1. Using the Dragon Software

Thank you for purchasing Dragon Software. Realtek Dragon is the best network management product available for online games. The Dragon software is used to control the network bandwidth on Windows 7, Windows8, Windows10 or later platforms.

Many users play online game (League of Legend, StarCraft2, Overwatch), watch video streaming (YouTube, Netflix) or listen to online audio (KKBOX, Spotify), and download files through P2P software at the same time. P2P software would affect the network quality seriously and delay the real-time programs. Dragon network management uses advanced feature cooperate with Realtek Gaming Ethernet adapter to deliver more intelligence and more control than traditional network interface. Dragon Bandwidth Control software automatically detects foreground/group traffic and prioritize it as six bandwidth priority levels (the highest priority, high priority, normal priority, low priority, lower priority, and the lowest priority) for optimum performance. User can set traffic limit by visualize network management, manually adjust application priority, or block certain high network traffic applications, to prevent this application interfered with user concerned gaming process.

Dragon network management default settings deliver first priority in foreground group processes. The benefits of latency, network traffic, and intelligence will help user to get better user experience and lower down traffic lag issue on the platform.

2. Starting the Realtek Dragon Software

Realtek Dragon network management software loads at Startup. Once installed, the Realtek Dragon network management icon shows on system tray (the right bottom corner of the screen). Mouse right click on the tray icon to show the application window.

Users also can start Dragon network management from the "start" menu by left click the icon in following path

"Start->Programs->Realtek->Dragon->Dragon.exe".

The following picture is the Realtek Dragon network management main page. There are three areas in this page, such as Feature Page, Mode Selection, and Application List areas.

There are MAIN PAGE, SETTINGS, and INFO tabs in Feature Page area, and there are some modes in Mode Selection area, such as AUTO, GAME, STREAM, BROWSER, WORK, R-rowStorm, and BT modes. In Application List area, there are all running programs which require internet access, in other words, if the program doesn't need to transmit packets from internet, it will not be displayed on Application List area.

de la			ture Page				X
Mode Selection	GO	N	MAIN PAGE	14	SETTINGS	7.6	INFO
	GROUP	APPLICATION	I	BANDWIDTH		PRIORITY	BLOCK
Ì	A	League of Legends.exe	* *	0 KBytes 0 KBytes		E Bras	D
AUTO	A	PathOfExile_x64.exe	*	0 KBytes 1 KBytes		E Bau	đ
STREAM	0	or chrome.exe	* ion List	0 KBytes 0 KBytes		5 S.A.	đ
BROWSER WORK	0	msedge.exe	*	0 KBytes 0 KBytes		5	đ
	a.	BitComet.exe	*	0 KBytes 0 KBytes		2 11	d
	0	Garena.exe	* *	0 KBytes 0 KBytes		£ 4	D
R-rowStorm BT	0	CDPSvc	* *	0 KBytes 0 KBytes		E Hau	đ
	0	DoSvc	* *	0 KBytes 0 KBytes		E HARR	۵

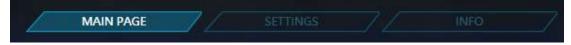
As you see the picture shown above, the Dragon default setting in MAIN PAGE is AUTO mode. We will describe the definitions of AUTO mode, GAME mode, STREAM mode, BROWSER mode, and Work mode later.

Dragon was a TSR program, user can minimize this window by click "Cross Button"



2.1 Feature pages

The Dragon software provides 3 tabs, "MAIN PAGE", "SETTINGS", and "INFO". When Dragon launches, it will display MAIN PAGE, because more information user concerned is contained in this page.



2.1.1 MAIN PAGE tab - Mode Selection Area

In MAIN PAGE tab, there are Mode Selection area and Application List page. In Mode Selection area, there are five modes "AUTO", "GAME", "STREAM", "BROWSER", and "WORK". There are also two extra modes "R-rowStorm" and "BT" if the platform has multiple supported adapters. The definitions of each mode is shown below:

A. AUTO Mode:

Dragon adjusts priority for applications according to defined criterion automatically. User also can change priority by itself.

