

# **Teaming Function for Marvell**

User's Guide



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# **Chapter 1 Marvell Network Control**

#### 1.1 Overview

Marvell Network Control enables you to configure all Yukon® Ethernet Controllers in your system. The various tabs contain trees showing the installed controllers and their configuration.

#### **1.2 Installation**

Install Marvell CPA:



Then Marvell Network Control will be displayed in Control Panel:





#### **1.3 Tabs Introduction**

#### 1.3.1 Adapter

The tab **Adapter** displays the network controllers available in your system with their corresponding ports. It shows the ports which have been configured as VLANs, for RLMT (Redundant Link Management Technology), and the ones which have been aggregated into a team.



#### 1.3.2 Virtual LAN

The tab **Virtual LAN** displays all configured Virtual LANs and the corresponding ports.

<mark>≁</mark> ∎arvell Ne	arvell Wetwork Control								
Power Manag	gement   Statis	tics	Specifications	Support					
Adapter	Virtual LAN	Team	RLMT	Protocol					
VLAN Ad Availab	Adapter Virtual LAN Team RLMT Protocol VLAN Adapters Available to be bound by VLAN								

#### 1.3.3 Team

The **Team** tab displays all links or ports which are available to be aggregated into a so-called team or have been already aggregated to form a team.



Marvell Network C	ontrol							
Adapter Virtual LAN	Team	RLMT	Protocol	Power Manage	ement	Statistics	Specifications	Support
Available Ports Port A of Port A of Port A of Port A of Port A of	"Marvell "Marvell "Marvell "Marvell	Yukon 81 Yukon 81 Yukon 81 Yukon 81	3E 8056 PC 3E 8056 PC 3E 8056 PC 3E 8056 PC	CI-E Gigabit Ethe CI-E Gigabit Ethe CI-E Gigabit Ethe CI-E Gigabit Ethe	ernet C ernet C ernet C ernet C	ontroller'' ontroller'' ontroller'' ontroller''		

#### 1.3.4 RLMT

The **RLMT** tab gives an overview of all ports of dual port controllers, showing all RLMT ports and all non-RLMT ports.

Marvell Network Control								
Power Manag	ement	Statis	tics	Spe	cifications	Support		
Adapter	Virtual LAN Team			RLMT	Protocol			
Adapter: Non-RLM	Adapter Virtual LAW Team LALAN Trotocol							

#### 1.3.5 Protocol

The tab **Protocol** shows all units a protocol can be bound to. This can be a port from a dual port controller, a Virtual LAN, an RLMT configured to a dual port controller, or a team.

Power Management Adapter Virtual		Statistics		Specifications		Support
		AN	Team	Team RLMT		Protoco
THE TH						
	Port A of "	Marvell Yuk	on 88E 8056	6 PCI-E Gioabit	Ethernet (	Controller
	Port A of '' Port A of ''	Marvell Yuk Marvell Yuk	on 88E8056 on 88E8056	6 PCI-E Gigabit 6 PCI-E Gigabit	Ethernet ( Ethernet (	Controller Controller
	Port A of "I Port A of "I Port A of "I	Marvell Yuk Marvell Yuk Marvell Yuk	on 88E 8056 on 88E 8056 on 88E 8056	6 PCI-E Gigabit 6 PCI-E Gigabit 6 PCI-E Gigabit	Ethernet ( Ethernet ( Ethernet (	Controller Controller Controller

#### 1.3.6 Power Management

The tab **Power Management** shows the power states of all installed controllers.



Adapter   Virtual LAN   Tea	m   RLMT	Protocol	Power Ma	nagement Statistics Specifications Support				
	"Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"							
Name / Adapter	Slot: -1							
	Port A	Port A	Port A	Port A				
MinMagicPacketWakeUp	State D3	State D3	State D3	State D3				
MinPatternWakeUp	State D3	State D3	State D3	State D3				
MinLinkChangeWakeUp	State D3	State D3	State D3	State D3				

#### **1.3.7 Statistics**

The **statistic** tab shows dynamic statistic values for all installed Yukon® Ethernet Controllers.

