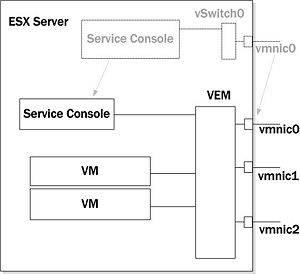
Migrating Service Console to VEM

**From sv-wiki**

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* Currently the initial install of ESX 3.5Ux or ESX 4.0 will result in the **Service Console** behind the vSwitch, and since you may want to change that....

[](http://sv-wiki/index.php/Image:Migrate01.jpg)

* Ensure the vlan associated with the Service Console's port group is already being sent to the VEM from the physical switch before attempting migration.

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Migrating the Service Console Virtual NIC from vSwitch to VEM

Step-by-Step

* Create a port-profile on the VSM that has the Service Console's vlan in it.

port-profile servicecon

vmware port-group

switchport mode access

switchport access vlan 104<---

no shutdown

system vlan 104

state enabled

* Make sure there is an uplink port-profile that already has the service console vlan.

port-profile sysuplink1

capability uplink

vmware port-group

switchport mode trunk

switchport trunk allowed vlan 104,110,120,130<---

no shutdown

system vlan 110,120,130

state enabled

* Migrate the Service Console by going to Host's Configuration Tab and follow the steps below

|  |  |  |
| --- | --- | --- |
| [http://sv-wiki/images/thumb/0/0d/Cselink07.jpg/289px-Cselink07.jpg](http://sv-wiki/index.php/Image:Cselink07.jpg)  Manage Virtual Adapters | [http://sv-wiki/images/thumb/8/8a/Cselink08.jpg/300px-Cselink08.jpg](http://sv-wiki/index.php/Image:Cselink08.jpg)  Add | [http://sv-wiki/images/thumb/4/48/Cselink09.jpg/300px-Cselink09.jpg](http://sv-wiki/index.php/Image:Cselink09.jpg)  Migrate Existing Virtual Adapters |
| [http://sv-wiki/images/thumb/f/f4/Cselink10.jpg/300px-Cselink10.jpg](http://sv-wiki/index.php/Image:Cselink10.jpg)  Pick the port-profile for Service Console | [http://sv-wiki/images/thumb/5/5f/Cselink11.jpg/203px-Cselink11.jpg](http://sv-wiki/index.php/Image:Cselink11.jpg)  Looking Good |  |

VI Client Before/After

|  |  |
| --- | --- |
| **Before** | **After** |
| [http://sv-wiki/images/thumb/d/d7/Cselink05.jpg/400px-Cselink05.jpg](http://sv-wiki/index.php/Image:Cselink05.jpg) | [http://sv-wiki/images/thumb/9/9d/Cselink12.jpg/400px-Cselink12.jpg](http://sv-wiki/index.php/Image:Cselink12.jpg) |
| [http://sv-wiki/images/thumb/9/9d/Cselink06.jpg/400px-Cselink06.jpg](http://sv-wiki/index.php/Image:Cselink06.jpg) | [http://sv-wiki/images/thumb/0/03/Cselink13.jpg/400px-Cselink13.jpg](http://sv-wiki/index.php/Image:Cselink13.jpg) |

VSM Before/After (no change here)

|  |  |
| --- | --- |
| **Before** | **After** |
| port-profile sysuplink1  capability uplink  vmware port-group  switchport mode trunk  switchport trunk allowed vlan 104,110,120,130  no shutdown  system vlan 110,120,130  state enabled  port-profile servicecon  vmware port-group  switchport mode access  switchport access vlan 104  no shutdown  system vlan 104  state enabled | port-profile sysuplink1  capability uplink  vmware port-group  switchport mode trunk  switchport trunk allowed vlan 104,110,120,130  no shutdown  system vlan 110,120,130  state enabled  port-profile servicecon  vmware port-group  switchport mode access  switchport access vlan 104  no shutdown  system vlan 104  state enabled |