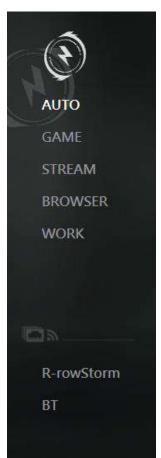
B. GAME Mode:

The process belongs to game such as League of Legend, WarCraft3 Diablo3 etc. will get the highest bandwidth priority, and the other processes will get lower bandwidth priority.

C. STREAM Mode:

The process belongs to Stream such as PPS will get the highest bandwidth priority, and the other processes will get lower bandwidth priority.

D. BROWSER Mode: The process belongs to browser such as



Chrome, Edge, Firefox etc. will get the highest bandwidth priority, and the other processes will get lower bandwidth priority.

E. WORK Mode:

The process belongs to work such as Skype, LINE, Teams etc. will get the highest bandwidth priority, and the other processes will get lower bandwidth priority.

F. R-rowStorm:

If there are multiple supported adapters and connected, user can bind one process to any adapter by changing its priority.

G. BT:

If there are multiple supported adapters and connected, choose this mode will teaming multiple adapters to speedup BT download/upload.

For Example:

0 WEI - X DAVO	A DRAC	ION	MAIN PAG	e / Serieka	C CINE
The Start					
HP-12	Ì	League of	Legends.exe ¥	1 Käytes 4 Käytes	б 💦 а
1 - Julis	AUTO	🗿 🧿 chrome.ex	e *	19 KBytes 3222 xBytes	a a
	GAME STREAM	BitComet.	exe 🍣	11 KBytes 76 KBytes	a a
	BROWSER	Garena.ex	*	1 KBytes 0 KBytes	б д
		CDPSvc	* *	0 Kõyles 0 Kõyles	a 🖉
0 - 0 6 # \$ \$		DoSve	*	0 Käytes 0 Käytes	a 🔊
Q. V. III I 🕙 SIGN II		asus_frame	\$	0 KBytes 0 KBytes	a 🔊
1000		iphlpsvc	*	0 KBytes 0 KBytes	а
	Download 80 KB/s, Up File View CometiD Tr CometiD Tr HTTP Torrent Magnet	000	😞 🕘 🗙 🛛	a 9 a á	- D
	Channels ① IE S S All Downloads (6) Downloading (6)	255		Tags Search Tasks Comments Snapshots Prev	lev Size 2.59 GB

As the picture shown above. If user select AUTO mode, the game process, such as League of Legends, will be assigned to the highest priority (Level6). The browser process, such as Chrome, will be assigned to high priority (Level5). The BT process, such as BitComet, will be assigned to the lowest priority (Level1). Other processes are assigned to normal priority (Level4).

If user select GAME mode, all gaming processes will be assigned to the highest priority, and other processes will be assigned to lower priority, as the picture shown below.

AL DR	AGO		MAIN PAGE				
A	-	League of Legends.exe	*	0 KBytes			e
		Teague of Legends.exe	¥	1 KBytes			U
AUTO		PathOfExile_x64.exe	*	0 KBytes			B
GAME			¥	1 KBytes		E bai	L
STREAM	0	o chrome.exe	*	0 KBytes	_	1	ð
			¥	0 KBytes		E HAN	
BROWSER	@	nsedge.exe	*	0 KBytes	_	100	d
WORK			*	0 KBytes		E HAm	~
		BitComet.exe	*	0 KBytes			d
				0 KBytes	_	the Ann	
		AcPowerNotification.ex	* ×	0 KBytes 0 KBytes		E Ham	6
						- TAR	
		ArmouryAlOFanServer.e	x A S	0 KBytes 0 KBytes	-	£ 46.	D
				o noyous		Auto Auto	

