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	# REQUIREMENT LIST FOR THE NETWORK PACKET INSPECTOR & INTRUSION DETECTOR	**3rd Version: 11/19/2007**
Marlon Winder Hassan Ayinde Tolu Onibiyo Laurence Wilson Idris Ozoya		
DATE UPDATE	**REQUIREMENTS**	**SOURCES**
	Overall Function: *A microprocessor that is capable of deep packet inspection at wire speed.*	
	SIZE	
10/01/2007	• Processor would be implemented on a single Virtex4 XC4VLX25 FPGA board.	The Team
	PERFORMANCE	
	Hardware:	
10/17/2007	• Processor must be dynamically configurable.	Marlon
10/17/2007	• Ability of the processor to search for patterns contained in the payload portion of IEEE 802.3 Ethernet frames.	Marlon, IEEE Standard
10/17/2007	• Support of relational operations and expressions in accordance with the Portable Operating System Interface (POSIX) expression lexicon.	Marlon
10/17/2007	• Ability to search for “don’t care” bytes within frames.	
10/20/2007	• Provides signals at the top/UI level to indicate expression match, prescribed action to be taken, and frame location where match was found.	Laurence Tolu
10/23/2007	• Processor must have the ability to search for matches given data input at a rate in excess of 100 Mbps.	Hassan
10/17/2007	• Ability to provide audible notification when match found.	
	Software:	Tolu
10/20/2007	• The UI must allow configuration and manipulation of search patterns.	Hassan
10/20/2007	• Ability to receive signals from the hardware device indicating an expression match, prescribed action to be taken, and frame location where match was found.	Laurence, Tolu & Marlon
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10/20/2007	• Provide statistics regarding match count.	dris
10/19/2007	**SAFETY** • Device must not generate heat in the excess of 40^{o}C from 6 inches away	The Team
10/20/2007 10/23/2007	**COST AND SCHEDULE** • FPGA board must cost less than $1000 • Content Process design must be completed and ready for testing by 3/1/2008	Team
10/23/2007 10/01/2007	**INTERFACES** • FPGA board must interface with user via EIA232 RS232 serial communication port. • FPGA board must interface with internet via standard Ethernet Port.	Marlon Hassan Tolu
11/09/2007 11/09/2007	**COMPLIANT STANDARDS** • IEEE 802.3 Ethernet • EIA232 RS232 Serial Port • IEEE 1003 POSIX expression lexicon.	IEEE Standard IEEE Standard