

Exhibit F



(12) **United States Patent**
Gupta

(10) **Patent No.:** **US 7,760,664 B2**
(45) **Date of Patent:** ***Jul. 20, 2010**

(54) **DETERMINING AND PROVISIONING PATHS IN A NETWORK**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1005 days.

This patent is subject to a terminal disclaimer.

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(21) Appl. No.: **11/101,136**

(22) Filed: **Apr. 7, 2005**

(65) **Prior Publication Data**

US 2006/0067236 A1 Mar. 30, 2006

Related U.S. Application Data

(60) Provisional application No. 60/614,609, filed on Sep. 30, 2004.

(51) **Int. Cl.**

H04L 12/28 (2006.01)
G06F 15/177 (2006.01)
G06F 15/16 (2006.01)

(52) **U.S. Cl.** **370/254; 370/389; 370/400; 709/220; 709/249**

(58) **Field of Classification Search** **370/235-240, 370/254-258, 400-401; 709/220, 249**
See application file for complete search history.

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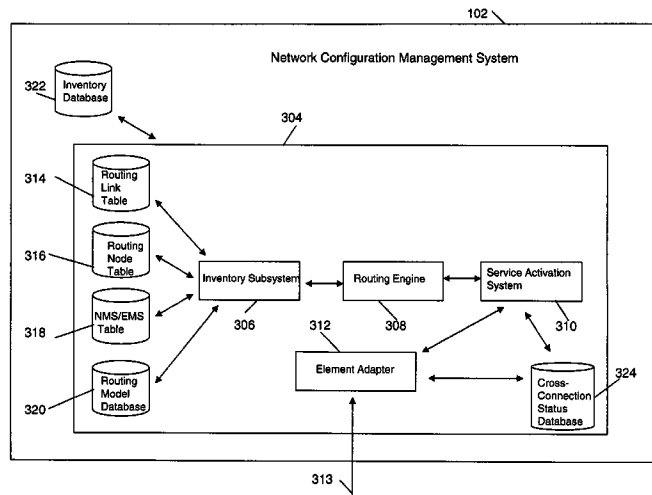
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(57) **ABSTRACT**

A network provisioning system for establishing a path between two networks is disclosed wherein a common network device between those networks is modeled as a link between a first network element in one network and a second network element in a second network. A network routing graph is created by an inventory subsystem in a routing manager by inventorying the physical network elements and links in the network. The inventory subsystem then models those elements/links as a plurality of nodes and links between the nodes. At least one common network device, such as a digital cross connect connecting the two networks, is modeled as a link instead of a node. A routing engine then uses the network routing graph, including the link modeled from the common network device, to provision a path between the networks.

