

The Oracle SD-WAN Edge



Software Defined Wide Area Network (SD-WAN) offers increased network capacity, improved traffic reliability, and delivers a higher quality of experience while lowering costs. The Oracle SD-WAN Edge secures and consolidates communications infrastructure to flexibly deploy and deliver applications and services, without sacrificing availability or performance. With the explosive growth in real time applications, distributed workforces and cloud computing, a company's productivity and customer responsiveness have never been more dependent on the network infrastructure. Organizations are focusing on their Wide Area Networks (WANs) and the cloud to ensure:

- bandwidth to support the increased network demand
- predictable reliability for continuous application availability
- performance for a premium Quality of Experience (QoE)

The cloud is rapidly changing demands on enterprise IT legacy resources. The traditional WAN deployment of the last decade – Multi-Protocol Label Switching (MPLS) circuits augmented by separate WAN Optimization (WAN-OP) and firewall equipment - no longer offer enterprise IT the necessary requirements for cost savings, flexibility, bandwidth, manageability and streamlined cloud connectivity. The Oracle SD-WAN Edge offers organizations the unique combination of availability, performance and reliability, yielding a highly resilient remote site with platinum QoE.

Solution

Oracle SD-WAN is built on a comprehensive portfolio of physical and virtual appliances and includes both a controller and a centralized orchestration and analytics platform. Customers can determine whether the solution is deployed at the physical edge, the virtual edge, or in the cloud.

Key Features

- Easy to use Centralized Orchestration
- Load balance across aggregated bandwidth
- Seamless interoperability between expensive MPLS connections and inexpensive commodity Internet
- Highly scalable for branch office deployments or cloud connections

MAXIMIZE BUSINESS IMPACT

The Oracle SD-WAN Edge is engineered for maximum business impact in an enterprise network. This is achieved by creating failsafe WANs that offer superior application reliability, while unlocking the benefits of network resiliency and scalable bandwidth. The Oracle SD-WAN Edge includes key network services including WAN-OP routing and firewall. The Oracle Communications SD-WAN Edge transforms a traditional WAN into a network that is easy and fast to deploy, offers increased applications reliability, security and performance while leveraging affordable broadband links that are transformed into an enterprise-class infrastructure. It does this by understanding a company's applications and priorities while adapting automatically to changing conditions and demands. The Oracle SD-WAN Edge supports various link types, such as MPLS and broadband Internet, and works well with common services such as WAN optimization. Customers have great flexibility in determining how the SD-WAN is deployed including at the physical edge, the virtual edge, or in the cloud:

- The Oracle SD-WAN Edge on physical appliances offer an easy to acquire and deploy WAN-edge option that support the features, performance and scale to meet the needs of sites that range in size from large data centers to small office/home offices.
- A virtualized Oracle SD-WAN Edge available on VMWare vSphere and Microsoft Hyper-V may be deployed commoditized hardware.
- The Oracle SD-WAN Edge is Microsoft compliant providing a dedicated IPsec tunnel the Microsoft Virtual WAN

All appliances run Oracle's patented Adaptive Path Networking (APN) software so regardless of what type of appliance is deployed, customers can rest assured in having identical features as well as a consistent deployment and support experience, which simplifies SD-WAN, routing and firewall administration and reduces support costs.

STRONG SECURITY

IP communications are susceptible to cyber-security threats, including Denial of Service (DoS) attacks, fraud and privacy breaches that result in lost revenue and productivity, poor customer experiences, compliance violations and damages to the corporate brand. The Oracle SD-WAN Edge protects IP-based systems and services from these threats and delivers secure real-time communications across trusted and untrusted networks alike.

The Oracle SD-WAN Edge architecture ensures the availability of services, systems and applications across disparate networks. It uses dedicated resources to ensure that data in transit cannot be interpreted or compromised. Data sent across public links is encrypted using either 128-bit or 256-bit AES encryption. A stateful zone-based firewall offers packet filtering services and data segmentation using VRF (Virtual Routing and Forwarding) enabling a single appliance to securely host

Key Benefits

- Increased resiliency and reliability
- Superior Quality of Experience
- Maintain high network availability
- Continuous uptime for mission critical applications
- Reduce WAN legacy costs
- Fast, Simple Deployment
- Built-in Security protecting IT infrastructure, services, and applications
- Increase Bandwidth performance
- Microsoft Virtual WAN compliant



Related Solution

- Oracle Communications Solutions for Contact Centers
- Oracle Communications Solutions for Unified Communications and Collaboration

Related Products

- Oracle SD-WAN Aware
- Oracle SD-WAN Platforms
- Oracle Communications Enterprise Session Border Controller
- Oracle Communications Enterprise Operations Monitor



