06-01-1999

FORM PTO-1595 1-31-92 101020964

U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office Docket No.: 256002AA

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

Roger R. Skidmor Theodore S. Rappaport Additional names of conveying party(ies) attached? yes	A Name of any order of the Name of the Nam	
Additional names of conveying party(ies) attached? yes 8 no		2. Name and address of red party(ies):
Street Address: 104 Hubbat But P.O. Box 1973 3. Nature of Conveyance 3-3-3-99 2. Assignment		Name: Wireless Valley Control Cations, Inc.
Street Address: 104 Hubbas [High] 2 Assignment	, , ,	Internal Address: MAR 2 2 1000
City Blacksburg, Virginia Country: USA Additional name(s) & address(es) attached? yes Z no		Street Address: 104 Hubbatt Steet
☐ Assignment ☐ Merger ☐ Security Agreement ☐ Change of Name ☐ Other ☐ Execution Date: December 29, 1998 4. Application number(s) or patent number(s): Title. SYSTEM FOR CREATING A COMPUTER MODEL AND MEASUREMENT DATABASE OF A WIRELESS COMMUNICATION NETWORK If this document is being filed together with a new application, the execution date of the application is A. Patent Application No(s). 09/221,985 filed December 29, 1998 B. Patent No. Additional numbers attached? ☐ Yes ☑ No 6. Total number of applications and patents involved: ☐ ☐ Michael E. Whitham Whitham, Curtis & Whitham Whitham, Curtis & Whitham Whitham, Curtis & Whitham Whitham Curtis & Whitham Souries Valley Drive Suite 900 Reston, Virginia 20191 7. Total fee (37 CFR 3.41): © Enclosed ② Authorized to be charged to deposit account ☐ Total fee due ② Any deficiencies in the enclosed fees 8. Deposit account number: 23-1951 7. To the best of my knowledge and belief, the foregoing information is true agd correct and any attached copy is a true copy of the origina document. Michael E. Whitham Name of Person Signing	3. Nature of Conveyance 3-33-99	City: Blacksburg, Virginia
□ Other □ Execution Date: December 29, 1998 4. Application number(s) or patent number(s): Title: SYSTEM FOR CREATING A COMPUTER MODEL AND MEASUREMENT DATABASE OF A WIRELESS COMMUNICATION NETWORK If this document is being filed together with a new application, the execution date of the application is □ A. Patent Application No(s). 09/221,985 filed December 29, 1998	☑ Assignment ☐ Merger	
Execution Date: December 29, 1998 4. Application number(s) or patent number(s): Title: SYSTEM FOR CREATING A COMPUTER MODEL AND MEASUREMENT DATABASE OF A WIRELESS COMMUNICATION NETWORK If this document is being filed together with a new application, the execution date of the application is		Additional name(s) & address(es) attached? □ yes ☑ no
4. Application number(s) or patent number(s): Title: SYSTEM FOR CREATING A COMPUTER MODEL AND MEASUREMENT DATABASE OF A WIRELESS COMMUNICATION NETWORK If this document is being filed together with a new application, the execution date of the application is	☐ Other	
Title: SYSTEM FOR CREATING A COMPUTER MODEL AND MEASUREMENT DATABASE OF A WIRELESS COMMUNICATION NETWORK If this document is being filed together with a new application, the execution date of the application is	Execution Date: December 29, 1998	
Additional numbers attached?	Title: SYSTEM FOR CREATING A COMPUTER MODEL AND NETWORK	
## All Annumber of applications and patents involved:1	A. Patent Application No(s). 09/221,985 filed December 29, 199	98 B. Patent No.
Michael E. Whitham Whitham, Curtis & Whitham Reston International Center 11800 Sunrise Valley Drive Suite 900 Reston, Virginia 20191 7. Total fee (37 CFR 3.41): ★ Enclosed Authorized to be charged to deposit account □ Total fee due ★ Any deficiencies in the enclosed fees 8. Deposit account number: 23-1951 40€ No See To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the origina document. Michael E. Whitham Name of Person Signing Name of Person Signing Name of Person Signing Name of Pages including cover sheet: Total number of pages including cover sheet:	Additional numbers at	ttached? □ Yes ☑ No
Whitham, Curtis & Whitham Reston International Center 11800 Sunrise Valley Drive Suite 900 Reston, Virginia 20191 8 Enclosed Authorized to be charged to deposit account		6. Total number of applications and patents involved:1_
Whitham, Curtis & Whitham Reston International Center 11800 Sunrise Valley Drive Suite 900 Reston, Virginia 20191 8 Enclosed 2 Authorized to be charged to deposit account Total fee due Any deficiencies in the enclosed fees 8 Deposit account number: 23-1951 40E No Specification of the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the origina document. Michael E. Whitham Name of Person Signing Name of Person Signing Name of Person Signing Name of Person Signing Name of Person Signing Name of Pages including cover sheet: Total number of pages including cover sheet: Total number of pages including cover sheet:	Michael E. Whitham	7. Total fee (37 CFR 3.41): \$40.00
11800 Sunrise Valley Drive Suite 900 Reston, Virginia 20191 8. Deposit account number: 23-1951 40€ No specific properties of the enclosed fees 9. Statement and signature To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the origina document. Michael E. Whitham Name of Person Signing Signature Date Total number of pages including cover sheet: 999, NIGHYEN 00000053 09221985		
Suite 900 Reston, Virginia 20191 8. Deposit account number: 23-1951 40E No Spa 9. Statement and signature To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the origina document. Michael E. Whitham Name of Person Signing Name of Person Signing Normality		☑ Authorized to be charged to deposit account
8. Deposit account number: 23-1951 40E No Spe 9. Statement and signature To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the origina document. Michael E. Whitham Name of Person Signing Signature March 22, 1999 Date Total number of pages including cover sheet: 999, DNGIVEN 00000053 09221985	Suite 900	☐ Total fee due
9. Statement and signature To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the origina document. Michael E. Whitham Name of Person Signing Signature March 22, 1999 Date Total number of pages including cover sheet: 999, DMSHYEN 00000053 09221985	Reston, Virginia 20191	Any deficiencies in the enclosed fees
9. Statement and signature To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Michael E. Whitham Name of Person Signing Signature March 22, 1999 Date Total number of pages including cover sheet:		
9. Statement and signature To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Michael E. Whitham Name of Person Signing Signature March 22, 1999 Date Total number of pages including cover sheet:		UNE
9. Statement and signature To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Michael E. Whitham Name of Person Signing Signature March 22, 1999 Date Total number of pages including cover sheet:		NO 500
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Michael E. Whitham Name of Person Signing Signature March 22, 1999 Date Total number of pages including cover sheet: 999, PARTITEN 00000053 09221985		
Michael E. Whitham Name of Person Signing Signature March 22, 1999 Date Total number of pages including cover sheet:	Statement and signature	FLL
Michael E. Whitham Name of Person Signing Signature March 22, 1999 Date Total number of pages including cover sheet:		is true and correct and any attached copy is a true copy of the original
Name of Person Signing / Signature / Date Total number of pages including cover sheet: _ 999, DNGIYEN 00000053 09221985	document.	
Total number of pages including cover sheet:		
999, DNGIYEN 00000053 09221985	Name of Person Signing / Signature	Date Total number of pages including cover sheet
	999 DNGIYEN 00000053 09221985	rotal number or pages including cover sheet:
	81 40.00 OP	