If user select BROWSER mode, all processes that belong to browser will be assigned to the highest priority, and other processes will be assigned to lower priority, as the picture shown below.

who as	AGO					×
AL DU	AGOI		MAIN PAGE			
	GROUP					
(AA)	-	League of Legends.exe	*	1 KBytes	1 A	a
<i>w</i>		The second secon	¥	3 KBytes	E YAND	LU
AUTO	-	PathOfExile_x64.exe	*	0 KBytes		a
GAME		Tatholexile_xoviexe	¥	t KBytes	an Ham	
STREAM	0	C chrome.exe	*	0 KBytes		a
	<u> </u>		¥	0 KBytes		
BROWSER	#	msedge.exe	*	0 KBytes		ð
WORK	-	C madgalaxe	¥	0 KBytes	# b	
		BitComet.exe	*	0 KBytes		d
			¥	0 KBytes	- Ann	U
		Garena.exe	\$	O KBytes	1	D
			¥	0 KBytes	E HAN	
		CDP5vc	*	0 KBytes	100	ð
		-0. 101010	¥	0 KBytes	E Hiles	U
		DoSvc	*	0 KBytes	10 C	ð
			¥	0 KBytes	E Yam	

If user select R-rowStorm mode, process will transmit packets by dedicated adapter according to the priority mapping table in SETTINGS page.

the second								×
DR.	AGO	N		MAIN PAGE				
			APPLICATION		BANDWIDTH		PRIORITY	BLOCK
6 a	箇		League of Legends.exe	*	0 KBytes		- A.	ð
tunit su				*	0 KBytes		£ 6*	
AUTO	1	RE	PathOfExile_x64.exe	*	0 KBytes 1 KBytes		6.4	D
GAME				\$	0 KBytes	-	~	2
STREAM		G	Garena.exe	¥	0 KBytes		£ 5t.	D
BROWSER	6	6	chrome.exe	\$	0 KBytes			D
WORK	Includ.	9	childine.exe	*	0 KBytes		E 44	U
	1		msedge.exe	â	0 KBytes		1 mar	d
		-		*	0 KBytes			
Ca	1	()	BitComet.exe	*	0 KBytes 0 KBytes		E Dan	D
B rowStorm	10			\$	0 KBytes	1		2
R-rowStorm	<u>ث</u>	Fo t	CDPSvc	¥	0 KBytes		- 1 Mar	đ
				\$	0 KBytes			2
BT	101	L	DoSvc					
ВТ	1	To-	DoSvc	¥	0 KBytes		🚊 Him	D
	۵ AGO		DoSvc	¥		SETTINGS	E Vinn	×
A DR	AGO	Z	DoSvc			SETTINGS	E Baa	
	AGO R-rows	N	DoSvc	¥ MAIN PAGE		SETTINGS	E Usar	×
A DR	AGO R-rows	N	e application with different netw	¥ MAIN PAGE		SETTINGS	E Shaw	X INFO
A DR	AGO R-rows	N	e application with different network	MAIN PAGE work adapters.	0 KBytes			X INFO
A DR	AGO R-rows	N	e application with different networks and the second secon	MAIN PAGE work adapters.	0 KBytes		E Shaw	X INFO
A DR	AGO R-rows	N	e application with different nets	MAIN PAGE work adapters.	0 KBytes			X INFO
A DR	AGO R-rows	N	e application with different nets	MAIN PAGE work adapters.	0 KBytes			X INFO
A DR	AGO R-rows	N	e application with different nets	MAIN PAGE work adapters.	0 KBytes			X INFO
A DR	AGO R-rows	N Storm d prioritize	e application with different networks of the second s	MAIN PAGE work adapters.	0 KBytes			X INFO
A DR	A G O R-rowS Assign an	N Storm d prioritize	e application with different networks and the second secon	MAIN PACE work adapters.	0 KBytes			X INFO
A DR	A G O R-rowS Assign an	N Storm d prioritize	e application with different networks and the second secon	× MAIN PAGE work adapters.	0 KBytes			X INFO
A DR	A G O R-rowS Assign an	N Storm d prioritize	e application with different networks and the second secon	× MAIN PACE work adapters.	0 KBytes			X INFO
A DR	A G O R-rowS Assign an	N Storm d prioritize	e application with different networks and the second secon	× MAIN PAGE work adapters.	0 KBytes			X INFO
	A G O R-rowS Assign an	N Storm d prioritize	e application with different networks and the second secon	× MAIN PAGE work adapters.	0 KBytes			X INFO

