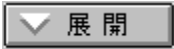










## Microsoft TCP/IP ,lfwf<fv



-  [Microsoft TCP/IP for Windows NT ,lŠT—v](#)
-  [Microsoft TCP/IP ,Æ SNMP ,l'g,ÝŹ,Ý,Æ\Ź—](#)
-  [DHCP fTŹ\[foŹ\[l,Ź'g,ÝŹ,Ý,Æ\Ź—](#)
-  [WINS fTŹ\[foŹ\[l,Ź'g,ÝŹ,Ý,Æ\Ź—](#)
-  [Microsoft FTP fTŹ\[foŹ\[l fTŹ\[frfX,lŽg—p](#)
-  [^óŹü,Æ TCP/IP](#)
-  [fTŹ\[feBfŠfeB,ÆfTŹ\[frfX,lŠftf@fŹf“fX](#)
-  [ŠÖ~AŹŹ•ñ](#)

'Ź : ,±,ê,ç,lŹ€-Ú,l,Ź,Ź,l,Ź,,Â,©,íŹAŹuMicrosoft TCP/IP ,lfwf<fvŹv^ÈŠO,lfwf<fv ftf@fCf<,đ•\ ŽŹ,μ,Ź,ŹBTCP/IP ,lfwf<fv ftf@fCf<,É-Ź,é,É,íŹA[fqfXfjfŠ] fEfBf“fhfE,Å [TCP/IP ,lfwf<fv,l-ÚŽŹ] ,đ'l,Ô,©ŹA,Ź,½,í Microsoft TCP/IP ,lfwf<fv,É-Ź,é,Ź,Å [-Ź,é] f{f^f“,đfNfŠfjbfN,μ,Ź,ŹB



## Microsoft TCP/IP ,lfwf<fv



- Microsoft TCP/IP for Windows NT ,ìŠT—v
- Microsoft TCP/IP ,Æ SNMP ,ì'g,Ý[]ž,Ý,Æ[]\[]—
- TCP/IP ,ì'g,Ý[]ž,Ý,É,Â,ç,Ä
- Microsoft TCP/IP ,ð'g,Ý[]ž,p'O,É
- TCP/IP ,ð'g,Ý[]ž,p
- TCP/IP ,ð[]\[]—,,:.é
- DNS ,ðžg—p,,:.é,½,ß,É TCP/IP ,ð[]\[]—,,:.é
- TCP/IP ,ìÚ[]×fifvfVff“ ,ð[]Ý'è,,:.é
- SNMP ,ð[]\[]—,,:.é
- DHCP fT[]fo[][,ì'g,Ý[]ž,Ý,Æ[]\[]—
- WINS fT[]fo[][,ì'g,Ý[]ž,Ý,Æ[]\[]—
- Microsoft FTP fT[]fo[][ fT[][frfX.lžg—p
- ^ó[]ű,Æ TCP/IP
- ft[][fefBfŠfefB,ÆfT[][frfX,ìfŠftf@fCef“fx
- ŠÖ~A[]î•ñ

'[] : ,±,ê,ç,ì[]€-Ú,ì,α,ζ,ì,ç,,Â,©,í[]A[]uMicrosoft TCP/IP ,lfwf<fv[]v^ÈŠO,lfwf<fv ftf@fCf<,ð•\ Žì,μ,Ü,·[]BTCP/IP ,lfwf<fv ftf@fCf<,É-ß,é,É,í[]A[][fafXfgfŠ] fEfBf“fhfE,Å [TCP/IP ,lfwf<fv,ì-ÚžÝ] ,ð'I,Ô,©[]A,Ü,½,Í Microsoft TCP/IP ,lfwf<fv,É-ß,é,Ü,Å [-ß,é] f{f^f“,ðfNfŠfbfN,μ,Ü,·[]B

## Microsoft TCP/IP ,lfwf<fv



Microsoft TCP/IP for Windows NT ,iŠT—v



Microsoft TCP/IP ,Æ SNMP ,i'g,Ýž,Ý,Æ\□—



DHCP fT□[fo□[ ,i'g,Ýž,Ý,Æ\□—



DHCP fT□[fo□[ ,ižg—p,É,Â,č,Ä



DHCP fNf%ofCfAf“fg fT□[fo□[ f,fff<,iŠT—v



DHCP fT□[fo□[ ,đ'g,Ýž,č,p



WINS fT□[fo□[ ,i'g,Ýž,Ý,Æ\□—



Microsoft FTP fT□[fo□[ fT□[frfX,ižg—p



^ó□ü,Æ TCP/IP



ft□[fefBfŠfefB,ÆfT□[frfX,iŠftf@fCef“fX



ŠÖ~A□î•ñ

'□ : ,±,ê,ç,ì□€-Ú,ì,κ,ž,ì,č,,Â,©,í□A□uMicrosoft TCP/IP ,lfwf<fv□v^ÈŠO,lfwf<fv ftf@fCf<,đ•\  
Ž!,μ,Ü,·□BTCP/IP ,lfwf<fv ftf@fCf<,É-β,é,É,í□A[fqfXfgfŠ] fEfBf“fhfE,Ä [TCP/IP ,lfwf<fv,ì-ÚŽŸ]  
,đ'l,Ö,©□A,Ü,½,í Microsoft TCP/IP ,lfwf<fv,É-β,é,Ü,Ä [-β,é] f{f^f“ ,đfNfŠfbfN,μ,Ü,·□B

## Microsoft TCP/IP ,lfwf<fv



Microsoft TCP/IP for Windows NT ,iŠT—v



Microsoft TCP/IP ,Æ SNMP ,i'g,Ýž,Ý,Æ\□□⇒



DHCP fT□[fo□[ ,i'g,Ýž,Ý,Æ\□□⇒



WINS

WINS fT□[fo□[ ,i'g,Ýž,Ý,Æ\□□⇒



WINS fT□[fo□[ ,ižg—p,É,Â,č,Ä



WINS fT□[fo□[ ,đ'g,Ýž,č



WINS ,i—~“



Microsoft FTP fT□[fo□[ fT□[frfX,ižg—p



^ó□ü,Æ TCP/IP



ft□[fefBfŠfefB,ÆfT□[frfX,iŠftf@fĈf“fX



ŠÖ~A□i•ñ

'□ : ,±,ê,ç,ì□€-Ú,ì,ı,ž,ì,č,,Â,©,í□A□uMicrosoft TCP/IP ,lfwf<fv□v^ÈŠO,lfwf<fv ftf@fCf<,đ•\ Ž!,μ,Ü,·□BTCP/IP ,lfwf<fv ftf@fCf<,É-β,é,É,í□A[fqfXfgfŠ] fEfBf“fhfE,Ä [TCP/IP ,lfwf<fv,ì-ÚŽŸ] ,đ'l,Ö,©□A,Ü,½,í Microsoft TCP/IP ,lfwf<fv,É-β,é,Ü,Ä [-β,é] f{f^f“ ,đfNfŠfbfN,μ,Ü,·□B



## Microsoft TCP/IP ,lfwf<fv



Microsoft TCP/IP for Windows NT ,iŠT—v



Microsoft TCP/IP ,Æ SNMP ,i'g,Ýž,Ý,Æ\□□→



DHCP f□□[fo□□[ ,i'g,Ýž,Ý,Æ\□□→



WINS f□□[fo□□[ ,i'g,Ýž,Ý,Æ\□□→



Microsoft FTP f□□[fo□□[ f□□[frfX, iŽg—p



^ó□ü,Æ TCP/IP



TCP/IP ^ó□ü,É,Â,č,Ä



TCP/IP ^ó□ü, iŠT—v



TCP/IP ^ó□ü, i, ½, ß Windows NT ,đfZfbfgfAfbfv, : , é



TCP/IP ^ó□ü, i, ½, ß, ÉfvfŠf“f^ ,đ□□→ , : , é



f□□[fefBfŠfefB,Æf□□[frfX, ifŠftf@fÆf“fX



ŠÖ~A□î•ñ

'□ : , ±, ê, ç, i□€-Ú, i, x, z, i, č, , Á, ©, í□A□uMicrosoft TCP/IP ,lfwf<fv□v^ÈŠO,lfwf<fv ftf@fCf<,đ•\ Ži, μ, Ů, ·□BTCP/IP ,lfwf<fv ftf@fCf<,É-ß,é,É,í□A[fqfXfgfŠ] fEfBf“fhfE,Å [TCP/IP ,lfwf<fv, i-ÚŽŸ] ,đ'l, Ō, ©□A, Ů, ½, í Microsoft TCP/IP ,lfwf<fv,É-ß,é,Ů, Å [-ß,é] f{f^f“ ,đfNfŠfbfN, μ, Ů, ·□B

## Microsoft TCP/IP ,lfwf<fv



Microsoft TCP/IP for Windows NT ,iŠT—v



Microsoft TCP/IP ,Æ SNMP ,i'g,Ýž,Ý,Æ\□□⇒



DHCP fT□[fo□[ ,i'g,Ýž,Ý,Æ\□□⇒



WINS fT□[fo□[ ,i'g,Ýž,Ý,Æ\□□⇒



Microsoft FTP fT□[fo□[ fT□[frfX, iŽg—p



^ó□ü,Æ TCP/IP



ft□[fefBfŠfefB,ÆfT□[frfX,lfŠftf@fCef“fX



TCP/IP ft□[fefBfŠfefB,É,Â,č,Ä



TCP/IP ft□[fefBfŠfefB



TCP/IP fT□[frfX



TCP/IP □'ff□[fefBfŠfefB,É,æ,égf%ofuf<Vf...□[fefBf“fO



ŠÖ~A□î•ñ

'□ : ,±,ê,ç,ì□€-Ú,ì,κ,ι,ι,ç,,Á,©,í□A□uMicrosoft TCP/IP ,lfwf<fv□v^ÈŠO,lfwf<fv ftf@fCf<,đ•\  
Ži,μ,Û,·□BTCP/IP ,lfwf<fv ftf@fCf<,É-β,é,É,í□A[faqXfgfŠ] fEfBf“fhfE,Å [TCP/IP ,lfwf<fv,ì-ÚŽŸ]  
,đ'l,Ô,©□A,Û,½,í Microsoft TCP/IP ,lfwf<fv,É-β,é,Û,Å [-β,é] f{f^f“,đfNfŠfbfN,μ,Û,·□B



## Microsoft TCP/IP ,lfwf<fv



Microsoft TCP/IP for Windows NT ,iŠT—v



Microsoft TCP/IP ,Æ SNMP ,i'g,Ýž,Ý,Æ\□□→



DHCP f□□[fo□□[ ,i'g,Ýž,Ý,Æ\□□→



WINS f□□[fo□□[ ,i'g,Ýž,Ý,Æ\□□→



Microsoft FTP f□□[fo□□[ f□□[frfX,iŽg—p



^ó□ü,Æ TCP/IP



f□□[fefBfŠfefB,Æf□□[frfX,iŠftf@fCef“fX



ŠÖ~A□î•ñ



ŠÖ~A□î•ñ,i“üŽè



Windows NT ,i MIB flfufWfFfNfg f^fCfv



LMHOSTS ,i□Ý'è



TCP/IP f□□[frfX,Å,lfpftfH□□[f}f“fX f.fif^,iŽg—p





















































,±,lfŠfŠ□□[fX,i□V,μ,č<@“\

'□ : ,±,ê,ç,i□€-Ú,i,α,ζ,i,ç,,Å,©,í□A□uMicrosoft TCP/IP ,lfwf<fv□v^ÈŠO,lfwf<fv ftf@fCf<,đ•\  
Ži,μ,Ü,·□BTCP/IP ,lfwf<fv ftf@fCf<,É-β,é,É,í□A[faqXfgfŠ] fEfBf“fhfE,Å [TCP/IP ,lfwf<fv,i-ÚŽŸ]  
,đ'I,Ô,©□A,Ü,½,í Microsoft TCP/IP ,lfwf<fv,É-β,é,Ü,Å [-β,é] f{f^f“,đfNfŠfbfN,μ,Ü,·□B

## Microsoft TCP/IP ,ìfwf<fv



-  [Microsoft TCP/IP for Windows NT ,ìŠT—v](#)
-  [TCP/IP for Windows NT ,É,Â,ç,Ä](#)
-  [TCP/IP for Windows NT ,Æ,Í](#)
-  [Microsoft TCP/IP ,ì\□□→v'f](#)
-  [TCP/IP flfbfgf□□\[fN,É,“, ,é Windows NT ,ìfŠf...□\[fvf#f“](#)
-  [TCP/IP ,ìflfbfgf□□\[fNŠT”O](#)
-  [Internet fv□fgfRf<'ìCEn](#)
-  [IP fAfhfCefXŽw'è](#)
-  [DHCP](#)
-  [WINS ,Æ Windows flfbfgf□□\[fN,ì-¼'O%øðCE^](#)
-  [SNMP](#)
-  [TCP/IP ,Æ Windows NT flfbfgf□□\[fN](#)
-  [Microsoft TCP/IP ,Æ SNMP ,ì'g,Ý□ž,Ý,Æ□□□→](#)
-  [TCP/IP ,ì'g,Ý□ž,Ý,É,Â,ç,Ä](#)
-  [Microsoft TCP/IP ,ð'g,Ý□ž,p'O,É](#)
-  [TCP/IP ,ð'g,Ý□ž,p](#)
-  [TCP/IP ,ð□□□→, : ,é](#)
-  [DNS ,ðžg—p, : ,é,½,ß,É TCP/IP ,ð□□□→, : ,é](#)
-  [TCP/IP ,ì□Ú□×flfvfVf#f“ ,ð□Ý'è, : ,é](#)
-  [SNMP ,ð□□□→, : ,é](#)
-  [DHCP fT□\[fo□\[ ,ì'g,Ý□ž,Ý,Æ□□□→](#)
-  [DHCP fT□\[fo□\[ ,ìžg—p,É,Â,ç,Ä](#)
-  [DHCP fNf%ofCfAf“fg fT□\[fo□\[ f,fff<,ìŠT—v](#)
-  [DHCP fT□\[fo□\[ ,ð'g,Ý□ž,p](#)
-  [WINS fT□\[fo□\[ ,ì'g,Ý□ž,Ý,Æ□□□→](#)
-  [WINS fT□\[fo□\[ ,ìžg—p,É,Â,ç,Ä](#)
-  [WINS fT□\[fo□\[ ,ð'g,Ý□ž,p](#)
-  [WINS ,ì—~“](#)
-  [Microsoft FTP fT□\[fo□\[ fT□\[frfX,ìžg—p](#)
-  [FTP fT□\[fo□\[ fT□\[frfX,É,Â,ç,Ä](#)
-  [FTP fT□\[fo□\[ fT□\[frfX,ð'g,Ý□ž,p](#)

-  [FTP fT\[\]fo\[\] fT\[\]\[frfX,ð\[\]\\[\]-\[\],.é](#)
-  [FTP fT\[\]fo\[\] fT\[\]\[frfX,ðŠÇ-\[\],.é](#)
-  [FTP fT\[\]fo\[\] fT\[\]\[frfX,ì\[\]Ú\[\]x,È\[\]\\[\]-\[\]pf%\[\]f\[\]f^](#)
-  [^ó\[\]ü,Æ TCP/IP](#)
-  [TCP/IP ^ó\[\]ü,É,Â,ç,Ä](#)
-  [TCP/IP ^ó\[\]ü,ìŠT-v](#)
-  [TCP/IP ^ó\[\]ü,ì,½,ß Windows NT,ðfZfbfgfAfbfv,.é](#)
-  [TCP/IP ^ó\[\]ü,ì,½,ß,ÉfvfŠf“f^,ð\[\]\\[\]-\[\],.é](#)
-  [C:> ft\[\]\[fefBfŠfefB,ÆfT\[\]\[frfX,ìfŠftf@fÇf“fX](#)
-  [TCP/IP ft\[\]\[fefBfŠfefB,É,Â,ç,Ä](#)
-  [TCP/IP ft\[\]\[fefBfŠfefB](#)
-  [TCP/IP fT\[\]\[frfX](#)
-  [TCP/IP \[\]'fft\[\]\[fefBfŠfefB,É,æ,éfgf%\[\]fuf<fvf...\[\]\[fefBf“fO](#)
-  [ŠÖ~A\[\]î•ñ](#)
-  [ŠÖ~A\[\]î•ñ,ì“üŽè](#)
-  [Windows NT,ì MIB flfufWfFfNfg f^fCfv](#)
-  [LMHOSTS,ì\[\]Ý'è](#)
-  [TCP/IP fT\[\]\[frfX,Å,ìfpftfH\[\]\[f}f“fX f.fjf^,ìŽg-p](#)
-  [,±,ìfŠfŠ\[\]\[fX,ì\[\]V,μ,ç<@“\](#)

'[] : ,±,è,ç,ì[]€-Ú,ì,κ,ζ,ì,ç,,Å,©,í[]A[]uMicrosoft TCP/IP ,ìfwf<fv[]v^ÈŠO,ìfwf<fv ftf@fCf<,ð•\ Žì,μ,Ü,·[]BTCP/IP ,ìfwf<fv ftf@fCf<,É-ß,é,É,í[]A[][fafXfgfŠ] fEfBf“fhfE,Å [TCP/IP ,ìfwf<fv,ì-ÚŽÝ] ,ð'I,Ô,©[]A,Ü,½,Í Microsoft TCP/IP ,ìfwf<fv,É-ß,é,Ü,Å [-ß,é] f{f^f“,ðfNfŠfbfN,μ,Ü,·[]B

## TCP/IP ft [fefBfŠfefB,É,Â,č,Ä

Windows NT TCP/IP ft [fefBfŠfefB,Ä,í [A'¼,lfVfXfef€Ö,ìÚ' ± AfIfbfgf [fNŠÇ— [A,“,æ,Ñfgf %ofuf<fvf... [fefBf“fO,ì,½,ß,ìff'ffvfOf%of€ÆfRfIfNfefBfrefefB fc [f< ,đ'ň<Ÿ,μ,Ä,č,Ü,· [B

## TCP/IP ft [fefBfŠfefB,lfwf<fv,đŽQ [Æ,·,é,É,í

- ▶ fRf}f“fh fvf [f“fvfg,Á [Aping -? ,ì,æ,α,É [ATCP/IP ft [fefBfŠfefB,ì-¼'O,“,æ,Ñ -? ,đ“ü—í,μ,Ü,· [B - ,Ü,½,í -
- 1. fvf [Of%of€ f}f [fWff fOf< [fv,ì [Windows NT ,lfwf<fv] fAfCfRf“,đf\_fuf<fNfŠfbfN,μ,Ü,· [B
- 2. [Windows NT ,lfwf<fv] ,ì-ÚŽŸEfBf“fhfE,Á [Windows NT fRf}f“fh] ,ì%º,ì [fRf}f“fh fŠtf@fCf“fX] ,đf\_fuf<fNfŠfbfN,μ,Ü,· [B
- 3. [fRf}f“fh] fEfBf“fhfE,ÁfRf}f“fh-¼,đfNfŠfbfN,·,é,© [A,Ü,½,í [fRf}f“fh fŠtf@fCf“fX] fEfBf“fhfE,ì [CËŸ [ö] f {f^f“,đfNfŠfbfN,μ [AfL [f [fh,©,čfRf}f“fh-¼,đCËŸ [ö,μ,Ü,· [B

qd—v : **ftp** [Aftpsvc [Arexec [A,“,æ,Ñ **telnet** ft [fefBfŠfefB,í [AfŠf, [fg fRf“fsf... [f^,É,æ,éfpfX [fh“F [Ø,É'S-É^É^ [l,μ,Ä,č,Ü,· [B,± ,é,ç,ìft [fefBfŠfefB,í [Af+ [fU [ ,lfAfjEf“fg-¼,“,æ,ÑfpfX [fh,đfIfbfg [fN,ÉfNfŠfA fefLfXfg,Æ,μ,Ä“n,μ,Ü,· [BfIfbfg [fN fAfif%ofCfU,đ“ö,!,½ft [fU [ ,í [A,Ü,©,ìft [fU [ ,lfŠf, [fg fAfjEf“fg fpfX [fh,đ“üŽè,Á,« ,é%ºÁ^ [ [ ,è,Ü,· [B,±,é,ç,ìft [fefBfŠfefB,ìft [fU [ ,í [AWindows NT ,Éf [OfIf“ ,·,é,Æ,« ,í [AfZfLf...fŠfefB<@“\ ,ì,È,čfIfbfg [fN,Éf [OfIf“ ,·,é,Æ,« ,ÉŽg,Á,½fpfX [fh,Æ““ ,lfpfX [fh,đŽg—p,μ,È,č,æ,α,É,μ,Ä,- ,¾,¾,č [BWindows NT ,“,æ,Ñ LAN Manager fIfbfg [fN,ÁŽg— p,¾,¾,è,é [OfIf“ ,ì,½,ß,lfAfjEf“fg [i•ň,í [AfIfbfg [fN,É'—,ç,è,é'O,É,Ä,È,É^ [t%º» ,¾,è,Ü,· [B


















ŠÖ~A [€-Ú

TCP/IP ft [fefBfŠfefB





TCP/IP ft [frfX

TCP/IP [ffft [fefBfŠfefB,É,æ,éfgf%ofuf<fvf... [fefBf“fO

## TCP/IP fT [fefeBfŠfefB

- |   |  |
|---|--|
|  <u>arp</u>      |  <u>ping</u>    |
|  <u>finger</u>   |  <u>rcp</u>     |
|  <u>ftp</u>      |  <u>rexec</u>   |
|  <u>hostname</u> |  <u>route</u>   |
|  <u>ipconfig</u> |  <u>rsh</u>     |
|  <u>lpq</u>      |  <u>telnet</u>  |
|  <u>lpr</u>      |  <u>tftp</u>    |
|  <u>nbtstat</u>  |  <u>tracert</u> |
|  <u>netstat</u>  |  |

## TCP/IP fT [frfX

-  net start lpdsvc
-  net start netbt
-  net start snmp
-  net start tcpip

## TCP/IP for Windows NT ,É,Â,ç,Ä

Microsoft TCP/IP for Windows NT ,É,æ,æ,±,»□B

TCP/IP (Transmission Control Protocol/Internet Protocol; “`—□§CEäfvf□fgfRf</fCf“f^□[flfbfg fvf□fgfRf<)  
,Í□A‘ŠCEÝ,É□Ú±,³,ê,½flfbfgf□□[fNŠÔ,ì‘É□M,ð%oÅ“\,É,·,éflfbfgf□□[fN fvf□fgfRf<,Å,·□B,±,lfwf<fv  
ftf@fCf<,Í□AMicrosoft Windows NT flfyfCE□[fefBf“fOjVfXfef€,ðŽÀ□s,·,éfRf“fsf...□[f^□ä,Å,ì Microsoft  
TCP/IP ,ì‘g,Ý□ž,Ý□A□\□-□A,“ ,æ,Ñfgf%ofuf<fvf...□[fefBf“fO,ì•û-@,É,Â,ç,Ä□à-¾,µ,Ä,ç,Ü,·□B,Ü,½□ATCP/IP  
ft□[fefBfŠfefB,ì□à-¾□A,“ ,æ,Ñ FTP (File Transfer Protocol; ftf@fCf<“]’—fvf□fgfRf<)  
ft□[fo□[ ft□[frfX□ATCP/IP ^ó□ü□ASNMP (Simple Network Management Protocol; ŠÉ^Öflfbfgf□□[fNŠÇ—  
□fvf□fgfRf<) ft□[fefBfŠfefB,È,Ç□A,» ,ì,Ü,©,ì TCP/IP ft□[frfX,ì‘g,Ý□ž,Ý,ÆŽg,ç•û,É,Â,ç,Ä,à□à-¾,µ,Ä,ç  
,Ü,·□B

,±,lfwf<fv,Í□AMicrosoft Windows NT flfyfCE□[fefBf“fO jVfXfef€,ð—□%oð,µ,Ä,ç,éft□[fU□[ ,ð‘z‘è,µ,Ä,ç  
,Ü,·□B,±,ì□»•i,É,Â,ç,Ä□•²,É—□%oð,³,ê,Ä,ç,È,ç□è□‡,Í□AMicrosoft Windows NT ,lf}jff...fAf<,ðŽQ□Æ,µ,Ä,-  
,¾,³,ç□B

TCP/IP ,Í□A‘½—l,Èfn□[fhfEfFfA fA□[flLfefNf`ff,ÆflfyfCE□[fefBf“fO jVfXfef€,ðŽ□,ÅfRf“fsf...□[f^ ,©,ç□  
□- ,³,ê,é□A‘ŠCEÝ,É□Ú±,³,ê,½flfbfgf□□[fNŠÔ,ì‘É□M,ð%oÅ“\,É,·,éflfbfgf□□[fN fvf□fgfRf<,Å,·□BTCP/IP  
,Í□AWindows NT ŠÔ,ì‘É□M,ÉŽg—p,Å,« ,é,¾, -, Å,È,□A,Ü,©,ì Microsoft flfbfgf□□[fN□»•i,ðŽg—  
p,·,é<@Ší,à□AUNIX ,È,Ç Microsoft □»•i,Å,ì,È,çVfXfef€,Æ,ì‘É□M,ÉŽg—p,·,é,±,Æ,à,Å,« ,Ü,·□B

ŠÖ~A□€-Ú

TCP/IP for Windows NT ,Æ,Í

Microsoft TCP/IP ,ì□\□-v‘f

TCP/IP flfbfgf□□[fN,É,“ , ,é Windows NT ,lfŠf...□[fvf†f“

## TCP/IP for Windows NT ,Æ,Í

TCP/IP fvf[]fgfRf< ftf@f~fŠ,Í[]Aflfbfgf[]fN[]ä,lfRf“fsf...[]f^ŠÔ,Áff[]f^,ª,Ç,ì,æ,ª  
,É“n,³,è,é,©,ð[]\$CEà,·,éflfbfgf[]fN,ì<K'¥[]A,·,É,í,¿fvf[]fgfRf<,ì•W[]€fZfbfg,Á,·[]BTCP/IP ,Í[]AInternet ,ì[]Ú'±  
,ÉŽg—p,³,è,Ä,ç,Û,·[]BInternet ,Í[]A[]çŠE“Í,É<K-Í,lfCf“f^[]flfbfgf[]fN,Á, ,è[]A200 -  
æ,ð' ,ì,é'âŠw[]ACEª<†Š[]A•Ä[]',ì-h%oqZ{[]Y[]A,“ ,æ,ÑŠé<Æ,ð[]Ú'±,μ,Ä,ç,Û,· (,±,ì[]çŠE<K-  
Í,lfCf“f^[]flfbfgf[]fN,ðŽw,·,Æ,«,Í[]A[]gInternet[]h,Æ•\<L,μ,Û,·)[]B,±,ì Internet  
,Æ“ ,¶lfvf[]fgfRf<€EQ,ð[]A•;[]",lf[][]fj< fGfŠfA flfbfgf[]fN,ð[]Ú'±,·,évf  
%ofCfx[]fg,ÉfCf“f^[]flfbfgf[]fN,ÉŽg—p,·,é,±,Æ,ª,Ä,«,Û,·[]B

Microsoft TCP/IP for Windows NT ,Æ Windows NT fx[]fX,lfRf“fsf...[]f^,ð~—p,·,é,±  
,Æ,É,æ,è[]AŠé<Æflfbfgf[]fN,ì[]\z,ª%oÄ“\,É,È,è,Û,·[]BWindows NT ,ì[]\[]~É TCP/IP ,ð%oÄ,ì,é,±,Æ,É,æ,é  
—~“ ,ì[]AZÿ,ì,æ,ª,È,à,ì,Ä,·[]B

- TCP/IP ,Í[]A[]Ä,àŠ@[]~ ,μ•<y,μ,Ä,ç,é[]A•W[]€,lf<[]f[]efBf“fo%oÄ“\,ÉŠé<Æflfbfgf[]fN  
fvf[]fgfRf<,Á,·[]BCE»'â“Í,ÉflfyfC[]f[]efBf“fo fVfXfef€,Í,·,x,Á[]ATCP/IP ,ðftfj[]fg,μ,Ä,“ ,è[]A,Û,Æ,ñ,Ç,ì'â<K-  
Íflfbfgf[]fN,ª[]Aflfbfgf[]fN fgf%oftfBfbfN,ì'½,,ì”•ª,ð TCP/IP ,É^É'¶,μ,Ä,ç,Û,·[]B
- ^ÚžifVfXfef€,É[]Ú'±,·,é<Z[]p,ª'ñ<ÿ,³,è,Û,·[]B^ÚžifVfXfef€ŠÔ,Áff[]f^,ÉfAfnfzfx,μ[]A“]’—,Á,«,é'½,-  
,ì•W[]€[]Ú'±ft[]f[]efBfŠfefB,ð~—p,Á,«,Û,·[]B,±,è,É,Í[]A,½,Æ,ì,Í[]AFTP (File Transfer Protocol; ftf@fCf<“]’—  
fvf[]fgfRf<) ,â Telnet (Terminal Emulation Protocol; ‘[—fGf~f...fC[]fVf#f“ fvf[]fgfRf<)  
,É,Ç,ª, ,è,Û,·[]BWindows NT ,É,Í[]A,ç,,Á,©,ì•W[]€ft[]f[]efBfŠfefB,ªŠÛ,Û,è,Ä,ç,Û,·[]B
- CE~S,Áfxfp[]f%ofuf<,É[]Afnf[]fxfvf%ofbfgftfH[]f€,ðftfj[]fg,·,éfnf%ofCfAf“fg  
ft[]fo[] ftfC[]f[]f[]fN,Á,·[]BMicrosoft TCP/IP ,Í[]AWindows Sockets 1.1 fCf“f^[]ftfFfCfX,ðftfj  
[]fg,μ,Û,·[]BWindows Sockets fCf“f^[]ftfFfCfX,Í[]Afnf%ofCfAf“fg ft[]fo[] fAfvfŠfp[]fVf#f“ ,ÍŠ]” ,É—  
[]z“Í,ÉfCf“f^[]ftfFfCfX,Á,·[]B,±,è,É[]€<’ ,·,éfAfvfŠfp[]fVf#f“ ,Í[]Aft[]fh fp[]f[]efB,ì Windows Sockets  
[]€<’ ,lfxf^fbfN,Æ,Æ,à,ÉŽÄ[]s,Á,«,Û,·[]B,³,ç,É[]A,» ,ì,Û,© ,lffbfgf[]fN fvf[]fgfRf<[]A,½,Æ,ì,Í[]AMicrosoft  
NWLink ,É,Ç,à~—p,·,é,±,Æ,ª,Ä,«,Û,·[]BWindows Sockets ,Í[]A'½,,lfpfufŠfbfN fhf[]fCf“ ,ì Internet  
fc[]f<,ÁŽg,ì,è,Ä,ç,Û,·[]B
- Windows NT ,ð[]çŠE<K-Í,ì Internet  
,É[]Ú'±%oÄ“\,É,·,é,½,ß,É•K—v,É<Z[]p,ª'ñ<ÿ,³,è,Û,·[]BTCP/IP[]APPP[]A,“ ,æ,Ñ Windows Sockets ,Í[]AInternet  
ft[]f[]fx,É[]Ú'±,μ,ÄŽg—p,·,é,½,ß,É•K—v,ÉŠì“Ô,ð'ñ<ÿ,μ,Û,·[]B

**Microsoft TCP/IP ,ì\ -v'f**

Microsoft TCP/IP ,É,í\Aflfbfgf\fn fvf\fgfRf<,ìŽÀ'•,É•K—v,È—v'f,ª,·,x,ÄŠÜ,Ü,è,Ä,ç,Ü,·\B,±,è,ç,ì—v'f,É,í\AŽÿ,ì,æ,ª,È,à,ì,ª,è,Ü,·\B

▪ fRfA TCP/IP fvf\fgfRf<\B,±,è,É,í\ATCP (“`—\CEäfvf\fgfRf<)\AIP (fCf“f^[\flfbfg fvf\fgfRf<)\AUDP (ft\fu\ f\ f^fOf%œ fvf\fgfRf<)\AARP (fAfhfCEfX%œ` fvf\fgfRf<)\A,“,æ,ÑICMP (fCf“f^[\flfbfg\CEäfbfZ[\fw fvf\fgfRf<),ªŠÜ,Ü,è,Ü,·\B,±,ìfCf“f^[\flfbfg fvf\fgfRf<CEQ,í\AfRf“fsf... [\f^,ì'É\m•ù-@,Æflfbfgf\fn,ì\U'±•ù-@,ì•W\œ,đ'ñ<ÿ,µ,Ü,·\B,Ü,½\APPP,“,æ,Ñ SLIP (Serial-Line IP; fVfŠfAf<%ñ\ù IP),àfTf\[\fg,ª,è,Ä,ç,Ü,·\B,±,è,ç,ì\AInternet,đŠÜ,p TCP/IP flfbfgf\fn,Ö,ìf\_fCf,,f<fAfbfv\U'±,ÉŽg—p,µ,Ü,·\B

▪ fAfVfŠfP\fvf#f“ fCf“f^[\ftfFfCfX,ìfTf\[\fg\B,±,è,É,í\Aflfbfgf\fn fvf\fgfRf<~f“fO,ì,½,ß,ì Windows Sockets 1.1\AfVfXfef€ŠÖ'É\m,ì,½,ß,ì RPC (fŠf, [\fg fvf\fv\fwff fR\[\f<)\Aflfbfgf\fn\ä,ì~—¼,ÆfZfbfVf#f“,đSm—š,·,é,½,ß,ì NetBIOS\A,“,æ,ÑfhfLf...f\“fg,É-,,ß\ž,Ü,è,½\i•ñ,đflfbfgf\fn,đ'É,¶,Ä<ª—L,·,é,½,ß,ìflfbfgf\fn DDE (“@“ìf\[\f^CEđŠ:),ªŠÜ,Ü,è,Ü,·\B

▪ Šì-{"ì,É TCP/IP \U'±fAfVfŠfP\fvf#f“\B,±,è,É,í\Afinger\Aftp\Alpr\Arcp\Aexec\Arsh\Aatlnet\A,“,æ,Ñ tftp,ªŠÜ,Ü,è,Ü,·\B,±,è,ç,ìft\[\fefBfŠfefB,É,æ,è\AWindows NT,ìft\[\fu\[\ì\AUNIX fRf“fsf...[\f^,É,Ç,ì\AMicrosoft \»•ì,Ä,ì,É,çfzXfg,Æ'ì“b\^—\,µ\A,»,ìfzXfg\ä,ìŽ'CE¹,đŽg—p,Ä,«,Ü,·\B

▪ TCP/IP \f'ffc\[\f<\B,±,è,É,í\Aarp\Ahostname\Aipconfig\Alpq\Anbtstat\Anetstat\Aping\Aroute\A,“,æ,Ñ tracert,ªŠÜ,Ü,è,Ü,·\B,±,è,ç,ìft\[\fefBfŠfefB,ì\ATCP/IP flfbfgf\fn,ì-à'è,ìCEÿ\o,Æ%œ`CE^,ÉŽg—p,Ä,«,Ü,·\B

▪ SeŽifT\[\frX,ÆŠÖ`AŠÇ—\fc\[\f<\B,±,è,É,í\AfŠf, [\fg fRf“fsf...[\f^ŠÖ,Åftf@fCf<,đ“ì—,·,é,½,ß,ì FTP ft\[\fo\[\ ft\[\frX\AfCf“f^[\flfbfgf\fn\ä,ÅfRf“fsf...[\f^¼,đ“@“ì,É“o~^,“,æ,Ñ\Æ%i,·,é,½,ß,ì WINS (Windows fCf“f^[\flfbfg fl\[\f€ ft\[\frX)\AWindows NT fRf“fsf...[\f^ä,Ä TCP/IP,đŽ“@“ì,É\ - ,·,é,½,ß,ì DHCP (“@“ìfzXfg\ -fvf\fgfRf<) ft\[\frX\A,“,æ,Ñ UNIX fRf“fsf...[\f^,É\U'±,ª,è,Ä,ç,èfvfŠf“f^,Ü,½,ì TCP/IP CEo—R,Åflfbfgf\fn,É'¼\U\U'±,ª,è,Ä,ç,èfvfŠf“f^,ÉfAfNfzXfX,·,é,½,ß,ì TCP/IP ^ó\ùft\[\frX,ªŠÜ,Ü,è,Ü,·\B

▪ SNMP (ŠÉ^Öflfbfgf\fnŠÇ—\fvf\fgfRf<) fG\[\fwff“fg\B,±,è,ì\ -v'f,đŽg,ª,Æ\ASun Net Manager,Ü,½,ì HP Open View,É,Ç,ìŠÇ—\fc\[\f<,É,æ,Ä,Ä\AWindows NT fRf“fsf...[\f^,đfŠf, [\fg,ÄŠÇ—\,·,é,±,Æ,ª,Ä,«,Ü,·\B,Ü,½\ASNMP,đŽg,Ä,Ä DHCP ft\[\fo\[\,Æ WINS ft\[\fo\[\,đŠÄŽ<,“,æ,ÑŠÇ—\,·,é,±,Æ,à,Ä,«,Ü,·\B

▪ ŠÉ^Öflfbfgf\fn fvf\fgfRf<,ì,½,ß,ìfNf%œCfAf“fg f\ftfgfEfffA\B,±,è,É,í\ACharacter Generator (•¶Žš\¶\ -)\ADaytime (“úŽž)\ADiscard (“pŠù)\AEcho (fGfR\[\)\A,“,æ,Ñ Quote of the Day (“úŽ\),É,Ç,ªŠÜ,Ü,è,Ü,·\B,±,è,ç,ìfvf\fgfRf<,É,æ,è\AWindows NT fRf“fsf...[\f^,ì\A,±,è,ç,ìfvf\fgfRf<,đfTf\ [\fg,µ,Ä,ç,è,Ü,©,ìfvfXfef€,©,ç,ì—v<\,É%ž,ì,é,±,Æ,ª,Ä,«,Ü,·\B,±,è,ç,ìfvf\fgfRf<,đ'g,ÿ\ž,ß,Æ\A\ systemroot\SYSTEM32\DRIVERS\ETC fffBfCEfNfgfŠ,ÉfTf“fvf< QUOTES ftf@fCf<,à'g,ÿ\ž,Ü,è,Ü,·\B

Žÿ,ì\},ì\AMicrosoft TCP/IP ,ìŠì-{\ -v'f,Æ\AMicrosoft ,à,Ü,©,ìŠj“ŽÖ,ª'ñ<ÿ,µ,Ä,ç,éŠeŽì,ì'Ç %œ\AfVfŠfP\fvf#f““,æ,Ñ\U'±ft\[\fefBfŠfefB,đŽì,µ,Ä,ç,Ü,·\B

**Microsoft TCP/IP: ŠìŠ<Z\p,ÆfT\[\fh fp\[\fefB,É,æ,é•t%œÁ**





- 1042 IP over Token Ring
- 1055 Transmission of IP over Serial Lines (IP-SLIP)
- 1112 Internet Gateway Multicast Protocol (IGMP)
- 1122, 1123 Host Requirements (communications and applications)
- 1134, 1548 Point to Point Protocol (PPP)
- 1144 Compressing TCP/IP Headers for Low-Speed Serial Links
- 1157 Simple Network Management Protocol (SNMP)
- 1179 Line Printer Daemon Protocol
- 1188 IP over FDDI
- 1191 Path MTU Discovery
- 1201 IP over ARCNET
- 1231 IEEE 802.5 Token Ring MIB (MIB-II)
- 1332 PPP Internet Protocol Control Protocol (IPCP)
- 1334 PPP Authentication Protocols
- 1533 DHCP Options and BOOTP Vendor Extensions
- 1534 Interoperation Between DHCP and BOOTP
- 1541 Dynamic Host Configuration Protocol (DHCP)
- 1542 Clarifications and Extensions for the Bootstrap Protocol (BOOTP)
- 1547 Requirements for Point to Point Protocol (PPP)
- 1549 PPP in HDLC Framing
- 1552 PPP Internetwork Packet Exchange Control Protocol (IPXCP)
- 1553 IPX Header Compression
- 1570 Link Control Protocol (LCP) Extensions
- Draft RFCs NetBIOS Frame Control Protocol (NBFCP); PPP over ISDN; PPP over X.25; Compression Control Protocol

,±,lfjofWfjf“,i Windows NT ,i Microsoft TCP/IP ,É,íATCP/IP Ú‘± (fRfNfBfrfB)  
ftBfŠfB,İŠ@‘S,ĚZfbfgANFS (flbfgfN ft@fCf< fVfXfef€) fTf[fA,“,æ,Ñ **routed** ,â  
**telnetd** ,È,Ç,ì TCP/IP fTfo[ fT[fX (ff[f,““),İŠÜ,Ü,è,Ä,ç,Ü,<sup>1</sup>,ñB,±  
,İŽí,lfAvfŠfP[fVfjf“,âftBfŠfB,İ½,,íAfpufŠfbfN fhfCf“,âfT[fh fpB,©,ç“üŽè,·,é,±  
,Æ,<sup>a</sup>,Ä,«,Ü,·B

## TCP/IP flfbfgf [fN,É," , ,é Windows NT ,lfvŠf... [fVf#f“

“]’—fvf [fgfRf<,Æ,μ,Ä TCP/IP ,đŽg—p, ,é,Æ [AWindows NT fRf“fsf... [f^, íA, Ù, ©, lffbfgf [fN f\ ftfgfEfffA,đ’Ç%Á, ,é,±,Æ,È, [AŽí—p, ì^Ù,È,éfvfXfef€ ,Æ’Ê [M, ,é,±,Æ,ª,Ä,«, Ù, · [BMicrosoft TCP/IP , í [AWindows NT , ì,», ì, Ù, ©, ì<@“\,Æ’g,Ý [‡, í,¹,é,±,Æ,É,æ,è [A’½,, lfvf%fbfgftfH [f€ [ă,ÉŽí— p, ì^Ù,È,éfvfXfef€ ,ÆfvftfgfEfffA,ª [— [Y, ,éŠé<Æflfbfgf [fN,É [AfXfP [f%ofuf<,ÈfvŠf... [fVf#f“ ,đ’ñ<Y,μ,Û, · [B

,±,±,Ä, í [AWindows NT ,Æ TCP/IP ,ª [A,Ç, ì,æ,ª,ÉŠé<Æflfbfgf [fN,ÉfvŠf... [fVf#f“ ,đ’ñ<Y,μ,Ä,ç,é,©,É,Ä,ç ,Ä [à-¾,μ,Û, · [B

TCP/IP ,đŽg,Á,ÄfXfP [f%ofuf<,È Windows flfbfgf [fN,đ [v’z, ,é

TCP/IP ,đŽg,Á,Ä Internet ,É [Ú’±, ,é

^ÙŽíf [fbfgf [fN, ì,½,ß,É TCP/IP ,đŽg—p, ,é

fT [fh fp [fefB [»fvftfgfEfffA,Æ,Æ,à,É TCP/IP ,đŽg—p, ,é



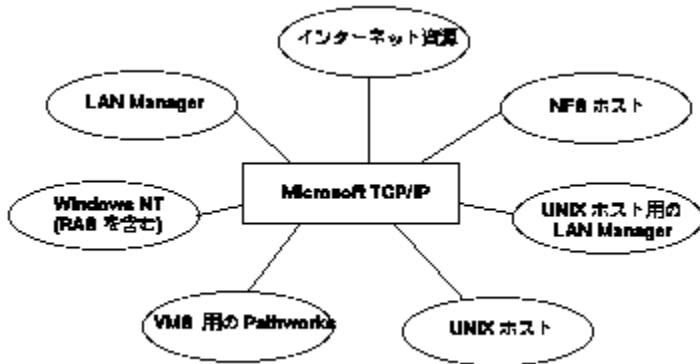
## TCP/IP ,đŽg,Á,Ä Internet ,ÉÚ'±,·,é

Microsoft TCP/IP for Windows NT ,É,ÍAftpArshA,,"æ,Ñ telnet ,È,ÇA'½,-  
 ,ì'è"É"l,ÈÚ'±fAfvfŠfP[fVf#f",aŠÜ,Ü,è,Ä,ç,Ü,·B,±,è,ç,ìfAfvfŠfP[fVf#f",íAInternet ã,â^ÜŽifVfXfef€  
 ,Æ,ìŠÖ,ÅAftf@fCf<"l'—AfvfŠf,[]fg fvf[]ZfXŽÀ[]s[]A,,"æ,Ñ'ÉM'[-fGf~f...fÇ[]fVf#f",È,Ç,đTf[]  
 []fg,μ,Ü,·B






,±,ì,Ü,©,É,àAGopher ,â NCSA Mosaic ,È,ÇÇæçŽÒ,â^è"É,ìft[]fU[][,a[][]-,μ,½A'½,,ì TCP/IP  
 fAfvfŠfP[fVf#f",a ,è,Ü,·B,±,è,ç,íA16 frfbfg,"æ,Ñ 32 frfbfg Windows  
 fx[]fX,ìfAfvfŠfP[fVf#f",Æ,μ,ÄAfpufŠfbfN fhf[]fCf",âft[]fh fp[]fB,©,ç"üŽè,Ä,«,Ü,·B,±  
 ,è,ç,ìfAfvfŠfP[fVf#f",íAWindows Sockets 1.1 <KŠi,É€',μ,Ä,ç,è,ì Windows NT ,ÆÇYŠ·[]«,a ,è,Ü,·B,±  
 ,è,ç,ìfAfvfŠfP[fVf#f",íAŠi-{"l,Èf[]fbfg[]fN[][]-v'f,¾,¯,ÄAfpufŠfbfN fhf[]fCf",ìf...[]fA,Æ Internet  
 Ž'ÇE',ÉfAfNfZfX,·,éAfvfŠfP[fVf#f",đŽg,çAWindows NT frf"fsf...[]f^,đ<-í,È Internet fNf  
 %ofCfAf"fg,Æ,μ,Ä" @[][,³,¹,Ü,·B

LPR ,â Gopher ,È,Ç,ìfpufŠfbfN fhf[]fCf",ì Windows fx[]fX,ìft[]fBfŠfefB,íAInternet ã,â,ì  
 ftp.cica.indiana.edu ,ì /pub/win3/nt fffBfÇfNfgfŠ,Ü,½,í /pub/win3/winsock  
 fffBfÇfNfgfŠ,©Aftp.cdrom.com ,ì"·,ìfffBfÇfNfgfŠ,Ä"üŽè,Ä,«,Ü,·B

## Microsoft TCP/IP fr[]fNfefBfrfefB



Windows NT ,É%Á,ì,ÄA,Ü,Æ,ñ,Ç,ìÇ»'ã"l,Èf[]fyfÇ[]fBf"fo fVfXfef€,a TCP/IP fvf[]fgfRf<,đTf[][]fg,μ,Ä,ç  
 ,é,ì,ÄA^Ü,È,éŽí-p,ìfVfXfef€,a[]-[]Y,·,éCf" f^[]f[]fbfg[]fN,Ä,àAŠÈ'P,Èf[]fbfg[]fN  
 fAfvfŠfP[fVf#f",âft[]fBfŠfefB,đŽg,Á,ÄA[]f·ñ,đ<æ-L,·,é,±,Æ,a,Ä,«,Ü,·BTCP/IP ,đÚ'±fVf[]fgfRf<,ÉŽg  
 -p,·,é,ÆAWindows NT ,ÆŽY,ÉŽ!,·,æ,æ,È'½[]",ì'¼fVfXfef€,Æ,ì'ÉM,a%Á"\\,É,È,è,Ü,·B

-  Internet fzfXfg
-  UNIX fVfXfef€
-  Apple Macintosh fVfXfef€
-  Open VMS fVfXfef€
-  f[]fbfg[]fN,É'¼ÚÚ'±,³,è,½f[]fbfg[]fN fAf\_fvf^,đ"ö,ì,½vfŠf" f^



**ft [fh fp [fefB] » f ftfgfE fFA,Æ,Æ,à,É TCP/IP ,ðŽg—p,·,é**

TCP/IP, í A^ Û Ž í f b f g f [fN,É, ", - ,é < x' Ê Š í" Ö, Å, · B, » , μ, Ä A Windows Sockets , í A f A f v f Š f P [fV f # " Š ]" - Ž Ö, ð Ž g—p, · , é • W € f C f " f ^ [ f t f f C f X, Å, · B, ±, è, ç, ð è ' í, Æ, È, Å, Ä A f N f [f X f v f % o f b f g f t f H [f € f N f % o f C f A f " f g f T [f o [ Š ]" , ì, ½, ß, ì f t f C E [f € f [f N, ð \ [ - , μ, Ü, · B f T [fh fp [fefB, ì f [f [ , ð Š ]" , μ, ½ Windows Sockets , ì < K Š i, É € < ' , · , é TCP/IP f A f v f Š f P [fV f # " , í A C E ' ¥, Æ, μ, Ä A, Ç, ì, æ, x, È Ž À ' • C E ' Ô, ì TCP/IP [ ã, Å, à Ž À [s, Å, «, Ü, · B

Æ » [ Y [ A 30 , ð ' , , é f [f [ , ð Š ]" , μ, ½ Windows f x [f X, ì TCP/IP f t [fefB f Š f e f B, ð A Windows Sockets < K Š i, Æ, ì C E Y Š · [ «, ð Š m " F, ð, è, Å, ç, Ü, · B

, ±, è, É, í A X Window System —p, ì f T [fh fp [fefB] » f A f v f Š f P [fV f # " [ A [ Å V, ì ' [ - - f G f ~ f ... f C E [fV f # " f f t f g f E f f A [ A N F S ( f N f % o f C f A f " f g, ", æ, Ñ f T [f o [ ] [ A " d Ž q f [f < f p f b f P [f W, È, Ç, ð Š Ü, Ü, è, Å, ç, Ü, · B Windows NT , í 16 f r f b f g Windows Sockets , Æ, ì C E Y Š · [ «, ð ' ñ < Ÿ, μ, Å, ç, é, ì, Å A Windows 3.x — p, É [ - [ - , ð, è, ½ A f v f Š f P [fV f # " , í A [ C [ ð, ð A f R f " f p f C f < , ð [s, í, È, , Å, à Windows NT [ ã, Å Ž À [s, · , é, ± , Æ, ð, Å, «, Ü, · B

, ½, Æ, ì, í A X Window —p, ì f T [fh fp [fefB] » f A f v f Š f P [fV f # " , Å, í A X Window f T [f o [ [ A f f [f ^ f x [f X f T [f o [ [ A, ", æ, Ñ ' [ - - f G f ~ f ... f C E [fV f # " , É, æ, Å, Ä A C E ø % o É " í, È [ U ' ± f v f Š f ... [fV f # " , ð ' ñ < Ÿ, μ, Å, ç, Ü, · B, ± , ì, æ, x, È f A f v f Š f P [fV f # " , ð Ž g—p, · , é, Æ [ A ' P ^ è, ì f v f X f e f € [ ð, Å A Windows NT [ A Windows 3.1 [ A, ", æ, Ñ M S - D O S —p, É [ - [ - , ð, è, ½ A f v f Š f P [fV f # " , Æ, ì C E Y Š · [ «, ð • Ü, ÿ, è, ð, ç [ A Windows NT f R f " f s f ... [f ^ , ð X Window f T [f o [ [ f v f % o f b f g f t f H [f € , Æ, μ, Å Ž g—p, · , é, ±, Æ, ð, Å, «, Ü, · B, Ü, ½ [ A, Ü, ©, ì f T [fh fp [fefB] » f f t f g f E f f A, ì ' t, É, í A Windows NT —p, ì X Window f N f % o f C f A f " f g f % o f C f u f % o f Š , È, Ç, ð Š Ü, ñ, ¾, à, ì, ð, , è, Ü, · B, ±, ì, æ, x, È f % o f C f u f % o f Š , ð Ž g, x, ±, Æ, É, æ, è [ A Š ]" Ž Ö, í A X Window f T [f o [ [ f v f X f e f € [ ð, Å f Š f, [f g, È Ž À [s, Æ • \ Ž , ð [s, ì, é [ A X Window f N f % o f C f A f " f g f A f v f Š f P [fV f # " , ð Windows NT [ ã, Å [ - [ - , · , é, ±, Æ, ð, Å, «, Ü, · B





## ŠÖ~Aŋî•ñ,ì“üŽè

Microsoft , ©, ç, ì•W€“l, ÈfTf[]fg, ì, Ù, ©, É[]AInternet , Á, à Windows NT , ìŋî•ñ, ð“üŽè, , é, ±, Æ, ð, Á, «, Ü, ·[]B  
'[] : , ±, ìfT[]fX, ð—~—p, ·, é, É, í[]AfRf“fsf...[]f^, ð Internet , É[]Ú'±, µ, Ä, ç, È, ¯, ê, î, È, è, Ü, ¹, ñ[]B

## Internet , Á Windows NT , ìZpŋî•ñ, ð“üŽè, , é, É, í



**ftp** , ð<N“® , µ[]Amicrosoft.com , É[]Ú'±, µ, Ü, ·[]B

, ±, ìfT[]fX, Á, í[]AWindows NT , ì“½-¼ FTP (anonymous FTP) , ðŽg, Á, Ä[]AŠeŽí, ì US “Á, ì Microsoft  
fVfXfef€[]»•i, ÉŠÖ, , é•ŋ[]Af[]fBfŠfefB[]A, ” , æ, Ñ[]Á[]Vfhf%ofCfo, È, Ç, ìŋî•ñ, ð'ñ<Ÿ, µ, Ä, ç, Ü, ·[]B

TCP/IP , ÉŠÖ, , é, æ, è[]Ú[]x, È<Zpŋî•ñ, É, Á, ç, Ä, í[]AZŸ, ì•ŋ[]CE£, ðŽQ[]Æ, µ, Ä, , ¾, ¾, ç[]B

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## TCP/IP ,ì'g,Ýž,Ý,É,Â,ç,Ä

,±,±,Ä,ÍAWindows NT ,ðŽÀs,·,éRf“fsf...[]f^,É TCP/IP ,Æ SNMP fT[]fxfX,ð'g,Ýž,ÝAfvf[]fgfRf<,ð\ []-,·,é•û-@,É,Ä,ç,Äà-¾,μ,Û,·B

TCP/IP fvf[]fgfRf< ftj@f~fŠ,ÍA[],'-fZfbfgfAfbfv,Ä,ÍAWindows NT flfyfCE[]fBf“fo fVfXfef€ ,ì^è•”,Æ,μ,Ä'g,Ýž,Û,è,Û,¹,ñB,±,±,Ä,ÍAWindows NT ,Í,·,Ä,ÉfRf“fsf...[]f^,É[]í,É'g,Ýž,Û,è,Ä,ç ,é,Æ'z'è,μ,Ä,ç,Û,·B

'[] : TCP/IP ,Æ SNMP ,ð'g,Ýž,ñ,Ä[]- ,ðs,κ,É,ÍAAdministrators fOf<[]fv,lf[]f“fo[][,Æ,μ,Äf[]Of[]f“,μ,È,¯,è,Î,È,Û,¹,ñB

ŽÝ,ì[]€-Û,É,Ä,ç,Äà-¾,μ,Û,·B



Microsoft TCP/IP ,ð'g,Ýž,p'O,É



TCP/IP ,ð'g,Ýž,p



TCP/IP ,ð[]- ,·,é



DNS ,ðŽg-p,·,é,½,ß,É TCP/IP ,ð[]- ,·,é



TCP/IP ,ìÚ[]xflfvfVff“,ðÝ'è,·,é



SNMP ,ð[]- ,·,é





## Windows NT TCP/IP 'g,Ýž,ÝfjfvfVfj'

### TCP/IP Internetworking fvfjfgfRf

TCP/IP fvfjfgfRf ATCP/IP ä, NetBIOS ,Æ Windows Sockets fCf^ [ftfFfCfX A, ,æ, Ñ TCP/IP [f^ft [fefBfŠfefB, ð'g, Ýž, Ý, Ü, ·B, ±, ê, ç, Ì—v'f, ÍŽ © " @ " I, É'g, Ýž, Ü, ê, Ü, ·B

### Ú'±ft [fefBfŠfefB

TCP/IP Ú'±ft [fefBfŠfefB, ð'g, Ýž, Ý, Ü, ·B, ±, jfjfvfVfj', ð'í'ð, ·, é, Æ A Ú'± (connectivity) ft [fefBfŠfefB, ð'g, Ýž, Ü, ê, Ü, ·B

### SNMP ft [frfX

SNMP ft [frfX, ð'g, Ýž, Ý, Ü, ·B, ±, jfjfvfVfj', ð'í'ð, ·, é, Æ ASun Net Manager ,â HP Open View ,È, Ç, ÍŠÇ —fc [f, ðŽg, Á, Ä A, ±, jfRf'fsf... [f^, ðfŠf, [fg, ÁŠÇ—, ·, é, ±, Æ, ð, Á, «, Ü, ·B, Ü, ½ A, ±, jfjfvfVfj', ð'í'ð, ·, é, Æ AfpftfH [f} f'fX f, jfj^, ðŽg, Á, Ä ATCP/IP ft [frfX, Ì" CEv ð'ñ, ðŠŽž, ·, é, ±, Æ, à, Á, «, Ü, ·B

### TCP/IP flfbfgf [fN^óüTf [fg

, ±, jfRf'fsf... [f^, í ATCP/IP flfbfgf [fN ä, jfvfŠf'f^, ©, ç'¼ Ú^óü, Á, «, é, æ, x, É, È, è, Ü, ·B, ±, jfjfvfVfj', í A UNIX ^óü'Ö, Ìs—ñ, â Afjfbfgf [fN, É'¼ ÚÚ'±, ð, é, Ä, ç, é TCP/IP fvfŠf'f^, É^óü, µ, ½, ç, ê, ð, É'í'ð, µ, Ü, ·B, Ü, ½ A UNIX fRf'fsf... [f^, ð Windows NT fvfŠf'f^, É— í, Á, «, é, æ, x, È Lpdsrv ft [frfX, ðŽg—p, ·, é, ê, ð, í A, ±, jfjfvfVfj', ð'g, Ýž, Ü, È, ·, é, í, È, è, Ü, ð, ñ B

### FTP ft [fo [ ft [frfX

, ±, jfRf'fsf... [f^, Ì ft [fCf, ð AFTP ,Æ TCP/IP , ðTf [fg, µ, Ä, ç, é, Šf, [fg fRf'fsf... [f^ ("Á, É UNIX ,È, Ç Microsoft , jfjfbfgf [fN »·i, ðŽg—p, µ, Ä, ç, È, ç fRf'fsf... [f^), Æ «—L, Á, «, é, æ, x, É, µ, Ü, ·B, ±, jfjfvfVfj', í ATCP/IP , ðŽg—p, µ, Ä, Ü, ©, jfRf'fsf... [f^, Æ ft [fCf, ð «—L, µ, ½, ç, ê, ð, É'í'ð, µ, Ü, ·B

