

World Skills Competition

Trade 39: IT PC and Network Support

Day 2

Pre-requisites: Nil

Actions Required

Windows 2000 Server setup and configuration

Windows 2000 Professional setup and configuration

Manufacture cross over Network-Cable

Network Printer setup

User and System management

Network and Security Control

SPECIAL INSTRUCTIONS:

1. All customer requirements are to be satisfied.
2. Read the whole script before starting

Problem Description

NetSkill IT is a small company, which is planning to set up a client server network. They have a need for secure data and strict policies to stop unauthorized access to machines as downtime costs the company.

The NetSkill IT CEO has asked you to setup a prototype network for demonstration and acceptance.

Customer Specifications

Set up the LAN according to diagram given. The Windows 2000 Server station is to be configured as a domain controller. The server station's primary purposes are:

- To provide user logon and authentication services
- To enable administrators to organize and manage user accounts, groups and network resources
- To enable authorized users to easily locate network resources, regardless of where they are located on the network.

Select the appropriate licensing mode for the server in this LAN setup. Client workstation in the LAN will be allowed to browse web pages on the server. At the same time, clients can also FTP to the server for file transfer. To ensure a high level of fault tolerance for the server, create a mirrored volume using the two hard disks provided.

The Windows 2000 Professional station supports domain user accounts kept in the Windows 2000 Server station.

Install Windows 2000 Server and Windows 2000 Professional.

Personalize the software. For example: Name: Your name. Organization: Your Country

All file systems used must be capable of providing file security. The disks on all stations in the network must be cleaned up every week.

Manufacturing a cross over UTP Network cable to connect the Server and the Workstation.

Protocols

The workstations in the LAN use only the TCP/IP protocol. The IP network address given from the Internet Service Provider is 199.8.8.0. To allow the LAN to grow in the future, devise a subnet mask such that it maximizes the networks/subnets available but limit the hosts in each subnet to about 14 per network/subnet. Note that the LAN can have also old routers. Allocate IP address for the Domain within the IP address range specified for up to 2 routers, 2 servers and the remainder allocated to DHCP clients in the network. All NetBIOS names (computer names) must be able to be resolved using a WINS server installed at the server station. All clients IP addresses are issued automatically when its boot up except the user Workstation. Fix in the DHCP the MAC Address of the Workstation so that exactly this workstation becomes every time the same IP Address.

Configure the server station to function as a WINS proxy. This feature will be useful when there are client operating systems that use NetBIOS but do not support WINS.

Network Administration

The following network shares **must** be set up on your server station for each sections data: -

\\SUPPORT

\\PUBLIC

\\ACCOUNTS

\\SALES

Refer to the company employee database to create User Accounts and Groups so that only authorized users have access to the appropriate shares and the shares are **not** accessible from other networks.

Security

All network Accounts must adhere to the following: -

- The CEO is the only person who can have Full Control of every department's respective section shares.
- Section Managers must have Full Control of own department's respective section shares (**excluding the Support share**).
- The Support Manager must have full control to all shares and Support Employees must have change access to all shares.
- Employees are to have Change Access on their respective section shares.
- The SUPPORT share must be hidden and only accessible to members of the SUPPORT Section.
- Agency staff accounts are to expire after the last day of service.
- User accounts are to be created by using templates and a naming convention created for all accounts.
- All accounts must be able to be administered from the workstations using the Active Directory.
- All Domain Users must be able to physically log on to the server.
- All machines on the network must receive a Log On Banner welcoming them to the World Skills Competition 2001 in Korea.
- Employees of the Sales team must have the World Skills Competition 2001 Logo as wall paper set **automatically** when they login, other users are not to have the wallpaper displayed when they login.

Create an accounts policy so that: -

- Passwords expire in 10 days & must be 5 characters long.
- Accounts are locked out after 3 bad logon attempts and can only be unlocked by an administrator.
- Users are also disconnected when log on hours expire.

All users are to have the H: drive connected as a Home Drive so that they have a dedicated area of the server to store information that **only** they can access.

All users have a limit of 50Mb of data on the server and would get a warning message when their home directories reach 40Mb.

Only Support users can connect to the server station via Terminal Services for remote administration.

Sally Blunt must have a roaming network profile, and Dexter Ying Must have a Mandatory Profile.

Important

Create a document detailing Usernames created. Do not use any passwords for the Users. After the end of this competition Day you must provide the document to the competition officials. Don't forget to write down your name on the document.

Printing

Install a printer by connecting it to the LPT1: port of the server. Allow domain users to use the printer, giving the CEO the highest priority; followed by SALES section with the next highest priority. The other sections will have the same priority when using the printers.

UTP Cross over Cable Manufacturing

Manufacture one crossover network cable. The network cable should measure 3 metres (+/- 2 centimeters) from the ends of the RJ45 plugs.