6

If user select BT mode, BT processes will be assigned to the highest priority and Dragon will teaming multiple adapters to speedup BT transmission.

1						×
DR DR	AGO	N	MAIN PAGE			
				BANDWIDTH	PRIORITY	BLOCK
-		BitComet.exe	* *	0 KBytes 0 KBytes	E ban	đ
AUTO	-	League of Legends.exe	* *	0 KBytes O KBytes	E In	đ
STREAM	-	PathOfExile_x64.exe	* *	0 KBytes 0 KBytes	E a	ð
BROWSER WORK		Garena.exe	* *	0 KBytes 0 KBytes	a dam	đ
	0	orrome.exe	* *	0 KBytes 0 KBytes	- Ann	đ
Da	0	or msedge.exe	* *	0 KBytes 0 KBytes	E The	ð
R-rowStorm BT		CDPSvc	* *	0 KBytes 0 KBytes		ð
61		DoSvc	* *	0 KBytes 0 KBytes	- Alexandre	ð

* 0 KBytes 6 League of Legends.exe ¥ * 6 PoE PathOfExile_x64.exe ¥ * D chrome.exe ¥ * 9 msedge.exe ¥ * 0 KBytes 9 BitComet.exe ¥ Auto * 9 Garena.exe ¥ * 0 CDPSvc ¥ 0 KBytes * 6 DoSvc ¥

As the picture shown above, there shows some information of each process in this area, such as GROUP, APPLICATION, BANDWIDTH, PRIORITY, and BLOCK.

Because we divide all processes to six different groups, such as Game, Browser, Stream, Work, BT and undefined groups. We use different colors and icons to present these groups, so user can easily

understand group information in group column:

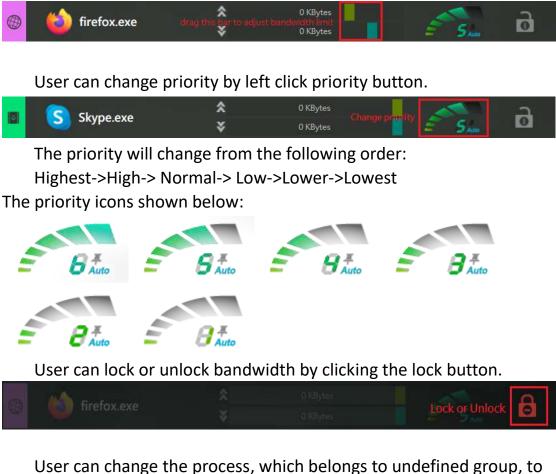
- it means Game group
 it means Browser group
 it means Stream group
- 4. 🍟 it means Work group
- 5. 📓 it means BT group



2.1.2 MAIN PAGE tab – Application List Area

For Example, please see the picture show right, chrome belongs to Browser group, League of Legends belongs to Game group, QyClient belongs to Stream group, Skype belongs to Work group, and BitComet belongs to BT group.

User can limit the upload or download bandwidth easily by dragging the upload limitation bar or download limitation bar.



User can change the process, which belongs to undefined group, to Game/Stream/Browser/Work group by clicking group button in undefined process row.



If user changed undefined group process to Game/Stream/Browser/ Work group, the group color changes to blue/green/pink/yellow, the same as original Game/Stream/Browser/ Work group.

