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Navodila za vaje pri predmetu Internetne tehnologije VAJA 3

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Požarni zid

Požarni zid (firewall) je naprava ali programska oprema, ki se namesti med omrežjem ali računalnikom z namenom, da se zagotovi varnost.

Ponavadi se požarni zid uporabi v točki, kjer se lokalno računalniško omrežje priključi na internetno omrežje, da ščiti računalnike pred splošnim TCP/IP prometom, kot je pokazano na spodnji sliki.



Pogledali bomo kako deluje Interner Connection Firewall (IFC), ki je sestavni del operacijskega sistema Windows XP in je namenjen varovanju enega PC računalnika ob dostopu na Internet. ICF deluje tako, da varuje PC računalnik pred zunanjimi vdori. Poglejmo si primer, ko zahtevamo podatke iz web strani se podatki prenesejo iz PCV računalnika na web strežnik in iz web strežnika nazaj na PC, pri tem pa ICF pregleda pakete in primerja IP naslov. Če najde pravi IP naslov tabeli destinacijskih naslovov potem spusti promet na PC. Če med tem prispe kakršen koli drug promet na PC; ki ni zapisan v destinacijski tabeli, potem se paketi zavrnejo



Z ICF lahko tudi varujemo celotno omrežje, če uporabimo računalnik, ki se direktno povezuje na Internet z uporabo Internet Connection Sharing. Ves promet se potem nadzoruje preko enega računalnika, kot je pokazano na spodnji sliki



IFC ne šiti računalnika pred črvi in virusi in Trojanskimi konji

Aktiviranje ICF

Start->Control Panel->Windows Firewall





Internet informacijski servisi

Internet informacijski servisi (Internet information services) IIS, ki je vgrajen v Windows XP je namenjen za enostavne web aplikacije in ima omejitev na 10 TCP povezav. IIS omogočajo

- Gostovanje ene spletne strani
- Gostovanje enega ftp (file transfer protocol) strežnika
- SMTP virtualni strežnik
- Uporabo IIS za testiranje spletnih aplikacij
- Skupna raba tiskalnikov preko Interneta

Namestitev IIS

V nadzorni plošči izberemo oddaj/odstrani programe (add/remove programs) in izberemo IIS servise pod Windows Components (potrebujete CD windows SP2)

Nastavitev IIS

Najprej odpremo okno za upravljanje z IIS servisi. Start->All Programs, My Computer, kliknemo na desni miškin gumb in izberemo Manage , odpre se nam pogovorno okno Computer Management.

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Servisi spletnega strežnika

Pod IIS izberite Web Sites, kliknite miškin desni gumb in izberite Properties (Lastnosti) in pokaže se vam pogovrno okno.

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ISAPI filter

ISAPI filter je program, ki ustreza določenim dogodkom za procesiranje http zahteve. Lahko spremeni vhodno zahtevo, vrača podatke in dodaja nove lastnosti IIS. Z gumbom add lahko dodamo nove servise.

Domača mapa (Home Directory)

Home directory jeziček vsebuje lastnosti o spletni strani, kje se spletna stran nahaja, način dostopa, dovoljenja do mape in konfiguracija spletne strani, kateri servisi so na voljo in kako naj se dostopa do mape, kjer se nahaja spletna stran. Drugi razdelek pa predstavlja nastavitve aplikacije pod Configuration, kjer lahko določimo kašen tip spletne strani se bo izvajal v spletni mapi in nastavitve za asp spletne strani.

Documents

Tukaj nastavimo ime dokumenta, ki se bo odprl ob dostopanju do naše spletne strani.

Directory Security

Tukaj nastavimo dostop uporabnikom do spletne strani.

Http Headers

V tem razdelku določamo veljavnost vsebine (Enable Content Expiration), kjer določimo časovno veljavnost informacij.

možnosti zaglavja (Custom Header Option), tukaj nastavljamo možnosti zaglavja http iz ISS spletnega strežnika proti uporabniku (klientu).

Vsebinsko ocenitev, kjer določamo vsebino http zaglavja, ki definirajo vsebino gostujoče web strani. Uporabnik lahko nastavi vsebinske nastavitve za spletni brskalnik z uporabo MIME informacije, kot na primer kratice datotek.

MINE (Multipropose Internet MAil Extensions) map. Te nastavitve identificirajo tip vsebine Web stani

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Nastavitev privzete spletne strani

Nastavite ip vašega računalnika in vtipkajte vaš IP naslov v obliki <u>http://192.198.1.106</u>. Če ste vse dobro naredili se mora pokazati spletna stran, ki je v obliki index.htm.