### ŠÈ^Ö TCP/IP ft [frfX

Echo (fGfR [ ADaytime ("úŽž) AChargen (·ŸžšŸŸ) A, ,æ, Ñ Discard ("pŠü), È, Ç, Ì TCP/IP ft [frfX, Ì, ½, ß, jfNf%oCfAf'fg fvtfgfEfFfA, ð'ñ'ç, µ, Ü, ·B, ±, jfjfvfVfj', ð'í'ð, ·, é, Æ A, ±, é, ç, jfvf [fgfRf, ðTf [fg, µ, Ä, ç, é, Ü, ©, jfvfXfef€, ©, ç, Ì—v'ç, É%ž"š, Á, «, é, æ, x, É, È, è, Ü, ·B

### DHCP ft [fo [ ft [frfX

fCf^ [fjfbfgf [fN ä, Á TCP/IP , ðŽg—p, ·, é, Rf'fsf... [f^, É'í, µ, Ä ATCP/IP , ÍŽ © " @ [ , Æ Ž © " @ fAfhfCfX Ý'è, ðTf [fg, ·, é, ½, ß, jfT [fo [ fvtfgfEfFfA, ð'g, Ýž, Ý, Ü, ·B, ±, jfjfvfVfj', í A, ±, jfRf'fsf... [f^, ð DHCP ft [fo [ , É, È, é, ê, ð, É'í'ð, µ, Ü, ·B, ±, jfjfvfVfj', í A Windows NT Server ,¾, ·, Á— —p, Á, «, Ü, ·B

, ±, jfjfvfVfj', ð'í'ð, µ, ½, ê, ð, í AfRf'fsf... [f^, Ì IP fAfhfCfX AfTfuflfbfg f}fXfN A, ,æ, Ñ ffftfHf'fg fQ [fgfEfFfC, ðŽž © , Á, Ä —, ·, é, ·K—v, ð, , è, Ü, ·B, Ü, ½ A, ±, jfT [frfX, ðŽg, Á, Ä TCP/IP , ÍŽ © " @ [ —, ð, ð, x, fVfXfef€, Ì, ½, ß, Ì —, ð'ñ, àŽw'è, µ, È, ·, é, í, È, è, Ü, ð, ñ B

### WINS ft [fo [ ft [frfX

Windows fCf^ [fjfbfgf [fN ä, jfRf'fsf... [f^, É A WINS , Æ C Ä, Ö " @ " I, È—¼ O%ðCE^ft [frfX, ðTf [fg, ·, é, ½, ß, jfT [fo [ fvtfgfEfFfA, ð'g, Ýž, Ý, Ü, ·B, ±, jfjfvfVfj', í A, ±, jfRf'fsf... [f^, ð fvf%oCf}fŠ (1 ŽÝ), Ü, ½, jfzjff'f'fŠ (2 ŽÝ), Ì WINS ft [fo [ , Æ, µ, Ä'g, Ýž, P, ê, ð, É'í'ð, µ, Ü, ·B, ±, jfRf'fsf... [f^, ð WINS

'ä—□ fG□[fWfFf“fg (proxy agent) ,É,·,é□ê□#,í□A,±,ìfìfvfVf#“ ,í'í'ð,μ,È,ç,Å,,¾,³,ç□B,± ,ìfìfvfVf#“ ,í□AWindows NT Server ,¾,·,Å—~—p,Å,«,Ü,·□B

**DHCP Ž©“®□\□-,ð—LCEø,É,·,é**

,±,ìfRf“fsf...□[f^,ì TCP/IP fpf%of□□[f^,ìŽ©“®□\□-,ð—LCEø,É,μ,Ü,·□B,±,ìfìfvfVf#“ ,í□AŽg— p,·,éfcf“f^□[fìfbfgf□□[fn□ä,É□A“®“ìfzfXfg□\□-,ðfTf|□[fg,·,é DHCP fT□[fo□[,²'¶□Ý,·,é□ê□#,Éfìf“ ,É,μ,Ü,·□B,±,é,í□A'½,,ì□ê□#□AWindows NT fRf“fsf...□[f^,É TCP/IP ,ð□ □-,·,·,é,æ,è-],Ü,μ,ç•û-@,Å,·□B

DHCP fT□[fo□[ fT□[fRfX fìfvfVf#“ ,ð'í'ð,μ,Ä,ç,é□ê□#□A,±,ìfìfvfVf#“ ,í~—p,Å,«,Ü,¹,ñ□B

TCP/IP ,ð'g,Ý□ž,p,Æ□A\systemroot\SYSTEM32\DRIVERS\ETC fffBfçEfNfgfŠ,É□AfffftHfçfg,ì HOSTS□ANETWORKS□APROTOCOLS□AQUOTES□A,“ ,æ,ñ SERVICES ,É,Ç,ìftf@fCfç,²'u,©,ê,Ü,·□B,Ü,½□ALMHOSTS ftf@fCfç,ì'Ž©,ðçL□q,μ,½fTf“fvfç ftf@fCfç LMHOSTS ,à'u,©,ê,Ü,·□B

Microsoft TCP/IP ,ðfRf“fsf...□[f^,É'g,Ý□ž,p□Ü,Éfgf%ofufç,²"□¶,μ,½□ê□#,í□AfGf%□[ f□fbfZ□[fW,ìžwŽ; ,É□] ,Á,Ä,,¾,³,ç□Bping ,É,Ç,ì□f'fft□[fefBfŠfefB,ðžg—p,μ,Ä,à□Afìfbfgf□□[fn fn□[fhfEjffA,ì-â'è,â□ □-,ì"ñçÉÝŠ□«,ì-â'è,ð•²□í,·,é,±,Æ,²,Å,«,Ü,·□B

ŠÖ~A□€-Ú

TCP/IP □f'fft□[fefBfŠfefB,É,æ,éfgf%ofufçfvf...□[fefBf“fo

## TCP/IP ,đ□□□□,.,é

TCP/IP ,đRf“fsf...□□f^,Á“@□,³,¹,é,É,Í□A fRf“fsf...□□f^,É’•’...³,é,Ä,ç,éŠeflfbfjgf□□□fN fAf\_fvf^,É’í,μ,Ä□AIP fAfhf(efX□A fTfuflfbfg f}fXfN□A,“,æ,Ń ffftfHf<fg fQ□□fgfEfFfC,đ□□□□,μ,È,¯,ê,Î,È,è,Û,¹,ň□B Microsoft TCP/IP ,ì□□□□,í□AŽŸ,ì 2 ,Á,ì^Ù,È,é•û-@,Á□s,κ,±,Æ,ª,Á,«,«,Û,·□B



### DHCP ,đŽg,κ

fCf“f^□□□fLfbfjgf□□□fN□ā,É DHCP fT□□fo□□[.ª, ,é□é□±,Í□A,±,ìfT□□fo□□[.ª DHCP (“@“lfzfXfg□□□□-fvf□fgfRf<), đŽg,Á,Ä□A fRf“fsf...□□f^,É TCP/IP ,đŽ©“@“I,É□□□□□,μ,Û,·□B



### TCP/IP ,ì□□□□,đŽè“@,Á□s,κ

DHCP fT□□fo□□[.ª“¶□Ÿ,μ,È,ç□é□±□A, ,é,ç,í□A,» ,ì Windows NT Server fRf“fsf...□□f^,đ DHCP fT□□fo□□[.É,·,é□é□±,Í□A TCP/IP ,ì□□□□□,í,·,×,ÄŽè“@,Á□s,í,È,¯,ê,Î,È,è,Û,¹,ň□B

## DHCP ,đŽg,±

TCP/IP ,đŠÈ'P,©,Á³Šm,É'g,Ýž,þÁ,à,æ,ç•û-@,íADHCP ,É,æ,éŽ©“®\¬,đŽg,±,Æ,Á,·BDHCP Ž©“®\¬,Á,íADHCP ,đŽg,Á,Äf“fj“fRf“fsf...[f^,ÉA³,µ,ç IP fAfhfCEfXAfTfufjfbfg f}fXfN[A,“,æ,ÑfftfHf<fg fQ[fgfEfffC,đÝ'è,µ,Û,·B

DHCP fT[fö[ ,afjfbfgfö[fN,É'g,Ýž,Û,è,Ä,ç,è,íATCP/IP ,ì\¬,í,±,ì•û-@,É,æ,èŠÈ'P,És,±,Æ,²,Á,«,Û,·B,±,ì•û-@,đ~—p,Á,«,é,©,Ç,±,©,íAfjfbfgfö[fNŠÇ—ŽÒ,ÉŠm”F,µ,Ä,,¼,³,çB

' : DHCP fT[fö[ ,Û,½,í WINS fT[fö[ ,É,·,é,½,ß,É TCP/IP ,ì'g,Ýž,Ý,đs,Á,Ä,ç,éfT[fö[ ,Á,íADHCP ,É,æ,éŽ©“®\¬,í~—p,Á,«,Û,¹,ñB,Á,Û,èADHCP fT[fö[ ,É'í,µ,Ä,íATCP/IP ,ìÝ'è,đŽè“®,Ás,Á,Ä\¬,µ,Û,·B

## DHCP ,đŽg,Á,Ä TCP/IP ,đ\¬,·,é,É,í

1. [Windows NT TCP/IP 'g,Ýž,Ýfjvfj“] f\_fCfAfö f{fbfNfX,Û,½,í [TCP/IP ,ì\¬] f\_fCfAfö f{fbfNfX,ÁADHCP Ž©“®\¬,đ—LCEø,É,·,é] f`ffbfN f{fbfNfX,đlf“ ,É,µ,Ä,ç,é,± ,Æ,đŠm”F,µ,Û,·B

2. TCP/IP ,ì'g,Ýž,Ý,đŠ®—¹,µ,½æä,ÄfRf“fsf...[f^,đÄ<N“®,·,é,ÆADHCP fT[fö[ ,“KØ,È\ ¬-î•ñ,đŽ©“®“l,ÉfRf“fsf...[f^,É'ñ<Ý,µ,Û,·B

,±,ìæä[fjfbfgfö[fN,ìÝ'è] f\_fCfAfö f{fbfNfX,Á TCP/IP ,ì\¬,đs,“,± ,Æ,·,é,ÆAZè“®Ý'è,đs,Á,½èè#ADHCP ,©,ç'ñ<Ý,³,è,½Ž©“®Ý'è,ì“à—e,²•í,í,Á,Ä,µ,ç,Û,·BDHCP ,©,ç'ñ<Ý,³,è,½Ý'è,đ“Á,É•É,ì,à,ì,É,µ,½,çèè# ,đœ,ç,ÄA^è”É,ÉAZ©“®Ý'è,³,è,½“à— e,í•íX,·,x,«,Á,í, ,è,Û,¹,ñB

ŠÖ~A€-Ú

TCP/IP ,ì\¬,đŽè“®,Ás,±

DHCP fT[fö[ ,ì'g,Ýž,Ý,Æ\¬



## TCP/IP ,ì\ñ- ,ðžè“® ,Á\š,ž

DHCP fT\fo\ ,Ü,½,í WINS fT\fo\ ,É TCP/IP ,ð'g,Ýžž,Pèèž,âADHCP ,É,æ,éžž“®\ñ- ,ð-~— p,Á,«,É,çèèž,ìA Microsoft TCP/IP fv\fgfRf< f\ftfgfEfffA,ð'g,Ýžž,ñ,¼æä,ÁA— LCEø,ÉfAfhfCEfX\î•ñ,ðžè“® ,Ážw'è, ,é•K—v, ,è,Ü,·B

WINS fT\fo\ ,Á, ,éfRf“fsf...[f^ ,É•;“],lflfbfgf\fn fAf\_fvf^ f\fh, ,éèèžA WINS ,í TCP/IP ,ÉCE<žž, ,é,Á,ç,éfAf\_fvf^ ,ì^è—“à,ìA\%0,ì,à,ì,ÉCE<žž,μ,Ü,·B,±,lfAf\_fvf^ ,lfAfhfCEfX, ,é 0 ,ÉÝ'è, ,é,Á, ,ç, ,A,Ü,½ IP fAfhfCEfX,ìCE<žž, ,é•K\ø,Á, ,é,±,Æ,ðSm“F,μ,Á, ,¼, ,ç,çB

TCP/IP ,ì\ñ- ,ðš,ž,É,íA,»,ìf\ffj< fRf“fsf...[f^ ,ì Administrators fOf<[fv,lf\ff“fo\ ,Æ,μ,Áf\ffOfj“ , ,é•K—v, ,è,Ü,·B

CEx : fAfhfCEfX,ìd•; ,ðž, ,é,½,ž,ÉAIP fAfhfCEfX, ,æ,ÑfTfuf\fbfg f}fXfN,ìAflfbfgf\fnŠÇ— ŽÖ, ©, ç'ñ<Ý, ,é,½'ì,ðžg—p,μ,Á, ,¼, ,ç,çBfAfhfCEfX, ,é d•; ,μ,Á,ç,é,ÆAflfbfgf\fnŠ,ìfRf“fsf... [f^ ,É—\ ,é,Á,«,É,ç%e<žž,ð—^ ,ì,é,±,Æ, ,è,Ü,·B\Úx ,É,Á,ç,Á,ìAIP fAfhfCEfXžw'è,ðžQ\Æ,μ,Á, ,¼, ,ç,çB

## TCP/IP fv\fgfRf< ,ðžè“® ,Á\ñ- , ,é,É,í

1. TCP/IP ,ì'g,Ýžž,Ýt,ìèèž,ìA[Windows NT TCP/IP 'g,Ýžž,Ýf\fvfVfj“] f\_fCfAf\fo f{fbfNfX,Á [ '±\š] f{f^f“ ,ðfNfŠfbfN, ,é,ÆA[Microsoft TCP/IP ,ì\ñ-] f\_fCfAf\fo f{fbfNfX, ,é±, ,Á•Žì, ,é,Ü,·B

TCP/IP ,ðžèèž,ìA fRf“fgf\ffj< f\fh,ì [lflfbfgf\fn] ,ð'N“® ,μ,Ü,·B[lflfbfgf\fn,ìÝ'è] f\_fCfAf\fo f{fbfNfX, ,é•Žì, ,é,Ü,·B[ 'g,Ýžž,Ü,é,Á,ç,éflfbfgf\fn f\ftfgfEfffA] ^è— ,ÁATCP fv\fgfRf< ,ð'ì'ð,μA[ñ-] f{f^f“ ,ðfNfŠfbfN,μ,Ü,·B[TCP/IP ,ì\ñ-] f\_fCfAf\fo f{fbfNfX, ,é•Žì, ,é,Ü,·B

2. [fAf\_fvf^ f\fh] ^è— ,ÁAIP fAfhfCEfX,ðžÝ'è, ,éflfbfgf\fn fAf\_fvf^ ,ð'ì'ð,μ,Ü,·B

[fAf\_fvf^ f\fh] ^è— ,É,ìA fRf“fsf...[f^ ã,ìAIP , ,éCE<žž, ,é,Á,ç,éflfbfgf\fn fAf\_fvf^ , ,é, ,x,Á•Žì, ,é,Ü,·B\%0,ž,Á,ìèèž,ìA,±,ì^è— ,É,ìA fRf“fsf...[f^ ,É'g,Ýžž,ñ,Á, ,éAf\_fvf^ , ,é, ,x,Á•Žì, ,é,Ü,·B

IP ,ðCE<žž, ,éŠéfAf\_fvf^ ,ÉAflfbfgf\fnŠÇ— ŽÖ, ©, ç—^ ,ì,ç,é,½CEÁ—L,ì IP fAfhfCEfX\î•ñ,ðž,μ,ç'ì,ÁÝ'è, ,é•K—v, ,è,Ü,·Bflfbfgf\fn fAf\_fvf^ ,É'ì, ,éCE<žž,ìAflfbfgf\fn fv\fgfRf< ,éflfbfgf\fn f\ftfgfEfffA,ì,Ü, ©,ì'w,Æ,ç,ì,æ,ž,É<—ì,μ,Á“ , ,©,ð'è,ž,Ü,·B

3. CE<žž,ðš,ž,»,é,¼,é,lf\fbfgf\fn fAf\_fvf^ ,É'ì,μ,ÁAIP fAfhfCEfX,ÆfTfuf\fbfg f}fXfN,ðžw'è,μ,Ü,·B



[IP fAfhfCEfX] f{fbfNfX,ì'ì,ìA,»,ìf\ffj< fRf“fsf...[f^ ,ì IP fAfhfCEfX,ð•,μ,Ü,·B•;“],lflfbfgf\fn f\fh,ð'g,Ýžž,ñ,Á,ç,éèèž,ìA[fAf\_fvf^ f\fh] f{fbfNfX,Á'ì'ð,μ,½fAf\_fvf^ f\fh,É'ì, ,é IP fAfhfCEfX,Á,·B



[fTfuf\fbfg f}fXfN] f{fbfNfX,ì'ì,ìA'ì'ð,μ,½flfbfgf\fn fAf\_fvf^ ,lflfbfgf\fn f\ff“fo\fvfbfv,Æ,»,lfzfXfg ID ,ð•,μ,Ü,·BfvfXfefE,ìA,±,ì'ì,ðžg,Á,Á IP fAfhfCEfX,ðfzfXfg,Æf\fbfgf\fn ID ,É•—É, ,é,±,Æ, ,é,«,Ü,·B

qd—v : [DHCP Žž“®\ñ- ,ð—LCEø,É, ,é] f'fFfbfN f{fbfNfX,ðfj“ ,É,μ,Á,ç,éèèžA,±,lf\_fCfAf\fo f{fbfNfX,Ážè“® ,Á“ü—ì,μ,½'ì,ì, ,x,ÁADHCP ,É,æ,éžž“®“ì,ÉÝ'è, ,é,½'ì,ðžž, «,μ,Ü,·B,± ,lf\_fCfAf\fo f{fbfNfX,ì DHCP Žž“®\ñ- ,lf'fFfbfN f{fbfNfX,ðfj“ ,É, ,é,ÆA'ì,ð“ü—ì, ,é•K—v, ,é,É, ,è,èA,Ü,½fAfhfCEfX,âf}fXfN'ì,ð“ü—ì, ,é,±,Æ, ,é,«,É, ,è,è,Ü,·B

4. Šéf\fbfgf\fn fAf\_fvf^ ,É'ì,μ,ÁA[ffftfHf<fg fQ\fgfEfffC] f{fbfNfX,ÉAflfbfgf\fnŠÇ— ŽÖ, ©, ç—^ ,ì,ç,é,½žž,μ,ç IP fAfhfCEfX'ì,ð“ü—ì,μ,Ü,·B



**DNS ,đŽg—p,·,é,½,β,É TCP/IP ,đ□□—,·,é**

TCP/IP ,í□AIP fAfhfCEfX,đŽg,Á,ÄfRf“fsf...□[f^,đŽ~·É,μ□A-U“l,lfRf“fsf...  
□[f^,É“ž‘B,μ,Ü,·,ª□A^è”É,É□Aft□[fU□[É,Æ,Á,Ä,lfRf“fsf...□[f^-¼,đŽg,μ,Ü,ª,ª•Ö—~ ,Á,·□BDNS (Domain  
Name System; fhf□fCf“ f□□f€ fVfXfef€) ,í□AUNIX flfbfgf□□[fN,í□cŠE,Á^è”É“l,ÉŽg,í,é,Ä,ç,é-  
¼‘O•t, fT□[fRfX,Á, ,è□AIP fRf“fsf...□[f^,É•W□€,-¼‘O•t,~<K‘¥,đ‘ñ<Ÿ,μ,Ü,·□Bftp ,â telnet ,É,Ç,ì  
Windows Sockets fAfvfŠfP□[fVfj“ ,â TCP/IP  
ft□[fefBfŠfefB,Á,í□AŠO•“fzfXfg,âflfbfgf□□[fNä,ì^ÜžifVfXfef€,É□Ú‘±,·,é,Æ,«□AHOSTS ftf@fCf<,É%oÁ,ì,Ä  
DNS ,đŽg,Á,ÄfVfXfef€,đCE©,Á,~ ,é,±,Æ,ª,Á,« ,Ü,·□B

DNS ,đŽg—p,·,é,æ,μ,ÉfRf“fsf...□[f^,đ□□—,·,é•K—v,ª, ,é,©,Ç,μ,©,í□Aflfbfgf□□[fNŠÇ—□ŽÒ,É-  
â,ç□ž,í,¹,Ä,,¾,¾,ç□B‘É□□ATCP/IP ,đŽg—p,μ,Ä Internet ,Á‘É□M,·,é□é□ž,â□AfCf“f^□[flfbfgf□□[fN,ª DNS  
,đŽg—p,μ,ÄfzfXfg□í‘ñ,đ“z•z,μ,Ä,ç,é□é□ž,í□ADNS ,đŽg—p,μ,Ü,·□B□Ú□×,É,Á,ç,Ä,í□Afhf□fCf“ f□□f€  
fVfXfef€,lfAfhfCEfXŽw`è,đŽQ□Æ,μ,Ä,,¾,¾,ç□B

Microsoft TCP/IP ,í□AInternet -¼,Ü,½,í UNIX fVfXfef€-¼,đ%ođCE^ ,·,é,½,β,ì DNS fnf%ofCfAf“fg fl  
ftfgfEfffA,đ‘ñ<Ÿ,μ,Ü,·□B,Ü,½□AMicrosoft Windows flfbfgf□□[fN,Á,í□AWINS ft□[fo□[Æ TCP/IP □ā,ì  
NetBIOS ,É,æ,è□ANetBIOS fRf“fsf...□[f^-¼,É‘í,μ,Ä“@“l,É-¼‘O,ì%ođCE^ ,đ‘ñ<Ÿ,μ,Ü,·□B

DNS ,đŽg—p,·,é,æ,μ,É‘l‘đ,μ,½□é□ž□AfRf“fsf...□[f^,ª,Ç,ì,æ,μ,É DNS ,Æ HOSTS ftf@fCf<,đŽg—  
p,·,é,ì,©,đ□□—,μ,È,~ ,é,ì,È,è,Ü,¹,ñ□BTCP/IP ,í□ADNS □Ú‘±flfVfVfj“ ,đfZfbfgfAfbfv,·,é‘O,É‘g,Ÿ□ž,Ü,è,Ä,ç  
,È,~ ,é,ì,È,è,Ü,¹,ñ□BDNS ,í□A,» ,lfRf“fsf...□[f^,É‘g,Ÿ□ž,Ü,è,Ä,ç,é,·,×,Ä,lffbfgf□□[fN  
fAf\_fvf^,É‘í,μ,ÄfOf□□[fof<,É□□—,³,è,Ü,·□B

‘□ : DNS fhf□fCf“ ,í□AWindows NT ,â LAN Manager ,lfhf□fCf“ ,Æ“~ ,¶,Á,ì ,è,Ü,¹,ñ□B

**TCP/IP DNS fRflfNfefBfRfefB,đ□□—,Ü,½,í□Ä□□—,·,é,É,í**

1. fRf“fgf□□[f< fpflf<,Á [flfbfgf□□[fN] ft□[fefBfŠfefB,đ<N“@ ,μ,Ü,·□B[flfbfgf□□[fN,ì□Ý‘è] f\_fCfAf□fo  
f{fbfNfX,ª•\Žì,³,è,Ü,·□B[‘g,Ÿ□ž,Ü,è,Ä,ç,éflfbfgf□□[fN flftfgfEfffA] ^è— ,Á□ATCP/IP  
fVf□fgfRf<,đ‘l‘đ,μ□A[□□—] f{f^f“ ,đfNfŠfbfN,μ,Ü,·□B[TCP/IP ,ì□□—] f\_fCfAf□fo f{fbfNfX,ª•\  
Žì,³,è,Ü,·□B

2. [DNS] f{f^f“ ,đfNfŠfbfN,μ,Ü,·□B[DNS ,ì□□—] f\_fCfAf□fo f{fbfNfX,ª•\Žì,³,è,Ü,·□B

3. •K—v,É%ož,¶,Ä [fzfXfg-¼] f{fbfNfX,ÉfzfXfg-¼ (‘É□,í□Aft□[fU□[lfRf“fsf...□[f^-¼) ,đ“ü—í,μ,Ü,·□B  
fzfXfg-¼,É,í□AA □` Z ,ìŠe•¶Žš□A0 □` 9 ,ìŠe□“Žš□A,“ ,æ,ŃfnfCftf“ (-) ,đŽg—  
p,Á,« ,Ü,·□BffftfHf<fg,Á,í□A,±,ì‘l,í Windows NT fRf“fsf...□[f^-¼,Á,·,ª□Aflfbfgf□□[fNŠÇ—  
□ŽÒ,í□AfRf“fsf...□[f^-¼,đ•ì□X,¹, ,ÉfzfXfg-¼,É•É,ì-¼‘O,đŠ,,è“- ,Ä,é,±,Æ,ª,Á,« ,Ü,·□B

‘□ : Windows NT fRf“fsf...□[f^-¼,ÉŽg—p,Á,« ,é•¶Žš,ì‘t,É,í□AfzfXfg-¼,É,ìŽg—p,Á,« ,È,ç  
,à,ì,à ,è,Ü,·□B“Á,É□AfAf“f\_fXfRfA ( ) ,í□AfzfXfg-¼,É,ìŽg—p,Á,« ,Ü,¹,ñ□B

fzfXfg-¼,í□A,ç,·,Ä,©,lf□[fefBfŠfefB,Á□A“F□ØŽž,Éf□□[fj< fRf“fsf...□[f^,đ-¼‘O,ÁŽ~·É,·,é,½,β,ÉŽg  
—p,³,è,Ü,·□B,» ,ì,Ü,©□Arexec ,È,Ç,ì,æ,μ,É TCP/IP fx□[fX,lf□[fefBfŠfefB,í□A,±,ì‘l,đŽg—  
p,μ,Äf□□[fj< fRf“fsf...□[f^-¼,đŽæ“¾,μ,Ü,·□BfzfXfg-¼,í□ADNS ft□[fo□[“à,lfzfXfg-¼,đ IP  
fAfhfCEfX,ÉŠ,,è“- ,Ä,éfe□[fuf<,ÉŠì“[ ,³,è,Ü,·□B

4. •K—v,É%ož,¶,Ä [fhf□fCf“-¼] f{fbfNfX,É□Afhf□fCf“-¼,đ“ü—í,μ,Ü,·□B‘É□□Afhf□fCf“-¼,í□A‘g□□D-  
¼,ìEä,ÉfsfŠflfh,Æ‘g□□D,ìží—p,đ•,·Šg‘£Žq,đ•t,~ ,Á•\<L,μ,Ü,· (microsoft.com ,È,Ç)□B  
fhf□fCf“-¼,É,í□AA □` Z ,ìŠe•¶Žš□A0 □` 9 ,ìŠe□“Žš□A,“ ,æ,ŃfnfCftf“ (-) ,đŽg—  
p,Á,« ,Ü,·□B,Ü,½□Aæ□□,è•¶Žš,Æ,μ,ÄfsfŠflfh (.) ,đŽg—p,Á,« ,Ü,·□B

fzfXfg-¼,Æ,±,lfhf□fCf"-¼,ª,ç,Á,µ,â,É,È,è□A,» ,lfRf"fsf...□lf^,ì FQDN (Fully Qualified Domain Name; Š®'S□□üfhf□fCf"-¼) ,ð□□¬,µ,Ü,·□BFQDN ,í□AfzfXfg-¼,ìCEä,ÉfsfŠfJfh,Æfhf□fCf"-¼,ð•t,¬,Ä•\<L,µ,Ü,·□B,½,Æ,í,í□Acorp01.trey.com ,ì,æ,æ,É•\<L,³,è,Ü,·□B,±,ì□è□#□Acorp01 ,ªfzfXfg-¼□Atrey.com ,ªfhf□fCf"-¼,Ä,·□BDNS □Æ%öï,ìŠÖ,í□A'Z,çfhf□fCf"-¼,Éf□□fjfk< fhf□fCf"-¼,ª•t%öÁ,³,è,Ü,·□B

5. [fhf□fCf" f□□f€ fT□lfRfX (DNS) fT□[fo□,ìCEÿ□ð□#□~] f{fbfNfX,É□A-¼'O%öðCE^,ð'ñ<ÿ,·,é DNS fT□[fo□,ì,ì IP fAfhfCEfX,ð"ü—í,µ,Ü,·□BŽÿ,É□A[ 'Ç%öÁ] f{f^f" ,ðfNfŠfbfN,µ,Ä□AIP fAfhfCEfX,ð%öE'æ ,ì^è—,É^Ú"® ,µ,Ü,·□BfJfbfgf□□fNŠÇ—□ŽÒ,í□A,±,lfpf%öf□□lf^ ,É□³,µ,ç'ì,ªŽw'è,³,è,é,æ,æ,É,µ,Ä,-,¾,³,ç□B

DNS fT□[fo□,ì IP fAfhfCEfX,í□A3 ,Ä,Ü,Ä'Ç%öÁ,Ä,« ,Ü,·□BDNS ,ðŽÀ□s,µ,Ä,ç,é fT□[fo□,ì□A^è—,É•\ Ž,³,è,Ä,ç,é□#□~ ,Ä□Æ%öï,³,è,Ü,·□BIP fAfhfCEfX,ì•\Ž!□#□~ ,ð•ì□X,·,é,É,í□A•ì□X,·,é IP fAfhfCEfX,ð'ì'ð,µ□A□äCEü,«-î^óf{f^f" ,Æ%öCEü,«-î^óf{f^f" ,ðŽg,Ä,Ä^Ú"® ,³,¹,Ü,·□BIP fAfhfCEfX,ðŽæ,è□œ,·,É,í□AIP fAfhfCEfX,ð'ì'ð,µ□A[í□œ] f{f^f" ,ðfNfŠfbfN,µ,Ü,·□B

6. [fhf□fCf" fTftfBfbfNfX,ìCEÿ□ð□#□~] f{fbfNfX,É□Afhf□fCf" fTftfBfbfNfXCEÿ□ð^è—,É'Ç %öÁ,·,éfhf□fCf" ,lfTftfBfbfNfX (□Ú"öŽ«) ,ð"ü—í,µ□A[ 'Ç%öÁ] f{f^f" ,ðfNfŠfbfN,µ,Ü,·□B ,±,ì^è—,É,í□A-¼'O%öðCE^Žž,ÉfzfXfg-¼,É•t%öÁ,³,è,é DNS fhf□fCf" fTftfBfbfNfX,ðŽw'è,µ,Ü,·□Bfhf□fCf" fTftfBfbfNfX,í 6 ,Ä,Ü,Ä'Ç%öÁ,Ä,« ,Ü,·□Bfhf□fCf" fTftfBfbfNfX,ìCEÿ□ð□#□~ ,ð•ì□X,·,é,É,í□A•ì□X,·,é fTftfBfbfNfX,ð'ì'ð,µ□A□äCEü,«-î^óf{f^f" ,Æ %öCEü,«-î^óf{f^f" ,ðŽg,Ä,Ä^Ú"® ,³,¹,Ü,·□Bfhf□fCf" fTftfBfbfNfX,ðŽæ,è□œ,- ,É,í□AŽæ,è□œ,« ,½,çfhf□fCf" fTftfBfbfNfX,ð'ì'ð,µ□A[í□œ] f{f^f" ,ðfNfŠfbfN,µ,Ü,·□B

7. DNS fJfvfVfJf" ,ì□Ý'è,ðŠ®—¹,µ,½,ç□A[OK] f{f^f" ,ðfNfŠfbfN,µ,Ü,·□B

8. [TCP/IP ,ì□Ý'è] f\_fCfAf□fO f{fbfNfX,ª□Ä•\Ž!,³,è,½,ç□A[OK] f{f^f" ,ðfNfŠfbfN,µ,Ü,·□B[fJfbfgf□□fN,ì□Ý'è] f\_fCfAf□fO f{fbfNfX,ª□Ä"x•\Ž!,³,è,½,ç□A[OK] f{f^f" ,ðfNfŠfbfN,µ,Ü,·□B

□Ý'è,ð—LCEø,É,·,é,É,í□Afrf"fsf...□lf^ ,ð□Ä•N"® ,µ,È,¬,è,î,È,è,Ü,¹,ñ□B



LMHOSTS ftf@fCf<,đŽg—p,μ,Ü,·□B

8. fCf“f^□[flfbfgf□□[fN,ª TCP/IP □ā,ì NetBIOS ,đŽg,ç□A“ÆŽ©,lfXfR□[fvŽ~•ÊŽq,đŽ□,Á,Ä,ç ,é□ê□#□A[fxfR□[fv ID] f{fbfNfX,É,±,ì‘I,đ“ü—í,μ,Ü,·□B
- TCP/IP fCf“f^□[flfbfgf□□[fN□ā,ìRf“fsf...□[f^ŠÔ,Ā‘Ê□M,·,é,É,í□ATCP/IP
- fCf“f^□[flfbfgf□□[fN□ā,ì,·,x,Ā,ìRf“fsf...□[f^,ª“~,¶lfXfR□[fv ID ,đŽ□,½,Ê,~ ,é,î,Ê,è,Ü,¹,ñ□B‘Ê□í□A,± ,ì‘I,í<ó““),Ü,Ü,É,μ,Ā,“,<,Ü,·□BfxfR□[fv ID ,í□Afof<□[fv“à,ĀÆÝ,ç,É‘Ê□M,μ□#,ç□A,Ü,©,lfVfXfef€ ,Æ,í‘Ê□M,μ,È,çRf“fsf...□[f^,¾,~ ,ìfof<□[fv,ÊŠ,,è“—,Ā,ç,è,Ü,·□B,±,é,ç,lfRf“fsf...□[f^,í□AfxfR□[fv ID ,ª“~^ê,É,ç,í□A,“ÆÝ,ç,đCE©,Ā,~ ,é,±,Æ,ª,Ā,<,Ü,·□BfxfR□[fv ID ,í□ATCP/IP □ā,ì NetBIOS ,ÉŠí,Ā,- ‘Ê□M,¾,~ ,ĀŽg—p,³,è,Ü,·□B
- flfbfgf□□[fNŠÇ—□ŽÒ,í□A•K—v,È□ê□#,É,í□A,±,±,É□³,μ,ç‘I,ªŽw‘è,³,è,é,æ,π,É,μ,Ā,,¾,³,ç□B
9. □Ā‘I IP f<□[fefBf“fo,đflf“ ,É,·,é,É,í□AIP f<□[fefBf“fo,đ—LCEø,É,·,é] f`fFbfN f{fbfNfX,đflf“ ,É,μ,Ü,·□B ,±,ìf`fFbfN f{fbfNfX,đflf“ ,É,·,é,Æ□A,±,ìRf“fsf... □[f^,í□Aflfbfgf□□[fN□ā,ì,Ü,©,ì□Ā“lf<□[f^□[ ,đŽg,Ā,Āflfbfgf□□[fN,ÉŽQ%Ā,,é,± ,Æ,ª,Ā,<,·,Ü,·□Bflfbfgf□□[fN f□[fh,đ•;□“Ž□,¿□Aft□[fU□[ ,ìflfbfgf□□[fN,ª□Ā“lf<□[f^□[ ,đŽg—p,μ,Ā,ç ,é□ê□#,í□A,±,ìf`fFbfN f{fbfNfX,đflf“ ,É,μ,Ā,,¾,³,ç□B,Ü,½□A,>,ì□ê□#,í□A□Ā“lf<□[fefBf“fo fe□[fuf<,à‘Ç%Ā,μ,Ā,,¾,³,ç□B□Ā“lf<□[fefBf“fo fe□[fuf<,ì□[□—,É,Ā,ç,Ā,í□Aroute frf}f“fh,đŽQ□Æ,μ,Ā,,¾,³,ç□B
- fRf“fsf...□[f^,É 1 ,Ā,ìflfbfgf□□[fN fAf\_vf^ ,Æ 1 ,Ā,ì IP fAfhfÆfX,μ,©,È,ç□ê□#,í□A,±,ìflfvfVf#f“ ,í—~ —p,Ā,<,Ü,¹,ñ□B,Ü,½□A,±,ìflfvfVf#f“ ,í□ARIP (Routing Information Protocol; f<□[fefBf“fo□[ñfv□[fgfRf<), đŽĀ□s,μ,Ā,ç,éf<□[f^□[.ÍfTf□[fg,μ,Ü,¹,ñ□B
10. ,±,ìRf“fsf...□[f^,đ□AWINS ff□[f^fx□[fX,ÉŠí,Ā,-¼‘O%đCE^ ,ì,½,ß,ÉŽg—p,·,é□ê□#,í□A[WINS ‘ă— □fG□[fWfFf“fg,đ—LCEø,É,·,é] f`fFbfN f{fbfNfX,đflf“ ,É,μ,Ü,·□B
- ,±,ìf`fFbfN f{fbfNfX,đflf“ ,É,·,é,Æ□Afuf□□[fhfLfffXfg,É,æ,é-¼‘O%đCE^—p,É□[□—,μ,Ā,ç ,é,Ü,©,ìRf“fsf...□[f^,à□A,±,ìRf“fsf...□[f^,đŽg,Ā,Ā WINS fT□[fo□[ ,ª‘ñ<Ÿ,·,é-¼‘O%đCE^fT□[frfX,đ —~—p,·,é,±,Æ,ª%Ā“\,É,Ê,è,Ü,·□B
- ,±,ìflfvfVf#f“ ,í□A[TCP/IP ,ì□[□—] f\_fCfAf□fo f{fbfNfX,Ā□AWIN fT□[fo□[ ,ì IP fAfhfÆfX,đŽw‘è,·,é□ê□#,É,¾,~ —~—p,Ā,<,Ü,· (TCP/IP,đ□[□—,·,é,đŽQ□Æ)□B‘ă— □fG□[fWfFf“fg,í□AWINS fT□[fo□[ ,Ā ,éfRf“fsf...□[f^,Ā,ÍŽĀ□s,Ā,<,Ü,¹,ñ□B
- ,>,ìRf“fsf...□[f^,đ WINS ‘ă—□fG□[fWfFf“fg,Æ,μ,Ā□[□—,·,é•K—v,ª ,é,©,Ç,π,©,ìflfbfgf□□[fNŠÇ— □ŽÒ,É-â,ç□#,í,¹,Ā,,¾,³,ç□BŠefTfufifbfgf□□[fN□ā,Ā WINS ‘ă—□fG□[fWfFf“fg,É,·,x,<Rf“fsf... □[f^,í□A,²,□□“,Ā,·□B
11. □Ú□x,ÈflfvfVf#f“ ,ì□Ÿ‘è,đ□[ ,ì,½,ç□A[OK] f{f^f“ ,đfNfŠfbfN,μ,Ü,·□B[TCP/IP ,ì□[□—] f\_fCfAf□fo f{fbfNfX,ª□Ā“x•\Ž!,³,è,½,ç□A[OK] f{f^f“ ,đfNfŠfbfN,μ,Ü,·□B[flfbfgf□□[fN,ì□Ÿ‘è] f\_fCfAf□fo f{fbfNfX,ª□Ā“x•\Ž!,³,è,½,ç□A[OK] f{f^f“ ,đfNfŠfbfN,μ,Ā□ATCP/IP ,ì□Ú□x,É□[□—,đŠ®—¹,μ,Ü,·□B

## SNMP ,đ\□-.,.é

SNMP fT□[frfX,í□A[Windows NT TCP/IP 'g,Ý□ž,Ýf|fvfVf#f"] f\_fCfAf□fO f\_{fbfNfX,Á□A'í%ž,.,é|fvfVf#f",ì  
f`fFfbfN f\_{fbfNfX,đf|f",.É,.,é,Æ'g,Ý□ž,Ü,ê,Ü,·□BSNMP fT□[frfX f\ftfgfEjFfA,đfRf"fSf...  
□[f^,É'g,Ý□ž,ñ,¾CEã,í□ASNMP ,ª" @□ì,.,é,æ,α,É□A—LCEø,È□î•ñ,đŽg,Á,Ä SNMP ,ì\  
□-.,đ□s,í,È,~,ê,Î,È,è,Ü,¹,ñ□B

SNMP ,đ\□-.,.é,É,í□A□□□[fj fRf"fSf...□[f^,ì Administrators  
fOf<□[fv,í□f"fo□[,Æ,μ,Äf□fOf|f",μ,È,~,ê,Î,È,è,Ü,¹,ñ□B

SNMP □□-□î•ñ,æ,è□A fRf~f...fj fefB,Æfgf%ofbfv'—□M□æ,ªŽ•É,³,ê,Ü,·□B



**fRf~f...fj fefB,Æ,í□ASNMP fT□[frfX,đŽÀ□s,μ,Ä,ç,éfT□[fo□[,ª' @,μ,Ä,ç,éfzfXfg fOf<□[fv,ì,±  
,Æ,Ä,·□BSNMP ,đŽg—p,μ,Ä,ç,é Windows NT fRf"fSf...□[f^,ªfgf%ofbfv,đ'—□M,.,é□æ,Æ,μ,Ä□A1  
,Ä,Ü,½,í•j□",íRf~f...fj fefB,đŽw'è,.,é,±,Æ,ª,Ä,«,Ü,·□BfRf~f...fj fefB-¼,í□Afgf%ofbfv,ì—□MŽž,É□ASNMP  
fOfPfbfg"à,ÉŽù,ß,ç,ê,Ü,·□B**

SNMP fT□[frfX,í□A□î•ñ,đ<□,ß,é—v<□,đŽó,~Žæ,Á,½,Æ,«□A,»,è,ª³,μ,çfRf~f...fj fefB-¼,đŠÜ,ñ,Ä,ç  
,É,ç□é□#,â□A fT□[frfX,đ" F,ß,ç,ê,Ä,ç,éfzfXfg-¼,Æ^è'v,μ,È,ç□é□#,É□Afgf%ofbfv'—□M□æ,Éfgf%ofbfv,đ'—  
□M,μ,Ä—v<□,ì" F□Ø,ªŽ,"s,μ,½,±,Æ,đ'm,ç,¹,é,±,Æ,ª,Ä,«,Ü,·□B



**fgf%ofbfv'—□M□æ,Æ,í□ASNMP fT□[frfX,ª□Afgf%ofbfv,đ'l'đ,μ,½fRf~f...fj fefB-¼,Æ,Æ,à,É'—  
□M,.,é□æ,ízfXfg-¼,Ü,½,í IP fAfhfCEfX,ì,±,Æ,Ä,·□B**

SNMP ,đŽg,Á,Ä"□CEv□î•ñ,đŽù□W,μ,½,ç,ª□A fRf~f...fj fefB,âfgf%ofbfv,ìŽ~•É,É,í□^Ó,đ•¥,ç,½,-  
,É,ç□é□#,ª ,è,Ü,·□B,±,ì,æ,α,É□é□#,É,í□ASNMP fT□[frfX,đ\□-.,.é,Æ,«□A fRf~f...fj fefB-  
¼,É□gpublic□h,đŽw'è,Ä,«,Ü,·□B

ŠÖ~A□€-Ú



SNMP fT□[frfX,đ\□-.,.é



SNMP fZfLf...fŠ fefB,đ\□-.,.é



SNMP fG□[fWfFf"fg□î•ñ,đ\□-.,.é

**SNMP fT[fxfX,đ□□-,.,é**

**SNMP fT[fxfX,đ□□-,.,é,É,í**

1. fRf“fgf□□[f< pflf<,Á [flfbfgf□□[fN] ft□[fefBfŠfefB,đ<N“ @,μ,Ü,·□B[flfbfgf□□[fN,ì□Ý’è] f\_fCfAf□fO f{fbfNfX,â\Žì,³,è,Ü,·□B[‘g,Ý□ž,Ü,è,Ä,ç,éflfbfgf□□[fN flftfgfEfffA] ^è—,Á□ASNMP fT□[fxfX] ,đ’í,đ,μ□A[□□-] f{f^f“,đfNfŠfbfN,μ,Ü,·□B[SNMP fT□[fxfX,ì□□-] f\_fCfAf□fO f{fbfNfX,â\ Žì,³,è,Ü,·□B
  2. ,±,ìfRf“fsf...□[f^,âfgf%ofbfv,đ’—□M,·,é□æ,ìfRf~f...fjfefB,đ,»,è,¼,èŽw’è,·,é,É,í□A[fRf~f...fjfefB-¼] f{fbfNfX,ÉfRf~f...fjfefB-¼,đ“ü—í,μ,Ü,·□BfRf~f...fjfefB-¼,đ“ü—í,μ,½□Eâ□A[‘Ç%Á] f{f^f“,đfNfŠfbfN,μ,Ä□AfRf~f...fjfefB-¼,đ□¶’æ,ì [fgf%ofbfv,Æ,Æ,à,É’—□M,·,éRf~f...fjfefB-¼] ^è —,É^Ú“ @,³,¹,Ü,·□B  
‘É□□A,·,x,Ä,ìfzfXfg,í□gpublic□h,É’ @,μ,Ü,·□Bpublic ,í□A,·,x,Ä,ìfzfXfg,ì<æ’ÉfRf~f...fjfefB,đ•\ ,·w□€-¼,Ä,·□B^è—, ©,çfGf“fgfŠ,đ□í□œ,·,é,É,í□A□í□œ,μ,½,çfGf“fgfŠ,đ’í,đ,μ□A[□í□œ] f{f^f“,đfNfŠfbfN,μ,Ü,·□B
- ‘□ : fRf~f...fjfefB-¼,Ä,í□A’â•¶Žš,Æ□-•¶Žš,â<æ•É,³,è,Ü,·□B
3. fgf%ofbfv,đ’—□M,·,éŠefRf~f...fjfefB,É’í,μ,ÄfzfXfg,đŽw’è,·,é,É,í□AfRf~f...fjfefB,đ’Ç %Á,μ,½□Eâ□A,»,ìfRf~f...fjfefB-¼,đ^è—,Á<²•\Žì,³,¹,½□ó’Ô,Á□A[IP fzfXfg/fAfhfçfX,Ü,½,í IPX fAfhfçfX] f{fbfNfX,ÉfzfXfg-¼,đ“ü—í,μ,Ü,·□BŽÝ,É□A[‘Ç%Á] f{f^f“,đfNfŠfbfN,μ,Ä□AfzfXfg-¼,Ü,½,í IP fAfhfçfX,đ□¶’æ,ì [□ ,ìfgf%ofbfv—□M□æ] ^è—,É^Ú“ @,³,¹,Ü,·□B  
^è—, ©,çfGf“fgfŠ,đ□í□œ,·,é,É,í□A□í□œ,μ,½,çfGf“fgfŠ,đ’í,đ,μ□A[□í□œ] f{f^f“,đfNfŠfbfN,μ,Ü,·□B
  4. SNMP fT□[fxfX,Á’Ç%ÁfZfLf...fŠfefB,đŽg—p%Á“\,É,·,é,É,í□A[fZfLf...fŠfefB] f{f^f“,đfNfŠfbfN,μ,Ü,·□B’Ç%ÁfZfLf...fŠfefB,ì□□-Žè□±,É,Á,ç,Ä,í□ASNMP fZfLf...fŠfefB,đ□□ □-,·,é,đŽQ□Æ,μ,Ä,,¾,¾,ç□B
  5. fG□[fWfFf“fg□î•ñ (ft□[fU□[,Æ□é□Š,É,Á,ç,Ä,ìfRf□f“fg□A,“,æ,Ñft□[fxfX] ,đŽw’è,·,é,É,í□A[fG□[fWfFf“fg] f{f^f“,đfNfŠfbfN,μ,Ü,·□BfG□[fWfFf“fg□î•ñ,ìŽw’è,É,Á,ç,Ä,í□ASNMP fG□[fWfFf“fg□î•ñ,đ□□□-,·,é,đŽQ□Æ,μ,Ä,,¾,¾,ç□B
  6. □□-□í<Æ,â,·,x,ÄŠ @—¹,μ,½,ç□A[OK] f{f^f“,đfNfŠfbfN,μ,Ü,·□B[flfbfgf□□[fN,ì□Ý’è] f\_fCfAf□fO f{fbfNfX,â\Žì,³,è,Ü,·ç□A[OK] f{f^f“,đfNfŠfbfN,μ,Ü,·□B

,±,è,Ä□AMicrosoft SNMP fT□[fxfX,ì□□-,âŠ @—¹,μ□AfT□[fxfX,đŠ]Žn,Ä,«,é□ó’Ô,É,È,è,Ü,μ,½□BfRf“fsf... □[f^,đ□Ä<N“ @,·,é•K—v,í, ,è,Ü,¹,ñ□B



**SNMP fzfLf...fšfefB,đ□□-,-,é**

SNMP fzfLf...fšfefB,É,æ,è□Afrf“fsf...□[f^,ª,Ç,lfRf~f...fjfefB,“ ,æ,ÑfzfXfg,©,ç—  
v<□,đŽó,“ü,é,é,©,đŽw'è,Á,«,Ü,·□B,Ü,½□A“F,ß,ç,è,Ä,ç,É,çfRf~f...fjfefB,Ü,½,lfzfXfg,©,ç□î•ñ,ì—v<□,ª, ,Á  
,½,Æ,«,É□A“F□Øfgf%öbfv,đ'—□M,·,é,©,Ç,æ,©,đŽw'è,Á,«,Ü,·□B

**SNMP fzfLf...fšfefB,đ□□-,-,é,É,í**

1. frf“fgf□□[f< fpf]f<,Á [flfbfgf□□[fn] ft□[fefBšfefB,đ<N“ ® ,µ,Ü,·□B[flfbfgf□□[fn,ì□Y'è] f\_fCfAf□fO  
f{fbfNfX,ª•\Žì,ª,è,Ü,·□B[‘g,Y□ž,Ü,è,Ä,ç,éflfbfgf□□[fn f\ftfgfEfffA] ^è—,©,ç□A[SNMP f□□[frfX]  
,đ'í,đ,µ□A[□□-] f{f^f“,đfNfšfbfN,µ,Ü,·□B[SNMP f□□[frfX,ì□□-] f\_fCfAf□fO f{fbfNfX,ª•\  
Žì,ª,è,Ü,·□B
  2. [fzfLf...fšfefB] f{f^f“,đfNfšfbfN,µ,Ü,·□B[SNMP fzfLf...fšfefB,ì□□-] f\_fCfAf□fO f{fbfNfX,ª•\  
Žì,ª,è,Ü,·□B
  3. “F□Ø,ìŽ,“s,ª, ,Á,½,Æ,«,Éfgf%öbfv,đ'—□M,µ,½,ç□è□±,í□A[“F□Øfgf%öbfv,đ'—□M] f`fFbfN  
f{fbfNfX,đfif“,É,µ,Ü,·□B
  4. [frf~f...fjfefB-¼] f{fbfNfX,É□A,Ç,lfRf~f...fjfefB,©,ç,ì—v<□,đŽó,“ü,é,é,©,đŽì,frf~f...fjfefB-  
¼,đ“ü—í,µ,Ü,·□Bfrf~f...fjfefB-¼,đ“ü—í,µ,½Çæ□A[‘Ç%Á] f{f^f“,đfNfšfbfN,µ,Ä□Afrf~f...fjfefB-  
¼,đ□¶'æ,ì [Žó,“ü,é,éfrf~f...fjfefB-¼] ^è—,É^U“® ,ª,¹,Ü,·□B
- SNMP f□□[frfX,æfzfXfg,©,ç,ì—v<□,đŽó,“ü,é,é,É,í□A,» ,lfzfXfg,ª,±,ì^è—,É•\Žì,ª,è,Ä,ç,éfrf~f...  
fjfefB,É® ,µ,Ä,ç,É, ,è,î,É,è,Ü,¹,ñ□B'É□í□A,·,×,Ä,lfzfXfg,í□gpublic□h,É® ,µ,Ü,·□Bpublic  
,í□A,·,×,Ä,lfzfXfg,Á<æ'É,lfRf~f...fjfefB,đ•\,•W□€-¼,Ä,·□B^è—  
,©,çGf“fgfš,đ□í□æ,·,é,É,í□Afgf“fgfš,đ'í,đ,µ□A[í□æ] f{f^f“,đfNfšfbfN,µ,Ü,·□B
5. ,·,×,Ä,lfzfXfg,©,ç SNMP fpfPfbfg,đŽó,“ü,é,é,©□Ažw'è,µ,½zfzXfg,©,ç,¾,“ SNMP  
fpfPfbfg,đŽó,“ü,é,é,©,đ'í,đ,µ,Ü,·□B



[·,×,Ä,lfzfXfg,©,ç,ì SNMP fpfPfbfg,đŽó□M,·,é] flfvVf†f“ f{f^f“,đ'í,đ,·,é,Æ□A—□MCE³,ì ID  
,É,æ,Á,Ä SNMP fpfPfbfg,ª•““Ü,ª,è,é,±,Æ,í, ,è,Ü,¹,ñ□B[ŽY,lfzfXfg,©,ç,ì SNMP fpfPfbfg,ì,Yžó□M,·,é]  
flfvVf†f“,lfzfXfg^è—,ì-³CEø,É,É,è,Ü,·□B



[ŽY,lfzfXfg,©,ç,ì SNMP fpfPfbfg,ì,Yžó□M,·,é] ,đ'í,đ,µ,½□è□±,í□AfgfXfg^è—,É•\Žì,ª,è,Ä,ç  
,ézfzXfg,©,ç,ì SNMP fpfPfbfg,¾,“ ,đŽó,“ü,é,Ü,·□B[zfzXfg/fAfhfCEfX,Ü,½,ì IPX fAfhfCEfX] f{fbfNfX,É□A—  
v<□,đŽó,“ü,é,ézfzXfg-¼□A,Ü,½,lfAfhfCEfX,đ“ü—í,µ,Ü,·□BŽY,É□A[‘Ç%Á] f{f^f“,đfNfšfbfN,µ,Ä□AfgfXfg-  
¼,Ü,½,lfAfhfCEfX,đ□¶'æ,ì^è—,É^U“® ,ª,¹,Ü,·□B^è—  
,©,çGf“fgfš,đ□í□æ,·,é,É,í□A□í□æ,µ,½,çfGf“fgfš,đ'í,đ,µ□A[í□æ] f{f^f“,đfNfšfbfN,µ,Ü,·□B

6. [OK] f{f^f“,đfNfšfbfN,µ,Ü,·□B[SNMP f□□[frfX,ì□□-] f\_fCfAf□fO f{fbfNfX,ª□A“x\Žì,ª,è,Ü,·□B  
fG□[fWfFf“fg□î•ñ (ft□[fU□[□A□è□š,ÉšÖ,·,éfrf□f“fg,“ ,æ,Ñft□[frfX] ,đŽw'è,·,é,É,í□A[fG□[fWfFf“fg]  
f{f^f“,đfNfšfbfN,µ,Ü,·□BfG□[fWfFf“fg□î•ñ,ì□□- ,É,Á,ç,Ä,í□ASNMP fG□[fWfFf“fg□î•ñ,đ□  
□- ,·,é,đŽQ□Æ,µ,Ä, ,¾,ª,ç□B

7. □□-□í<Æ,đ,·,×,Äš® —¹,µ,½,ç□A[OK] f{f^f“,đfNfšfbfN,µ,Ü,·□B[flfbfgf□□[fn,ì□Y'è] f\_fCfAf□fO  
f{fbfNfX,ª□A“x\Žì,ª,è,½,ç□A[OK] f{f^f“,đfNfšfbfN,µ,Ü,·□B  
,±,è,Ä□AMicrosoft SNMP f□□[frfX,Æ SNMP fzfLf...fšfefB,ì□□- ,ªš® —  
¹,µ□Aft□[frfX,đš]žn,Á,«,é□ó'Ó,É,É,è,Ü,µ,½□Bfrf“fsf...□[f^,đ□Ä<N“ ® ,·,é•K—v,í, ,è,Ü,¹,ñ□B

**SNMP fG[fWfFf“fgî•ñ,ð\¬-,·,é**

SNMP fG[fWfFf“fgî•ñ,É,íAft[fU[“,æ,ÑfRf“fsf...[f^,ì•—  
□“l,É”z’u□ê□Š,ÉŠÖ,·,éRf□f“fg,ð<L□q,μ,½,è□A•ñ□□,·,éft□[frfX,ìŽí—  
p,ðŽwŽì,μ,½,è,Á,«,·,Ü,·□B•ñ□□,Á,«,éft□[frfX,ìŽí—p,í□Afrf“fsf...[f^,ì□□¬,É,æ,Á,Ä^Ü,È,è,Ü,·□B

**SNMP fG[fWfFf“fgî•ñ,ð\¬-,·,é,É,í**

1. fRf“fg□□[f< fpf|f<,Á [f|fbfgf□□[fN] ft□[fefBfŠfefB,ð<N“® ,μ,Ü,·□B[f|fbfgf□□[fN,ì□Ý’è) f\_fCfAf□fO f{fbfNfX,ª•\Žì,³,è,Ü,·□B[‘g,Ý□ž,Ü,è,Ä,ç,é|fbfgf□□[fN f|ftfgfE|fFA] ^è—,Á□A[SNMP ft□[frfX] ,ð’íð,μ□A[□□¬] f{f^f“,ðfNfŠfbfN,μ,Ü,·□B[SNMP ft□[frfX,ì□□¬] f\_fCfAf□fO f{fbfNfX,ª•\ Žì,³,è,Ü,·□B
2. [fG[fWfFf“fg] f{f^f“,ðfNfŠfbfN,μ,Ü,·□B[SNMP fG[fWfFf“fg] f\_fCfAf□fO f{fbfNfX,ª•\Žì,³,è,Ü,·□B
3. [^A—□□æ] f{fbfNfX,É□Afrf“fsf...[f^,ìft□[fU□[-¼,ð□A[□ê□Š] f{fbfNfX,ÉfRf“fsf...[f^,ì•— □“l,É”z’u□ê□Š,ð“ü—l,μ,Ü,·□B,±,è,ç,íRf□f“fg,Á, ,è□Afe|fXfg,Æ,μ,Ä,íŽg—p,Á,«,·,ª□A— ,,ß□ž,Ý□šÇä•¶Žš,ðŠÜ,ß,é,±,Æ,í,Á,«,·,Ü,¹,ñ□B
4. [ft□[frfX] fOf<□[fv f{fbfNfX,Á□A•ñ□□,·,éft□[frfX,ð’íð,μ,Ü,·□B,»,ì Windows NT fRf“fsf... □[f^,ª•ñ<Ý,·,é|fbfgf□□[fN<@“\,ðŽì,·f{fbfNfX,ð,·,×,Ä|f|“,É,μ,Ü,·□BŽg—p,Á,«,éft□[frfX,ðŠÇ— □,·,é,É,í□ASNMP ,ª,±,ì)î•ñ,ðŽ□,Á•K—v,ª, ,è,Ü,·□B

fufŠfbfW,Ü,½,í,í□[f^□[.È,Ç,ì,æ,µ,È’Ç%ooÀ,ì TCP/IP ft□[frfX,ð’g,Ý□ž,ñ,Á,ç,é□ê□#,í□ARFC 1213 ,ðŽQ□Æ,μ,Ä,¾,¾,¾,ç□B

