IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

AUTOCONNECT HOLDINGS LLC, ***Plaintiff,*** **v.** **TOYOTA MOTOR CORPORATION, ET AL.,** ***Defendants.***	**Case No. 2:24-cv-00802-JRG-RSP** (Lead Case)
AUTOCONNECT HOLDINGS LLC, ***Plaintiff,*** **v.** **GENERAL MOTORS LLC** ***Defendants.***	**Case No. 2:24-cv-00877-JRG-RSP** (Member Case)

DEFENDANTS' PRELIMINARY INVALIDITY CONTENTIONS

Pursuant to Patent Local Rules ("P.R.") 3-3 and 3-4 and the Court's Docket Control Order (Dkt. No. 64), Defendants Toyota Motor Corporation ("TMC"), Toyota Motor North America, Inc. ("TMNA"), Toyota Motor Engineering & Manufacturing North America, Inc. ("TME"), and Toyota Motor Sales, U.S.A, Inc. ("TMS") (collectively, the "Toyota Defendants"); and General Motors LLC ("GM") (collectively with the Toyota Defendants, "Defendants") hereby make the following initial Invalidity Contentions and provide accompanying document production.

		Software Architectures of In-Car Multimedia Systems			
		Towards Performance of Ad Hoc In Car Multimedia Service Framework	2011	Sharma et al.	Pre-AIA 102(a), (b)

15. U.S. Patent No. 9,173,100

Ex.	Country	Name/Patent/ Application No.	Filing/Publication/ Issue Date	Inventor(s)	35 U.S.C. Section 102
O-1	US	9094386	Jan. 4, 2013 / May 16, 2013 / July 28, 2015	Jain et al.	Pre-AIA 102(e)
O-2	US	20080192929	Feb. 11, 2008/Aug. 14, 2008 / N/A	Knechtel et al.	Pre-AIA 102(a), (b), (e)
O-3	US	9881165	Mar. 29, 2012 (provisional) / March 28, 2013 (PCT) / Jan. 15, 2015 / Jan. 30, 2018	Litichever et al.	Pre-AIA 102(e)
O-4	WO	2013093591	Dec. 14, 2012 / Jun. 27, 2013 / N/A	Mabuchi	Pre-AIA 102(e)
O-5	US	20130104231	Oct. 4, 2012 / Apr. 25, 2013 / Dec. 30, 2014	Niner et al.	Pre-AIA 102(e)

O-6	US	7626487	June 11, 2004 / Apr. 27, 2006 / Dec. 1, 2009	Ogiso	Pre-AIA 102(a), (b), (e)
	US	9178897	July 3, 2012 / Jan 9, 2014 / Nov. 3, 2015	Bush et al.	Pre-AIA 102(e)
	US	20130081106	Sep. 13, 2012 / March 28, 2013 / May 19, 2015	Harata et al.	Pre-AIA 102(e)
	US	20190020985	Jan 14, 2011 (provisional) Sept. 11, 2018 / Jan. 17, 2019 / Apr. 13, 2021	Dai et al.	Pre-AIA 102(e)
	US	8341298	May 19, 2006 / June 7, 2007 / Dec. 25, 2012	Wilber et al.	Pre-AIA 102(a), (b), (e)
	US	5938708	July 3, 1997 / N/A / Aug. 17, 1999	Wallace et al.	Pre-AIA 102(a), (b), (e)
	US	6161071	Mar. 12, 1999 / N/A / Dec. 12, 2000	Shuman et al.	Pre-AIA 102(a), (b), (e)
	US	7135962	Dec. 20, 2004 / Aug. 4, 2005 / Nov. 14, 2006	Durbin et al.	Pre-AIA 102(a), (b), (e)
	US	7215237	Sept. 5, 2000 / N/A / May 8, 2007	Messerschmid	Pre-AIA 102(a), (b), (e)

	US	7356832	Feb. 10, 2000 / N/A / Apr. 8, 2008	Eibach et al.	Pre-AIA 102(a), (b), (e)
	US	7366892	Jan. 28, 2004 / Sept. 23, 2004 / Apr. 29, 2008	Spaur et al.	Pre-AIA 102(a), (b), (e)
	US	7894978	Apr. 1, 2008 / Aug. 6, 2009 / Feb. 22, 2011	Kurnik et al.	Pre-AIA 102(a), (b), (e)
	US	7945792	Oct. 17, 2007 / Apr. 23, 2009 / May 17, 2011	Cherpantier	Pre-AIA 102(a), (b), (e)
	US	8863256	Jan. 26, 2011 / N/A / Oct. 14, 2014	Adepalli et al.	Pre-AIA (e)
	US	20030009271	June 26, 2002 / Jan. 9, 2003 / Feb. 17, 2004	Akiyama	Pre-AIA 102(a), (b), (e)
	US	20110060920	Nov. 17, 2010 / Mar. 10, 2011 / Nov. 17, 2010	Kisters	Pre-AIA 102(a), (b), (e)
	US	20130031037	Aug. 23, 2012 / Jan. 31, 2013 / Apr. 14, 2015	Brandt et al.	Pre-AIA 102(a), (b), (e)
	US	20140195808	Dec 1 2011 (PCT) / Mar. 18, 2014 / July 10, 2014 / Aug. 16, 2016	Lortz et al.	Pre-AIA 102(e)

