



ICO300-MI

Robust Din-rail Fanless Embedded System as an Intel® IoT Gateway Solution

User's Manual



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Safety Precautions

Before getting started, please read the following important safety precautions.

- 1. The ICO300-MI does not come equipped with an operating system. An operating system must be loaded first before installing any software into the computer.
- 2. Be sure to ground yourself to prevent static charge when installing the internal components. Use a grounding wrist strap and place all electronic components in any static-shielded devices. Most electronic components are sensitive to static electrical charge.
- Disconnect the power cord from the ICO300-MI before making any installation. Be sure both the system and the external devices are turned OFF. Sudden surge of power could ruin sensitive components. Make sure the ICO300-MI is properly grounded.
- 4. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
- 5. Turn OFF the system power before cleaning. Clean the system using a cloth only. Do not spray any liquid cleaner directly onto the screen.
- 6. Do not leave this equipment in an uncontrolled environment where the storage temperature is below -45 $^{\circ}$ C or above 85 $^{\circ}$ C. It may damage the equipment.
- 7. Do not open the system's back cover. If opening the cover for maintenance is a must, only a trained technician is allowed to do so. Integrated circuits on computer boards are sensitive to static electricity. To avoid damaging chips from electrostatic discharge, observe the following precautions:
 - Before handling a board or integrated circuit, touch an unpainted portion of the system unit chassis for a few seconds. This will help to discharge any static electricity on your body.
 - When handling boards and components, wear a wrist-grounding strap, available from most electronic component stores.

Classification

- 1. Degree of production against electric shock: not classified
- 2. Degree of protection against the ingress of water: IP40
- 3. Equipment not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.
- 4. Mode of operation: Continuous
- 5. Type of protection against electric shock: Class I equipment

General Cleaning Tips

You may need the following precautions before you begin to clean the computer. When you clean any single part or component for the computer, please read and understand the details below fully.

When you need to clean the device, please rub it with a piece of dry cloth.

- 1. Be cautious of the tiny removable components when you use a vacuum cleaner to absorb the dirt on the floor.
- 2. Turn the system off before you start to clean up the component or computer.
- 3. Never drop the components inside the computer or get circuit board damp or wet.
- 4. Be cautious of all kinds of cleaning solvents or chemicals when you use it for the sake of cleaning. Some individuals may be allergic to the ingredients.
- 5. Try not to put any food, drink or cigarette around the computer.

Cleaning Tools

Although many companies have created products to help improve the process of cleaning your computer and peripherals users can also use household items to clean their computers and peripherals. Below is a listing of items you may need or want to use while cleaning your computer or computer peripherals.

Keep in mind that some components in your computer may only be able to be cleaned using a product designed for cleaning that component, if this is the case it will be mentioned in the cleaning.

- Cloth: A piece of cloth is the best tool to use when rubbing up a component. Although paper towels or tissues can be used on most hardware as well, we still recommend you to rub it with a piece of cloth.
- Water or rubbing alcohol: You may moisten a piece of cloth a bit with some water or rubbing alcohol and rub it on the computer. Unknown solvents may be harmful to the plastics parts.
- Vacuum cleaner: Absorb the dust, dirt, hair, cigarette particles, and other particles out of a computer can be one of the best methods of cleaning a computer. Over time these items can restrict the airflow in a computer and cause circuitry to corrode.
- Cotton swabs: Cotton swaps moistened with rubbing alcohol or water are excellent tools for wiping hard to reach areas in your keyboard, mouse, and other locations.
- Foam swabs: Whenever possible it is better to use lint free swabs such as foam swabs.

Note: We strongly recommended that you should shut down the system before you start to clean any single components.

Please follow the steps below:

- 1. Close all application programs
- 2. Close operating software
- 3. Turn off power
- 4. Remove all device
- 5. Pull out power cable

Scrap Computer Recycling

If the computer equipments need the maintenance or are beyond repair, we strongly recommended that you should inform your Axiomtek distributor as soon as possible for the suitable solution. For the computers that are no longer useful or no longer working well, please contact your Axiomtek distributor for recycling and we will make the proper arrangement.

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CHAPTER 1 INTRODUCTION

This chapter contains general information and detailed specifications of the ICO300-MI. The Chapter 1 includes the following sections:

- General Description
- System Specification
- Dimensions
- I/O Outlets

1.1 General Description

ICO300-MI, an intelligent industrial Intel® Atom-based IoT (Internet of Things) gateway solution. With din-rail, fanless and rugged design, delivering high performance at competitive price. The reliable ICO300-MI is a perfect embedded solution for IoT, industrial and embedded applications such as power plant automation, facility monitoring systems, intelligent transportation systems and other harsh environment.