•—□’w  
,±,ì Windows NT fRf“fsf...[f^,ª□Afrfšfs□[f^,È,Ç,ì,æ,µ,È□A•—□ffofCfX,ðŠÇ— □,·,é□ê□#,É,í□A,±,ìf fFfbfN f{fbfNfX,ðf|f“,É,μ,Ü,·□B

f□[f^fŠf“fN/ftfuf|fbfgf□□[fN  
,±,ì Windows NT fRf“fsf...[f^,ª□AfrfšfbfW,È,Ç,ì TCP/IP ftfuf|fbfgf□□[fN,âff□[f^fŠf“fN,ðŠÇ— □,·,é□ê□#,í□A,±,ìf fFfbfN f{fbfNfX,ðf|f“,É,μ,Ü,·□B

fCf“f^□[f|fbfg  
,±,ì Windows NT fRf“fsf...[f^,ð□AIP fQ□[fgfE|fFC,Æ,μ,ÄŽg—p,·,é□ê□#,í□A,±,ìf fFfbfN f{fbfNfX,ðf|f“,É,μ,Ü,·□B

fGf“fh fc□[ fGf“fh  
,±,ì Windows NT fRf“fsf...[f^,ð□AIP fzfXfg,Æ,μ,ÄŽg—p,·,é□ê□#,í□A,±,ìf fFfbfN f{fbfNfX,ðf|f“,É,μ,Ü,·□B,±,ìf fFfbfN f{fbfNfX,í□AWindows NT ,ð’g,Ý□ž,þ□Ü,É□A•K, ,f|f“,É,·,é•K—v,ª, ,è,Ü,·□B

fAfvfŠfP□[fvf#f“  
,±,ì Windows NT fRf“fsf...[f^,É□A“dŽqf□□[f<,È,Ç,ì TCP/IP ,ðŽg— p,·,éAfvfŠfP□[fvf#f“,ð’g,Ý□ž,þ□ê□#,í□A,±,ìf fFfbfN f{fbfNfX,ðf|f“,É,μ,Ü,·□B,± ,ìf|fvfVf#f“,í□AWindows NT ,ð’g,Ý□ž,þ□Ü,É□A•K, ,f|f“,É,·,é•K—v,ª, ,è,Ü,·□B

5. [OK] f{f^f“,ðfNfŠfbfN,μ,Ü,·□B
  6. [SNMP ft□[frfX,ì□□¬] f\_fCfAf□fO f{fbfNfX,ª□A“x\Žì,³,è,½,ç□A[OK] f{f^f“,ðfNfŠfbfN,μ,Ü,·□B[f|fbfgf□□[fN,ì□Ý’è) f\_fCfAf□fO f{fbfNfX,ª□A“x\Žì,³,è,½,ç□A[OK] f{f^f“,ðfNfŠfbfN,μ,Ü,·□B
- ,±,è,Á□ASNMP ,ðŽg—p,Á,«,é□ó’Ô,É,È,è,Ü,μ,½□Bfrf“fsf...[f^,ð□A<N“®,·,é•K—v,í, ,è,Ü,¹,ñ□B



## TCP/IP ,iflfbfgf[]fNŠT”O

,±,±,Á,Í[]AInternet fvf[]fgfRf<’ìCEn,ìŠe[]\[]—v’f,Æ IP fAfhfCEfXŽw’è,É,Á,ç,Ä[]à-¾,μ,Û,·[]B,±  
,ê,ç,ÉŠÖ,·,é,æ,è[]Ú,μ,ç[]î•ñ,É,Á,ç,Ä,Í[]A[]wInternet networking with TCP/IP[]x[]AVolume I, by Douglas E.  
Comer: Prentice Hall, 1991 (-M-ó: []wTCP/IP ,É,æ,éflfbfgf[]fN[]’z Vol.†T[]x[]A’^ä[]f[]A’í-{}”Ž”V-ó[]A<α—  
S[]o”Á[]A1993) ,É,ç,ìŠÖ~A•¶CE£,ðŽQ[]Æ,μ,Ä,,¾,¾,ç[]BŽŸ,ì[]€-Ú,Á,Í[]AMicrosoft TCP/IP ,ì 2 ,Á,ì[]d—v,È<@”\  
,Á, ,é[]ADHCP (Dynamic Host Configuration Protocol; “®“lfzfXfg[]\[]—fvf[]fgfRf<) ,Æ WINS (Windows  
Internet Name Service; Windows fCf“f^[]flfbfg f[]f[]€ fT[]f[]rfX) ,ìŠT”O,É,Á,ç,Ä[]à-¾,μ,Û,·[]B,Û,½[]ADNS  
(Domain Name System; fhf[]fCf“ f[]f[]€ fv[]f[]Xfef€) ,lfAfhfCEfXŽw’è,ì•û-@[]A, ,æ,Ñ TCP/IP ,ð Windows NT  
flfbfgf[]fN fA[]fLfefNf’ff,É“K%ž,¾,¾,é•û-@,É,Á,ç,Ä,à[]à-¾,μ,Û,·[]B

ŽŸ,ì[]€-Ú,É,Á,ç,Ä[]à-¾,μ,Û,·[]B



[Internet fvf\[\]fgfRf<’ìCEn](#)



[IP fAfhfCEfXŽw’è](#)



[DHCP \(“®“lfzfXfg\[\]\\[\]—fvf\[\]fgfRf<\)](#)



[WINS ,Æ Windows flfbfgf\[\]fN,ì-¾’O%ðCE^](#)



[SNMP](#)



[TCP/IP ,Æ Windows flfbfgf\[\]fN](#)



**TCP ("`'—□\$CEäfvf□fgfRf<) ,Æ IP (fCf" f^□[flfbfg fvf□fgfRf<)**

TCP (Transmission Control Protocol; "`'—□\$CEäfvf□fgfRf<) ,Æ IP (Internet Protocol; fCf" f^□[flfbfg fvf□fgfRf<) ,í□AIP fvf□fgfRf<'íCEn,É'©,·,é,ç,,Ä,©,lfvf□fgfRf<,ì,κ,ζ,ì 2 ,Ä,Ä,μ,©, ,è,Ü,<sup>1</sup>,ñ□BIP ,í□ATCP/IP ftf@f~fŠ"à,ì,Ü,©,ì,·,x,Ä,lfvf□fgfRf<,ì,½,β,É□AfpfPfbfg"z□M,ð□s,κfvf□fgfRf<,Ä, ,è□Afrf"fsf...□[f^ f□[f^,É'í,μ,Äfrf|fNfVf+f" fCEfXCE^,ì"z□MfVfXfefe€,ð'ñ<ÿ,μ,Ü,·□B,·,É,í,ζ□AIP fpfPfbfg,<sup>a</sup>,»,'—□M□æ,É"í,,± ,Æ,í•Ü□Ø,<sup>3</sup>,è,Ü,<sup>1</sup>,ñ,μ□A,Ü,½□A'—□M,<sup>3</sup>,è,½□#□~ ,ÄŽó□M,Ä,« ,é•Ü□Ø,à, ,è,Ü,<sup>1</sup>,ñ□BIP fvf□fgfRf<,lf` fFfbfNfTf€<@"\,í□AIP fwfbf\_□[,ì□@□#□<,ð•Ü□Ø,·,é,¾,¯ ,Ä,·□B,μ,½,<sup>a</sup>,Ä,Ä□AIP fpfPfbfg,ÉŠÜ,Ü,è,Ä,ç,éff□[f^ (,·,æ,Ñ□Afff□[f^,ì•Ä,Ñ) ,É'í,·,é□Ó"C,í□AZg—p,<sup>3</sup>,è,é,æ,è□ã^Ê,lfvf□fgfRf<,<sup>a</sup>• %o,κ,±,Æ,É,È,è,Ü,·□B

□Ä,à^ê"E"í,È□ã^ÊfCEfxf< IP fvf□fgfRf<,í TCP ,Ä,·□BTCP ,í□A□M—Š□<,ì, ,é□A□Ú'±fx□[fX,lfvf□fgfRf<,ð IP □ã,É (,Ü,½,ì IP "à,ÉfjfvfZf<%o»,μ,Ä) 'ñ<ÿ,μ,Ü,·□BTCP ,í□AfpfPfbfg,ìŠmŽÄ,É"z□M,ð•Ü□Ø,μ□Aff□[f^, <sup>a</sup>□<sup>3</sup>,μ,ç•Ä,Ñ,Ä'—□M,<sup>3</sup>,è,é,æ,κ,É,μ,Ü,·□B,Ü,½□ATCP/IP ,í□AfpfPfbfg fwfbf\_□[ ,Æ,» ,ìff□[f^,ì—¼•ù,ì□<sup>3</sup>Šm,<sup>3</sup>,ðCEÿ□,·,é` fFfbfNfTf€<@"\ ,à'ñ<ÿ,μ,Ü,·□B"``'—'†,É□Aflfbfgf□□[fN,Ä TCP/IP fpfPfbfg, <sup>a</sup>"j'<sup>1</sup>,μ,½,è•'Ž,μ,½,è,Æ,ç,Ä,½□áŠQ, <sup>a</sup>"- □¶,·,é,Æ□ATCP ,í□áŠQ,ì, ,éfpfPfbfg,ð□Ä'—□M,μ,Ü,·□B,±,ì,æ,κ,È□M—Š□<,ì□,<sup>3</sup>,ì,½,β,É□ATCP/IP ,í□A fZfbfVf+f" fx□[fX,ìff□[f^"``'—□A fNf%ofCfAf"fg fT□[fo□[ fAfvfŠfP□[fVf+f"□A,·,æ,Ñ" dŽqf□□[f<,È,Ç,ìŠìŠ<sup>2</sup>fT□[rfX,ÉŽg,í,è,Ä,ç,Ü,·□B

,μ,©,μ□A,±,ì□M—Š□<,É,í'ã□ž, <sup>a</sup>"o,ç,Ü,·□BTCP fwfbf\_□[ ,É,í□A□î•ñ,ð□<sup>3</sup>,μ,ç•Ä,Ñ,Ä"``'—,·,é,½,β,É'Ç %oÁfrfbfg,ðŽg,κ•K—v,<sup>a</sup>, ,è,Ü,·,μ□A,Ü,½□ATCP fwfbf\_□[ ,·,æ,ÑfpfPfbfg f□[f^,ì—¼•ù,ì□M— Š□<,ð•Ü□Ø,·,é,½,β,É<□Sf` fFfbfNfTf€ ,ðŽg,κ•K—v,à, ,è,Ü,·□B,Ü,½□Aff□[f^,ð□<sup>3</sup>,μ,- "z□M,·,é,É,í□Aff□[f^,ð□<sup>3</sup>,μ,Žó□M,μ,½,±,Æ,ðŠm" F,·,éŠm" F%ož"š,à TCP/IP ,É,í•K—v,Æ,È,è,Ü,·□B

,±,ìŽí,ìŠm" F%ož"š (ACK) ,í□A'Ç%oÁfgf%oftfBfbfN,ð□¶□—,·,é,ì,Ä□Aff□[f^,ì□M— Š□<,í□,Ü,Ä,Ä,àff□[f^ ,lfXf<□[fvfbfg,íCE,μ,Ü,·□B'ã"¼,lfzfXfg,í□AfpftfH□[f}f" fX,Ö,ì %oe<ζ,ðCE,·,ç,·,½,β,É□A fZfOf□[f" fg 1 ,Ä,·,« ,©□AACK f^fCf€fAfEfGŽžŠÖ,ìCe%oβCEã,ÉŠm" F%ož"š,ð'— □M,μ,Ü,·□B

## UDP (ft□[fU□[ ff□[f^fOf%of€ fvf□fgfRf<)

□M—Š□« ,ª•K—v•s%oÁCE‡,Á,í,È,ç□ê□‡,í□ATCP □€< ,ì UDP (User Datagram Protocol; ft□[fU□[ ff□[f^fOf %of€ fvf□fgfRf< ) ,í□A”z□M,à”z□MfjpfPfbfg,ì□³,μ,ç•À,Ñ,à•Ú□Ø,μ,È,ç (IP ,ÉŽ—,Ä,ç,Ü,·) fRfjlfNfVf‡f”fCEfXCE^ff□[f^fOf%of€ fT□[fxfX ,ð’ñ<ÿ,μ,Ü,·□B□ã^ÊfCEfxf< fvf□fgfRf<,Ü,½,ÍfAfvfŠfP□[fVf‡f” ,ª□AUDP/IP ,É’Ç%oÁ,μ,Ä□A□M—Š□« ,ð•Ú□Ø,·,é<@□\ ,ð’ñ<ÿ,·,é□ê□‡,ª ,è,Ü,·□BUDP ff□[f^ f`fFfbfNfTf€ ,ÍfjfvfVf‡f” ,Á ,è□A”ñ□í,É□M— Š□« ,ª□,çfjfbfgf□□[fN□ã,Á□Afvfbfgf□□[fNŽ’CE¹,â□^—□ŽŽŠÖ,ð•K—v^É□ã,É”i,â,ª,È,ç,Áff□[f^ ,ðCEðŠ·,·,é•ù- @,ð’ñ<ÿ,μ,Ü,·□BUDP f`fFfbfNfTf€ ,í□Afwfbf\_□[ , ,æ,Ñff□[f^ ,ì—¼•ù,ðCEÿ□Ø,μ,Ü,·□BUDP fvf□fgfRf<,Á,í ACK ,à<□s,Á,í,È,·□A□ã^ÊfCEfxf< fvf□fgfRf<,É^í,È,ç,ê,Ä,ç,Ü,·□B





## IP fAfhfCEfXŽw'è

fzfXfg,Æ,íAflfbfgf□□[fN,É□Ú'±,³,è,½□ATCP/IP ,ðŽg—p,·,é" C^Ó,ìfffofCfX,Á,·□BzfXfgŠÔ,ÁfpfPfbfg,ð□³,μ,- Žó"z□M,·,é,½,β,É□ATCP/IP ,í□Aft□[fU□[,²'ñ<Ÿ,·,é IP fAfhfCEfX□Aftfufifbfg f}fXfN□A,·,æ,ÑffftfHf<fg fQ□[fgfEfFfC,ì 3 ,Á,ì□î•ñ,ðŽg—p,μ,Ü,·□B

fifbfgf□□[fNŠÇ—□ŽÒ,í□Afrf"fsf...□[f^,É TCP/IP ,ð□□—,·,é,½,β,É□A,±,è,ç,ìŠe□î•ñ,ð'ñ<Ÿ,μ,Ü,·□BDHCP fT□[fo□[,²'¶□Ÿ,·,éfifbfgf□□[fNä,ì Windows NT ft□[fU□[,í□AZ©" "®fvfXfef€□□—,ð—~—p,Á,«,é,ì,Á□ATCP/IP fpf%of□□[f^,ì□□—,ðŽè" ©,Á□s,²•K—v,í, ,è,Ü,¹,ñ□BŽŸ,ì□€—Ú,Á,í□AIP fAfhfCEfX□Aftfufifbfg f}fXfN□A,·,æ,Ñ IP fQ□[fgfEfFfC,É,Á,ç,Á□Ú,μ,□à-¾,μ,Ü,·□B



IP fAfhfCEfX



fifbfgf□□[fN ID,ÆfzfXfg ID



fTfufifbfg f}fXfN



f<□[fefBf"fo,Æ IP fQ□[fgfEfFfC



RAS ,ì IP fAfhfCEfXŽw'è

ŠÖ~A□€—Ú

DHCP (" "®"fzfXfg□□—fvf□fgfRf<)


## IP fAfhfCEfX

TCP/IP flfbfgf□□[fN□ä,lfzfXfg fCf“f^□[ftfFfCfX (,Ü,½,lfm□[fh) ,í,·,x,Ä□A^ê^Ó,ì IP fAfhfCEfX,ÄŽ·•Ê,³,ê,Ü,·□B,±,lfAfhfCEfX,í□Aflfbfgf□□[fN□ä,lfm□[fh,ìŽ·•Ê,ÉŽg— p,³,ê□A,Ü,½□AfCf“f^□[flfbfgf□□[fN,lf<□[fefBf“fOî•ñ,ìŽw`è,É,àŽg—p,³,ê,Ü,·□BIP fAfhfCEfX ,í□Afrf“fsf... □[f^,ð□ATCP/IP flfbfgf□□[fN‘S‘ì,Å^ê^Ó,ì 32 frfbfg fAfhfCEfX,Æ,μ,ÄŽ·•Ê,μ,Ü,·□B‘É□í□AIP fAfhfCEfX,í□Afhfbfg<æ□Ø,è 10 □i•\<L,Å•\,μ,Ü,·□B,±,ì•\<L-@,Å,í□AIP fAfhfCEfX,ìŠeflfNfefbfg (8 frfbfg□A,Ä,Ü,è 1 fofCfg) ,ð 10 □i‘l,Å•\,μ□AfsfŠfJfh,Å<æ□Ø,Å,Å•\,μ,Ü,·□BIP fAfhfCEfX,ì—á,ðŽÿ,ÉŽ!,μ,Ü,·□B 102.54.94.97

□d—v : IP fAfhfCEfX,í□A‘ŠCEÿ□Ú‘± ,³,ê,½flfbfgf□□[fN□ä,lfm□[fh,ðŽ·•Ê,·,é,ì,Å□AfCf“f^□[flfbfgf□□[fN□ä,ìŠefVfXfef€ ,É,í□A,»),ì‘Á‘è,lfJfbfgf□□[fN,Å—LCEø,È^ê^Ó,ì IP fAfhfCEfX,ðŠ,,è“- ,Ä,È, ,é,ì,È,è,Ü,¹,ñ□B

ŠÖ~A□€-Ú

 flfbfgf□□[fN ID,ÆfzfXfg ID

 fTfufJfbfg\_f}fXfN

**flfbfgf[]fN ID ,ÆfzfXfg ID**

IP fAfhfCEfX, íP^è, ì, Á, ·, ðA, », ±, É, ÌfRf“fsf...[]f^ ^, Ìfifbfgf[]fN ID ,ÆfzfXfg (, ·, È, í, ù, V, fX, fef€) ID , ì 2 Ží—  
p, Ì, ð, ñ, ðŠÜ, Ü, è, Ä, ç, Ü, ·, []B



flfbfgf[]fN ID , íA fRf“fsf...[]f^ ^ fOf<[]fv, ·, æ, Ñ“~ , ¶~ —[]fifbfgf[]fN ðä, È^È^u, µ, Ä, ç  
, é, Ü, ©, ÌfffofCfX, ðŽ~ ·É, µ, Ü, ·, []B fCf“f^ []fifbfgf[]fN (·; []” , Ìf[][]fjfk fGfŠfA flfbfgf[]fN, Ä[]  
[]-, ð, è, é, Ìfifbfgf[]fN) , È, ÌAŠeflfbfgf[]fN, È, í, ·, é^è^Ó, Ìfifbfgf[]fN ID , ð, ¶, µ, Ü, ·, []B



fzfXfg ID , íA“Á^è, Ìfifbfgf[]fN ID , È^® , ·, éfRf“fsf...[]f^ ^, ðŽ~ ·É, µ, Ü, ·  
(fzfXfg, Æ, ÌA fflfbfgf[]fN, È, Ü^±, ð, è TCP/IP , ðŽg—p, µ, Ä, ç, é”C^Ó, ÌfffofCfX, Ä, ·)[]B

fpfufŠfbfN, È Internet , È, Ü^±, ·, é, Ìfifbfgf[]fN, íA ADDN-NIC (“ú- {, Á, í JPNIC) , ©, ç, Ç, È, ð”F, Ìfifbfgf[]fN ID  
, ð“üŽè, µ, Ä, AIP flfbfgf[]fN ID , Ì^è^Ó, ðŠm^Ü, µ, È, ·, Ä, í, È, è, Ü, ð, ñ, B flfbfgf[]fN ID  
, ðŽó, ~Žæ, Á, ½, ç, A f[][]fjk ffbfgf[]fN, ÌŠÇ—[]ŽÒ, ÌA f[][]fjk ffbfgf[]fN“à, ÌfRf“fsf...[]f^ ^, È^è^Ó, ÌfzfXfg ID  
, ðŠ,, è“- , Ä, é, K—v, ð, , è, Ü, ·, []B Internet , È, Ü^±, µ, Ä, ç, È, ç, fv  
%ofCfX[]fg, È flfbfgf[]fN, Á, íA“ÆŽ©, Ìfifbfgf[]fN Ž~ ·ÉŽq, ðŽg—p, ·, é, ±, Æ, à, Á, «, Ü, ·, ð, A Internet , È—  
L, Ç, È, flfbfgf[]fN ID , ð“üŽè, µ, Ä, ·, , Æ, A“«—^[]A fAfhfCEfX, ð, ðŠ,, è“- , Ä, ·, é, ±, Æ, È, []A fv  
%ofCfX[]fg, È flfbfgf[]fN, ð Internet , È, Ü^±, ·, é, ±, Æ, ð, Á, «, Ü, ·, []B

Internet fRf~f... fjjfefB, íA, ð, ·, Ü, È, fTfCfY, Ìfifbfgf[]fN, È“K[]±, ·, é, æ, x, È, A fAfhfCEfX fNf%ofX , ð^è< , µ, Ä, ç  
, Ü, ·, []B Šeflfbfgf[]fN fNf%ofX, íA AIP fAfhfCEfX, íA, ð%o, ÌfifNfefbfg, Å, Ç, ©, ð, ·, é, ±, Æ, ð, Á, «, Ü, ·, []B ŽŸ, Ì, ð  
, íA fAfhfCEfX, íA, ð%o, ÌfifNfefbfg, Æ, A fflfbfgf[]fN ID ftfB[]f<fh, ·, æ, Ñ, fzfXfg ID  
ftfB[]f<fh, ÌŠÖEW, ð, Ü, Æ, ß, ½, à, Ì, Á, ·, []B, ±, Ì, ·, í, A Internet fAfhfCEfX Žw^è·ùŽ®, È^®, µ, Ä, ç, é, ŠefAfhfCEfX fNf  
%ofX, Ìfifbfgf[]fN ID “[]”, ·, æ, Ñ, fzfXfg ID “[]”, àŽ!, µ, Ä, ç, Ü, ·, []B, ±, Ì, fTf“fvf<, Á, íA w.x.y.z , ðŽg, Á, Ä, AIP  
fAfhfCEfX, ÌfofCfG, ð, ·, µ, Ä, ç, Ü, ·, []B

fNf %ofX	w 'l*	flfbfgf[] fN ID	fzfXfg ID	flfbfgf[]fN []”	Šeflfbfgf[]f N, ÌfzfXfg[]”
A	1-126	w	x.y.z	126	16,777,214
B	128-191	w.x	y.z	16,384	65,534
C	192-223	w.x.y	z	2,097,151	254

\* IP fAfhfCEfX“à, Ì, ð%o, ÌfifNfefbfg, ÈŠÜ, Ü, è, é”í^í[]B fAfhfCEfX 127 , íA f[][]fjfk fRf“fsf...  
[]f^ ^ ä, Ìf<[]fvfobfN fefXfg, ·, æ, Ñ, fv[]fzXŠÖ^È[]M—p, È—\—ñ, ð, è, Ä, ç, é, Ì, Á, A fflfbfgf[]fN  
fAfhfCEfX, È, ÌŽg—p, Á, «, Ü, ð, ñ, B, Ü, ½, A 224 ^È[]ä, ÌfAfhfCEfX, íA“Á·É, È, fv[]fGfRf< (IGMP  
f}f<f“fLfffXfg, È, Ç) —p, È—\—ñ, ð, è, Ä, ·, è, A fzfXfg fAfhfCEfX, È, ÌŽg—p, Á, «, Ü, ð, ñ, B

flfbfgf[]fN fm[]fh, íA fflfbfgf[]fN ID , ·, æ, Ñ, fzfXfg ID , ðŽg, Á, Ä, A, Ç, ÌfPfPfbfg, ðŽó[]M, µ, Ä, Ç, ÌfPfPfbfg, ð-  
³Ž<, ·, x, «, ©, ð, Ç, È^è, µ, A“^—, Ì”í^í, ð, Ç, È^è, µ, Ü, ·, (“~ , ¶, Ìfifbfgf[]fN ID , ðŽ, Á, ½, fm[]fh, Ç, x, µ, ¾, ·, ð, AIP  
fCEfX<, Ìfuf[][]fhfLfffXfg, ð, Ç, È, Žó, ~“ü, è, é, ±, Æ, ð, Á, «, Ü, ·, []B

^—[]MŽÒ, Ì IP fAfhfCEfX, íA“[]M, ð, è, ÈŠe IP fPfPfbfg, ÈŠÜ, Ü, è, Ä, ç, é, Ì, Á, A Žó[]M, µ, ½, fR[]fh, í IP fAfhfCEfX  
ftfB[]f<fh, ©, ç, []M^x, Ìfifbfgf[]fN ID , ÆfzfXfg ID , ð, ø, []o, ·, ±, Æ, ð, Á, «, Ü, ·, []B, ±, è, È, Ì, A fTfufifbfg  
f}fXfN, ðŽg, í, è, Ü, ·, []B

**fTfuflfbfg f}fXfN**

fTfuflfbfg f}fXfN, í 32 frfbfg'l, Á, ·BIP fpfPfbfg, lžóMžÒ, íAfTfuflfbfg f}fXfN, đžg, Á, ÄAfzfXfg ID , ©, ç IP fAfhfCEfX, ìflfbfgf[]fN ID ·"·ª, ðæ·É, ·, é, ±, Æ,ª, Á, «, Ü, ·BIP fAfhfCEfX, Æ" —l, ÉAfTfuflfbfg f}fXfN, ì'l, àfhfbfg<æ[]Ø, è 10 []i·\<L, Á·\, ·, ì,ª^è"É"l, Á, ·BfTfuflfbfg f}fXfN, íAfifbfgf[]fN ID , É'®, ·, éfrfbfg, É 1 , ðAfzfXfg ID , É'®, ·, éfrfbfg, É 0 , đš,,, è"—, Ä, Ä[]-³, è, Ü, ·B'Sfrfbfg, É 1 , Ü, ½, í 0 , đ"K[]Ø, Éš,,, è"—, Ä, é, ÆA32 frfbfg'l, ìfhfbfg<æ[]Ø, è 10 []i·\<L, É·İš, ·³, è, Ü, ·BžŸ, ì·\, đžQ[]Æ, µ, Ä, ·¾, ·³, ç[]B

fAfhfCEfX	fTfuflfbfg f}fXfN, ìfrfbfg	fTfuflfbfg f}fXfN
fNf%ofX A	11111111 00000000 00000000 00000000	255.0.0.0
fNf%ofX B	11111111 11111111 00000000 00000000	255.255.0.0
fNf%ofX C	11111111 11111111 11111111 00000000	255.255.255.0

, ±, ìCE<%oÉ, É, æ, Á, Ä[]ATCP/IP, íAf[][]fjfk fRf"fsf...[]f^, ìfzfXfg ID , ·, æ, Ñflfbfgf[]fN ID , đ"»·É, µ, Ü, ·B, ½, Æ, ì, ìAIP fAfhfCEfX,ª 102.54.94.97 , ÄAfTfuflfbfg f}fXfN ,ª 255.255.0.0 , ì, Æ, «Afifbfgf[]fN ID , í 102.54AfzfXfg ID , í 94.97 , É, È, è, Ü, ·B

[]ä, ì·\, ðCE©, é, ÆAfzfXfg, ìfNf%ofX, ÍšÈ'P, ÉCE^è, Á, «, é, ì, ÁAfTfuflfbfg f}fXfN, ÁfzfXfg, ð[] []-, ·, é, ì, []ç'·, ÉCE©, ì, é, ©, à, µ, è, Ü, ñ[]B, µ, ©, µAfTfuflfbfg f}fXfN, íA·i[]", ìf[][]fjfk flfbfgf[]fN, Áš,,, è"—, Ä, ç, è, ½ 1 , Ä, ìflfbfgf[]fN ID , ð,³, ç, É<æª, ·, é, ½, ß, É, àžg, í, è, Ü, ·B

, ½, Æ, ì, ìA, , éflfbfgf[]fN, ÉfNf%ofX B , ìflfbfgf[]fN fAfhfCEfX 144.100 ,ªš,,, è"—, Ä, ç, è, Ä, ç, é, Æ %o¼'è, µ, Ü, ·B, ±, è, í 16,000 , ð'·, ì, éfNf%ofX B fAfhfCEfX, ì 1 , Ä, Á, , è[]A65,000 , ð'·, ì, éfm[]fh, ÉfT[]fRfX, ð'ñ<Ÿ, ·, é, ±, Æ,ª, Á, «, Ü, ·B, µ, ©, µA, ±, ì ID ,ªš,,, è"—, Ä, ç, è, Ä, ç, é[]çšE<K- Ì, Ìšè<Æflfbfgf[]fN, íA, »., è, ¼, è 75 , ©, ç 100 , ìfm[]fh, đžQ, Á, ½ 12 CEÁ, ì[]Ü LAN , ©, ç[]-, è—š, Á, Ä, ç , Ü, ·B, ±, ì, æ, x, È[]ê[]Afifbfgf[]fN ID , ð,³, ç, É 11 CEÁ'ç%oÁ, ·, é, æ, è, à[]Aš,,, è"—, Ä, ç, è, ½ ID , ì 144.100 , ðfTfuflfbfg, đžg, Á, ÄCEø—! "l, Éžg—p, µ, ½, Ü, x,ªCE<-¾, Á, ·BIP fAfhfCEfX, ì 3 "Ö-Ü, ìfifNfefbfg, ðfTfuflfbfg ID , Æ, µ, Äžg, çAfTfuflfbfg f}fXfN 255.255.255.0 , ð'è<` , ·, é, ±, Æ,ª, Á, «, Ü, ·B, ±, è, É, æ, è[]AfNf%ofX B fAfhfCEfX, íA144.100.0 , ©, ç 144.100.255 , Ü, Á, ì 256 , ìfTfuflfbfg, Éªš,,, Á, «, Ü, ·B, »., è, ¼, è, ìfTfuflfbfg, í 254 , ìfm[]fh, đžQ, Á, ±, Æ,ª, Á, «, Ü, · (fzfXfgID , ì, x, z[]A0 , Æ 255 , ðAfRf"fsf...[]f^, Éš,,, è"—, Ä, é, ± , Æ, í, Á, «, Ü, ñ[]B, ±, è, ç, ìAfuf[]fhfLfffXfg fAfhfCEfX, Æ, µ, Äžg, í, è, Ü, ·B'É[]A, ±, ìfAfhfCEfX, íA'SfRf"fsf... []f^,ª" Fž", µ, Ü, ·)[]B, ±, ì—á, Á, íA, ±, è, ç, ìflfbfgf[]fN fAfhfCEfX, ì, x, z, ì"C^Ó, ì 12 , ìfAfhfCEfX, ð, ±, ì[]Ü LAN , Éš,,, è"—, Ä, é, ±, Æ,ª, Á, «, Ü, ·BšE LAN "à, Á, íAšEfRf"fsf...[]f^, É, »., è, ¼, è ^è^Ó, ìfzfXfg ID , ðš,,, è"—, Ä, Ü, ·B, ±, è, ç, ìfzfXfg ID , ìfTfuflfbfg f}fXfN, í, ·, x, Ä 255.255.255.0 , Ä, ·B

[]ä, ì—á, ìAfNf%ofX B fAfhfCEfX, ÉšÖ, ·, éšÈ'P ( , ©, Á^è"É"l) , ÉfTfuflfbfg, ì·ùž®, đžì, ·, à, ì, Á, ·B[]è[]š, É, æ, Á, Ä, íAfTfuflfbfg ID , đžw'è, ·, é, ½, ß, É[] [] , ìfrfbfg,¾, ·, đžg, Á, ÄAfifNfefbfg, ì^è·,¾, ·, ðªš,,, µ, È, ·, è, Ì, È, ç, È, ç, ±, Æ, à, , è, Ü, · (fTfuflfbfg, ìfm[]fh[]",ª 256 , ð'·, ì, é[]è[]š, È, Ç)[]Bf+[]fU[] , íAf[][]fjfk flfbfgf[]fNšÇ—[]žÖ, Æ'S'k, µ, ÄAfifbfgf[]fN, ìfTfuflfbfg, ìCE '¥, ·, æ, Ñ[]³, µ, çfTfuflfbfg f}fXfN, ðCE^ , ß, Ä, ·¾, ·³, ç[]Bf[][]fjfk flfbfgf[]fN[]ä, ì'SfvXfef€, Áf[][]fjfk flfbfgf[]fN, ìflfbfgf[]fN ID , É'í, ·, éfTfuflfbfg f}fXfN, í"·, ¶, Á, È, ·, è, Ì, È, è, Ü, ñ[]B []d—v : ·"—[]flfbfgf[]fN[]ä, ìfRf"fsf...[]f^, Ì, ·, x, ÄA"·, ìfTfuflfbfg f}fXfN, Æflfbfgf[]fN ID , đžg, x·K—

v,ª, ,è,Û,·□B,±,ê,ç,ª^Ù,È,é,Æ□AfAfhfCEfXŽw'è, ",æ,Ñf<□[fefBf"fO,Å-â'è,ª□¶,¶,é%∞Â"\□«,ª, ,è,Û,  
·□B

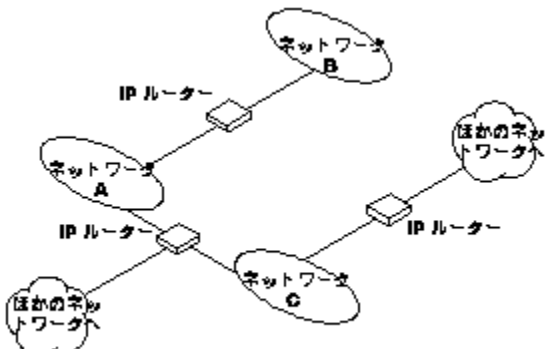
**f<[]fefBf"fo,Æ IP fQ[]fgfEjFfC**

TCP/IP flfbfgf[]fN,Ç,µ,í[]AfQ[]fgfEjFfC (,Ü,½,í<[]f^[]),É,æ,Á,ÄÜ'±  
 ,³,è,Ü,·[]BQ[]fgfEjFfC,í[]AfCf" f^[]flfbfgf[]fN"à,ÄÜ'±,³,è,Ä,ç,éflfbfgf[]fN,ÉŠÖ,·,é[]î•ñ,ðŽ[],Á,Ä,ç  
 ,Ü,·[]B,»,è,¼,è,ì IP fzfXfg,í"Á"è,ì—[]M[]æ,Ö,ì[]Ä"í,Éf<[]fg (Ce~H) []î•ñ,ð•ÜŽ[],·,é,±,Æ,ª,Á,«,Ü,·,ª[]A  
 %"Šu,ì'—[]M[]æ,ðCE@,Á,¯,é,½,ß,É,í[]A"É[]ffffHf<fg fQ[]fgfEjFfC,ªŽg—p,³,è,Ü,· (ffffHf<fg fQ[]fgfEjFfC  
 ,í[]AfRf"fsf...[]f^,ªfCf" f^[]flfbfgf[]fN,ì"è" ,É,È,Á,Ä,ç,é[]è[]±,É,¾,¯•K—v,Á,·)[]B

IP ,í[]AfpfPfbfg,ì'—[]M,ð[]€"ð,·,é,Æ,«[]AfpfPfbfg,ìf[][]fj< ('—[]MCE³) IP fAfhfCEfX,Æ'—[]M[]æfAfhfCEfX,ðIP  
 fwfbf\_[][,É'}"ù,µ[]A'—[]M[]æ,ìflfbfgf[]fN ID ,ª'—[]MCE³,ìflfbfgf[]fN ID ,É"è"v,·,é,©,Ç,µ  
 ,©,ðCEÿ[],µ,Ü,·[]B—¼•ù,ìflfbfgf[]fN ID ,ª"è"v,·,é[]è[]±,í[]AfpfPfbfg,í[]Af[][]fj< flfbfgf[]fN[]ã,ì'—  
 []M[]æfRf"fsf...[]f^,É"¼[]Ü'—[]M,³,è,Ü,·[]B"è"v,µ,È,ç[]è[]±,í[]A"Ä"í<[]fg[]î•ñ,ª,È,ç,©f<[]fefBf"fo  
 fe[]fuf<,ª¹², x,ç,è,Ü,·[]BCE@,Á,©,ç,È,ç[]è[]±[]AfpfPfbfg,í[]A"z[]M,ì,½,ß,ÉffffHf<fg fQ[]fgfEjFfC,É"']'—  
 ,³,è,Ü,·[]B

ffffHf<fg fQ[]fgfEjFfC,í[]Af[][]fj< fTfufLfbfg,à,Ü,©,ìflfbfgf[]fN,ÉÜ'±,µ,Ä, ,éRf"fsf...  
 []f^,Á, ,è[]AfCf" f^[]flfbfgf[]fN"à,ì,Ü,©,ìflfbfgf[]fN,ìflfbfgf[]fN ID []î•ñ,ð[]Š—L,µ,Ä,¯,è[]A,±  
 ,é,ç,ìflfbfgf[]fN,Ö"ž'B,·,é•ù-@,à'm,Á,Ä,ç,Ü,·[]BffffHf<fg  
 fQ[]fgfEjFfC,í[]AfCf" f^[]flfbfgf[]fN"à,ì,Ü,©,ìflfbfgf[]fN,ìflfbfgf[]fN ID ,ð'm,Á,Ä,ç  
 ,é,ì,Ä[]AZw"è,³,è,½'—[]M[]æ,ÉÜ'±  
 ,·,éfQ[]fgfEjFfC,ÉžÄÜ,ÉfPfbfg,ª"z[]M,³,è,é,Ü,Ä[]A,Ü,©,ìfQ[]fgfEjFfC,É,±,ìfPfbfg,ð"']'—,·,é,±  
 ,Æ,ª,Á,«,Ü,·[]B,±,ìfv[]fZfX,ðf<[]fefBf"fo,ÆCEÄ,Ñ,Ü,·[]B

fQ[]fgfEjFfC,ðCe—R,µ,½fCf" f^[]flfbfgf[]fN f<[]fefBf"fo



CEÄ[]X,ì IP fTfufLfbfg,ªfCf" f^[]flfbfgf[]fN,ÉÜ'±,³,è,Ä,ç,é[]è[]±[]AfLfbfgf[]fNŠÖ,Áf<[]fefBf"fo  
 (fPfbfg,ì"z[]M) ,ð[]s,µ,½,ß,É IP fQ[]fgfEjFfC,ªŽg,ì,è,Ü,·[]BTCP/IP fm[]fh,ª"Ü,È,éflfbfgf[]fN ID  
 ,ðŽ[],Áflfbfgf[]fN,Æ'É[]M,ð[]s,¯,µ,Æ,·,é[]è[]±[]AfQ[]fgfEjFfC (,Ü,½,ì"è"Ä,ìfQ[]fgfEjFfC) ,í[]A'—  
 []M[]æ,ìflfbfgf[]fN,ÉfPfbfg,ð"']'—,µ,È,¯,é,ì,È,è,Ü,¹,ñ[]BQ[]fgfEjFfC,í[]AfPfbfg,ª'—[]M[]æ,É".....,æ,µ  
 ,É[]A,»,ìfPfbfg,ì[]i,ª•ùCEü (žÿ,ìfQ[]fgfEjFfC,ìfAfhfCEfX) ,ðŽw"è,·,é<[]fefBf"fo fe[]fuf<,ð•ÜŽ[],µ,Ä,ç  
 ,Ü,·[]B

fCf" f^[]flfbfgf[]fN,ì"è" ,Á,ì,È,çflfbfgf[]fN,ì[]è[]±,í[]AIP fQ[]fgfEjFfC,ì•K—  
 v, ,è,Ü,¹,ñ[]Bflfbfgf[]fN,ªfCf" f^[]flfbfgf[]fN,ì"è" ,Á, ,è[]AfVfXfef€,ÉffffHf<fg  
 fQ[]fgfEjFfC,ªŽw"è,³,è,Ä,ç,È,ç[]è[]± (,Ü,½,ìfQ[]fgfEjFfC fRf"fsf...[]f^,ª³,µ, "[]@[]i,µ,Ä,ç,È,ç[]è[]±)  
 ,í[]Af[][]fj< fTfufLfbfg,ìŠÖ,Æ,ì"É[]M,¾,¯,É[]áŠQ,ª<N,±,è,Ü,·[]Bft[]fU[][,í[]Aroute  
 ft[]fefBfŠfefB,ðŽg,Á,Ä"í<[]fg,ð"']'C%ª,µ[]A"Á"è,ìfvfXfef€,ìf<[]fg,ðŽw"è,·,é,±  
 ,Æ,ª,Á,«,Ü,·[]B"Ä"í<[]fg,í[]A,Á,È,ÉffffHf<fg fQ[]fgfEjFfC,ìŽg—p,æ,è—D[]æ,³,è,Ü,·[]B

ffffHf<fg fQ[]fgfEjFfC,ª—~—p,Á,«,È,,È,È,Æ[]AfRf"fsf...[]f^,í[]AZ[]@•ª,ª'@,µ,Ä,ç,éTfufLfbfg,ìŠÖ'µ

,Æ'ÊM,Å,«,È,,È,è,Ü,·BfRf“fsf...[]f^,É•i” ,lffftfHf<fg fQ[]fgefEjFfC,đŠ,,,è“- ,Ä,Ä,“ , ,ÎA,±,ì,æ,κ,È-â'è,ì"-  
[]l,đ-h,®,±,Æ,ª,Å,«,Ü,·B•i” ,lffftfHf<fg fQ[]fgefEjFfC,đŽg—p,·,é,æ,κ,É[]\[]- ,³,è,Ä,ç,é,Æ[]AfVfXfef€  
,Í[]AfCf“f^[]fjfbfgf[]fN'ÊM<@“\,đŠm•Û,·,é,½,ß,É[]A[]\[]- ,³,è,Ä,ç,é,κ  
,¿,ì,Ü,©,ìf<[]f^[][,Æ'ÊM,đŽŽ,Ý,Ä[]Ä“`- ,ì-â'è,đ%°đCE^ ,μ,Ü,·B

Windows NT ,Å•i” ,lffftfHf<fg fQ[]fgefEjFfC,đ[]\[]- ,·,é,É,Í[]A[TCP/IP ,ì[]Ú[]×[]\[]-] f\_fcFaf[]fO  
f{fbfNfX,Å[]AŠefQ[]fgefEjFfC,²,Æ,É IP fAfhfCEfX,đŽw'è,·,é•K—v,ª, ,è,Ü,·B[]Ú[]×,É,Ä,ç,Ä,Í[]AMicrosoft  
TCP/IP ,Æ SNMP ,ì'g,Ý[]ž.Ý,Æ[]\[]- ,đŽQ[]Æ,μ,Ä,,³/4,³,ç[]B

**DHCP**

IP fAfhfCEfXŋ•ň,İŠ,,è“-Ä,Æ•ÜŽç,İ□AfCf“f^□[f]f]b]f]g]f]□□[f]N,İ□Ú'±,É□Ó“C,đ•%o,ŋf]f]b]f]g]f]□□[f]NŠÇ—  
 □ŽÖ,É,Æ,Ä,Ä•%o'S,É,È,è,Ü,·□B,±,İ•%o'S,İ^è^ö,İ□Aft□[f]U□[,İ'½,,İ□AZ©•ª,İfRf“fsf...  
 □[f^,đfCf“f^□[f]f]b]f]g]f]□□[f]N,ÄŽg—p,Ä,«.,é,æ,ŋ,É□ŋ—,·,é,½,ß,İ'mŽ^,ª,È,ç,İ,Ä□A]f]b]f]g]f]□□[f]NŠÇ—□ŽÖ,É□  
 □—□İ<Æ,đ—Š,ç,È,·,è,İ,È,ç,È,ç,±,Æ,É,·,è,Ü,·□B

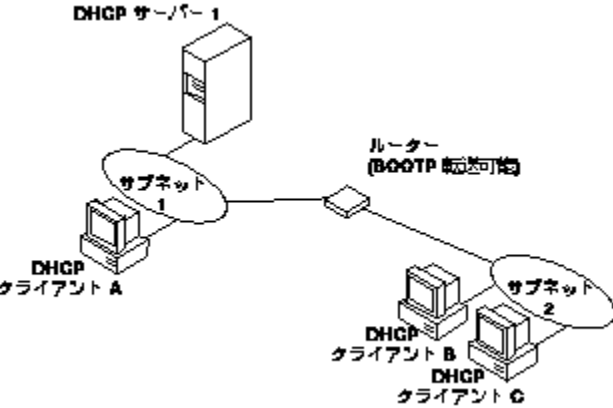
DHCP (Dynamic Host Configuration Protocol; “@“İfzXf]g]□□—f]v]f]□]g]f]Rf<), İ□A,±,İŠÇ—□□İ<Æ,İ•  
 %o'S,đCEyCE,·,·,é,½,ß,ÉŠm—š,ª,è,Ü,µ,½□BDHCP, đŽg,ŋ,Æ□A^À'S□AŠmŽÄ,©,ÄŠÈ'P,É TCP/IP  
 f]f]b]f]g]f]□□[f]N,İ□ŋ—,đ□s,İ,Ü,·□B,Ü,½□AfAfhfCEfX,İ□d•j,đ-h,®,±,Æ,ª,Ä,«□AfAfhfCEfXŠ,,è“-Ä,đ□W'+ŠÇ—  
 □,µ,Ä IP fAfhfCEfX,İŽg—p□ó'Ö,đ^è^è,É•Ü,Ä,±,Æ,ª,Ä,«.,Ü,·□BDHCP, İ□AfRf“fsf...□[f^,İ IP  
 fAfhfCEfX,đ“@“İ,É□ŋ—,µ□A,ª,ç,ÉŠ,,è“-Ä,ç,è,½fAfhfCEfX,Éf]□[f]XŠúŠÖ,đ'İ%ož•t,·,Ü,·□B,Ü,½□ADHCP  
 ,İ□A^è•”,İfffB]f]Xf]N]CEfX f]Rf“fsf...□[f^,İfCf“f^□[f]f]b]f]g]f]□□[f]N□ŋ—,à'ň<Ÿ,µ,Ü,·□B

Windows NT, İ DHCP fNf%o]f]C]f]A]f“]f]g] f]T□[f]r]f]X,·,æ,Ŋ DHCP f]T□[f]o□[ f]T□[f]r]f]X,İŽÄ'•,İ□ARFC (Requests for  
 Comments) 1533□A1534□A1541□A,·,æ,Ŋ 1542,É□€<',µ,Ä,ç,Ü,·□B

DHCP, đŽg,Ä,½•ÜŽç□İ<Æ,ª,ç,©,ÉŠÈ'P,Ä,·,é,©□A—á,đŽİ,µ,Ü,µ,ä,ŋ□BDHCP fNf%o]f]C]f]A]f“]f]g] f]Rf“fsf...□[f^,İ  
 IP fAfhfCEfX,İ□A,»,İfRf“fsf...□[f^,ə]f]T]f]u]f]l]f]b]f]g],©,çŽæ,èŠÖ,ª,è,é,ÆŽ©“@“İ,É%ođ•ú,ª,è,Ü,·□B,±,İ DHCP fNf  
 %o]f]C]f]A]f“]f]g] f]Rf“fsf...□[f^,ª,Ü,©,İ]f]T]f]u]f]l]f]b]f]g],É□Ä□Ú'±,ª,è,é,Æ□A□V,µ,çfAfhfCEfX,ª,±  
 ,İ]f]T]f]u]f]l]f]b]f]g],ÉŽ©“@“İ,ÉŠ,,è“-Ä,ç,è,Ü,·□Bf]t□[f]U□[,à]f]l]b]f]g]f]□□[f]NŠÇ—□ŽÖ,à□A□V,µ,ç□  
 □—□İ•ň,đ'ň<Ÿ,·,é,½,ß,É]f]l]b]f]g]f]□□[f]N,É%oİ“ü,·,é•K—v,İ,·,è,Ü,ª,ň□B

ŽŸ,İ□}, İ□A2, Ä,İ]f]T]f]u]f]l]f]b]f]g],É□ŋ—□İ•ň,đ'ň<Ÿ,µ,Ä,ç,é DHCP f]T□[f]o□[,İ—á,Ä,·□BfNf%o]f]C]f]A]f“]f]g] C, đ]f]T]f]u]f]l]f]b]f]g] 1  
 ,É^Ú“@,·,é,Æ□ADHCP f]T□[f]o□[,İ□AfNf%o]f]C]f]A]f“]f]g] C, əŽŸ%oň<N“@,·,é,Æ,«.,É□A□V,µ,ç TCP/IP □  
 □—□İ•ň,đŽ©“@“İ,É'ň<Ÿ,µ,Ü,·□B

f<□[f]efB]f“f]OŽw'è,ª,è,½f]f]b]f]g]f]□□[f]Nä,İ DHCP fNf%o]f]C]f]A]f“]f]g],Æ DHCP f]T□[f]o□[



DHCP, İ□AfNf%o]f]C]f]A]f“]f]g] f]T□[f]o□[ f,fff<,đŽg,Ä,Ä,ç,Ü,·□BDHCP fNf%o]f]C]f]A]f“]f]g] f]Rf“fsf...  
 □[f^,İ□AfV]f]X]f]e]f]€<N“@Žž (□%oŠú%o»□ó'Ö), É□Af]v]f]□[f]g],ÉfCf“f^□[f]f]b]f]g]f]□□[f]Nä,İ,·,x,Ä,İ DHCP  
 f]T□[f]o□[,É'+Cp,ª,è,é%oÄ“ŋ<,İ,·,é□A“CE□f]□]f]b]f]Z□[f]W (discovery message),ÆCEÄ,İ,è,é]f]□□[f]f]f<  
 f]f]b]f]g]f]□□[f]N,Ö,İ]f]u]f]□□[f]h]f]l]f]f]X]f]g],đ'—□M,µ,Ü,·□B“CE□f]□]f]b]f]Z□[f]W,đŽÖ,~Žæ,é]f]v]f]□[f]g]  
 f]C]f“f^□[f]f]b]f]g]□ä,İŠe DHCP f]T□[f]o□[,İ□A—v<,đ'—,Ä,½fNf%o]f]C]f]A]f“]f]g],İ,½,ß,İ IP fAfhfCEfX,Æ—LCEø,É□  
 □—□İ•ň,đŠÜ,ň,¾'ň<Ÿ]f]□]f]b]f]Z□[f]W (offer message), đ%ož“š,µ,Ü,·□B

DHCP fNf%o]f]C]f]A]f“]f]g],İ□A]f]T□[f]o□[,©,ç'ň<Ÿ,ª,è,é□ŋ—,đ□W,ß□A'İ'đ□ó'Ö,É“ü,è,Ü,·□B,±,İ]f]Nf%o]f]C]f]A]f“]f]g],ª—  
 v<□□ó'Ö,É,È,é,Æ□A□ŋ—,İ,ŋ,ç,İ 1,Ä,đ'İ'đ,µ□A,»,İ'İ'đ,µ,½□ŋ—,É'İ%ož,·,é DHCP f]T□[f]o□[,đŽ^•È,·,é,½,ß,É—  
 v<□]f]□]f]b]f]Z□[f]W (request message), đ'—□M,µ,Ü,·□B]f]š]f]W]f]f<,İ“CE□f]□]f]b]f]Z□[f]W,đŽÖ,~Žæ,Ä,½,»,è,¼,è,İ





## Windows flfbfgf[]fN,ì-¼'O%øCE^

Windows NT ,ð TCP/IP ,ðŽg—p, ,é,æ,æ,É[]\—, ,é,É,í[]Afrf“fsf...[]f^—¼,Æ IP fAfhfCEfX,æ•K—v,Ä,·[]B,± ,é,ç,í[]A,» ,ìfrf“fsf...[]f^ ,ðflfbfgf[]fNä,Ä^ê^Ö,ÉŽ^•É,µ,Ü,·[]B,±,ì[]í,Ä,·,Ä,É[]à—¼,µ,½,æ,æ,É[]Afrf“fsf... []f^ ,ì IP fAfhfCEfX,í[]A^ê^Ö,ìfAfhfCEfX,Ä, ,è[]Afcf“f^[]flfbfgf[]fNä,ì,·,x,Ä,ì TCP/IP fffofCfX,í[]A,± ,ìfAfhfCEfX,É,æ,Ä,Ä,» ,ìfrf“fsf...[]f^ ,ð“FŽ^ ,µ,Ü,·[]BTCP/IP , ,æ,Ñ Internet ,Ä,ìfrf“fsf...[]f^—¼,í[]A—¼'O,É DNS fhf[]Cf“—¼,ð•t%øÄ,µ,½,à,ì,Ä,· (f[][]ffk flfbfgf[]fNä,Ä,ìfrf“fsf...[]f^—¼,í[]Afrf“fsf...[]f^ ,É•t, ,½ %oi^±“ì,É—¼'O,Ä,·)[]B

frf“fsf...[]f^ ,í[]AIP fAfhfCEfX,ðŽg,Ä,ÄCEÝ,ç,ð“FŽ^ ,µ,Ü,· ,æ[]Aft[]fU[] ,É,Æ,Ä,Ä,í[]Afrf“fsf... []f^ ,ðŽg,Ä,Ä,í[]A,è,ð[]s,æ,Ü,æ,æŠÈ^P,Ä,·[]B,±,ì,½,ß TCP/IP flfbfgf[]fN,Ä,í[]Afrf“fsf...[]f^—¼,ð IP fAfhfCEfX,É•ìŠ,·,é (%øCE^ , ,é) <@[]\,æ•K—v,Æ,É,è,Ü,·[]Bfrf“fsf...[]f^—¼,Æ IP fAfhfCEfX,ì^ê^Ö<«,ð•Ü[]Ø,·,é,½,ß,É[]ATCP/IP ,ðŽg,æ Windows NT frf“fsf...[]f^ ,í[]A<N“@Žž,É,è,» ,ìfrf“fsf... []f^—¼,Æ IP fAfhfCEfX,ðflfbfgf[]fN,É“o^~ ,µ,Ü,·[]BWindows NT frf“fsf...[]f^ ,í[]ATCP/IP fCf“f^[]flfbfgf[]fN“à,Ä,³Sm,É—¼'O,ì%øCE^ ,ð[]s,æ,½,ß,É[]AZÝ,ì 1 ,Ä,Ü,½,ì•j[] ,ì•ùŽ@ ,ðŽg,æ,± ,Æ,æ,Ä,« ,Ü,·[]B

### WINS ,Æfuf[]fhfLfffXfg—¼'O%øCE^

IP fAfhfCEfX,ðfrf“fsf...[]f^—¼,Öf}fbfsf“fO, ,é @“lff[]f^fx[]fX,ðŽg,Ä[]A1 ,Ä,Ü,½,ì, ,é,è^è[]ä,ì WINS ft[]fo[] ,æ~—p,Ä,« ,é,èè[]±,É,í[]AWindows NT frf“fsf...[]f^ ,ì WINS (Windows Internet Name Service; Windows fCf“f^[]flfbfgf[]fN,É“o^~ ,µ,Ü,·[]BWINS ,í[]A,Ü,©,ì—¼'O %øCE^ •ùŽ@ ,æ“K[]Ø,Ä,ì,É,çfCf“f^[]flfbfgf[]fN,Ä[]Afu[]fhfLfffXfg—¼'O%øCE^ ,Æ'g,Ý[]±,ì,¹,ÄŽg— p,Ä,« ,Ü,·[]BWINS ,í[]ARFC (Requests for Comments) 1001/1002 ,É p fm[]fh,Æ,µ,Ä'è< ,³,è,Ä,ç,é[]ATCP/IP []ä,ì NetBIOS (NBT) ,ì“@[]f,[]fh,ì 1 ,Ä,Ä,·[]B

Windows NT frf“fsf...[]f^ ,í[]ARFC 1001/1002 ,É b fm[]fh fv[]fgfRf<,Æ,µ,Ä'è< ,³,è,Ä,ç ,éfu[]fhfLfffXfg— ¼'O%øCE^ ,ðŽg,æ,±,Æ,à,Ä,« ,Ü,·[]B,±,ì•ùŽ@ ,í[]AIP fCEfXf< ,ìfu[]fhfLfffXfg,ð[]— ,µ[]Afrf“fsf...[]f^— ¼,ðflfbfgf[]fNä,ÄfAfifEf“fX,µ,Ä“o^~ ,·,éfrf“fsf...[]f^ ,ÉÈ'¶,µ,Ä,ç,Ü,·[]Bfu[]fhfLfffXfg— Ìæ“à,ìŠefRf“fsf...[]f^ ,í[]A•j[]—¼,ð“o^~ ,µ,æ,æ,Æ,·,éŽž,Ý,Æ[]A“o^~—¼,É'ì,·,é—¼'O[]Æ%oi,Ö,ì %øž“š,É[]Ó“C,ðŽg,ç,ì,Ü,·[]B

### fhf[]Cf“ f[]f€ fvXfef€,ìfAfhfCEfXžw'è

DNS (Domain Name System; fhf[]Cf“ f[]f€ fvXfef€) ,í[]ATCP/IP []ä,ì NetBIOS ,à[]AFTP ,É,Ç,ì Windows Sockets fAfvfŠfP[]fVf#f“ ,ðŽg,Ä,Ä[]Afrf“fsf...[]f^ ,ð“ÜžifzfXfg,É[]U'±,·,éèè[]±,É[]A— ¼'O,ìf}fbfsf“fO,ð'², x, éžè'ì,ð'ñ<Ý,µ,Ü,·[]BDNS ,í[]A1980 “N“ä[]%Šú,É Internet ,æ<}CEf,ÉŠg'â,µ,½,Æ,«”- []¶,µ,½fgf%oftfBfbfNä,ì—à'è,ð%øCE^ , ,é,½,ß,É[]YEv,³,è,½•æŽUff[]f^fx[]fX,Ä,·[]B

### fzfXfg ftf@fCf<,ðŽg,Ä,½—¼'O%øCE^

LMHOSTS ftf@fCf<,í[]ANetBIOS frf“fsf...[]f^—¼,Æ IP fAfhfCEfX,Æ,ìf}fbfsf“fO,ðŽw'è,·,é,½,ß[]A,Ü,½ HOSTS ftf@fCf<,í[]ADNS —¼,Æ IP fAfhfCEfX,Æ,ìf}fbfsf“fO,ðŽw'è,·,é,½,ß[]A[]ffk frf“fsf... []f^ ,Ä'ñ<Ý,·,é,±,Æ,æ,Ä,« ,Ü,·[]B

í%øž,·,éfrf“fsf...[]f^—¼,Éf}fbfsf“fO,³,è,½Šù'm,ì IP fAfhfCEfX,ð^ê— ,·,é,½,ß,É[]AHOSTS ftf@fCf< (Windows Sockets fAfvfŠfP[]fVf#f“ ,Ä TCP/IP fzfXfg—¼,ìCEÝ[]ð,ÉŽg—p) ,Æ LMHOSTS (TCP/IP []ä,ì NetBIOS ,Ä Microsoft flfbfgf[]fN frf“fsf...[]f^—¼,ìCEÝ[]ð,ÉŽg—p) ,ðŽg,æ,±,Æ,æ,Ä,« ,Ü,·[]BLMHOSTS ,í[]A[]—<K— Ìflfbfgf[]fN WINS ,æ~—p,Ä,« ,É,çfŠf,[]fg fTufifbfg,Ä,ì Windows NT ,ì—¼'O%øCE^ ,ÉŽg,ì,è,Ä,ç,Ü,·[]B

