

ACL SD-WAN CONTROLLER

Enterprises are adapting newer technologies to achieve business agility. Connecting various enterprise users, clients, partners to provide access for various cloud offerings over wan in a secure way is becoming crucial.

The traditional wan networking technologies are complex and takes months to provide wan connectivity across business sites. The technology is moving more towards software / cloud centric to reduce the capex and opex of an organization.

Software-defined wan simplifies and automates the way networks are designed, deployed and managed. Sd-wan solution establishes secure overlay transport irrespective of the underlay transport by the various internet service providers.

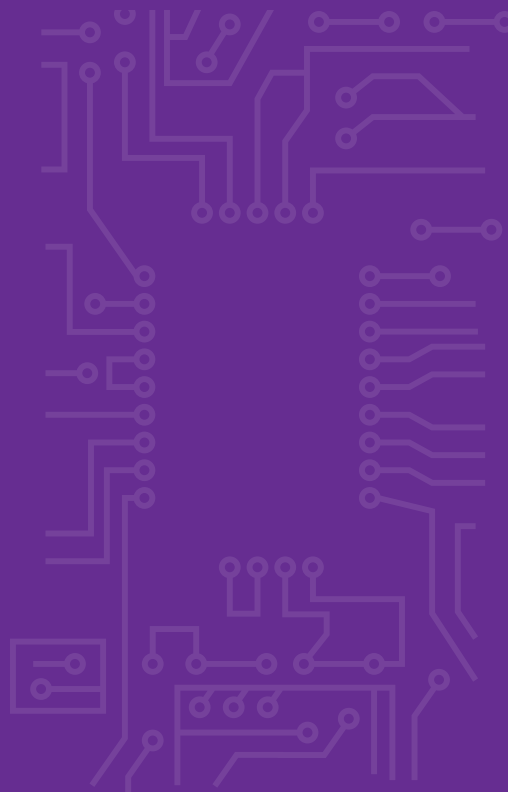


ACL SD-WAN solution defines on-demand, end-to-end, flexible, economic, policy-based way of network automation to dynamically enable branch site communication for an enterprise, and also enables secure access for various users to applications at private, public and saas clouds.

ACL SD-WAN solution offers ipsec vpn services over the various network transport technologies like mpls, internet broadband, 4g, lte, 5g etc at any location.

ACL SD-WAN Feature Highlights

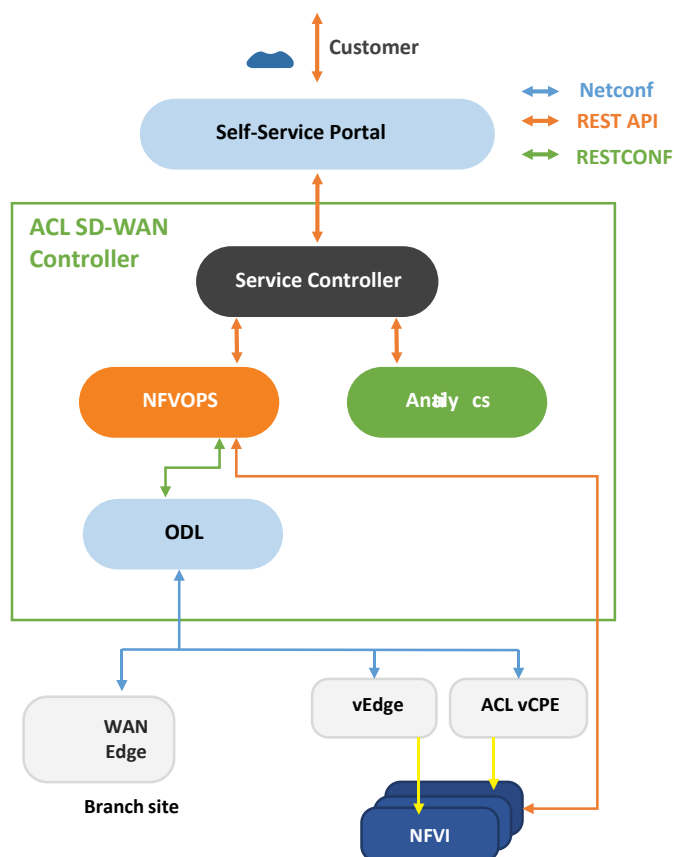
- › API Driven (REST, RESTCONF and NETCONF)
- › Self-Service portal
- › On Demand Branch-Site provisioning
- › On Demand access to private, public and SAAS clouds
- › Design WAN service capabilities
- › Zero Touch Activation
- › Zero Touch Provisioning
- › Application aware QoS
- › Analytics driven Intent Based Policy Management
- › Vendor Agnostic VNF/PNF support
- › vCPE fastpath framework (DPDK Enabled)
- › Real Time Statistics Monitoring and Reporting
- › WAN Service Assurance
- › Optimal path selection on WAN Link Failover