The application-ready machine to machine platform ICO300-MI supports Intel® IoT Gateway Solution. Customers could connect their widely distributed systems via wireless network such as 3G/GPRS. It also avails users to manage a variety of systems effortlessly with a wide range of industrial interfaces for both new and existing installation into the Internet of Things environment. It simplifies the development process and deployment ofIoT gateways and achieves accelerated business transformation.

• Features

- Fanless design
- Wide temperature operation of -20°C +70°C (-40°C +70°C for optional)
- Supports 2 10/100/1000 Base-T Ethernets with Magnetic Isolated Protection
- 4 COM Ports support RS-232/422/485
- Wireless (3G/GPRS)
- Support one 2.5" SATA SSD (or HDD) and one CompactFlash[™] (or mSATA)
- Wide range 12–24V DC-in with terminal block
- Din-rail mounting
- Wall mounting (optional)
- Passed CE with FCC testing
- Supports Intel® IoT Gateway Solution.

Wind River Intelligent Device Platform Overview

The Wind River Intelligent Device Platform XT (IDP XT) packages a commercial-grade Wind River Linux development platform with security and management tools for gateways.

IDP XT provides integrated development and management support for distributed systems that utilize smart services with cloud computing. It includes secure remote management layer for cloud-based smart services, including automated customer interaction and support.



Included in IDP XT

- Wind River Linux
- Wind River Workbench
- Wind River Intelligent Device Platform XT
- McAfee Embedded Control

1.2 **System Specifications**

1.2.1 CPU

Onboard Intel[®] ATOM[™] E3815 (1.46 GHz) processor

1.2.2 BIOS

AMI (American Megatrends Inc.) UEFI (Unified Extensible Firmware Interface) • BIOS.

1.2.3 System Memory

- One DDR3L 204-pin SO-DIMM (1.35V) slot.
- Supports 1066MHz up to 4GB (E3815) •

1.2.4 Display

A slim type 15-pin D-Sub connector as VGA connector. •

1.2.5 Ethernet Ports

LAN 1 and LAN 2

The board has dual RJ-45 connectors, support 10/100/1000 Base-T with 1.5KV magnetic isolated protection.

1.2.6 Storages

- 1 x 2.5" SATA SSD (or HDD) drive bay. •
- 1 x CompactFlash TypeII socket (or mSATA). •

1.2.7 Wireless

- 1 x Full size Mini Card slot supports 3G/GPRS •
- 1 x SIM Card Socket. •
- 2 x Antenna holes. •

Note: CF and mSATA function can be either one, it can be select by BIOS menu. mSATA and wireless use the same slot, and only one of them can be selected.

1.2.8 USB

- 2 x USB2.0
- USB Pin Define :

Pin	Signal USB Port 0	Pin	Signal USB Port 1	
1	VCC	5	VCC	
2	D-	6	D-	
3	D+	7	D+	
4	GND	8	GND	



1.2.9 COM

- 4 ports DB9 support RS-232/422/485 which can be selected by BIOS.
- Supports Auto Flow Control in RS485 mode.
- Serial Port Pin Define: (DB9 Male) as below

COM1~4

Pin	RS-232	RS-422	RS-485
1	DCD	TX-	Data-
2	RXD	TX+	Data+
3	TXD	RX+	
4	DTR	RX-	
5	GND	GND	GND
6	DSR		
7	RTS		
8	CTS		
9	RI		



1.2.10 Power

- Wide-range 12 24V DC power input with terminal block.
- OVP and Reverse protection.

Pin	Signal
1	+
2	NC
3	-



1.2.11 WatchDog Timer (WDT)

• 1~255 seconds or minutes; up to 255 levels.

1.2.12 Restore BIOS Optimal Defaults (JP2)

• Put jumper clip to pin 2-3 for a few seconds then move it back to pin 1-2. Doing this procedure can restore BIOS optimal defaults.

Function	Setting
Normal (Default)	1-2 close
Restore BIOS optimal defaults	2-3 close

1	
2	
3	

1.2.13 System LED

• There are showed the LED's indicators and functional descriptions.