ŠÖ~A[]€—Ü

### TCP/IP []ä,ì NetBIOS ,É,Ä,ç,Ä



## B fm[fh

b fm[fh f,[fh,Å,íA-¼'O,ì"o~^,,"æ,Ñ%øδCE^,Éfuf[fhflfffXfg,ðŽg,ç,Ü,·B,½,Æ,í,îANT\_PC1 ,ª NT\_PC2  
,Æ'ÊM,μ,½,çêê#ANT\_PC1 ,íAŽ©•ª,ª NT\_PC2 ,ð'T,μ,Ä,ç  
,é,ÆA'Sf}fVf",É'í,μ,Äfuf[fhflfffXfg,μANT\_PC2 ,ª%ž"š,·,é,Ü,Å^è'èŽžŠÔ'Ò<@,μ,Ü,·Bb  
fm[fh,É,íAŽŸ,ì,æ,α,È 2 ,Å,ì'â,«,È-â'è,ª ,è,Ü,·B



'â<K-í,Èflfbfgf[fNŠÂ<<,Å,íAfuf[fhflfffXfg,É,æ,éflfbfgf[fN•%ø%øx,ª'â,«,È,è,Ü,·B



f<[f^[[,ífuf[fhflfffXfg,ð"']—,μ,Ü,¹,ñB,μ,½,ª,Å,ÄAf<[f^[[,ìCEü,±,α'α,É ,éfRf"fsf...[f^,É,íA  
—v<[,í"í,«,Ü,¹,ñB



## M fm[]fh

m fm[]fh f,[]fh,í[]A"-[]%[]Ab fm[]fh,Æ p fm[]fh,ÉŠÖ~A,·,é-â'è,ð%øðCE^,·,é,½,ß,É[]ì[]-,³,ê,Ü,μ,½[]Bm  
fm[]fhŠÂ<<,Å,Í[]AfRf"f sf...[]f^,í[]A,Ü, ,[]Ab fm[]fh,ðŽg,Á,Ä"o~^,Æ%øðCE^,ðŽŽ,Ý,Ü,·[]B,±,ê,É[]-CE÷,μ,È,ç  
,Æ[]Ap fm[]fh,É[]Ø,è'Ö,í,Á,Ä[]Ä,ÑŽŽ,Ý,Ü,·[]Bm fm[]fh,í[]A[]%,ß,É b fm[]fh,ðŽg,æ  
,ì,Å[]Af[]fbfgf[]fN[]ä,Å,ìfuf[]fhfLfffXfg fgf%øftfBfbfN[]f[]-,ì-â'è,í%øðCE^,μ,Ü,¹,ñ[]B,μ,©,μ[]A,±  
,ìf,[]fh,ìf<[]f^[][,ð%øz,ì,é,±,Æ,³,Ä,«,Ü,·[]B,Ü,½[]A•K, ,[]Ä[]%,É b fm[]fh,³ŽŽ,³,é,é,ì,Å[]AWINS  
fT[]fo[][,³f\_fEf",μ,½[]ê[]±,Å,à[]Af<[]f^[][,Æ"- ,¶'±,ìfRf"f sf...[]f^,í'É[]í,ç, ,è"@[]ì,μ'±, ,Ü,·[]B  
fuf[]fhfLfffXfg,É,æ,é[]fbfgf[]fN•%ø%øx,Æ,ç,æ-â'è,³-ç%øðCE^,Å, ,é,½,ß[]Am fm[]fh,í[]A, ,Ü,èŽg,í,ê,é,±  
,Æ,í, ,è,Ü,¹,ñ[]B,Ü,½[]AWindows NT flfbfgf[]fN ,Å,í m fm[]fh,í[]Af<[]f efBf"fO,³,é,½ŠÂ<<,ì NetLogon ,Å-  
â'è,ð<N,±,·%øÄ"[]«,à, ,è,Ü,·[]B

## H fm[]fh

h fm[]fh f,[]fh,à[]Ab fm[]fh,Æ p fm[]fh,Æ,ì'g,Ý[]#,í,¹,Å,·,²[]Ah fm[]fh  
f,[]fh,Å,í[]Afuf[]fhfLfffXfg,í[]ÅCEã,ìŽè'i,Æ,µ,ÅŽg,í,è,Ü,·[]B,±,ìf,[]fh,í[]ACE»[]Ý[]ARFC ,ìfhf  
%oftfg'iŠK,Å,·[]B[]Å%º,É p fm[]fh,²-p,ç,ç,è,é,ì,Å[]AWINS fT[]fo[][,²ŽÀ[]s't,Å, ,è[]AfRf"fsf...  
[]f^,²f<[]f^[][,É,Ü,½,²,é,±,Æ,²,Å,«,è,í[]Afuf[]fhfLfffXfg,í[]¶[]-,³,è,Ü,¹,ñ[]BWINS  
fT[]fo[][,²fEf",µ,½[]è[]#,í[]Ab fm[]fh,²-p,ç,ç,è,é,ì,Å[]Af<[]f^[][,Æ"- ,¶'²,ìfRf"fsf...  
[]f^,í'É[]í,ç,¨,è"®[],µ'±,¨,Ü,·[]B-¼'O,ì"o~^,É[]A,±,ìŽÀ'·,í m fm[]fh,ðŽg,ç,Ü,· (fuf[]fhfLfffXfg[]AŽŸ,É-  
¼'O,ì[]Æ%ºi)[]B

h fm[]fh f,[]fh,í[]Ab fm[]fh,Æ p fm[]fh,ìŽg—p[]#[]~,ð·í[]X,·,é,¾,¨,Å,í, ,è,Ü,¹,ñ[]BWINS  
fT[]fo[][,²fEf",µ,Äf[]fj< fuf[]fhfLfffXfg (b fm[]fh) ,ðŽg,²·K—v,², ,é[]è[]#[]AfRf"fsf...[]f^,í WINS  
fT[]fo[][,Ö,ì-à,ç[]#,í,¹,ð'±[]s,µ,Ü,·[]BWINS fT[]fo[][,Ö,ìfAfNfZfX,²º°Å"\\,É,È,é,Æ[]A'¼,¿,ÉfVfXfef€,í p  
fm[]fh,É-ß,è,Ü,·[]BfìfVfVfj" ,Æ,µ,Ä[]Ab fm[]fh,Ö·æCE³,·,é'O,É[]ALMHOSTS ftf@fCf<,ðŽg,²,æ,²,É h  
fm[]fh,ð[]\[]-,·,é,±,Æ,à,Å,«,Ü,·[]B

h fm[]fh f,[]fh,í[]Afuf[]fhfLfffXfg,¨,æ,Ñf<[]fefBf"fOŠÅ<«,Å,ì"®[],ÉŠÖ~A,·,é[]Å,à[]d—v,È-â'è,ð  
%ºðCE^,µ,Ü,·[]BTCP/IP ,ðŽè"®,Å[]\[]-,·,é Microsoft TCP/IP ft[]fU[][,É,Æ,Á,Ä,í[]Ah  
fm[]fh,²ffftfHf<fg,Å,·[]B,½,¾,µ[]ATCP/IP ,ð[]\[]-,·,é,Æ,«[]AWINS fT[]fo[][,ì IP  
fAfhfCEfX,ð'ñ<Ÿ,·,é,ÆffftfHf<fg,Å,í,È,,È,è,Ü,·[]B

**B fm[]fh ,Æ LMHOSTS[]A, ",æ,Ñ,»,ì'g,Ÿ[]†,í,¹**

Microsoft flfbfgf[][]fN,Å,í[]AWINS ft[]fo[][,Æ p\_fm[]fh,ìŽÀ'•,È,µ,Å[]Af<[]f^[][,ð%oz,!,é,Û,©,ì b\_fm[]fh,àŽg,í,ê,Ä,ç,Û,·[]B[]C³,³,ê,½ b\_fm[]fh,í[]ALMHOSTS ftf@fCf<,ÉŠi"[,³,ê,Ä,ç,éfRf"fsf... []f^,ÆfAfhf[]fX,ì^ê—,ðŽg,ç,Û,·[]Bb\_fm[]fh,ìŽŽ[]s,²Ž,"s,·,é,Æ[]AfVfXfef€,í LMHOSTS "à,ÅfRf"fsf... []f^-¼,ð'T,µ[]A,»,é,ÉŠÖ~A•t,\_,ç,ê,½fAfhf[]fX,ðŽg,Á,Äf<[]f^[][,ð%oz,!,Û,·[]B,µ,©,µ[]AŠefRf"fsf...[]f^,É,±,ì^ê—,ðŠi"[,µ,Ä,°,•K—v,ª, ,é,ì,Å[]A^ê—,ì•ÜŽç,Æ"z•z,Æ,ç,²ŠÇ—[]ä,ì•%oS,ª"[]µ,Û,·[]BWindows NT ,Ä,í[]A,±,ìftf@fCf<,ÉŠg'£<@"\,ª,ç,,Ä,©•t%oÁ,³,ê,Ä,ç,Ä[]AŠÇ—[]ª,µ,â,,È,Ä,Ä,ç,Û,·,ª[]A[]C³,³,ê,½ b\_fm[]fh,í—[]z"l,È%oðCE^•û-@,Å,í, ,è,Û,¹,ñ[]B

b\_fm[]fh,ìŽÀ'•,Æ p\_fm[]fh,ìŽÀ'•,ì-¼•û,ð"~Žž,ÉŽg,²•K—v,ª, ,éfTfCfg,à'[]Y,·,é,©,à,µ,ê,Û,¹,ñ[]B,½,¾,µ[]A,±,ì[]\[]-,í" @[]'‰Ä"\,Ä,·,ª[]AŠÇ—[]Žò,í'½'â,È'[]^ó,ð•¥,²•K—v,ª, ,è,Û,·[]B,±,ì•û-@,í[]A%oß"n"l,È[]ó<µ,Ä,¾,~Žg—p,µ,Û,·[]Bp\_fm[]fh fzfxfg,ífuf[][]fhfLfffXfg,ð-³Ž<,µ[]Ab\_fm[]fh fzfxfg,ífuf[][]fhfLfffXfg,É^É'[]µ,Ä-¼'O%oðCE^,ð[]s,ç,Û,·[]B,µ,½,ª,Ä,Ä[]A2 ,Ä,ífzfxfg,í"~,[]NetBIOS -¼,Å[]\[]-,³,ê,é%oÄ"\[]ª,ª, ,è[]A,»,ì,½,ß,É—\Šú,Å,«,È,çCE<%oÉ,ð[]µ,%oÄ"\[]ª,ª, ,è,Û,·[]B



**WINS ,Æfuf□□[fhfLfffXfg-¼'O%øðĈ^**

WINS ,í□Af□□[fefBf"fo,³,è,½f|fbfgf□□[fNŠÅ««,É,¨,ç,Ä□AfRf"fsf...□[f^-¼,©,ç IP  
fAfhfĈfX,Ö,ì"@"lf}fbfsf"fo,ð"o~^,¨,æ,Ñ□Æ  
%øï,·,é,½,ß,ì•²ZUff□[f^fx□[fX,ð'ñ<ÿ,μ,Û,·□Bf□[fefBf"fo,³,è,½f|fbfgf□□[fN,ðŠÇ—□,·,é□ê□‡,í□A-¼'O  
%øðĈ^,É,í□Å□%ø,É WINS ,ðĈĈ"ç,·,é,ì,²□Å—Ç,ì'í'ð,Å,·□B,»è,í□AWINS ,²□A•í ŽG,ĚfCf"ƒ^□[f|fbfgf□□[fN,ì-  
¼'O%øðĈ^,Å"□¶,·,é-à'è,ð%øðĈ^,·,é,æ,æ,É□YĈv,³,è,Ä,ç,é,©,ç,Å,·□B

WINS ,ðŽg,æ,Æ□A-¼'O%øðĈ^,ì,½,ß,ìf□□[fjƒ< fuf□□[fhfLfffXfg,ìŽg—p•p"x,²Ĉ,□,μ□AfŠf,□[fg  
f|fbfgf□□[fN□ä,ÅŠĚ'P,ĚfvfXfefĚ,ð'T,·,±,Æ,²,Å,«,Û,·□B,³,ç,É□ADHCP  
,ðŽg,Å,½"@"lfAfhfĈfXŽw'è,É,æ,Å,Ä□AfTfuf|fbfgfŠÖ,ð^Ú"@"·,·,éRf"fsf...□[f^,É□V<K IP  
fAfhfĈfX,²□□-³,è,é,Æ□AWINS ff□[f^fx□[fX,²Ž"@"@"I,É□X□V,³,è,Û,·□B,±  
,ì□ê□‡□Af□[fU□[.àf|fbfgf□□[fNŠÇ—□ŽÖ,à□A-¼'O%øðĈ^,ðŽè"@"Å²□@,·,é•K—v,í, ,è,Û,¹,ñ□B

WINS fv□fgfRf<,í□ARFC 1001 ,¨,æ,Ñ 1002 "à,ì NBNS ,É'è<³,è,½fv□fgfRf<,ÉŠî,Å,ç  
,Ä,¨,è□A,Û,½,»è,ç,ÆĈĈŸŸ·□«,², ,è,Û,·□B,μ,½,²,Å,Ä□ARFC ,ì,Û,©,ìŽÀ'•,Æ'ŠĈĈŸ%ø^—p,²%øÅ"\\,Å,·□B

**,»è,ì'¼,ì'□^ÓŽ-□€**




Windows NT ^ĚŠÖ,ìRf"fsf...□[f^,ÄŽÀ□s,³,è,é PDC ,², ,é□ê□‡,í□AWINS  
ff□[f^fx□[fX,É□Å"lfGf"fgfŠ,ð□,ç,È,¨,é,î,È,è,Û,¹,ñ□B"ü—ì,·,é-¼'O,í□A16 fofCfG-Ú,² 1B ,ìfhf□fCf"-  
¼,Å,È,¨,é,î,È,è,Û,¹,ñ□B,Û,½□AfAfhfĈfX,í PDC ,ì IP fAfhfĈfX,Å,È,¨,é,î,È,è,Û,¹,ñ□B,½,Æ,ì,í□APDC  
,ìfhf□fCf",² ABC ,Å□AfAfhfĈfX 11.11.12.1 ,ìRf"fsf...□[f^,Å PDC ,²ŽÀ□s,³,è,Ä,ç  
,é,Æ,μ,Û,·□B,»è,ì□ê□‡□A□Å"í□%øŠú%ø» (,½,Æ,ì,í Imhosts) ftf@fCf<,ÉŽŸ,ì,æ,æ  
,ĚfGf"fgfŠ,ðŽw'è,μ□AWINSADMN **11.11.12.1 "ABC \0x1B"**  
,ðŽg,Å,Ä,»è,ìftf@fCf<,ðfCf"ƒ□[fg,μ,È,¨,é,î,È,è,Û,¹,ñ□B

'□ : ABC ,í□A16 fofCfG-Ú,Û,Å<ó"•¶Žš,Å-,·,ß,ç,è,Ä,ç,Û,·□B16 fofCfG-Ú,í□A16 □i,ì'1 1B ,Å,·□B  
□Å"í□%øŠú%ø»ftf@fCf<,É,»è,ì PDC ,²fhf□fCf",ìf□[f"fo□[,Æ,μ,ÄŽì,³,è,Ä,ç,è,î□A□ä<L,ì□i<Æ,ð□s,æ•K—  
v,í, ,è,Û,¹,ñ□B,½,¾,μ□A,»è,±,É 1B fgf"fgfŠ,ð"ü,è,é,Æ□AfoftfH□[f]ƒ"ƒX,²Ĉü□ä,μ,Û,· (fnf  
%øfCfAf"fg,í□APDC ,ð,æ,è"□,ĈĈ©,Å,¨,é,±,Æ,²,Å,«,Û,·)□B

fTftfBfbfNfX,Æf□[fX,É,æ,é-¼'O

- <f}fVf" -¼><0> -- fŠf\_fCfĈfNf^/f}fVf" -¼
- <f}fVf" -¼><03> -- f□fbfZf"ƒWff fT□[fƒX-¼
- <f}fVf" -¼><20> -- LANMAN fT□[fo□[-¼
- <fhf□fCf" -¼><1B> -- fhf□fCf" f}fXf^ fuf%øfEfU-¼
- <fhf□fCf" -¼><1C> -- DC ,ðŠÛ,ƒfCf"ƒ^□[f|fbfg fOf<□[fv-¼
- <fhf□fCf" -¼><1D> -- f}fXf^ fuf%øfEfU-¼
- <fhf□fCf" -¼><1E> -- fOf<□[fv f}fXf^ fuf%øfEfU"í□o-¼
- <ft□[fU□[-¼><03> -- f□fbfZf"ƒWff fT□[fƒX,Å"o~^

ŽŸ,ì□€-Ú,Å,í□AWINS ,Æ-¼'O□Æ%øifuf□□[fhfLfffXfg,²□AWindows f|fbfgf□□[fN,Å-¼'O%øðĈ^,ð□s,æ•û-  
@,ìŠT—v,ð□à-¾,μ,Û,·□B

-  [f□\[fefBf"fo,³,è,½ŠÅ««,Å,ì WINS](#)
-  [WINS ,Æfuf□□\[fhfLfffXfg,É,æ,é-¼'O%øðĈ^](#)
-  [WINS -¼'O"o~^](#)



WINS -¼'O%øđ•ú



WINS -¼'O□',«Š.:!



RAS ,ì IP fAfhfĀfXŽw'è

ŠÖ~A□€-Ú

WINS fT□[fo□L,ì'g,Ý□ž,Ý,Æ□\□=

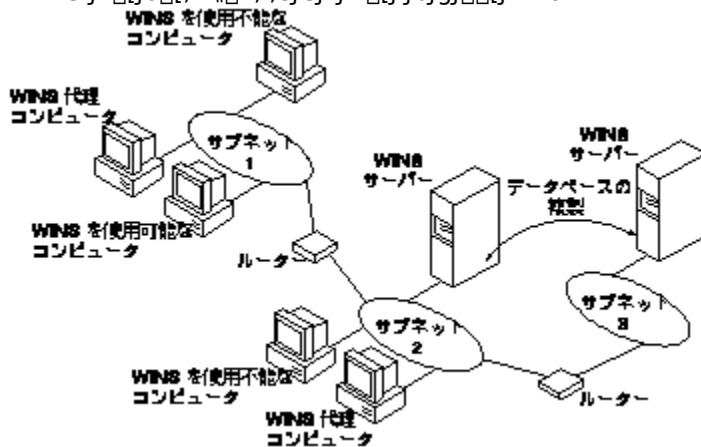
## Windows NT WINS

WINS は、ネットワーク上のコンピュータに IP アドレスと NetBIOS 名を関連付けるためのデータベースです。WINS サーバは、クライアントからの問い合わせに対して、データベースを検索し、適切な NetBIOS 名を返します。

Windows NT WINS は、Windows NT 4.0 の WINS サービスです。WINS は、RFC 1001 (NetBIOS over TCP/IP) と RFC 1002 (NetBIOS over IP) を実装しています。WINS は、ネットワーク上のコンピュータに IP アドレスと NetBIOS 名を関連付けるためのデータベースです。

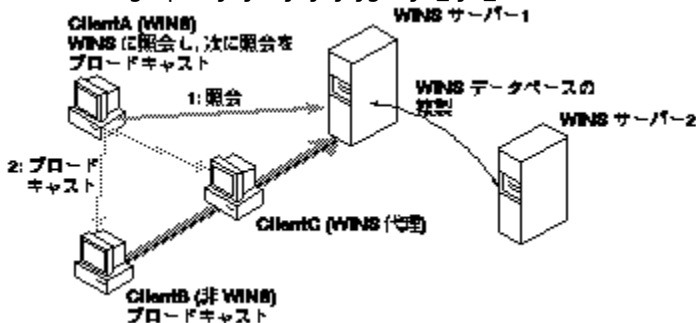
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ã,ì},Á,íAClientA ,íA,Ü, , WINS fT[fo[É-â,ç±,í,¹,Ä-¼'O,ð%ðCE^,µ,æ,æ,Æ,µ,Ü,·B,±  
,è,ÉŽ,"s,·,é,ÆAfuf[fhfLfffXfg-¼'OÆ%ö,ðŽg,ç,Ü,·BClientB ,íAWINS ,ð-~—p,Á,«,È,ç,ì,ÁA-¼'O  
%ðCE^,É,Ífuf[fhfLfffXfg-¼'OÆ%ö,µ,©Žg,ì,Ü,¹,ñB,µ,©,µAClientC  
,íAfuf[fhfLfffXfg,ðŽó,~Žæ,é,ÆA—v<,ð WINS fT[fo[É"]'—,µA-¼'O,ð ClientB ,É•Ö,µ,Ü,·B

Windows NT fRf"fsf...[f^,ª DHCP ,ð-~—p,Á,«,éRf"fsf...[f^,Á, ,èAŞÇ—ŽÖ,ª DHCP flfvfvfþf",Æ,µ,Ä  
WINS ,ð-p^Ó,µ,Ä,ç,éê±,íA,±,ìRf"fsf...[f^,íAWINS fT[fo[í•ñ,ÁŽ©"®"l,É\→,³,è,Ü,·BDHCP  
,ðŽg,í,È,çRf"fsf...[f^,ª WINS -¼'O%ðCE^,ð-~—p,Á,«,é,æ,æ,É,·,é,É,íA[TCP/IP ,ì\→] f\_CfAfO  
f{fbfNfX,ÁAWINS fT[fo[,ì IP fAfhfçfX,ðŽw'è,µ,Ü,·B'ä—fT[fo[,ðŽw'è,·,é,É,íA[TCP/IP ,ìÚ×\→]  
f\_CfAfO f{fbfNfX,ìA[WINS 'ä—fG[fWfFfg,ð—LCEø,É,·,é] f`ffbfN f{fbfNfX,ðflf",É,µ,Ü,·B

**WINS ,Æfuf□□[fhfLfffXfg,É,æ,é-¼'O%øðCE^**

flfbfgf□□[fN□ä,Å□Aft□[fU□□ (,Ü,½,lfvf□fZfX) ,æŠf,□[fg fRf"fsf...□[f^ ,Æ,ì□Ú'±,ð—v□□,·,é,Æ□A-¼'O□Æ%øï—  
 v□□,æ□□,ü,ü,·□B,½,Æ,ì,ì□Afrf}f"fh fvf□f"fvfg,Å net use x: \\treycorp\sources ,Æ"ü—  
 Í,·,é,Æ□Areycorp ,Æ,ç,æ-¼'O,lfRf"fsf...□[f^ ,É'í,·,é-¼'O□Æ%øï—  
 v□□,lfpfPfbfg,æfuf□□[fhfLfffXfg,³,è,Ü,·□BTPC/IP ,í IP fAfhfCEfX,ð"FŽ~ ,µ,Ü,·,æ□AWindows flfbfgf□□[fN  
 fT□[frfX,í-¼'O,µ,© Žg—p,µ,È,ç,ì,Å□Afcf" f^□[flfbfgf□□[fN□ä,lfRf"fsf...□[f^ ,í□A'É□M,µ,½,çfRf"fsf...□[f^ ,ì-  
 ¼'O,ð%øðCE^ ,µ,Å IP fAfhfCEfXŽw'è,É•ÍŠ·,µ,È,·,è,í,È,è,Ü,¹,ñ□B

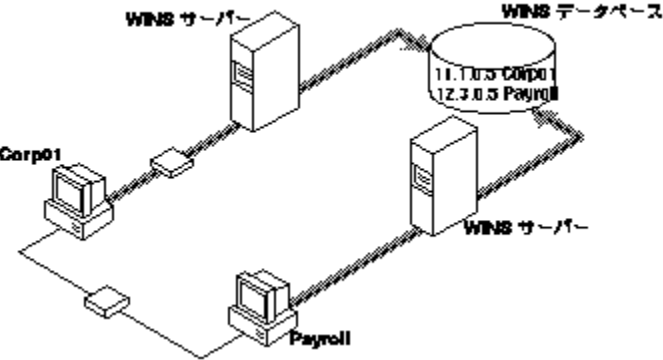
WINS fT□[fo□[ ,æfCf" f^□[flfbfgf□□[fN□ä,É"z'u,³,è,Ä,ç,é,Æ,«□A-¼'O,ì%øðCE^ ,É,í,» ,è,¼,è,lfRf"fsf...□[f^ ,Å  
 WINS ,É,æ,é%øðCE^ ,ðŽg—p%øÄ" (—LCEø) ,É□Y'è,µ,Ä,ç,é,©,É,æ,è□A2 ,Ä,ÍŠî—{ "I,É•ûŽ® ,æŽg,í,è,Ü,·□B

**WINS ,æŽg—p•s%øÄ" ,Éèè†** fRf"fsf...□[f^ ,í□A-¼'O"o~^—v□□pfPfbfg,ð UDP ff□[f^fOf%øf€CEo—  
 R,Åf□□[fj< fTfufLfbfg,Éfuf□□[fhfLfffXfg,µ,Ä□A,» ,ì-¼'O,ð"o~^ ,µ,Ü,·□B"ñ WINS fRf"fsf...□[f^ ,í□A□□[fj<  
 fTfufLfbfg,É-¼'O□Æ%øï—v□□,ðfuf□□[fhfLfffXfg,µ,Ä'Á'è,lfRf"fsf...□[f^ ,ðCE© ,Ä,·,Ü,·,æ□A,±  
 ,lfuf□□[fhfLfffXfg,í•□" ,ì IP f□□[f^□[ ,É,Ü,½,æ,Ä"n,³,è,é,±,Æ,í, ,è,Ü,¹,ñ□B□□[fj<-¼'O  
 %øðCE^ ,ÉŽ , "s,·,é,Æ□A□□[fj< LMHOSTS ftf@fcfç,æ²,x,ç,è,Ü,·□B,±,è,ç,lfvf□fZfX,í□Afrf"fsf...  
 □[f^ ,æflfbfgf□□[fN fT□[fo□[ ,©f□□[fNfXfe□[fVf†" ,Ä ,Ä,Ä,à□A,Ü,½,í•É,lfffofCfX,Ä ,Ä,Ä,à"~ ,ü,Å,·□B

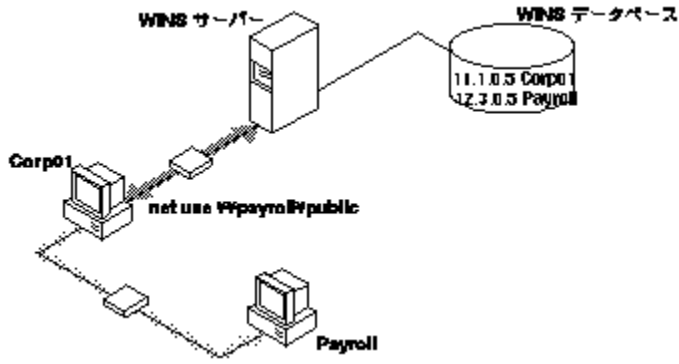
**WINS ,æŽg—p%øÄ" ,Éèè†** fRf"fsf...□[f^ ,í□A,Ü,· WINS fT□[fo□[ ,É-à,ç□†,í,¹□A,±,è,æ□—CE±,µ,È,ç  
 ,Æ□A-¼'O"o~^—v□□ ,æ,ñ-¼'O□Æ%øï—v□□,ð□AUDP ff□[f^fOf%øf€ ,Åfuf□□[fhfLfffXfg,µ,Ü,·□B  
 '□ : ,ç,ì,æ,æ,É-¼'O%øðCE^ •û-@ ,æŽg,í,è,Ä,à□AfvfXfef€,æ□□—,³,è,½CEä,í□A,±  
 ,lfvf□fZfX,lf†□[fU□[ ,É,Æ,Ä,Ä"š%øß"l,Ä,·□B

fRf"fsf...□[f^ ,æ WINS ,ð—~—p,Ä,« ,éèè†□A-¼'O%øðCE^ ,íŽÿ,ìŽèè†,Å□s,í,è,Ü,·□B

1. TCP/IP ,ì□□—Žž,É□Afrf"fsf...□[f^ -¼,í WINS fT□[fo□[ ,É"o~^ ,³,è□AWINS  
 fT□[fo□[ ,ðfcf" f^□[flfbfgf□□[fN□ä,ÅCE© ,Ä,·,é,±,Æ,æ,Ä,« ,é,æ,æ,É WINS fT□[fo□[ ,ì IP  
 fAfhfCEfX,æf□□[fj< ,ÉŠi"l,³,è,Ü,·□BWINS ff□[f^fx□[fX,í□Afcf" f^□[flfbfgf□□[fN□ä,ì'S WINS  
 fT□[fo□[ ,Ä•□" ,³,è,Ü,·□B



2. -¼'O□Æ%øï—v□□,æ□A,Ü,· WINS fT□[fo□[ ,É'—□M,³,è,Ü,·□B,±,ì—v□□,É,í□AIP  
 f□□[f^□[ ,ð'É,ü,Äf□□[fefBf"fo,³,è,½fŠf,□[fg fNf%øfCfA f"fg,©,ç,ì—v□□,æŠÜ,Ü,è,Ä,ç,Ü,·□B,±,ì—  
 v□□,í□AUDP ff□[f^fOf%øf€,Ä,·□BWINS ff□[f^fx□[fX,Ä-¼'O,æCE© ,Ä,·,Ä,½èè†□Afvf  
 %øfCfA f"fg,í□AWINS ,©,çŽó,~ Žæ,Ä,½fAfhfCEfX f}fbfsf"fo,ÉŠi,Ä,ç,ÄfZfbfVf†" ,ðŠm—s,Ä,« ,ü,·□B



3. WINS fT[f^,Ö,ìAE%ö,â-CE÷,μ,È,©,Á,½êê#AfvXfef€,íAWINS ,ðŽg—p,Á,«,È,çfRf“fsf...  
 [f^,AE“~,¶•û-@,ÁA-¼'OAE%öi—v<[fPfbfg,ðfuf[ffhLfffXfg,μ,Û,· (fuf[ffhLfffXfg,É,æ,é  
 %öðCE^,â,»,ìfVfXfef€,ÁŽg—p%öÁ“\,Èêê#)B

WINS fT[f^,íAUDP -¼'OAE%öi,AE TPC -¼'OAE%öi,ðŽó,~“ü,êA,±,è,É%öž“š,μ,Û,·BWINS  
 fT[f^,ðŽg,Á,Ä“o~^,³,è,½-¼'O,©,ç IP fAfhfCEfX,Ö,ìf}fbfsf“fo,Á, ,è,î,Ç,è,Á,àA-¼'OAE%öi,Ö,ì  
 %öž“š,AE,μ,ÄM—Š,μ,ÄŽg—p,·,é,±  
 ,AE,â,Á,«,Û,·B,½,¾,μAfff[f^fx[fX“à,ìf}fbfsf“fo,íAŠÖ~AfffofCfX,âCE»ÝŽÀ[s't,Á, ,é,±  
 ,AE,ð•ÛØ,·,é,à,ì,Á,í, ,è,Û,¹,ñBfRf“fsf...[f^,â,»,ì IP fAfhfCEfX,ð—v<[μ,½,±,AE,AEA,»,è,âCE»Ý—  
 LCEø,Èf}fbfsf“fo,Á, ,é,±,AE,ð•ÛØ,μ,Ä,ç,é,É,·,Û,¹,ñB,Û,©,ì Windows flfbfgf[fN  
 fT[f^,â,»,ìfRf“fsf...[f^,âŽÀÛ,É“®ì,μ,Ä,ç,é,©,Ç,æ,©A, ,é,ç,í,»,ìfRf“fsf...[f^,â“Á'è,ìfLfbfgf[fN  
 fm[ffh,É, ,é,©,Ç,æ,©,ð²,x,Û,·B

Windows flfbfgf[fN,Á WINS fT[f^,âRf“fsf...[f^-¼,ð%öðCE^,Á,«,È,çêê#Afuf[ffhLfffXfg,É,æ,é-  
 ¼'O%öðCE^,â[s,í,è,Û,·B,»,ìêê#AÁ%ö,Éf[ff<fRf“fsf...[f^-¼fLfffbfVf...,â²,x,ç,èAŽÿ,Éf[ff<  
 fuf[ffhLfffXfg,â[s,í,è (,±,ìêê#Af<[f^,ð'É,¶,Ä“]—,³,è,Û,¹,ñ)AÁCEä,Éf[ff< LMHOSTS  
 ftf@fc<,É,æ,Á,Ä-¼'O,â%öðCE^,³,è,Û,· (#INCLUDE fXfe[fgf“fg,ÁŽQAE,³,è,éW† LMHOSTS  
 ftf@fc<,â,·,x,ÄEÿð,³,è,Û,·)B

**WINS -¼'O“o~^**

-¼'O“o~^,ð—~—p,·,é,Æ□Afrf“fsf...□[f^~¼,Æ IP fAfhfCfX,İšefffofCfX,É'İ,μ,ÄŠmŽÄ,É^ê^Ó,É,È,è,Ü,·□B

**WINS ,äŽg—p%oÄ”\,È□ê□‡:**

<£□‡,ä,È,·,ê,İ□A-¼'O“o~^—v<□,İ□AWINS fT□[fo□[,É'¼Ü'—□M,³,ê,Äff□[f^fx□[fX,É'Ç%oÄ,³,ê,Ü,·□BWINS  
,İ□Afff□[f^fx□[fX,İCE»□Ý,İ“à—e,É%ož,¶,Ä□Afrf“fsf...□[f^~¼,İ“o~^,ðŽó,·•t,·,é,©<'“Ü,·,é,©,μ,Ü,·□B,±  
,İff□[f^fx□[fX,É□A,±,İfrf“fsf...□[f^~¼,İ,Ü,©,İfAfhfCfX,ä“ü,Ä,Ä,ç,é□ê□‡□AWINS  
,İCE»□Ý,İfGf“fgfŠ,ðŽŽ,μ,Ä□A,» ,ê,ðŽİ,·fffofCfX,ä□A,Ü,¼,» ,İ-¼'O,ð•K—v,Æ,μ,Ä,ç,é,Ç,π  
,©,ð”»'è,μ,Ü,·□B,Ü,©,İfffofCfX,ä,±,İ-¼'O,ðŽg—p,μ,Ä,ç,é□ê□‡□AWINS ,İ□V<K,İ-¼'O“o~^—  
v<□,ð<'“Ü,μ,Ü,·□B,±,İ-¼'O,ðŽg—p,μ,Ä,ç,éfffofCfX,ä“¶□Ý,μ,È,·,ê,İ□AWINS  
,İ□Afgf“fgfŠ,ðŽó,·“ü,ê,Ä□A^fcfXf^f“fv,â“□•ä,μ,½^ê^Ófo□[fWf†f““Ô□†,È,Ç,İ□î•ñ,Æ,ç,Á,μ,â,Éf□□[ff<  
ff□[f^fx□[fX,É'Ç%oÄ,μ,Ü,·□B

**WINS ,äŽg—p•s%oÄ”\,È□ê□‡:**

“ñ WINS frf“fsf...□[f^,İ□A,» ,İ-¼'O,ð“o~^,·,é,½,ß,É□ANetBIOS -¼'O“o~^—v<□fPfpfbfg,ðf□□[ff<  
flfbfgf□□[fN,Éfuf□□[fhflfffXfg,μ,Ü,·□B,±,İ—v<□,É,İ□Afrf“fsf...□[f^~¼,Æ IP fAfhfCfX,ä“ü,Ä,Ä,ç,Ü,·□B,» ,İ  
NetBIOS -¼,ð,·,Ä,É—v<□,μ,Ä,ç,éflfbfgf□□[fNä,İfffofCfX,ä ,ê,İ□A,Ç,é,Ä,à□A-¼'O“o~^,İ“Ü'è%ož“š,ðŽg—  
p,μ,Ä-¼'O“o~^,ðŽŽ,Ý,é,İ,Ä□ACE<%oÉ,Æ,μ,ÄfGf%o□[,É,È,è,Ü,·□BŽw'èŠúŠÔ“à,É“o~^—  
v<□,ä□s,İ,é,È,·,ê,İ□Afrf“fsf...□[f^,İ,±,İ-¼'O,ÆfAfhfCfX,ð□İ—p,μ,Ü,·□B

“ñ WINS frf“fsf...□[f^,İ□A,ç,Ä,½,ñ-¼'O,ð—v<□,μ,½CEä,İ□A-¼'O“o~^,İŽŽ□s,ð•İ□»,·,é•K—  
v,ä ,è,Ü,·□B,Ü,½□A,» ,İ“o~^~¼,É'İ,μ,Ä”□s,³,ê,½-¼'O□Æ%oİ,É,İ□A-¼'O□Æ%oİ,İ□m'è%ož“š,ð'—  
□M,μ,Ä□m'è“İ,É%ož“š,·,é•K—v,ä ,è,Ü,·□B,±,İ%ož“š,É,İ□Afrf“fsf...□[f^,İ IP fAfhfCfX,ä“ü,Ä,Ä,·,è□A,±,é,Ä  
2 ,Ä,İfVfXfef€.İfZfbfVf†f“,ðŠm—š,Ä,« ,é,æ,π,É,È,è,Ü,·□B

**WINS -¼'O%ø•ú**

fRf"fsf...[f^,á"Á'è,ì-¼'O,Á□|—¹,·,é,Æ (Server fT□[frfX,á'âŽ~ ,μ,½,æ,π,È□ê□‡)□A,» ,ì-¼'O,É'í,μ,Ä,» ,ê^È□ä,Ü,©,ì"o~^—v<□,²ŽŽ,Ý,ç,ê,é,±,Æ,í,·,è,Ü,¹,ñ□B,±,è,ð□A-¼'O,ì%ø•ú,ÆCEÄ,Ñ,Ü,·□B

**WINS ,²Žg—p%øÄ" \, È□ê□‡:**

fRf"fsf...[f^,í□A□³□í,ÉfVfffbfjgf\_fEf",·,é,Æ□A•K,· WINS fT□[fo□[É-¼'O,ð%ø•ú,μ,Ü,·□B,±,é,É,æ,Á,Ä□AŠÖ~A,·,éff□[f^fx□[fX fGf"fgfŠ,í%ø•ú (released) ,Æ,μ,Äf}□[fN,³,è,Ü,·□BfGf"fgfŠ,á^è'èŠúŠÖ %ø•ú,³,è,½,Ü,Ü,É,É,Ä,Ä,ç,é,Æ□AWINS fT□[fo□[í,» ,è,²"pŠü (extinct) ,³,è,½,à,ì,Æ,μ,Äf}□[fN,μ□A,» ,ìff□[f^fx□[fX,ì•ï□X,² WINS fT□[fo□[ŠÖ,Ä"~'B,³,è,é,æ,π ,É□Afo□[fWfjgf"~"Ö□†,ð□X□V,μ,Ü,·□B"pŠüfGf"fgfŠ,í□A•ï□X,á'S WINS fT□[fo□[ÉŠmŽÄ,É"~'B,³,è,é,æ,π ,É,·,é,½,ß□AZw'è,³,è,½ŠúŠÖ,¾,~ff□[f^fx□[fX,ÉŽc,è,Ü,·□B

WINS fT□[fo□[Á-¼'O,²%ø•ú,³,è,½,à,ì,Æ,μ,Äf}□[fN,³,è□A,±,ì%ø•ú,³,è,½-¼'O,ðŽg—p,μ,Ä,ç ,é,²fAfhfCEfX,á^Ü,É,è□V<K,ì"o~^,²"í,,Æ□AWINS fT□[fo□[É,í□A<CEfNf%øfCfAf"fg,²,» ,ì-¼'O,ðŽg—p,μ,Ä,ç ,É,ç,±,Æ,²,²,©,Á,Ä,ç,é,ì,Á□A,±,ì-¼'O,ð'¼,ç,É—v<□CE³fNf%øfCfAf"fg,É—^ ,ì,Ü,· (,±,é,í□A,½,Æ,ì,î DHCP ,ð—~—p,Ä,« ,é%øbfvfgfbfv fRf"fsf...[f^,²fTfufjfbfg,ð•ï□X,μ,½□ê□‡,È,Ç,É<N,±,è,Ü,·)□B,» ,ìfRf"fsf... □[f^,²□A□³□í,ÉfVfffbfjgf\_fEf",Á-¼'O,ð%ø•ú,μ,½□ê□‡□AWINS fT□[fo□[í,±,ì-¼'O,ðŽŽ,μ,Ü,¹,ñ□BfVfXfefeŠ fŠfZfbfg,²CE'ö,ÁfRf"fsf...□[f^,²□Ä<N"® ,μ,½□ê□‡,É□A□V<KfAfhfCEfX,Á-¼'O"o~^ ,ð□s,π,Æ□AWINS fT□[fo□[í"o~^ ,ðŽŽ,μ,Ü,·□B,μ,©,μ□A,±,ìfRf"fsf...□[f^,ì,·,Ä,É<CEfAfhfCEfX,ðŽ ,Á,Ä,ç,é,ì,Á□A,± ,ìŽŽ□s,ìŽ ,~s,μ□A"o~^ ,ì□—CE±,μ,Ü,·□B

**WINS ,²—~—p%øÄ" \, Ä, È, ç□ê□‡:**

"ñ WINS fRf"fsf...[f^,²-¼'O,ð%ø•ú,·,é,Æ□Afuf□□[fhfLfffXfg,²□ì□—,³,è,Ä□A,» ,ì-¼'O,ðfLfffbfVf...,μ,Ä,ç,é %øÄ" \□« ,²,· ,éflfbfgf□□[fN□ä,ì"C^Ó,ìfVfXfefe,í,» ,ì-¼'O,ð□í□œ,μ,Ü,·□BfRf"fsf...□[f^,í□A□í□œ,³,è,½-¼'O,ðŽw'è,·,é-¼'O□Æ%øifpfPfbfg,ðŽó,~Žæ,é,Æ□A'P,É,» ,ì—v<□,ð-³Ž<,μ□Afjfbfgf□□[fN□ä,ì,Ü,©,ìfRf"fsf... □[f^,²%ø•ú,³,è,½-¼'O,ðŽæ"¾,·,é,±,Æ,ð<-%øÄ,μ,Ü,·□B

"ñ WINS fRf"fsf...□[f^,²,Ü,©,ìfTfufjfbfg,©,çfAfNfZfX%øÄ" \,Æ,È,é,½,ß,É,í□A"ñ WINS fRf"fsf...□[f^,ì-¼'O,ð WINS ff□[f^fx□[fX,Ü,½,ìfŠf,□[fg fVfXfefe,ì LMHOSTS ftf@fCf<,É□Ä"l,É'Ç%øÄ,·,é•K—v,²,·,è,Ü,·□B,± ,é,í□A"ñ WINS fRf"fsf...□[f^,²Ž©•²,ìf□□[fj< fTfufjfbfg,²"□MCE³,Ä ,é-¼'O□Æ%øí,É,μ,©%øž"š,μ,È,ç ,½,ß,Ä,·□B



**WINS -¼'O' ,«Š·,!**

□',«Š·,!(renewal) ,Æ,Í□AŽw'è,³,è,½ŽžŠú,ÉfRf"fsf...□[f^-¼,ð WINS fT□[fo□[ ,É□Ä"o~^ ,; ,é,± ,Æ,Á,·□BŠefGf"fgfŠ,Íf^fCf€fXf^f"fv,Í□A,» ,ÍfGf"fgfŠ,Ì—LCEøŠúCEÀ,ð·\,μ,Û,·□BfGf"fgfŠ,³f□□[fj]f< WINS fT□[fo□[ ,É,æ,Á,Ä□Š—L,³,è,Ä,ç,é□ê□‡,Í□AfNf%ofCfAf"fg,³□Ä"o~^ ,ð□s,Á,Ä,ç,È,ç,©,¬,è□A-¼'O,ÍŽw'è,³,è,½ŽžŠú,É%øð·ú,³,è,Û,·□B□Ä"l,Æ'è< ,³,è,½fGf"fgfŠ,Í□AŠúCEÀ□Ø,è,É,È,é,±,Æ,Í, ,è,Û,¹,ñ□BfGf"fgfŠ,³·É,ì WINS fT□[fo□[ ,É,æ,Á,Ä□Š—L,³,è,Ä,ç,é□ê□‡,Í□AŽw'è,³,è,½ŽžŠú,ÉfGf"fgfŠ,Ì—LCEø□« ,ÍŠm" F,³□s,í,è,Û,·□B,» ,ÍfGf"fgfŠ,ð□Š—L,μ,Ä,ç,é WINS fT□[fo□[ ,Íff□[f^fx□[fX,É'¶□Ý,μ,È,ç□ê□‡,Í□AfGf"fgfŠ,Íf□□[fj]f< WINS ff□[f^fx□[fX,©,ç□i□œ,³,è,Û,·□B-¼'O,ì□',«Š·,!—v<□,Í□A□V<K-¼'O"o~^ ,Æ"¬,¶,æ,α,É□^—□,³,è,Û,·□B

□',«Š·,!,Í□AWINS fT□[fo□[ ,Á-¼'O,ð'èŠú"l,É□Ä"o~^ ,; ,é,±,Æ,É,æ,è□A"o~^ ,É□M—Š□« ,ð—^ ,; ,Ä,ç,Û,·□BWINS ff□[f^fx□[fX"à ,ÍfGf"fgfŠ,É'í,· ,éfffHf<fg,ì□',«Š·,!ŠÔŠu,Í□A4 "ú,Á,·□BWINS fNf%ofCfAf"fg,Í□A2 "ú,²,Æ,É"o~^ ,Æ□X□V,ð□s,ç,Û,·□B,±,ì□Ý'è,É,æ,è□AfIbfGf□□[fN fgf%oftfBfbfN,³CEyCE ,³,è□AWINS ,³·É'O,æ,è'½,,Ífm□[fh,ð^μ,; ,é,æ,α,É,È,è,Û,·□Bfvf%ofCf}fŠ WINS fT□[fo□[ ,ÆfofbfNfAfbfv WINS fT□[fo□[ ,ì□',«Š·,!ŠÔŠu,Í"¬,¶,Á,È,¬,è,ì,È,è,Û,¹,ñ□B

**RAS ,ì IP fAfhfCEfXŽw'è**

RAS (Remote Access Service; fŠf, [fg fAfNfZfX fT [frfX) ,íA  
%o“Šu'É<ŽÒA^Ú“@<AEŽÒA, ,æ,Ñ•i” ,lftfBfX,ĀfT [fo [ ,iŠĂŽ<,âŠÇ—, ðs,xfVfXfef€ŠÇ—  
ŽÒ,É AfŠf, [fg flfbfgf [fN<@“\,đ'ň<Ÿ,μ,Û,·BWindows NT fRf“fsf... [f^ [ã,ì RAS  
ft [fU [ ,í AfŠf, [fg, ©, cf\_fCf, ,f<fCf“ ,μ,Ā flfbfgf [fN,É fAfNfZfX,μ AfTf@fCf<,âfvfŠf“f^ ,ì<æ—  
L A“dŽqf [f< AfXfPfwf... [fŠf“fo A, ,æ,Ñ SQL ff [f^ f× [fX,Ö, l fAfNfZfX,È,Ç, l fT [frfX,đŽó, ,é,±  
,Æ,³,Ā,« ,Û,·B

Windows NT RAS ,í ARAS fT [fo [ ,ì IP f< [fefBf“fo ,Æ,Æ,à,É<@“\,μ,Ā ARAS fNf%ofCfAf“fg,³ TCP/IP  
flfbfgf [fN,đŽg—p,Ā,« ,é,æ,æ,É,μ,Û,·BWindows NT ,Ā,í A<ÆŠE•W [€ ,ì PPP (Point to Point Protocol; fl  
fCf“fg fC [ flfCf“fg fvf [fgfRf<) , ,æ,ÑSLIP (Serial Line IP; fVfŠfAf< f%ofCf“ IP) <KŠi,àŽg—p,³,è,Ā,ç,Û,·B,±  
,è,ç,ì<KŠi,đŽg,æ,Æ AWindows NT ,ÆfT [fh fp [fefB> ,lŠf, [fg fAfNfZfX fT [fo [ ,Û,½, lŠf, [fg fAfNfZfX  
fNf%ofCfAf“fg flftfgfEJfA,Æ,ì ŠCEY%o^—p,³%oĀ“\,É,È,è,Û,·BRAS fNf%ofCfAf“fg,í A-¼' O  
%oðCE^ fT [frfX,É DNS ,Æ WINS ,đŽg—p,Ā,« ,Û,·B

Windows NT ,Ā RAS ,đŽg,Ā,½ flfbfgf [fN fAfNfZfX

RAS fT [fo [ ,í ARAS fT [fo [ 'g,Ýž,ÝŽž,É AŠ,,,è—,Ā,ç,è,½ IP fAfhfCEfX, lfv [f<,đ'ň<Ÿ,μ,Û,·BPPP ,đŽg,æ  
RAS fNf%ofCfAf“fg,af\_fCf, ,f<fCf“ ,·,é,Æ AIP fAfhfCEfX, aŽ © “@“l,ÉŠ,,,è—,Ā,ç,è,Û,·B flfbfgf [fNŠÇ—  
ŽÒ,³ AfAfhfCEfX,í Ā“ lfv [f<,đŽg,æ,æ,É RAS fT [fo [ ,ðŸ'è,μ,Ā,ç,é [é [ĀŠe RAS  
fT [fo [ ,É,í Ā•Ē, l flfbfgf [fN fAfhfCEfX, àŠ,,,è—,Ā,ç,è,Û,·B Ā'è,ì RAS fT [fo [ ,Éf\_fCf, ,f<fCf“ ,·,é' SfNf  
%ofCfAf“fg,É,í A“ , flfbfgf [fN ID ,Æ Ā•Ē, l fzfXfg ID ,³Š,,,è—,Ā,ç,è,Û,·B

RAS fNf%ofCfAf“fg, í A“ , flAfhfCEfX<óŠÔ,đ<æ—L,μ A~ \_—“l,ÉCE< [μ,Ā,ç,é (•—“l,É,í•a—£,μ,Ā,ç  
,é) A•i“ ,ì TCP/IP flfbfgf [fN,É Ÿ'± ,·,é,±,Æ,³,Ā,« ,Û,·B •i“ Ÿ'± ,ðs,æ,Æ,« ,à ARAS fNf  
%ofCfAf“fg,í ADNS , ,æ,Ñ WINS ,đ-¼' O%oðCE^ ,É“ , fl,æ,æ,ÉŽg—p,Ā,« ,Û,·B

RAS ,ì Ÿ×,É,Ā,ç,Ā,í A wMicrosoft Windows NT Server fŠf, [fg fAfNfZfX fT [frfX×,đŽQ [Æ,μ,Ā,-  
,¾,³,ç [B

**fhfjfcf" fl[f€ fvfxjfe€,lfafhfcejxžw'è**

DNS (Domain Name System; fhfjfcf" fl[f€ fvfxjfe€) ,Æ,íAInternet ã,lfzxfjg,ðž`•É,·,é,½,ß,ÉAŠK'w-¼'O•t,`fvfxjfe€,ð`ñ<ÿ,·,é•ažUff[f^fx[fX,ì,±,Æ,Å,·BDNS ,íA1980 "N'ã%Šú,ÉAInternet ã,lfzxfjg",`< }Cef,É'□%Á,μ,½,Æ,«<N,±,Á,½-â`è,ð%ðCE^,·,é,½,ß,ÉŠJ",`³,è,Ü,μ,½BDNS ,ìŽd—l,íARFC 1034 ,`æ,Ñ 1035 ,É`è<`³,è,Ä,ç,Ü,·B

DNS fff[f^fx[fX,íAfhfjfcf" fl[f€ fvfxjfe€ÆÄ,î,è,éfcfš[□'ç,É,È,Ä,Ä,ç ,Ü,·BŠefm[fh,Ü,½,lfhfjfcf" ,É,í-¼'O,`a•t,`ç,è,Ä,`",èAftfufhfjfcf" ,ðŠÜ,ß,é,±,Æ,`a,Ä,«,Ü,·Bfhfjfcf" -¼,©,çAefhfjfcf" ,É'í,·,é,» ,lfhfjfcf" ,lff[f^fx[fX"à,Ä,î^É'u,`a,í,©,è,Ü,·Bfhfjfcf" -¼,íADNS fhfjfcf" ,ìŠeflfbfgf[fN fm[fh,ì-¼'O,ðfsfšfih,Åæ∅,Á,Žw'è,μ,Ü,·B

DNS fff[f^fx[fX,lf<[fg,íAInternet flfbfgf[fN fcf"ftfhfjfcf" fzf" f^□[ ,`aŠÇ— □,μ,Ü,·Bfgfbjvfjfcfj<,lfhfjfcf" ,íA'g□D•É,`",æ,Ñ□•É,ŠŠ,,`è"- ,Ä,ç,è,Ä,ç,Ü,·B,±,è,ç,lfhfjfcf" -¼,íA□'□Ü<Kš ISO 3166 ,É€<,μ,Ä,ç,Ü,·B□'¼,í 2 •¶Žš,ìÉ—`aCE` ,Ä•\,μA'g□D-¼,É,ìŽÿ,ì,æ,æ,ÈŠeŽí,ìÉ —`aCE` ,`a—p^Ó,`³,è,Ä,ç,Ü,·B

<u>DNS fhfjfcf"-¼,ìÉ—`aCE`</u>	<u>'g□D,ìŽí—p</u>
com	%oc—`c'ì (,½,Æ,ì,íAMicrosoft.com)
edu	<³ç<@ŠÖ (,½,Æ,ì,íAAMIT,É,í mit.edu)
gov	□•{<@ŠÖ (,½,Æ,ì,íA'S•Ä %oŠšw□à'c,É,í nsf.gov)
org	"ñ%oc—`c'ì (,½,Æ,ì,íAFidoNet ,É,í fidonet.org)
net	flfbfgf[fN'g□D (,½,Æ,ì,íANSFNET ,É,í nsf.net)

Še DNS fhfjfcf" ,íA•É□X,ì'g□D,`aŠÇ—□,μ,Ä,ç ,Ü,·B`ÉíAŠe'g□D,íA,» ,lfhfjfcf" ,ðftfufhfjfcf" ,É•aŠ,,μAftfufhfjfcf" ,ìŠÇ— □,í•É,ì'g□D,É`ì'ð,μ,Ü,·BŠefhfjfcf" ,É,í^è^Ó-¼,`a ,èAftfufhfjfcf" ,É,lfhfjfcf""à,Ä,î^è^Ó-¼,`a ,è,Ü,·BŠeflfbfgf[fN fm[fh,lf%xf<,íA63 •¶Žš^É"à,ì¶Žš,©,ç,È,é-¼'O,Ä,·BFQDN (Fully Qualified Domain Name; Š'Š□□üfhfjfcf"-¼) ,Æ,íAfc□[fg,É-ß,è,Ü,Ä,ìæ□sfm□[fh-¼,ð,·,x,ÄŠÜ,pAInternet ã,lfzxfjg,ì^è^Ó-¼,Ä,·B,½,Æ,ì,íA ,é%oc—`c'ì,lfzxfjg,ì DNS -¼,íAŽÿ,ì,æ,æ,É,È,è,Ü,·B accounting.trey.com

ftfufhfjfcf" ,`a`ã,« ,A'Ç%Á,ìftfufjfbfg,`aŠÜ,Ü,è,éèè#Afczxfjg,lfafhfcejx,É,íAftfufjfbfg fcfš[□,ì'Ç%Á,lf %ofxf<,`aŠÜ,Ü,è,Ü,·B

DNS ,Ä,íAfnf%fcfjfcf"fg f□[fo□[ f,fff<,`aŽg,ì,è,Ä,ç,Ü,·BDNS f□[fo□[ ,íADNS fff[f^fx[fX,ì^è•",ì□î•ñ,ðŠÜ,ñ,Ä,`",è□A,±,ì□î•ñ,ðAflfbfgf[fN,ì<«ŠE,ð%oz,ì,Äf□[f€ f□[fo□[ ,ð□Æ %oi,·,éfnf%fcfjfcf"fg (fšj)fcfo) ,`aŽg,ì,è,æ,æ,É,μ,Ü,·BDNS fl[f€ f□[fo□[ ,Æ,íAfc□[f" ,ÆCEÄ,î,è,éfhfjfcf"

f[]f€ fXfy[]fX,ì'è•",ÉŠÖ,·,é[]î•ñ,ðŠi"l,μ,Ä,ç,évf[]fOf%of€,ì,±,Æ,Å,·[]Bfhf[]fCf",ìŠÇ—[]ŽÒ,í[]Af[]f€  
fT[]fo[],ðÝ'è,μ,Ü,·[]B,±,ìf[]f€ fT[]fo[],É,í[]Aff[]f^fX[]fX  
ftf@fCf<,³Si"l,³,è,Ä,·,è[]A,»,"ì†,É,í[]Af[]f""à,ì'SfzfXfg,ÉŠÖ,·,éŠf[]fX f€fR[]fh,³,·,×,Ä<L[]q,³,è,Ä,ç  
,Ü,·[]BDNS fŠfjfo,í[]Af[]f€ fT[]fo[],ðŽg,Á,Äfhf[]fCf" f[]f€ fXfy[]fX,ÉŠÖ,·,é[]î•ñ,ì"üŽè,ðŽŽ,Ý,éfnf  
%ofCfAf"fg,Å,·[]B

Windows NT ,É,í[]ADNS fŠfjfo<@"\,³ŠÜ,Ü,è,Ä,·,è[]ANetbt ,·,æ,Ñ ftp ,â telnet ,Æ,ç,Á,½ Windows  
Sockets []Ú'±fAfvfŠfP[]fVf#",í[]A,±,ì<@"\,ðŽg,Á,Äf[]f€ fT[]fo[],ð[]Æ%oi,μ[]A,»,ì%ž"š,ð%ðŽŽ,μ,Ü,·[]B

DNS ,ìŽà,Èf^fXfn,í[]Af[]fU[],É,í,©,è,à,·,ç-¼'O,ð'ñ<ÿ,·,é,±,Æ,Æ[]A,»,è,ç,ì-  
¼'O,ðfCf"f^[]f[]fbfgf[]fN,Å•K—v,È IP fAfhf€fX,Ö%ðCE^,·,é,±,Æ,Å,·[]B-¼'O%ðCE^,í[]Af[]f€ fT[]fo[],<sup>a</sup>  
DNS ,ð'È,¶,Ä[]s,ç,Ü,·[]Bf[]f€ fT[]fo[],í[]AFQDN "à,ì[]î•ñ,ð%ðŽŽ,μ,Ä[]A"Á'è,ìfAfhf€fX,ð'T,μ,Ü,·[]Bf[]f<  
f[]f€ fT[]fo[],<sup>a</sup>í[]A[]Æ%oi,Á—v<[]<sup>3</sup>,è,½ff[]f^,ðŽg,Á,Ä,ç,È,ç[]ê[]±[]Af[]f€ fT[]fo[],í[]A,±,ì[]î•ñ,ðŽg,Á,Ä,ç,é  
%oÅ"[]«,³,è,Ü,©,ìf[]f€ fT[]fo[],ì-¼'O,ÆfAfhf€fX,ð•Ô,μ,Ü,·[]BŽÿ,É[]AfŠfjfo,í[]A•K—v,È-  
¼'O,ÆfAfhf€fX,<sup>a</sup>CE©,Ä,©,é,Ü,Ä[]A,Ü,©,ìf[]f€ fT[]fo[],ð[]Æ%oi,μ,Ü,·[]Bf[]f€ fT[]fo[],í[]A[]Æ  
%oi,ìCE<%oÈ,Æ,μ,Äfhf[]fCf" f[]f€ fXfy[]fX,É,Ä,ç,ÄŠw[]K,μ,½[]î•ñ,ðCEp'±"l,Éflfff[]fVf...,μ,Ä,ç,é,ì,Ä[]A,±  
,ìŽè[]#,í[],'¬,É[]^—[]<sup>3</sup>,è,Ü,·[]B