14 Claims, 5 Drawing Sheets



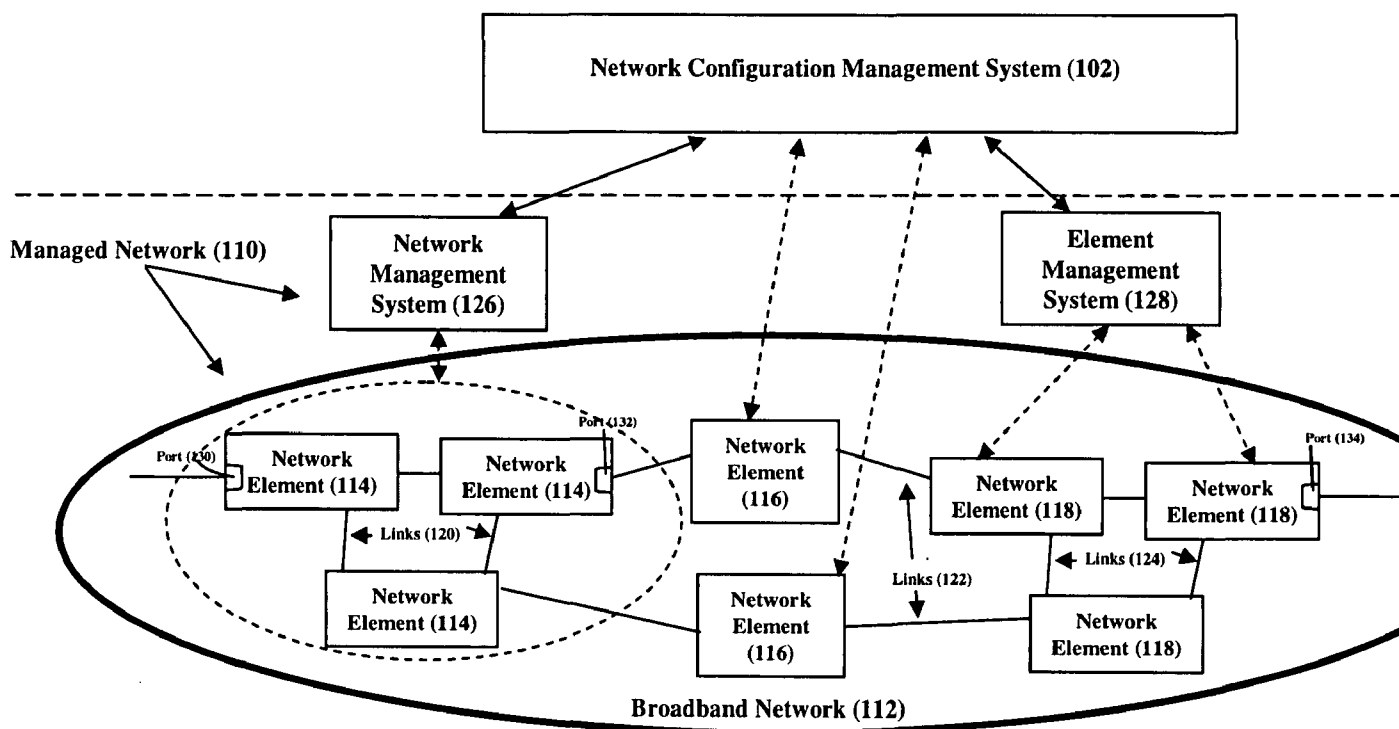
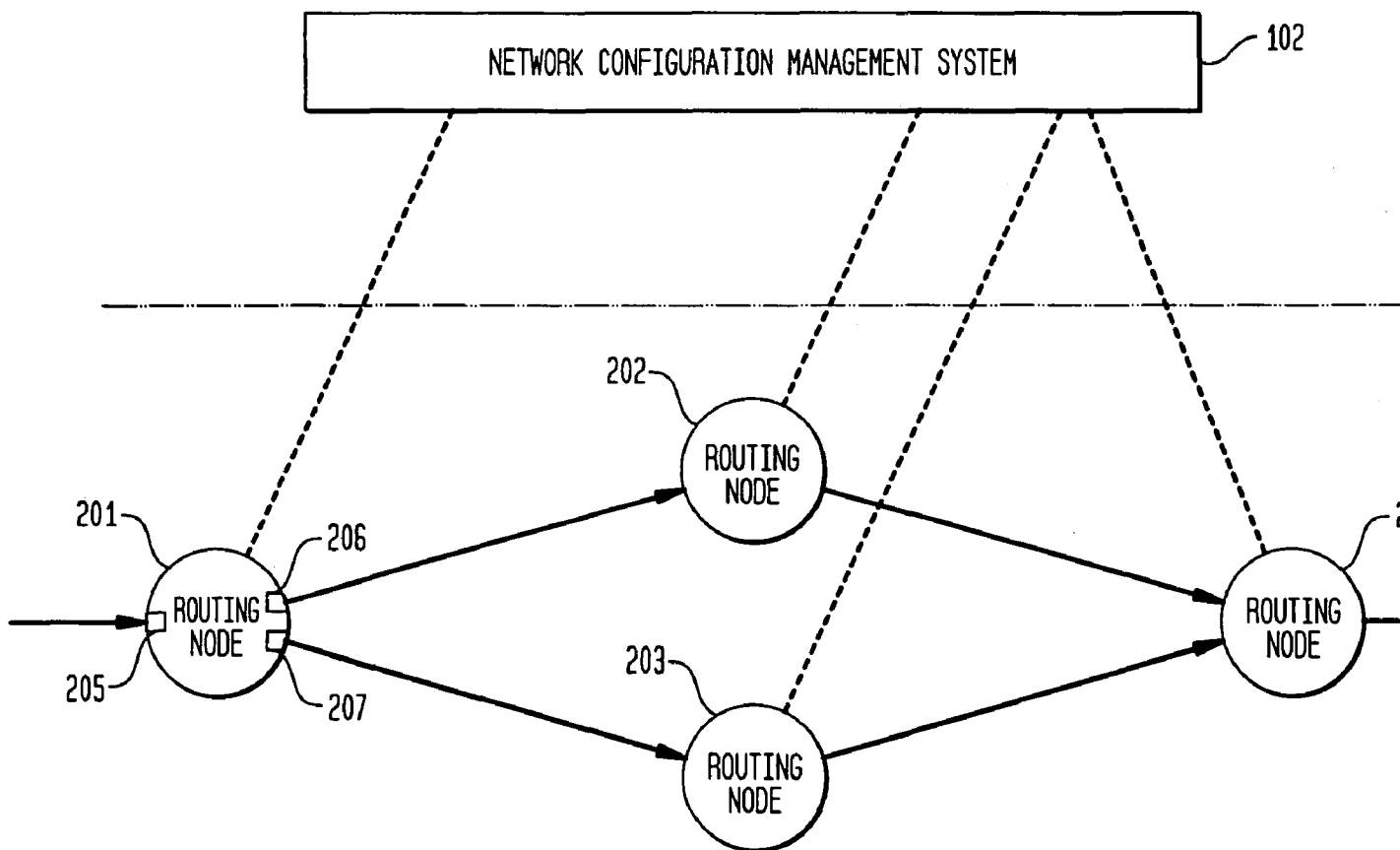


