



US008265096B2

(12) **United States Patent**
Zheng et al.

(10) **Patent No.:** **US 8,265,096 B2**
(45) **Date of Patent:** **Sep. 11, 2012**

- (54) **METHOD FOR CONSTRUCTING FRAME STRUCTURES** 7,110,350 B2 9/2006 Li et al.
7,586,887 B2 * 9/2009 Trachewsky 370/338
7,809,020 B2 * 10/2010 Douglas et al. 370/474
8,077,592 B2 12/2011 Webster et al.
- (75) Inventors: **Yan-Xiu Zheng**, Shulin (TW); **Ren-Jr Chen**, Hsinchu (TW); **Chang-Lung Hsiao**, Hsinchu (TW); **Pang-An Ting**, Fongyuan (TW)
2002/0034172 A1 * 3/2002 Ho 370/338
2004/0223478 A1 * 11/2004 Fischer et al. 370/338
2005/0063345 A1 3/2005 Wu et al.
2005/0111529 A1 * 5/2005 Bradley 375/148
2005/0180461 A1 8/2005 Kao et al.
2006/0018279 A1 1/2006 Agrawal et al.
2006/0227778 A1 10/2006 Jin et al.
2007/0097946 A1 * 5/2007 Mujtaba 370/349
2007/0155315 A1 7/2007 Lee et al.
2007/0189149 A1 * 8/2007 Terabe 370/491
2008/0095195 A1 * 4/2008 Ahmadi et al. 370/478
2008/0285513 A1 * 11/2008 Jung et al. 370/329
2009/0016371 A1 1/2009 Zheng et al.
2009/0116435 A1 * 5/2009 Koorapaty et al. 370/329
2011/0222504 A1 9/2011 Ma et al.
2012/0140730 A1 * 6/2012 Marks et al. 370/330
- (73) Assignee: **Industrial Technology Research Institute**, Hsinchu (TW)
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 385 days.
- (21) Appl. No.: **12/168,855**
- (22) Filed: **Jul. 7, 2008**

(65) **Prior Publication Data**
US 2009/0016371 A1 Jan. 15, 2009

Related U.S. Application Data
(60) Provisional application No. 60/929,798, filed on Jul. 12, 2007, provisional application No. 60/973,157, filed on Sep. 17, 2007.

(51) **Int. Cl.**
H04J 3/24 (2006.01)
(52) **U.S. Cl.** **370/473; 370/474; 370/476; 455/448**
(58) **Field of Classification Search** 370/329, 370/478, 491, 349, 469, 473, 474, 476, 338, 375/148, 354
See application file for complete search history.

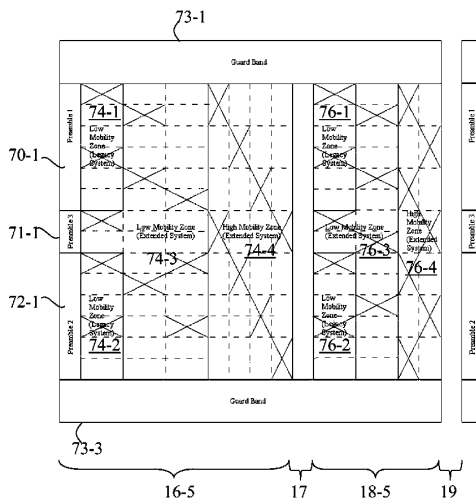
(56) **References Cited**
U.S. PATENT DOCUMENTS
5,491,531 A * 2/1996 Adams et al. 375/354
6,904,550 B2 6/2005 Sibecas et al.

FOREIGN PATENT DOCUMENTS
WO WO 2006/092852 * 8/2006
* cited by examiner

Primary Examiner — Jeffrey M Rutkowski
(74) *Attorney, Agent, or Firm* — Alston & Bird LLP

(57) **ABSTRACT**
A method of constructing a frame structure for data transmission, the method comprising generating a first section comprising data configured in a first format compatible with a first communication system, generating a second section following the first section, the second section comprising data configured in a second format compatible with a second communication system, wherein the second format is different from the first format, generating at least one non-data section containing information describing an aspect of data in at least one of the first section and the second section, and combining the first section, the second section and the at least one non-data section to form the frame structure.