LED Name	Description	Color
ACT	Indicate the storge status and it's flashing when storge access.	Green
PWR	Indicate the Power status. When the DC input is acceptable, the LED will ON.	Yellow

1.2.14 Operation Temperature

- -20°C ~ +70°C
- -40°C ~ +70°C (optional)

1.2.15 Storage Temperature

● -40°C ~ +85°C

1.2.16 Humidity

• 10% ~ 95% (non-condensation)

1.2.17 Weight

• 1 kg

1.2.18 Dimensions

• 48mm(1.88") (W) x110mm(4.33") (D) x155mm(6.1") (H)

1.2.19 System I/O Outlets

- Four 9-pin D-Sub male connectors, COM1~COM4.
- One 15-pin D-Sub female connector for VGA.
- Two 10/100/1000 Base-T RJ-45 with 1.5KV magnetic isolated protection.
- Two USB 2.0 connectors.
- One DC Power Input with terminal block.
- Two Antenna holes.

1.3 Dimensions

The following diagrams show you dimensions and outlines of the ICO300-MI



1.4 I/O Outlets

The following figures show you I/O outlets on front view and top view of the ICO300-MI



CHAPTER 2 HARDWARE INSTALLATION

2.1 Installing Din-rail Mounting

The ICO300-MI provides Din-rail Mount for 2 methods that customers can install as below:

Step 1 Prepare Din-rail Mount assembling components (screws and bracket) ready.



Step 2 Assembly the bracket to the system and fasten screws tight.

Method -1:





Method-2:









2.2 Installing Wall Mounting (optional)

The ICO300-MI provides Wall Mounting that customers can install as below:

Step 1 Prepare Wall Mount assembling components (screws and bracket) ready.



Step 2 Assembly the bracket to the system, and fasten screws tight.



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CHAPTER 3 Webif

About Webif

You can use the Webif interface to configure your gateway or router (your IDP XT device) in the

same way you would configure your home Wi-Fi router.

When you create a default SRM platform project, the **wr-idp-devkit** layer and glibc-idp are automatically configured. This causes Webif to be included in the project and sets up your IDP XT target to act as a gateway by default.

you can access <u>https://192.168.1.1</u> for configurations via LAN1 Login in (user: **admin**, password: **admin**)

If you successfully login and can see below picture.

W	ND Intell	RIVE	R evice Pla	tform						Wind River Intelligent Device Platform XT 2.0 Host: WR-IntelligentDevice Date: 2015-66-04 Uptime: 33 min, 0 users Time: 05:45:30
Info	Graphs	Status	Log	System	Network	VPN	Device Agent	Logout		Load: 0.16, 0.25, 0.25
System	Notes Ab	out								
Ŷ	System I	nformatio	n							
Firm Kerr MAC Devi User	ware iel ice mame	Wind River I Linux 3.4.91 00:60:e0:5d Valley Island admin	intelligent Devi I-grsec-WR5.0 d:a9:07 d	ice Platform - Wi 1.22_standard_	th Webif Exten IDP-XT_2.0.2.3	sions XT 22 #2 S№	2.0 IP PREEMPT Thu Apr	r 23 10:56:35 CST 2015		
Web Vers	mgt. cons ion	ole Webif ² 0.3+svr	nr4987							
D	evice Confi	juration Se	elect							
	Device Na	me		Valle	ry Island		٠			

About Intelligent Device Platform	About Webif

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Webif Interface Main Tabs

The Main tabs provide the bases for making configuration changes to your wireless gateway. The default Webif interface provides the following tabs and their relevant settings to make configuration changes to your residential home gateway router: Info Tab Use to get system information. Graphs Tab Use to get information on CPU usage and traffic on various interfaces. Status Tab Use to view the status of routers, modules, the system, and so on. Log Tab Use to view the syslog and dmesg logs. System Tab Use to set system-specific setting, such as time, theme and language, access control, password, and backup and restore, and to upgrade and reset the router. Includes Startup, Crontabs, File Editor, Mountpoints, and TPM subtabs. Network Tab Use to view and set detailed networking parameters. These include WAN, LAN, WWAN, Wireless, Bluetooth, Firewall, DHCP, Hosts, Routes, UPnP, Zigbee, MultiWAN, and Tweaks. For more information, see Network Tab on page 89. VPN Tab Use to add a new IPsec configuration rule for your own IPsec-based VPN network. **Device Agent Tab**

Use to manage repositories and agents. Includes RPM Repository, WKS OMA DMC, and OneAgent TR069 subtabs.



