



Nexus2™

Hardware Installation Guide



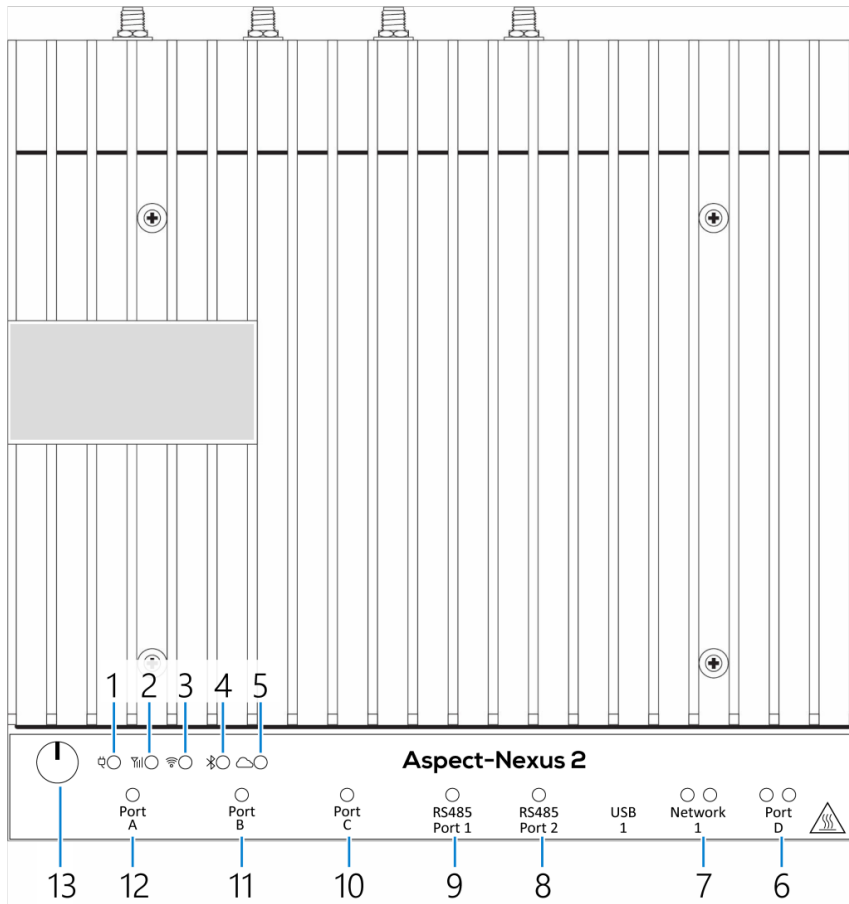
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SECTION 1 : OVERVIEW

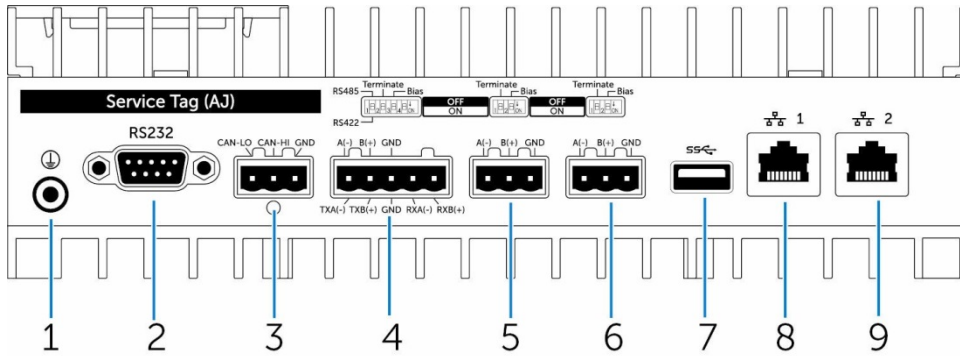
This chapter provides an overview of the **Aspect® Nexus 2** system as well as optional modules.