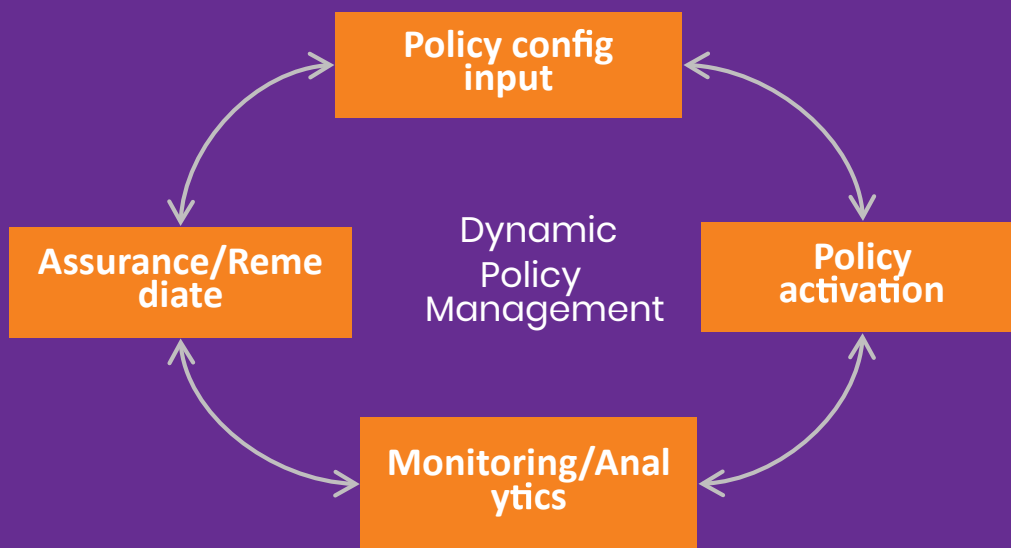
ACL SD-WAN Controller

ACL SD-WAN Controller is an SDN and NFV integrated platform and is logically composed of

- › ACL Service Controller
- › ACL NFVOPS
- › SDN Controller (ODL)
- › ACL vCPE VNF (DPDK enabled)