43 Claims, 6 Drawing Sheets



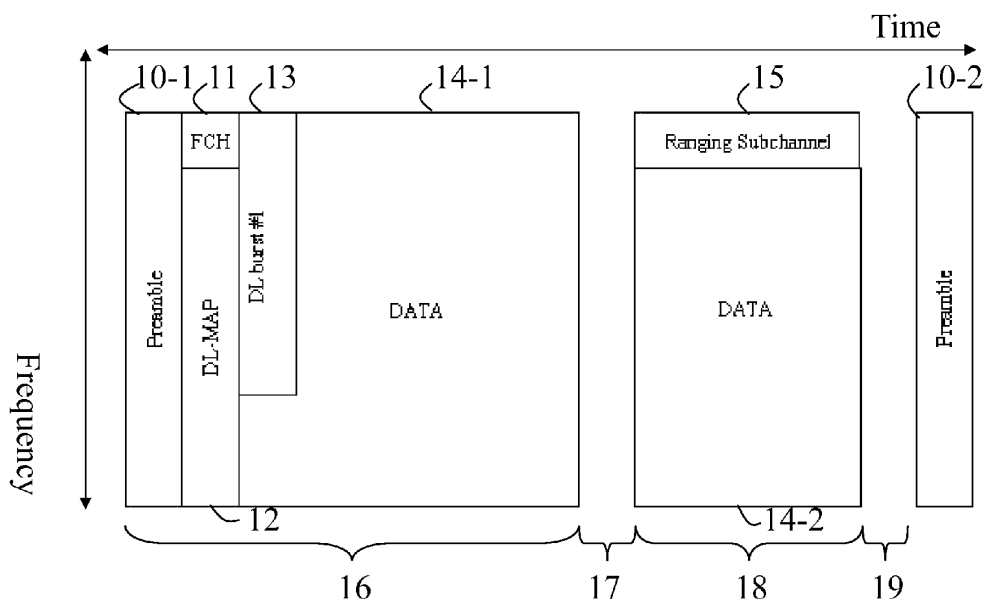


FIG. 1 (Prior Art)

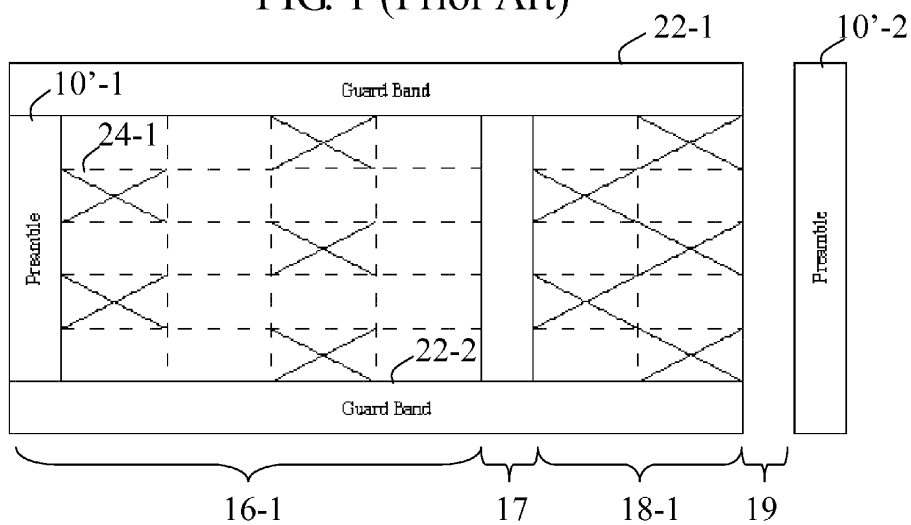


FIG. 2 (Prior Art)

