

Virtual Machine Mobility Protocol Using Distributed Registrations

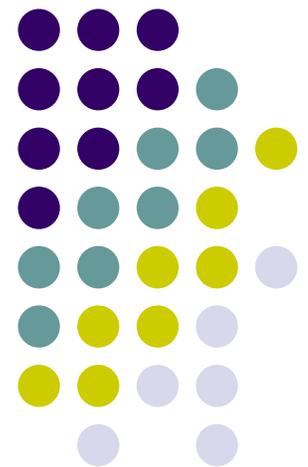
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IETF 91

draft-sarikaya-nvo3-vmm-dmm-pmip-03



Virtual Machine Mobility Problem

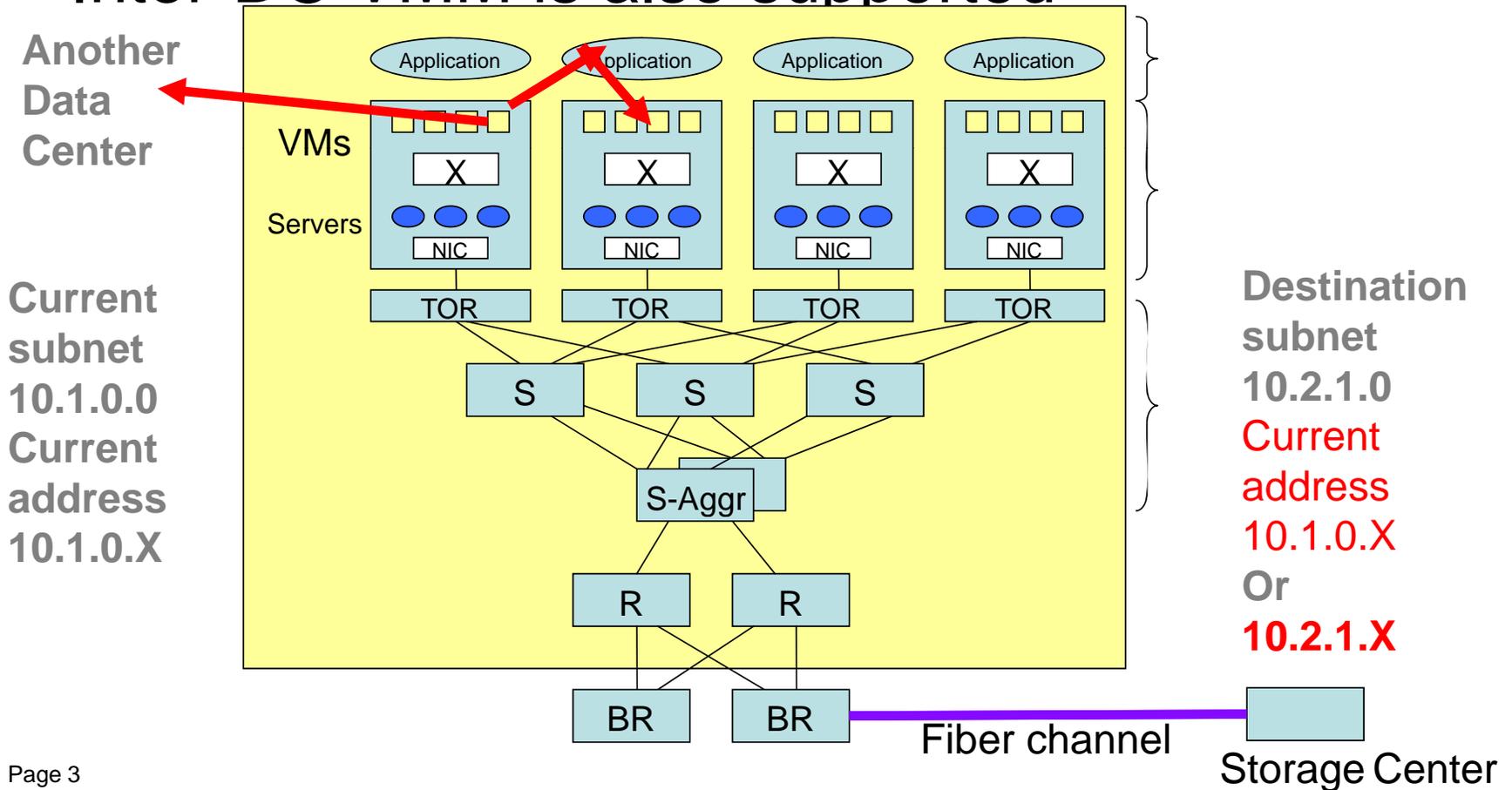


- Section 3.3 in RFC 7365 defines hot and cold VM Mobility
- Section 3.2 in RFC 7364 discusses the need to keep existing transport connections, i.e. keep IP addresses same after move
- Our Solution:
 - If VM address changes VM gets a new address and NVE registers it with NVA or VM Manager and then host routes and triangle routing are used but no tunneling
 - If VM address does not change similar mechanisms can be used to establish host routes
 - Use BGP updates to optimize routes