Ceston Bight ElCode GiPreview

FTP (file transfer protocol) strežnik

Ftp ostaja zelo atraktiven za prenos datotek v medmrežju. FTP strežnik se nastavi zelo podobno kakor http strežnik, preko Computer Management konzole.

Zanimiva je konfiguracija uporabnikov, kjer lahko omejimo dostop do ftp strežnika samo določenim uporabnikom.



Ob pravilni konfiguraciji strežnika ftp in pravilnem vnosu ip naslova lahko vidimo datoteke, ki jih imamo na ftp strežniku.



Skupna raba datotek in map

Namen skupne rabe datotek je, da omogočimo datoteke, ki so na enem računalniku vsem ostalim računalnikom, ki so bodisi v enaki delovni skupini ali v enakem podomrežju. Če želimo postaviti mapo v skupno rabo kliknemo v brskalniku na želeno mapo, ki se nahaja na našem disku in kliknemo lastnosti (Properties). Nato pritisnemo jeziček Sharing in izberemo »Share this folder on the network« in na ta način omogočimo skupno rabo datotek.

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Varnost map

Če želimo določiti varnost mape in dodeliti dostop le do posameznih uporabnikov, moramo izklopiti enostavno skupno rabo datotek. To naredimo tako, da v nadzorni plošči izberemo (Control Panel) Folder Options in izklopimo Simple File Sharing in če sedaj kliknemo na mapo in z pogledamo njene lastnosti lahko določimo še uporabnika, ki ima dostop do te mape in ali lahko datoteke samo spreminja, bere ali pa ima popoln nadzor nad njimi.

Folder Options	instal Properties	Permissions for instal
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Folder views You can apply the view (such as Details or Tiles) that you are using for this folder to all folders. Apply to All Folders Reset All Folders	You can share this folder with other users on your network. To enable sharing for this folder, click. Share this folder. O Do not share this folder ③ Share this folder	Group or user names:
Advanced settings: Resome previous folder's view settings Restore previous folder windows at logon Show encrysted or compressed NTF5 files in color Show encrysted or compressed NTF5 files in color Show oncy description for folder and deschop terms	Share name: Instal Comment: User limit: O Maximum allowed O Allow this number of users:	Add Remove Permissions for Everyone Allow Deny
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Skupna raba tiskalnika

Nameščen tiskalnik lahko damo v skupno rabo, podobno kakor smo to storili za mape. Do printerjev pridemo preko Start->Printers and Faxes, izberemo printer in kliknemo na lastnosti (Properties). Pod Sharing damo tiskalnik v skupno rabo in ga poimenujemo.

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Na drugih računalnikih lahko dodamo tiskalnik (Add printer), kakor omrežni tiskalnik. V čarovniku izberemo naprej (Next), dodamo mrežni tiskalnik in nato dodamo IP naslov računalnika na katerem je tiskalnik nameščen za skupno rabo in ime računalnika, bi se moral izpisati avtomatsko.



Net session, net share in net File ,net stat

Ugotovite pomen Net Session, Net Share in Net file.

Navidezno omrežje (Virtual Private Networking) (VPN)

Navidezna privatna omrežja ali (Virtual Private Networking VPN) si lahko predstavljamo kakor razširitev privatnega omrežja, uporabniki pa se »priklopijo na omrežje« in navidezno omrežje omogoča, da uporabniki uporabljajo omrežje kakor da bi bili priključeni na omrežje. Posamezne VPN povezave se obnašajo tako, kakor povezave točka-točka. Računalnik se lahko poveže na virtualno omrežje z katerokoli povezavo (modemom, široko-pasovnim internetom,...) VPN nadzoruje autentičnost, torej se uporabnik mora prijaviti v omrežje, pri tem lahko preveri IP naslov in uporabniško ime in geslo, VPN lahko upravlja z naslovi tako, da dodeli uporabniku IP naslov omrežja, omogoča enkripcijo podatkov.

VPN uporablja t.i. tunelski transport (ang. tuneling) za izmenjavo podatkov med klientom in omrežjem. Promet iz omrežja1 se prenaša na klienta v omrežju 1 s pomočjo komponent omrežja 2. Uporabljata se dva protokola point to point tunneling protocol (PPTP) in Layer two tunneling protocol (L2TP) z uporabo Internet protocol security (IPSec).

Povezava na VPN strežnik

Start->All programs->Network Connentions->Create New Connection





Povezava



Ustvarjanje VPN strežnika