Front Panel (LED indicators)



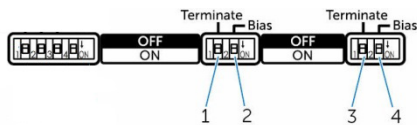
1	Power status LED	Indicates the power-state of the system.
2	Mobile broadband status LED	Unused
3	Wireless status LED	Unused
4	Bluetooth status LED	Unused
5	Cloud connection status LED	unused
6	Port D status LEDs	Unused
7	Network 1 status LEDs	Indicates the connectivity status and network activity. Orange = 100Mb/s (10/100) Green = 1000Mb/s (Gigabit)
8	RS485 port status Port 2 LED	Provides the status of the RS485 port connections.
9	RS485 port status Port 1 LED	Provides the status of the RS485 port connections.
10	Port C LED	unused
11	Port B LED	Unused
12	Port A LED	Unused
13	Power button	Press and hold for 2 seconds to turn on the system if it is turned off.

Bottom Panel (ports)



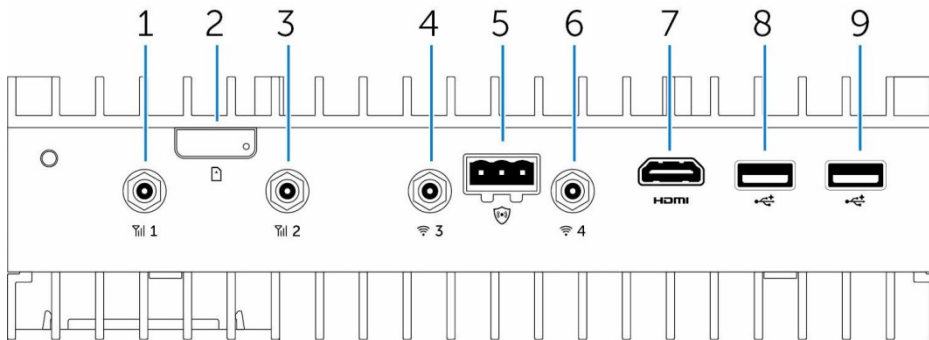
1	Earth ground	Connect the grounding cable to the system.
2	Port A	Unused
3	Port B	Unused
4	Port C	Unused
5	RS485 port 1	Connect a RS485 fieldbus.
6	RS485 port 2	Connect a RS485 fieldbus.
7	USB 1 port	Connect a USB 3.0 device.
8	Network 1 port	Connect an Ethernet (RJ45) cable from a router or a broadband modem for network or internet access.
9	Port D	Unused

Bottom Panel (DIP switches)

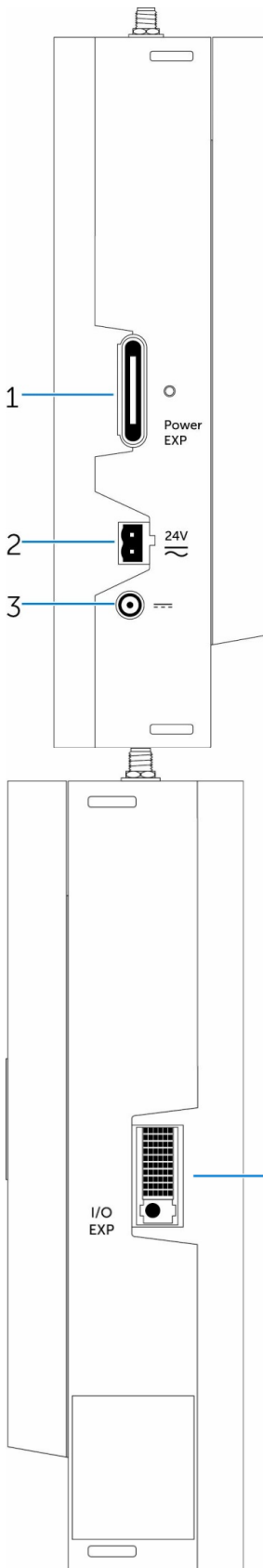


1	RS485 port 1 resistor switch	Enable/disable the differential termination resistor for RS485.
2	RS485 port 1 bias resistor switch	Enable/disable the bias resistor for RS485 port 1.
3	RS485 port 2 resistor switch	Enable/disable the differential termination resistor for RS485.
4	RS485 port 2 bias resistor switch	Enable/disable the bias resistor for RS485 port 2.