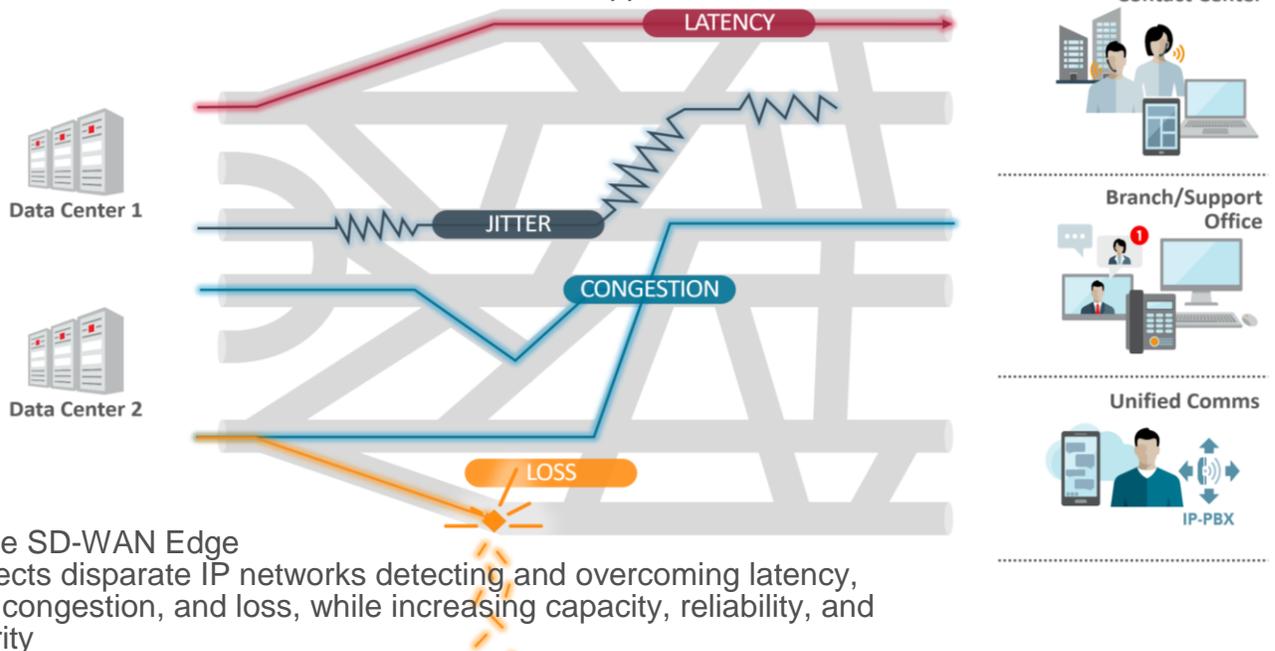
multiple customer or department networks. The Oracle SD-WAN Edge is also capable of transparently forwarding all internet traffic to the Zscaler™ secure cloud gateway and running Next-Gen Fire-Wall (NGFW) services by Palo Alto Networks.

FAST DEPLOYMENT, EASY CENTRALIZED MANAGEMENT

IT managers frequently encounter interoperability problems when connecting on-premise systems to each other and to cloud communications services. These problems can reduce network agility and reliability, delay projects, increase costs and put investments at risk of obsolescence.

The Oracle SD-WAN Edge capabilities allow a tech-savvy central IT team to preconfigure the SD-WAN appliance, which can then be factory shipped directly to a branch or remote location. At the remote location, a non-technical individual may unbox, plug in and power up the device to get connected to the SDWAN. Also, the Oracle SD-WAN Edge provides Configuration Templates to ensure that ongoing configuration and management of the appliance is a breeze.

The Network Control Node (NCN) is the Management/Orchestration point for the Oracle SD-WAN Edge. Beyond being the central point for SD-WAN and services configuration, the NCN establishes dynamic connections between client appliances. The NCN can be located on-premises or in the cloud with all Oracle SD-WAN Appliances.



Oracle SD-WAN Edge connects disparate IP networks detecting and overcoming latency, jitter, congestion, and loss, while increasing capacity, reliability, and security

ASSURED RELIABILITY AND INTEROPERABILITY

Impairments and failures can occur anywhere in a communications network that are difficult to detect, isolate, and repair. The Oracle SD-WAN Edge includes a complete set of carrier-grade routing and survivability features that ensure business continuity in the face of network failures and impairments. The Oracle SD-WAN Edge is a hybrid WAN that interconnects with dedicated MPLS circuits plus public Internet connections to build a WAN infrastructure. Regardless of the underlying network, the Oracle SD-WAN Edge monitors and tracks WAN



performance for Quality of Service (QoS) that includes bandwidth reservation and real-time best path selection to create a reliable, high-performance WAN.

With support for popular Border Gateway Protocol (BGP) and Open Shortest Path First (OSPF) routing protocols, the Oracle SD-WAN Edge lowers costs and network complexity by eliminating the need to maintain multiple branch devices. Beyond router protocol support, services such as WAN Optimization, DHCP Server and Relay, and Network Address Translation (NAT) are also available. When combined, these capabilities further reduce the need for additional branch hardware including legacy routers or WAN Optimization Controllers.

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