ESX Host Vemcmd Before/After

|  |  |
| --- | --- |
| **Before** | **After** |
| [root@server51 /]# vemcmd show port  LTL IfIndex Vlan Bndl SG\_ID Pinned\_SGID Type Admin State CBL Mode Name  1 15f00010 3968 0 2 2 VIRT UP UP 4 Access inband  2 7000000 1 0 2 2 VIRT UP UP 0 Access aipc  3 15f00020 1 0 2 2 VIRT UP UP 4 Access span  5 15f00040 3968 0 2 2 VIRT UP UP 4 Access inband port security  8 0 3969 0 2 2 VIRT UP UP 4 Access l20  9 0 3969 0 2 2 VIRT UP UP 4 Access l21  10 0 110 0 2 2 VIRT UP UP 4 Access l22  11 0 3968 0 2 2 VIRT UP UP 4 Access l23  12 0 120 0 2 2 VIRT UP UP 4 Access l24  13 0 1 0 2 2 VIRT UP UP 0 Access l25  14 0 1 0 2 2 VIRT UP UP 0 Access l26  16 1a040100 1 T 0 2 2 PHYS UP UP 1 Trunk vmnic1 | [root@server51 /]# vemcmd show port  LTL IfIndex Vlan Bndl SG\_ID Pinned\_SGID Type Admin State CBL Mode Name  1 15f00010 3968 0 2 2 VIRT UP UP 4 Access inband  2 7000000 1 0 2 2 VIRT UP UP 0 Access aipc  3 15f00020 1 0 2 2 VIRT UP UP 4 Access span  5 15f00040 3968 0 2 2 VIRT UP UP 4 Access inband port security  8 0 3969 0 2 2 VIRT UP UP 4 Access l20  9 0 3969 0 2 2 VIRT UP UP 4 Access l21  10 0 110 0 2 2 VIRT UP UP 4 Access l22  11 0 3968 0 2 2 VIRT UP UP 4 Access l23  12 0 120 0 2 2 VIRT UP UP 4 Access l24  13 0 1 0 2 2 VIRT UP UP 0 Access l25  14 0 1 0 2 2 VIRT UP UP 0 Access l26  16 1a040100 1 T 0 2 2 PHYS UP UP 1 Trunk vmnic1  47 1b040000 104 0 2 2 VIRT UP UP 4 Access vswif0 |
| [root@server51 /]# vemcmd show trunk  Trunk port 16 native\_vlan 1 CBL 1  vlan(1) cbl 1, vlan(104) cbl 4, vlan(110) cbl 4, vlan(120) cbl 4, vlan(130) cbl 4, | [root@server51 /]# vemcmd show trunk  Trunk port 16 native\_vlan 1 CBL 1  vlan(1) cbl 1, vlan(104) cbl 4, vlan(110) cbl 4, vlan(120) cbl 4, vlan(130) cbl 4, |
| [root@server51 /]# vss status    VSS modules are loaded    Switch Name Num Ports Used Ports Configured Ports MTU Uplinks  vSwitch0 32 3 32 1500 vmnic0  DVS Name Num Ports Used Ports Configured Ports Uplinks  nexus 256 8 256 vmnic1    DPA is running | [root@server51 /]# vss status    VSS modules are loaded    Switch Name Num Ports Used Ports Configured Ports MTU Uplinks  vSwitch0 32 2 32 1500 vmnic0  DVS Name Num Ports Used Ports Configured Ports Uplinks  nexus 256 9 256 vmnic1    DPA is running |
| [root@server51 /]# vemcmd show bd 110  BD 110, vdc 1, vlan 110, 2 ports  Portlist:  10 l22  16 vmnic1  [root@server51 /]# vemcmd show bd 120  BD 120, vdc 1, vlan 120, 2 ports  Portlist:  12 l24  16 vmnic1  [root@server51 /]# vemcmd show bd 104  BD 104, vdc 1, vlan 104, 2 ports  Portlist:  16 vmnic1  Multicast Group Table:  Group 0.0.0.0 RID 5 Multicast LTL 4409  16 | [root@server51 /]# vemcmd show bd 110  BD 110, vdc 1, vlan 110, 2 ports  Portlist:  10 l22  16 vmnic1  [root@server51 /]# vemcmd show bd 10  [root@server51 /]# vemcmd show bd 120  BD 120, vdc 1, vlan 120, 2 ports  Portlist:  12 l24  16 vmnic1  [root@server51 /]# vemcmd show bd 104  BD 104, vdc 1, vlan 104, 2 ports  Portlist:  16 vmnic1  47 vswif0  Multicast Group Table:  Group 0.0.0.0 RID 5 Multicast LTL 4409  16 |