Top Panel



1	Mobile broadband antenna port (port one)	Unused
2	Micro-SIM card slot	Unused
3	Mobile broadband antenna port (port two)	Unused
4	Wi-Fi antenna port (port three)	Unused
5	Intrusion detection connector	Unused
6	Wi-Fi antenna port (port four)	Unused
7	HDMI port	<p>Connect a monitor or other HDMI device. Provides video and audio output.</p> <div style="border: 1px solid black; padding: 5px; background-color: #f0f0f0;"> <p>Note: In order to function the HDMI must be connected when the system boots.</p> </div>
8	USB 2.0 port	Unused
9	USB 2.0 port	Unused



Left Edge

Note: When the Nexus 2 is shipped from the factory, both power connectors are covered by a warning label. Make sure this label is completely removed before using the Nexus 2.

1	Power module expansion port	Unused
2	24 V AC/DC power Phoenix connector	Connect a 24 V AC/DC power connector to provide power to your system.
3	19.5 V DC power adapter port	Connect a 19.5 V DC power adapter connector to provide power to your system.

Note: Nexus 2 requires a dedicated SELV 24 V 60VA AC / DC supply (Class II supply) or a dedicated Dell SELV 19.5 V 65 W PSU.

The recommended supply is a 24 V 60 VA transformer. When using a higher VA transformer, care must be taken to ensure that the voltage stays within specification (see *Detailed Engineering Specifications - Power* on page 16).

Warning:

Earthing or Grounding of any of the terminals connected to the SELV power supply will cause serious damage to the power supply rectifier and will invalidate the product Warranty.

Never Earth or Ground any of the terminals connected to this power supply.

Never use this power supply to power CB, NB, or SBC control devices, or any other equipment, because it is possible that the other equipment may be connected to Earth or Ground.

Note: If the Nexus 2 is acting as a Site's central server, hosting the primary UI and historical data, it is recommended that its power supply is connected to an Uninterruptible Power Supply (UPS).

Right Edge

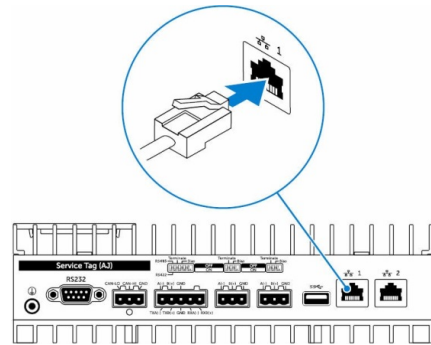
1	IO expansion port	Unused
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SECTION 2 : INSTALLATION AND CONFIGURATION

Note: The information in this chapter provides an overview of the installation and configuration requirements of the **Aspect® Nexus 2**. The **Aspect® Nexus 2** is designed for specific applications and needs to be installed by qualified personnel with RF and regulatory-related knowledge. For full installation instructions, see the **Aspect® Nexus 2** Installation and Operation Manual that ships with the product.

Powering on the Aspect® Nexus 2

1. Install the **Aspect® Nexus 2** on the wall mount using a [wall mounting kit](#), or Install the **Aspect® Nexus 2** on the rack infrastructure using [DIN-rail mounting brackets](#).
2. Connect a network cable.
3. Connect a SELV/limited energy circuit power source (24 V AC/DC or 19.5 V DC) to the **Aspect® Nexus 2** and press the power button to turn it on.