FIG. 1
(Prior Art)

FIG. 2



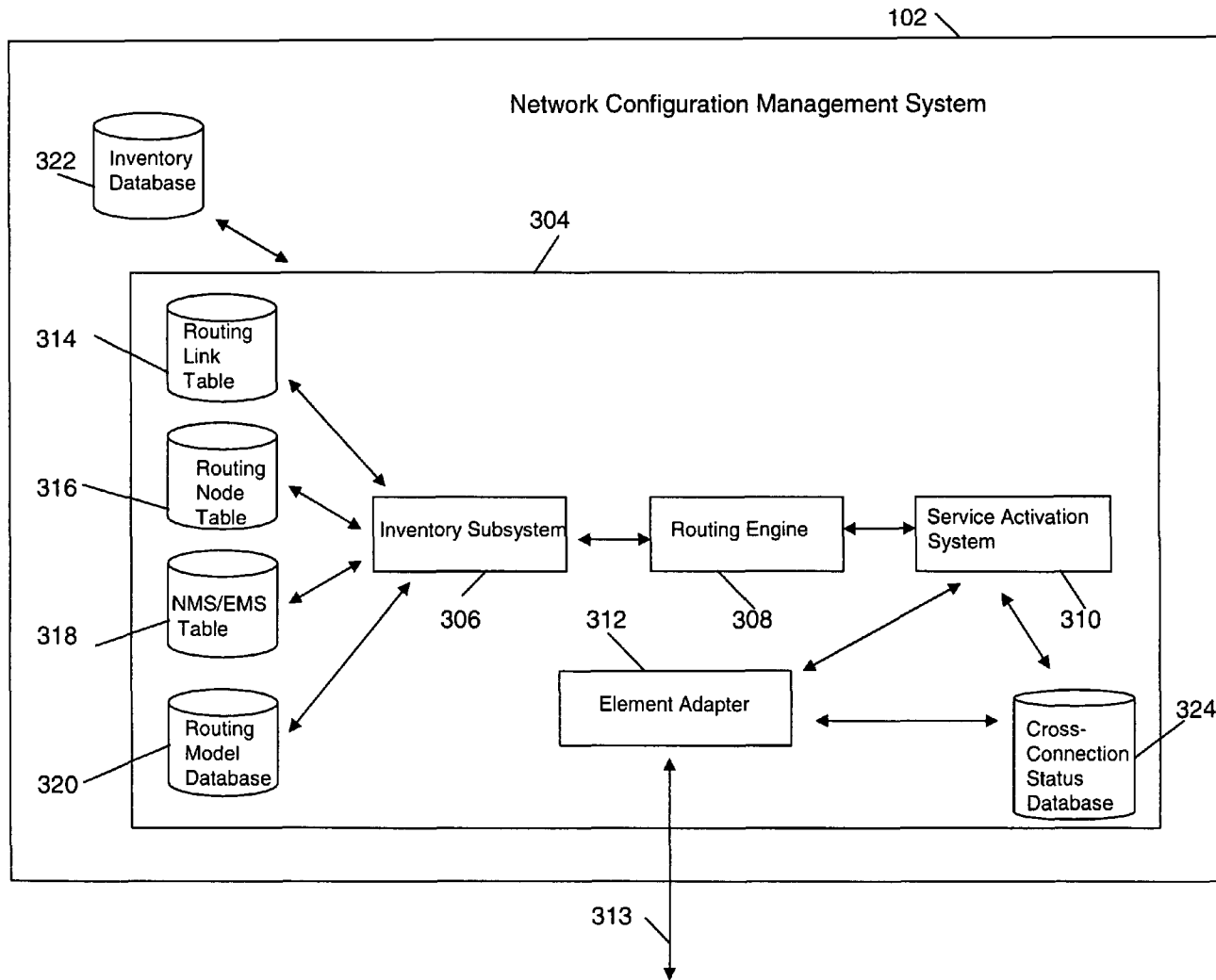


FIG. 3

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