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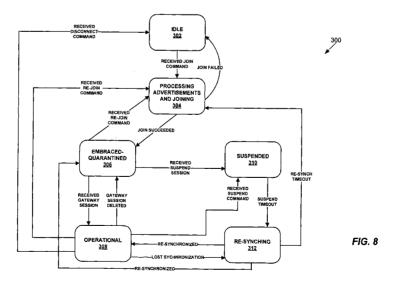
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[Continued on next page]

(54) Title: SUSPENDING TRANSMISSIONS IN A WIRELESS NETWORK



(57) Abstract: A method of increasing operational safety of a wireless communication network operating in a process control environment and having a plurality of network devices includes detecting a first triggering condition associated with an increased operational risk due to a wireless transmissions by at least one of the plurality of network devices, sending a suspend command to at least some of the plurality of network devices, suspending transmissions at the at least some of the plurality of network devices; and resuming transmissions at the at least some of the plurality of network devices upon occurrence of a second triggering condition.



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International application No. **PCT/US2008/004751**

A. CLASSIFICATION OF SUBJECT MATTER

H04L 12/28(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: H04L, H04B, G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EKIPASS(KIPO Internal) and Google

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	US 2004-0257995 A1 (DOUGLAS L. SANDY et al.) 23 December 2004. See the abstract, fig.5, paragraphs [66]-[71] and claims 1-9.	1-23
A	US 2005-0018643 A1 (PAUL NEILSON et al.) 27 January 2005. See the abstract, figs.1,3-9,10 and paragraphs [49]-[60],[64]-[67].	1-23
A	US 2005-0276233 A1 (JOHN R. SHEPARD et al.) 15 December 2005. See the abstract, figs.2,10 and paragraphs [13],[40],[58]-[65],[68]-[69],[77].	1-23

	Further documents are	liatod	4	ha aantini	antion.	of Dorr	\sim

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
US 2004-0257995 A1	23.12.2004	EP 1489792 A1 EP 1489792 B1	22. 12. 2004 27. 09. 2006	
 US 2005-0018643 A1	27.01.2005	None		
US 2005-0276233 A1	15.12.2005	CN 1881121 A DE 102006027384 A1 GB 0611940 D0 GB 2427329 A JP 2006-352893 A	20. 12. 2006 15. 02. 2007 26. 07. 2006 20. 12. 2006 28. 12. 2006	