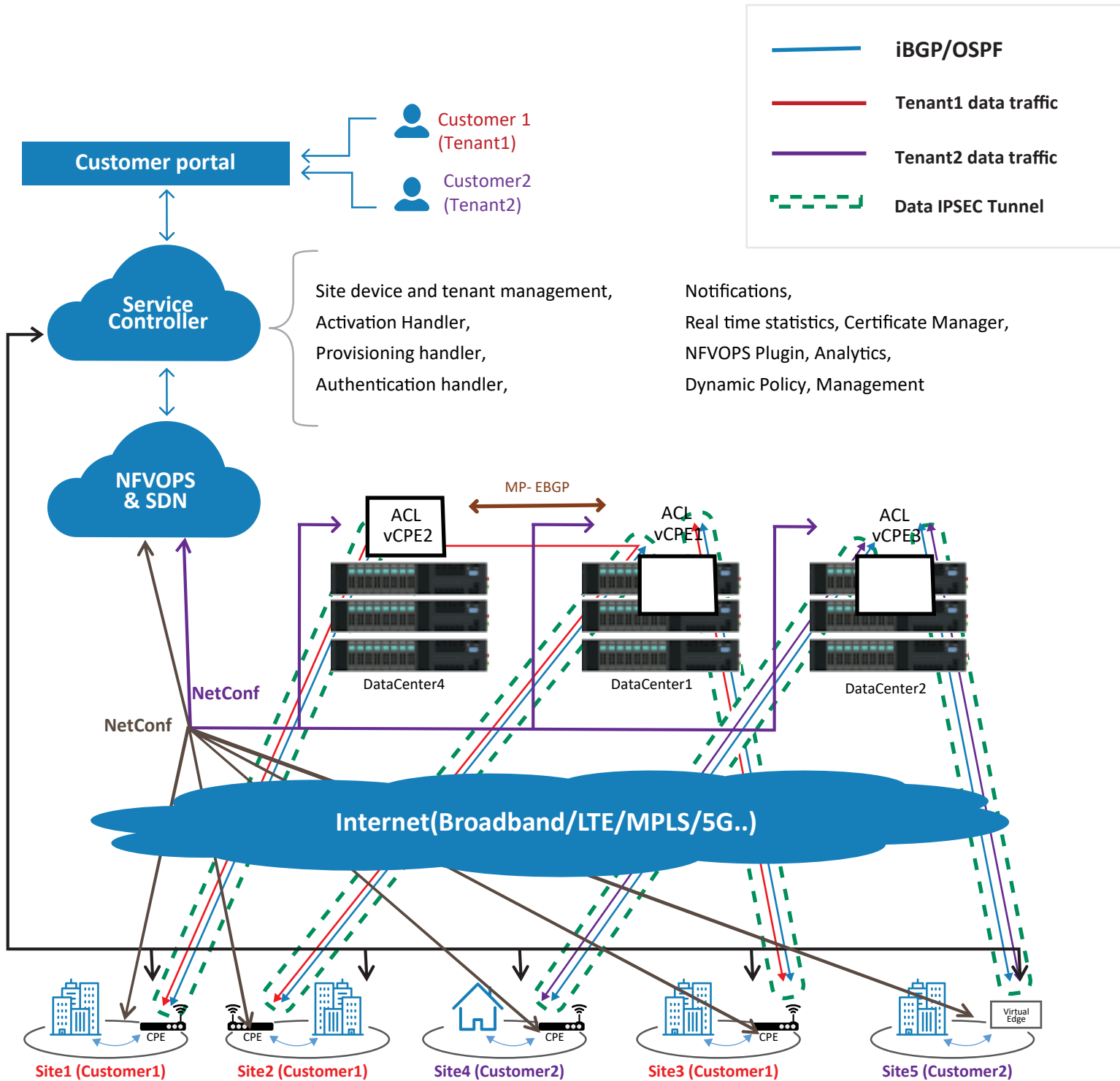


- › ACL SD-WAN Controller is API driven centralized platform holding the WAN service abstraction. This platform provides the ability to design, save and publish the policy-driven WAN service requirements as an order for a site. The requested order contains the business requirements of a WAN service deployment.
- › ACL SD-WAN Controller translates the business requirements and identifies the deployments, service level configurations, WAN application configurations, WAN policy configurations etc.. and initiates the request to ACL NFVOPS.
- › ACL SD-WAN Controller securely enables the zero-touch-activation and zero-touch-provisioning of the uCPE devices(physical or virtual) located at the requested site of a customer.
- › ACL SD-WAN Controller receives the real-time statistics from various sites , analyse and perform the dynamic policy updates if required. This ensures the effective bandwidth utilization for an application over chosen path by a customer.



- › ACL SD-WAN Controller enables the encrypted overlay establishment with virtual/physical edges at branch site location and ACL vCPE VNF (DPDK enabled).
- › ACL SD-WAN solution can be deployed on Openstack and AWS.
- › ACL vCPE VNF is core hub of the SD-WAN solution which enables the secure communication to various branches of an enterprise, users of private, public and SAAS Clouds.
- › ACL vCPE VNF is rich suite of DPDK optimized high performance fast path functions that can be deployed on COTS x86 platforms.
- › ACL vCPE VNF framework offers multi-tenancy by dynamically enabling the control plane and management plane for a tenant in docker containers.
- › ACL vCPE VNF exchanges routes over the secure overlay transport with virtual/physical edges of various branch sites via the dynamic routing protocol, which enables secure communication for various enterprise sites.
- › ACL vCPE VNF with CG-NAT support to enable secure communication for the internet destined traffic from various enterprise sites.
- › ACL SD-WAN solution supports peer-to-peer vCPE communications which are deployed across the data-centers of service provider via dynamic routing protocol.

ACL SD-WAN Deployment Diagram



ACL Digital is a design-led Digital Experience, Product Innovation, Engineering and Enterprise IT offerings leader. From strategy, to design, implementation and management we help accelerate innovation and transform businesses. ACL Digital is a part of ALTEN group, a leader in technology consulting and engineering services.

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