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Infrsastracture ACI fabric based on EVPN MPBGP and TRILL data transfer protocols for Tier 1 and Tier 2 data centers

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This paper presents the network architecture of the TIER 1 data center at JINR using the modern multichannel data transfer protocol TRILL. The obtained experimental data folow our activity to further study the nature of traffic distribution in redundant topologies. There are several questions. How the distribution of packet data occurs on four (or more) equivalent routes? What happens when the download on one of the four communication channels reaches peak values?
The paper presents a future data center topology, all network elements of which will be interconnected in the Virtual Cluster Switching (VCS) fabric. Such architecture will allow building highly reliable, mobile, multiport network segments.
Future the network segment project is being designed using EVPN MP-BGP (Ethernet Virtual Private Networks Multiprotocol Border Gateway Protocol) technology in conjunction with an external Application Centric Infrastructure (ACI) controller based on VXLAN technology using a multicast broadcast domain.
Today, technology analysis shows that this is the most acceptable choice, tested in several R @ D divisions of the world's largest vendors.
Finally, the results of the comparison of Virtual Cluster Switching (VCS) fabric based on TRILL and EVPN MP-BGP are predicted.

Consider for promotion

No

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