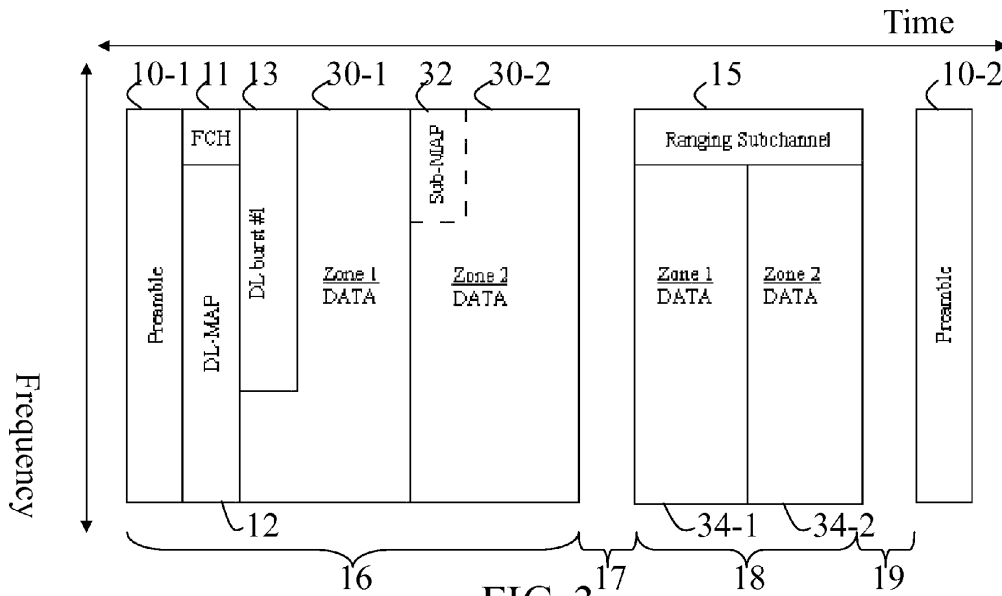


FIG. 3

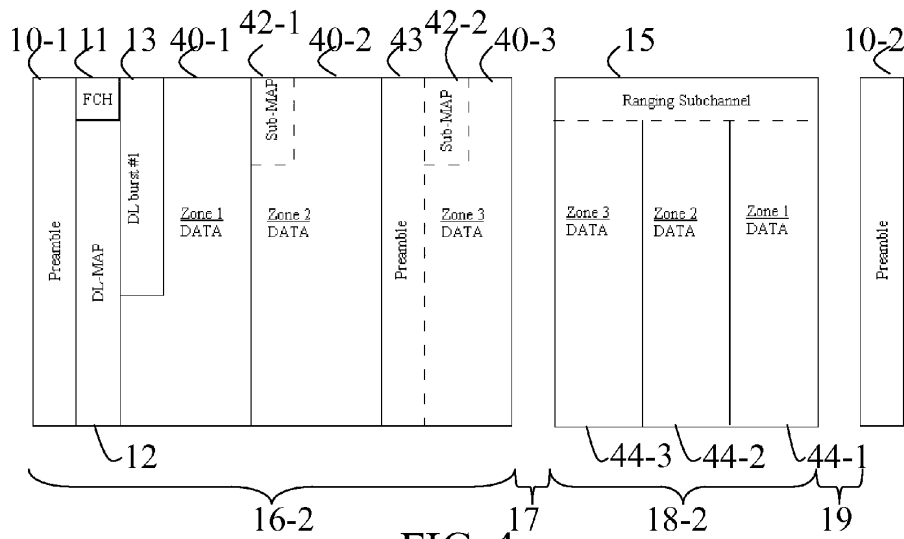


FIG. 4

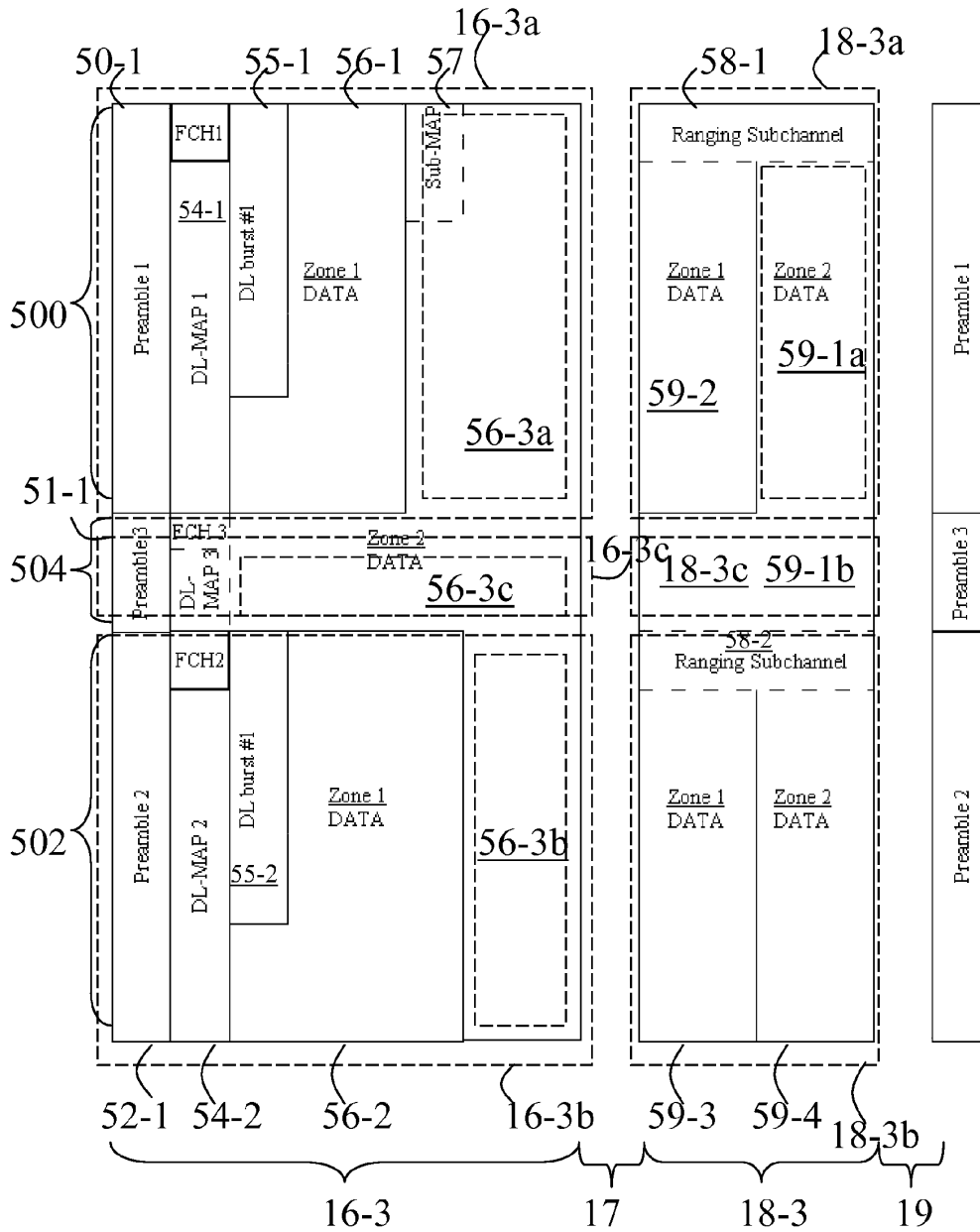