Webif Interface Default Settings

Refer to these default settings when you need to setup or modify your Wi-Fi router.

When working with the Webif interface, you will need the following information:

- Web login username/password: admin/admin
- WAN port: eth0 (DHCP to get IP address)
- **Bridge**: br-bridge (including wlan0 and other Ethernet interfaces, STATIC IP: 192.168.1.1, with DHCP server running on it)

Network Tab

Use the Network tab to view and change basic networking parameters, including LAN, WAN, and WWAN for your gateway router.

wī	ND Intell	RIVI igent l	E R Device	Platfo	rm					Wind River Intelligent Device Platform XT Host: WiR-IntelligentDevice Date: 2015-06-04 Uptime: 1:17, 0 users Time: 10:27:26
nfo	Graphs	Status	Log		System	Network	VPN	Device Agent	Logout	Load: 0.17, 0.25, 0.26
tworks	Wireless	Zigbee	Bluetooth	Firewall	DHCP Ho	sts Routes	UPnP	MultiWAN Tweak	s	
Netw	ork Conf	guration								
wa	n Configu	ation								
	Connectio Interface	n Type			DHCI eth0	T				Connection Type: Dotable: The north interface will be disabled. Static IP: IP address of the interface is statically set. DNCP: The Interface will field bit 3P address more a drug surver. WWW: The interface SIM and yield interface bits and White all feeting each bits in tends, can be multiple interface secarates by spaces with Bridged type, For example, wild interface names are etho, etho. 100, winch, wido, 3p www.
lan	Configura	tion								
	Connectio Interface Type	n Type			Static eth1 w Bridge	IP ▼ fan0 d ▼				Connection Type: Datable: the network interface will be diabled. Static IP: IP address of the interface is statically set, DHCP: The interface will Heb: IS: IP address from a dhog surver, WWN: The interface (SIF) and y will statisfie a SIC connection. Interface: Visital interfaces and by this retords: can be methodic interface sequence by spaces with Binkged type. For example, shall interface names are etiol, ethics 300, windio, solido, 320 warea.
	IP Address Netmask Default Ga	i iteway			192 16 255 25	8 1 1 5 255 0				IP Settings: IP Settings are optional for DHCP. They are used as defaults in case the DHCP server is unavailable.
lan	DNS Serv	ers								
			Add							
ww	ran Config	uration								
	Connectio Interface Device	n Type			WWA 3g-ww /dev/tt	n ▼ an γACM0				Connection Type: Databol: The network is inderface will be disabled. Static IP- IP address of the interface is statically as 2002P. The Interface will refer be inderess from a disp server. WWAI: The interface (SDP card) will establish a 3G connection. Interface: What I terriface used by this network, can have multiple interfaces separates by spaces with Bridged type. For example, said interface names are ethic, ethic 100, whent, with 7, 3p wrane.

Setting	Description
Network Configuration	Use this section to modify your Network settings. Some key options include:
	WAN Configuration
	 Connection Type: Default is DHCP. Interface: Default is eth0. LAN Configuration:
	 Connection Type: Default is Static IP Interface: Default is wlan0 IP Address: Default is 192.168.1.1 WWAN Configuration:
	 Connection Type: Default is WWAN Interface: Default is 3g-wwan Device: Default is /dev/ttyACM0. Service Type: Select a network that matches your SIM card. Default is UMTS. APN Name: Matches the access point name of the network the 3G modem is connected to.

Working with the Status Page

 Click the Status tab. The System sub-tab displays the total space and available space on each mount point, as well as the memory usage and tracked connections. Under the Tracked Connections section, click View Conntrack Table to display additional information about your tracked connections (on the Status > Conntrack tab).