	US	20160173530	Feb 13, 2013 (PCT) / Aug. 8, 2014 / June 16, 2016 / N/A	Miyake	Pre-AIA 102(e)
	WO	2000061408	Apr. 10, 2000 / Oct. 19, 2000 / N/A	Ambrož et al.	Pre-AIA 102(a), (b), (e)
O-7	Sweden	Vehicular Networks – Security, Vulnerabilities and Countermeasures	June 2010	Amirtahmasebi et al.	Pre-AIA 102(a), (b)
		EVITA-Project.org: E-Safety Vehicle Intrusion Protected Applications	Nov. 24-25, 2009	Henniger	Pre-AIA 102(a), (b)
		Threat Analysis on Vehicle Computer Systems	Jan. 26, 2010	Vestlund	Pre-AIA 102(a), (b)
		A Formal Security Model for Verification of Automotive Embedded Applications	2010	Pedroza et al.	Pre-AIA 102(a), (b)
		Car2X Communication: Securing the Last Meter	2011	Schweppe	Pre-AIA 102(a), (b)
		A Formal Methodology Applied to Secure Over-the-Air Automotive Applications	2011	Pedroza et al.	Pre-AIA 102(a), (b)
		A System-Aware Cyber Security Architecture	Feb. 13, 2012	Jones et al.	Pre-AIA 102(a), (b)

vehicle. Although Newell does not explicitly disclose vehicles, Zancho's teachings to carry infotainment information from one domain, such as home, to another, such as a vehicle, would motivate a person of ordinary skill in the art to combine its Newell, which discloses television receivers as configurable based on infotainment information in user profile lookup-based manner as the other references, with one or more of each of the other references that do disclose a vehicle.

It would further been obvious to combine any system identified in Section II.C.14 with any of the references charted in Exhibits N.

K. Regarding the '100 Patent

The '100 patent relates to systems and methods for network security in a vehicle. The '100 patent is entitled to a priority date no earlier than March 14, 2013.

The claims of the '100 patent are generally directed to detecting an instance of a security breach in a vehicle perimeter network and isolating an affected component. By March 2013, the concepts of vehicle security systems reflected in the claims of the '100 patent were already well-known and commonplace in the automotive industry and in the field of network security more generally. As demonstrated in the prior art cited below, in the Exhibit O claim charts, and in other references demonstrating the state of the art and knowledge of a person of ordinary skill, these concepts were already known and established in field.

To the extent that AutoConnect argues that any of the references cited in the Exhibit O claim charts does not disclose one or more elements of the claims the '100 patent, it would have been obvious to a person of ordinary skill in the art to combine the teachings of that reference with their own background knowledge and/or the prior art, including the references cited below or in the Exhibit O claim charts. Exemplary combinations of references include:

- Mabuchi ’591 in view of one or more of Litichever ’165, Jain ’386, Niner ’231, Knechtel ’929, Amirtahmasebi, and Ogiso ’487.
- Litichever ’165 in view of one or more of Mabuchi ’591, Jain ’386, Niner ’231, Knechtel ’929, Amirtahmasebi, and Ogiso ’487.
- Jain ’386 in view of one or more of Mabuchi ’591, Litichever ’165, Niner ’231, Knechtel ’929, Amirtahmasebi, and Ogiso ’487.
- Amirtahmasebi in view of one or more of Mabuchi ’591, Litichever ’165, Jain ’386, Niner ’231, Knechtel ’929, Amirtahmasebi, and Ogiso ’487.

Each of these references is directed to automotive network security. Additionally, related publications in the field that describe the advantages and shortcomings of various approaches to automotive security would provide a motivation to combine the teachings of these references to address the broad range of security threats facing vehicles recited in the claims of the ’100 patent. An exemplary reference providing such a motivation to combine references is found in Kasra Amirtahmasebi & Seyed Reza Jalalinia, *Vehicular Networks – Security, Vulnerabilities and Countermeasure* (June 2010). This reference discusses isolating components using firewall gateways on perimeter vehicular networks, Amirtahmasebi, at 41 (“Therefore, only messages from valid and authentic ECUs will be able to pass through the firewall rules and thus be transmitted on the in-vehicle bus system”), and also teaches the advantages of various network security architectures, such as distributed, semi-distributed, and centralized. Id. at 44-46. For example, in view of these teachings, a person of skill in the art would be motivated to combine references disclosing more centralized security architecture, such as Litichever ’165, with references disclosing more distributed security architecture, such as Niner ’231, or would have a reasonable expectation of success in taking more distributed systems where security processes