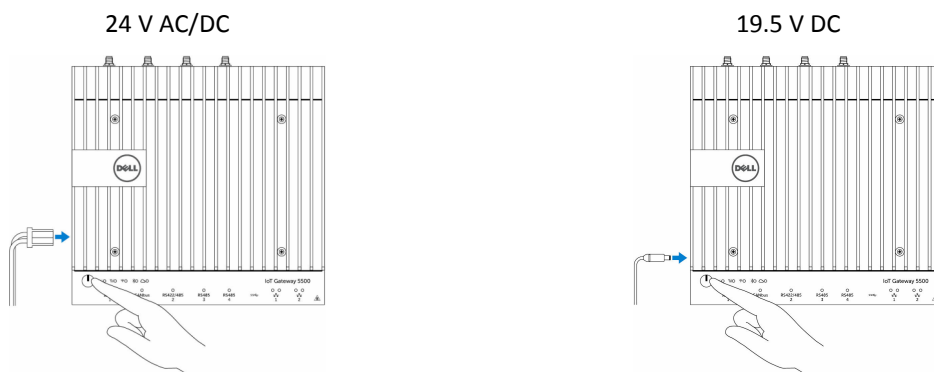


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Never Earth or Ground any of the terminals connected to this power supply.

Never use this power supply to power CB, NB, or SBC control devices, **or any other** equipment, because it is possible that the other equipment may be connected to Earth or Ground.



4. Connect and configure devices using the RS485 ports.

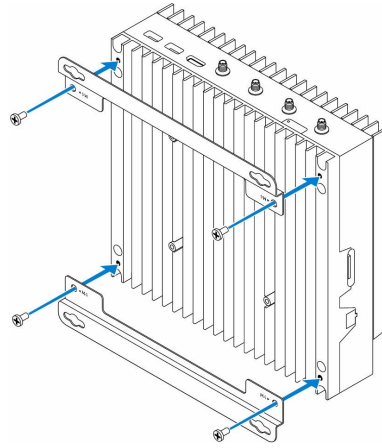
Note: Turn on the corresponding dip switches to enable the network bias and termination.

Note: After the **Aspect® Nexus 2** setup is complete, reinstall the dust covers on any unused ports.

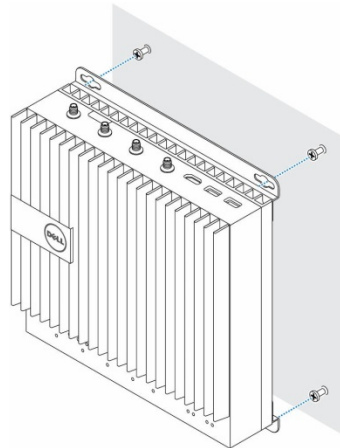
Mounting the Aspect® Nexus 2 on the wall

You can mount the **Aspect® Nexus 2** on a wall by using mounting brackets (sold separately).

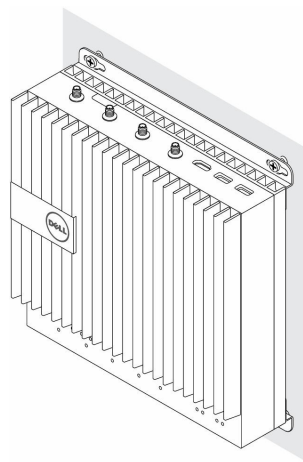
1. Secure the two mounting brackets to the back of the **Aspect® Nexus 2** by using four screws.



2. Drill four holes in the wall that correspond to the holes in the mounting bracket, then place the **Aspect® Nexus 2** against the wall and align the holes in the mounting brackets with the holes in the wall.



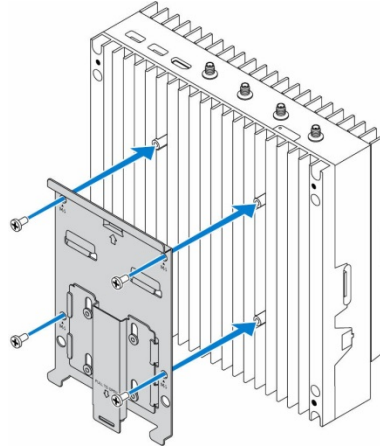
3. Tighten the screws to secure the **Aspect® Nexus 2** to the wall.