Internet []ã,Å DNS ,ðŽg—p,·,é,ì,É•K—v,ÈfŠfjfo f[]ftfgfEjFfA,Í,·,×,Ä[]AMicrosoft TCP/IP  
,ì'g,Ý[]ž,Ý,ì[]Ú,É[]A,ç,Á,μ,â,É'g,Ý[]ž,Ü,è,Ü,·[]B-¼'O%ðCE^,É DNS ,ðŽg—p,·,é,É,í[]A[DNS ,ì[]\[]¬] f\_jCfAf[]fO  
f{fbfNfX,Äf[]fvfVf#",ðŽw'è,μ,Ü,·[]B

ŠÖ~A[]€-Ú

DNS ,ðŽg—p,·,é,½,ß,É TCP/IP ,ð[]\[]¬,·,é

**fzfXfg ftj@fCf<,đŽg,Á,½-¼'O%ođCE^**

WINS ,đŽg,í,È,čfŠf,[]fg fTfufjfbfg,É"z'u,³,è,Ä,č,éRf"fsf...[]f^,Á,íA-¼'O,©,ç IP  
fAfhfCefX,Ö,lf}fbfsf"fO,íAHOSTS ftj@fCf<,"æ,Ń LMHOSTS ftj@fCf<,É,æ,è'ň<Ÿ,³,è,Ü,·B,±,ì-¼'O  
%ođCE^,ì•û-@,íADNS ,",æ,Ń WINS ,ªŠj",³,è,é'O,ÉfCf"f^[]fjfbfgf[]fN,ÁŽg,í,è,Ä,č,Ü,μ,½BHOSTS  
ftj@fCf<,íAf[]ffj< DNS ,É"™,μ,č,à,ì,Æ,μ,Ä~—p,·,é,±,Æ,ª,Á,«,Ü,·BLMHOSTS ftj@fCf<,íAf[]ffj< WINS  
,É"™,μ,č,à,ì,Æ,μ,Ä~—p,·,é,±,Æ,ª,Á,«,Ü,·B,Ç,¿,ç,lfTj@fCf<,àAfzfXfg fe[]fuf<,Æ,μ,Ä'm,ç,è,Ä,č,Ü,·B  
fTf"fvf< LMHOSTS ftj@fCf<,"æ,ŃfTf"fvf< HOSTS ftj@fCf<,íAMicrosoft TCP/IP ,đ'g,Ý[]ž,p,Æ,«A\WINNT\  
SYSTEM32\DRIVERS\ETC fffBfCefNfgfŠ,É'Ç%oÁ,³,è,Ü,·B,±,è,ç,lfTj@fCf<,íAWindows NT ,É•t'®,μ,Ä,č  
,éf[]f,' ,Ü,½,lf%ofCf<,È,Ç,ì ASCII fGfffBf^,đŽg,Á,Ä•Ò[]W,Á,«,Ü,·B

LMHOSTS ftj@fCf<,íAWINS -¼'O%ođCE^ ,Ü,½,lfuf[]f[]fhfLfffXfg-¼'O%ođCE^,ªŽ,"s,μ,½,Æ,«"Ç,ÝŽæ,ç,èA  
%ođCE^,³,è,½fGf"fGfŠ,íACEä,lfAfNfZfX,ì,½,ß,ÉfVfXfef€ fLfffbfVf...,ÉŠi"l,³,è,Ü,·B

fRf"fsf...[]f^,ª WINS ,đŽg,í, ,É•;[]» (replicator) fT[]fX,đŽg,Á,Ä,č,é[]é[]#[]A•;[]»,ÉŽQ%oÁ,μ,Ä,č  
,é^Ü,È,éTfufjfbfg[]ä,lfRf"fsf...[]f^,ì,½,ß,lfCf"f[]fg fT[]fo[],",æ,ŃfGfNfXf[]fg fT[]fo[],É,í LMHOSTS  
fGf"fGfŠ,ª•K—v,Á,·BLMHOSTS ,íAfT[]fo[],ª'¶[]Ý,μ,È,č[]-<K-lfjfbfgf[]fN,Á,àŽg,í,è,Ü,·B

ŠÖ~A[]€-Ú

LMHOSTS.ì[]Ý'è









,Æ“ü—Í,μ,Ü,·□B

Windows Sockets fvf□fOf%of~f“fO,É,Â,ç,Ä,ì^ÓŒ©,ðŒðŠ,·,é,½,ß,É—p^Ó,³,ê,½“dŽqf□□[f<  
fŠfXfg,à, ,è,Ü,·□B

**Windows Sockets f□□[f< fŠfXfg,ð□\,μ□ž,þ,É,Í**




“dŽqf□□[f<,ð listserv@sunsite.unc.edu ,É’—□M,μ,Ü,·□Bf□bfZ□[fW- {•¶,É,í□A□g**subscribe**  
**winsock** user's e-mail-address□h,ðŠÜ,ß,Ü,·□B  
,±,ê,Æ“~ ,¶Žè□ž,Á□A**winsock-hackers** ,” ,æ,Ñ **winsock-users** ,Æ,ç,æ-¼‘O,ì 2 ,Â,lf□□[f<  
fŠfXfg,ð□\,μ□ž,þ,±,Æ,ª,Á,«,Ü,·□B

## DHCP fT[f]o[l, ižg—p, É, Â, ç, Ä

DHCP (Dynamic Host Configuration Protocol; “®“lfzfXfg\—fvf\fgfRf<) fT[f]o[l, /E, íAMicrosoft TCP/IP ,/E DHCP fT[f]o[l f\ftfgfEJfA, ðŽÄs, μ, Ä, ç, é Windows NT Server fRf“fsf... [f^, ì, ±, /E, Ä, ·BDHCP , íARFC (Requests for Comments) 1533A1534A, ”, æ, Ñ 1541 , É’è<` , ³, ê, Ä, ç, Ü, ·BDHCP fT[f]o[l, ì<@“\ , íAWindows NT Server , Ä, ì, Ý—LCEø, Ä, ·B

, ±, ±, Ä, íAfCf“f^ [f\fbfgf [fN, ì<K-í, ÉŠî, Ä, «ADHCP , ì<@“\, ðfTf [fg, , éfT [fo [l, ð Windows NT , É’g, Ýž, p•û-@A, Ü, ½ADHCP , ð“±“ü, , é, ½, ß, ìfvf%of“fj“fo, ì•û-@, É, Ä, ç, Ä, àà-¾, μ, Ü, ·BŽÝ, ì, æ, x, È€- Ü, É, Ä, ç, Äà-¾, μ, Ü, ·B

 [DHCP fNf%ofCfAf“fg fT\[f\]o\[l f.fff<, ìŠT—v](#)

 [DHCP fT\[f\]o\[l, ð’g, Ýž, p](#)

 [DHCP \(“®“lfzfXfg\—fvf\fgfRf<\)](#)

## DHCP fNf%oCfAf“fg fT[]fo[] f,fff<,iŠT—v

fjfbfgf[]fN,É DHCP fT[]fo[],đ[]&¬,·,é,Æ[]AZÿ,ì,æ,æ,È—“\_ª, ,è,Ü,·[]B



fjfbfgf[]fNŠC—žò,í[]AfCf“f^[]fjfbfgf[]fN‘S‘ì,É‘í,µ,Ä TCP/IP ,ífOf[][]fof< fpf %ofo[]f^[]A,“ ,æ,ÑfTfufjfbfg,ÉCEÀ—L,lfpf%ofo[]f^,đ[]W‘t“l,Éžw‘è,·,é,±,Æ,ª,Ä,«,Ü,·[]B,Ü,½[]A—\—ñ,³,è,½ IP fAfhfCEfX,đžg,æfNf%oCfAf“fg,lfpf%ofo[]f^,đžw‘è,·,é,±,Æ,ª,Ä,«,Ü,·[]B



fNf%oCfAf“fg fRf“fsf...[]f^,Ä,í[]ATCP/IP ,đžè“ @,Ä[]&¬,·,é•K—v,ª, ,è,Ü,¹,ñ[]BfNf%oCfAf“fg fRf“fsf...[]f^,æfTfufjfbfgŠO,đ‘Ú“ @,µ,½[]é[]±,à[]AfVfXfef€,đ<N“ @,·,é,Æž“ @“l,É TCP/IP ,ª[]Ä[]&¬,³,è,Ü,·[]B

DHCP ,í[]AfNf%oCfAf“fg fT[]fo[] f,fff<,đ[]—p,µ,Ä,ç,Ü,·[]BDHCP fT[]fo[] ,đ 1 ‘ä,ü,½,í,·;[]“äÝ“è,µ,Ä,“ , ,í[]ADHCP fT[]fo[],í—v<[] ,é fNf%oCfAf“fg,É‘ñ<ÿ,·,é TCP/IP [] &¬[]•ñ,đ•Üžç,µ,Ü,·[]BfT[]fo[] ff[]f^fx[]fX,É,í[]AZÿ,ì,æ,æ,È[]î•ñ,ªŠi“l,³,è,Ä,ç,Ü,·[]B



f[][]fjfbfgf[]fN,·,x,Ä,lfNf%oCfAf“fg,É—LCEø,È[]&¬—fpf%ofo[]f^



fNf%oCfAf“fg,Ö,ìŠ,,,è“—,Ä—p,Éfv[]f<,³,è,½—LCEø,È IP fAfhfCEfX[]A,“ ,æ,Ñžè“ @Š,,,è“—,Ä—p,É—\—ñ,³,è,½fAfhfCEfX



fT[]fo[], ©,ç‘ñ<ÿ,³,è,é fŠ[]fX,â,» ,ì,Ü, ©,í[]&¬—fpf%ofo[]f^,ì—LCEøŠúŠÔ[]BfŠ[]fX,Ä,í[]AŠ,,,è“—,Ä,ç,è,½ IP fAfhfCEfX,đžg—p,Ä,«,éŠúŠO,í‘è< ,³,è,Ä,ç,Ü,·[]B

[Windows NT TCP/IP ‘g,Ý[]ž,Ýfjfvfjfbfg“] f fCfAf[]fo f{fbfNfX,Ä[]A[DHCP ž“ @[]&¬,·,è—LCEø,É,·,é] f`fjfbfgf f{fbfNfX,đfjfbfg“ ,É,µ,Ä,ç,é,Æ[]AWindows NT fRf“fsf...[]f^,í DHCP fNf%oCfAf“fg,É,È,è,Ü,·[]BDHCP fNf %oCfAf“fg fRf“fsf...[]f^,í[]A<N“ @CEã[]ADHCP fT[]fo[],Æ‘É[]M,µ,Ä[]A•K—v,È TCP/IP [] &¬[]&¬[]•ñ,đžó,žæ,è,Ü,·[]B,±,ì[]&¬—[]î•ñ,É,í[]A[] ,È,Æ,à IP fAfhfCEfX,Æ fTfufjfbfg f}fXfN,ªŠÜ,Ü,è,Ä,“ ,è[]A,³,ç,É,±,ì[]&¬—,ÉŠÖ~A,·,é fŠ[]fX[]î•ñ,ªŠÜ,Ü,è,Ä,ç,Ü,·[]B

DHCP fNf%oCfAf“fg,ª[]&¬—[]î•ñ,đ“ @“l,Éžæ“¾,·,é<@“l,í[]Afjfbfgf[]fN fuf[][]fhfLfffXfg,ÉŠì,Ä,ç,Ä,ç ,é,½,ß[]A,Ü, ©,ì IP fTfufjfbfgf[]fN[]ä,ì DHCP fT[]fo[], ©,ç DHCP fNf%oCfAf“fg,ì[] &¬[]&¬[]•ñ,đ“¾,é,É,í[]Afjfbfgf[]fN,ì IP f<[]f^[] ,ìfTf[]f[]g,ª•K—v,Ä,·[]Bžã—v,Éf<[]f^[] ,ìfxf“f\_[] ,í[]ADHCP fšfCE[] fG[]fWfFf“fg,ìfTf[]f[]g (DHCP fCf“f^[]fjfbfg RFC ,É<L[]q) ,đf<[]f[]efBf“fo fftfgfEfffA,É‘ç%oÄ,µ,Ä,ç ,é,Æ,±,è,Ä,·[]B

DHCP ,ìžÄ‘•,Ä,í[]A,Ä,«,éCEÀ,è‘½,,ìfefXfg,ª[]s,í,è,Ü,µ,½,ª[]Af<[]f^[] ,ì—à‘è,đ %ođCE^ ,·,é,É,í[]Af<[]f^[] ,ìfxf“f\_[] ,É—à,ç[]±,í,¹,é,±,Æ,đ,“Š ©,ß,µ,Ü,·[]BMicrosoft ,í[]ACisco[]AProteon[]AWellfleet[]A,“ ,æ,Ñ 3Com ,È,Ç,ìŠefxf“f\_[] ,ìfTf[]f[]g,·,éfo[]fWfjfbfg“ ,ìf ftfgfEfffA,ìfefXfg,đ[]s,ç,Ü,µ,½[]B,±,è,ç,ìf<[]f^[] ,ìfftfgfEfffA,É,Ä,ç,Ä,í[]Af<[]f^[] ,ìfxf“f\_[] ,É—à,ç[]±,í,¹,Ä,- ,¾,¾,ç[]B

‘[] : 1 ‘ä,ì DHCP fT[]fo[],Ä[]A•;[]“ ,ìf<[]f^[] ,É,Ü,½,ª,æfTfufjfbfgf[]fN,đfTf[] []f[]g,µ,½,ç[]é[]±,í[]Af<[]f^[] ,ìfTf[]f[]gEfffA,đfAfbfvfOfCE[]fh,µ,È, ,é,í,È,ç,È,ç[]é[]±,ª, ,è,Ü,·[]B,» ,ì é[]±[]Af<[]f^[] ,í RFC 1532[]A1533[]A,“ ,æ,Ñ 1541 ,đfTf[]f[]g,µ,Ä,ç,é,à,ì,Ä,È, ,é,í,È,è,Ü,¹,ñ[]BDHCP fšfCE[] fG[]fWfFf“fg,ìfTf[]f[]g,É,Ä,ç,Ä,í[]Af<[]f^[] ,ìf[]f[]g[] ,É—à,ç[]±,í,¹,Ä,- ,¾,¾,ç[]B,æ,è[]Ú,µ,ç[]î•ñ,É,Ä,ç,Ä,í[]ARFC1541.TXT ,đžQ[]Æ,µ,Ä,,¾,¾,ç[]B,±,è,í[]A“½—¼ FTP ,É,æ,è ftp.internic.net:/rfc , ©,ç“üžè,Ä,«,Ü,·[]B

**DHCP fT[f]o[f],đ'g,Ýž,þ**

DHCP fT[f]o[f],íAMicrosoft TCP/IP ,đ'g,Ýž,þ%ß'ö,Á'g,Ýž,þ,±,Æ,ª,Á,«,Ü,·B

**DHCP fT[f]o[f],đ'g,Ýž,þ,É,í**

1. fRf"fgf[f< fpjlf<,ÁA[fjfbfgf[fN] ,đf\_fuf<fNšfbfN,µ,Ü,·B[fjfbfgf[fN,ìY'è] f\_fCfAfFO f{fbfNfX,ª•\Ž!,³,è,½,çA[fjftfgfEjFfA,ì'Ç%Á] f{f^f",đfNfšfbfN,µ,Ü,·B[fjfbfgf[fN fjtfgfEjFfA,ì'Ç %Á] f\_fCfAfFO f{fbfNfX,ª•\Ž!,³,è,Ü,·B
2. [fjfbfgf[fN fjtfgfEjFfA] ^è—,©,çA[TCP/IP fvfgfRf<,ÆŠÖ~ AfvfgfRf<] ,đ'í'ð,µA[±s] f{f^f",đfNfšfbfN,µ,Ü,·B[Windows NT TCP/IP 'g,Ýž,ÝfjfvfVfj" f\_fCfAfFO f{fbfNfX,ª•\Ž!,³,è,Ü,·B
3. 'g,Ýž,þfjfvfVfj" ,ìf' fFbfN f{fbfNfX,đfj" ,É,µ,Ü,· ([DHCP fT[f]o[f] fT[f]rfX] f' fFbfN f{fbfNfX,í•K, ,fj" ,É,µ,Ü,·)B  
Microsoft TCP/IP ,ª, ,Á,ÉfRf"fsf...[f^ã,É'g,Ýž,Ü,è,Ä,ç,éèþ,íA[DHCP fT[f]o[f] fT[f]rfX] f' fFbfN f{fbfNfX,đfj" ,É, ,é,¾, ,Á,·B
4. [OK] f{f^f",đfNfšfbfN,µ,Ü,·BWindows NT fZfbfgfAfbfv,íAWindows NT Server "z•zftf@fCf<,Ö,ìftf< fpjX,ì"ü—í,ð<,ß,éf\_fCfAfFO f{fbfNfX,đ•\Ž!,µ,Ü,·B"KØ,ÉfpjX,đžw'è,µA[±s] f{f^f",đfNfšfbfN,µ,Ü,·B  
•K—v,Éftf@fCf<,ª, ,x,Äfn[fh fffBfXfN,ÉfRfs[ ,³,è,Ü,·B
5. TCP/IP ,ì\—,É•K—v,È, ,x,Ä,ìžèþ,đžè"®,ÁŠ®—¹,µ,Ü,·BTCIP/IP ,ì'g,Ýž,Ý,ìŠ®—¹Çä,ÉA[fjfbfgf[fN,ìY'è] f\_fCfAfFO f{fbfNfX,ªÁ,Ñ•\Ž!,³,è,½,çA[—¹] f{f^f",đfNfšfbfN,µ,Ü,·B

' : DHCP fT[f]o[f],íA,Á,È,É IP fAfhfCfX,¾, ,Á•\,³,è,é,½,ßADHCP ,đžg,Á,Äµ,ç DHCP fT[f]o[f],ð\—, ,é,±,Æ,í,Á,«,Ü,¹,ñB

fRf"fsf...[f^,đÄ<N"®, ,é,ÆA'í%ž, ,é TCP/IP fjtfgfEjFfA, ,æ,Ñ DHCP fjtfgfEjFfA,íA, ,x,Äžg—p, ,é€"ö,ª®,ç,Ü,·B

DHCP fT[f]o[f],đ'g,Ýž,ñ,¾ÇäADHCP f}f[fWff,ìfc[f<,đžg,Á,ÄŽÝ,ì,æ,x,Èšì- {<Æ,ðs,í,È, ,é,ì,È,è,Ü,¹,ñB



DHCP fXfR[fv,đ'è< , ,é  
DHCP fT[f]rfX,đŠjŽn, ,é,½,ß,É•K—v,Èî•ñ,đ"¾,é,½,ß,ÉADHCP fT[f]o[f],đ DHCP fXfR[fv,É'Ç %Á,µ,Ü,·B,Ü,½A,»,ìfXfR[fv"à,ì DHCP fNf%ofCfAf"fg,ÉfT[f]o[f],ªŠ,,è"—,Á,é IP fAfhfCfX,ì"í,È,ÇAfXfR[fv,ì'®« ,đ'è< ,µ,Ü,·B



DHCP fjfvfVfj" f^fCfv,ð\—, ,é  
fŠ[fXšÖ,È,Ç,ìfjfvfVfj" ,ìfftfHf<fg'l,đ'è< ,µ,Ü,·B,Ü,½,íAfjXf^fè fjfvfVfj" ,đ'Ç%Á,µ,Ü,·B

ŠÖ~A€-Ú

TCP/IP ,ð\—, ,é

DHCP fT[f]o[f] fT[f]rfX,ìŠjŽn,Æ'âž~

## DHCP fT[f]o[f] fT[f]rfX,İŠJŽn,Æ'âŽ~

DHCP fNf%ofCfAf"fg fT[f]rfX,ÍAWindows NT f[f]NfXfe[f]Vf#f" fRf"fsf...[f^]ã,ÅŽÀ[s,³,ê,é Windows NT fT[f]rfX,Ä,·B,±,İfT[f]rfX,đTf|f]g,·,é DHCP fNf%ofCfAf"fg f\ftgfEjFfA,ÍASİ-{"I,ÈfIfyfCE[f]efBf"fo fVfXfef€,ª'g,Ýž,Ü,ê,é,ÆAWindows NT Server fRf"fsf...[f^],Æ Windows NT Workstation fRf"fsf... [f^],ÉŽ©"®"I,É'g,Ýž,Ü,ê,Ü,·B

## DHCP fT[f]o[f] fT[f]rfX,đŠJŽn,Ü,½,Í'âŽ~,·,é,É,Í

1. fRf"fgf[f]f< fpf|f<,ÅAW[f]rfX] ,đ\_fuf<fNfŠfbfN,μAMicrosoft DHCP fT[f]o[f] fT[f]rfX,đ'I'đ,μ,Ü,·B  
[f] ,Ü,½,Í [f]

fT[f]o[f] [f]f|fWff,ÅAW[f]rf"fsf...[f^] f[f]f...[f],İ [fT[f]rfX] fRf}f"fh,đ'I,Ñ,Ü,·B


2. [fT[f]rfX] (fT[f]o[f] [f]f|fWff,Ä,Í [f]`,İfT[f]rfX) f\_CfAf[f]O f{fbfNfX,Ä  
[ŠJŽn]AW[âŽ~]AW[èŽŽ'âŽ~]AW,Ü,½,Í [f±]s] f{f^f",đfNfŠfbfN,μA'±,ç,Ä [f]—<sup>1</sup>  
f{f^f",đfNfŠfbfN,μ,Ü,·B

DHCP fT[f]o[f] fT[f]rfX,ÍAWfRf}f"fh fvf[f]fvfg,ÅAW **Anet start dhcpserver**AW **stop  
dhcpserver**AW **pause dhcpserver**AW **continue dhcpserver** fRf}f"fh,đ"ü—  
Í,μ,Ä,àASJŽnAW[âŽ~,·,é,±,Æ,ª,Ä,«,Ü,·B

## WINS fT[f]o[f],lžg—p,É,Â,ç,Ä

WINS fT[f]o[f],Æ,íAMicrosoft TCP/IP ,”æ,Ñ WINS (Windows Internet Name Service; Windows fCf“f^[]f]fbfg f[]f€ fT[]f]rfX) fT[]f]o[f] f]ftfgfEjFfA,žŽÀ[]s,·,é Windows NT Server fRf“fsf...[]f^,ì,±,Æ,Ä,·BWINS fT[]f]o[f],íATCP/IP fAfhfÆfX,žfRf“fsf...[]f^-¼,É•İŠ·,·,éff[]f^fx[]fX,ž•ŮŽç,μ,Ů,·B,±,é,É,æ,Á,ÄATCP/IP ,žŽg,xf]fbfgf[]fN[]ä,É WINS fT[]f]o[f],ª, ,é,Æ,«A,·,×,Ä,ìft[]f]U[]ª TCP/IP ,ì—~“\_ž¹,È,æ,±,Æ,È,AWindows f]fbfgf[]fN fRf“fsf...[]f^-¼,žŽg,Á,Ä,Ů,©,ìfRf“fsf...[]f^,ÆŠÈ’P,É’É[]M,·,é,±,Æ,ª,Ä,«,Ů,·B

,±,±,Ä,íAWindows NT ,ì WINS <@“\,žfTf]o[f],·,é,½,ß,É WINS fT[]f]o[f],ž’g,Ýžž,p•Ů-@A,·,æ,Ñ WINS ,ì”wÆi,É,Ä,ç,Ä[]à-¾,μ,Ä,ç,Ů,·B

 WINS fT[]f]o[f],ž’g,Ýžž.p

 WINS ,ì—~“

 WINS ,Æfuf[]f]hfLfffXfg-¼’O%žžCE^

'[] : WINS fT[]f]o[f],íAWindows NT Server ,Ä,ì,Ý[]ì[]-,·,é,±,Æ,ª,Ä,«,Ů,·B

## WINS fT[f]o[l,đ'g,Ýž,þ

WINS fT[f]o[l,íAWindows NT Server ,É Microsoft TCP/IP

,đ'g,Ýž,þžèþ,ì^è" ,Æ,μ,Ä'g,Ýž,Ý,Ü,·B WINS fT[f]o[l,đŽÀs,·,éfRf"fsf...[f^,íACEÁ'è,μ,½ IP fAfhfCEfX,đŠ,,è"-,Ä,ç,è,Ä,ç,é•K—v,ª, ,è,Ü,·B,Ü,½AWINS fT[f]o[l fRf"fsf...[f^,íADHCP fNf %ofCfAf"fg,Ä, ,Ä,Ä,í,È,è,Ü,¹,ñBWINS fT[f]o[l fRf"fsf...[f^,É•i",ìfifbfgf[fN fAf\_fvf^ f][fh,ª, ,éèèþAIP fAfhfCEfX,ìCE<þþþ",ª³,μ,ç,±,Æ,đŠm" F,μ,Ä,,¾,¾,çþB

' : f [f]f f Rf"fsf...[f^,Ä WINS f}f][fWff,đ'g,Ýž,ÝAZÀs,·,é,É,íAAdministrators fOf<[fv,ìf"fo[l,Æ,μ,ÄfOfOf",μ,È, ,è,ì,È,è,Ü,¹,ñB

## WINS fT[f]o[l,đ'g,Ýž,þ,É,í

1. fRf"fgf[f< fpf[f<,ì [fifbfgf[fN] ,đf\_fuf<fNfŠfbfN,μ,Ü,·B [fifbfgf[fN,ìY'è) f\_fCfAf[fO f{fbfNfX,ª•Ž!,³,è,½,çA[fvtfgfEfffA,ì'Ç%oÁ] f{f^f",đfNfŠfbfN,μ,Ü,·B [fifbfgf[fN fvtfgfEfffA,ì'Ç %oÁ] f\_fCfAf[fO f{fbfNfX,ª•Ž!,³,è,Ü,·B
2. [fifbfgf[fN fvtfgfEfffA] ^è—, ©,çA[ TCP/IP fvf[fgfRf<, ,æ,ÑŠÖ~Afrf" f[f"fg] ,đ'í'đ,μA[±s] f{f^f",đfNfŠfbfN,μ,Ü,·B [Windows NT TCP/IP 'g,Ýž,ÝfifvfVf#"] f\_fCfAf[fO f{fbfNfX,ª•Ž!,³,è,Ü,·B
3. 'g,Ýž,þfifvfVf#",đ'í,Ñ,Ü,·B [WINS fT[f]o[l fT[f]rfX] f'fFfbfN f{fbfNfX,í•K, ,í,Ñ,Ü,·B Microsoft TCP/IP ,ª, ,Ä,ÉfRf"fsf...[f^,É'g,Ýž,Ü,è,Ä,ç,éèèþ,íA[WINS fT[f]o[l fT[f]rfX] f'fFfbfN f{fbfNfX,đfif",É, ,é,¾, ,Ä,·B
4. [OK] f{f^f",đfNfŠfbfN,μ,Ü,·B Windows NT fZfbfgfAfbfv,É,æ,èAWindows NT Server "z•zftf@fCf<,Ö,ìftf< fpfX,đ-à,çþ,í,¹,éf[fbfZ[fW,ª•Ž!,³,è,Ü,·B "K∅,ÈfopfX,đ"ü—í,μA[±s] f{f^f",đfNfŠfbfN,μ,Ü,·B  
•K—v,Èftf@fCf<,ª, ,x,Äfn[fh fffBfXfN,ÉfRfs[l,³,è,Ü,·B
5. TCP/IP ,ì∅—,É•K—v,ÈŽèþ,đ, ,x,ÄŠ@—¹,μ,Ü,·B Ú×,É,Ä,ç,Ä,íA TCP/IP ,đ∅—, ,é,đŽQ∅Æ,μ,Ä, ,¾,¾,çþB TCP/IP ,ì∅—,đŠ@—¹, ,é,ÆA[fifbfgf[fN,ìY'è) f\_fCfAf[fO f{fbfNfX,ª•Ž! "x•Ž!,³,è,Ü,·B [∅—¹] f{f^f",đfNfŠfbfN,μ,Ü,·B

fRf"fsf...[f^,đÄ<N" @, ,é,ÆA'í%ož, ,é TCP/IP , ,æ,Ñ WINS fT[f]o[l,ìfvtfgfEfffA,đ, ,x,ÄŽg— p,Ä,«,é,æ,æ,É,È,è,Ü,·B

ŠÖ~A∅€-Ú

WINS fT[f]rfX,đŠ]Žn, ,æ,Ñ'âŽ~, ,é

## WINS fT [frfX, ŠŽn, ,æ, Ń'âž~, ,é

WINS fNf%ofCfAf"fg fT [frfX, íAWindows NT Workstation fRf"fsf... [f^ ä, ÅŽÅs, ³, è, é Windows NT fT [frfX, Å, ·B, ±, ìfT [frfX, ðfTf [fg, ,é WINS fNf%ofCfAf"fg fVtfgfEfFfA, íAŠî- {fVfXfef€ ,ð'g, Ýž, p, ÆAWindows NT Server fRf"fsf... [f^ , ,æ, Ń Windows NT Workstation fRf"fsf... [f^ , ÈŽ © "® "l, È'g, Ýž, Ü, è, Ü, ·B

Windows fCf" f^ [fVfbfg f [f€ fT [frfX, íAWINS fT [fo [ [ä, È'g, Ýž, Ü, è, ½fT [fo [ fVtfgfEfFfA, Å, ·B

## WINS fT [fo [ fT [frfX, ŠŽn, ,æ, Ń'âž~, ,é, É, í

1. fRf"fgf [f< ppf [f< , Å [fT [frfX] , ðf\_fuf< fNfŠfbfN, µA [Windows fCf" f^ [fVfbfg f [f€ fT [frfX] , ð'ð, µ, Ü, ·B  
- , Ü, ½, í -

fT [fo [ f] f [fWff, ÅA [fRf"fsf... [f^ ] f [f... [ , ì [fT [frfX] fRf} f"fh, ð'í, Ń, Ü, ·B

2. [fT [frfX] (fT [fo [ f] f [fWff, Å, í [ ] , ìfT [frfX]) f\_fCfAf [fO f {fbfNfX, ÅA [ŠŽn] A [ 'âž~ ] A [ ^êžž'âž~ ] A, Ü, ½, í [ '±s ] f {f^ f" , ðfNfŠfbfN, µA [ [ -¹ ] f {f^ f" , ðfNfŠfbfN, µ, Ü, ·B

fRf} f"fh fVf [f" fVfg, ÅA fRf} f"fh **net start wins** , Ü, ½, í **net stop wins** , ð"ü—í, µ, ÅAWINS fT [frfX, ŠŽn, Ü, ½, í'âž~, ,é, ±, Æ, à, Å, «, Ü, ·B

## WINS , ì^êžž'âž~, Æ'±s

fRf"fgf [f< ppf [f< , ì [fT [frfX] , ðŽg, x, ©A, Ü, ½, ìfRf} f"fh fVf [f" fVfg, Å **net pause wins** , Ü, ½, í **net continue wins** fRf} f"fh, ð"ü—í, ,é, ±, Æ, É, æ, Å, ÅAWINS , ð^êžž'âž~, µ, ½, èA^êžž'âž~, ð%ðœ, µ, Å [ - , ð'±s, ,é, ±, Æ, a, Å, «, Ü, ·B ^êžž'âž~'t, ìA fNf%ofCfAf"fg, ©, ç, ì-¼'OfpfPfbfg, ðŽó, - •t, - , Ü, ¹, ñBWINS ŠÇ—ŽÖ, í, ±, è, É, æ, Å, ÅAŠÇ—A • ; [ »ACEĀ, t fCEfR [fh, ì [ ' ] , È, Ç, ìŠÔA fNf%ofCfAf"fg, a WINS , ðŽg— p, µ, È, ç, æ, x, È, ,é, ±, Æ, a, Å, «, Ü, ·B





## LMHOSTS ,ìŸ'è

LMHOSTS ftf@fCf<,íA'ÉíAWindows flfbfgf[]fN,ìftf@fCf< fT[]frfX[]A^óüfT[]frfX[]A,¨,æ,ÑfŠf,[]fg  
fT[]frfX,È,Ç,ì,½,ß[]A, ,é,ç,íffOfif“[]AŽQ[]Æ[]A•;[]»»,È,Ç,ì,æ,æ,Èfhf[]fCf“ fT[]frfX,ì,½,ß,É[]AfŠf,[]fg fRf“fsf...  
[]f^,ðCE©,Â,¯,é,½,ß,ÉŽg,í,ê,Ü,·[]B



LMHOSTS ftf@fCf<,ð•Ò[]W,·.é



“@“|~¼'O%ðCE^,É LMHOSTS ,ðŽg,æ



fzfXfg ftf@fCf<,ðŽg,Á,½~¼'O%ðCE^

## LMHOSTS ftj@fCf<,đ•ÒW,·,é

Windows NT ,ÅŽg—p,³,ê,é LMHOSTS ftj@fCf<,É,Í AIP fAfhfĀfX,Æ Windows NT fRf“fsf...[]f^~¼  
(NetBIOS ~¼) ,Æ,đ'Í%ž•t,̄,éf}fbfsf“fO[]•ň,³ŠÜ,Ü,ê,Ä,č,Ü,·B,±,İftj@fCf<,Í AMicrosoft LAN Manager  
2.x TCP/IP LMHOSTS ftj@fCf<,ÆĀÝŠ·[]«,ª, ,è,Ü,·B

ft[]fU[],Í Af[]f, ' ,â,Ü,©,İfefLjXfg fGfffBf^,đŽg,Á,Ä A\systemroot\SYSTEM32\DRIVERS\ETC  
fffBfĀfNfgfŠ,ÉŽ © “ @ “ I,É'g,Ýž,Ü,ê,Ä,č,éfTf“fvf< LMHOSTS ftj@fCf<,đ•ÒW,Á,«,Ü,·B

LMHOSTS ,ÉŠÖ,·,éŠİ-{“I,È<K'¥,ÆfKfCfhf%ofCf“ ,É,Á,č,Ä,Í AŽŸ,İ€-Ú,Å[]à~¾,μ,Ü,·B



LMHOSTS ,ì<K'¥



LMHOSTS ,İfKfCfhf%ofCf“

## LMHOSTS ,ì<K'¥

LMHOSTS "à,lfGf"fgfŠ,É,íAŽŸ,ì,æ,æ,È<K'¥,ª"K—p,³,è,Ü,·B



ŠefGf"fgfŠ,íA•ÉX,ìs,É<L"ü,μ,Ü,·B



IP fAfhfCEfX,ðÅ%»,ì—,É<L"ü,μA,»ìCEä,É'í%ž,·,éfRf"fsf...[f^~¼,δ<L"ü,μ,Ü,·B



IP fAfhfCEfX,ÆfRf"fsf...[f^~¼,Æ,ìŠÖ,íA1 ,Â^Èèä,ì<ó""•Ÿš,Ü,½,í^fu,Â<æ∅,è,Ü,·B



fVff[fv•Ÿš (#)  
íA^è"É,ÉAfRf[f"fg,ìæ"ª,ðŽ!,·,ì,ÉŽg,í,è,Ü,·B,½,¾,μA"Á•É,ÈfL[f[fh,ðŽ!,·,±,Æ,à,·,è,Ü,·B

LMHOSTS ,Á,íAŽŸ,ì^è—,ÉŽ!,·fL[f[fh,ðŽg,ì,Ü,·B

### #PRE

fGf"fgfŠ,ìCEä,è,É'Ç%Á,μ,ÄA,»lfGf"fgfŠ,ª~¼'OfLfffbfVf...É, ,ç, ©,Ÿ,ßf[fh,³,è,é,æ,æ,  
É,μ,Ü,·BfftfHf<fg,Á,íAfgf"fgfŠ,ª~¼'OfLfffbfVf...É, ,ç, ©,Ÿ,ßf[fh,³,è,é,±,Æ,í,È,AWINS ,",æ,Ń~  
¼'OAE%ifu[fhflfffXfg,ª~¼'O,ì%ðCE^,ÉŽ,"s,μ,½èè,¾,~%ðí,³,è,Ü,·B#PRE ,íA#INCLUDE  
•Ÿ,ÉCE»,è,éfGf"fgfŠ,É,à•t%Á,·,é•K—v,ª, ,è,Ü,·B#PRE ,ðfGf"fgfŠ,É•t%Á,μ,È,ç,ÆA#INCLUDE  
"à,lfGf"fgfŠ,ì~³Ž<,³,è,Ü,·B

### #DOM:<domain>

fGf"fgfŠ,ìCEä,è,É'Ç%Á,μ,ÄA,±,lfGf"fgfŠ,Æ <domain>  
,É,æ,Á,Äžw'è,³,è,½fhf[fCf",ðŠÖ~A•t, ,Ü,·B,±,ìfL[f[fh,íAfu%ofEfu fT[fxfX,Æf[fOfif"  
fT[fxfX,ªATCP/IP ŠÁ<<,Á,Ç,ì,æ,æ,ÉU,é•,æ, ©,É%œ<¿,μ,Ü,·B#DOM  
fGf"fgfŠ,ð, ,ç, ©,Ÿ,ßf[fh,·,é,É,íA,±,ìs,É #PRE fL[f[fh,à'Ç%Á,·,é•K—v,ª, ,è,Ü,·B

### #INCLUDE <filename>

<filename> ,ÉŽw'è,μ,½ftf@fCf<,ðCEŸð,μACE©,Á, ©,Á,½ftf@fCf<,ðf[fj< ftf@fCf<,Æ"" ,Ÿ,æ,æ,  
,É•èí!,·,é,æ,xfVfXfef€,É<Ÿ,μ,Ü,·B"Ä—p~¼'O•t,~<K'¥ (UNC) ,É,æ,é <filename>  
,ðŽw'è,·,é,ÆAfT[f[fh,ÄW'+ŠÇ—,³,è,Ä,ç,é LMHOSTS ftf@fCf<,ðŽg—p,·,é,±  
,Æ,ª,Á,« ,Ü,·BfT[f[fh,ªf[fj< fu[fhflfffXfg—  
ì^æ,ìŠÖ,É, ,éèè,íAft[f[fh,É'í,·,éf}fbfsf"fo,ðA#INCLUDE  
fZfNfVf#f"à,ìfT[f[fh, fGf"fgfŠ,æ,è'O,É'Ç%Á,·,é•K—v,ª, ,è,Ü,·B,Ü,½A,±  
,ìfT[f[fh, fGf"fgfŠ,ðA, ,ç, ©,Ÿ,ßSmŽÀ,Éf[fh,·,é,½,ß,ÉA#PRE ,à'Ç%Á,μ,Ü,·B

### #BEGIN\_ALTERNATE

•j" ,ì #INCLUDE •Ÿ,ìfOf<[fv,ìšŽnqs,É^ó,ð•t, ,Ü,·B#INCLUDE •Ÿ,ìžÀqs,É 1  
,Á,Ä,à<—CE±,·,é,ÆA,±,ìfOf<[fv'S'ì,ìžÀqs,ª—CE±,μ,Ü,·B

### #END\_ALTERNATE

#INCLUDE fOf<[fv%» ,ì,í,è,ðŽ!,·,½,ß,ÉŽg,ç,Ü,·B

### \0xnn

NetBIOS ~¼,ì't,ì^óü•s%Á"\,É•Ÿš,ðfTf[fg,μ,Ü,·BNetBIOS ~¼,ð"řd^ø—p•,,Á^í,ÝA\0xnn 16  
íi•<L,ðŽg,çA,» ,ì^óü•s%Á"\,É•Ÿš,ì 16 í'l,ðŽw'è,μ,Ü,· (%œ<L,ìžg—p—á,ðžQ[Æ]B,±,ì•<L—  
@,É,æ,èA"Äž~¼,ðŽg—p,μ,Ä,ç,éfjXf^fè fAfVfŠfP[fVf#f",ðAf<[fefBf"fo,³,è,½fgf]  
f[fW,ì't,Á³í,É<@",³,¹,é,±,Æ,ª,Á,« ,Ü,·B,μ, ©,μALAN Manager TCP/IP ,í 16 íiCE^Ž®,ð" FŽ",μ,È,ç  
,ì,ÁA,±,ì<@"\,ðŽg,æèèA%œ^ÉCEÝŠ<« ,ì•úšü,·,é,±,Æ,É,È,è,Ü,·B

, ±, ì 16 □i•\<L-@, Í□A-¼'O, Ì'†, Ì 1 •¶Žš, ¾, ¯, É“K—p, ³, ê, é, ±, Æ, É'□^Ó, μ, Ä,, ¾, ³, ç□B16 •¶Žš, É-ž, ½, È, ç  
NetBIOS -¼, É, Í<ó''•¶Žš, ð'}“ü, μ□A“ÁŽê•¶Žš, ¢-¼'O, Ì□ÁĈĚä (16 "Ô-Ú, Ì•¶Žš) ,É,, é, æ, x, É, μ, Ü, ·□B

ŽŸ, É□A, ±, ê, ç, ÌfL□[f□□[fh, ÌŽg, ç•û, Ì—á, ðŽ!, μ, Ü, ·□B

```
102.54.94.98    localsrv    #PRE
102.54.94.97    trey        #PRE #DOM:networking    #net group's domain controller
102.54.94.102   "appname    \0x14"      #special app server
102.54.94.123   popular     #PRE        #source server
```

```
#BEGIN_ALTERNATE
#INCLUDE \\localsrv\public\lmhosts
#INCLUDE \\trey\public\lmhosts
#END_ALTERNATE
```

, ±, Ì—á, Í□AŽŸ, Ì, æ, x, É“à—e, ðŽ!, μ, Ä, ç, Ü, ·□B



**localsvr** , ¯, æ, Ñ **trey** , Æ, ç, x-¼'O, ÌfT□[fo□[, ¢Žw'è, ³, ê, Ä, ç, Ü, ·□B, μ, ½, ¢, Á, Ä□A□W'†ŠÇ—□, ³, ê, Ä, ç, é  
LMHOSTS ftf@fCf<"à, Ì #INCLUDE •¶, Ä□A, ±, ê, ç, ÌfT□[fo□[-¼, ðĈĚä, ÁŽg, x, ±, Æ, ¢, Ä, «, Ü, ·□B



fT□[fo□[-¼ "appname \0x14" ,É, Í□A15 ĈĚÄ, Ì•¶Žš (<ó''•¶Žš, ðŠÜ, p) , ÌĈĚä, É“ÁŽê•¶Žš, ¢•t  
%ooÁ, ³, ê, Ä, ç, Ü, ·□B, μ, ½, ¢, Á, Ä□A, ±, Ì-¼'O, Í"ñ□d^ø—p•,, Ä^í, ñ, Ä, , è, Ü, ·□B



**popular** , Æ, ç, x-¼'O, ÌfT□[fo□[, ¢□A#PRE fL□[f□□[fh, ÉŠî, Ä, ç, Ä, , ç, ©, ¶, ßf□□[fh, ³, ê, Ü, ·□B





## LMHOSTS ,ÉfŠf,[]fg fT[]fo[],ðŽw'è,.,é

LMHOSTS ftj@fCf<,ÉfRf"fsf...[]f^-¼,Æ IP fAfhfCfX,lf}fbfsf"fo,žw'è,³,è,Ä,ç,è,î[]Af[][]fj< fuf[][]fhfLfffXfg—î^æ,îŠO,ÄfRf"fsf...[]f^-¼,ð%ðCE^,.,é,±,Æ,ä,Ä,«,Ü,·[]B,½,Æ,î,î[]AlientA ,Æ,ç,æ-¼'O,lfRf"fsf...[]f^,ä[]AIP fuf[][]fhfLfffXfg—î^æ,îŠO,É, ,é ServerB ,Æ,ç,æ-¼'O,lfRf"fsf... []f^,ÉfAfNfZfX,ðŽŽ,Ý,Ä,ç,é[]è[]#,ð[][,Ä,Ý,Ü,·[]B,ç,ç,ç,î Windows NT fRf"fsf...[]f^,à[]AMicrosoft TCP/IP ,ð —p,ç,Ä[][]-,µ,Ä, ,é,à,î,Æ,µ,Ü,·[]B

lf}fbfgf[][]fN fNf%oCfAf"fg[]ä,î LMHOSTS ftj@fCf<,ðŽg,æ[]è[]#,î[]AfŠf,[]fg fRf"fsf... []f^,lfCfWfXfgfŠ,ð[]C³,µ,É, ,é,î,É,è,Ü,¹,ñ[]BLMHOSTS ftj@fCf<,ðŠÜ,p<æ—L-¼,î[]A^È%o°,ÉŽ!,.,æ,æ ,É[]AfCfWfXfgfŠ fL[][,É<æ—L-¼,ð'Ç%oÄ,.,é,±,Æ,É,æ,Ä,Ä[]AfT[]fo[][]ä,î Null fZfbjVfj^è—,É'Ç %oÄ,³,è,Ü,·[]B

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services  
\LanManServer\Parameters\NullSessionShares

<<` ,ì b\_fm[][]fh fuf[][]fhfLfffXfg fvf[]fgfRf<,ì%o°,Ä,î[]AlientA ,ç ServerB ,Ö,ì-¼'O[]Æ%oï—v<[][,ÍŽ,"s,µ,Ü,· (f^fCfÉfAfEfg,É,æ,è)[]B,±,è,î[]AServerB ,afŠf,[]fg fTfufjfbfg[]ä,É"z'u,³,è,Ä, ,è[]AlientA ,lfuf[][]fhfLfffXfg —v<[][,É%ož"š,µ,É,ç, ,ç,Ä,·[]B,±,è,ð%ðCE^,.,é,½,ß,É[]A'ä'Ö,ì-¼'O%ðCE^,î•û-@,ä'ñ<Ý,³,è,Ä,ç ,Ü,·[]BWindows NT ,î[]AfRf"fsf...[]f^-¼,Æ IP fAfhfCfX,lf}fbfsf"fo—p,ÉCEÀ'è,³,è,½fLfffbfVf... ,ð•ÜŽ[][,µ,Ä,ç,Ü,·[]B,±,lfLfffbfVf...,î[]AfVfXfef€<N" @Žž,É[]%oŠú%o»,³,è,Ü,·[]BfRf"fsf...[]f^,Ä-¼'O,ð %oðCE^,.,é•K—v,ä<N,±,é,Æ[]AWindows NT ,ì,Ü, ,±,lfLfffbfVf...,ð'²,×[]AfLfffbfVf..."à,ÉŠY"—,.,é-¼'O,ä,É,ç ,Æ[]Afuf[][]fhfLfffXfg-¼'O%ðCE^,ðŽg,ç,Ü,·[]B,±,è,É,àŽ,"s,.,é,Æ[]ALMHOSTS ftj@fCf<,žg,í,è,Ü,·[]B,± ,î[]ÄCEä,î•û-@,É,àŽ,"s,µ,½[]è[]#,î[]A-¼'O,ì%oðCE^,Ä,«, ,[]AfGf%o[] f[]fbfZ[]fW,ä•Ž!,³,è,Ü,·[]B

,±,ì,æ,æ,É-¼'O%ðCE^,î•û[]j,ì, ,ç,° ,Ä[]ALMHOSTS ftj@fCf<,É'½[] ,lf}fbfsf"fo,ð<L'ü,µ,Ä, ,± ,Æ,ä,Ä,«[]A,Ü,Æ,ñ,ÇŽg,í,è,É,tfLfffbfVf...,ð^ÜŽ[][,.,é,½,ß,É'ä—e—É,lfXf^fefBfbfN f[]f,Š,ðŠ,,è"—,Ä,é•K— v,ä, ,è,Ü,¹,ñ[]B-¼'OfLfffbfVf...,É,î[]ALMHOSTS ftj@fCf<,ì #PRE fL[]f[][]fh,ä•t,ç ,½fGf"fgfŠ,¾, ,ä[]AfVfXfef€<N" @Žž,É, ,ç, ,ç,ßf[][]fh,³,è,Ü,·[]B,½,Æ,î,î[]ALMHOSTS ftj@fCf<,ÍŽÝ,ì,æ,æ ,É,É,è,Ü,·[]B

102.54.94.91	accounting	#accounting server
102.54.94.94	payroll	#payroll server
102.54.94.97	stockquote	#PRE #stock quote server
102.54.94.102	printqueue	#print server in Bldg 10

,±,ì—á,Ä,î[]Astockquote ,Æ,ç,æ-¼'O,lfT[]fo[][,É #PRE fL[]f[][]fh,ä•t,ç,Ä,ç,é,ì,Ä[]A,± ,lfT[]fo[] fGf"fgfŠ,ä[]A-¼'OfLfffbfVf...,É, ,ç, ,ç,ßf[][]fh,³,è,Ü,·[]BLMHOSTS ftj@fCf<,lfGf"fgfŠ,î[]AMicrosoft TCP/IP ,ðŽÄ[]s,.,é Windows NT Workstation fRf"fsf...[]f^[]AWindows NT Server fRf"fsf...[]f^[]A,Ü,½,î LAN Manager fT[]fo[][,ð\.,±,Æ,ä,Ä,«,Ü,·[]BLMHOSTS ftj@fCf<"à,ÄfVf %o[]fbfgftfH[]f€,ìŽí—p,ì^á,ç,ð<æ•É,.,é•K—v,ì, ,è,Ü,¹,ñ[]B

'[] : Windows NT f^fo #PRE ,É,æ,è[]ALAN Manager 2.x LMHOSTS ftj@fCf<,Æ,ì %o^ÈCEÝŠ<[][,ð•Ü,Ä,±,Æ,ä,Ä,«[]AWindows NT ,É[]\_ "î[]< ,ä•t%oÄ,³,è,Ü,·[]BLAN Manager ,ì %o°,Ä,î[]AfVf[]f[]fv•¶Žš (#) ,lfRf[]"fg,ð\.,µ,Ü, ,ç,ç[]A,±,è^È[]-,ì•¶Žš,ì,.,x,Ä-³Ž<,³,è,Ü,·[]B^è•û[]A#PRE ,ì Windows NT ,Ä,ì—LCEø,Éf^fo,Ä,·[]B

[]ä,ì—á,Ä,î[]Aaccounting[]Apayroll[]A, ,æ,ñ printqueue ,Æ,ç,æ-¼'O,lfT[]fo[][,ì-¼'O %oðCE^,î[]AfLfffbfVf... fGf"fgfŠ,î[]Æ[]#,äŽ,"s,µ[]Afuf[][]fhfLfffXfg fvf[]fgfRf<,Ä,àfT[]fo[][,ìCEÝø,ÉŽ,"s,µ,½CEä,Ä,ì,ÝŽÄ[]s,³,è,Ü,·[]B, ,ç, ,ç,ßf[][]fh,³,è,Ä,ç,É, ,ç,Ä,½fGf"fgfŠ,ä %oðCE^,³,è,é,Æ[]A,±,lfGf"fgfŠ,lf}fbfsf"fo,ä[]AÄŽg—p,ì,½,ß,É^è'èŠúŠÖfLfffbfVf...,É•ÜŽ[][,³,è,Ü,·[]B



Windows NT ,Á,íA-¼'OfLfffbfVf...,É, ,ç, ©, ¶,ßf[]fh,Á,«,éGf“fgfŠ,ì”,íAffffHf<fg,Á,í 100 ĄĀ,Ā,·B,±  
,ì\$ĄĀ,íA#PRE ,ª•t,ç,Ä,ç,éLfffbfVf...,³,è,È, ©,Á,½fGf“fgfŠ,¾,¯,É“K—p,³,è,Û,·B100  
ĄĀ,ð',,í,éGf“fgfŠ,ðŽw'è,µ,½èè,íAĀ%o,ì 100 ĄĀ,ì #PRE

•t,«fGf“fgfŠ,¾,¯,ª, ,ç, ©, ¶,ßf[]fh,³,è,Û,·B,»,è^È~,ìfGf“fgfŠ,í<N“ @Žž,É,í-³Ž<,³,è,Û,·ªA“ @“í  
%oðĄĀ^,ªŽ,“s,µ,½ĄĀ,ĀfVfXfef€,ª LMHOSTS ftj@fCf<,ð%oðí,·,é,Ā,«%oðĄĀ^,³,è,Û,·B

,Û,½Ā**Anbtstat -R** fRf}f“fh,ðŽg—p,·,è,íA-¼'OfLfffbfVf...,ðĀĀ€”ð,·,é,±,Ā,ª,Ā,«,Û,·B,±,ìfRf}f“fh,íA-  
¼'OfLfffbfVf...,ð<ó,É,µ,Ā, ©,çĀf[]fh,µĀLMHOSTS ftj@fCf<,ðĀĀ“x“Ç,ÝŽæ,èA#PRE

fL[]f[]fh•t,«fGf“fgfŠ,ð'}“ü,µ,Û,·B**nbtstat -R** fRf}f“fh,ðŽg—p,·,é,ĀA“ü—  
í,ÉĄĀ,è,ì, ,éGf“fgfŠ,âfuf[]fhfLffXfg%oðĄĀ^,É—Ą÷,µ,½,½,ß,ÉfLfffbfVf...,É'}“ü,³,è,½-¼'O,È,ÇA, ,ç, ©,  
¶,ßf[]fh,³,è,Ä,ç,éGf“fgfŠ,ðŽæ,èœ, ©ĄĄ³,·,é,±,Ā,ª,Ā,«,Û,·B

#DOM ,ðŽg,Á,ÄfhfCf" fRf"fgfCf" ,ðŽw'è, ,é

LMHOSTS ,aA,à^è"É"l,ÉŽg,i,è,é,ì,íAftf@fCf< fT[fxfX,Æ^óüfT[fxfX,ì,½,ß,ÉfŠf,[]fg  
fT[fo[ ,l^É'u,ð'è,ß,é,½,ß,Ä,·B,µ,©,µ Windows NT ,Ä,íALMHOSTS ,ðf<[fefBf"fo,³,è,½ŠÄ«« ,Ä TCP/IP  
,ðŽÄs,·,éfhfCf" fRf"fgfCf" ,ìCEÿð,É,àŽg,µ,±,Æ,ä,Ä,« ,Ü,·BWindows NT fhfCf" fRf"fgfCf"  
,íAft[[]fU[] fAfjJfE"fg fZfLf...fŠfefB ff[f^fx[]fX,ð·ÜŽç,µA,Ü,½,» ,ì,Ü,© ,lfhfbfgf[]fNŠÖ" AfT[fxfX,ðŠÇ—  
·,µ,Ü,·B'áK-í,È Windows NT fhfCf" ,íA·i[] ,ì IP fTfufhfbfg,É,Ü,½,²,é,±,Æ,à , ,é,ì,ÄAfc[]f[] ,éfhfCf"  
fRf"fgfCf" ,ðCEÿ,ç,É·²—£,³,¹,½,èAfhfCf" fRf"fgfCf" ,© ,çfhfCf" "à,ì,Ü,© ,lfRf"fsf...[]f^ ,ð·²—£  
,³,¹,½,è,·,é,±,Æ,à , ,è,ì,Ü,·B

#DOM fL[]f[]fh,ð LMHOSTS ftf@fCf<"à,ÄŽg—p,·,è,íAWindows NT Workstation fRf"fsf...  
[]f^[]A,Ü,½,íALAN Manager fT[fo[ , ,ç Windows NT fhfCf" fRf"fgfCf" ,ðæ·É,·,é,±  
,Æ,²,Ä,« ,Ü,·B#DOM f^fo,ðŽg—p,·,é,É,íALMHOSTS "à,ì-¼'O,Æ IP fAfhfCfX,lf}fbfsf"fo,ìCEä,ÉA#DOM  
fL[]f[]fh[]Afrf[]A, ,æ,ÑfhfCf" fRf"fgfCf" ,äŽQ%Á,µ,Ä,ç,éfhfCf" ,ð<L"ü,µ,Ü,·BŽÿ,É—  
á,ðŽ,ì,µ,Ü,·B

102.54.94.97 treydc #DOM:treycorp #The treycorp domain controller

' : •p"É,ÉfAfNfzfx,³,è,éfhfCf" fRf"fgfCf" ,íA#DOM f^fo,ìCEä,É #PRE fL[]f[]fh,ð<L"ü,µ,Ü,·  
(LAN Manager fT[fo[ ,à,±,ì LMHOSTS ftf@fCf<,àŽg,µ,è,íA,íA,·,²d—v,Ä,·)B

#DOM fL[]f[]fh,ðŽg,Á,ÄfhfCf" fRf"fgfCf" ,ðŽw'è, ,é,ÆA"ÁŽéfCf" f^[]f[]fbfg fOf<[]fv-¼fLfffbfVf...  
,ÉfGf"fgfS,²Ç%Á,³,è,Ü,·B,±,lfLfffbfVf...,íA[]f[]f[]f< fhfCf" fRf"fgfCf" ,É'í,·,é—  
v<,²Afc" f^[]f[]fbfgf[]fN,É"z·z,³,è,é,ì,ð\$CEÀ,·,é,½,ß,ÉŽg,i,è,Ü,·Bf[]Of" —v<,É,Ç,lfhCf"  
fRf"fgfCf" fAfNfefBfrfefB,²<N,±,é,ÆA,±,ì—v<,í"ÁŽè,ÉfCf" f^[]f[]fbfg fOf<[]fv-¼[]ä,É'—  
,ç,è,Ü,·Bf[]f[]f< IP fuf[]f[]fhLfffxfg—l^æ"à,Ä,íA,±,ì—v<,í 1 %ñ,¾,~—,ç,èA,ç,·,è,© ,lf[]f[]f< fhfCf"  
fRf"fgfCf" ,ÉŽæ,èä,°,ç,è,Ü,·B,µ,© ,µA#DOM ,ðŽg,Á,Ä LMHOSTS ftf@fCf<"à,ÉfhfCf" fRf"fgfCf"  
% ,ðŽw'è,·,é,ÆAMicrosoft TCP/IP ,lfŠf,[]fg fTfufhfbfg[]ä,É"É'u,·,éfhfCf" fRf"fgfCf" ,É,àff[]f^Of%œ  
,ð—p,ç,Ä—v<,ð"l—,µ,Ü,·B

,±,ì,æ,µ,ÉfhfCf" fRf"fgfCf" fAfNfefBfrfefB,ì—á,É,íAfhfCf" fRf"fgfCf" ppf<X (fAfjJfE"fg  
ff[]f^fx[]fX,ì"Šú%» ,ÉŽg—p)[]Afc[]Of" F[]Afc[]X[]fh·íX[]Af}fXf^ fuf%œfU^è—,ì"Šú  
%»[]A, ,æ,Ñ,» ,ì,Ü,© ,lfhCf" ŠÇ—,ÉŠÖ,·,éfAfNfefBfrfefB,², ,è,Ü,·B

·i[] ,lfTfufhfbfg,É,Ü,½,²,éfhfCf" ,É'í,µ,Ä,íALMHOSTS ftf@fCf<,Ä #DOM ,ðŽg,µ,±,Æ,É,æ,èAfhfCf" ,ìd  
—v,Éf[]f[]f[]f,ðf}fbfv,·,é,±,Æ,²,Ä,« ,Ü,·BŽÿ,ÉA,±,lf}fbfsf"fo,É,Ä,ç,Ä,lfKfCfhf%œCf" ,ð,ç,·,Ä,©Ž,ì,µ,Ü,·B



, ,éfhfCf" ,lf[]f[]fo[ ,Ä, ,é Windows NT fRf"fsf...[]f^[]ä,ìŠef[]f[]f< LMHOSTS ftf@fCf<,É,íAfc[]f[]fg  
fTfufhfbfg[]ä,É"É'u,·,èA,±,lfhCf" "à,ì'SfhfCf" fRf"fgfCf" ,É'í,·,é #DOM fGf"fgfS,ð<L"ü,·,é·K—  
v,², ,è,Ü,·B,±,è,É,æ,èAfc[]Of" F[]Afc[]X[]fh·íX[]AZQÆ,É,Ç,²f[]f[]f< fhfCf" ,Ä,·,x,Ä³[]í,É"—  
,« ,Ü,·B,±,ì #DOM fGf"fgfS,íAWindows NT fVfXfef€,ð Windows fhfbfgf[]fN,lfCf" f^[]f[]fbfgf[]fN,ÉŽQ  
%Á,³,¹,è,ì,ÉA'áCEA·K—v,ÉfGf"fgfS,Ä,·B



fobfNfAfbfv fhfCf" fRf"fgfCf" ,Æ,µ,Ä<@"\,Ä,« ,é,·,x,Ä,lfT[]fo[[]ä,lf[]f[]f< LMHOSTS  
ftf@fCf<,É,íAfc[]f[]fS fhfCf" fRf"fgfCf" ,ì-¼'O,Æ IP  
fAfhfCfX,lf}fbfsf"foA, ,æ,Ñ,Ü,© ,ì,·,x,Ä,lfobfNfAfbfv fhfCf" fRf"fgfCf" ,lf}fbfsf"fo,ð<L"ü,·,é·K—  
v,², ,è,Ü,·B,±,è,É,æ,èAfc[]fo[ ,ðfhfCf" fRf"fgfCf" ,  
,Æ,µ,Ä,ì'n^É,ð,Š,³,¹,Ä,èAfhfCf" ,lf[]f[]fo[ ,ÉfT[]fxfX,ð,·,x,Ä'ñ<ÿ,·,é<@"\,É%œç,µ,Ü,¹,ñB



fhfCf" ŠÖ,ÉM—ŠŠÖEW,²"¶ÿ,·,éè,íAfc[]f[]f< LMHOSTS ftf@fCf<,ÉA[]M—Š,³,è,éµ  
,ì,·,x,Ä,lfhCf" ,ì'SfhfCf" fRf"fgfCf" ,ð<L"ü,µ,Ä, ,·K—v,², ,è,Ü,·B



Ž<·²,lf[]f[]f< fhfCf" ,© ,çŽQÆ,µ,½,çfhfCf" ,², ,éè,íAfc[]f[]f< LMHOSTS ftf@fCf<,É,Æ,afŠf,[]fg fhfCf" "à,lfv  
%œCf}fS fhfCf" fRf"fgfCf" ,ì-¼,Æ,» ,ì IP fAfhfCfX,lf}fbfsf"fo,ðAfc[]f[]f< LMHOSTS  
ftf@fCf<,É<L"ü,µ,Ä, ,·K—v,², ,è,Ü,·B,Ü,½Afc[]f[]fS fhfCf" fRf"fgfCf" ,Ö,ì,Š,²Afc[]f[]fg

fhf[]fCf", ,đŽQ[]Æ, ,é<@"\,đ-W, °, È, ç, æ, x, É[]AfofbfNfAfbfv fhf[]fCf" fRf"fgf[][]f%o, à<L"ü, μ, Ä, ", •K—  
v, <sup>a</sup>, , è, Ü, :[]B

fhf[]fCf", ,ì[]", <sup>a</sup> 20 ,É-ž, ½, È, ç[]-<K-í, ©, ç'+<K-í, ìf[]fbfgf[][]fN, Ä, í[]A<x'É, ì LMHOSTS ftf@fCf<, <sup>a</sup> 1  
, Ä'[]Y, , , è, î[]A'É[]í[]Afcf" f^[]f[]fbfgf[][]fNä, ì'Sf[][]fNfXfe[]fVf#f", , , æ, Ñ'SfT[]f[]o[][], ì—v<[], đ-ž, ½, , , ±  
, Æ, <sup>a</sup>, Ä, «, , Ü, , []B, ±, è, đŽÀÆ», , , é, É, í[]AWindows NT •; []»fT[]f[]rfX, đfVfXfef€, ÄŽg, Á, Ä[]Afof[][]fof< LMHOSTS  
, ì"~Šúf[][]f[]f< fRfs[][], đ•ÜŽç, , , é, ©[]A[]W'tŠÇ—[], <sup>3</sup>, è, ½ LMHOSTS ftf@fCf<, đŽg, x•K—v, <sup>a</sup>, , è, Ü, : ([]W'tŠÇ=  
[], <sup>3</sup>, è, ½ LMHOSTS ftf@fCf<, đŽg, x, đŽQ[]Æ)[]B



,ÆA#INCLUDE •¶,Í-³Ž<,³,ê,Û,·B

,±,lfufbfN fCf“fNf<[fh,íAfOf[fof< LMHOSTS ftf@fCf<,ªă,ì 3 ,Â,ìêŠ,ì,ç  
,,ê,©,©,ç“üžè,Â,«A,Ù,©,lfT[fo[ ,ªŽg,í,ê,È,çê¶,É-CE±,μ,Û,·B,ç,,ê,lfT[fo[,à—  
p,Â,«,È,çê¶A,Û,½,í%½,ç,©,ì—R,Â LMHOSTS ftf@fCf<,©fpfX,ª³,μ,,È,çê¶,íAfufbfN  
fCf“fNf<[fh,ÉŽ,“s,μ,½,±,Æ,đŽ!,fCxf“fg,ì<L~^,ªfCxf“fg ffo,É’Ç%Á,³,ê,Û,·B

## FTP fT[fO[f T[fRfX,É,Á,č,Ä

Microsoft FTP fT[fO[f T[fRfX,đŽg,æ,ÆATCP/IP fv[fO[fRf<,Æ Windows NT fRf“fsf...[f^,íAFTP (File Transfer Protocol; ftj@fCf<“]’—fv[fO[fRf<) ,đTf]O[fO,·,éŠf,[]fg fRf“fsf...

