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Running AppleTalk for VMS 2.1 on a VAX Cluster

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TOPIC ---

I want to run AppleTalk for VMS 2.1 on a VAX cluster, which has two VAX systems
sharing the same disks. I cannot run AppleTalk for VMS on both VAX systems. A
file called PORTDESC.TEXT can have only one AppleTalk network number and can be
accessed only from a directory called ATK$ROOT. Therefore, I can run AppleTalk
for VMS from only one VAX at the time.

Is this a known problem, or is it a question of configuration?

DISCUSSION ---

PORTDESC.TEXT resides in the directory ATK$ROOT:[APPLETALK]. This port
descriptor file is a text file that stores port descriptions. When the router
process is initialized, it uses the port descriptor file to set up the port
handlers. The AppleTalk for VMS installation procedure creates this file for
you, using the information you supply during the installation procedure.

ATK$ROOT is a VMS logical name. You can assign it to any rooted directory.
The default is SYS$SPECIFIC:.

In a cluster environment, there is a common disk that stores the entire
directory structure (the common root plus each node's local root). Each local
root contains, in addition to the usual system directories, a [SYSx.SYSCOMMON]
directory that is an alias for [VMS$COMMON], the cluster common root directory,
in which cluster common files actually reside. The disk Master File Directory
(MFD) contains the local roots (SYS0 for NODE1, SYS1 for NODE2, and so on) and
the cluster common root directory, [VMS$COMMON].

The VMS Install Utility puts everything in SYS$COMMON unless you specify a
directory for the files. In AppleTalk for VMS installation, you have a choice
for the directory ATK$ROOT. ATK$ROOT is a system-wide logical name assigned to
a rooted directory. The default rooted directory is SYS$SPECIFIC:. If you

install AppleTalk for VMS on each node and use the default rooted directory, most AppleTalk for VMS files are placed in ATK$ROOT:[APPLETALK] and its subdirectories. In a cluster, SYS$SPECIFIC for each node is unique. Therefore, the PORTDESC.TEXT and other files are in the unique directories for each node. Keep in mind that you must have a unique network number for each ATKVLAP port on each node, and the ATKAELAP ports on all nodes should have the same network number. That means that the PORTDESC.TEXT files are not the same on every node.

If you use the default SYS$SPECIFIC for the default during the installation and have correct network numbers in the PORTDESC.TEXT file (like above), each VAX should read the correct file when you start AppleTalk for VMS.

The only problem with this, beside the PORTDESC.TEXT file (which you want to keep unique on each VAX), is that copies of all other files are kept on each node. This can be a waste of space, and it is difficult to manage the same copies of files on each node, especially on a cluster with many nodes. If you are concerned about this, install everything in SYS$COMMON. Then, after installation, manually move the PORTDESC.TEXT file to each node SYS$SPECIFIC:. Modify the PORTDESC.TEXT files to have unique VLAP network numbers.

Re-define the ATK$ROOT logical name to search the node SYS$SPECIFIC first, then SYS$COMMON. When you start AppleTalk for VMS on each node, the cluster will search SYS$SPECIFIC and find the PORTDESC.TEXT file for that node, and then it will go to SYS$COMMON for the rest of the file.

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