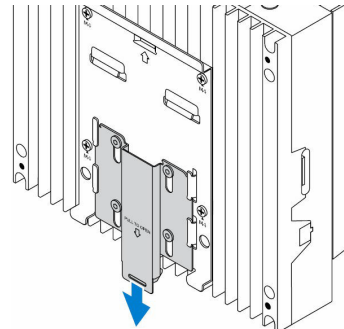
Mounting the Aspect® Nexus 2 on a DIN rail

The **Aspect® Nexus 2** can be mounted on a DIN rail. The DIN rail bracket mounts to the back of the **Aspect® Nexus 2**.

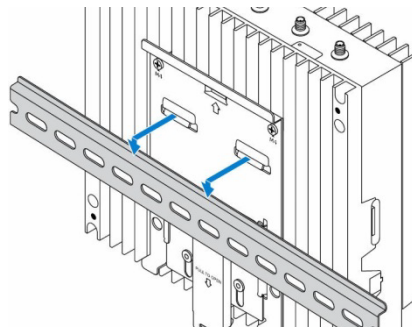
1. Align the screw holes on the DIN rail mount to the back of the **Aspect® Nexus 2**, place the screws on the DIN rail mount and secure it to the **Aspect® Nexus 2**.



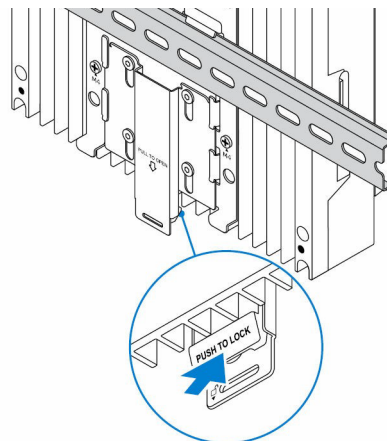
2. Pull down on the tab to release the latch on the DIN rail mount.



3. Mount the **Aspect® Nexus 2** on a DIN rail.



4. Secure the **Aspect® Nexus 2** to the DIN rail by pressing the latch.



SECTION 3 : DETAILED ENGINEERING SPECIFICATIONS

Dimensions and weight

Product dimensions and weight

Volume (Liters)	3.167 liters
Weight	3.0 kg (6.6 lb)
Height	228.4 mm (8.99 in)
Width	216 mm (8.50 in)
Depth	64.20 mm (2.52 in)

Note: The dimensions for the enclosure do not include the latches and wall bracket on the back of the enclosure. The wall bracket adds 5 mm (0.04 inches) to the depth.

Packaging dimensions and weight

Height	344 mm (13.56 in)
Width	295 mm (11.63 in)
Depth	156 mm (6.13 in)
Shipping weight (includes packaging materials)	3.8 kg (8.38 lb)

Mounting dimensions

Height	246 mm (9.69 in)
Width	228.4 mm (8.99 in)
Depth	72.7 mm (2.86 in)

Environmental and operating conditions

Ingress protection rating	IP50
<ul style="list-style-type: none"> • <i>Temperature range</i> 	
Operating (with a maximum temperature gradation of 15°C per hour)	0°C ~ 50°C (32°F ~ 122°F) when connected to a 24 V AC/DC power source. 0°C ~ 40°C (32°F ~ 104°F) when connected to a power adapter. <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> Note: The maximum operating temperature is derated 1°C/305 m (1000 ft) above sea level altitude. </div>
Non-operating (with a maximum temperature gradation of 15°C per hour)	-40°C ~ 70°C (-40°F ~ 158 °F)
<ul style="list-style-type: none"> • <i>Relative humidity (maximum):</i> 	
Operating (with maximum humidity gradation of 10% per hour)	10% ~ 90% (non-condensing)
Non-operating (with maximum humidity gradation of 10% per hour)	5% ~ 95% (non-condensing)
<ul style="list-style-type: none"> • <i>Altitude (maximum, unpressurized):</i> 	
Operating	-15.20 m ~ 5000 m (-50 ft ~ 16,404 ft) <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> Note: The maximum operating temperature is derated 1°C/305 m (1000 ft) above sea level altitude. </div>
Storage	-15.20 m ~ 10,668 m (-50 ft ~ 35,000 ft)