[f^,Æ,ìŠÔ,Á‘ŠCEY,Éftj@fCf<,đ“]’—,Á,«,Ü,·BFTP fT[fO[f T[fRfX,íAWindows NT **ftp** fNf%ofCfAf“fg fRf}f“fh,đ,·,x,ÄTf]O[fO,μ,Ä,č,Ü,·BMicrosoft fo[]fWf#f“,Á,Í,È,č FTP fNf%ofCfAf“fg,É,íAMicrosoft FTP fT[fO[f T[fRfX,Á,ÍTf]O[fO,μ,È,čfRf}f“fh,đŽ,Á,à,ì,à, ,è,Ü,·BFTP fT[fO[f T[fRfX,íAf}f<f`fXfæfbfh,ì Win32 fT[fRfX,Æ,μ,ÄŽÁ‘·,³,è,Ä,“ ,èARFC 959 ,“ ,æ,Ñ 1123 ,É‘è<` ,³,è,Ä,č,é—vCE,É€<’,μ,Ä,č,Ü,·BRFC ,íAIETF (Internet Engineering Task Force) ,ìCEöŽ@[]<Æ·¶’ ,Á,·B

FTP fT[fO[f T[fRfX,íAWindows NT ,ìZfLf...fŠfefB f,ff<,Æ“[]ž,³,è,Ä,č,Ü,·BFTP fT[fO[f T[fRfX,ÉÚ± ,·,éft[]fU[] ,íAWindows NT ft[]fU[] fAfjEf“fg,ÉŠì,Ä,č,Ä“F[]Ø,³,èAf[]fU[] fv[]ftj@fCf<,ÉŠì,Ä,č ,ÄfAfNfZfX,đs,č,Ü,·B,μ,½,³,Ä,ÄAFTP ,©,ç—~—p%oÁ“\ ,Éftj@fCf<,“ ,æ,ÑffBfæfNfjgŠ,đ·ÚCèì,Á,« ,é,æ,æAFTP fT[fO[f T[fRfX,í NTFS fp[]fefBfVf#f“,É‘g,Ýž,þ,± ,Æ,đ,“Š©,ß,μ,Ü,·B

ŽŸ,ì€—Ú,É,Á,č,Äà—¾,μ,Ü,·B



[FTP fT\[fO\[f T\[fRfX,đ‘g,Ýž,þ](#)



[FTP fT\[fO\[f T\[fRfX,đ\[\]—,·,é](#)



[FTP fT\[fO\[f fZfLf...fŠfefB,đ\[\]—,·,é](#)



[FTP fT\[fO\[f T\[fRfX,đŠC—\[\] ,·,é](#)



[FTP fT\[fO\[f T\[fRfX,ìÚx,È\[\]—fpf%of\[\]f^](#)

Æx[] : FTP fT[fO[f fv[fO[fRf<,íAf[]fU[] fpfXf[]fh,đff[]f^,ì^Á[]t %o»,đs,í, ,ÉAf[]fbfgf[]fN,É“n,·<@“\,É^È‘¶,μ,Ä,č,Ü,·Bf[]fbfgf[]fN fAfj %ofCfU,đ“đ,ì,½ft[]fU[] ,íA,Ü,© ,ìft[]fU[] ,ìŠf,[]fg fAfjEf“fg fpfXf[]fh,đ“üžè,Á,« ,é%oÁ“\ []<,³ ,è,Ü,·BfZfLf...fŠfefB<@“\ ,ì,È,čf[]fbfgf[]fN,Éf[]Of[]f“ ,·,é,Æ,« ,ÉŽg,æpfXf[]fh,Æ““ ,¶pfXf[]fh,đAWindows NT ,ìf[]Of[]f“ ,ÉŽg,ì,È,č,æ,æ,É,μ,Ä,¾,³,čBWindows NT[]A,“ ,æ,Ñ LAN Manager f[]fbfgf[]fN,Ážg— p,³ ,è,é[]fOf[]f“ ,ì,½,ß,ìAf[]fEf“fg[]·ñ,íAf[]fbfgf[]fN,É’—,ç,è,é‘O,É,Á,È,É^Á[]t%o»,³ ,è,Ü,·B

## FTP fT[f]o[f] fT[f]rfX,đ'g,Ýž,þ

FTP fT[f]o[f] fT[f]rfX,íA[æ,Éà-¾,μ,½fZfLf...fŠfefB[ä,İšëĀ[«,ì,½,ßAŽ©“®“l,É'g,Ýž,Ü,è,é,±,Æ,í,è,Ü,ñBŽŸ,ìžè[#,Á,íA•K—v,ÈfffofCfX,“,æ,ŇfffofCfX fhf %ofCfo,í,·,x,Ä'g,Ýž,Ýí,Ÿ,Á,è,à,ì,Æ,μ,Ä[à-¾,μ,Ä,ç,Ü,·B

FTP fT[f]o[f] fT[f]rfX,đ'g,Ýž,ñ,Á[—,·,é,É,íA[ff]f< fRf“fsf...[f^,ì Administrators fof<[fv,ìf“fo[Æ,μ,ÄfOfif“,μ,È,è,í,È,è,Ü,ñB

## FTP fT[f]o[f] fT[f]rfX,đ'g,Ýž,þ,É,í

1. fRf“fgf[f< fpfif<,ì [fifbfgf[fN] ,đf\_fuf<fNfŠfbfN,μ,Ü,·B
2. [fifbfgf[fN,ìÝ'è) f\_fCfAfO f{fbfNfX,ÁA[fvtfgfEfffA,ì'Ç%Á) f{f^f“,đfNfŠfbfN,μ,ÄA[fifbfgf[fN fvtfgfEfffA,ì'Ç%Á) f\_fCfAfO f{fbfNfX,đ•\ž,ì,μ,Ü,·B
3. [fifbfgf[fN fvtfgfEfffA) ^è—,©,çA[TCPIP fvf[fgfRf<,“,æ,ŇŠÖ~AfRf“f[ff“fg) ,đ'í'đ,μA[±[s] f{f^f“,đfNfŠfbfN,μ,Ü,·B[Windows NT TCP/IP 'g,Ýž,Ýfifvfj#] f\_fCfAfO f{fbfNfX,ÁA[FTP fT[f]o[f] fT[f]rfX) f^fffbfN f{fbfNfX,đfif“,É,μA[±[s] f{f^f“,đfNfŠfbfN,μ,Ü,·B
4. FTP ,ìZfLf...fŠfefB[ä,ì-à'è,É,Á,ç,ÄAft[fU[É,é^Ó,đ'£,·Cex[f]fbfZ[fW,ä•\ž,ì,³,è,Ü,·B[í,ç) f{f^f“,đfNfŠfbfN,μ,ÄAFTP fT[f]o[f] fT[f]rfX,ì'g,Ýž,Ý,đ'±,·,Ü,·B

Windows NT "z•zftf@fCf<,Ö,ìftf< fpfX,ì“ü—í,đ<[ß,éf\_fCfAfO f{fbfNfX,ä•\ž,ì,³,è,Ü,·B“K[Ø,ÈfpfX,đ“ü—í,μA[±[s] f{f^f“,đfNfŠfbfN,μ,Ü,·B

5. fRf“fsf...[f^,É•K—v,Èftf@fCf<,đfRfs[μ,ì,è,é,ÆA[FTP fT[f]rfX) f\_fCfAfO f{fbfNfX,ä•\ž,ì,³,è,Ü,·B

6. FTP fT[f]o[f] fT[f]rfX,đ[—,·,é,É[à-¾,·,éŽè[#,É[),Á,Ä[—,đ'±,·,Ü,·BFTP fT[f]o[f] fT[f]rfX,đ“[®[,³,¹,é,½,ß,É,íA[—[<Æ,đ[s,π•K—v,ä,è,Ü,·B

' : NTFS (Windows NT File System; Windows NT ftf@fCf< fvXfef€) ,đŽg—p,μ,Ä,ç,È,çfffBfXfN fp[fefBfVf#] ,É'í,μ,Ä,íA[Rf“fgf[f< fpfif<,ì [FTP fT[f]o[f] ,đŽg—p,μ,ÄAŠ'È'P,È“Ç,Ýžæ,è,Æ',«ž,Ý,ìZfLf...fŠfefB,đ“K—p,·,é,±,Æ,ä,Ä,«,Ü,·B

**FTP ft[f]fo[f] ft[f]rfX,đ[ ]-.,,é**

FTP ft[f]fo[f] ft[f]rfX f\ftfgfEjFfA,đfRf“fsf...[f^,É'g,Ýž,ň,¼Ā,í[ ]-.,đ[ ]s,κ•K—v,ª, ,è,Û,·[ ]B

**FTP ft[f]fo[f] ft[f]rfX,đ[ ]-.,Û,½,í[ ]Ā[ ]-.,,é,É,í**

1. FTP ft[f]fo[f] ft[f]rfX f\ftfgfEjFfA,đfRf“fsf...[f^,É'g,Ýž,ň,¼Ā,í[ ]-.,đ[ ]s,κ•K—v,ª, ,è,Û,·[ ]B  
f{fbfNfX,ªž©“@“l,É•ž!,³,è,Û,·[ ]B

,Û,½,í[ ]AFTP ft[f]fo[f] ft[f]rfX,í[ ]Ā[ ]-.,đ[ ]s,κ•K—v,ª, ,è,Û,·[ ]B  
,đf\_fuf<fNšfbfN,μ,Û,·[ ]B l'g,Ýž,Û,è,Ā,č,é f\fbfNfX,í[ ]Ā[ ]-.,đ[ ]s,κ•K—v,ª, ,è,Û,·[ ]B  
,đ'í'đ,μ[ ]A[ ]-.,đ[ ]s,κ•K—v,ª, ,è,Û,·[ ]B

2. [FTP ft[f]rfX] f\_fCfAf[ ]fo f{fbfNfX,É[ ]ĀžŸ,ì,æ,κ,É f\fvfVf#“ª•ž!,³,è,Û,·[ ]B [ ]Ā'á[ ]Ú'±[ ]”] [ ]A[fAfCfhf< f^fCf€fAfEfg] [ ]A, ,æ,Ń [fz[ ]f€ fffBfCfNfgš] ,É,í[ ]AfffHf<fg'l,ªž!,³,è,Ā,č,Û,·[ ]B,± ,è,ç,ì'l,đ,».,ì,Û,Ûžg,κ,±,Æ,à[ ]A•K—v,É%ž,¶,Ā•í[ ]X,·,é,±,Æ,à,Ā,«.,Û,·[ ]B

**[ ]Ā'á[ ]Ú'±[ ]”]**

fVfXfefe,É“~žž,É[ ]Ú'±%Ā“\,É FTP ft[f]fo[f] [ ]Ā'á[ ]Ú'±,đžw'è,μ,Û,·[ ]B fffHf<fg'l,í 20 ,Ā[ ]A[ ]Ā'á'l,í 50 ,Ā,·[ ]B0 ,đžw'è,·,é,Æ[ ]A[ ]Ā'á'l,ížw'è,³,è,Û,¹,ň (“~žž,É[ ]Ú'±%Ā“\,É ft[f]fo[f] [ ]Ā'á[ ]Ú'±, ,É,è,Û,·) [ ]B,±,ì[ ]€-Ú,Éžw'è,μ,½[ ]”,ì ft[f]fo[f] [ ]Ā'á[ ]Ú'± FTP ft[f]fo[f] [ ]Ā'á[ ]Ú'±,É“~žž,É f\fofif“ ,μ,Ā,č ,é,Æ,«[ ]A,».,è^É[ ]~ ,É[ ]Ú'±,đžž,Ÿ,é ft[f]fo[f] [ ]Ā'á[ ]Ú'±,É,í[ ]AšC—žž,ª'è< ,μ,½ f\fbfZ[ ]fW,ª•\ ž!,³,è,Û,· [ ]B fffXf^f€ f\fbfZ[ ]fW,đ'è< ,·,é•ú-@,É,Ā,č,Ā,í [ ]AFTP ft[f]fo[f] ft[f]rfX,ì[ ]Ú'±x,É [ ]-fpf %f [ ]f^,đžQ[ ]Æ,μ,Ā,¾,³,č [ ]B

**[fAfCfhf< f^fCf€fAfEfg]**

fAfNfefBfu,Ā,È,č ft[f]fo[f] [ ]Ā'á[ ]Ú'±,μ,Ā,č ,ç,è,éžžšŌ,đ•ª'P^É,Āžw'è,μ,Û,· [ ]B fffHf<fg'l,í 10 •ª,Ā,· [ ]B [ ]Ā'á'l,í 60 •ª,Ā,· [ ]B0 ,đžw'è,·,é,Æ[ ]A ft[f]fo[f] [ ]Ā'á[ ]Ú'±,ªž©“@“l,É[ ]Ø'f,³,è,é,±,Æ,í , ,è,Û,¹,ň [ ]B

**[fz[ ]f€ fffBfCfNfgš]**

ft[f]fo[f] [ ]Ā'á[ ]Ú'±,šúfffBfCfNfgš,đžw'è,μ,Û,· [ ]B

**[“½-¼[ ]Ú'±,đ<-%Ā,·,é]**

**anonymous** ,Æ,č,xf ft[f]fo[f] [ ]Ā'á[ ]Ú'±,đžg—p,μ,Ā FTP ft[f]fo[f] [ ]Ā'á[ ]Ú'±,Ā,«.,Û,· [ ]B fpfXf [ ]fh,í•K— v, ,è,Û,¹,ň,ª[ ]A fpfXf [ ]fh,ì'á,í,è,É ft[f]fo[f] [ ]Ā'á[ ]Ú'±, fAfHfCfX,ì“ü—í,đ<[ ]B,é f\fbfZ[ ]fW,ª•\ ž!,³,è,Û,· [ ]B fffHf<fg,Ā,í [ ]A“½-¼[ ]Ú'±,í<-,³,è,Ā,č,Û,¹,ň [ ]B FTP ft[f]fo[f] [ ]Ā'á[ ]Ú'±,í [ ]A **anonymous** ,Æ,č,κ- ¼'0,ì Windows NT ft[f]fo[f] [ ]Ā'á[ ]Ú'±, fAfjEj“fg,ížg—p,Ā,«.,È,č,±,Æ,É' [ ]^Ó,μ,Ā,¾,³,č [ ]B ft[f]fo[f] [ ]Ā'á[ ]Ú'± **anonymous** ,í [ ]A“½-¼ f\fofif“<@“\—p,É [ ]AFTP ft[f]fo[f] [ ]Ā'á[ ]Ú'±,É—\-ň,³,è,Ā,č,Û,· [ ]B ft[f]fo[f] [ ]Ā'á[ ]Ú'± **anonymous** ,đžg,Ā,Ā f\fofif“ ,·,é ft[f]fo[f] [ ]Ā'á[ ]Ú'±,É,í [ ]A“½-¼ f\fofif“—p,É FTP ft[f]fo[f] [ ]Ā'á[ ]Ú'± [ ]-.,³,è,½ fAfNfZfXCE ,ª—^ ,ì,ç,è,Û,· [ ]B

**[ft[f]fo[f] [ ]Ā'á[ ]Ú'±]**

**anonymous** ,đžg,Ā,Ā f\fofif“ ,μ,½ FTP ft[f]fo[f] [ ]Ā'á[ ]Ú'±, f\fofif“ [ ]Ā'á[ ]Ú'±, fAfjEj“fg,đžg— p, ,é,©,đžw'è,μ,Û,· [ ]B“½-¼ FTP ft[f]fo[f] [ ]Ā'á[ ]Ú'±, fAfNfZfXCE ,í [ ]A,±,±,Āžw'è,μ,½ f\fofif“ ft[f]fo[f] [ ]Ā'á[ ]Ú'± fAfjEj“fg, fAfNfZfXCE ,Æ“ ,¶,É,È,è,Û,· [ ]B fffHf<fg,í [ ]A•W [ ]€,ì Guest fVfXfefe fAfjEj“fg,Ā,· [ ]B

**[fpfXf [ ]fh]**

[ft[f]fo[f] [ ]Ā'á[ ]Ú'±] f{fbfNfX,Āžw'è,³,è,½ ft[f]fo[f] [ ]Ā'á[ ]Ú'±, fAfjEj“fg—p,É fpfXf [ ]fh,đžw'è,μ,Û,· [ ]B



[“½-¼Ú±,ì,Ý,ð<-‰Â,·,é]

ft[fU[-¼ anonymous ,¾, ¯,²fAfNfZfX,ð<-‰Â,³,è,Ü,·BFTP fpfXf[fh,Í^Ä+‰»³,è,Ä,ç,È,ç  
,ì,ÄAf[fU[«»è,¼,è,ìft[fU[-¼,ÆfpfXf[fh,ðŽg—p,μ,ÄfOfIf“,·,é,ì,ð”ð,¯,½,çê±,íA,±  
,ìfVfVf“,í-ð,É—š,¿,Ü,·B,½,¾,μAf[fU[,Í^S^öA“½-¼fAfJfEf“fg,Ä`è`³,è,½“¯,¶fAfNfZfXCE ,ðŽ  
,Ä,±,Æ,É,È,è,Ü,·BfftfHf<fg,Á,íA,±,ìfVfVf“,ìft,É,È,Ä,Ä,ç,Ü,·BWindows NT  
ft[fU[ fAfJfEf“fg,ðŽg,Á,ÄAf[fU[.²Ú±,·,×,«,Á,È,çê±,íA,±,ìfVfVf“,ðf“,É,μ,Ä,¾,¾,çB

3. [OK] f{f^f“,ðfNfŠfbfN,μ,Ä [FTP ft[frfX] f\_fCfAfO f{fbfNfX,ð•Ä,¶A[flfbfgfN,ìÝ`è] f\_fCfAfO f{fbfNfX,É-ß,è,Ü,·B

4. FTP ft[fo[ ft[frfX,ìŠî-{"I,È'g,Ýž,Ý,¨,æ,Ñ\-,ðŠ®-¹,·,é,É,íA[OK] f{f^f“,ðfNfŠfbfN,μ,Ü,·B

•ìX“à—e,ð—LCEø,É,·,é,É,íAfrf“fsf...[f^,ðÄ<N“® ,μ,È,¯,è,Í,È,ç,È,ç,±,Æ,ð'm,ç,¹,éfbfZ[fW,²\  
Ž,³,è,Ü,·B,½,¾,μAfrf“fsf...[f^,ðÄ<N“® ,·,é•K—v,Í, ,è,Ü,¹,ñB‰,ß,Ä FTP  
ft[fo[,ð'g,Ýž,þê±,Ä, ,è,íAfrf“fgf[f< fpf<,ð-¹,μAÄ“x<N“® ,·,é,ÆAfrf“fgf[f< fpf<,É [FTP  
ft[fo[[] fAfCfRf“,²\Ž,³,è,Ü,·BFTP ft[fo[ ft[frfX,ðÄ\  
\-,μ,½,¾,¯,Á, ,è,íA,»],ft[frfX,ðÄŠ],·,é,¾,¯,Á•ìX“à—e,²—LCEø,É,È,è,Ü,·B

' : FTP ft[fo[ ft[frfX,ð‰,ß,Ä'g,Ýž,þ,Æ,«,íAFTP ft[fo[ fZfL...fŠfefB,ð\-,·,é,Äà-  
¾,·,éžê±,É],Á,ÄAfrf“fsf...[f^ã,ìf{fŠ...[f€,ÉfAfNfZfX,·,éft[fU[,ÉÍ,·,éZfL...fŠfefB,ì\  
\-,àŠ®-¹,·,é•K—v,², ,è,Ü,·B

**FTP fT[fO[f ZfLf...fŠfefB,đ\Ń,·,é**

**FTP fT[fO[f ZfLf...fŠfefB,đ\Ń,·,é,É,í**

1. FTP fT[fO[f,ì'g,ÝŃž,Ý,đŠ@—<sup>1</sup>,μ,½CEă,ĀAfrf“fgf[f< fpfj<,đ<N“@,μA[FTP fT[fO[f],đf\_fuf<fNfŠfbfN,μ,Ü,·BWindows NT Server ,ìft[fU[f,íAFT[fO[f f}f!fWff,ì [FTP] fffj...[,đŽg—p,·,é,±,Æ,à,Ā,«,Ü,·B[FTP fT[fU[f fZfbfVfj“] f\_fCfAfO f{fbfNfX,â\Ž,³,é,Ü,·B

2. [fZfLf...fŠfefB] f{f^f“,đfNfŠfbfN,μ,Ü,·B[FTP fT[fO[f fZfLf...fŠfefB] f\_fCfAfO f{fbfNfX,â\Ž,³,é,Ü,·B

3. [fp[fefBfVfj“] f{fbfNfX,ĀA fZfLf...fŠfefB,đŃ'è,μ,½,tfhf %ofCfu•ŃŽš,đ'ì'đ,μ,Ü,·BŽŸ,ÉA'ì'đ,μ,½fp[fefBfVfj“,Ā•K—v,ÈfZfLf...fŠfefB,É %ož,Ń,ĀA[“Ç,ÝŽæ,è,đ<-‰Ā] f fFfbfN f{fbfNfX,Ü,½,í [Ń',«Ńž,Ý,đ<-‰Ā] f fFfbfN f{fbfNfX (,Ü,½,í,»,ì —¼•ù) ,đfj“,É,μ,Ü,·B

Šefp[fefBfVfj“,É'í,μ,ĀA,±,ìŽèŃž,đCE],è•Ô,μ,Ü,·B

,±,é,ç,ìfAfNfZfXCE ,ìŃ'è,íAFAT (ftf@fCf< fAfP[fVfj“ fe[fuf<) fp[fefBfVfj“, ,æ,Ń HPFS (fnfC fpftfH[f]f“fX ftf@fCf< fVfXfef€) fp[fefBfVfj“Ńă,ì,·,x,Ā,ìftf@fCf<,ÉŃì—p,μ,Ü,·BNTFS fp[fefBfVfj“Ńă,Ā,íA,±,ì<@“\,đŽg,Ā,ĀA“Ç,ÝŽæ,èCE ,Ü,½,íŃ',«Ńž,ÝCE (,Ü,½,í,»,ì—¼•ù) ,đfp[fefBfVfj““S'ì,ĀŽæ,èœ,,±,Æ,â,Ā,«,Ü,·B









4. fp[fefBfVfj“,ìfAfNfZfX,ÉŠÖ,·,éfZfLf...fŠfefB,ìŃ'è,đŠ@—<sup>1</sup>,μ,½,çA[OK] f{f^f“,đfNfŠfbfN,μ,Ü,·B

•ìX“à—e,ì'¼,ž,É—LCEø,É,È,è,Ü,·B,±,é,Ā FTP fT[fO[f fT[frfX,đŠ]Žn,·,é€“ö,â@,ç,Ü,μ,½B

## FTP fT[fO[fT[fRfX,đŠÇ—,.,é

ŕ%Šú,ì'g,Ýŕž,Ý,Š—<sup>1</sup>,μ,½Āä,íAfrf“fsf...[f^,“N”@,.,é,½,Ń,ÉAFTP  
fT[fO[fT[fRfX,ÍŽ©“@“l,ÉfofbfNfOf%ofEf“fh,ĀŠjŽn,<sup>3</sup>,è,Ü,·BWindows NT frf“fsf...[f^Ā,Ā FTP  
fT[fO[fT[fRfX,ŽÀŕs,<sup>3</sup>,è,Ā,ç,éŠŌ,ÉAfŠf,ŕfg frf“fsf...[f^,í FTP  
fZfbfVfŕf“,đŠjŽn,Ā,«,Ü,·B,½,¾,μAfŠf,ŕfg frf“fsf...[f^,“,æ,Ń Windows NT frf“fsf...[f^,ì—¼•û,Ā  
TCP/IP fvŕfgfRf<,ŽÀŕs,<sup>3</sup>,è,Ā,ç,È,̄,è,î,È,è,Ü,<sup>1</sup>,ŕŕB

fŠf,ŕfg fT[fUŕ,íAFTP fT[fO[fŕ,ìAŕfEf“fg,âAFTP fT[fO[fŕ,ìfhŕfCf“,Ü,½,íM—Š,<sup>3</sup>,è,Ā,ç,éfhŕfCf“  
(Windows NT Server ,ì,Ý) ,ìAŕfEf“fg,đŽg,Ā,Ā FTP fT[fO[fŕ,Éŕŕ'±,.,é,±,Æ,<sup>a</sup>,Ā,«,Ü,·B,Ü,½A“½-  
¼fŕfOŕf“,đ<-%Ā,.,é,æ,ŕ,É FTP fT[fO[fŕ,ŕfX,<sup>a</sup>ŕŕ,<sup>3</sup>,è,Ā,ç,éêŕŕ,íA**anonymous**  
fAŕfEf“fg,đŽg,Ā,Āŕŕ'±,.,é,±,Æ,à,Ā,«,Ü,·B

-  [FTP fT\[fO\[fT\[fRfX,đŠjŽn,Ü,½,ì'âž~,.,é](#)
-  [frf}f“fh fvŕf“fvfg,Ā FTP frf}f“fh,đŽg—p,.,é](#)
-  [fT\[fUŕ,đŠÇ—,.,é](#)
-  [FTP fT\[fO\[fŕ,ÆfT\[fUŕ, fAfNfZfX,đŕŠĀä,.,é](#)
-  [fffBfĀfNfŕfŠ,ÉfRfŕf“fg,đ•t,̄,.,é](#)
-  [fffBfĀfNfŕfŠ^è——ĀŽ@,đ•ìŕX,.,é](#)
-  [<N”@fŕfbfZŕ\[fW,Æŕŕ—<sup>1</sup>fŕfbfZŕ\[fW,đŕfXf^f}fCfY,.,é](#)
-  [FTP ŕŕ'±,ìfŕfO,đŽûŕW,.,é](#)



**fRf}f“fh fvf□f“fvfg,Å FTP fRf}f“fh,ðŽg—p,·,é**

FTP fT□[fxfX,ð'g,Ýž,þ,Æ□Afrf}f“fh fvf□f“fvfg,ÅŽg—p,Å,«,é **ftp** fRf}f“fh  
fZfbfg,ªŽ©“@“l,É'g,Ýž,Ü,ê,Ü,·□B,±,ê,ç,ìfrf}f“fh,ì,Ü,Æ,ß,É,Å,ç,Ä,í□A□ufRf}f“fh fŠftf@fÇf“fX□v,ì **ftp**  
ì□€—Ú,ðŽQ□Æ,μ,Ä,,¾,¾,ç□B

**ftp fRf}f“fh,ìfwf<fv,ð•\Žì,·,é,É,í**

1. fvf□fOf%of€ f}f□[fWff fOf<□[fv,Å□A[Windows NT fwf<fv] fAfCfRf“ ,ðf\_fuf<fNfŠfbfN,μ,Ü,·□B
2. [Windows NT ,ìfwf<fv] f\_fCfAf□fO,Å□A[frf}f“fh fŠftf@fÇf“fX] ,ðf\_fuf<fNfŠfbfN,μ,Ü,·□B
3. [frf}f“fh] fEfBf“fhfE,Å□A[ftp fRf}f“fh] ,ðfNfŠfbfN,μ,Ü,·□B
4. [frf}f“fh fŠftf@fÇf“fX] fEfBf“fhfE,Å **ftp** fRf}f“fh-¾,ðfNfŠfbfN,·,é,Æ□AŠefRf}f“fh,ì□à-¾,Æ□A□\  
•¶,·,æ,Ñfpf%of□□[f^,ì'è<` ,ð•\Žì,¾,è,Ü,·□B

ft[]fU[],đŠÇ—[],·,é

FTP ft[]fo[],ÉÚ'±,μ,Ä,ç,éft[]fU[],đŠÇ—[],μAFTP ft[]fo[][ä,ìŠef{fŠf...[]f€,ìfZfLf...  
fŠfefB,đŸ'è,·,é,É,íAfrf"fgf[]f< fpflf<,ì [FTP ft[]fo[]] ,đŽg,ç,Ü,·BWindows NT Server frf"fsf...  
[]f^[]ä,Ä,ìŠÇ—[],ª•Ö—~,È,æ,π,ÉAft[]fo[] f}f[]fwff,ì [FTP] f[]ff...[],ì [FTP ft[]frfX]  
frf}f"fh,đ'ì,ñ,Ä,àAfrf"fgf[]f< fpflf<,ìè[]±,Æ"—,¶f\_cfAft[]fo f{fbfNfX,ª•\Žì,ª,è,Ü,·B

FTP ft[]fo[],đŠÇ—[],·,é,É,íAAdministrators foj<[]fv,ìf[]"fo[][,Æ,μ,Äf[]Ofif",μ,È,~,é,î,È,è,Ü,¹,ñB

[FTP ft[]fU[] fZfbfVf#f"] f\_cfAft[]fo f{fbfNfX,ì [Ú'±ft[]fU[]] f{fbfNfX,ÉAÚ'±,μ,Ä,ç,éft[]fU[],ì-  
¼'O[]AfvfXfef€,ì IP fAfhfCEfX[]A, ",æ,ÑÚ'±CEp'±ŽžŠÖ,ª•\Žì,ª,è,Ü,·Bft[]fU[][-¼,ª anonymous  
,đŽg,Á,Äf[]Ofif",μ,Ä,ç,éft[]fU[],É,Ä,ç,Ä,íAft[]Ofif",μ,½,Æ,«,ÉfpfXf[]fh,Æ,μ,Ä"ü—í,μ,½ft[]fU[][-¼,ª•  
Žì,ª,è,Ü,·Bft[]fU[][-¼,Éf[]f< fzfXfg-¼,ªŠÜ,Ü,è,Ä,ç,éè[]±,í (ernesta@trey-research.com ,ì,æ,π  
,É)Aft[]fU[][-¼ (ernesta) ,¾,~,ª•\Žì,ª,è,Ü,·B"½-¼Ú'±ft[]fU[],ìft[]fU[] fAfcfrf",É,í<^â•, (?),ª•t,ç  
,Ä,ç,Ü,·BWindows NT fZfLf...fŠfefB,É,æ,Á,Ä" F[]Ø,ª,è,Ä,ç,éft[]fU[],ìfAfcfrf",É,íA<^â•, ,ì•t,«,Ü,¹,ñB

FTP ft[]fo[],Ä,íA[]ø'f] f{f^f",đŽg—p,μ,ÄAft[]fU[],đ 1 [],,ÄA,Ü,½,í'S^øø'f,·,é,±  
,Æ,ª,Ä,«,Ü,·B[]ø'f,ª,è,éft[]fU[],ÉCEx[]í,ª•\Žì,ª,è,Ü,¹,ñB

FTP ft[]fo[],íAft[]fU[],ªÚ'±,·,é,Æft[]fU[][-¼,đ•\Žì,μ,Ü,·,ªAft[]fU[],ªÚ'±  
,đøø'f,μ,½,èÚ'±ŠúŠÖ,ªCEo%oß,μ,Ä,à•\Žì,đX[]V,μ,Ü,¹,ñB[]A[]V,ì[]•ñ,É[]X[]V]  
f{f^f",đfNfŠfbfN,·,é,Æ[]A•\Žì,ª[]X[]V,ª,è[]ACE»[]ÝÚ'±'t,ìft[]fU[],¾,~,ª•\Žì,ª,è,Ü,·B

[fZfLf...fŠfefB] f{f^f",đfNfŠfbfN,·,é,Æ[]A[FTP ft[]fo[] fZfLf...fŠfefB] f\_cfAft[]fo f{fbfNfX,ª•\  
Žì,ª,è,Ü,·BFTP ft[]fo[] fZfLf...fŠfefB,đ[]\[]-,·,é,Ä[]à-¾,·,é,æ,π,É[]A,±,ìf\_cfAft[]fo f{fbfNfX,Ä,íAFTP  
ft[]fo[][ä,ìŠef[]f[]fBfVf#f",É'í,·,é"Ç,ÝŽæ,èfAfNfZfXCE ,",æ,Ñ",«ž,ÝfAfNfZfXCE ,đŸ'è,Ä,«,Ü,·BFTP  
ft[]fU[],ÉfAfNfZfX,ª,¹,½,çŠef[]f[]fBfVf#f",²,Æ,É[]AfAfNfZfXCE ,đŸ'è,·,é•K—v,ª, ,è,Ü,·Bfp[]f[]fBfVf#f"  
fpf%of[]f^,đŸ'è,μ,È,ç,Æ[]A,Ç,ìft[]fU[],àftf@fCf<,ÉfAfNfZfX,·,é,±  
,Æ,í,Ä,«,Ü,¹,ñBfp[]f[]fBfVf#f",ª[]ANTFS ,È,Ç,ì^À'S,Éftf@fCf< fvfxfef€,đŽg—p,μ,Ä,ç,éè[]±,íAftf@fCf<  
fvfxfef€,ì[]s[]EÀ,à",«,Ü,·B

ft[]fU[],ª Windows NT fAfffEf"fg,đŽg,Á,Äf[]Ofif",·,éè[]±,íAFTP ft[]fo[] fp[]f[]fBfVf#f",ìfZfLf...fŠfefB,É  
%oÁ,ì,Ä[]A,»,ìfAfffEf"fg,ìfAfNfZfXCE EÀ,à",«,Ü,·B

## FTP fT[fO[f,Æft[fU[f fAfNfZfX,ð[sCEä,·,é

fifbfgf[fNŠÇ—žÒ,íAFTP fT[fO[f\N-•i",ì,æ,ì,ç,,Á,©,ð[sCEä,·,é,±,Æ,ª,Å,«,·B,½,Æ,ì,îA,±, ìží,ì·i",É [A'âU'±"] ,ª, ,è,Ü,·B,±,ì·i",íAfRf"fgf[f< fpf|f<,ì [fifbfgf[fN] ,ðžg,Á,ÄA0 ,©,ç 50 ,Ü,Å,ì"í'í,ÅY'è,·,é,±,Æ,ª,Å,«,Ü,·B1 ,©,ç 50 ,Ü,Å,ì'í,ðY'è,·,é,ÆA·Ä—ñ,µ,Ä ("~Žž,É) Šm—š,Å,«,é FTP fZfbfVfj",ì",íŽw'è,µ,½'l,É[sCEÀ,³,è,Ü,·B0 ,ðžw'è,·,é,ÆAfVfXfef€,ªf[f,š,ðžg,ç%È,½,·,Ü,ÅAFTP fT[fO[f,É'í,µ,ÄŠm—š,Å,«,éU'±,ì",ÉäCEÀ,í,È,,È,è,Ü,·B

A'â·Ä—ñU'±",É'B,µ,½,Æ,«·žì,³,è,éjXf^f€ fbfZ[fW,ðžw'è,·,é,± ,Æ,ª,Å,«,Ü,·BfbfZ[fW,ðžw'è,·,é,É,íAfCfWfXfgfš,ì **MaxClientsMessage** ,ÉV,µ,çfbfZ[fW,ð"ü— í,µ,Ü,·B,±,è,É,Å,ç,Ä,íAFTP fT[fO[f fT[fX.ìÚx.È\→fpf%ff[f^,ðžQÆ,µ,Ä,,¾,¾,çB

**ffBfCfNfgfŠ,ÉfRf“fg,đ•t,̄,é**

FTP ft□[fU□[.l,½,β,É□Aft□[fo□[□ã,ì“Á’è,ìffBfCfNfgfŠ,ì“à—e,đ’m,ç,¹,½,ç□é□‡,í□Aft□[fU□[.É•\  
Ž,³,é,é□î•ñ,ìfRf□“fg (annotation) ,đ•t,̄,éffBfCfNfgfŠ,É□A~FTPSVC~.CKM ,Æ,ç,‡-  
¼’O,ìftf@fCf<,đ□□□,μ,Û,·□B’É□í□A,±,ìftf@fCf<,í□AfffBfCfNfgfŠ,đ^ê—,μ,Ä,à•Ž,³,é,È,ç,æ,‡,É□A  
%B,μftf@fCf<,É,μ,Û,·□B%B,μ’@□«,É,·,é,É,í□Aftf@fCf< f}f□[fWff,đŽg—p,·,é,©□Afrf}f“fh  
fvf□“fvfg,Ä□Afrf}f“fh **attrib +h ~ftpsvc~.ckm** ,đ“ü—í,μ,Û,·□B

ffBfCfNfgfŠ,ìfRf□“fg,ì•Ž!,í□Ackm ,Æ,ç,‡’g,Ý□ž,Ý,ì□AftfCfG“Á—L,ìfRf}f“fh,đŽg,Á,Ä□AŠeFTP  
ft□[fU□[.²,Æ,Éfif“ ,Æfift,đ□Ø,è’Ö,ì,é,±,Æ,ª,Ä,«,Û,·□B’ã”¼,ì FTP fNf%ofCfAf“fgŽÀ’• (Windows NT FTP fNf  
%ofCfAf“fg,đŠÜ,þ) ,Ä,í□Afrf}f“fh fvf□“fvfg,É **quote site ckm** ,ì,æ,‡,ÉfRf}f“fh,đ“ü—  
í,μ,Äfif“ ,Æfift,đ□Ø,è’Ö,ì,Û,·□B

fCfWfXfgfŠ“à,ì **AnnotateDirectories** ,É’l,đ□Ý’è,·,é,Æ□AfffBfCfNfgfŠ  
fRf□“fg,ìffftfHf<fg“@□ì,đ□Ý’è,Ä,«,Û,·□B,±,é,É,Ä,ç,Ä,í□AFTP ft□[fo□[ ft□[frfX,ì□Ú□x,È□□□→fpf  
%of□□[f^,đŽQ□Æ,μ,Ä,,¾,³,ç□B



ffffBfCEfNfgfŠ^ê——CE`Ž®,đ•iX,.,é

FTP fNf%ofCfAf“fg f\ftfgfEfFfA,ì‘†,É,íAfffBfCEfNfgfŠ^ê——í•ň,ìCE`Ž®,ÉŠì,Ä,ç,Ä%¼‘è,đ—  
§,Ä,é,à,ì,à, ,è,Ü,·BWindows NT FTP fT[f]o[f],íAUNIX fVfXfef€,É—pŽ—,μ,½ffffBfCEfNfgfŠ^ê——,ª•K—  
v,ÈfNf%ofCfAf“fg f\ftfgfEfFfA,É, ,é‘ö“x\_“î,É‘í%ž,μ,Ü,·Bft[f]U[f],íAfffBfCEfNfgfŠ^ê——  
CE`Ž®,đAfrf}f“fh **dirstyle** ,đŽg,Á,Ä MS-DOS fXf^fCf< (ffffHf<fg) ,Æ UNIX fXf^fCf<,ìŠÔ,Ä∅,è‘Ö,ì,é,±  
,Æ,ª,Ä,«,Ü,·B“å”¼,ì FTP fNf%ofCfAf“fgŽÀ’• (Windows NT FTP fNf%ofCfAf“fg,đŠÜ,p)  
,Ä,íAft[f]U[f],íRf}f“fh fvf“fvfg,É **quote site dirstyle** ,Æ,ç,Ä,½Rf}f“fh,đ“ü—í,μ,Ä^ê——  
CE`Ž®,đ∅,è‘Ö,ì,Ü,·B

fCEfWfXfgfŠ“à,ì **MsDosDirOutput** ,É‘ì,đY‘è,.,é,ÆAfffBfCEfNfgfŠ^ê——CE`Ž®,ìffffHf<fg  
fXf^fCf<,đY‘è,.,é,±,Æ,ª,Ä,«,Ü,·B,±,è,É,Ä,ç,Ä,íAFTP fT[f]o[f] fT[f]rX,ìÚx,È∅-fpf  
%f[f^,đŽQÆ,μ,Ä,,¾,¾,¾,çB

<N" @fbfZ[fW,ÆI—<sup>1</sup>fbfZ[fW,ðjXf^f}fCY,·,é

fCfWfXfgfŠ"à,ì **GreetingMessage** ,",æ,Ñ **ExitMessage** ,ì'ì,ð'Y'è,·,é,ÆA<N" @fbfZ[fW,·,æ,ÑI—  
<sup>1</sup>fbfZ[fW,ðjXf^f}fCY,·,é,±,Æ,<sup>a</sup>,Å,«,Ü,·B,±,è,É,Â,ç,Ä,íAFTP fT[fo[fT[frfX.ìÚx,É\—fpf  
%f[f, ðŽQÆ,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,çBfftfHf<fg,Å,íA,±  
,è,ç,ì'l,ìGf"fgfŠ,ìfCfWfXfgfŠ,É,íŠÜ,Ü,è,Ü,<sup>1</sup>,ñ,ì,ÅAfbfZ[fW feLfxfg,ðjXf^f}fCY,·,é,É,í,±  
,è,ç,ì'l,ìGf"fgfŠ,ð'Ç%Å,·,é•K—v,<sup>a</sup>, ,è,Ü,·B

<N" @fbfZ[fW,·,æ,ÑI—<sup>1</sup>fbfZ[fW,íAFTP fT[fo[,ÉÚ'±,μ,<sup>1</sup>/<sub>2</sub>,Æ,«,âAFTP  
fT[fo[, ©,çØ'f,μ,<sup>1</sup>/<sub>2</sub>,Æ,«ft[fU[,É'—M,<sup>3</sup>,è,Ü,·BjXf^f}fCY  
fbfZ[fW,ðì—,·,é,Æ,«A•i"□s,É"n,éfZ[fW,ð'Ç%Å,·,é,±,Æ,à,Å,«,Ü,·B

**FTP Ú±,lfO,žŮW,·,é**

fCfWfXfgfŠ“à,ì **LogAnonymous** , ,æ,Ñ **LogNonAnonymous** ,ì'l,đÝè,·,é,ÆAÚ±,³,ê,½ FTP  
fZfbfVfjf“ ,lfO,đAfvfXfef€ fCxf“fg fO,ÉŽŮW,·,é,±,Æ,ª,Ā,«,Ü,·B,±,é,É,Ā,č,Ā,ÍAFTP  
fT[fO[fT[fX,ìÚx,ÈN-fpf%ff[f, žQÆ,μ,Ā,,¾,¾,čBfftfHf<fg,Ā,ÍA,±  
,é,ç,ì'l,lfGf“fgfŠ,lfCfWfXfgfŠ,É,ÍŠÜ,Ü,é,Ā,č,Ü,¹,ñ,ì,ĀA“íÚ±fO,žŮW,·,é,É,Í,±,é,ç,ì'l,lfGf“fgfŠ,đ'Ç  
%oĀ,·,é•K—v,ª, ,è,Ü,·B

FTP fT[fO[f,ÉÚ±,μ,Ā,č,é“½-¼ft[fU[f, ,æ,Ñ”ñ“½-¼ft[fU[f,É'í,μ,ĀAfcxf“fg fO  
fGf“fgfŠ,đì-,·,é,©,Ç,κ,©,žw'è,·,é,±,Æ,ª,Ā,«,Ü,·Bfcxf“fg frf...[fA,žg,κ,ÆAfvfXfef€ fCxf“fg  
fO“à,lfGf“fgfŠ,đ·Žì,·,é,±,Æ,ª,Ā,«,Ü,·B

## FTP fT[fO[f T[fRfX,ìÚx,È\~fPf%o[f^

,±,±,Á,íAFTP fT[fO[f T[fRfX,ì" @ì,É%e<ç,·,é\~fPf%o[f^,ì,±,ìAfCfWfXfgfŠ  
fGffBf^,ðŽg,Á,Ä,μ,©C³,Á,«,É,ç,à,ì,É,Á,ç,Äà-¾,μ,Ü,·BfPf%o[f^,ì,δC³,μ,½CEäAOC³"à—e,ð—  
LCEø,É,·,é,É,íAFTP fT[fO[f T[fRfX,ðÄŠ)Žn,·,é•K—v,ª, ,è,Ü,·B

CEx: fCfWfXfgfŠ fGffBf^,ðŽg,Á,ÄfCfWfXfgfŠ,É•s³,É•ìX,ð%Á,ì,½è#AWindows NT  
,í¹,ð,ð"í,é,©AZg—p•s"\,É,É,Á,Ä,μ,Ü,±,Æ,ª, ,è,Ü,·BfRf"fgf[f<fpfj<,É,Ç,ìŠÇ—  
fC[f<,ðŽg,ì,é,Æ,«,ì,ç,Á,Ä,àAfCfWfXfgfŠ fGffBf^,Á,í,É,,»,é,ç,ìŠÇ—fC[f<,ðŽg,Á,Ä\  
—,ì•ìX,ðs,Á,Ä,¾,¾,çBfCfWfXfgfŠ fGffBf^,ð—p,ç,Á'ì,ð•ìX,μ,Ä,ç,é,Æ,«,É"ü—  
ì,ðŠÔ^á,ì,Ä,àAfCfWfXfgfŠ fGffBf^,ì^Ó—ìä,ìfGf%o[f,ðŽ•É,Á,«,É,ç,ì,ÄACEx,ì,ì\Ž!,¾,è,Ü,¹,ñB

## fCfWfXfgfŠ fGffBf^,ðŽg—p,μ,Ä FTP fT[fO[f T[fRfX~-,ð•ìX,·,é,É,í

1. fTf@fCf< f}f[fWff,Ü,½,ìfvf[fOf%o[f f}f[fWff,ì REGEDT32.EXE ,ð<N" @,·,é,©AfRf}f"fh  
fvf"fvfg,É **start regedt32** ,Æ"ü—í,μAEnter fL[f,ð%ÿ,μ,Ü,·B  
  
fCfWfXfgfŠ fGffBf^,ìfEfB"fhfE,ª\Ž!,¾,è,½,çAF1 fL[f,ð%ÿ,¹,ìfCfWfXfgfŠ fGffBf^,Á,ììX•ù-  
@,ðŽ!,·fvf<fv,ª\Ž!,¾,è,Ü,·B

2. fCfWfXfgfŠ fGffBf^,ÁA[f[f< f}fvf"ä,ì HKEY\_LOCAL\_MACHINE] ,Æ,ç  
,±f^fCfGf<,ìfEfB"fhfE,ðNfŠfbfN,μAZÿ,ìTfufL[f,É'B,·,é,Ü,Á SYSTEM  
fTfufcfS[f,ìfAfCfRf" ,ðf\_fuf<fNfŠfbfN,μ,Ä,ç,«,Ü,·B  
..SYSTEMCurrentControlSetServicesftpsvcParameters  
  
,±,±,Áà-¾,·,éPf%o[f^,íA,·,x,Ä,±,ìfCfWfXfgfŠ fTfufL[f,ì%º,É"z'u,¾,è,Ä,ç,Ü,·B

Žÿ,ÉAFTP fT[fO[f T[fRfX fPf%o[f^,ì,±,ìAfCfWfXfgfŠ fGffBf^,Á,ì,ÿfGf"fgfŠ,ð'Ç  
%Á,μ,½,è'ì,ð•ìX,Á,«,éPf%o[f^,ì'fGf"fgfŠ,É,Á,ç,Äà-¾,μ,Ü,·B,±  
,é,ç,ì'fGf"fgfŠ,íAfffHf<fg,Á,ìfCfWfXfgfŠ,É•\  
Ž!,¾,è,Ü,¹,ñ,ì,ÄAfffHf<fg'ì,ð•ìX,μ,½,çè#ìAfGf"fgfŠ,ð'Ç%Á,·,é•K—v,ª, ,è,Ü,·B

## AnnotateDirectories

```
f[f^e^ = REG_DWORD  
"íí = 0 ,Ü,½,í 1  
fffHf<fg = 0 (<U[]ffBfCfNfgfŠ fRf"fg,ìfjft)  
,±,ì'fGf"fgfŠ,íAV<KÜ'±ft[fU[f,É'í,·,éffBfCfNfgfŠ  
fRf"fg,ìfffHf<fg,ì" @ì,ð'è<,μ,Ü,·BffBfCfNfgfŠà-¾,íAFTP[f[]ä,ìffBfCfNfgfŠ,ì"à—e,ðAFTP  
ft[fU[f,É'm,ç,¹,é,à,ì,Ä,·BffBfCfNfgfŠà-¾,íA~FTPSVC~.CKM ,Æ,ç,±-  
¼'0,ìftf@fCf<,É•Ü'¶,¾,è,Ü,·B,±,ìftf@fCf<,íA'Éí,ì%B,μftf@fCf<,Á,·B,±,ì'ì,ð 1  
,Éÿ'è,·,é,ÆAfffBfCfNfgfŠ fRf"fg,ìfjft",É,É,è,Ü,·B
```

## ExitMessage

```
f[f^e^ = REG_SZ  
"íí = •¶Žš—ñ  
fffHf<fg = "Goodbye."  
,±,ì'fGf"fgfŠ,íAquit fRf}f"fh,ðŽóM,μ,¾,ç FTP fNf%o[fCfAf"fg,É'—M,¾,è,éftfCf"flft  
f[fBfZ[fW,ð'è<,μ,Ü,·B
```

## GreetingMessage

```

ff[f^e^ = REG_MULTI_SZ
"íí = •qžš—ñ
fftfHf<fg = ,È,μ ("Á•Ê,È<N"®f[]bfZ[]fW,í,È,ç)
,±,ì'lfgf"fgfš,í[]A[]V<KfNf%ofCfAf"fg,ìfAfJfEf"fg,³—LCEø%»»,³,è,½CEä,±,è,ç,ìfNf%ofCfAf"fg,É'—
[]M,³,è,é[]fbfZ[]fW,ð'è<',μ,Ü,·[]BInternet []ä,Ä,ì<K-ñ,É[],ç[]AfNf%ofCfAf"fg,³"½-
¼,Äf[]Ofif",μ,Äf}fCfifX (-) ,Äžn,Ü,é ID ,ðžw'è,μ,½[]è[]#[]A,±,ì<N"®f[]bfZ[]fW,í'—[]M,³,è,Ü,¹,ñ[]B

```

### LogAnonymous

```

ff[f^e^ = REG_DWORD
"íí = 0 ,Ü,½,í 1
fftfHf<fg = 0 (<U[][]-CE±,μ,½"½-¼f[]Ofif",ìf[]fO,ížú[]W,μ,È,ç)
,±,ì'lfgf"fgfš,í[]A"½-¼f[]Ofif",ìfvfXfef€ fCxf"fg f[]fO,Ö,ìf[]fOžú[]W,ð—LCEø,Ü,½,í-³CEø,É,μ,Ü,·[]B

```

### LogNonAnonymous

```

ff[f^e^ = REG_DWORD
"íí = 0 ,Ü,½,í 1
fftfHf<fg = 0 (<U[][]-CE±,μ,½"½-¼,Ä,È,çf[]Ofif",ìf[]fO,ížú[]W,μ,È,ç)
,±,ì'lfgf"fgfš,í[]AfVfXfef€ fCxf"fg f[]fO,Ö,ì"½-¼,Ä,È,çf[]Ofif",ìf[]fOžú[]W,ð—LCEø,Ü,½,í-
³CEø,É,μ,Ü,·[]B

```

### MaxClientsMessage

```

ff[f^e^ = REG_SZ
"íí = •qžš—ñ
fftfHf<fg = "Maximum clients reached, service unavailable."
,±,ì'lfgf"fgfš,í[]A[]Á'áfNf%ofCfAf"fg",É'B,μ,½,è,»,è,ð',,½[]è[]#,É FTP fNf%ofCfAf"fg,É'—
[]M,³,è,é[]fbfZ[]fW,ðžw'è,μ,Ü,·[]B,±,ìf[]fbfZ[]fW,í[]ACE»Ý[]AfT[]fo[][,í[]Á'â[]ú'±",ðft[]f[]fX,μ,Ä,ç
,é,ì,Ä'Ç%oAfNf%ofCfAf"fg,ð<'Ú,μ,Ä,ç,é,±,Æ,ðž,μ,Ü,· ( []Á'â[]ú'±",í[]A[FTP fT[]f[]fX] f_fCfAf[]fO
f{fbfNfX,Ü,½,ìf[]f[]fXf[]f[]fš,ì MaxConnections fgf"fgfš,Äžw'è,μ,Ü,·)[]B