w	IND Intell	RIVE	E R Device F	Platform						Wind River Intelligent Device Platfor Host: Wi-IntelligentDevice Date: 2015-66-64 Uptime: 11.96, 0 uses Time: 20.47, 0.8, 0.74	m XT 2.
Info	Graphs	Status	Log	System	n Network	VPN	Device Agent	Logout			
System	Modules	Processes	Interfaces	WWAN Modem	Crontabs DHC	P Clients	Netstat Conntra	ck Iptables USB	Diagnostics	i	
Dev	ice Status										
R	AM Usage										
	Total: 19	59860 KiB			9% Used: 160316	KiB (9%)]			RAM Usage: This is the current RAM usage. The amount free represents how much applications have available.	
Tr	acked Con	nections									
	Maximum	: 16384		1ª Us	% sed: 21 (1%)					Tracked Connections: This is the number of connections in your router's conntrack table. <u>Yew Conntrack Table</u> .	
м	ount Usago										
	/ rootfs / /dev/sda2 /dev none /var/vol tmpfs /media/ tmpfs /media/	2 atile ram sda 1		28% 982064 28% 982064 176KiB 1% 476KiB 0% 0%KiB of 8%	KiB of 3761552 KiB of 3761552 of 979928KiB of 979928KiB 979928KiB					Hound Usage: This is the amount of space total and used on the filesystems mounted to your router.	
	/dev/sda:	l		10420K	iB of 130798Kil	3	About Intellige	nt Device Platform	About We	ebif Deviaw Chan Beviaw Chan	ges « ges «

2. Click the **Processes** tab to display a current list of processes running on the target (board). The page refreshes every 20 seconds unless you click **Stop Refreshing**. Click to **see the legend** to display a legend that describes processes states.

W	ND Intel	RIVI	E R Device Pl	atform					Wind River Intelligent Device Platform XT 2 Host: WR-IntelligentDevice Date: 2015-06-04 Uptime: 1:38, 0 users Time: 06:48:35					
Info	Graphs	Status	Log	System	Network	VPN	Device Ager	nt	Logout					Load: 0.32, 0.30, 0.25
System	Modules	Processes	Interfaces	WWAN Modem C	rontabs DHC	P Clients	Netstat Conr	ntrack Iptab	les USB	Diagnostics				
Run	Running Processes													
50	Tage References in the Internation about fields see the Jegen											rmation about fields see the legend		
Pr	Processes Status													
	PID U: 1 rov 3 rov 5 rov 6 rov 9 rov 9 rov 10 rov 10 rov 11 rov 11 rov 12 rov 12 rov 12 rov 12 rov 13 rov 12 rov 13 rov 12 rov 13 rov 12 rov 12 rov 12 rov 13 rov 12 rov 13 rov 12 rov 13 rov 12 rov 13 rov 14 rov 13 rov 22 rov 35 rov 14 rov 18 r	SFR ot ot ot ot ot ot ot ot ot ot ot ot ot	YSZ \$11 36566 5 0 SW 0 SW 0 SW 0 SW 0 SW 0 SW 0 SW 0 SW	T COMMAND int [5] [ktmsead] [k]									
	1052 ro 1146 ro 1162 ro	ot ot	44292 S 35276 S 25244 S	/sbin/hotplug2 /sbin/ubusd < /sbin/udevd	overridepe	rsistent:	set-rules-file /etc	:/hotplug2.rule	sset-cole	dplug-cmd /sbir	n/udevtriggermax-	-children 1		

3. Click the **Conntrack** sub-tab to display the currently tracked connections. You can filter out data to focus on the issue you want to resolve.

In the **Text to Filter** field, enter **ESTABLISHED** | **TIME_WAIT** and in the **Filter Mode** field select **Exclude**, then click **Filter Records** to filter these connections out of the display. A subset of the records displays. Verify if the pattern match is case-sensitive.

WI	ND Intell	RIVI	ER Device P	Platform						Wind River Intelligent Device Platfor Host: Win-IntelligentDevice Platfor Date: 2015-06-04 Uptime: 139, 0 uses: Time: 06:49:20			
Info	Graphs	Status	Log	Syst	em Ne	twork VP	N Devid	e Agent	Log	out		Load: 0.57, 0.36, 0.27	
System	Modules	Processes	Interfaces	WWAN Moder	Cronta	bs DHCP Clie	nts Netsta	t Conntrack	Iptables U	SB Dia	nostics		
Conr	Conntrack Table												
Te	t Filter												
	Text to Fil Filter Mod Remove Filte	iter e i			Include •						Text to Filter: Insert a string that covers what you would like like: one ([classic1](2):[[classic1](2) or . det Filter Mode: You will see only messages containing the text i	o see or exclude. In fact you can use the requilar expression constants ug : err. n the Indude mode while you will not see them in the Exclude mode.	
Ke	nel Conne	ection Tra	cking Table	5									
Press Press <td< th=""><th>2002 200 2002 2</th></td<>										2002 200 2002 2			
												Apply Changes « Clear Changes «	