	"Marual	Vukan 000		Rigshit Ethernet Centreller"
Name / Adapter	Slot: -1			algabit Ethemet Controller
	Port A	Port A	Port A	Port A
Generic OIDs				
XMIT OK (Packets)	8	2	38	28
RCV OK (Packets)	146	152	116	126
XMIT Error (Packets)	0	0	0	C
RCV Error (Packets)	0	0	1	C
RCV No Buffer (Packets)	0	0	0	0
Directed Bytes XMIT	0	0	0	C
Directed Packets XMIT	0	0	0	0
Multicast Bytes XMIT	0	0	0	(
Multicast Packets XMIT	4	4	4	4
Broadcast Bytes XMIT	0	0	0	0
Broadcast Packets XMIT	6	12	42	50
Directed Bytes RCV	0	0	0	(
Directed Packets RCV	476235	187055984	187641094	93803795
Multicast Bytes RCV	0	0	0	0
Multicast Packets RCV	7	7	8	7
Broadcast Bytes RCV	0	0	0	0
Broadcast Packets RCV	139	145	109	119
RCV CRC Error	0	0	0	0
XMIT Queue Length (Packets)	0	0	0	0
802.3 OIDs				
RCV Error Alignment (Packets)	0	0	0	0
XMIT one Collision (Packets)	0	0	0	(
XMIT more Collisions (Packets)	0	0	0	0
XMIT Deferred Packets	0	0	0	0
XMIT max. Collisions (Packets)	0	0	0	0
RCV Overrun (Packets)	0	0	0	C
XMIT Underrun (Packets)	0	0	0	C
XMIT Times CRS Lost	0	0	0	C
XMIT Late Collisions	0	0	0	C



### 1.3.8 Specifications

The specifications Tab shows current parameter settings of all installed Yukon® Ethernet Controllers.

			13.54 .0	
	"Marvell Yukon &	38E8056 PCI-E GI	gabit Ethernet Co	ntroller"
Name / Adapter	SIOC -I Dort A	Dort A	Dort A	Dort A
Generic AIDs	FUICA	FOILA	FUILA	TOILA
Max Lookahead (Butes)	512	512	512	512
Max, Data Size (Butes)	1500	1500	1500	1500
Link Speed (MBits/s)	1000	1000	1000	1000
XMIT Buffer snace (Bytes)	387584	387584	387584	387584
BSV Buffer Space (Bytes)	485888	485888	485888	485888
Transmit Block Size (Bytes)	1500	1500	1500	1500
Receive Block Size (Bytes)	1500	1500	1500	1500
Current Packet Filter	0x0000002f	0x0000002f	0x0000002f	0x0000002
Current Lookahead (Bytes)	0	0	0	(
Max. Frame Size (Bytes)	1514	1514	1514	1514
MAC Options	Dx00000080	0x000008d	Dx0000008d	0x0000008
Media Connect Status	Connected	Connected	Connected	Connected
Max. Send Packets	1	1	1	
Vendor Driver Version	0x00080041	0x00080041	⊾ 0x00080041	0x0008004
802.3 OIDs			5	
Permanent Address	00.00.5a.00.04.68	00.00.5a.00.04.67	00.00.5a.00.04.69	00.00.5a.00.04.66
Current Address	00.00.5a.00.04.69	00.00.5a.00.04.69	00.00.5a.00.04.69	00.00.5a.00.04.65
Max. Addresses List Size	128	128	128	120
MAC Options	0x00000000	0x00000000	0x00000000	0x0000000
Other OIDs				
MDB Version	V1.3	V1.3	V1.3	V1.3
Device Type	0.0	0.0	0.0	0.0
Driver Version	v8.65.1.3	v8.65.1.3	v8.65.1.3	v8.65.1.3
HW Version	v1.2	v1.2	v1.2	v1.2
Chipset	0	0	0	(
Bus Type	1	1	1	
Bus Speed (MHz)	33	33	33	33
Bus Width (Bit)	32	32	32	32
Sensors	0	0	0	(



### **1.3.9 Support**

The tab **Support** provides information on how to reach the Technical Support and also lists the versions of all package components.

Adapter   Virtual LAN Power Management   Stati:	Team   RLMT stics   Specificati CHNICAL SUP	Protocol ons Support					
Power Management Stati	stics   Specificati	ons Support					
Internet Sites	CHNICAL SUP	PORT					
Internet Sites							
Internet Sites							
http://www.movrell.com/multon/composit							
······································	-7						
'ile Versions of Marvell Mod	ules:						
Module	Version	File					
Package Version	5.64.2.3						
Network Control Panel Applet	5.51.1.3	mrvlnetcp.cpl					
Notify Object for LAGG Protocol	5.42.1.3	sklagg.dll					
Link Aggregation Protocol Driver	2.17.1.3 built by: WinDDK	yk51lagg.sys					
Notify Object for VLAN Protocol	2.15.1.3 built by: WinDDK	skvlan.dll					
Virtual LAN Intermediate Driver	2.15.1.3 built by: WinDDK	skvlan.sys					
NDIS Miniport Driver	8.65.1.3 built by: WinDDK	yk51x86.sys					



# **Chapter 2 Teaming Configuration**

### 2.1 Add Team

1. Right click in the upper from and select "Add team..." to create a team:

🚧 Marvell Network Control							
Power Management Adapter Virtual	Stat LAN	istics   Team	Sp	ecifications RLMT	Support Protocol		
Available Ports Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller" Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller" Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller" Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"							
	Add Te Renam Remov	eam ne Team ve Team					
	Add Po Remov	ort to Team ve Port from Te	am	•			

2. Then enter **Team name** and select **Teaming Mode**:

En	ter Team Name	×
	Team Name: T1 Teaming Mode Dynamic V	
	OK Cancel	

*L*<sub>TIPS:</sub>

- **Dynamic** team uses dynamic Link Aggregation with same-speed or mixed-speed adapters.
- All **Static** team members must operate at the same speed.