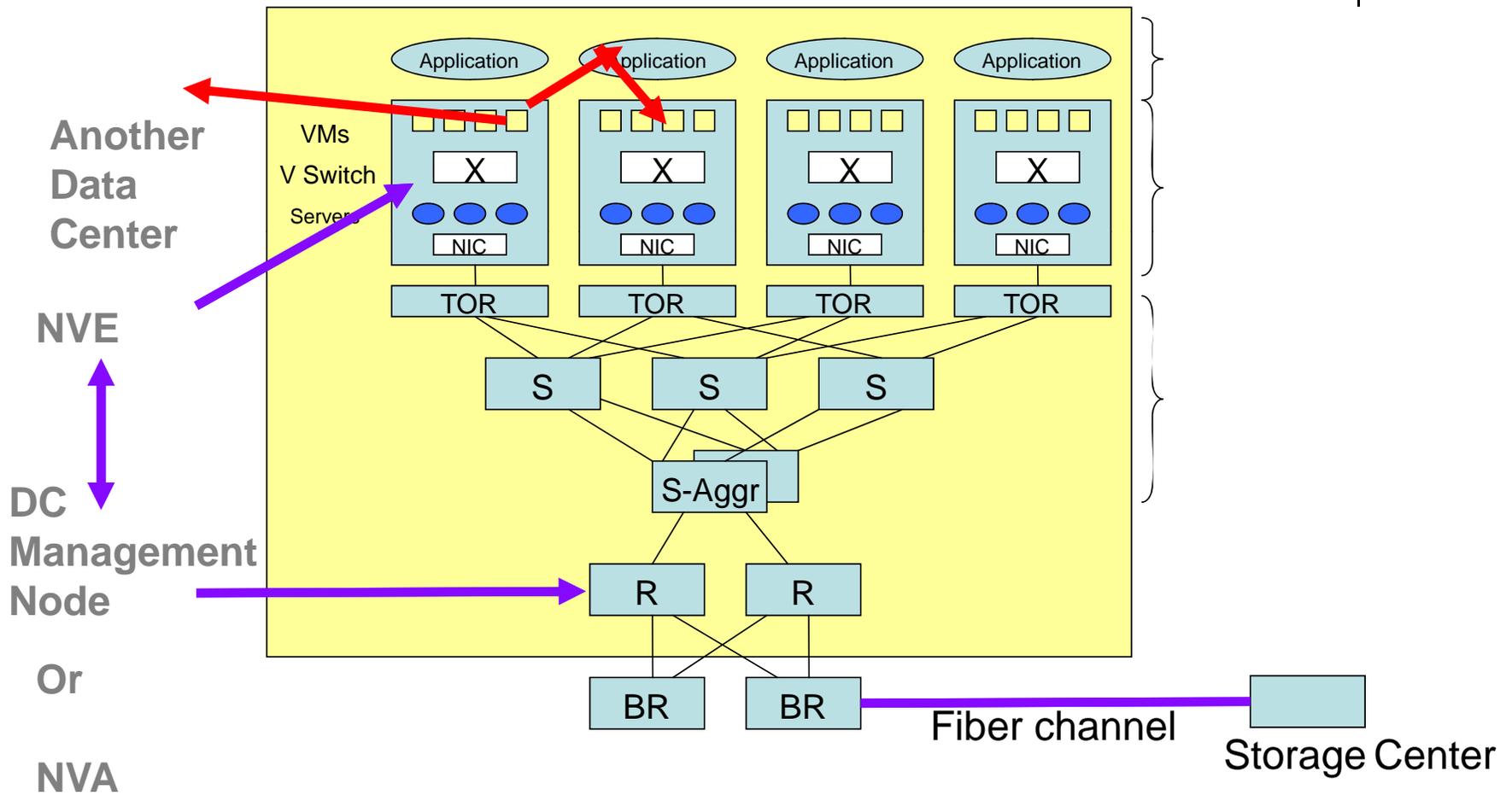
Data Center Virtual Machine Mobility



