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PATENT P57716

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

KI-CHEOL LEE et al.

Serial No.:

11/336,878

Examiner:

to be assigned

Filed:

23 January 2006

Art Unit:

2155

For:

APPARATUS AND METHOD FOR PROVIDING MULTI PROTOCOL LABEL

SWITCHING (MPLS)-BASED VIRTUAL PRIVATE NETWORK (VPN)

# Information Disclosure Statement

Commissioner for Patents P.O.Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with 37 C.F.R. §1.56, and §§1.97 and 1.98 as amended, Applicant cites, describes, and provides copies of the following art references. Under 37 C.F.R. §1.98(a)(2) however, copies of U.S. patent reference(s) are not provided.

### **U.S. PATENT REFERENCE:**

- U.S. Patent No. 6,205,488 to Casey et al., entitled INTERNET PROTOCOL
   VIRTUAL PRIVATE NETWORK REALIZATION USING MULTI-PROTOCOL
   LABEL SWITCHING TUNNELS, issued on 20 March 2001;
- U.S. Patent No. 6,493,349 to Casey, entitled EXTENDED INTERNET PROTOCOL
   VIRTUAL PRIVATE NETWORK ARCHITECTURES, issued on 10 December 2002;
- U.S. Patent Publication No. 2002/0093915 to Larson, entitled THIRD PARTY VPN
   CERTIFICATION, published on 18 July 2002.

#### **OTHER DOCUMENTS:**

Examiner Marigis, A., European Search Report for European Patent Application No.
 EP 06001096 dated 8 March 2006.

# **DISCUSSION**

Casey et al. '488 provides a virtual private network enabling private communications between two or more private networks over a shared MPLS network. The virtual private network disclosed, includes multiple routers connected to the shared MPLS network and configured to dynamically distribute VPN information across the shared MPLS network. The VPN information distributed by a router includes a VPN identifier assigned to that router, which identifies a VPN with which that router is associated. The router includes a first table which stores a map of the label switched paths from the router in question to all other routers connected to the shared MPLS network. The router also includes a second table which stores a map of label switched paths from the router in question to all other routers connected to the shared MPLS network which share a common VPN identifier.

Casey '349 provides a virtual private network infrastructure which enables private network communications over a shared network. The infrastructure includes a shared network partitioned into at least two separate areas. A first router is connected to a first area and configured to distribute first router VPN information across the first area. The first router VPN information includes a VPN identifier which is assigned to the first router. It also includes a second router connected between the first area and a second area which is configured to distribute second router VPN information across the first area. The second router VPN information includes a VPN identifier which is assigned to the second router which is the same VPN identifier assigned to the first router. A method of configuring a virtual private network infrastructure is also provided which enables private network communications over a shared network. The method includes partitioning a shared network into multiple areas and connecting a virtual router between at least two of the areas. A VPN identifier is assigned to the virtual router. A link is created between a first private network router and a first

router and a first shared network router which is connected to a first area. The VPN identifier assigned to the virtual router is also assigned to the first shared network router and the VPN identifier is communicated between the first shared network router and the virtual router.

Larson '915 discloses a virtual private network (VPN) over a telecommunications network being created by sending a request from a first VPN device to a second VPN device for establishing a VPN between the first and second VPN devices. The request includes a first signed certificate having a verified VPN parameter for the first VPN device. A reply is received at the first VPN device from the second VPN device that includes a second signed certificate having a verified VPN parameter for the second VPN device. The VPN is established between the first and second VPN devices based on each verified VPN parameter for each of the first and second VPN devices.

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Pursuant to 37 CFR §1.97(d), the undersigned attorney hereby certifies that each item of

information contained in this Information Disclosure Statement was cited in a communication from

a foreign patent office in a counterpart foreign patent application not more than three (3) months

prior to the filing of the statement.

The citation of the foregoing references is not intended to constitute an assertion that other

or more relevant art does not exist. Accordingly, the Examiner is requested to make a wide-ranging

and thorough search of the relevant art.

No fee is incurred by this Statement.

Respectfully submitted,

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# INFORMATION DISCLOSURE STATEMENT PTO-1449 (PAGE 1 OF 1)

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APPLICANT KI-(	CHEOL LEE 6	et al.		
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•			U.S. PATENT DOCUMENTS	<u> </u>			
XAMINER	DOCUMENT NUMBER	ENT NUMBER DATE NAME CLASS SUBCLAS		SUBCLASS	FILING DATE		
/C.M./	6,205,488	03/2001	Casey et al.				
/C.M./	6,493,349	12/2002	Casey			<u> </u>	
/C.M./	2002/0093915	07/2002	Larson				
FOREIGN PATENT DOCUMENTS						TRANSLATION	
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO
						*	
	OTHER	DOCUMEN	TS (Including Author, Title, Date,	Pertinent P	ages, etc.)		
	T		rch Report for European Patent Applica			ed 8 March	2006.
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