```

### MsdosDirOutput

```

ff[f^e^ = REG_DWORD
"íí = 0 ,Ü,½,í 1
fftfHf<fg = 1 ( [][]fffbf[]f[]f[]fš^è—,í MS-DOS ,ìCE`ž®,ì,æ,x,É•ž!,³,è,é)
,±,ì'lfgf"fgfš,í[]Afffbf[]f[]f[]fš"®[],Æ,μ,Ä list frf}f"fh,ì[]o—íCE`ž®,ð[]AMS-DOS ,ì dir frf}f"fh,Ü,½,í UNIX
,ì ls frf}f"fh,ì,ç,ç,ì[]o—íCE`ž®,Éž—,¹,é,©,ðžw'è,μ,Ü,·[]B,±,ì'l,í[]Apwd frf}f"fh,Ä'—,ç,è,épfX"à,ìfXf
%ofbfVf...,Æ%~<L[]t,Æ,ì[]Ø,è'Ö,ì,à[]$CEä,μ,Ü,·[]B
,±,ì'l,ð 1 ,É[]Ý'è,·,é,Æ[]Afffbf[]f[]f[]fš^è—CE`ž®,í MS-DOS ,ì^è—CE`ž®,Éž—
,½,à,ì,É,è[]Afffbf[]f[]f[]fš<L[]t,í%~<L[]t (\) ,É,È,è,Ü,·[]B0 ,É[]Ý'è,·,é,Æ[]Afffbf[]f[]f[]fš^è—CE`ž®,í
UNIX ,ì^è—CE`ž®,Éž—,Ä[]Afffbf[]f[]f[]fš<L[]t,ìfXf%ofbfVf...<L[]t (/) ,É,È,è,Ü,·[]B

```

žÿ,ì 2 ,Ä,ìfpf%of[]f^,í[]AFTP fT[]fo[][,ìš^"®[]ó<μ,ìf[]fO,ð[]\$CEä,μ,Ü,·[]B

### LogFileAccess

```

ff[f^e^ = REG_DWORD
"íí = 0[]`2
fftfHf<fg = 0
FTP fT[]fo[][ ftf[]f[]f< fAfNfZfX,ìf[]fO,ì"®[],ð[]Ý'è,μ,Ü,·[]B,±,ìfGf"fgfš,É,í[]AZÿ,ì 3 ,Ä,ì'l,ì,x,ç[]A1

```

,Á,ðŸ'è,μ,Û,·□B

0 = ftf@fCf< fAfNfZfX,ìf□fO,ð□s,í,È,† (ffftfHf<fg)□B

1 = ftf@fCf< fAfNfZfX,ìf□fO,ð FTPSVC.LOG ,É<L~^,·,é□B

2 = ftf@fCf< fAfNfZfX,ìf□fO,ð FTyymmdd.LOG ,É<L~^,·,é□Byy ,É,ÍCE»□Ÿ,ì□¼—ï”N□Amm  
,É,ÍCE»□Ÿ,ìCEŽ□A,»,μ,Ä dd ,É,ÍCE»□Ÿ,ì“ú•t,¯,ª“ü,è,Û,·□B□V,μ,†f□fO ftf@fCf<,í□A•K—v,É  
%ož,¶,ÄŠj,©,ê,Û,·□B

**LogFileDirectory**

ff□[f^CE^ = REG\_SZ

ffftfHf<fg = %SystemRoot%\SYSTEM32

f□fO ftf@fCf<,ìfffBfCEfNfgfŠ,ðŽw'è,μ,Û,·□Bf□fO ftf@fCf<,ÍfvfXfef€ fp□[fefBfvf†“,©,ç□Ø,è—£,·,±  
,Æ,ª,Ä,«,Û,·□B

ŽŸ,ìfCEfWfXfgfŠ fpf%of□□[f^,í□Aflfbfgf□□[fN,ì□Ÿ'è] f\_fCfAf□fO f{fbfNfX,Ä FTP f□fO□[ f□f[frfX,ð□\  
□→,·,é,Æ,«,É—~—p,Ä,«,éflfvfVf†“,ðŽg,Ä,ÄŸ'è,Ä,«,Û,·□B

**AllowAnonymous**

**AnonymousOnly**

**AnonymousUsername**

**ConnectionTimeout**

**HomeDirectory**

**MaxConnections**

ŽŸ,ìfCEfWfXfgfŠ fpf%of□□[f^,í□Afrf“fgf□□[f< fpflf<,Ä [FTP f□fO□[□[ ,ð<N“@,μ□A[fZfLf...fŠfefB]  
f{f^f“,ðfNfŠfbfN,μ,¼,Æ,«—~—p,Ä,«,éflfvfVf†“,ðŽg,Ä,ÄŸ'è,Ä,«,Û,·□B

**ReadAccessMask**

**WriteAccessMask**

fCEfWfXfgfŠ fGfffBf^,Ä,±,è,ç,ìfpf%of□□[f^,É“ü—í,Ä,«,é'l,ì”í'í,í□A,±,ì□í,ìŠÖ~A,·,éf\_fCfAf□fO f{fbfNfX,Ä□à-  
¾,μ,¼,à,ì,Æ“¯,¶,Ä,·□B,±,è,ç,ì'l,ì□Ÿ'è,É,í□A[FTP f□fO□[□[ f□f[frfX] f\_fCfAf□fO f{fbfNfX,¾,¯,ðŽg—p,μ,Ä,-  
,¾,¾,ç□B

## TCP/IP fT[fX,Ä,lpftfH[f]}f“fX f,fjf^,lžg—p


,±,±,Ä,íAfpftfH[f]}f“fX f,fjf^,ÉOf%oft%»Ä,«,éfpftfH[f]}fX fjfEf“f^,É,Ä,ç,Äà-¾,µ,Ü,·B,±,é,ç,lfjEf“f^,É,æ,èAIP fvffgfRf<AFTP fT[fo[ fT[fX fgf%ftfBfbfN[A,“,æ,Ń WINS fT[fo[,lpftfH[f]}f“fX,đ’çÖ,·,é,±,Æ,ª,Ä,«,Ü,·B

d—v : fpftfH[f]}f“fX f,fjf^,Ä TCP/IP fpftfH[f]}fX fjfEf“f^,đŽg,æ,É,íASNMP fT[fX,đ’g,Ýž,þ•K—v,ª, ,è,Ü,·B

 [TCP/IP,ÄfpftfH\[f\]}f“fX f,fjf^,đŽg,æ](#)

 [TCP/IP fpftfH\[f\]}f“fX,đŠÄŽ<,·,é](#)

 [FTP fT\[fo\[ fgf%ftfBfbfN fpftfH\[f\]}f“fX,đŠÄŽ<,·,é](#)

 [WINS fT\[fo\[ fpftfH\[f\]}f“fX,đŠÄŽ<,·,é](#)

**TCP/IP ,ÁfpftfH[f]f“fX f,fjf^ ,ðŽg,»**

**TCP/IP ,ÁfpftfH[f]f“fX f,fjf^ ,ðŽg,»É,Í**

1. fv[Of%œf€ f}f[OfWff,ì [ŠÇ—[fc[f<] fOf<[fv,ÁAfpftfH[f]f“fX f,fjf^ ,ðf\_fuf<fNfŠfbfN,μ,Û,·B
2. [•Ò[W] fffj...[,ì [fOf%œft,É'Ç%Á] fRf}f“fh,ð'l,Ñ,Û,·B
3. [fOf%œft,É'Ç%Á] f\_fCfAf[Of f{fbfNfX,Á [fRf“fsf...[f^] ^è—,©,çŠĂŽ<.,éfRf“fsf... [f^,ð'l'ð,μ,Û,·B
4. [fufWfFfNfg] ^è—,©,çŠĂŽ<.,é TCP/IP ŠÖ~Afvf[fZfX,ð'l'ð,μ,Û,·BFTP Server[AICMP[AIP[ANetwork Interface[ATCP[AUDP[A,Û,½,Í WINS Server ,ì,ç,.,é,©,ð'l'ð,μ,Û,·B
5. [fjEf“f^] ^è—,©,çŠefvf[fZfX,É'Í,μ,ĂŠĂŽ<.,éfjEf“f^ ,ð'l'ð,μ[A['Ç%Á] f{f^f“ ,ðfNfŠfbfN,μ,Û,·BŠefjEf“f^ ,ìÚx,É,Á,ç,Ă,Í[A[à-¾] f{f^f“ ,ðfNfŠfbfN,μ,Ăà-¾,ð•\ Ž!,μ,Û,·B
6. fOf%œft,É,μ,½,çfjEf“f^ ,ð,·,×,Ă'l'ð,μ,ì,½,ç[A[Š®—¹] f{f^f“ ,ðfNfŠfbfN,μ,Û,·B

fpftfH[f]f“fX f,fjf^ ,ìŽg,ç•ú,É,Á,ç,ĂÚ,μ,,Í[AwWindows NT fvXfef€ fKfCfh[x,ìufpftfH[f]f“fX f,fjf^v,ìÍ,ðŽQ[Æ,μ,Ă,,¾,³,çB







R, ĹŽóMfppPfbfg, Ĺ" B

**Packets Received/Second**

f}fbfgfN fCf" f^ [ftfFfCfXă, ĹŽóM, ., éfpfPfbfg, Ĺ"ă—|

**Packets Sent Non-Unicast/Second**

□, ^Ê'w, Ĺvf□fgfRf<, a—v<□, ., é□A" ņftfjLfffXfg (, Ĺ, Ü, è□Aftfuflfbfg fuf□□[fhfLfffXfg, Ü, ½, Ĺftfuflfbfg f}f<f`fLfffXfg) fAfhfĈfX, Ö, ĹpfPfbfg'—□M"ă—|□B"pŠü, ³, ê, ½, ©'— □M, ³, ê, È, ©, Ĺ, ½fpfPfbfg, àŠÜ, Ü, ê, Ü, .□B

**Packets Sent Unicast/Second**

□, ^Ê'w, Ĺvf□fgfRf<, a—v<□, ., é□Aftfuflfbfg ftfjLfffXfg fAfhfĈfX, Ö, ĹpfPfbfg'—□M"ă—|□B"pŠü, ³, ê, ½, ©'— □M, ³, ê, È, ©, Ĺ, ½fpfPfbfg, Ĺ'—□M"ă—|, àŠÜ, Ü, ê, Ü, .□B

**Packets Sent/Second**

f}fbfgfN fCf" f^ [ftfFfCfXă, Ĺ'—□M, μ, ½fpfPfbfg, Ĺ"ă—|

**Packets/Second**

f}fbfgfN fCf" f^ [ftfFfCfXă, Ĺ'—ŽóM, μ, ½fpfPfbfg, Ĺ"ă—|







**Received Source Quench**

ŽóM,μ,½ ICMP Source Quench ffbfZ[fW,ì”

**Received Time Exceeded**

ŽóM,μ,½ ICMP ŽžŠÔ’ %ßfbfZ[fW,ì”

**Received Timestamp Reply/Second**

ŽóM,μ,½ ICMP f^fCf€fXf^f“fv%ž”šfbfZ[fW,ì”ä—!

**Received Timestamp/Second**

ŽóM,μ,½ ICMP f^fCf€fXf^f“fv (—v<□) ffbfZ[fW,ì”ä—!

**Sent Address Mask**

‘—M,μ,½ ICMP fAfhf€fX f}fXfN—v<□fbfZ[fW,ì”

**Sent Address Mask Reply**

‘—M,μ,½ ICMP fAfhf€fX f}fXfN%ž”šfbfZ[fW,ì”

**Sent Destination Unreachable**

‘—M,μ,½ ICMP ‘—M□æ“ž’B•s”\fbfZ[fW,ì”

**Sent Echo Reply/Second**

‘—M,μ,½ ICMP fGfR□[%ž”šfbfZ[fW,ì”ä—!

**Sent Echo/Second**

‘—M,μ,½ ICMP fGfR□[ ffbfZ[fW,ì”ä—!

**Sent Parameter Problem**

‘—M,μ,½ ICMP fpf%□□f^□áŠQfbfZ[fW,ì”

**Sent Redirect/Second**

‘—M,μ,½ ICMP fŠ\_fCf€fNfg ffbfZ[fW,ì”ä—!

**Sent Source Quench**

‘—M,μ,½ ICMP Source Quench ffbfZ[fW,ì”

**Sent Time Exceeded**

‘—M,μ,½ ICMP ŽžŠÔ’ %ßfbfZ[fW,ì”

**Sent Timestamp Reply/Second**

‘—M,μ,½ ICMP f^fCf€fXf^f“fv%ž”šfbfZ[fW,ì”ä—!

**Sent Timestamp/Second**

‘—M,μ,½ ICMP f^fCf€fXf^f“fv (—v<□) ffbfZ[fW,ì”ä—!

## TCP f p f t f H [ f ] f " f X f j f E f " f ^

TCP f l f u f W f f N f g f ^ f C f v , É , Í □ A T C P ( T r a n s m i s s i o n C o n t r o l P r o t o c o l ; " ` ' — □ § C E ä f v f □ f g f R f < ) , ð Ž g — p , μ , Ä , † , é " Á ' è , ì f G f " f e f B f e f B , a □ A T C P f z f O f □ f " f g , ð ' — Ž ó □ M , , é " ä — ì , ð Ž ì , . f j f E f " f ^ , a Š Ů , Ů , è , Ů , . □ B , Ů , ½ □ A % o Ä " \ , È Š e T C P □ Ů ' ± □ ó ' Ö , Å , Ì T C P □ Ů ' ± , ì □ " , à Ž ì , μ , Ů , . □ B

### Connection Failures

TCP □ Ů ' ± , a □ A S Y N - S E N T □ ó ' Ö , Ů , ½ , Í S Y N - R C V D □ ó ' Ö , © , † C L O S E D □ ó ' Ö , É ' ¼ □ Ů ' J ^ Ů , μ , ½ % o ñ □ " , Æ □ A S Y N - R C V D □ ó ' Ö , © , † L I S T E N □ ó ' Ö , É ' ¼ □ Ů ' J ^ Ů , μ , ½ % o ñ □ " , Ì □ † C E v

### Connections Active

TCP □ Ů ' ± , a □ A C L O S E D □ ó ' Ö , © , † S Y N - S E N T □ ó ' Ö , É ' ¼ □ Ů ' J ^ Ů , μ , ½ % o ñ □ "

### Connections Established

Æ » □ Ý , ì □ ó ' Ö , a E S T A B L I S H E D , Ů , ½ , Í C L O S E - W A I T , Å , , é T C P □ Ů ' ± , ì □ "

### Connections Passive

TCP □ Ů ' ± , a □ A L I S T E N □ ó ' Ö , © , † S Y N - R C V D □ ó ' Ö , É ' ¼ □ Ů ' J ^ Ů , μ , ½ % o ñ □ "

### Connections Reset

TCP □ Ů ' ± , a □ A E S T A B L I S H E D □ ó ' Ö , Ů , ½ , Í C L O S E - W A I T □ ó ' Ö , © , † C L O S E D □ ó ' Ö , É ' ¼ □ Ů ' J ^ Ů , μ , ½ % o ñ □ "

### Segments Received/Second

Ž ó □ M , μ , ½ f z f O f □ f " f g , ì " ä — ì □ B Ž ó □ M , É f G f % o □ [ , a , , Á , ½ f z f O f □ f " f g , à Š Ů , Ů , è , Ů , . □ B , ± , ì f j f E f " f ^ , Í □ A C E » □ Ý Š m — š , μ , Ä , † , é □ Ů ' ± □ ä , Å Ž ó □ M , μ , ½ f z f O f □ f " f g , ð Š Ů , Ý , Ů , . □ B

### Segments Retransmitted/Second

□ Ä ' — □ M , ³ , è , ½ f z f O f □ f " f g , ì " ä — ì □ B , Ä , Ů , è □ A ^ È ' O , É ' — □ M , ³ , è , ½ f o f C f g , ð 1 , Ä , Ů , ½ , Í • ; □ " Š Ů , ñ , Å , † , é f z f O f □ f " f g , ì ' — □ M " ä — ì , Å , . □ B

### Segments Sent/Second

' — □ M , ³ , è , ½ f z f O f □ f " f g , ì " ä — ì □ B , ± , ì f j f E f " f ^ , Í □ A C E » □ Ý , ì □ Ů ' ± □ ä , ì f z f O f □ f " f g , ð Š Ů , Ý , Ů , . , a □ A □ Ä ' — □ M f o f C f g , μ , © Š Ů , ñ , Å , † , È , † f z f O f □ f " f g , Í Š Ů , Ý , Ů , ¹ , ñ □ B

### Segments/Second

TCP f v f □ f g f R f < , ð Ž g , Á , Ä ' — Ž ó □ M , ³ , è , ½ T C P f z f O f □ f " f g , ì " ä — ì



## UDP f jfufWfFfNfg f^fCfv,É,Í AUDP (User Datagram Protocol; f t [ f U [ f f [ f ^ f O f % o f € f v f [ f g f R f < ) , ð Ž g —

p, μ, Å, ç, é “Á” è, ì f G f “ f e f B f e f B, a [ AUDP f f [ f ^ f O f % o f € , ð ‘ — Ž ó [ M, , é ” ä —  
! , ð Ž ! , · f j f E f “ f ^ , a Š Ü, Ü, ê, Û, · [ B, Ü, ½ [ AUDP f v f [ f g f R f < , ì Š e Ž í, ì f G f % o [ f j f E f “ f g, ð Ž ! , · f j f E f “ f ^ , à Š Ü, Ü, ê, Û, · [ B

## Datagrams No Port/Second

‘ — [ M [ a e f [ [ f g, É f A f v f Š f P [ [ v f f “ , a, È, ç UDP f f [ f ^ f O f % o f € , ð Ž ó [ M, μ, ½ ” ä — !

## Datagrams Received Errors

‘ — [ M [ a e f [ [ f g, É f A f v f Š f P [ [ v f f “ , a, È, ç, Æ, ç, x ^ È Š O, ì — [ — R, Å ” z [ M • s ” \, ì UDP f f [ f ^ f O f % o f € , ð Ž ó [ M, μ, ½ [ ”

## Datagrams Received/Second

UDP f t [ f U [ , Ö UDP f f [ f ^ f O f % o f € , a ” z [ M, ³, ê, ½ ” ä — !

## Datagrams Sent/Second

f G f “ f e f B f e f B, © , ç ‘ — [ M, ³, ê, ½ UDP f f [ f ^ f O f % o f € , ì ” ä — !

## Datagrams/Second

f G f “ f e f B f e f B, Å ‘ — Ž ó [ M, ³, ê, ½ UDP f f [ f ^ f O f % o f € , ì ” ä — !



FTP fT[fO[,"É"~Žž,ÉÚ'±%oÂ"\,È"ñ"½-¼ft[fU[,ìÅ'â"

**Total Anonymous Users**

FTP fT[fO[,ÉÚ'±,μ,½"½-¼ft[fU[,ì—Ýv

**Total NonAnonymous Users**

FTP fT[fO[,ÉÚ'±,μ,½"ñ"½-¼ft[fU[,ì—Ýv

### WINS fT[f]o[f] fpftfH[f]f“fX,đŠĂŽ<.,,é

WINS fT[f]o[f] [đ'g,Ýž,þ,Æ,«,ÉjJfE“f^,àž©“@“l,É'g,Ýž,Ü,è,é,½,β AfpftfH[f]f“fX  
f.fjf^,đžg,Ă,Ă AWINS fT[f]o[f] fT[f]rfX,lfpftfH[f]f“fX,đ•Ž!,.,é,±,Æ,ª,Ă,«,Ü,· B

### WINS fT[f]o[f] fT[f]rfX,ÉCEĀ—L,ìjJfE“f^,đ•Ž!,.,é,É,Í



[fpftfH[f]f“fX f.fjf^] fEfBf“fhfE,ì [flfufWfFfNfg] ^ê—,©,ç [WINS Server] ,đ'l'đ,μ,Ü,· B^È  
%o,Ā à-¾,.,é ASĂŽ<,μ,½,č “ CEvî•ň,ìjJfE“f^,đ'l'đ,μ,Ü,· B

### Failed Queries/Second

1 • b“-,½,è,ìž,“s,μ,½ AE%oi,ì' B

### Failed Releases/Second

1 • b“-,½,è,ìž,“s,μ,½ %ođ•ú,ì' B

### Group Conflicts/Second

WINS fT[f]o[f] [,žó,žæ,Á,½ fOf<[fv“o~^,ì,α,ž Af[f]f^fx[fX“à,]fCEFR[fh,Æ<£þ,μ,½,à,ì,]”ä—!

### Group Registrations/Second

WINS fT[f]o[f] [,žó M,μ,½ fOf<[fv“o~^,]”ä—!

### Group Renewals/Second

WINS fT[f]o[f] [,žó M,μ,½ fOf<[fv X V,]”ä—!

### Queries/Second

1 • b“-,½,è,ì AE%oi,ì' B B,±,é,Í AWINS fT[f]o[f] [,žó M,μ,½ AE%oi,ì”ä—!,Ā,· B

### Releases/Second

1 • b“-,½,è,ì %ođ•ú,ì' B B,±,é,Í AWINS fT[f]o[f] [,žó M,μ,½ %ođ•ú,]”ä—!,Ā,· B

### Successful Queries/Second

1 • b“-,½,è,ì CE÷,μ,½ AE%oi,ì' B

### Successful Releases/Second

1 • b“-,½,è,ì CE÷,μ,½ %ođ•ú,ì' B

### Total Number of Conflicts/Second

[Unique Conflicts/Second] ,Æ [Group Conflicts/Second] ,ìþ CEv B,±,é,Í AWINS fT[f]o[f] [,Ā”-  
þ,μ,½ <£þ,ì' ”ä—!,Ā,· B

### Total Number of Registrations/Second

[Unique Registrations/Second] ,Æ [Group Registrations/Second] ,ìþ CEv B,±,é,Í AWINS  
fT[f]o[f] [,žó M,μ,½ “o~^,]”ä—!,Ā,· B

### Total Number of Renewals/Second

[Unique Renewals/Second] ,Æ [Group Renewals/Second] X V,ìþ CEv B,±,é,Í AWINS  
fT[f]o[f] [,žó M,μ,½ X V,]”ä—!,Ā,· B

### Unique Conflicts/Second

WINS fT[f]o[["ŽóM,μ,½^ê^Ó,"o~^,Æ["<Š·,ì,ì,ϣ,¿Aff[f^fx[fX"à,}fCFR[fh,Æ<£[‡,μ,½,à,ì,"ä—  
!B

**Unique Registrations/Second**

WINS fT[f]o[["ŽóM,μ,½^ê^Ó,"o~^,"ä—!

**Unique Renewals/Second**

WINS fT[f]o[["ŽóM,μ,½^ê^Ó[X[V,"ä—!

## TCP/IP ^óü,É,Ä,ç,Ä

□,È,,Æ,à 1 'ä,ì Windows NT fRf"fsf...□[f^,É TCP/IP ^óü (TCP/IP printing) ,a'g,Ý□ž,Ü,ê,Ä,ç  
,ê,ì□Aft□[fU□[,í□AMicrosoft flfbfgf□□[fN□ä,ì,ç,ìfRf"fsf...□[f^,©,ç,Ä,à'¼□Ú□Ú'±,³,ê,½ TCP/IP  
fvfŠf"f^,â□AUNIX fRf"fsf...□[f^,É" —□"l,É□Ú'±,³,ê,½fvfŠf"f^,É^óü,.,é,±,Æ,ª,Ä,«,Ü,·□B,Ü,½□AUNIX  
fRf"fsf...□[f^,©,ç Windows NT fRf"fsf...□[f^,É^óü,.,é,±,Æ,à,Ä,«,Ü,·□B

Microsoft TCP/IP ^óü,í□ARFC (Request for Comments) 1179 ,É□€<',μ,Ä,ç,Ü,·□B

^È%º,ì□€-Ú,Ä,í□AWindows NT fRf"fsf...□[f^,É TCP/IP ,a'g,Ý□ž,Ü,ê,Ä,ç,é□é□#,É TCP/IP  
fvfŠf"f^,ð□ì□-,.,é•û-@,É,Ä,ç,Ä□à-¾,μ,Ü,·□B



[TCP/IP ^óü,ìŠT—v](#)



[TCP/IP ^óü,ì,½,ß Windows NT,ðfZfbfgfAfbfv,.,é](#)



[TCP/IP ^óü,ì,½,ß,ÉfvfŠf"f^,ð□ì□-,.,é](#)



[UNIX fNf%ºfCfAf"fg,©,ç Windows NT ,É^óü,.,é](#)

fvfŠf"f^,Ä,ì□ì<Æ,ì□Ú□×,É,Ä,ç,Ä,í□A□wWindows NT fvfxfef€ fkfCfh□x,ì□u'æ 6 □í□@fvfŠf"fg  
f}fì□[fWff□v,ðžQ□Æ,μ,Ä,¾,³,ç□B

## TCP/IP 600, IST-v

• ; " , i ž í - p , i f R f " f s f . . . [ f ^ , a f i f y f C E [ f e f B f " f o f v f X f e f e , © , ç [ \ [ - , ³ , è , Ä , ç , é Windows NT f C f " f ^ [ f l f b f g f [ f N , Ä , í A M i c r o s o f t T C P / I P , ð - ~ - p , µ , Ä A U N I X f R f " f s f . . . [ f ^ C E o - R , Ä [ Ú ' ± , ³ , è , Ä , ç , é f v f Š f " f ^ , â A ( ' g , Ý ž , Ý f l f b f g f [ f N f A f \_ f v f ^ f [ f h , Ü , ½ , í f v f Š f A f < / f p f % o f C E f < f C [ f T f l f b f g f v f Š f " f g f T [ f o [ [ C E o - R , Ä ) f l f b f g f [ f N , É ' ¼ [ Ú [ Ú ' ± , ³ , è , ½ f v f Š f " f ^ , É Š È ' P , É [ o - í , , é , ± , Æ , a , Ä , « , Ü , . [ B

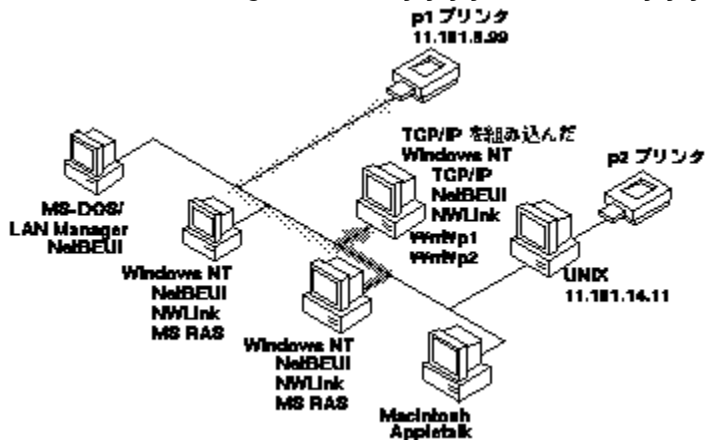
, ± , i ž í , i f C f " f ^ [ f l f b f g f [ f N , Ä , í A W i n d o w s N T W o r k s t a t i o n , , æ , Ñ W i n d o w s N T S e r v e r f R f " f s f . . . [ f ^ , É % o Ä , , i , Ä A M S - D O S , Ä L A N M a n a g e r f l f b f g f [ f N f v f t f g f E f f A , ð Ž Ä [ s , , é f R f " f s f . . . [ f ^ , a Š Ü , Ü , è , é [ é [ ± , à , , è , Ü , . [ B

M i c r o s o f t T C P / I P ^ 6 0 0 , ð - ~ - p , , é , É , í [ A T C P / I P f v f Š f " f ^ , ð ' è < , , é 1 ' à , i W i n d o w s N T f R f " f s f . . . [ f ^ , É [ A T C P / I P , ð ' g , Ý ž , ß , í , æ , ç , ¾ , - , Ä , . [ B f C f " f ^ [ f l f b f g f [ f N [ ä , i f R f " f s f . . . [ f ^ , í , , x , Ä A W i n d o w s N T T C P / I P f v f Š f " f g f T [ f o [ [ , Æ < x - L , µ , Ä , ç , é % ½ , ç , © , í f v f [ f g f R f < , ð Ž g , Ä , Ä [ A , ± , è , ç , í f v f Š f " f ^ , É ^ 6 0 0 , , é , ± , Æ , a , Ä , « , Ü , . [ B , Ü , © , í f N f % o f C f A f " f g f R f " f s f . . . [ f ^ , É , í T C P / I P , ð ' g , Ý ž , p • K - v , í , , è , Ü , ¹ , ñ [ B , Ä , Ü , è [ A W i n d o w s N T f v f Š f " f g f T [ f o [ [ , Æ , µ , Ä < @ \ , , é f R f " f s f . . . [ f ^ , í [ A T C P / I P f v f Š f " f ^ , É ^ 6 0 0 , , é % o Ä " \ [ « , a , , é f N f % o f C f A f " f g , Ä Ž g , í , è , Ä , ç , é , , x , Ä , í f v f [ f g f R f < , ð - p , ç , Ä [ \ [ - , µ , Ä , , , • K - v , a , , è , Ü , . [ B

T C P / I P ^ 6 0 0 , ð ' g , Ý ž , ñ , Ä , ç , é W i n d o w s N T f R f " f s f . . . [ f ^ , í A U N I X f v f Š f " f ^ , Ü , ½ , í ' ¼ [ Ú [ Ú ' ± , ³ , è , ½ f v f Š f " f ^ , É ' ¼ [ Ú ^ 6 0 0 , , é , ± , Æ , a , Ä , « [ A " Ž Ž , É , Ü , © , í f l f b f g f [ f N f T [ f U [ [ , í f Q [ [ f g f E f f C , Æ , µ , Ä < @ \ , , é , ± , Æ , a , Ä , « , Ü , . [ B

Ž Ÿ , i M i c r o s o f t f l f b f g f [ f N , í [ \ [ - - á , Ä , í [ A , , x , Ä , i f R f " f s f . . . [ f ^ , í f l f b f g f [ f N [ ä , i \ \ N T \ P 1 , Æ \ \ N T \ P 2 , Æ , ç , x - ¼ ' O , í f v f Š f " f ^ , É [ Ú ' ± , , é , ± , Æ , a , Ä , « , Ü , . [ B 1 , Ä , í A ' ¼ [ Ú [ Ú ' ± , ³ , è , ½ f v f Š f " f ^ , Ä , , è [ A , à , x 1 , Ä , í U N I X f R f " f s f . . . [ f ^ , É [ Ú ' ± , ³ , è , ½ f v f Š f " f ^ , Ä , . [ B , ± , è , ç 2 , Ä , i T C P / I P f v f Š f " f ^ , í A M i c r o s o f t T C P / I P , æ ' g , Ý ž , Ü , è , ½ W i n d o w s N T f R f " f s f . . . [ f ^ , É , æ , è [ \ [ - , ³ , è , Ü , µ , ½ [ B , ± , í - á , Ä , í [ A T C P / I P , ð Ž g - p , , é W i n d o w s N T f R f " f s f . . . [ f ^ , í - ¼ ' O , í n t , Ä , . [ B f v f Š f " f ^ , í - ¼ ' O , í [ A , » , è , ¼ , è p 1 , , æ , Ñ p 2 , Ä , . [ B

M i c r o s o f t T C P / I P , ð Ž g , Ä , ½ T C P / I P f v f Š f " f ^ , Ü , ½ , í U N I X f v f Š f " f ^ , Ö , í ^ 6 0 0



f R f } f " f h f v f [ " f v f g , Ä l p r [ Ú ' ± f T [ f e f B f Š f e f B , ð Ž g , x , ± , Æ , É , æ , è [ A L P D f T [ f o [ [ , ð Ž Ä [ s , µ , Ä , ç , é f z f X f g , É f t f [ C f < , ð ^ 6 0 0 , , é , ± , Æ , a , Ä , « , Ü , . [ B , Ü , ½ [ A l p g [ f " f f T [ f e f B f Š f e f B , É , æ , è [ A L P D f T [ f o [ [ , ð Ž Ä [ s , µ , Ä , ç , é f z f X f g [ ä , í ^ 6 0 0 , Ò , ç [ s - ñ , í [ ó ' Ö , ð Š m " F , , é , ± , Æ , à , Ä , « , Ü , . [ B

**TCP/IP ^óü, ð, ½, B Windows NT , ðfZfbfgfAfbfv, , é**

Microsoft TCP/IP , Æ TCP/IP ^óüúTf| [fg, á'g, Ýž, Ü, è, ½ Windows NT fRf"fsf... [f^, Å, , è, ÍA, ç, , è, Ì  
Windows NT fRf"fsf... [f^, Å, à TCP/IP fvfŠf" f^, ðì, , , é, ±, Æ, á, Å, «, Ü, , B

**TCP/IP ^óü, ð, ½, B, É Windows NT fRf"fsf... [f^, ðì, , , é, É, Í**

1. fRf"fgf [f< fpf<, Å [flfbfgf [fN] , ðf\_fuf<fNfŠfbfN, µ, Ü, , B [flfbfgf [fN, ÌÝ'è] f\_fCfAfO f {fbfNfX, á\ Ž, , è, ½, ç [flfbfgfE fFfA, Ì'Ç%Á] f {f^f" , ðfNfŠfbfN, µ, Å [flfbfgf [fN flfbfgfE fFfA, Ì'Ç%Á] f\_fCfAfO f {fbfNfX, ð•Ž, µ, Ü, ,

2. [flfbfgf [fN flfbfgfE fFfA] ^è—, ©, ç [TCP/IP fvf [fgfRf<, , æ, ÑŠÖ~ AfRf" f [flf"fg] , ð'ì'ð, µ [±s] f {f^f" , ðfNfŠfbfN, µ, Ü, , B

3. [Windows NT TCP/IP 'g, Ýž, ÝflfvfVf#"] f\_fCfAfO f {fbfNfX, Å [TCP/IP flfbfgf [fN ^óüúTf| [fg] f^ fFfbfN f {fbfNfX, ðflf" , É, µ, Ü, , B

Microsoft TCP/IP , á, Ü, ¾fRf"fsf... [f^, É'g, Ýž, Ü, è, Å, ç, È, çèè, ÍA, » , Ì, Ü, ©, Ì•K—v, Èf^ fFfbfN f {fbfNfX, ðflf" , É, µ, Ü, , B

4. [±s] f {f^f" , ðfNfŠfbfN, µ, Ü, , B Windows NT fZfbfgfAfbfv, ÍA Windows NT Server "z•zftf@fCf<, Ö, Ìftf< fpfX, ð, ½, , , È, é [fbfZ [fW, ð•Ž, µ, Ü, , B "KØ, ÈfpfX, ð"ü—, µ [±s] f {f^f" , ðfNfŠfbfN, µ, Ü, ,

•K—v, Èftf@fCf<, á, , x, Äfn [fh fffBfXfN, ÉfRfs [ , , è, Ü, , B

5. [Windows NT TCP/IP 'g, Ýž, ÝflfvfVf#"] f\_fCfAfO f {fbfNfX, Å [DHCP Ž©" @ì, ð—LCEø, É, , é] f^ fFfbfN f {fbfNfX, ðflf" , É, µ, Å, ç, È, çèè, ÍA TCP/IP , Ìžè" @ì, Ìžèè, ð, , x, ÄŽÀs, , é•K—v, á, , è, Ü, , B

TCP/IP , Ìì, , á, µ, ½æä, É [flfbfgf [fN, ÌÝ'è] f\_fCfAfO f {fbfNfX, á"Ä" x•Ž, , è, ½, ç [—] f {f^f" , ðfNfŠfbfN, µ, Ü, , B •ÌX" à—e, ÍA fRf"fsf... [f^, ð"Ä<N" @ , , é, Æ—LCEø, É, È, è, Ü, , B

, ±, è, ÅA, ±, Ì Windows NT fRf"fsf... [f^è, É TCP/IP fvfŠf" f^, ðì, , , é, ±, Æ, á, Å, «, Ü, , B

ŠÖ~A€—Ú

TCP/IP , ðì, , , é

Microsoft TCP/IP , Æ SNMP , Ì'g, Ýž, Ý, Æì



## TCP/IP ^óü,ì,½,ß,Évfšf“f^,ðìí-,·,é

TCP/IP fvfšf“f^,í□Afvfšf“fg f}f□[fWff,ðžg,ç□AWindows NT

flfbfgf□□[fN,Åžg,í,é,éfvfšf“f^,ðìí-,·,é,ì,Æ““,¶•ù-@,Åìí-,·,é,±,Æ,ª,Å,«,Ü,·□BTCP/IP

fvfšf“f^,ðìí-,·,é,É,í□AZÿ,ì,æ,æ,Èî•ñ,ª•K-v,Å,·□B



fvfšf“f^,ª□Ú±,³,é,Ä,ç,ézfxf,ì IP Ž•Éžq□BDNS -¼,© IP fAfhfçfx,ì,ç,·,é,©,Å,·□B¼□Ú□Ú±,³,é,½fvfšf“f^,í□AÆž©,ì IP Ž•Éžq,ðž□,Å,Ä,ç,Ü,·□BUNIX fRf“fsf...□[f^,É□Ú±,³,é,Ä,ç,éfvfšf“f^,ì□è□±,í□Afrf“fsf...□[f^,ì IP Ž•Éžq,ª•K-v,Å,·□B

‘□ : HP JetDirect f□[fh,ðžg-p,·,é¼□Ú□Ú±,³,é,½fvfšf“f^,í□ATCP/IP ^óü,ì LPD ,ðftfj

□[fg,·,éj□[fh,ðž□,Å,Ä,ç,È,·,é,ì,È,è,Ü,¹,ñ□B



fzxfxfg□ã,Åž•É,³,é,éfvfšf“f^-¼□B

TCP/IP fvfšf“f^,ðìí-,·,éRf“fsf...□[f^,É,í□ATCP/IP ,ð,·,ç,©,¶,ß’g,Ýž,ñ,Å,“,«□A[TCP/IP ^óü]

flfvfVfj““,ðžg,Å,Ä□□-,ð□s,Å,Ä,“,•K-v,ª,·,è,Ü,·□B

## TCP/IP fvfšf“f^,ðìí-,·,é,É,í

- fvfšf“fg f}f□[fWff,Å□A[fvfšf“f^] f□fj...□[,ì [fvfšf“f^,ì□□-] fRf}f“fh,ð’ì,Ñ,Ü,·□B
- [fvfšf“f^,ì□□-] f\_fCfAf□fO f{fbfNfX,ì [fvfšf“f^-¼] f{fbfNfX,É□Afvfšf“f^-¼,ð“ü-í,µ,Ü,· (“¼šp,Å 32 •¶žš,Ü,Å)□B,±,ìfvfšf“f^-¼,í□Afvfšf“f^ fEfBf“fhfE,ìf^fCgfç fo□[,É•žì,³,é,Ü,·□B,±,ìfvfšf“f^,ª Windows NT ft□[fU□[,ìšÖ,Å<æ-L,³,é,é□è□±,í□Afvfšf“f^,Ö,ì□Ú±žž,É,±,ìfvfšf“f^-¼,ª•žì,³,é,Ü,·□B
- [fhf%ofCfo] ^è—,©,ç“K□Ø,Èfhf%ofCfo,ð’ì’ð,µ□A,±,ìfvfšf“f^,É,Ä,ç,Äflfbfgf□□[fN ft□[fU□[,É’É’m,·,é•¶žš-ñ,ð □[à-¼] f{fbfNfX,É“ü-í,µ,Ü,·□B,±,ì)•¶žš-ñ“ü-í,í□è—ª%Å“\,Å,·□B
- [^óü□æ] ^è—,©,ç [,»,ì¼], ð’ì’ð,µ,Ü,·□B
- [^óü□æ] f\_fCfAf□fO f{fbfNfX,Å□A[LPR Port] ,ð’ì’ð,µ□A[OK] f{f^f“,ðfNfšfbfN,µ,Ü,·□B
- [LPR çÉš·fvfšf“f^,ì’ç%oÁ] f\_fCfAf□fO f{fbfNfX,ì [LPD ,ð’ñ<ÿ,µ,Ä,ç,ézfxf,ì-¼’O,Ü,½,ìfAfhfçfx] f{fbfNfX,É□A’ç%oÁ,·,éfvfšf“f^,ìzfxf,ì DNS -¼,Ü,½,ì IP fAfhfçfx,ð“ü-í,µ,Ü,·□B  
·,±,ì,É,í□A¼□Ú□Ú±,³,é,½ TCP/IP fvfšf“f^,Ü,½,ìfvfšf“f^,ª□Ú±,³,é,Ä,ç,é UNIX fRf“fsf...□[f^,ì DNS -¼,Ü,½,ì IP fAfhfçfx,ð“ü-í,Å,«,Ü,·□BDNS -¼,É,í□AHOSTS ftf@fCf<“à,Å,»,ìzfxf,É’í,µ,Äžw’è,³,é,Ä,ç,éRf“fsf...□[f^-¼,ð“ü-í,Å,«,Ü,·□B
- LPR ,í□Afvfšf“f^ fvfšf“fefBf“fo ft□[fefBfšfefB (Line Printing utility) ,ð^Ó-i,µ□ALPD ,í□Afvfšf“f^ fvfšf“fefBf“fo ff□[f,· (Line Printing Daemon) ,ð^Ó-i,µ,Ü,·□BUNIX □ã,Å,±,è,ç,ì-v’f,ª,ç,ì,æ,æ ,Éž•É,³,é,é,©,ðžì,µ,Ä,ç,Ü,·□B
- [fRf“fsf...□[f^,ìfvfšf“f^-¼] f{fbfNfX,É□Afvfšf“f^,ªž•É,µ,Ä,ç,éfvfšf“f^-¼,ð“ü-í,µ,Ü,·□Bzfxf,Æ,í□A¼□Ú□Ú±,³,é,½fvfšf“f^ž©’ì,©□AUNIX fRf“fsf...□[f^,Å,·□B  
·,½,Æ,ì,í□A□□-t,ì TCP/IP fvfšf“f^,Æ’šçÉy□-p,·,éfvfšf“fg ft□[fo□[□□-v’f (lpd) ,ðžÀ□s,·,é UNIX fRf“fsf...□[f^,ªflfbfgf□□[fN□ã,É’¶□ÿ,·,é,à,ì,Æ,µ,Ü,·□Blpd ,ª□AUNIX fRf“fsf...□[f^,É□Ú±,³,é,½fvfšf“f^,ì-¼’O,ð Crisp ,Æ,µ,Ä”Fž“,µ,Ä,ç,é□è□±□A,±,ìf{fbfNfX,É“ü-í,·,é-¼’O,ì Crisp ,Å,·□B
- [fvfšf“f^,ì□□-] f\_fCfAf□fO f{fbfNfX,ª□A“x•žì,³,é,Ü,·□B,± ,ìfvfšf“f^,ÉfAfnfzfx,·,é,Ü,©,ìft□[fU□[,ì,½,ß,ìfvfšf“fg ft□[fo□[,Æ,µ,Ä<@“\,·,é Windows NT fRf“fsf... □[f^□ã,Å□Afvfšf“f^,ì<æ-L,ª’è< ,³,é,Ä,ç,é□è□±,í□A[flfbfgf□□[fN□ã,Å<æ-L] f^fffbfN f{fbfNfX,ðfj“,É,µ,Ü,·□B

9. fvfŠf“f^ f}f|[]fWff,í[]AffffHf<fg,Á[]A[<α—L-¼] f{fbfNfX,É MS-DOS fx[]fX,lfRf“fsf...  
 []f^,ÆCEÝŠ·[]«,ª, ,é<α—LŽ‘CE¹-¼,ð[]-μ,Û,·[]B,±,ì-¼‘O,í·Ò[]W,·,é,±  
 ,Æ,ª,Á,«[]Aflfbfgf[][]fNä,Á,±,lfvfŠf“f^,ðŽQ[]Æ,·,é,Æ,«·\Ž!,ª,è,Û,·[]B
10. []Ý‘u[]ê[]Š] f{fbfNfX,É[]AfvfŠf“f^,ì[]Ý‘u[]ê[]Š,ð“ü—í,Á,«,Û,·[]B,±,ì“ü—í,í[]È—ª%oÂ“\  
 ,Á,·[]Bft[]fU[][,í,±,lfvfŠf“f^,É[]Ú‘±,·,é,Æ,«[]A,±,ì[]Ý‘u[]ê[]Š,ì[]·ñ,ðCE©,é,±,Æ,ª,Á,«,Û,·[]B
11. [fvfŠf“f^,ì[]-] f\_fCfAf[]fO f{fbfNfX,ì,Û,©,ì[]-[]-[]·ñ,ð,·,x,ÄŠ®—¹,μ,½CEã[]A[OK]  
 f{f^f“,ðfNfŠfbfN,μ,Û,·[]B[]Ú,μ,,í[]A[]wWindows NT fvXfef€ fKfCfh[]x,ì‘æ 6 []í,ðŽQ[]Æ,μ,Ä,,¾,¾,¾,ç[]B

’[] : **lprmon** ft[]fEfBfŠfefB,ðŽg—p,μ,Ä,ç,é (fvfŠf“f^,ª **lpr** f|[]fG,ðŽg—p,μ,Ä,ç,é)  
 ,Æ,«,í[]A[[]Ú[]×[]Ý‘è] f\_fCfAf[]fO f{fbfNfX,ì [fXfv[]f‘†,ÉfWf#fu,ð^ó[]ü,·,é] flfvfVf#f“,ðŽg,í,È,ç,Á,-  
 ,¾,¾,¾,ç[]B^ó[]üfWf#fu,ªCEø—!“l,É^ó[]ü,μ,Û,¹,ñ[]B

[fvfŠf“f^,ì[]-] f\_fCfAf[]fO f{fbfNfX,ÁŽw‘è,μ,½fvfŠf“f^—¼,í[]AfvfŠf“fg f}f|[]fWff,lfvfŠf“f^  
 fEfBf“fhfE,lf^fCfGf< fo[][,É·\Ž!,ª,è,Û,·[]B,±,ì TCP/IP fvfŠf“f^,É[]Ú‘±,·,éft[]fU[][,í[]A,Û,©,lfvfŠf“f^,Æ“—  
 l,É[]AfvfŠfŠP[]fVf#f“,©,ç,±,lfvfŠf“f^,ð‘ð,μ,Á^ó[]ü,·,é,±,Æ,ª,Á,«,Û,·[]Bft[]fU[][,“æ,ÑŠÇ—  
 []ŽÒ,í[]AfvfŠf“fg f}f|[]fWff,ðŽg,Á,ÁfvfŠf“f^,ìŽg—p,ð·ÛCEì,“æ,ÑŠÄ[],μ[]AfvfŠf“f^,ì[]·ñ,ð·ì[]X,·,é,±  
 ,Æ,ª,Á,«,Û,·[]B

fRf}f“fh fvf[]“fvfg,Á **lpr** []Ú‘±ft[]fEfBfŠfefB,ðŽg,α,±,Æ,É,æ,è[]ALPD fT[]fo[][,ðŽÀ[]s,μ,Ä,ç  
 ,ézfXfg,Éft[]fCf<,ð^ó[]ü,·,é,±,Æ,ª,Á,«,Û,·[]B,Û,½[]Alpq []f’ft[]fEfBfŠfefB,É,æ,è[]ALPD  
 fT[]fo[][,ðŽÀ[]s,μ,Ä,ç,ézfXfg[]ä,ì^ó[]ü‘Ò,¿[]s—ñ,ì[]ó‘Ò,ðŠm”F,·,é,±,Æ,à,Á,«,Û,·[]B

## UNIX fNf%oCfAf“fg, ©, ç Windows NT ,É^óü, ., é

Lpdsvc fT[fxfX, íAUNIX fNf%oCfAf“fg, ì, ½, ß, ìATCP/IP ^óü, ìfT[fo[‘x  
, ìfT[fxfX, Å, ·Bfifbfgf[fNä, ÉAWindows NT fRf“fsf...[f^, ÉÜ’±, ³, ê, ½vfšf“f^, É^óü, μ, ½, ç UNIX fNf  
%oCfAf“fg, á, , éêë, íAUNIX fNf%oCfAf“fg, ©, ç, ì—v<□, ðŽ’ø, Å, «, é, æ, x, ÉA, ±, ìfT[fxfX, ð Windows NT  
fRf“fsf...[f^ä, ÅŽÀs, ., é•K—v, á, , è, Ü, ·BLpdsvc fT[fxfX, íA’P□f, ÈfefLxfXfgE`Ž®, ðŠÜ, ßA, Ç, ì, æ, x  
, É^óüE`Ž®, Å, àfTf[fg, μ, Ü, ·B, Ü, ½A’Ç%oÁ, ì^—□, ðŽÀs, ., é, ±, Æ, í, , è, Ü, ¹, ñ□B

Lpdsvc fT[fxfX, íA^óüfWf#fu, ð Microsoft OS/2 LAN Manager fT[fo[ä, ìfifbfgf[fN<x—L, É, í’—, é, ±  
, Æ, á, Å, «, Ü, ¹, ñ□B

## Windows NT fRf“fsf...[f^ä, Å Lpdsvc fT[fxfX, ðŠŽn, Ü, ½, í’âž~, ., é, É, í




fRf}f“fh fvf“fvfg, ÅAnet start lpdsvc , Ü, ½, í net stop lpdsvc , Æ“ü—í, μAEnter fL[ , ð  
%oÿ, μ, Ü, ·□B  
, , é, ç, íA fRf“fgf□□[f< fpflf<, ì [fT[fxfX] , ðf\_fuf<fNfšfbfN, μ, Ü, ·□BŽÿ, ÉA[fT[fxfX] ^è—, ©, ç  
[Lpdsvc] , ð’í’ð, μA[ŠŽn] f{f^f“ , ðfNfšfbfN, μ, Ü, ·□B

Lpdsvc fT[fxfX, íALprmon fT[fxfX, Æ, í“Æ—š, μ, Å, ç, Ü, ·BLprmon  
fT[fxfX, íAŽ©“®“í, É“®ì, μ, ÅAWindows NT fRf“fsf...[f^ ( , , æ, Ñ, ±, ìfRf“fsf...[f^, ÉfAfNfZfX%oÁ“\, ÈfNf  
%oCfAf“fg, ., x, Ä) , á UNIX fvfXfefe, ÉÜ’±, ³, ê, ½vfšf“f^, É^óü, Å, «, é, æ, x, É, μ, Ü, ·□B

UNIX fRf“fsf...[f^ä, Å, íAlpr ft[feBfšfB, ðŽg, Å, Ä Windows NT , ì^óü’Ò, ùs—ñ, ÈfWf#fu, ð’—, é, ±  
, Æ, á, Å, «, Ü, ·□BUNIX , ì lpr ft[feBfšfB, ìÜ□x, É, Å, ç, Ä, íAUNIX , ì}fjf...fAf<, ðŽQ□Æ, μ, Å, , ¾, ³, ç□B

## TCP/IP `ifconfig` [feBfŠfefB,É,æ,éf%uf<fVf... [feBf“fO

,±,±,Á,í TCP/IP flfbfgf [fN,ì-â'è,ð%ðCE^,; ,é•û-@,ðCE©,Á,¯,é if'fft [feBfŠfefB,ìŽg,ç•û,É,Á,ç,Ä à-¾,µ,Û,· BŽŸ,ì,æ,π,È €-Û,ªŠÛ,Û,è,Ä,ç,Û,· B

 IP `ifconfig` [feBf“fO

 if'fft [feBfŠfefB,ðŽg,π

ft [feBfŠfefB Žg—p•û-@

**arp** f [f]f< fRf“fsf... [f^ [ã,ì ARP (Address Resolution Protocol; fAfhfCEfX %ðCE^ fvf [fgfRf<) fe [fuf<,ð•\ Ž!,µ A C³,Á,«,Û,· B

**hostname** CE» [Ÿ,ìzfXfg,ì-¼' O,ð o—í,µ,Û,· B

**ipconfig** CE» [Ÿ,ì,·,x,Ä,ì TCP/IP flfbfgf [fN [l,ì,ð•Ž!,µ ATP/IP flfbfgf [fN [l,ì,ì,ð X V,Û,½,í%ð•ú,·,é,½,ß,É DHCP fRf}f“fh,ðŽó'ø,µ,Û,· B

**nbtstat** TCP/IP [ã,ì fAfNfefBfu,¯,æ,Ñ-ç^ —,ì NetBIOS flfbfgf [fN“ [CEv [î•ñ,ð'ñ<Ÿ,µ ALMHOS TS flfffbfVf...,ð X V,µ A“o~^— ¼,ÆfXfR [fv ID,ð•Ž!,µ,Û,· B

**netstat** ,·,x,Ä,ì fAfNfefBfu,¯,æ,Ñ-ç^ —,ì TCP/IP [Ú'± ,ì flfbfgf [fN“ [CEv [î•ñ,ð'ñ<Ÿ,µ,Û,· B

**ping** TCP/IP flfbfgf [fN“à,Á TCP/IP fŠf, [fg fVfXfef€,ª— — p,Á,«,é,© A,Û,½,í“K Ø,É<@“\,µ,Ä,ç ,é,©,ç,π,©,ðCE^è,·,é,½,ß,ì'P [ff [ffjfyf€,ð'ñ<Ÿ,µ,Û,· B

## IP `ifconfig` [feBf“fO

fRf“fsf... [f^,É Microsoft TCP/IP ,ð'g,Ÿ [ž,p,Æ,«,É-â'è,ª“ [¶,µ,½ [ê [¶,í AfGf% [ [fbfZ [fW,ìŽwŽ!,É [ ,Á,Ä,,¾,¾,ç B **ping** ft [feBfŠfefB,ðŽg,Á,Ä Af flfbfgf [fN fn [fhfEfFfA,ì-â'è,â [v—,ì CEŸŠ“«,ì-â'è,ð Ø,è•ª,¯ AfŠf, [fg fRf“fsf... [f^ ,Æ,ì• — [l,È [Ú'±,ð CEŸ [ ,·,é,±,Æ,ª,Á,«,Û,· B

fzfXfg,ìzfXfg-¼,Æ IP fAfhfCEfX,ì-¼•û,ð fefXfg,·,é,É,ì A **ping** ft [feBfŠfefB,ðŽg,ç,Û,· B

[•¶,ì [Ú'±,É,Á,ç,Ä,ì AfRf}f“fh fŠftf@fCEf“fX,ì **ping** fRf}f“fh,ðŽ Q [Æ,µ,Ä,,¾,¾,ç BHOSTS ftf@fCf<,ì [Ú'±,É,Á,ç,Ä,ì ALMHOSTS,ì [Ÿ'è,ðŽ Q [Æ,µ,Ä,,¾,¾,ç B

## ping ft [feBfŠfefB,ðŽg,Á,Ä TCP/IP ,ð fefXfg,·,é,É,í

1. fRf“fsf... [f^,ª DHCP ,ðŽg,Á,Ä [v—,¾,è,Á,ç,é [ê [¶,ì A **ipconfig** ,ðŽg,Á,Ä IP fAfhfCEfX,ð“üŽè,µ,Û,· B

2. ping , dŽg, c AfRf}f"fh fvf f"fvfg, Å ping 127.0.0.1 , i, æ, x, É"ü—Í, µ AEnter fL [ , ð %oÿ, µ, Äf< [ fvf ofbfN fAfhfCEfX, ð², x, Ü, · B

fRf"fsf... [f^ , í ; Å, É%ž"š, , é, í, , Å, · B

ping , aCE ©, Å, ©, ç, È, c [ è [ #, âfRf}f"fh, ÌŽÀ [ s, ÈŽ, "s, , é [ è [ #, Í [ AfCxf"fg frf...

[ [ fA, ðŽg, c AfZfbfgfAfbfv, Ü, ½, Í TCP/IP fT [ [ frfX, ©, ç • ñ [ [ , ³, è, Å, ç, é-â'è, ðfCxf"fg f [ fO, Å'T, µ, Ü, · B

3. IP , a³, µ, [ [ - , ³, è, Å, ç, é, ©, Ç, x, ©, ð², x, é, É, Í [ AŽ © • a, }fRf"fsf... [f^ , Ì IP fAfhfCEfX [ A, » , }fRf"fsf...