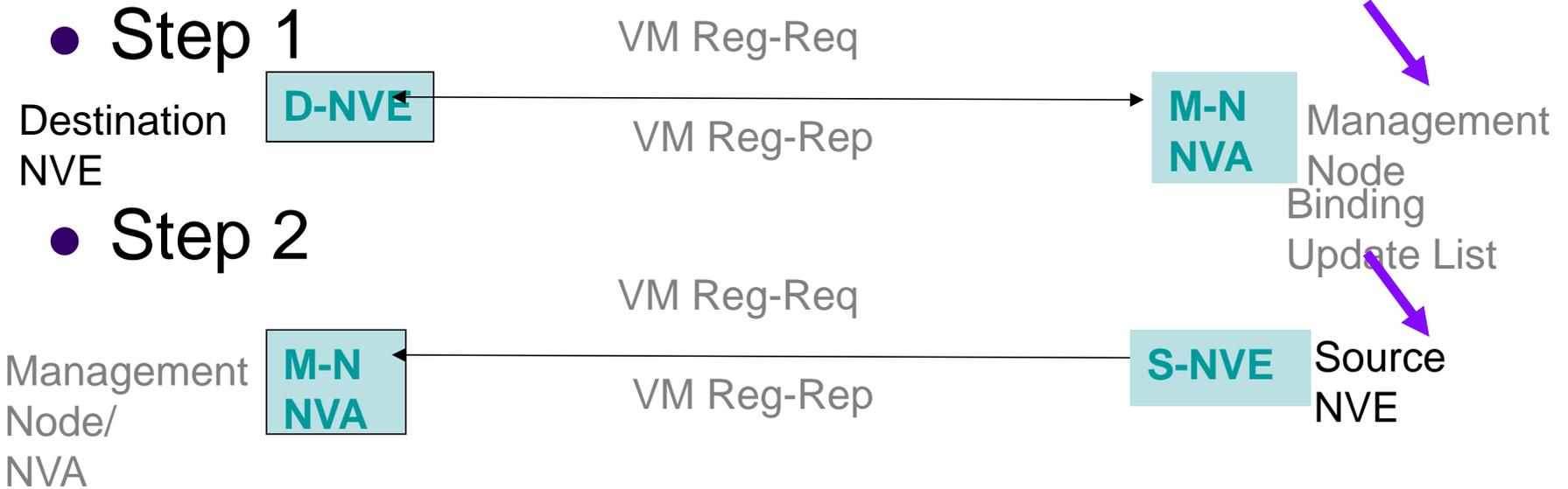
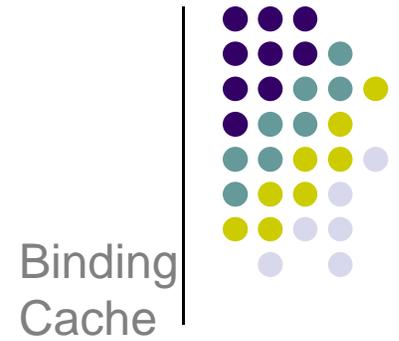
- Inter-DC VMM is also supported