Power

Power adaptor (optional)

- *General parameters*

Power supply	EPS Level V
Wattage	65 W
AC input voltage range	90-264 V AC
AC input current (low AC range/high AC range)	1.7 A/1.0 A
AC input frequency	47 Hz/63 Hz
Average efficiency (ESTAR 5.2 compliant)	87%

- *DC parameters*

+19.5 v output	19.5 V/ 3.34 A
Total power (maximum)	65 W
BTUs/h (based on PSU max wattage)	222 BTU

- *Power-input tolerances*

24V AC/DC	+10% to -25% (26.4 V to 18 V)
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Note: The recommended supply is a 24 V 60 VA transformer. When using a higher VA transformer, care must be taken to ensure that the voltage stays within specification.

Warning:

Earthing or Grounding of any of the terminals connected to the SELV power supply will cause serious damage to the power supply rectifier and will invalidate the product Warranty.

Never Earth or Ground any of the terminals connected to this power supply.

Never use this power supply to power CB, NB, or SBC control devices, **or any other** equipment, because it is possible that the other equipment may be connected to Earth or Ground.

Communications—Ethernet

- *General specifications*

Ethernet type	Ethernet LAN 10/100/1000
External connector type	RJ45
Data rates supported	10/100/1000 Mbps

Hard drives - M.2 SATA 64GB SSD

- *General specifications*

Capacity (bytes)	64 Gb
Dimensions inches (W x D x H)	3.94 x 2.75 x 0.374
Interface type and maximum speed	Up to 6 Gb/s (SATA 3.0)
MTBF	800,000 hours
Logical blocks	500,118,192

SECTION 4 : SOFTWARE CONFIGURATION

Note: The following provides instructions relative to the configuration settings of the **Aspect® Nexus 2**. Please read through this section carefully before beginning the installation procedure.

INTRODUCTION

The following provides details on the software configuration of the **Aspect® Nexus 2** hardware. Please follow the steps contained within this document for proper setup and configuration.

TOOLS REQUIRED

The following tools will be required for proper configuration of the system:

- PC/Laptop
- Ethernet cross-over cable, or other network connection to your **Aspect® Nexus 2**
- Standard web-browser such as Windows Internet Explorer, Mozilla Firefox, Apple Safari, or other.
- **Aspect® Nexus 2** License file pre-installed
- 24VAC power source

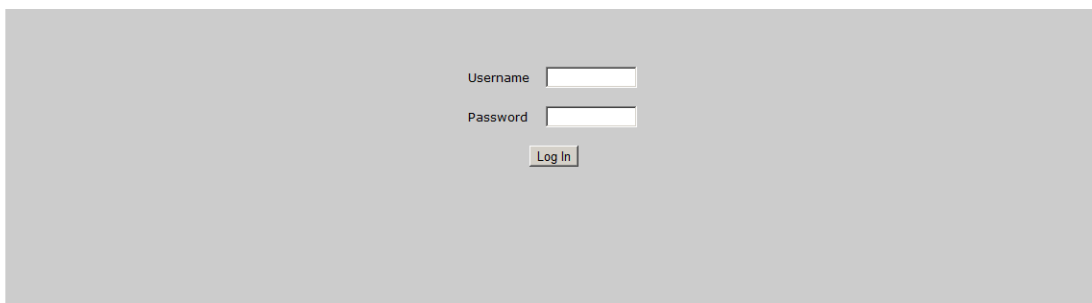
CONNECTING TO AN Aspect® Nexus 2

The **Aspect® Nexus 2** is shipped with a default IP address (192.168.1.251) and subnet mask (255.255.255.0). Your computer's network card must be configured in a manner where it may access this IP network setting. Refer to your operating system documentation for details on how to configure your network card.

