ACTIVE DIRECTOREY

ESTABLISHING CONNECTIONS BETWEEN TWO NODES 27-08-16

INSTALL TWO OPERATING SYSTEMS IN ONE VM WARE. NOW CONNECT THOSE TWO SYSTEMS.   
GOTOT FIRST SYSTEM SETTINGS – GOTO NETWORK OPTION.   
THERE U CAN SEE NAT AND BRIDGED ADAPTER. SELECT FOR BRIDGED FOR NOW, ANY TIME WE CAN CHANGE THIS SETTING

IN THE NAME FIELD U CAN SEE INTEL(R) ETHERNET CONNECTION i218-LM OR SELECT DUAL BAND WIRELESS.   
SELECT WIRE LESS IN THIS CASE. GO TO ADVANCED OPTION –PROMISUCUOUS MODE: SET IT ALLOW ALL, DON’T UNCHECK CABLE CONNECTED OPTION. DO THE SAME THING FOR SECOND MACHINE. DO THE SAME THING FOR ALL MACHINES IF WE WANT TO ESTABLISH CONNECTION BETWEEN ALL THE MACHINES. IF WE ARE UNABLE TO SELECT ANY THING IF ALL OPTIONS ARE GRAYED OUT THEN STOP THE MACHINE AND CHANGE THE NETWORK SETTING.   
NOW START ALL THE MACHINES. OPEN THE COMMAND PROPT.   
C:\> HOSTNAME  
FIRST CHANGE THE COMPUTER NAME . RIGHT CLICK ON MY COMPUTER. THERE U CAN SEE MEMBER OF WORKGROUP. SELECT IT.   
C:\> IPCONFIG, UCAN SEE THE IP ADDRESS. IF WE WANT TO GIVE OWN IP ADDRESS.   
GOTO NCPA.CPL IN WINDWOS RUN.  
THEN NETWORK CARD WILL BE OPEN, R.CLICL ON IT GO TO PROPERTIES GO fOR INTERNET PROTOCAL VERSION 4(TCP /IP V4)   
THERE U CAN SEE OBTIAN AN IP ADDRESS AUTOMATICALLY. SELECT USE THE FOLLOWING IP ADDRESS.

IP ADDRESS 10.10.10.1

SUBNET MASK WILL COME AUTOMATICALLY. OK . CLICK OK.   
NOW RESTART THE MACHINE   
 DO THE SAME THING FOR ALL MACHINES. AFTER RESTART CHECK HOST NAME AND IP ADDRESS.

IF WE WANT TO TALK THOSE SYSTEM EACH OTHER, THEN OPEN CMD PROMPT,   
c:\> PING 10.10.10.2(IP ADDRESS OF THE OTHER MACHINE)  
NORMALLY FIREWALL WILL BLOCK THE COMMUNICATION SO STOP THE FIREWALL. DON’T STOP THE FIREWALL IN REAL TIME IT’S A BAD PRACTICE.  
TO STOP FIREWALL—GOTO SERVICES.MSC – AND STOP THE FIREWALL SERVICE AND PUT THE SERVICE START TYPE IN DISABLED MODE.   
NOW RESTART THE MACHINE AND TRY TO PING THE OTHER MACHINE. IF THE MACHINE WANTS TO PING CONTINOUSLY THEN USE THE OPTION   
PING 10.10.10.2 –t (this option will keep on send packets to the other machines. It will be usefull if system restarts and to check whether system restarted or not.)

IN WORKGROUP WE HAVE TO CREATE USERS IN ALL THE MACHINES. IF MORE USERS ARE THERE, CREATING ACCOUNTS T THEM ON ALL THE MACHINES IS PAINFULL. TO OVERCOME THIS WE HAVE TO UPGRADE THE SETUP TO DOMAIN. IN THIS MODE ONE MACHINE IN THE NETWORK WILL ACT AS A SERVER FOR ALL THESE MACHINES. THIS MACHINE IS CALLED AD –ACTIVE DIRECTORY.  
NOW SETUP ONE MORE MACHINE TO WORK AS AD (PUT THE MACHINE NAME AS AD FOR BEST PRACTICE(BP)   
FOR PRACTICE JUST CREATE THAT AD MACHINE AS WORKGROUP, FIRST WE WILL WORK WITH WORK GROUP AND WILL SEE THE EFFECT THEN CHANGE IT TO DOMAIN.