B	PathOfExile_x64.exe	* *	0 KBytes 1 KBytes	Бли	D
0	Garena.exe	* *	0 KBytes 0 KBytes	HAins	Ø
	QyClient.exe	* *	0 KBytes 0 KBytes	E S Auto	Ð
	W QyKernel.exe	* *	0 KBytes 0 KBytes	5 Auto	Ð
	or chrome.exe	*	0 KBytes 0 KBytes	E S Auto	Ø

Because original undefined process is changed to Game/Stream/Browser/Work group by user, the priority assignment method will be changed by Game/Stream/Browser/Work group policy. For example, if user changes mode to Game mode, this process will be assigned to the highest priority (Level6), as the picture shown below.

User also can change back to undefined group by click group button again.

A.						×
DRA DRA	.00	N	MAIN PAGE			
6	(33)	League of Legends.exe	*	0 KBytes		đ
		League of Legends.exe	¥	O KBytes		0
AUTO		PathOfExile_x64.exe	*	0 KBytes		đ
GAME	~	PathorExile_x04.exe	¥	1 KBytes	E bau	0
	-	Garena.exe	\$	0 KBytes		đ
STREAM	0	Garena.exe	¥	0 KBytes		O
BROWSER		QyClient.exe	\$	0 KBytes	100 M	2
WORK		QyClient.exe	*	0 KBytes	E 4 Auto	đ
			*	0 KBytes	100	đ
	•	QyKernel.exe	¥	0 KBytes	E MANN	0
	0	A	\$	0 KBytes	100	D
D a		Chrome.exe	¥	0 KBytes	E Hau	0
R-rowStorm	0		\$	0 KBytes	~ 7	đ
вт		msedge.exe	¥	0 KBytes	£ 41.400	0
BI		EA CODO	\$	0 KBytes	100	D
		CDPSvc	¥	0 KBytes	E HANN	0

2.2. SETTINGS tab



In this page, there have two setting areas, R-rowStorm and Advanced. There must be at least two supported adapters with connected status on PC, otherwise the item "R-rowStorm" will not be displayed on this page.



2.2.1 SETTINGS tab - R-rowStrom page



In this page, it shows the network adapters and priority binding status. As the picture shown above, it means the highest priority (Level6), and high priority (Level5) will transmit packets via adapter1 Ethernet. The normal priority (Level4), low priority (Level3), Lower priority (Level2), and the lowest priority (Level1) will transmit packets via adapter2 Ethernet. Adapter3 WiFi is disabled and cannot be selected, because the status is disconnected. If the status changes to connected, it will be changed to enable.

R-rowStorm Assign and prioritize a	pplication with di	fferent network ada	pters.	
	1	1	Ŷ	0
50	\bigcirc	٠	•	
65	${ \ \ }$	•	•	
E.		\bigcirc		
E 3.	•	\odot	۲	
= 2	•	٠	\bigcirc	
	۲	٠	\bigcirc	

AL DR	AGO		MAIN PAGE			
11-	6	League of Legends.exe	*	0 KBytes		b 1
line a	hairs)	League of Legends.exe	¥	O KBytes	E 6*	0
AUTO	6	PathOfExile_x64.exe	*	0 KBytes		l d
CAME	lunial	Patholexile_x04.exe	¥	1 KBytes	■ 6 ⁺	U
GAME	Garena.exe	*	0 KBytes		D	
STREAM	Tester) -	Galena.exe	¥	0 KBytes	E 51	U
BROWSER	6	C chrome.exe	\$	0 KBytes		d
WORK	factor P	Cinome.exe	¥	0 KBytes	E 45	
	6	nsedge.exe	*	0 KBytes		d
	(anima)	insedge.exe	¥	0 KBytes	E 4*	
	Ó	BitComet.exe	\$	0 KBytes		D
19	(and a local data	DILLOINELEXE	¥	0 KBytes	📕 🚊 🖓	
R-rowStorm	Ó	CDPSvc	\$	0 KBytes		ð
вт	Second Second	=Q. consic	¥	0 KBytes	📄 🖆 🕂 🚛	

As the picture show above, when R-rowStorm feature is enabled, the group column will change to adapter column. It shows which network adapter channel used to connect to internet. For example, League of Legends.exe transmits packets via ethernet network adapter1, chrome.exe transmits packets via ethernet network adapter2, and BitComet.exe transmits packets via ethernet network adapter2, too.