ESX Host esxcfg Before/After

|  |  |
| --- | --- |
| **Before** | **After** |
| [root@server51 /]# esxcfg-vswitch -l  Switch Name Num Ports Used Ports Configured Ports MTU Uplinks  vSwitch0 32 3 32 1500 vmnic0  PortGroup Name VLAN ID Used Ports Uplinks  Service Console 104 1 vmnic0  DVS Name Num Ports Used Ports Configured Ports Uplinks  nexus 256 8 256 vmnic1  DVPort ID In Use Client  160 1 vmnic1  161 0  162 0  163 0  164 0  165 0  166 0  167 0  168 0  169 0  170 0  171 0  172 0  173 0  174 0  175 0 | [root@server51 /]# esxcfg-vswitch -l  Switch Name Num Ports Used Ports Configured Ports MTU Uplinks  vSwitch0 32 2 32 1500 vmnic0  PortGroup Name VLAN ID Used Ports Uplinks  DVS Name Num Ports Used Ports Configured Ports Uplinks  nexus 256 9 256 vmnic1  DVPort ID In Use Client  160 1 vmnic1  161 0  162 0  163 0  164 0  165 0  166 0  167 0  168 0  169 0  170 0  171 0  172 0  173 0  174 0  175 0  66 1 vswif0 |
| [root@server51 /]# esxcfg-vswif -l  Name Port Group/DVPort IP Family IP Address Netmask Broadcast Enabled TYPE  vswif0 Service Console IPv4 14.17.104.136 255.255.255.0 14.17.104.255 true STATIC | [root@server51 /]# esxcfg-vswif -l  Name Port Group/DVPort IP Family IP Address Netmask Broadcast Enabled TYPE  vswif0 66 IPv4 14.17.104.136 255.255.255.0 14.17.104.255 true STATIC |

Migrating vmnic0 from vSwitch to VEM

Step-by-step

* Migrate vmnic0 by going to Host's Configuration Tab and follow the steps below

|  |  |  |
| --- | --- | --- |
| [http://sv-wiki/images/thumb/7/76/Cselink18.jpg/248px-Cselink18.jpg](http://sv-wiki/index.php/Image:Cselink18.jpg)  Manage Physical Adapters | [http://sv-wiki/images/thumb/9/9c/Cselink19.jpg/217px-Cselink19.jpg](http://sv-wiki/index.php/Image:Cselink19.jpg)  Click to Add NIC | [http://sv-wiki/images/thumb/0/0a/Cselink20.jpg/225px-Cselink20.jpg](http://sv-wiki/index.php/Image:Cselink20.jpg)  Select vmnic0 |
| [http://sv-wiki/images/thumb/a/a2/Cselink21.jpg/226px-Cselink21.jpg](http://sv-wiki/index.php/Image:Cselink21.jpg)  YES | [http://sv-wiki/images/thumb/2/23/Cselink22.jpg/210px-Cselink22.jpg](http://sv-wiki/index.php/Image:Cselink22.jpg)  vmnic0 unders sysuplink2 | [http://sv-wiki/images/thumb/b/b6/Cselink23.jpg/250px-Cselink23.jpg](http://sv-wiki/index.php/Image:Cselink23.jpg)  Vswitch can be removed |
| [http://sv-wiki/images/thumb/2/2f/Cselink24.jpg/234px-Cselink24.jpg](http://sv-wiki/index.php/Image:Cselink24.jpg)  Vswitch is gone |  |  |