[ [ f^ , }fftfHf<fg fQ [ [ fgfEfffC [ A, " , æ, ÑfŠf, [ [ fg fzfXfg, ðŽw'è, µ, Å ping , ðŽÀ [ s, µ, Ü, · B

ping , a³ [ í, ÈŽg—p, Å, «, È, c [ è [ #, Í [ AŽÿ, Ì [ ðCE [ , a—ž, ½, ³, è, Å, ç, é, ©, Ç, x, ©, ðŠm" F, µ, Ä, , ¾, ³, c [ B



TCP/IP , Ì'g, Ý [ Ž, Ý, Æ [ [ - , ÌCEä, ÅfRf"fsf... [f^ , ð [ Ä<N" @ , µ, ½ B



f [ [ [ f]f< fRf"fsf... [f^ , Ì IP fAfhfCEfX, a—LCEØ, Å [ A [ TCP/IP , Ì [ [ - ] f\_CfAf [ fO f {fbfNfX, É [ , µ, • \

Ž, Ì, ³, è, é [ B



fftfHf<fg fQ [ [ fgfEfffC , " , æ, ÑfŠf, [ [ fg fzfXfg, Ì IP fAfhfCEfX, a³, µ, c [ B



IP f< [ [ fefBf"fo, a%oÅ" \, Å [ Af< [ [ f^ [ [ [ ŠÖ, }fŠf"fn, a" @ [ Ì%oÅ" \, Å , é [ B

• È, }fTfufjfbfg [ a, Ì Windows NT fRf"fsf... [f^ , É [ Ú'± , , é [ Ú [ Aping , Å, Í [ Ú'±, Å, «, é, a [ Aftf@fCf< f }f [ [ fWff, Ü, ½, Í net use \\server\share , Å, Í [ Ú'±, Å, «, È, c [ è [ #, Í [ AŽÿ, Ì Ž- [ € , É-â'è, a, È, ç, ©, Ç, x , © Šm" F, µ, Ä, , ¾, ³, c [ B



fRf"fsf... [f^ , Å WINS , aŽg—p%oÅ" \ (—LCEØ) , É [ Ý'è, ³, è, Å, ç, é (fjfbfgf [ [ fN, a WINS

fT [ [ fo [ [ , ðŽ [ , Å [ è [ #] [ B



WINS fT [ [ fo [ [ , }fAfhfCEfX, a³, µ, [ AWINS fT [ [ fo [ [ , a< @ " \, µ, Ä, ç, é [ B



[ , µ, çfRf"fsf... [f^ - ¼, ðŽg—p, µ, Ä, ç, é [ B



f^ [ [ fQfbfg fzfXfg, a NetBIOS , ðŽg—p, µ, Ä, ç, é [ BNetBIOS , ðŽg—p, µ, Ä, ç, È, c [ è [ #, Í [ AFTP , Ü, ½, Í Telnet , ðŽg, Å, Å [ Ú'±, µ, È, , è, í, È, è, Ü, ¹, ñ [ B, ±, Ì [ è [ # [ Af^ [ [ fQfbfg fzfXfg, Í [ AFTP fT [ [ fo [ [ ff [ [ f, " , Ü, ½, Í Telnet fT [ [ fo [ [ ff [ [ f, " , Å [ [ - , ³, è, Å, ç, È, , è, í, È, è, Ü, ¹, ñ [ B, Ü, ½ [ Af [ [ fU [ [ , Í [ A, ±, }f^ [ [ fQfbfg fzfXfg, Ó [ Ú'± , , é, ½, ß, í " K [ Ø, ÈfAfNfZfXCE , ðŽ [ , Å, Å, ç, È, , è, í, È, è, Ü, ¹, ñ [ B



f^ [ [ fQfbfg fzfXfg, Æf [ [ [ f]f< fRf"fsf... [f^ , }fXfR [ [ fV ID , a" , ¶, Å , é [ B



Ž © • a, }fVfXfef€, Æf [ [ fQfbfg fVfXfef€, Ì ŠÖ, Èf< [ [ f^ [ [ , a" ¶ [ Ý, , é [ B



fRf"fsf... [f^ - ¼, a%oðCE^ , Å, «, é, æ, x, É [ ALMHOSTS , É [ , µ, çfGf"fgfŠ, a" ü—Í, ³, è, Å, ç, é [ B

IP fAfhfCEfX, Í%ož"š, , é, a fzfXfg-¼, Í%ož"š, µ, È, c [ è [ #, Í [ A-¼' O%oðCE^ , É-â'è, a , è, Ü, · BŽÿ, É [ A-¼' O %oðCE^ , É, " , ç, Å'è"É"Í, ÉCE [ , ç, è, é-â'è" \_ , Æ, » , Í%oðCE^ [ ð, ðŽ [ , µ, Ü, · B

**HOSTS ftf@fCf<, ÉŠÖ~A, , éCEè, è**



HOSTS ftf@fCf<, Ü, ½, Í DNS , É [ A" - , }fzfXfg-¼, ð<L [ Ú, µ, Ä, ç, È, c [ B



HOSTS ftf@fCf<, Ü, ½, }fRf}f"fh"à, }fzfXfg-¼, Ì'Ó, è, ðŠÖ^á, Ì, Å, ç, é, © [ A'á • ¶ Žš, Æ [ - • ¶ Žš, Ì Žg—p, ðŠÖ^á, Ì, Å, ç, é (fzfXfg-¼, È, Í [ A'á • ¶ Žš, Æ [ - • ¶ Žš, Ì<æ • È, a , è, Ü, ·) [ B



HOSTS ftf@fCf<"à, }fzfXfg-¼, É [ A-³CEØ, È IP fAfhfCEfX, ð"ü—Í, µ, Ä, ç, é [ B



HOSTS ftf@fCf< , | • ; [ " , Ì [ s, É [ A" ^ è fzfXfg, }fGf"fgfŠ, ð<L "ü, µ, Ä, ç, é [ B



fRf"fsf... [f^ - ¼, Æ IP fAfhfCEfX, }f}fbfbsf"fo, ð [ AŠÖ^á, Ì, Å (LMHOSTS , Å, Í, È, ) HOSTS ftf@fCf<, É'Ç %oÅ, µ, Ä, ç, é [ B

**LMHOSTS ftf@fCf<, ÉŠÖ~A, , éCEè, è**



LMHOSTS ftf@fCf<, É [ AfŠf, [ [ fg fT [ [ fo [ [ , }fGf"fgfŠ, ð<L [ Ú, µ, Ä, ç, È, c [ B



LMHOSTS ftj@fCf<"à,lfRf"fsf...[f^-¼,ì'Ô,è,đŠÔ^á,!,Ä,ç,é (LMHOSTS -¼,í'â•¶Žš,É•řč,³,ê,é,±  
 ,Æ,É'□^Ó,μ,Ä,,¾,³,φ)□B



LMHOSTS ftj@fCf<"à,lfRf"fsf...[f^-¼,ì IP fAfhfCEfX,ª-³CEø,Å, ,é□B

## ft [fefBfŠfefB,žg,æ

Ú ± ä, ì-à-è " \_ , ðCE © , Á , ¯ , % ðCE ^ , , é , é , í , Aping , É % Á , í , Ä , Anetstat , , æ , Ñ nbtstat , É , Ç , í , ft [fefBfŠfefB,žg,æ,±,Æ,ª,Ä,«,Ü,·B,±,±,Ä,ì-á,íA,·,×,Ä,ì-à-è,ð-Ö-... , , é , à , ì , Ä , í , , è , Ü , ð , ñ , Af fbf g f [fN ä, ì-à-è " \_ , ð " È , « Ž ~ , ß , é , ½ , ß , É A , ± , é , ç , í ft [fefBfŠfefB,ð,Ç,ì,æ,æ,ÉŽg,æ,©,ðŽ,í,µ,Ä,ç,Ü,·B

## ft [fo [ , Ö , ì Ú ± Žž , É Error 53 ,ª" [ , , , é ê ± , í

1. Error 53 , í A " Á ' è , ì Rf " fsf ... [f ^ -¼ , ì -¼ ' O % ðCE ^ ,ªŽ , " s , µ , ½ ê ± , É • Ö ,ª , è , é f Gf % [ f [ fbfz [fW, Ä , · BfRf " fsf ... [f ^ ,ª [f [fj f fuf lfbfg ä , É ^ È ' u , , , é ê ± , í Af ^ [fQfbfg fRf " fsf ... [f ^ -¼ , ì ' Ö , è ,ª [ , µ , Af [fQfbfg fRf " fsf ... [f ^ ,ª TCP/IP , ð Ž Ä s , µ , Ä , ç , é , ± , Æ , ð Š m " F , µ , Ü , · BfRf " fsf ... [f ^ ,ª [f [fj f fuf lfbfg ä , É ^ È ' u , µ , È , ç ê ± , í AfRf " fsf ... [f ^ -¼ , Æ IP fAfhfCEfX, ìf } fbf sf " fO ,ª LMHOSTS ftf@fCf<, Ü, ½, í WINS f [f ^ fX [fX, Ä - - p, Ä, «, é, ±, Æ, ð Š m " F, µ, Ü, · B
2. TCP/IP [ \ - - v ' f ,ª , , × , Ä [ , µ , ' g , Ý ç , Ü , è , Ä , ç , é , Æ Ž v , í , è , é ê ± , í AfŠf , [fg fRf " fsf ... [f ^ , Ä ping , ð Ž g , Ä , Ä TCP/IP f ftf g f E f f A ,ª " @ [ , µ , Ä , ç , é , ± , Æ , ð Š m " F, µ , Ü , · B

## LMHOSTS 'Ç % Á CE ä , É Ú ± Žž Š Ö ,ª" , , È , Ä , ½ ê ± , í



± , ì-à-è , í Af tf @ fCf < , í , í , è , É f Gf " fgf Š ,ª , , é ä , « , ç LMHOSTS ftf@fCf<, Ä < N , ± , é % Á " [ < ,ª , , è , Ü , · Bf } fbf sf " fO , í CE ä , è , É #PRE f ^ fO , ð • t , ¯ , Ä ALMHOSTS , ì f Gf " fgf Š , ð , , ç , © , [ , ß f [f h , , é f Gf " fgf Š , Æ , µ , Ä f } [fN , µ , Ü , · B Ž Ý , É Anbtstat -R fRf } f " fh , ð Ž g , Ä , Ä f [fj f < -¼ f l f f f b f v f ... , ð , , , @ , É X [ V , µ , Ü , · B , Ü , ½ , í Af } fbf sf " fO , ð LMHOSTS ftf@fCf<, ì ' O , ì • ù , É ^ Ú " @ , µ , Ü , · B LMHOSTS ftf@fCf<, í [ Ž Ý % ð í ,ª , è A #PRE fL [f [f [f h , ì , è , ç f Gf " fgf Š ,ª ^ È ' u • t , ¯ , ç , è , Ü , · B , µ , ½ ,ª , Ä , Ä A • p " É , É Ž g , í , è , é f Gf " fgf Š , í Af tf @ fCf < , ì ' O , ì • ù , É < L [ Ü , µ [ A , » , ì #PRE fGf " fgf Š , ð f tf @ fCf < , í , è , ì • ù , É < L [ Ü , µ , Ä , , , æ , æ , É , µ , Ü , · B

## ft [fo [ -¼ Žw ' è Žž , É Ú ± , ì-à-è ,ª" [ , , , é ê ± , í



nbtstat -n fRf } f " fh , ð Ž g , Ä , Ä A , » , í ft [fo [ ,ª f lfbfg f [fN , É " o ~ ^ , µ , Ä , ç , é -¼ ' O , ð Š m " F , µ , Ü , · B , ± , ì fRf } f " fh , í o - í , É , í A , ± , ì fRf " fsf ... [f ^ ,ª " o ~ ^ , µ , Ä , ç , é -¼ ' O ,ª , ç , , Ä , © ^ è - - ,ª , è , Ä , ç , Ü , · B , ± , ì ' t , É A , ± , ì fRf " fsf ... [f ^ , ì -¼ ' O , É Ž - , Ä , ç , é -¼ ' O ,ª " [ Ý , , é , í , , Ä , · B " [ Ý , µ , È , ç ê ± , í Anbtstat , Ä \ Ž , ð ,ª , è , ½ ^ è ' Ö , ì -¼ ' O , ì ' t , ì 1 , Ä , ð Ž Ž , µ , Ä , Ý , Ü , · B nbtstat ft [fefBfŠfefB,žg,æ,Ä,AfLfffbfvf... É " ü , è , ç , è , ½ f Šf , [fg fRf " fsf ... [f ^ , É ' í , , é f Gf " fgf Š , ð \ Ž , ð , , é , ± , Æ , à , Ä , « , Ü , · B fLfffbfvf... É " ü , è , ç , è , Ä , ç , é , ì , í ALMHOSTS " à , ì #PRE fGf " fgf Š , © [ A Ä < ß % ðCE ^ ,ª , è , ½ -¼ ' O , Ä , · B • í [ , ì Šf , [fg fRf " fsf ... [f ^ ,ª , » , í ft [fo [ , É ' í , µ , Ä Ž g - p , µ , Ä , ç , é -¼ ' O ,ª " ^ è , Ä , , è AfŠf , [fg fRf " fsf ... [f ^ ,ª , , é ê ± , í A , » , è , ç , ì fRf " fsf ... [f ^ , ì LMHOSTS ftf@fCf< " à , ì fRf " fsf ... [f ^ , ìf } fbf sf " fO ,ª " , [ , à , ì , Ä , , é , ± , Æ , ð Š m " F , µ , Ä , ,ª , ç , ç [ B

## ^ Žž í fVxfefE, Ö , ì Ú ± , É AIP fAfhfCEfX, ¾ , ¯ ,ª @ " \ , µ AfzfXfg -¼ ,ª @ " \ , µ , È , ç ê ± , í

1. fRf " fgf [f < f p f l f < , ì [f lfbfg f [fN] , ð Ž g , ç [A [TCP/IP , ì [ - ] f , fCf Af [fO f {f b f N f X , Ä [A [DNS] f {f ^ f " , ð f N f Š f b f N , µ , Ü , · B f z f X f g -¼ % ðCE ^ , ì [ - , ð '² , × AfRf " fsf ... [f ^ , É ' í , µ , Ä " K [ Ø , È HOSTS ftf@fCf<, Æ DNS [Ý ' è ,ª [ - ,ª , è , Ä , ç , é , ± , Æ , ð Š m " F, µ, Ü, · B
2. HOSTS ftf@fCf<, ð Ž g , Ä , Ä , ç , é ê ± , í AHOSTS ftf@fCf<, Æ , » , è , ð Ž g - p , µ , Ä , ç , é f AfvfŠfP [fVf# " , Ä AfŠf , [fg fRf " fsf ... [f ^ -¼ , ì ' Ö , è , , æ , Ñ ' ä • [ Žž , Æ [ - • [ Žž ,ª " , [ , É , È , Ä , Ä , ç , é , ± , Æ , ð Š m " F, µ, Ü, · B
3. DNS , ð Ž g , Ä , Ä , ç , é ê ± , í ADNS ft [fo [ , ì IP fAfhfCEfX,ª [ , µ , Ä " K [ Ø , È [ # ~ , É , È , Ä , Ä , ç , é , ± , Æ , ð Š m " F, µ, Ü, · BfŠf , [fg fRf " fsf ... [f ^ , Ä Aping , É f z f X f g -¼ , Æ IP fAfhfCEfX, ì -¼ • ù , ð Ž w ' è , µ , Ä " ü - í , µ , Ä AfzfXfg -¼ ,ª [ , µ , % ðCE ^ ,ª , è , é , © , ç , x , © , ð Š m " F, µ, Ü, · B

## fŠf , [fg fRf " fsf ... [f ^ , Ö , ì TCP/IP Ú ± ,ª [ , µ , " @ [ , µ , È , ç ê ± , í



netstat -a fRf } f " fh , ð Ž g , Ä , Ä Af [fj f fRf " fsf ... [f ^ ä , ì TCP f [fg , Æ UDP f [

□[fg,ì,·,x,Ä,ìŠ“^@□ó<μ,δ•Ž!,μ,Ü,·□B  
□³,μ,¢ TCP □U±,ì□ó'Ò,ì□A'É□í□A'—□M'Ò,ì□s—ñ,ÆŽó□M'Ò,ì□s—ñ“à,ª 0 fofCfg,ì□ó'Ò,ÄŠm—  
š,ª,è,Ü,·□B,Ç,ì,ç,©,ì'Ò,ì□s—ñ“à,Äff□[f^,ªfuf□fbfN,ª,è,Ä,¢,é,©□A□ó'Ò,ª•s<K'¥,É□é□±,ì□A□U±,É—à'è,ª, ,é  
%oÄ“□«ª, ,è,Ü,·□B,±,è,ç,ª“—,Ä,ì,Ü,ç,É, ,è,ì□Aflfbfgf□□[fN'x%o,,,©fAfvfšP□[fVf#“x%o,,,ì%oÄ“□«ª, ,è,Ü,·□B

### FTP fT□[fo□[ fT□[frfX,ª□³,μ,‘g,Ý□ž,Ü,è,Ä,¢,é,©,Ç,¤,©Šm”F,·,é,É,Í



f□□[fjf< fRf“fsf...□[f^□ä,Ä□Afrf}f“fh f%ofCf“,Ä ftp ,É IP f<□[fvf□fbfN fAfhfCefX,ðžw'è,μ,Ä“ü—  
í,μ,Ü,·□B,±,è,ð□s,¤,É,ì□Aftp 127.0.0.1 ,Æ“ü—í,μ□AEnter fL□[,ð%Ý,μ,Ü,·□B  
fT□[fo□[,Æ,ìf□□[fjf<,É□s,ª'í~b□^—□,ì□A,Ü,©,ì Windows NT fNf%ofCfA“fg (, ,æ,Ñ“á”¼,ì UNIX fNf  
%ofCfA“fg) ,Æ□s,ª'í~b□^—□,Æ“~è,Ä,·□B,±  
,ìft□[fefBšFefB,ì□AfffBšFefNfgš□A“fNfzFXCE □A,»,ì,Ü,©,ª□AFTP fT□[fo□[ fT□[frfX,É'í,μ,Ä“K□Ø,É□  
□-,ª,è,Ä,¢,é,©,Ç,¤,©,ðŠm”F,·,é,½,š,Éžg,¤,±,Æ,à,Ä,«„Ü,·□B

### □³,μ,¢ IP fAfhfCefX,ðžw'è,μ,Ä,à□ATelnet ,Ä,Ü,©,ìfRf“fsf...□[f^,ªfofi□[•¶žš,Ä•Ž!,ª,è,é□é□±,Í

1. DNS -¼, ,æ,ÑfzfXfg fe□[fuf<,ª□A□V,ì,à,ì,É□X□V,ª,è,Ä,¢,é,±,Æ,ðŠm”F,μ,Ü,·□B
2. “,¶flfbfgf□□[fN□ä,ì 2 ,Ä,ìfRf“fsf...□[f^,É□AŠÓ^á,ì,Ä“~,¶ IP fAfhfCefX,ðš,,,è“—,Ä,Ä,¢,È,ç,©,Ç,¤, ,©,ðŠm”F,μ,Ü,·□B

f□□[fTfjfbfg,Æ IP fAfhfCefX,ìf}fbfsf“fo,ì□AARP (Address Resolution Protocol; fAfhfCefX  
%oðCE^fvf□fgfRf<) f,fwf...□[f<,ªžÄ□s,μ□AARP ,ì□A□A□%o,Éžó□M, ,é%ož“š,ð□M—  
p,μ,Ü,·□B,»è,Ä□A<U,ìfRf“fsf...□[f^,ì%ož“š,ª□A—U“ì,ìfRf“fsf...□[f^,ì%ož“š,æ,è,à□,•Ö,Ä,Ä,é,±,Æ,ª, ,è  
,Ü,·□B

,±,ìž!,ì—à'è,ì□Ø,è•ª, ,à'ç□Ø,ì□c“i,Ä,·□Barp -g fRf}f“fh,ðžg,Ä,Ä□AARP fLfffbfvf...“à,ìf}fbfsf“fo,ð•\  
Ž!,μ,Ü,·□B—U“ì,ìšš,□[fg fRf“fsf...□[f^,ìfC□[fTfjfbfg fAfhfCefX,ð'm,Ä,Ä,¢,é□é□±,ì□A,±,è,ç 2 ,Ä,ì  
%ož“š,ª“~,¶,©,Ç,¤,©ŠE'P,ÉŠm”F,Ä,«„Ü,·□BfC□[fTfjfbfg fAfhfCefX,ª•ª,©,ç,È,ç□é□±,ì□Aarp -d ,ðžg—  
p,μ,ÄfGf“fgfš,ð□í□œ,μ,Ü,·□Bžž,É□Aping ,É“~,¶fAfhfCefX,ðžw'è,μ (ARP ,ð<□š, ,é)□Aarp -g  
,ðžg,Ä,ÄfLfffbfvf...“à,ìfC□[fTfjfbfg fAfhfCefX,ð,à,ª^è“x'², x,Ü,·□B

—¼•ù,ìfRf“fsf...□[f^,ª“~,¶flfbfgf□□[fN□ä,É'¶□Ý,μ,Ä,¢,é□é□±,ì□A<<Ç□A^Ü,È,é%ož“š,ðžó,~žæ,é  
%oÄ“□«ª, ,è,Ü,·□B—¼•ù,ìfRf“fsf...□[f^,ª“~,¶flfbfgf□□[fN□ä,É'¶□Ý,μ,Ä,¢  
,È,ç□é□±,ì□A<UfzfXfg,©,ç,ìfgf%ofTfBfbfN,ÉftfBf<f^,ð,©, , ,Ä□AfvfXfef€,ì□š—  
LžÖ,Ü,½,ì^É'u,ð“È,«ž~ ,š,é•K—v,ª, ,è,Ü,·□B

### fZfbfgfAfbfv't,É□gffftfHf<fg fQ□[fgfEfFfC,ª□Ý'è,μ,½fCf“f^□[ftfFfCfX,ì,¢ , ,è,É,à'©,μ,Ü,¹,ñ□B□h,Æ,¢,¤f□fbfZ□[fW,ª•\Ž!,ª,è,é□é□±,Í



ffftfHf<fg fQ□[fgfEfFfC,ì IP fAfhfCefX,ìfjfbfgf□□[fN ID •”ª,Æ□Afrf“fsf...□[f^,ì“C^Ó,ìfjfbfgf□□[fN  
fAf\_fvf^,ìfjfbfgf□□[fN ID ,ð“ä, x, Ä□AfffftHf<fg fQ□[fgfEfFfC,ÆfRf“fsf...□[f^,ìfjfbfgf□□[fN fAf\_fvf^,ª“~,¶—  
□fjfbfgf□□[fN□ä,É^É'u,μ,Ä,¢,é,©,Ç,¤,©,ðŠm”F,μ,Ü,·□B  
,½,Æ,ì,ì□Afrf“fsf...□[f^,Éfjfbfgf□□[fN fAf\_fvf^,ª 1 ,Ä'•...ª,è,Ä, ,è□A,±,ìfAf\_fvf^,ì IP fAfhfCefX,ª  
102.54.0.1□Aftfufjfbfg f}fXfN,ª 255.255.0.0 ,É□\□-,ª,è,Ä,¢,é□é□±,ì□AIP fCf“f^□[ftfFfCfX,ìfjfbfgf□□[fN ID  
•”ª,ª 102.54 ,É,ì,Ä□AfffftHf<fg fQ□[fgfEfFfC,ì 102.54.a.b ,ìCE žž,É,É,é•K—v,ª, ,è,Ü,·□B□U□x,É,Ä,¢  
,Ä,ì□AIP fAfhfCefXžw'è,ðžQ□Æ,μ,Ä,,¾,ª,ç□B

### TCP/IP ff□[f^fx□[fx ftf@fCf<,ìfgf%ofuf<fvf...□[fefBf“fo

žž,ì UNIX fXf^fCf<,ìff□[f^fx□[fx ftf@fCf<,ì□AMicrosoft TCP/IP ,ð'g,Ý□ž,p,Æ,«□A\systemroot\SYSTEM32\  
DRIVERS\ETC ,Éšì“[,ª,è,Ü,·□B

### HOSTS

Windows Sockets fAfvfšP□[fVf#“ ,ì,½,š,É□AfvfXfg-¼,©,ç IP fAfhfCefX,Ö,ì%oðCE^ ,ð'ñ<Ý,μ,Ü,·□B

### LMHOSTS



Windows f1fbfgf[][]fN, ð, ½, ß, É[]ANetBIOS -¼, ©, ç IP fAfhfÇfX, Ö, ð%øðCE^, ð'ñ<ÿ, µ, Ü, ·[]B

**NETWORKS**

TCP/IP , ðŠÇ—[], ð, ½, ß, É[]Af1fbfgf[][]fN-¼, ©, çf1fbfgf[][]fN ID , Ö, ð%øðCE^, ð'ñ<ÿ, µ, Ü, ·[]B

**PROTOCOLS**

Windows Sockets fAfvfŠfP[][]fVf#f", ð, ½, ß, É[]Afvf[]fgfRf<-¼, ©, çfvf[]fgfRf< ID , Ö, ð%øðCE^, ð'ñ<ÿ, µ, Ü, ·[]B

**SERVICES**

Windows Sockets fAfvfŠfP[][]fVf#f", ð, ½, ß, É[]AfT[][]fX-¼, ©, çf[][]fg ID , Ö, ð%øðCE^, ð'ñ<ÿ, µ, Ü, ·[]B

f[][]fjfk fRf"fsf...[]f^[]ã, ð, ±, ê, ç, ðftf@fCf<, ðfgf%øfuf<, É'í%øž, ·, é, É, í[]AZÿ, ð[]€-Ú, ðŠm" F, µ, Ü, ·[]B



Šeftf@fCf<"à, ðfGf"fgfŠ, ðCE`Ž®, æ[]AMicrosoft TCP/IP , Æ, ç, Á, µ, å, É'g, Ÿ[]ž, Ü, ê, ½f1fŠfWfjfk fTf"fvf< ftf@fCf<, ðCE`Ž®, Æ"- , ¶, ©, Ç, æ, ©, ðŠm" F, µ, Ü, ·[]B



'Ö, è, Ü, ½, í'å•¶žš[]-•¶žš, ð<æ•É, æ[]³, µ, ç, ©'², x, Ü, ·[]B



-³CEø, È IP fAfhfÇfX, ", æ, ÑŽ- •Éžq, æžg, í, ê, Ä, ç, È, ç, ©'², x, Ü, ·[]B

## Windows NT ,ì MIB flfufWfFfNfg

LAN Manager MIB II for Windows NT ,É,íAWindows NT ,ðŽÀs, ,éRf“fsf...[]f^ ,ðfTf}  
[]fg, ,é,½,ß,É“Á•É,ÉYCEv,³,é,½flfufWfFfNfg,ìW[]+“ì,³ŠÜ,Ü,é,Ä,ç,Ü,·B,±,±,Ä,íAMIB ,ìflfufWfFfNfg,ì^è  
—,ðŽì,μAŠÈ‘P,Èà-¾,ð%Á,ì,Ä,ç,Ü,·BflfyfCE[]fefBf“fO fVfXfef€,ì^á,ç,É,æ,èALAN Manager MIB II  
for Windows NT ,ìflfufWfFfNfg,íALAN Manager MIB II for OS/2 ,ìflfufWfFfNfg,É“ä,x,Ä[]”,³,È,ç,±  
,Æ,É^‘Ó,μ,Ä,,¾,³,çB,±,é,ç,ìflfufWfFfNfg,ì,·,x,ÄAWindows NT Workstation , ,æ,Ñ Windows NT Server  
,É“K—p,³,é,Ü,·B

DHCP , ,æ,Ñ WINS fT[]fo[]l,ì MIB flfufWfFfNfg,à’ñ<ÿ,³,é,Ü,·B

Žÿ,ì,æ,x,È MIB flfufWfFfNfg,É,Ä,ç,Äà-¾,μ,Ü,·B



<æ’ÉfOf<[]fv



fT[]fo[]l fOf<[]fv



f[][]fNfXfef[]fVf#f“ fOf<[]fv



fhf[]Cf“ fOf<[]fv



DHCP flfufWfFfNfg



WINS flfufWfFfNfg

,±,±,Ä,ìà-¾,íA“ÇŽÖ,³flfbfgf[][]fNŠÇ—[]ATCP/IPA, ,æ,Ñ SNMP ,ð—[]%ð,μ,Ä,ç,é,±,ÆA, ,æ,Ñ MIB  
(Management Information Base; ŠÇ—[]î•ñfx[]fX) ,É[] ,’É,μ,Ä,ç,é,±,Æ,ð’O’ñ,Æ,μ,Ä,ç,Ü,·BTCPIP ,Ü,½,í  
Internet MIB II ,ÉŠÖ, ,é’mŽ~ ,³[]\•³,Ä,È,ç,ÆŽv,í,é,éèè# ,íA[]wInternetworking with TCP/IP[]x(Douglas E.  
Comer, Prentice Hall, 1991)[]A[]wThe Simple Book[]x(Marshall T. Rose, Prentice Hall, 1991)  
,É,Ç,ðŽQ[]Æ,μ,Ä,,¾,³,çB

<#’ÉfOf<[]fv

**comVersionMaj {common 1}**

Windows NT f\ftfgfEjFfA,ìžáfšš[]fX fo[]fWf#f””Ô+[]B

**comVersionMin {common 2}**

Windows NT f\ftfgfEjFfA,ìf}fCfi fšš[]fX fo[]fWf#f””Ô+[]B

**comType {common 3}**

,±,ìfvXfjef€,ÁžÀ[]s’t,ì Windows NT f\ftfgfEjFfA,ìží—þ[]B

**comStatStart {common 4}**

1970 "N 1 CEŽ 1 "ú 00:00:01 AM ,©,ç[]A,±,ìfm[]fh[]ă,ì Windows NT  
"[]CEv[]î•ñ,ª[]ÁCEă,É[]Á<ž,³,ê,½žž“\_Ü,Á,ìCEo%oßžžššÔ (•b’P^É)[]BcomStatStart  
f\fuWfFfNfg,í[]AZÿ,ì"[]CEv[]î•ñf\fuWfFfNfg,É“K—p,³,ê,Ü,·[]B

<b>comStatNumNetIOs</b>	<b>svStatErrorOuts</b>	<b>wkstaStatSessStarts</b>
<b>comStatFiNetIOs</b>	<b>svStatPwErrors</b>	<b>wkstaStatSessFails</b>
<b>comStatFcNetIOs</b>	<b>svStatPermErrors</b>	<b>wkstaStatUses</b>
<b>svStatOpens</b>	<b>svStatSysErrors</b>	<b>wkstaStatUseFails</b>
<b>svStatDevOpens</b>	<b>svStatSentBytes</b>	<b>wkstaStatAutoRecs</b>
<b>svStatJobsQueued</b>	<b>svStatRcvdBytes</b>	
<b>svStatSOpens</b>	<b>svStatAvResponse</b>	

**comStatNumNetIOs {common 5}**

,±,ìfm[]fh[]ă,Á"[]¶,μ,½f\fbfgf[][]fN I/O ‘€[]i,ì[]”[]B

**comStatFiNetIOs {common 6}**

,±,ìfm[]fh[]ă,Á"[]s,Éž,“s,μ,½f\fbfgf[][]fN I/O ‘€[]i,ì[]”[]B

**comStatFcNetIOs {common 7}**

,±,ìfm[]fh[]ă,Áš@—¹,Éž,“s,μ,½f\fbfgf[][]fN I/O ‘€[]i,ì[]”[]B

,Ü,©,ì"[]CEv[]î•ñf\fuWfFfNfg,É,Á,ç,Ä,í[]A,»,ê,ç,ª[]š‘@,·,éfOf<[]fv,Á[]à-¾,μ,Ü,·[]B

**fT[fO[fJ**

**svDescription {server 1}**

fT[fO[f[.É.Â.ç.Ä.Lq.µ.½fRf“fgB

**svSvcNumber {server 2}**

fT[fO[f[.É'g.Ýž.Ü.ê.Ä.ç.élfbfqf[fN fT[frfX.ì”B

**svSvcTable {server 3}**

fT[fO[f[.É'g.Ýž.Ü.ê.Ä.ç.élfbfqf[fN fT[frfX.É.Â.ç.Ä.Lq.µ.½fT[frfX fGf“fgfŠ.ì^ê—B

**svSvcEntry {svSvcTable 1}**

fT[fO[f[.É'g.Ýž.Ü.ê.Ä.ç.élfbfqf[fN fT[frfX.ì-¼'O B

**svSvcName {svSvcEntry 1}**

Windows NT flbfqf[fN fT[frfX.ì-¼'O B

**svSvcInstalledState {svSvcEntry 2}**

flbfqf[fN.ì'g.Ýž.Ýó'Ô B

**svSvcOperatingState {svSvcEntry 3}**

flbfqf[fN fT[frfX.ì“@ìó'Ô B

**svSvcCanBeUninstalled {svSvcEntry 4}**

.±.lfGf“fgfŠ.Ăžw'è.µ.½flbfqf[fN fT[frfX.ðíœ.Ă.«.é.©.Ç.κ.©.ðŽ.µ.Ü.· B

**svSvcCanBePaused {svSvcEntry 5}**

.±.lfGf“fgfŠ.Ăžw'è.µ.½flbfqf[fN fT[frfX.ð^êžž'âž~.Ă.«.é.©.Ç.κ.©.ðŽ.µ.Ü.· B

**svStatsOpen {server 4}**

fT[fO[f[ä.ĂŠ.©.é.½ftf@fCf<.ì”B

**svStatDevOpens {server 5}**

fT[fO[f[ä.ĂŠ.©.é.½'ÊMffofCfX.ì”B

**svStatQueuedJobs {server 6}**

fT[fO[f[ä.ĂfXfv[f<.³.é.½^óüfWf#fu.ì”B

**svStatSOpens {server 7}**

fT[fO[f[ä.ĂN“@.³.é.½fZfbfVf#f“.ì”B

**svStatErrorOuts {server 8}**

fT[fO[f[ä.ĂfGf%o[f.³”f.µ.½.½.B.ÉØ'f.³.é.½fZfbfVf#f“.ì”B

**svStatPwErrors {server 9}**

fT[fO[f[ä.Ă”f.µ.½fpfXf[fh^á”½.ì”B

**svStatPermErrors {server 10}**

fT[]fo[][]ã,Å"[]¶,μ,½fAfNfZfXCE ^á"½,ì[]"[]B

**svStatSysErrors {server 11}**

fT[]fo[][]ã,Å"[]¶,μ,½fVfXfef€ fGf%[][],ì[]"[]B

**svStatSentBytes {server 12}**

fT[]fo[][],á'—[]M,μ,½fofCf[]"[]B

**svStatRcvdBytes {server 13}**

fT[]fo[][],žó[]M,μ,½fofCf[]"[]B

**svStatAvResponse {server 14}**

fT[]fo[][],áf[][]fNfXfe[]fVf[]",ì I/O —v<[],ð^—[],.é,½,β,É—v,μ,½ŽžŠŎ,ì•½<İ'ı (f~fŠ•b'P^Ê)  
(,½,Æ,ı,ı[]ANCB ,áfT[]fo[][],É"ž'...,μ,½•½<İžžŠŎ)[]B

**svSecurityMode {server 15}**

fT[]fo[][]ã,ŽÅ[]s't,ıfZfıf...fŠfefB,ıží—b[]B

**svUsers {server 16}**

fT[]fo[][],á"~žž,ÉfTfı[]f[]g,Å,«,éf[]fU[][],ì[]"[]B

**svStatReqBufsNeeded {server 17}**

fT[]fo[][],á'Ç%[]Áfofbftf@,ð—v<[],μ,½%[]ň[]"[]B

**svStatBigBufsNeeded {server 18}**

fNf%[]fCfAf[]fg—v<[],ì^—[]'t,É[]AfT[]fo[][],á'âCE^fofbftf@,ð•K—v,Æ,μ,½,áŠ,,è"—,Ä,ç,ê,Ê,©,Á,½%[]ň[]"[]B

**svSessionNumber {server 19}**

fT[]fo[][]ã,ıfZfbfVf[]",ì[]"[]B

**svSessionTable {server 20}**

fNf%[]fCfAf[]fg,áfT[]fo[][],Æ,ıŠŎ,ÅCE»[]ÝžÅ[]s't,ıfZfbfVf[]",É'ı%ž,ı,éfZfbfVf[]" fGf"fgfŠ,ı^è—[]B

**svSessionEntry {svSessionTable 1}**

fT[]fo[][]ã,ÅCE»[]ÝŠm—š,³,è,Ä,ç,éfZfbfVf[]"[]B

**svSesClientName {svSessionEntry 1}**

fZfbfVf[]",ðŠm—š,μ,½fŠf,[]f[]g fRf"fsf...[]f^,ı-¼'O[]B

**svSesUserName {svSessionEntry 2}**

CE»[]Ý,ıfZfbfVf[]",ÅfAfNfefBfu,ÉfT[]fo[][]ž'CE¹,Ŏ,ì[]Ú'±[]"[]B

**svSesNumConns {svSessionEntry 3}**

CE»[]Ý,ıfZfbfVf[]",ÅfAfNfefBfu,ÉfT[]fo[][]ž'CE¹,Ŏ,ì[]Ú'±[]"[]B

**svSesNumOpens {svSessionEntry 4}**

CE»[]Ý,ıfZfbfVf[]",ÅŠ,©,è,Ä,ç,éf[]f@fCf<[]AfffofCfX[]A,ı,æ,Ñf[]pfCfv,ì[]"[]B

**svSesTime {svSessionEntry 5}**

CE»[]Ý,ıfZfbfVf[]",áŠžn,³,è,Ä,©,ç,ìCEo%[]ßžžŠŎ (•b'P^Ê)[]B

**svSesIdleTime {svSessionEntry 6}**

fZfbfVf#f" ,lfAfCfhf<ŽžŠÖ (•b'P^Ê)□B

**svClientType {svSessionEntry 7}**

fZfbfVf#f" ,đŠm—š,μ,½fNf%oofCfAf"fg,ìŽí—b□B

**svSesState {svSessionEntry 8}**

Ĉ»□Ý,ìfZfbfVf#f" ,ì□ó'Ô (netSessionDel ,đŽg,Á,ĀfAfNfefBfu,ĚfZfbfVf#f" ,ì□ó'Ô,đ deleted ,É□Ý'è,·,é,ĀfAfNf%oofCfAf"fg fZfbfVf#f" ,āí□œ,³,ê,Û,·□BfZfbfVf#f" ,ì□ó'Ô,đ active ,É□Ý'è,·,é,± ,Ā,Í,Ā,«,Û,¹,ñ)□B

**svAutoDisconnects {server 21}**

fAfNfefBfu,Ā,í,È,ç,½,βfT□[fo□[ ,āŽ©“®“l,É□Ø'f,μ,½fZfbfVf#f" ,ì□"□B

**svDisConTime {server 22}**

fAfCfhf< fZfbfVf#f" ,đ□Ø'f,·,é'Ö,ĚfT□[fo□[ ,ā'Ö<@,·,é•b□"□B

**svAuditLogSize {server 23}**

fT□[fo□[ ,ìŠĀ□, f□fO,ì□Ā'āfTfCfY (KB 'P^Ê)□B

**svUserNumber {server 24}**

fT□[fo□[□ā,ĚfAfjfEf"fg,đŽ□,Ā,Ā,ç,éft□[fU□[ ,ì□"□B

**svUserTable {server 25}**

fT□[fo□[□ā,lfAfNfefBfu,Ěft□[fU□[ fAfjfEf"fg,ìfe□[fuf<□B

**svUserEntry {svUserTable 1}**

fT□[fo□[□ā,ìft□[fU□[ fAfjfEf"fg□B

**svUserName {svUserEntry 1}**

ft□[fU□[ fAfjfEf"fg,ì-¼'O□B

**svShareNumber {server 26}**

fT□[fo□[□ā,ì<α—LŽ'Ĉ¹,ì□"□B

**svShareTable {server 27}**

fT□[fo□[□ā,ì<α—LŽ'Ĉ¹,ìfe□[fuf<□B

**svShareEntry {svShareTable 1}**

fT□[fo□[□ā,ì'P^è<α—LŽ'Ĉ¹,É'Í%ž,·,éfe□[fuf<□B

**svShareName {svShareEntry 1}**

<α—LŽ'Ĉ¹,ì-¼'O□B

**svSharePath {svShareEntry 2}**

<α—LŽ'Ĉ¹,ìf□[fjf<-¼□B

**svShareComment {svShareEntry 3}**

<α—LŽ'Ĉ¹,ĚŠÖ~A•t,·,ç,ê,½fRf□f"fg□B

**svPrintQNumber {server 28}**

fT[]fo[]ä,lfvfŠf“f^‘Ò,ž[]s—ñ,ì”[]B

**svPrintQTable {server 29}**

fT[]fo[]ä,lfvfŠf“f^‘Ò,ž[]s—ñ,lf[]fuf<[]B

**svPrintQEntry {svPrintQTable 1}**

fT[]fo[]ä,ì‘P^è,lfvfŠf“f^‘Ò,ž[]s—ñ,É‘í%ž,·,éfe[]fuf< fGf“fgfŠ[]B

**svPrintQName {svPrintQEntry 1}**

fvfŠf“f^‘Ò,ž[]s—ñ,ì-¼‘O[]B

**svPrintQNumJobs {svPrintQEntry 2}**

CE»[]ÝfvfŠf“f^,É“ü,Á,Ä,č,éfWf#fu,ì”[]B

f00[fNfXfe[fVf#f" fOf<[fv

**wkstaStatSessStarts {workstation 1}**

f00[fNfXfe[fVf#f",aŠjŽn,μ,½fZfbfVf#f",ì"0B

**wkstaStatSessFails {workstation 2}**

f00[fNfXfe[fVf#f",aŠ,"s,μ,½fZfbfVf#f",ì"0B

**wkstaStatUses {workstation 3}**

f00[fNfXfe[fVf#f",aŠjŽn,μ,½Ú'±,ì"0B

**wkstaStatUseFails {workstation 4}**

f00[fNfXfe[fVf#f",aŠ,"s,μ,½Ú'±,ì"0B

**wkstaStatAutoRecs {workstation 5}**

%0đ0œ,³,ê0A,»,ìĀěŽ©"®"l,É0ĂŠm—š,³,ê,½fZfbfVf#f",ì"0B

**wkstaErrorLogSize {workstation 6}**

f00[fNfXfe[fVf#f" fGf%0[f0fO,ì0Ă'âfTfCfY (KB 'P^Ê)0B

**wkstaUseNumber {workstation 7}**

,±,ìfufWfFfNfg,í0A,Â,Ë,É 0 ,ì'l,đ•Ô,μ,Ü,·0B



fhfCf" fOf<[fv

domPrimaryDomain {domain 1}

fRf"fsf...[f^,@,·,évf%ofCf}fŠ fhfCf",ì-¼'O□B

## DHCP fIfufWfFfNfg

Šé<Æ,ÍARFC 1155-SMI ,É'è<` ,³,è,Ä,ç,Ü,·BfIfufWfFfNfg f^fCfv,ÍARFC 1212 ,É'è<` ,³,è,Ä,ç,Ü,·B·\  
Ž!•¶Žš—ň,ÍARFC 1213 ,É'è<` ,³,è,Ä,ç,Ü,·B

## DHCP MIB fpf%of[f^

### ParDhcpStartTime {DhcpPar 1}

DHCP fT[fof[<N"®ŽžŠÔB

### ParDhcpTotalNoOfDiscovers {DhcpPar 2}

ŽóM,μ,½"CE©f[fbfZ[fW,ì"B

### ParDhcpTotalNoOfRequests {DhcpPar 3}

ŽóM,μ,½—v<[ ,ì"B

### ParDhcpTotalNoOfReleases {DhcpPar 4}

ŽóM,μ,½%øđ•ú,ì"B

### ParDhcpTotalNoOfOffers {DhcpPar 5}

'—M,μ,½'ň<Ÿ (offer) ,ì"B

### ParDhcpTotalNoOfAcks {DhcpPar 6}

'—M,μ,½Šm"F%ž"š,ì"B

### ParDhcpTotalNoOfNacks {DhcpPar 7}

'—M,μ,½"Û'è,ìŠm"F%ž"š,ì"B

### ParDhcpTotalNoOfDeclines {DhcpPar 8}

ŽóM,μ,½Ž«'p,ì"B

## DHCP fXfR[fv fOf<[fv

### ScopeTable {DhcpScope 1}

fT[fof[ ,ª•ÛŽç,μ,Ä,ç,éfTfufIfbfg,ì^ê—B

### sScopeTableEntry {ScopeTable 1}

fTfufIfbfg,É'î%ž,·,é[sB

### SubnetAdd {sScopeTableEntry 1}

fTfufIfbfg fAfhfÇfXB

### NoAddInUse {sScopeTableEntry 2}

Žg—p,³,è,Ä,ç,éfAfhfÇfX,ì"B

### NoAddFree {sScopeTableEntry 3}

—~—p%Å"\\,È<ó,«fAfhfÇfX,ì"B

### NoPendingOffers {sScopeTableEntry 4}

«»ŸA'ňŸó'Ô,É, ,éAfhfEfX (^ěŽž“l,ÉŽg—p,<sup>3</sup>,ê,Ä,č,éAfhfEfX) ,l“B



**ParWinsTotalNoOfQueries {Par 13}**

Žó, Žæ, Á, ½ AE%oi, ì" B

**ParWinsTotalNoOfRel {Par 14}**

Žó, Žæ, Á, ½ %ođ•ú, ì" B

**ParWinsTotalNoOfSuccRel {Par 15}**

□→CE÷, μ, ½ %ođ•ú, ì" B

**ParWinsTotalNoOfFailRel {Par 16}**

—v<CE³, ìfAfhfCEfX,ª,»,-¼'O, ìfAfhfCEfX,Æ^è'v, μ, È, ç, ½, B, ÉŽ, "s, μ, ½ %ođ•ú, ì" B

**ParWinsTotalNoOfSuccQueries {Par 17}**

□→CE÷, μ, ½ AE%oi, ì" B

**ParWinsTotalNoOfFailQueries {Par 18}**

Ž, "s, μ, ½ AE%oi, ì" B

**ParRefreshInterval {Par 19}**

□', «Š, ìŠÓŠu, ì•b□" (fŠftfCEfbfVf...ŠÓŠu,Æ,àCEÁ,Î,ê,Û,·) B

**ParTombstoneInterval {Par 20}**

"pšüšÓŠu, ì•b□" B

**ParTombstoneTimeout {Par 21}**

"pšüf^fCf€fAfEfg, ì•b□" B

**ParVerifyInterval {Par 22}**

CEŸ□, ŠÓŠu, ì•b□" B

**ParVersCounterStartVal\_LowWord {Par 23}**

WINS <N" @Žž, ìfo□[fWf#f" fJfEf"f^, ì%o^Éf□□[fh (Low Word) B

**ParVersCounterStartVal\_HighWord {Par 24}**

WINS <N" @Žž, ìfo□[fWf#f" fJfEf"f^, ìã^Éf□□[fh (High Word) B

**ParRplOnlyWCnfPnrs {Par 25}**

"ñ□□→f□□[fgfi□[,Æ•;□»,ª,Á,«,é,©,Ç,κ,©,đŽw'è,μ,Û,·□Bf[f□,ÉŸ'è,μ,Ä,ç,é,ì,Á,È,¯,ê,ì□AfCEfWfXfgfŠ,É<L□Ú,³,ê,½f□□[fgfi□[,¾,¯,Æ•;□»,đŽÁ□s,Á,«,Û,·(□X□V'É'm,ì'... □M, ìé□‡,đ□œ,) B

**ParStaticDataInit {Par 26}**

□%oŠú%o», " ,æ, Ñ□Ä□□→, ì,Æ,«□Ä"lff□[f^,đ"Ç,ÝŽæ,é,©,Ç,κ,©,đŽw'è,μ,Û,·□Bf□f%□□□[f^ fOf<□[fv"à, ì MIB •ì□",đ□X□V,·,é,Æ□A□Ä□□→,ª□s,í,ê,Û,·□B

**ParLogFlag {Par 27}**

f□fO,đŽú□W,·,é,©,Ç,κ,©,đŽw'è,μ,Û,·□BffftfHf:fg,Á,í□fO,íŽú□W,³,ê,Û,·□B

**ParLogFileName {Par 28}**

ffo ftf@fCf<,lfpfX,đŽw'è,μ,Û,·□B

### ParBackupDirPath {Par 29}

fofbfNfAfbfv fffBfCefNfgfŠ,lfpfX,đŽw'è,μ,Û,·□B

### ParDoBackupOnTerm {Par30}

WINS ,a□l—<sup>1</sup>Žž,Éff□f^fx□fX,đfofbfNfAfbfv,·,é,©,Ç,κ,©,đŽw'è,μ,Û,·□BŽw'è'l,Í 0 (fofbfNfAfbfv,μ,È,ç) ,Û,½,Í 1 (fofbfNfAfbfv,·,é) ,Á,·□B,±,ì'l,đ 1 ,É□Ý'è,μ,Ä,à□AParBackupDirPath ,à<sup>•1</sup>,<sup>1</sup>Ä□Ý'è,μ,Ä,ç,È,ç ,Æ^Ó-j,ª ,è,Û,<sup>1</sup>ñ□B

### ParMigration {Par 31}

WINS fff□f^fx□fX“à,ì□Ä“lfCefR□fh,đ□A□V<K-¼'O“o~^,Æ□d•j,μ,Ä,ç,éŠÖ,Í“®“lfCefR□fh,Æ,μ,ÄŽæ,è^μ,κ ,©,Ç,κ,©,đŽw'è,μ,Û,·□BŽw'è'l,í□A0 (Žæ,è^μ,í,È,ç) ,Û,½,Í 1 (Žæ,è^μ,κ) ,Á,·□B

### WINS fff□f^ ftf@fCf< fOf<□fV

#### DFDatafilesTable {Datafiles 1}

fCefWfXfgfŠ“à,ì \Datafiles fL□[,ì%º,ÄŽw'è,<sup>3</sup>,è,Ä,ç,éff□f^ ftf@fCf<,ì^è—□B,±,è,ç,ìftf@fCf<,í□AWINS fff□f^fx□fX,đ□Ä“l,É□%Šú%»·,·,é,½,β,ÉŽg,ç,Û,·□B

#### dDFDatafileEntry {DFDatafilesTable 1}

ff□f^ ftf@fCf<-¼fCefR□fh□B

#### dDFDatafileIndex {dDFDatafileEntry 1}

ff□f^ ftf@fCf< fe□fuf<“à,ìfGf“fgfŠ,ÉfCf“fffbfNfX,đ•t,¯,é,½,β,É,ì,ÝŽg,í,è,Û,·□B

#### dDFDatafileName {dDFDatafileEntry 2}

□Ä“l,È□%Šú%»·,ÉŽg,κff□f^ ftf@fCf<,ì-¼'O□B

### WINS fvf< fOf<□fV

#### PullInitTime {Pull 1}

WINS ,ì<N“®Žž,¯,æ,Ñ□Ä□□-Žž,É^ø,«□o,μ (pull) ,đŽÀ□s,·,é,©,Ç,κ,©,đŽw'è,μ,Û,·□Bfvf< fOf<□fV,Û,½,ìfVbfVf... fOf<□fV,ì%½,ç,©,ì MIB •Í□“,đ□Ý'è,·,é,Æ□A□Ä□□-ª□s,í,è,Û,·□B

#### PullCommRetryCount {Pull 2}

fvf<•;□»Žž,É'Ê□M,ÉŽ,“s,μ,½□ê□#,ì□ÄŽŽ□sfJfEf“fg,đŽw'è,μ,Û,·□B,± ,è,í□A,»·,ìfp□fJgfí□[,É'í,μ,ÄŽw'è,<sup>3</sup>,è,½ŠÖŠu,ÄŽÀ□s,<sup>3</sup>,è,é□Á'â□ÄŽŽ□s%ñ□“,Á,·□B,»·,ìCEã□AWINS ,ì□Ý'è,<sup>3</sup>,è,½•;□»ŠÖŠu,ª%β,¯,é,Û,Á'âŽ~·,μ,Ä,©,ç□A□ÄŽŽ□s,đ□s,ç,Û,·□B

#### PullPnrTable {Pull 3}

fvf<•;□»·,đŽÀ□s,·,é•K-v,ª ,éfp□fJgfí□[,ì^è—□B

#### pPullPnrEntry {PullPnrTable 1}

fp□fJgfí□[,É'í%ž,μ,Ä,ç,é□s□B

#### PullPnrAdd {pPullPnrEntry 1}

fŠf,□fJg WINS fp□fJgfí□[,ìfAfhfCefX□B

#### PullPnrSpTime {pPullPnrEntry 2}

fVf<•;i»»,ì<N“ @Žž□□,ðŽw’è,μ,Û,·□B

**PullPnrTimeInterval {pPullPnrEntry 3}**

fVf<•;i»»,ìŽžŠÔŠÔŠu,ðŽw’è,μ,Û,·□B

**PullPnrMemberPrec {pPullPnrEntry 4}**

WINS ,©,ç^ø,«□o,³,ê,½“ÁŽêfOf<□[fv,ìf□f“fo□[,É—^,ì,ç,ê,é—D□æCE □Bf□□[ffj<,É“o~^,³,ê,½“ÁŽêfOf<□[fv  
f□f“fo□[,ì—D□æCE ,í□A^ø,«□o,³,ê,½,·,x,Ä,ì•i□»,æ,è□,,É,è,Û,·□B

**PullPnrNoOfSuccRpls {pPullPnrEntry 5}**

ffjEf“f^,ì<N“ @,Û,½,íſſfZfbfg,ìCEä,É WINS ,Å□—CE÷,μ,½•i□»,ì%ñ□”□B

**PullPnrNoOfCommFails {pPullPnrEntry 6}**

‘É□M□áŠQ,ì,½,ß,É WINS ,ÅŽ,“s,μ,½•i□»,ì%ñ□” (ffjEf“f^,ì<N“ @,Û,½,íſſfZfbfg,ìCEä)□B

**PullPnrVersNoLowWord {pPullPnrEntry 7}**

,±,ì WINS ,³□Š—L,μ,Ä,ç,éfCEfR□[fh“à,ì□Å’âfo□[fWfj“”Ô□†,ì%ñ□”Éf□□[fh (Low Word)□B

**PullPnrVersNoHighWord {pPullPnrEntry 8}**

,±,ì WINS ,³□Š—L,μ,Ä,ç,éfCEfR□[fh“à,ì□Å’âfo□[fWfj“”Ô□†,ì□ã^Éf□□[fh (High word)□B

**WINS fVfbfVf... fOf<□[fv**

**PushInitTime {Push 1}**

<N“ @Žž,ÉfVfbfVf... (,Ä,Û,è□A’É’mf□fbfZ□[fW),ðŽÀ□s,·,é,©,Ç,π,©,ðŽw’è,μ,Û,·□B

**PushRplOnAddChg {Push 2}**

fAfhfCEfX•ì□XŽž,É’É’mf□fbfZ□[fW,ð’—□M,·,é,©,Ç,π,©,ðŽw’è,μ,Û,·□B

**PushPnrTable {Push 3}**

fVfbfVf...•i□»,ð<N“ @,·,é WINS fp□[fgfi□[,ì^è—□B

**pPushPnrEntry {PushPnrTable 1}**

WINS fp□[fgfi□[,É’í%ž,μ,Ä,ç,é□s□B

**PushPnrAdd {pPushPnrEntry 1}**

WINS fp□[fgfi□[,ìfAfhfCEfX□B

**PushPnrUpdateCount {pPushPnrEntry 2}**

fVfbfVf... f□fbfZ□[fW,Æ,É,é□X□V,ì%ñ□”□B

**WINS Cmd fOf<□[fv**

**CmdPullTrigger {Cmd 1}**

,±,ì•i□”,ð□Ý’è,·,é,Æ□AWINS ,í□AIP fAfhfCEfX,ÅŽ~•É,³,ê,éfŠf,□[fg WINS fT□[fo□[,©,ç•i□»,ðfVf<  
fCf“,μ,Û,·□B

**CmdPushTrigger {Cmd 2}**

,±,ì•i□”,ð□Ý’è,·,é,Æ□AWINS ,í□AIP fAfhfCEfX,ÅŽ~•É,³,ê,éfŠf,□[fg WINS  
fT□[fo□[,É’É’mf□fbfZ□[fW,ðfVfbfVf...μ,Û,·□B

**CmdDeleteWins {Cmd 3}**

,±,ì•ï",ðÿ'è,·,é,ÆAWINS fT[fó[.É'®,·,éï•ñ (ff[f^ fCfR[fhAfRf"fefLfXfgî•ñ) ,a,·,×,Äf[fjf< WINS fT[fó[.©,çíœ,³,ê,Û,·B,±,ì•ï",íAŠ—LŽÒ,ÆfAfhfCfX,Æ,lf}fbfsf"fo fe[fuf<,a,ç,Á,í,ç,É<B,ç ,Æ,«,¾,žg—p,μ,Û,·BŠÇ—,μ,Ä,ç,é WINS ,É'®,·,éï•ñ,ð,·,×,Äíœ,·,é,±,Æ,í,Á,«,Û,¹,ñB

**CmdDoScavenging {Cmd 4}**

,±,ì•ï",ðÿ'è,·,é,ÆAWINS ,í'í',ðŽÀ[s,μ,Û,·B

**CmdDoStaticInit {Cmd 5}**

,±,ì•ï",ðÿ'è,·,é,ÆAWINS ,íA•ï",ÉŽw'è,μ,½ftf@fCf<,ðŽg,Á,ÄÄ"l,È%Šú%»,ðŽÀ[s,μ,Û,·B0 ,ðŽw'è,·,é,ÆAWINS ,íAfCfWfXfgfŠ,ÉŽw'è,μ,Ä, ,eftf@fCf<,ðŽg,Á,ÄÄ"l,È%Šú%»,ðŽÀ[s,μ,Û,· (ftf@fCf<-¼,íf[f^ ftf@fCf< fe[fuf<,ðŽg,Á,Ä"Ç,Ý',«,Ä,«,Û,·)B

**CmdNoOfWrkThds {Cmd 6}**

WINS "à,lf[fj[f XfCfbfh,ì",ð"Ç,ÝŽæ,è,Û,·B

**CmdPriorityClass {Cmd 7}**

WINS ,ì—Dæ±^ÉfNf%ofX,arÉí,©,ð^É,©,ð"Ç,ÝŽæ,è,Û,·B

**CmdResetCounters {Cmd 8}**

ffEf" f^,ðšfZfbfg,μ,Û,·B'l,í-³Ž<,³,ê,Û,·B

**CmdDeleteDbRecs {Cmd 9}**

,±,ì•ï",ðÿ'è,·,é,ÆAWINS fT[fó[.É'®,·,éff[f^ fCfR[fh,a,·,×,Äf[fjf< WINS fT[fó[.©,çíœ,³,ê,Û,·Bff[f^ fCfR[fh,¾,·,aríœ,³,ê,Û,·B

**CmdDRPopulateTable {Cmd 10}**

IP fAfhfCfX,arñ<Ý,³,ê,Ä,ç,é WINS fT[fó[.ífCfR[fh,ðŽæ"¾,μ,Û,·B,±,ì•ï",ðÿ'è,·,é,ÆAff[f^ fCfR[fh fe[fuf<,ar¼,ç,Éíœ,³,ê,Û,·B

**CmdDRDataRecordsTable {Cmd 11}**

ff[f^ fCfR[fh,ðŠi"[·,éfe[fuf<BfCfR[fh,í-¼'O,ÄŽ«[±,É•Ä,×'Ö,í,ç,è,Û,·B,± ,ife[fuf<,íA^è'èšúŠÖ,¾,·flfffbVf...,ÉŠi"[³,ê,Û,· (WINS ,lf[fó[fwfbfh,ðE,·,ç,·,½,B)Bfe[fuf<,ðÄíœ,·,é,É,íACmdDRPopulateTable MIB •ï",ðÿ'è,μ,Û,·B

**CmdDRRecordEntry {CmdDRDataRecordsTable 1}**

CmdDRPopulateTable ÿ'èŽž,ÉfAfhfCfX,arŽw'è,³,ê,½ WINS fT[fó[.arŠ—L,μ,Ä,ç,éff[f^ fCfR[fhB

**CmdDRRecordName {cCmdDRRecordEntry 1}**

fCfR[fh"à,í-¼'O B

**CmdDRRecordAddress {cCmdDRRecordEntry 2}**

fCfR[fh,lfAfhfCfX (1 ,Ä,Û,½,í•;")BfCfR[fh,ar}f<fz[f€ fCfR[fh,©AfCf" f^ [flfbfg fOf<[fv,ìœ±,íAfAfhfCfX,íí,É,È,Ä,Ä±ŽÝ•Ö,³,ê,Û,·BŠefyA,íAfí[fí[WINS fT[fó[.Æ,»,è,É'±,- fRj"fsf...[f^,Û,½,ífCf" f^ [flfbfg fOf<[fv f"fo[.lfAfhfCfX,©,çíœ,³,ê,Ä,ç ,Û,·BfCfR[fh,íA•K, flfbfgfN fofCfg±~ ,Ä•Ö,³,ê,Û,·B

**CmdDRRecordType {cCmdDRRecordEntry 3}**

fCfR[fh,íží—pB^èÓ (unique)Af}f<fz[f€A•W€fOf<[fvA,Û,½,ífCf" f^ [flfbfg fOf<[fvB



**CmdDRRecordPersistenceType {cCmdDRRecordEntry 4}**

fCefR[fh,ìŽ±«,ìŽí—pBÄ“l,Ü,½,í“@“lB

**CmdDRRecordState {cCmdDRRecordEntry 5}**

fCefR[fh,ìó’ÔBfAfNfefBfuA%đ•úA,Ü,½,í“pŠüB

**CmdWinsVersNoLowWord {Cmd 12}**

fCefR[fh,ìfo[fWf#“”Ô+ffEf“f^,ì%º^Êf[fh (Low Word)B

**CmdWinsVersNoHighWord {Cmd 13}**

fCefR[fh,ìfo[fWf#“”Ô+ffEf“f^,ìã^Êf[fh (High Word)B