Data Center Virtual Machine Mobility

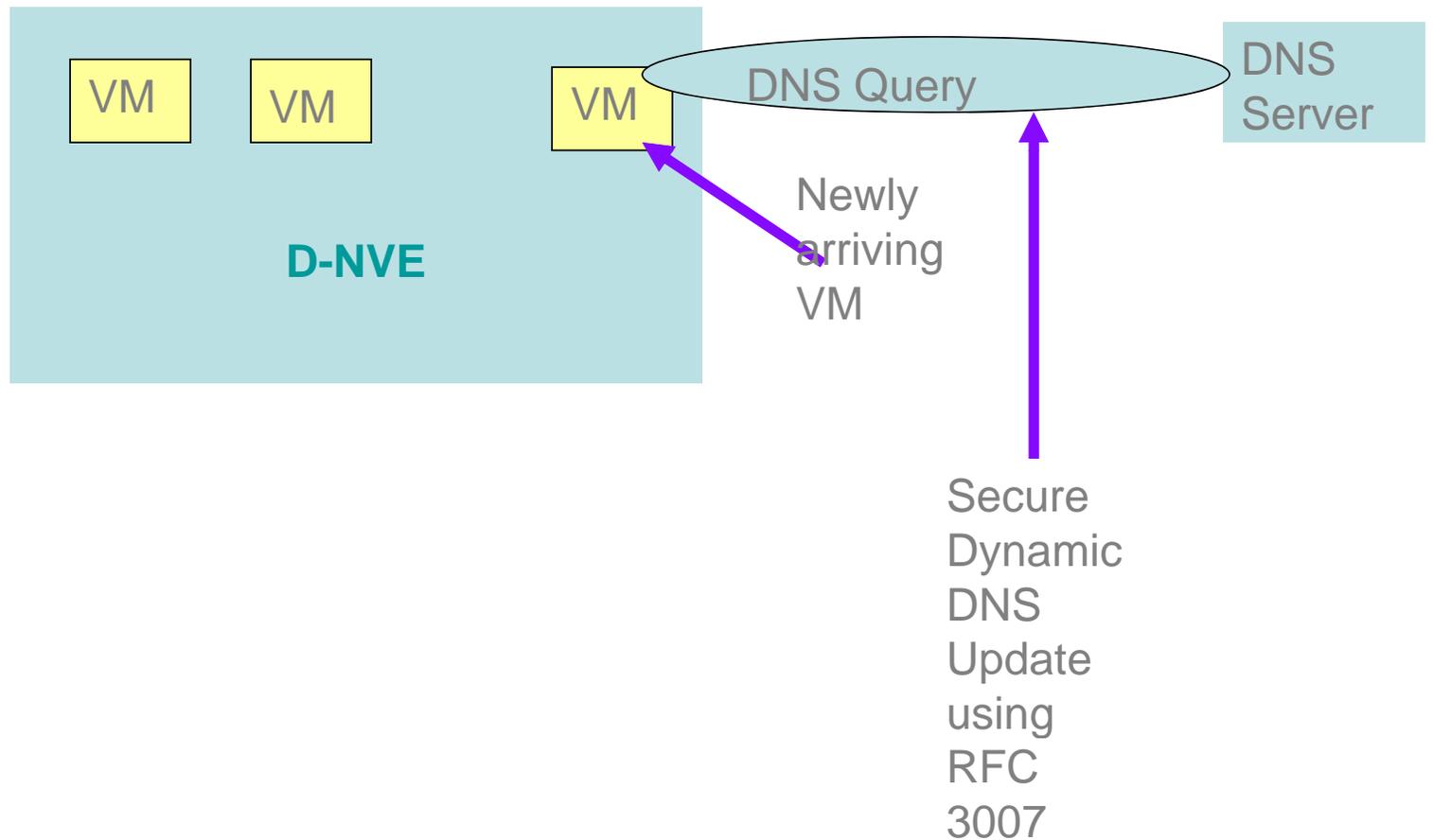


Virtual Machine Mobility Protocol

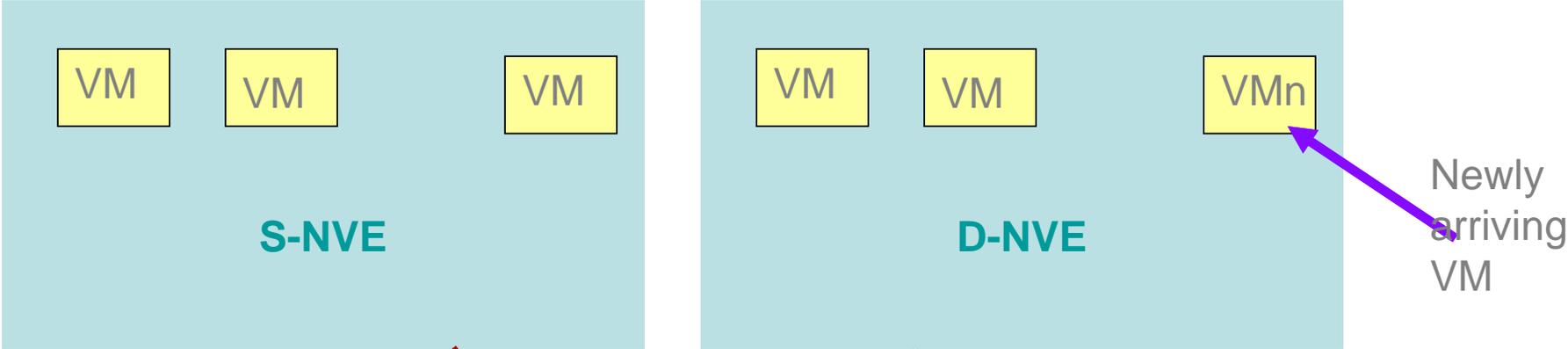
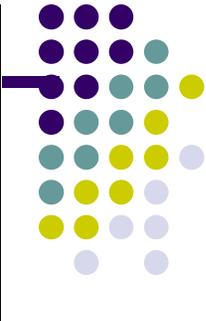


