Overview
A vSphere Distributed Switch provides centralized management and monitoring of the networking configuration of all hosts that are associated with the switch. You set up a distributed switch on a vCenter Server system, and its settings are propagated to all hosts that are associated with the switch.

Explanation
The architecture of a vDS separates a management plane from a data plane. The management plane is the stuff you interact with (to manage the data plane). The data plane implements switching, tagging, filtering, etc...

A standard vSwitch combines these dataplanes on a single ESXi host.

- vDS puts management plane on vCenter server
- each data plane on ESXi host

vDS abstractions

- Uplink Port Group
  - map physical nics to this
  - At the host level, each physical NIC is connected to an uplink port with a particular ID.
- Distributed Port Group
  - The virtual ports that are connected to a distributed port group share the same properties that are configured to the distributed port group.