GIVE THE IP ADDRESS FOR THIS AD IS 10.10.10.100( LITTLE BEYOND IPS OF ALL MACHINES IN THE NETWORK.)

WHAT IS ACTIVE DIRECTORY  
ACTIVE DIRECTORY IS A LOGICAL COLLECTION OF WORKSTATIONS CONNECTED THROUGH A NETWORK.

DOMAIN   
DOMAIN BASED NETWORKS ARE VASTLY MORE COMPLEX TO SETUP.  
CENTRALISED MANAGEMENT OF SECURITY IS DONE THROUGH A SINGLE ASSIGNED SERVER CALLED DOMAIN CONTROLLER. THERE CAN BE ONE OR MORE DOMAIN CONTROLLERS IN A DOMAIN.   
DOMAIN COTROLLER IS THE OLD NAME OF AD.   
UPGRADING LOCAL MACHINE TO AD   
WE CAN CONVERT NORMAL MACHINE TO AD BY USING COMMAND CALLED DCPROMO(DOMAIN CONTROLLER PROMOTION)(BUT THIS COMMAND WILL WORK UPTO WINDOWS SERVER 2008R2.  
NOW OPEN THE CMD PROMPT TYPE DCPROMO , BUT IT WILL WORK UPTO WINDOWS SERVER 2008R2. THIS SHORTCUT WILL NOT WORK FOR WINDWOS SERVER 2012.   
  
LONG CUT  
GOTO SERVER MANAGER—GO FOR ADD ROLE-NEXT –NEXT, U CAN SEE DOMAIN SERVICES—CLICK INSTALL. IF IT IS NOT INSTALLING PUT THE OS CD AND SELECT OR SELECT ISO IMAGE OF THAT OS. THEN INSTALL. WE JUST INSTALLED AD. NOW WE NEED TO CONFIGURE AD.   
SO LONG CUT IS THE OPTION. ONCE U ADD ROLE OF AD, U CAN SEE AD DS AT THE LEFT SIDE. CLICK ON THAT THERE U CAN SEE MORE, OR AT THE TOP U CAN SEE A FLAG WARNING THERE U CAN SEE PROMOTE TO DOMAIN CONTROL OPTION. THERE U CAN SEE ACTIVE DIRECTOREY CONFIG WIZARD.   
THERE U CAN SEE. FOREST   
FOREST IS A SINGLE INSTANCE OF ACTIVE DIRECTORY. MEANS INSIDE A FOREST WE CAN CREATE MULTIPLE DOMAINS. INSIDE FOREST WE HAVE TREE—INSIDE THAT DOMAINS—INSIDE THAT OBJECTS(NODES /COMPUTERS)  
SELECT DEPLOYMENT OPERARION , SELECT ADD A NEW FOREST.   
GIVE THE ROOT DOMAIN NAME: GIVE THE NAME AS CONTOSE. ,OR U CAN GIVE WEBSITE ADDRESS(GOOGLE.COM)

CLICK NEXT.   
FOREST FUNCTIONAL LEVEL: IF SAME VERSION NODES ARE THERE SELECT THE SERVER NAME   
IF MIXED NODES ARE THERE SELECT THE LEAST NODE, WINDOWS SERVER 2008. GIVE THE SAME AS BELOW OPTION.

GIVE THE PASSWORD –NEXT, WE CAN SEE NETBIOS DOMAIN NAME: IT IS A BACKWORD COMPATIBILITY, THAT MEANS IF OLDER VERSIONS WANTS TO COMMUNICATE WITH AD. SO PUT THE NAME AS GOOGLE, NO .COM WILL BE THERE.   
AD IS ALSO A DATABASE. SO WE CAN SEE THE DATABSE FOLDER AND LOG FILES FOLDER. NEXT OPTION IS SYSVOL FOLDER: IT IS A SHARED FOLDER. ONCE WE CLICK FINISH THE LOCAL MACHINE WILL BE CONVERTED INTO AD MACHINE.