4. Click the **Diagnostics** sub-tab to run the **ping** and **traceroute** commands for network diagnosis. In the field to the left of the **Ping** or **TraceRoute** button, enter *\$HOST_IP* (The IP address of your host computer), then click the button.

w	IND Intel	RIVI	E R Device P	Platform		Wind Niver Intelligent Device Platform XT 2.0 Host: Win-IntelligentDevice Date: 2157-66-64 Uptime: 1:49, 0 usen Time: 05:20-66					
Info	Graphs	Status	Log	System	Netwo	rk VPN	Device	Agent	Logo	ut	Load: 0.20, 0.29, 0.26
System	Modules	Processes	Interfaces	WWAN Modem	Crontabs	DHCP Clients	Netstat	Conntrack	Iptables US	B Diagnostic	3
Diag	pnostics										
N	etwork Uti	lities									
	192.168.1.2 google.com		Ping TraceRoute								Network Utilities Note: In some network, ping or traceroute will be failed because ICMP packages are rejected or droped by local or remote firemail security settings.
Pleas PINS 64 by 64 by 64 by 74 pac rtt #	ee wait for co 102.168.1.2 (105 from 392. 205 from 392. 205 from 392. 205 from 392. 201 for 392	uutput of "p] 182.168.1.2) 186.1.2: 169 188.1.2: 169 189 189 189 189 189 189 189 189 189 18	ng -c 4 192. 56(8) byta: o req-1 ti-128 req-2 ti-128 req-2 ti-128 req-3 ti-128 req-4 ti-128 r	168.1.2" f data. time-1.00 ms time-1.01 ms time-2.77 ms time-2.77 ms time-2.77 ms r ms							Sare Charges
							Abo	it Intelligent	Device Platfor	m About 1	Apply Changes « Clear Changes » Beview Changes «

Working with the Log Page

- 1. Click the **Log** tab. The initial view is the **Syslog** sub-tab, which displays the syslog file. You can use the Text Filter section to filter in or out content that you do or do not want to see in the log.
- 2. In the **Text to Filter** field, enter **usb | USB**, in the **Filter Mode** field select **Include**, then click **Filter Messages** to find all messages in syslog related to USB.

w	IND Intell	RIVE	E R Device	Platfori	m						Wind River Intelligent Device Platform XT 2.0 Host: WR-IntelligentDevice Dete: 2015-06-04 Uptime: 11-85, 0 users Time: 00:55:32
Info	Graphs	Status	Log	\$	System	Network	VPN	Device Agent	Logout		Load: 0.38, 0.32, 0.27
Syslog	Kernel										
Sy:	State State 1011 + 051203 1011	ges	primerat a so primerate la so	crmeli 0. crmeli 0.		ur-versions-success MEL supported og NEL Supported og NEL Supported og NEL Supported og NEL Supported og NEL Supported NEL Supported Sup	1 prist in il il pristal processo concess	5.1 0 1 2 2 2 0 00 0 2 0 0 1 2 2 0 0 0 0 0	e. Construction of the second seco	יווין איז	ANICO 1014 INC 2 2 10 101 INC 10 101 INC 2 1011123 121 1
	ext Filter										
	Text to Fil Filter Mod Remove Filte	ter e			Includ Filter I	ie • Messages				Text to Filter: Inset a wing that covers what you would like like the ([cartit][10]]([cartit][20] or .e. Filter Mode: You will see only messages containing the text	to see or enclude. In fact you can use the regular expression constants trig[.err,
								About Intellige	nt Device Platform	About Webif	Apply Changes « Clear Changes « Review Changes «

3. Click the **Kernel** sub-tab and notice that the messages are similar to those in the **Syslog** sub-tab, with the same filtering ability. Filter for **igb** and observe that LAN driver status.

