

Network operating systems



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Different Data Transfer Methods Information and communication technology continues to revolutionize technological trends including innovative ways to share files between different computing devices. The most popular way of connecting removable devices to a computing device is a plug and play Universal serial bus (USB) attachment. USB has provided the most convenient way for synchronizing removable devices with the computers including flash drives, removable and portable hard drives, USB compatible mobile phone, gaming consoles etc. Data rates for USB 2.0 conclude 1 gigabyte of data transfer in approximately 33 seconds. New version i. e. USB 3.0 will take approximately 3.3 seconds to transfer 1 gigabyte of data (, Data Transfer Rates to Jump With USB 3.0). Moreover, transferring files on a network incorporates file transfer protocol, Microsoft windows sharing, P2P networks etc. In order to share a file, folder, optical drive or hard drive, configuration of FTP is required. This includes configuration of a network place. Steps that are involved in this process are: click ' my network places' ? ' add a network place'? specify address by providing the path known as the ' FTP site' and click ' next'? uncheck ' log on anonymously'? click ' OK'. After following these steps, FTP site will be created that will be available on the network for the users to transfer files. However, the transmission of files within the network will be conducted by FTP. FTP facilitates the users to share files in a simplest of methods along with configuring an FTP site or server. FreeBSD also includes FTP server software named as ' ftpd', that is located in the base system. ' ftpd' enables the network administrator to configure FTP server in a simple way (, File Transfer Protocol (FTP)). However, Linux uses ' scp' to share files on a remote location. Command for copying files from a local workstation to a remote

workstation is as follows (, Using scp to transfer files in Linux): ' scp (file name) user@host. domain: path' File name identifies the file that needs to be copied. User is the username on the remote workstation Host. domain is the Internet address of the remote workstation Path identifies the specific destination on the remote workstation. For sharing files on a wireless network, various methods are available. Some of the methods are named as, windows standard file sharing, IIS FTP service, Filezilla Server (FTP) and windows network mapped drives. However, data transfer rates may vary (, Internet Tip - Fast, Faster, Fastest Way to Transfer Files Over a Network). After testing data transfer of these methods, the comparison between data transfer rates, is illustrated in Figure 1. 1 below: Windows Standard File Sharing 30 min 25 min wifi 802. 11b (11 mbps) 347MB IIS FTP Service 24 min 22 min wifi 802. 11b (11 mbps) 347MB FileZilla Server (FTP) 58 min then 20 min 23 min wifi 802. 11b (11 mbps) 347MB Windows Mapped Drive X 15 min 18 min wifi 802. 11b (11 mbps) 347MB Figure 1. 1 data retrieved from ((, Internet Tip - Fast, Faster, Fastest Way to Transfer Files Over a Network))

References , Data Transfer Rates to Jump With USB 3. 0 | PCWorld Business Center . Available: http://www.pcworld.com/businesscenter/article/154034/data_transfer_rates_to_jump_with_usb_30.html [5/18/2011, 2011]. , File Transfer Protocol (FTP) . Available: <http://www.freebsd.org/doc/handbook/network-ftp.html> [5/18/2011, 2011]. , Using scp to transfer files in Linux . Available: <http://infohost.nmt.edu/tcc/help/xfer/scp.html> [5/18/2011, 2011]. , Internet Tip - Fast, Faster, Fastest Way to Transfer Files Over a Network . Available: <http://www.seabreezecomputers.com/tips/filexfer.htm> [5/18/2011, 2011].