VI Client Before/After

|  |  |
| --- | --- |
| **Before** | **After** |
| [http://sv-wiki/images/thumb/9/9d/Cselink12.jpg/400px-Cselink12.jpg](http://sv-wiki/index.php/Image:Cselink12.jpg) | [http://sv-wiki/images/thumb/2/2f/Cselink24.jpg/400px-Cselink24.jpg](http://sv-wiki/index.php/Image:Cselink24.jpg) |
| [http://sv-wiki/images/thumb/0/03/Cselink13.jpg/400px-Cselink13.jpg](http://sv-wiki/index.php/Image:Cselink13.jpg) | [http://sv-wiki/images/thumb/2/23/Cselink22.jpg/400px-Cselink22.jpg](http://sv-wiki/index.php/Image:Cselink22.jpg) |

VSM Before/After (no change here)

|  |  |
| --- | --- |
| **Before** | **After** |
| port-profile sysuplink2  capability uplink  vmware port-group  switchport mode trunk  switchport trunk allowed vlan 104  no shutdown  system vlan 104  state enabled  port-profile servicecon  vmware port-group  switchport mode access  switchport access vlan 104  no shutdown  system vlan 104  state enabled | port-profile sysuplink2  capability uplink  vmware port-group  switchport mode trunk  switchport trunk allowed vlan 104  no shutdown  system vlan 104  state enabled  port-profile servicecon  vmware port-group  switchport mode access  switchport access vlan 104  no shutdown  system vlan 104  state enabled |

ESX Host Vemcmd Before/After

|  |  |
| --- | --- |
| **Before** | **After** |
| [root@server51 /]# vemcmd show port  LTL IfIndex Vlan Bndl SG\_ID Pinned\_SGID Type Admin State CBL Mode Name  1 15f00010 3968 0 2 2 VIRT UP UP 4 Access inband  2 7000000 1 0 2 2 VIRT UP UP 0 Access aipc  3 15f00020 1 0 2 2 VIRT UP UP 4 Access span  5 15f00040 3968 0 2 2 VIRT UP UP 4 Access inband port security  8 0 3969 0 2 2 VIRT UP UP 4 Access l20  9 0 3969 0 2 2 VIRT UP UP 4 Access l21  10 0 110 0 2 2 VIRT UP UP 4 Access l22  11 0 3968 0 2 2 VIRT UP UP 4 Access l23  12 0 120 0 2 2 VIRT UP UP 4 Access l24  13 0 1 0 2 2 VIRT UP UP 0 Access l25  14 0 1 0 2 2 VIRT UP UP 0 Access l26  16 1a040100 1 T 0 2 2 PHYS UP UP 1 Trunk vmnic1  47 1b040000 104 0 2 2 VIRT UP UP 4 Access vswif0 | [root@server51 /]# vemcmd show port  LTL IfIndex Vlan Bndl SG\_ID Pinned\_SGID Type Admin State CBL Mode Name  1 15f00010 3968 0 2 2 VIRT UP UP 4 Access inband  2 7000000 1 0 2 2 VIRT UP UP 0 Access aipc  3 15f00020 1 0 2 2 VIRT UP UP 4 Access span  5 15f00040 3968 0 2 2 VIRT UP UP 4 Access inband port security  8 0 3969 0 2 2 VIRT UP UP 4 Access l20  9 0 3969 0 2 2 VIRT UP UP 4 Access l21  10 0 110 0 2 2 VIRT UP UP 4 Access l22  11 0 3968 0 2 2 VIRT UP UP 4 Access l23  12 0 120 0 2 2 VIRT UP UP 4 Access l24  13 0 1 0 2 2 VIRT UP UP 0 Access l25  14 0 1 0 2 2 VIRT UP UP 0 Access l26  15 1a040000 1 T 0 2 2 PHYS UP UP 1 Trunk vmnic0  16 1a040100 1 T 0 2 2 PHYS UP UP 1 Trunk vmnic1  47 1b040000 104 0 2 2 VIRT UP UP 4 Access vswif0 |
| [root@server51 /]# vemcmd show trunk  Trunk port 16 native\_vlan 1 CBL 1  vlan(1) cbl 1, vlan(104) cbl 4, vlan(110) cbl 4, vlan(120) cbl 4, vlan(130) cbl 4, | [root@server51 /]# vemcmd show trunk  Trunk port 15 native\_vlan 1 CBL 1  vlan(1) cbl 1, vlan(104) cbl 4,  Trunk port 16 native\_vlan 1 CBL 1  vlan(1) cbl 1, vlan(104) cbl 4, vlan(110) cbl 4, vlan(120) cbl 4, vlan(130) cbl 4, |
| [root@server51 /]# vss status    VSS modules are loaded    Switch Name Num Ports Used Ports Configured Ports MTU Uplinks  vSwitch0 32 2 32 1500 vmnic0  DVS Name Num Ports Used Ports Configured Ports Uplinks  nexus 256 9 256 vmnic1    DPA is running | [root@server51 /]# vss status    VSS modules are loaded    DVS Name Num Ports Used Ports Configured Ports Uplinks  nexus 256 10 256 vmnic0,vmnic1    DPA is running |
| [root@server51 /]# vemcmd show bd 110  BD 110, vdc 1, vlan 110, 2 ports  Portlist:  10 l22  16 vmnic1  [root@server51 /]# vemcmd show bd 120  BD 120, vdc 1, vlan 120, 2 ports  Portlist:  12 l24  16 vmnic1  [root@server51 /]# vemcmd show bd 104  BD 104, vdc 1, vlan 104, 2 ports  Portlist:  16 vmnic1  47 vswif0  Multicast Group Table:  Group 0.0.0.0 RID 5 Multicast LTL 4409  16 | [root@server51 /]# vemcmd show bd 110  BD 110, vdc 1, vlan 110, 2 ports  Portlist:  10 l22  16 vmnic1  [root@server51 /]# vemcmd show bd 120  BD 120, vdc 1, vlan 120, 2 ports  Portlist:  12 l24  16 vmnic1  [root@server51 /]# vemcmd show bd 104  BD 104, vdc 1, vlan 104, 3 ports  Portlist:  15 vmnic0  16 vmnic1  47 vswif0 |