2.2.2 SETTINGS tab – Advanced page

User can open Advanced page by clicking Advanced button. In this setting page, user can enable/disable Display Program Icon, enable/disable Website Recognition feature, or reset application list to default by clicking "Reset" button.

DP	AGON				-
Un	AGON		SETTINGS		
(] =	R-rowStorm Assign and prioritize application with			~	
0 *0	Advanced			~	
		Enable (Reset all data to defai		
		Disable 🔘	Keset		

Application list shows applications with their icons. If user disables Display Program Icon feature, these icons will not be shown.

If user enables Website Recognition feature, Dragon will isolate more famous websites to independent items from browser applications, such as Google, Yahoo, Netflix, YouTube, etc. User can set their priority level, adjust bandwidth limit, or block them individually. Please refer to the picture in the next page.

NO DR	AGON						×	
		- Charles Ave	_	MAIN PAGE				
	GROUP	APPLICATION				PRIORITY	BLOCK	
(\mathbf{x})		Skype.exe		*	0 KBytes	1	6	
<u> </u>				¥	0 KBytes	= 5 .00		
AUTO	0	韵 firefox.exe		*	0 KBytes		6	
GAME		•		¥	55 KBytes	5 b Ant	U	
	0	🕝 Google		*	0 KBytes	1	D	
STREAM				¥	0 KBytes	E SAN	U	
BROWSER	0	YouTube		*	16 KBytes	1	đ	
WORK		Tourabe		×	1516 KBytes	 E Shin	0	
	0	🕥 msn		\$	0 KBytes	1	đ	
				¥	0 KBytes	E Sam	0	
	0	y! Yahoo		\$	0 KBytes		đ	
Ca .		y. ranoo		¥	0 KBytes	S.Am	0	
R-rowStorm	0	N and		\$	0 KBytes		а	
	•	Netflix		¥	0 KBytes	£ 5.40	ତି	
BT				\$	0 KBytes		а	
		Microsoft		×	0 KBytes	5 Sam	đ	

2.3. INFO tab

There are five sub-pages in INFO page, including System Info, Alarm, Mobile Hotspot, Network Traffic, and About pages. User can get the information of system, and the statistical data of network in this page.



2.3.1 INFO tab - System Info

As the picture shown above, if there are three Dragon supported network adapters in the computer, they will be listed in the left of the page. Here shows some information of these adapters such as IP address and link status.

In this page, user also can get the hardware information like CPU model, RAM, VGA, and the operating system. Here also shows the network maximum bandwidth including upload and download.

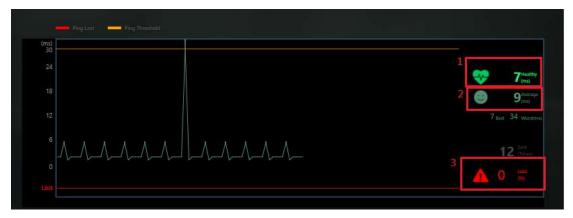


2.3.2 INFO tab - Alarm

In Alarm page, Dragon provides Advanced Alarm Message feature to monitor and record network quality.