3. Right click ports on available ports, and then select Add Port to Team and *Team\_Name*:

🊧 Marvell Net	vork Control						
Power Mar	agement	Statisti	ics	Speci	fications	Support	
Adapter	Virtual I	LAN	Team		RLMT	Protocol	
💕 T1	T1						
T2							
Available	e Ports ort Allof "Morue	ll Vulcan 00		E Giashi	Ethornot C	Controllor <sup>11</sup>	
	ort A of "Mar	Add Team			t Ethernet C	Controller"	
F	ort A of "Mar	Rename T	eam		t Ethernet C	Controller"	
F	ort A of "Mar	Remove T	eam		t Ethernet C	Controller''	
		Add Davk F		<u> </u>	T1		
		Add Port t	to Team tork from To	•	T1		

4. Here we add all four ports to the team. Click **Apply** to activate the changes.

Power Management       Statistics       Specifications       Support         Adapter       Virtual LAN       Team       RLMT       Protocol         Image: Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"         Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"         Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"         T2       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"         T2       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"         T2       Available Ports       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"         T2       Available Ports       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"         T4       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"         T2       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"         Image: Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller" </th <th></th> <th>control</th> <th></th> <th></th> <th></th>		control			
Adapter       Virtual LAN       Team       RLMT       Protocol         Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"         Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"         T2       Port A of "Marvell Yukon 88E8056 PCI-E Gigabit Ethernet Controller"         T2       Available Ports	Power Managem	ent 🗍 Stat	istics S	pecifications	Support
Port A of ''Marvell Yukon 88E 8056 PCI-E Gigabit Ethernet Controller''         Port A of ''Marvell Yukon 88E 8056 PCI-E Gigabit Ethernet Controller''         Port A of ''Marvell Yukon 88E 8056 PCI-E Gigabit Ethernet Controller''         Port A of ''Marvell Yukon 88E 8056 PCI-E Gigabit Ethernet Controller''         Port A of ''Marvell Yukon 88E 8056 PCI-E Gigabit Ethernet Controller''         Port A of ''Marvell Yukon 88E 8056 PCI-E Gigabit Ethernet Controller''         Port A of ''Marvell Yukon 88E 8056 PCI-E Gigabit Ethernet Controller''         T1         Available Ports         F1         Parameter name       Value         P Address         Jumbo Frames       Disabled	Adapter	Adapter Virtual LAN		RLMT	Protocol
F1       Parameter name     Value       P Address     Iumbo Frames       Jumbo Frames     Disabled	Port A ( Port A ( Por	of ''Marvell Yukon ) of ''Marvell Yukon ) of ''Marvell Yukon ) of ''Marvell Yukon ) s	88E8056 PCI-E Gi 88E8056 PCI-E Gi 88E8056 PCI-E Gi 88E8056 PCI-E Gi	gabit Ethernet Coi gabit Ethernet Coi gabit Ethernet Coi gabit Ethernet Coi	ntroller'' ntroller'' ntroller'' ntroller''
Iumbo Frames Disabled					
	T1 Parameter name	Value			
	<b>T1</b> Parameter name P Address Jumbo Frames	<b>Value</b> Disabled			





5. Then two logical network controllers will be showed in Device Management:

🚇 Device Manager					
<u>Eile Action View H</u> elp					
🗄 📹 Floppy disk controllers					
🗄 退 Floppy disk drives					
🗄 🖾 Human Interface Devices					
🗄 📹 IDE ATA/ATAPI controllers					
🗄 🦥 Keyboards					
🗄 🖳 📴 Monitors					
🖻 🕮 Network adapters					
<b></b> T2					
🗄 🖳 🚽 Ports (COM & LPT)					

#### 2.2 Remove Team

Right-click the team you want to remove, and then select **Remove team**. Click **Apply** to activate the changes.

**	Marvell Netwo	ork Control					_ 🗆
	Power Manag	gement	Stal	tistics	S	pecifications	Support
	Adapter	Virtual	LAN	Tea	n	RLMT	Protocol
	Add Team Add Team Add Team An Remove Team Add Port to Team Remove Port from Team		88E 8056 F 88E 8056 F 8056 F 8056 F	E8056 PCI-E Gigabit Ethernet Controller'' E8056 PCI-E Gigabit Ethernet Controller'' 8056 PCI-E Gigabit Ethernet Controller'' 8056 PCI-E Gigabit Ethernet Controller''			



# Reference

### **Chapter 1**

Marvell Corporation: http://www.marvell.com

### **Chapter 2**

Marvell Corporation: http://www.marvell.com

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