U.S. PTO 10-09-2007 11/905006 09/27/2007 EET Docket No.: 077892-0021 103451443 To the Director of the U.S. Patent a thed documents or the new address(es) below. 1. Name of Conveying Party(ies) 2. Name and address of receiving party(ies) Satoko ITAYA, Jun HASEGAWA, Akio HASEGAWA, Peter Name (1): NEC COMMUNICATION SYSTEMS, LTD. DAVIS, Tetsuya ITO, Akira MATSUMOTO, Naoto KADOWAKI, Sadao OBANA Name (2): ADVANCED TELECOMMUNICATIONS RESEARCH INSTITUTE Additional name(s) of conveying party(ies) attached? Yes No 3. Nature of Conveyance/Execution Date(s) Address (1): Execution Date(s): September 6, 2007, September 6, 2007, 4-28, Mita 1-chome, Minato-ku, Tokyo 108-0073 September 6, 2007, September 9, 2007, JAPAN September 11, 2007, September 11, 2007, September 10, 2007, September 6, 2007 (respectively) ■ Assignment Address (2): Security Agreement ☐ Change of Name 2-2, Hikaridai 2-chome, Seika-cho, Soraku-gun, Kyoto 619-0288 JAPAN Additional name(s) & address(es) attached? \(\subseteq \text{Yes} \subseteq \text{No} \) Other 4. Application or patent number(s): This document is being filed together with a new application. A. Patent Application No(s). B. Patent No(s). Additional numbers attached? Yes No 6. Total number of applications and patents 5. Name and address to whom correspondence concerning involved: document should be mailed: \$40.00 7. Total fee (37 CFR 1.21(h) & 3.41) Name: MCDERMOTT WILL & EMERY LLP Authorized to be charged by credit card Internal Address: Authorized to be charged to deposit account ☐ Enclosed 600 13th Street, N.W. Street Address: None required (government interest not affecting title) 20005-3096 D.C. Zip: State: Washington City: 8. Payment Information: 202.756.8000 Phone Number: 202.756.8087 Fax Number: Last 4 Numbers Credit Card a. Email Address: **Expiration Date** 11905006 00000039 500417 Deposit Account Number 500417 10/05/2007 DBYRNE Authorized User Name 40.00 DA 01 FQ:8021

9. Signature.

Stephen A. Becker 26,527

Name and Registration No. of Person Signing

Total number of pages including cover sheet, attachments and documents: 3

PATENT

REEL: 019950 FRAME: 0662

September 27, 2007

Date

U.S. ASSIGNMENT

(Insert ASSIGNEE's Name(s) Address(cs))

POUNDLING.

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

- (1) NEC Communication Systems, Ltd. of 4-28, Mita 1-chome, Minato-ku, Tokyo 108-0073 Japan; and
- (2) Advanced Telecommunications Research Institute International of 2-2, Hikaridai 2-chome, Seika-cho, Soraku-gun, Kyoto 619-0288 Japan

(hereinafter ASSIGNEE), the receipt of which is hereby acknowledged, the undersigned ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE the entire and exclusive right, title and interest to the invention entitled

(Title of Invention)

RADIO DEVICE FOR PREVENTING ISOLATED RADIO DEVICES IN NETWOR

(*If the assignment is being filed after the filing of the application, this section must be completed) for which application for Letters Patent of the United States was executed on even date herewith unless otherwise indicated below:

* filed on ____ Serial No. ____

(McDermott Will & Emery LLP is hereby authorized to insert the series code, serial number and/or filing date hereon, when known)

and all Letters Patent of the United States to be obtained therefore on said application or any continuation, divisional, 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 the application and any continuation, 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, litigation, or other legal proceeding which may be declared concerning this application or any continuation, divisional, reissue or reexamination thereof or Letters Patent or reissue patent issued thereon and to cooperate with the ASSIGNEE in every way possible in obtaining and producing evidence and proceeding with such interference, litigation, or other legal proceeding.

IN WITNESS WHEREOF, the undersigned inventor(s) has (have) affixed his/her/their signature(s).

(Signatures)

| | Satoko ITAYA | |
|-----------------------------|-------------------------------|--------------------------|
| (Signature) | (Type Name) | (Date) |
| | Jun HASEGAWA | |
| (Signature) | (Type Name) | (Date) |
| | Akio HASEGAWA | |
| (Signature) | (Type Name) | (Date) |
| | Peter DAVIS | |
| (Signature) | (Type Name) | (Date) |
| Tetseye to | Tetsuya ITO | 11/9/2007 |
| (Signature) | (Type Name) | (Date) |
| Akira Mateumoto (Signature) | Akira MATSUMOTO (Type Name) | 11 / 9 / 200 7 (Date) |
| (Signature) | Naoto KADOWAKI (Type Name) | (Date) |
| (Signature) | Sadao OBANA (Type Name) | (Date) |

PATENT REEL: 019950 FRAME: 0663

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IN WITNESS WHEREOF, the undersigned inventor(s) has (have) affixed his/her/their signature(s).

(Signatures)

| Satoko Utaya (Signature) | Satoko ITAYA (Type Name) | September. 6. 2007 (Date) |
|-----------------------------|----------------------------|----------------------------|
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| | (Type Name) Akio HASEGAWA | |
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| (Signature) | (Type Name) | (Date) |
| | Akira MATSUMOTO | |
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| Sexto Hadowsky | Naoto KADOWAKI | Superly 10, 2009 (Date) |
| (Signature) | (Type Name) | (Date) |
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| (Olkiiginia) , | Z=31 | |

PATENT REEL: 019950 FRAME: 0664

RECORDED: 09/27/2007