DRAGON MAIN PACE SETTINGS System Info Alarm Mobile Hk	otspot	INFO Network Traffic
Advanced Alarm Message Enable the alarm monitor to trace the network latency.		
		0
		~
Please input the website address or IP address, and the latency threshold.		
		.
Please input the website address or IP address, and the latency threshold. Alarm Threshold 80 (md) Ping Server www.geogle.com Figure Pagues - Program (may thereted)		
Please input the website address or IP address, and the latency threshold. Alarm Threshold 80 (red) Ping Server now goods com		.
Please input the website address or IP address, and the latency threshold. Alarm Threshold (mg) Ping Server (mg) (mg	0	The state
Please input the website address or IP address, and the latency threshold. Alarm Threshold BD (mg) Ping Server www.goodle.com Figure Ping Tended Transmission Ping Tended	9 0 3	.
Please input the website address or IP address, and the latency threshold. Alarm Threshold (md) Ping Server now good(scon) Protector Protect		Binning Binning Binning

In the above picture, user can set alarm threshold, and set tracing server by themselves. The information will show on E.K.G diagram.



- 1. It is immediate ping latency.
- 2. It is average ping latency.
- 3. It is ping lost percentage information.

If user enable this feature, it will monitor network quality of user's platform continuously until disable. Dragon will save this information. If user want to check previous network quality, they can click open file dialog to open previous data.

₩	Advanced Alarm Message Enable the alarm monitor to trace the network latency.	-
		0
	Please input the website address or IP address, and the latency threshold. Alarm Threshold (m) Ping Server www.spools.com	

2.3.3 INFO tab – Mobile Hotspot

In Mobile Hotspot page, user can share network through WiFi adapter by choosing an Ethernet adapter. User can input his own SSID and KEY, or use the default values if available. After enabling this function, mobile device can search the SSID and connect to it. When device connected, it will be shown in the Mobile Hotspot status list.

	System Info	Alarm Mobile Hotspot Network Trafi
Mobile Hotspot Enable Mobile Hotspot can let	Ni-Fi card to act as a wireless access point	Ennble 💽 🔘
		0
Please input AP SSID, and Key SSID DESIGP-AP	KEY Possword	
Mobile Hotspot status Device Name		
riakirakiiPhone		8a:c7:58:f8:04:80

The bandwidth usage of Mobile Hotspot function will be shown in the MAIN PAGE, called MobileHotspot process. User can adjust its bandwidth limit, priority, and block it like other processes.

h						×
DR.	AGOI		MAIN PAGE			
	GROUP					
È	-	League of Legends.exe	* *	0 KBytes 0 KBytes	E B Aus	D
AUTO	0	Garena.exe	* *	O KBytes O KBytes	E B Auto	D
GAME STREAM	0	or the second se	* *	O KBytes 0 KBytes	E bin	Ð
BROWSER WORK		🕋 MobileHotspot	*	78 KBytes	5 61	D
	8	QyClient.exe	*	O KBytes	E Sha	D
		(MyKernel.exe	* *	O KByses 🛛	E Share	D
R-rowStorm BT	•	nsedge.exe	* *	O KBytes 🛛	5.00	D
ы		CDPSvc	* *	O KBytes O KBytes	E HAM	D

2.3.4 INFO tab – Network Traffic

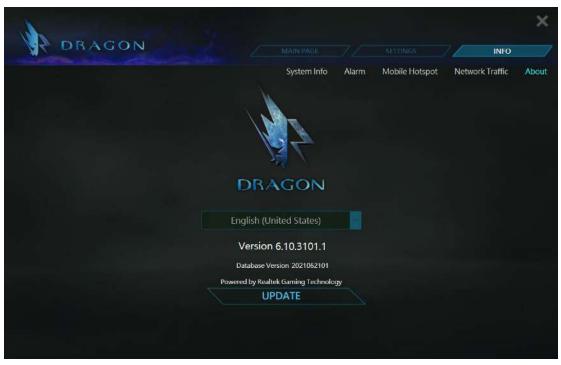
In Network Traffic page, there are statistical data about instant network traffic as below.



Or the top5 processes (network download/upload usage).



2.3.5 INFO tab - About



In this page, it shows information of "Version" and "Copyright". User can update Dragon database by clicking "UPDATE" button.