w	IND Intell	RIVE	E R Device	Platform	n						Wind River Intelligent Device Platform XT 2.0 Host: WR-IntelligentDevice Date: 2015-06-04 Uptime: 1:46, 0 users Time: 06:56:23
Info	Graphs	Status	Log	S	System	Network	VPN	Device Agent	Logout		Load: 0.39, 0.33, 0.28
Syslog	Kernel										
Ker	nel Ring B	uffer									
	(4.350372) 4.350390 4.654427 4.654427 4.654427 4.654459 4.654459 4.654459 4.655266 4.655266 4.655266 4.771592 4.	igb 0000:01 igb 0000:01 igb 0000:01 igb 0000:01 igb 0000:01 igb 0000:01 igb 0000:02 igb 0000:02	100.01 ing 1 100.01 ing 1 100.01 ing 1 100.01 inte 100.01 inte 100.01 inte 100.01 inte 100.01 inte 100.01 ing 1 100.01 inte 100.01 i	03 for HEI/HEI 04 for HEI/HEI (1) Gigebit Et (PCIe 2.507/5 PEA HO: FFFF HE: 00:60:e0 PEA HO: FFFF 3 disabled (PCIe 2.507/5 06 for HEI/HEI (PCIe 2.507/5 PEA HO: FFFF HAC: 00:60:e0 PEA HO: FFFF 4 disabled (HEI-X interrup p 1000 Mbps Ful	-X -X bernet Netw Hidth x1) 15d:89:07 FoFF pt5. 1 rx qu -X -X hernet Netw Hidth x1) 15d:49:08 FoFF pt5. 1 rx qu 11 Duplex, 1	ork Connection wewe(s), 1 tx q ork Connection wewe(s), 1 tx q Flow Control: R	ueue(s) ueue(s) K/TX				
	Text to Fil Filter Mod Remove Filte	ter e i			igb Includ Filter I	de v Messages				Text to Filter: Insut a simp that over what you would like to see the only (regist) [[1](1](1](1](1](1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(r exclude. In fact you can use the regular expression constants ,
								About Intelligent Dev	vice Platform	About Webif	Apply Changes « Clear Changes « Review Changes «

Working with the System Page

1. Click the **System** tab. The default **Access Control** sub-tab lets you add, modify, and remove Webif users to control who can use different pages and tabs within the Webif program. Note that Webif users are not system user log in names.

WIND Inte	RIVE	E R Device Plat	form								Wind River Intelligent Device Platform XT 2.0 Host: WR-IntelligentDevice Date: 2015-06-04 Uptime: 1:51, 0 users Time: 07:01:44
Info Graph	s Status	Log	System	Netwo	rk VPN	Device A	lgent	Logout			Load: 0.17, 0.27, 0.28
Access Control P	assword Sel	ttings Startup	Crontabs File	e Editor 🛛 🛔	Mountpoints	TPM Back	up & Restore	Reboot			
Access Cont	rol										
Webif Enal	ole Control										
Webif E	nable		Ena	ble 🔻						Webif Enable: You can not access to any page after you disable webif and a again on gateway side.	pply this change. However, you can restart the webit server
Users											
No user	s defined.										
Add User											
Userna Passwo Confirm	ne rd Password		Add	User							
											Save Changes
						About	Intelligent D	evice Platform	About W	ebif	Apply Changes « Clear Changes « Review Changes «

NOTE: Do not change the **Webif Enable** field from **Enable**. If you disable this field, you will lose the Webif connection to the target system, and you must restart Webif from the target (board).

- 2. In the **Username** field, enter **Testuser**, in the **Password** field enter **Testpass** and reenter that password in the **Confirm Password** field, then click **Add User** to add that user to the Webif user database.
- 3. Give the user **Testuser** access to some of the Webif pages. Scroll down the Access Control sub-tab to configure the following settings, then scroll to the bottom of the page and click **Save Changes**. After the screen refreshes, scroll to the bottom again and click **Apply Changes**.
 - In the Info section, in the **System** field, select **Enabled**.
 - In the Logout section, in the Logout field, select Enabled.

Device Agent	
RPM Repository WKS OMA DMC OneAgent TR069	Disabled V Disabled V Disabled V
Graphs	
Graphs	Disabled •
Info	
System Notes About	Disabled ▼ Disabled ▼ Disabled ▼
Log	
Syslog Kernel	Disabled ▼ Disabled ▼
Logout	
Logout	Disabled •

NOTE: You must click on both **Save Changes** and **Apply Changes** for your changes to take effect.

- 4. Close the browser.
- 5. Start another browser session then connect to the target system, but log in as the user **test**. Could you log in? How does the display differ from before?

Logout Page

- 1. Start a browser session and log in as the user **admin**.
- 2. Click the **Logout** tab, then close the browser. This is the recommended procedure to disconnect from the target system.



Note : If user wants to further understand IDP (Intelligent Device Platform), pls connect following URL.

https://www-ssl.intel.com/content/www/us/en/embedded/design-tools/evaluationplatforms/gateway-solutions/wind-river-idp-xt2-programmers-guide.html