HOW TO IDENTIFY AD IN A GROUP OF NETWORK

OPEN LUSMGR.MSC . U CANT SEE ANY USERS AND GROUPS THERE IF THE SYSTEM IS IN DOMAIN. THERE IS ONE MORE TOOL

ANOTHER WAY TO IDENTIFY AD

GOTO MY COMPUTER –PROPERTIES—SEE FULL COMPUTRER THERE U CAN SEE COMPUTERNAME.DOMAIN NAME.COM

CONFIGURING DNS IN AD AND IN ALL NODES

TO CONNECT ALL THE NODES TO THE DOMAIN(AD), FIRST CONFIGURE DNS SERVER IN AD. U CAN CONFIGURE BY TYPING NCPA.CPL IN RUN. THEN NETWORK WINDOW WILL OPEN, R.CLICK ON IT, GOTO PROPERTIES, DOUBLE CLICK ON IPV4,THEN SELECT ‘USE THE FOLLOWING DNS SERVER ADDRESS’, THERE GIVE THE IP ADDRESS OF AD. CLICK OK. DO THE SAME THING FOR ALL THE NODES.  
ADDING COMPUTER TO DOMAIN  
R.CLICK ON COMPUTER –PROPERTIES –THERE U CAN SEE DOMAIN. SELECT THE DOMAIN. GIVE THE DOMAIN NAME AS Google.COM(AD COMPUTER NAME IS GOOGLE.COM) IF IT THROWS ERROR GIVE JUST GOOGLE. AND IT WILL ASK FOR UN, PWD. GIVE UN AS ADMINISTRATOR, THEN GIVE AD PWD.   
DO THE SAME THING FOR ALL NODES. ONCE WE CONFIGURE RESTART THE MACHINE.   
DNS SERVER WILL CONVERT IP ADDRESS TO DOMAIN NAME LIKE GOOGLE.COM. VICE VERSA.

--TO SEE THE IPADDRESS OF ANY WEBSITE GOTO COMMAND PROMPT, PING GOOGLE.COM

ONCE WE HAVE CONFIGURED THE DOMAIN IN ALL THE NODES TWO ADMINISTRATORS WILL BE THERE. ONE IS AD ADMINISTRATOR CAN LOG IN TO ALL THE MACHINES, SECOND ONE IS INDIVIDUAL NODES ADMINS CAN LOG IN. LOG IN TO LOCAL ADMIN , LUSRMGR.MSC, CREATE ONE LOCAL USER, IN THE SAME WAY GO TO AD CREATE A USER IN THE AD WITH SAME NAME AS IN NODE 1  
CREATING USER IN AD  
START—ADMINISTRATIVE TOOL—ACTIVE DIRECTOREY DOMAIN USERS AND COMPUTERS

SHORT CUT – DSA.MSC  
EXPAND GOOGLE.COM, RIGHT CLICK ON USERS –NEW –USER.   
GOTO NODE 1 AND LOGIN AS AD USER. GOOGLE\USERNAME  
GOTO NODE 1, ADD AD USER AS ADMINISTRATOR . (THE USER IS JUST A USER IN AD LEVEL, BUT HE IS THE ADMINISTRATOR IN NODE1, ALL THE DOMAIN ADMINS ARE ADMINISTRATORS IN ALL THE NODES THAT ARE THERE IN DOMAIN. IN AD WE CAN SEE DOMAIN ADMINS . THE MEMBERS IN THIS GROUP ARE THE ADMINISTRATORS IN ALL THE NODES THAT ARE THERE IN DOMAIN.  
NOW CREATE A GROUP IN DOMAIN, AND ADD THREE MEMBERS TO THE GROUP. NOW ADD THIS GROUP TO ADMINISTRATORS GROUP IN THE INDIVIDUAL NODES. MEANS THE MEMBERS IN THIS GROUP ARE ADMINS AT LOCAL LEVEL.