PATENT

REEL: 9824 FRAME: 0647

U.S. ASSIGNMENT

IN CONSIDERATION of the sum of One Dollar(\$1.00), and of other good and valuable consideration paid to the undersigned (hereinafter called ASSIGNOR) by

WIRELESS VALLEY COMMUNICATIONS, INC.

(hereinafter called ASSIGNEE), the receipt of which is hereby acknowledged, the ASSIGNOR hereby sell, assign and transfer to ASSIGNEE, its successors and assigns, the entire right, title and interest in and to the invention entitled, SYSTEM FOR CREATING A COMPUTER MODEL AND MEASUREMENT DATABASE OF A WIRELESS COMMUNICATION NETWORK, for which an application for Letters Patent of the United States was executed on even date herewith; and all Letters Patent of the United States and corresponding Foreign patents to be obtained therefore on said application or any continuation, division, renewal, substitute, reissue or reexamination thereof for the full term or terms for which the same may be granted.

THE ASSIGNOR agrees to execute all papers necessary in connection with this application and any continuing, divisional, reissue or reexamination applications thereof and also to execute separate assignments in connection with such applications as the ASSIGNEE may deem necessary or expedient.

THE ASSIGNOR agrees to execute all papers necessary in connection with any interference or litigation which may be declared concerning this application or any continuation, division, reissue or reexamination thereof or Letters Patent or reissue patent issued thereof and to cooperate with the ASSIGNEE in every way possible in obtaining and producing evidence and proceeding with such interference or litigation.

IN WITNESS WHEREOF, the undersigned has affixed his signature.

SIGNED	No. 11.81.8	
Date $Q_{ee} = 29$, 1998_	My M. Blit ROGER R. SKIDMORE	
State of Virginia County of		
Subscribed and sworn to before n	ne by Roger R. Skidmore this day of	, 1998.
Date <u>Dec. 29</u> , 1998_	Notary Public SIPS Rappapar	2/29/98 H
State of Virginia County of		
Subscribed and sworn to before n	ne by Theodore S. Rappaport this day of	, 1998.
	Notary Public	

RECORDED: 03/22/1999

PATENT REEL: 9824 FRAME: 0648