- Each S-NVE establishes host routes

“Cold” Virtual Machine Mobility

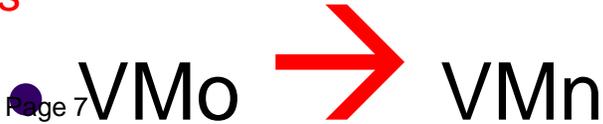


“Hot” Virtual Machine Mobility Avoiding Tunnels

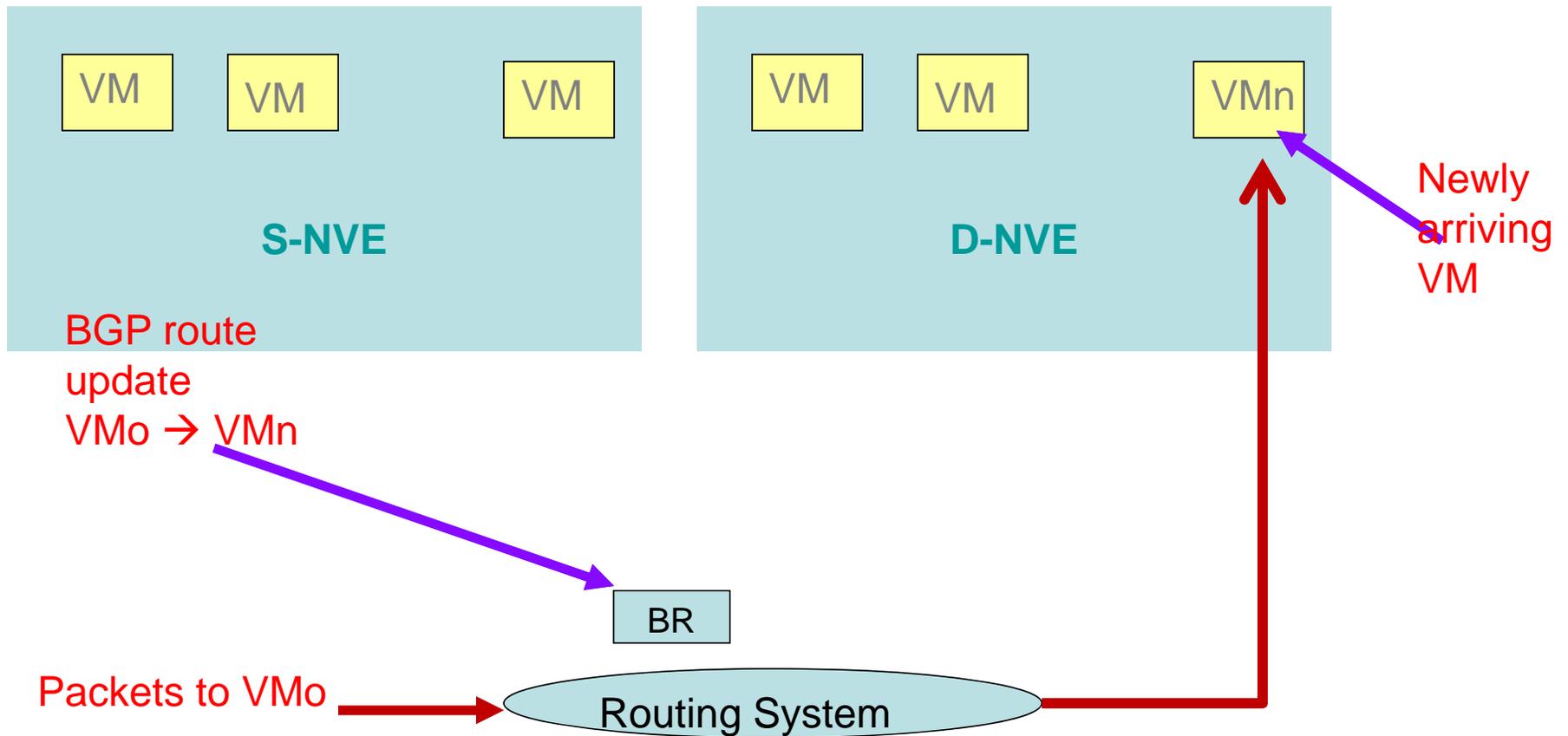
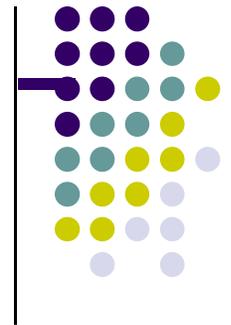


From other VMs

● Host routes:



“Hot” Virtual Machine Mobility Route Optimization



Next Steps

- Please read and comment

