match applications based on capabilities you need at each location and logically connect applications via service chaining and orchestration. Virtualization not only simplifies and streamlines deployment and management of your network, but can lower capital expenses, reduce power and cooling requirements, and increase operational efficiency.

- **Extra small AT&T FlexWare device** – Supports 1 AT&T Flexware Application; cost-effective option ideal for companies that only need to run a single VNF or for quick, onboarding use cases
- **Small AT&T FlexWare device** – Supports up to 2 AT&T Flexware Applications
- **Medium AT&T FlexWare device** – Supports up to 3 AT&T FlexWare Applications



## Enter a best-in-class vendor ecosystem with flexible options

AT&T FlexWare Applications integrate virtually seamlessly with your current network infrastructure. To give you all the choice and flexibility you need, we continue to expand our FlexWare Application offerings and partner ecosystem. AT&T FlexWare currently supports virtual routers, SD-WAN, virtual security, and virtual WAN acceleration from several best-in-class vendors.

AT&T FlexWare is network agnostic with the ability to connect to AT&T and third-party Ethernet-based or TDM based networks.

## Activate new virtual routers in days – Cisco CSR and Juniper vSRX support

You can choose virtualized router network applications from either Cisco or Juniper, with options based on your unique feature, management, and cost requirements. For the AT&T-managed option, our highly experienced professionals will automatically configure your virtual routers on your FlexWare device to match your company's policies. You can choose from a standard set of templates or build your own, including AT&T-provided configuration, monitoring, fault management, maintenance, reporting, billing, and changes.

## Access robust portfolio of virtual security applications

### Palo Alto VM-Series

The VM-Series combines next-generation firewall security and advanced threat prevention to protect your IT environments from advanced cyber threats. The VM-Series natively analyzes all traffic in a single pass to determine the application identity, the content within, and the user identity. Palo Alto virtual security has machine learning capability and scalable architecture.

### Why AT&T

**AT&T delivers highly-secure networking solutions for businesses of all sizes. We are the largest experienced global managed SD-WAN provider with over 600 signed SD-WAN customers and 40K managed devices deployed. We offer custom solutions in Internet and Networking Services, Cybersecurity, Internet of Things, Cloud Solutions, Mobility, and Voice and Collaboration. We also provide expert consulting and support to meet your needs.**

### Fortinet FortiGate

Fortinet FortiGate is a software instance of the Fortinet Unified Threat Management (UTM) platform. This virtual security application handles all the capabilities of hardware-based firewalls, without all the cost – including traffic inspection, malware protection, web browsing control, and application-specific security. Fortinet is well suited for down-market customers due to ease of setup and management and deployment as a stand-alone AT&T FlexWare Application on a AT&T FlexWare Device cascaded behind an existing traditional customer router.

### Juniper vSRX

The vSRX is the virtual next-generation firewall from Juniper Networks. It provides the same features as the physical SRX firewalls but in a virtualized form-factor – delivering robust security services that scale to match demand in the network. The vSRX offers a core firewall, robust UTM capabilities, and automated life cycle management.

## Deploy virtual WAN acceleration to optimize your traffic

### Riverbed SteelHead

The SteelHead is a software-based WAN Accelerator from Riverbed that, depending upon the options you choose, has all the capabilities of Riverbed's hardware appliance. All traffic is inspected by the virtual WANx so granular policies can be applied based on your specific optimization needs.

### Infovista

Infovista's Application Intelligence Suite is designed to automatically monitor, control, and optimize priority application performance. It accelerates application response times and offers additional virtual bandwidth to the network where connectivity constraints would otherwise impair performance.

For more information, call your AT&T representative or visit [www.att.com/FlexWare](http://www.att.com/FlexWare).