Web Page

Copy the HTML File from your diskette to the correct directory on the server. Configure your Workstation IE so this page will be the start-page.

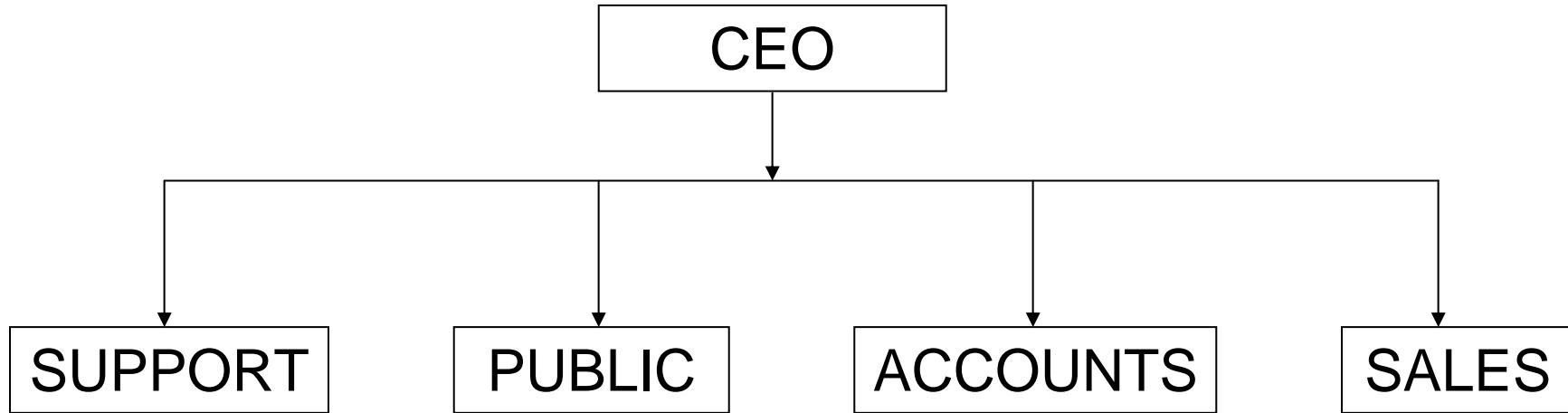
Appendix A

The following equipment will be provided :

Equipment	Brief Hardware Configuration	Quantity
PC (Server and WS)	<ul style="list-style-type: none"> • Samsung Pentium III • 128 MB-RAM • CD-ROM • 17" Monitor • Keyboard • P/S2 mouse • 3.5"FDD,20GB HDD • 10/100Mbps LAN card 	2
Hard disk	20GB HDD	2
UTP cable	Category 5	1 x 3 meters
RJ 45 Plugs	-	2
Blank 3¼ inch diskette	-	2
Printer	Samsung Inkjet mjc3100	1

Software	Brief Description	Quantity
Microsoft Windows 2000 Professional	English version	1 set
Microsoft Windows 2000 Server	English version	1 set
Windows 98 StartUp Diskette	3.5", high density, preformatted	1 set
Drivers for PC hardware		1 set each
WSC 2001 Logo in BMP format	BMP file in a diskette	1 set
WSC2001 webpage in HTML format	HTML file in a diskette	

The following diagram show the sections that reports to the CEO :



HR Database For Competitors

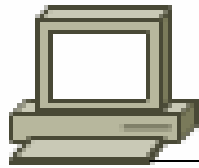
Name	Job Title	Section	Full Time or Agency	Log on Hours	Leave Date	Share s	Acces s
Sebastian Coope	CEO	CEO	Full Time	Not restricted			
Horace White	Section Manager	Accounts	Full Time	Not restricted			
Jimmy Jones	Employee	Accounts <i>Temporary</i> Support	Full Time	Not restricted			
Sally Blunt	Employee	Accounts	Agency	9AM - 5PM	24/12/2001		
Harry Thomas	Employee	Accounts	Full Time	Not restricted			
Ben Dover	Section Manager	Sales	Full Time	Not restricted			

HR Database For Competitors (continued)

Name	Job Title	Section	Full Time or Agency	Log on Hours	Leave Date	Share s	Acces s
David Roberts	Employee	Sales	Agency	9AM - 1PM	24/12/2001		
Mahindra Shah	Employee	Sales	Full Time	Not restricted			
Ed Minter	Section Manager	Support	Full Time	Not restricted			
Dexter Ying	Employee	Support	Full Time	Not restricted			
Laura Brown	Employee	Support	Full Time	Not restricted			
Sue Black	Employee	Support	Agency	Not restricted			

Skill IT LAN Plan

199.8.8.0 net
Class C Address
Domain: WSC
Full Domain Name: wsc.kr



cross over cable



Client

Windows Professional
PC Name SeoulClient

Server

Windows 2000
PC Name SeoulServer
199.8.8.17