ESX Host esxcfg Before/After

|  |  |
| --- | --- |
| **Before** | **After** |
| [root@server51 /]# esxcfg-vswitch -l  Switch Name Num Ports Used Ports Configured Ports MTU Uplinks  vSwitch0 32 2 32 1500 vmnic0  PortGroup Name VLAN ID Used Ports Uplinks  DVS Name Num Ports Used Ports Configured Ports Uplinks  nexus 256 9 256 vmnic1  DVPort ID In Use Client  160 1 vmnic1  161 0  162 0  163 0  164 0  165 0  166 0  167 0  168 0  169 0  170 0  171 0  172 0  173 0  174 0  175 0  66 1 vswif0 | [root@server51 /]# esxcfg-vswitch -l  DVS Name Num Ports Used Ports Configured Ports Uplinks  nexus 256 10 256 vmnic0,vmnic1  DVPort ID In Use Client  160 1 vmnic1  161 1 vmnic0  162 0  163 0  164 0  165 0  166 0  167 0  168 0  169 0  170 0  171 0  172 0  173 0  174 0  175 0  66 1 vswif0 |
| [root@server51 /]# esxcfg-vswif -l  Name Port Group/DVPort IP Family IP Address Netmask Broadcast Enabled TYPE  vswif0 66 IPv4 14.17.104.136 255.255.255.0 14.17.104.255 true STATIC | [root@server51 /]# esxcfg-vswif -l  Name Port Group/DVPort IP Family IP Address Netmask Broadcast Enabled TYPE  vswif0 66 IPv4 14.17.104.136 255.255.255.0 14.17.104.255 true STATIC |

Post Migration

* See [System Vlan Guidelines](http://sv-wiki/index.php/System_Vlan_Guidelines) to ensure manageability.