FIG. 5

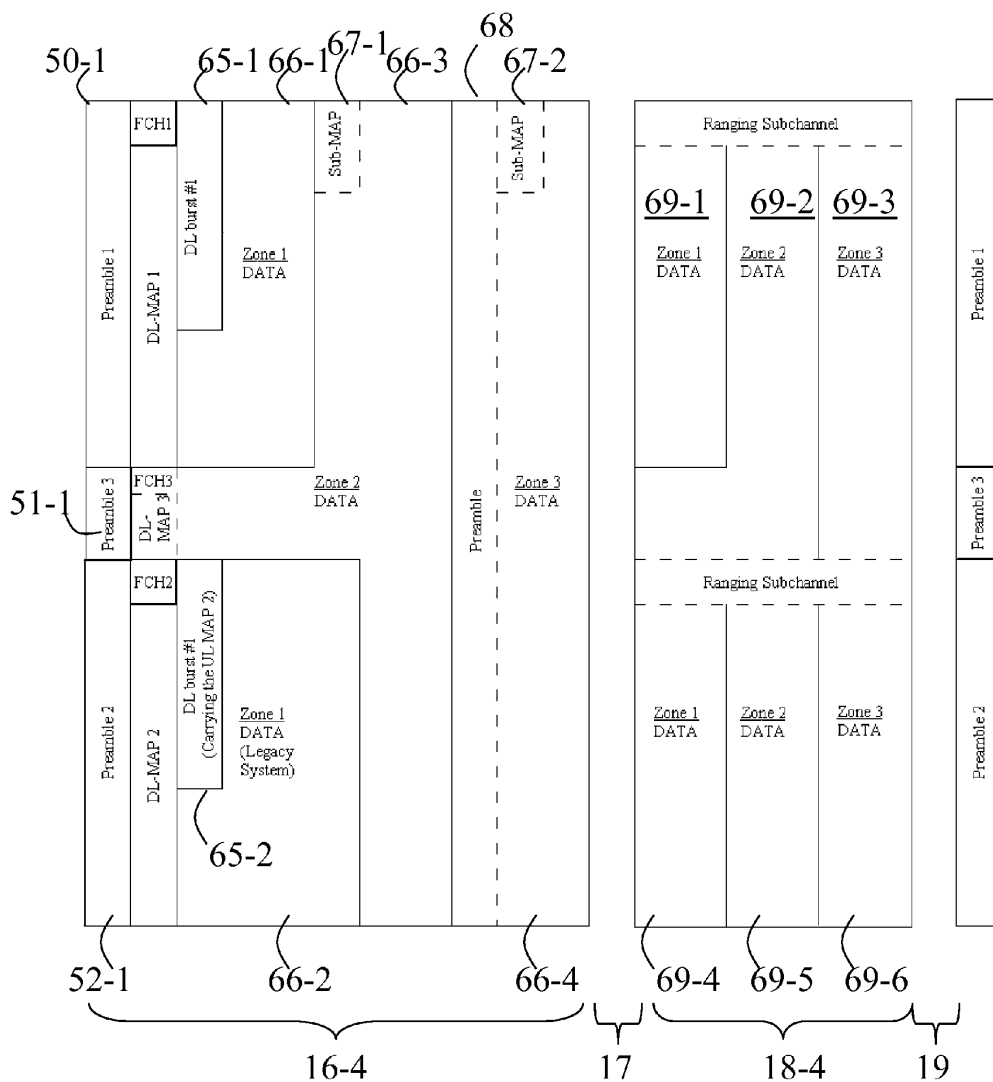


FIG. 6A

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.