LOG-IN

To log-in to the **Aspect® Nexus 2**:

1. With your PC's network card configured, open any standard web browser.
2. Browse to the default IP address (192.168.1.251) of your **Aspect® Nexus 2**.
3. If your connection is successful, you should be greeted with the main page of the server, requiring username and password entry.
4. Enter the case-sensitive default username (*aamuser*) and password (*default*) into the fields provided.
5. Click the *Log In* button.



The screenshot shows a simple web interface for logging in. It features two text input fields: one labeled 'Username' and one labeled 'Password'. Below these fields is a button labeled 'Log In'. The entire form is centered on a light gray background.

Figure 2-1 **Aspect® Nexus 2** Log-In

CONTROL PANEL

When you successfully log-in, you will be directed to the Control Panel. The Control Panel contains a navigation tree to the left of the web user interface; allowing users to select different configuration areas of the product.



Figure 2-2 Control Panel Overview

PROJECT INSTANCES

Two instances are available within the **Aspect® Nexus 2**. This provides the capability to host up to two projects within the target. Each instance runs its own Aspect Control Engine allowing service to be performed on separate instances. Within Instance 1 and Instance 2, the same options exist for the following:

- Calendar Configuration
- Users and Groups
- Mobile
- Instance Services
- Project Source
- Project Removal
- Aspect Control Engine Logs
- License Item Status
- Project Thread Status

CALENDAR CONFIGURATION

The Calendar Configuration area is used to configure iCalendar integration variables of the **Aspect® Nexus 2**. Within this section there are two pages:

- Calendar File
- Calendar User

CALENDAR FILE

Calendar File can be used to browse and modify what calendars have been previously published to the instance, as well as allow users to manually upload iCalendar files (files with .ics extensions) to the device.

- To upload a saved calendar file, simply select the *Browse/Choose File* button and locate the iCalendar file on your computer. Once located, click the Upload button.
- To delete a previously published calendar, place a check mark next to the corresponding file and select the *Delete* button.

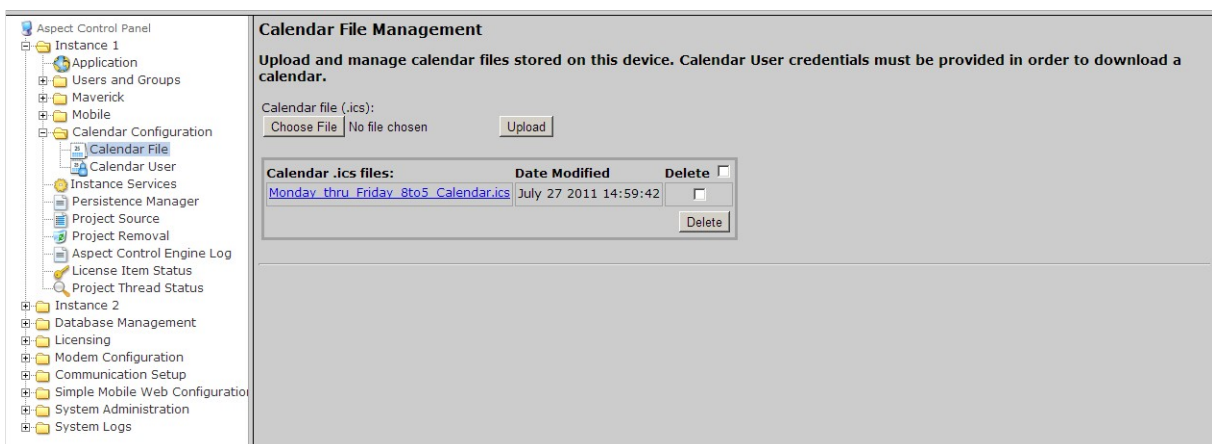


Figure 2-3 Calendar File Management

CALENDAR USER

Calendar User provides the ability to change the default username and password credentials that are required to allow iCalendar-based tools to publish data to the **Aspect® Nexus 2**. By default, the username (*calendar*) and password (*user*) can be changed to any desired credential set. When referencing Calendars in Aspect Studio, these credentials must be specified in order to properly access the file.

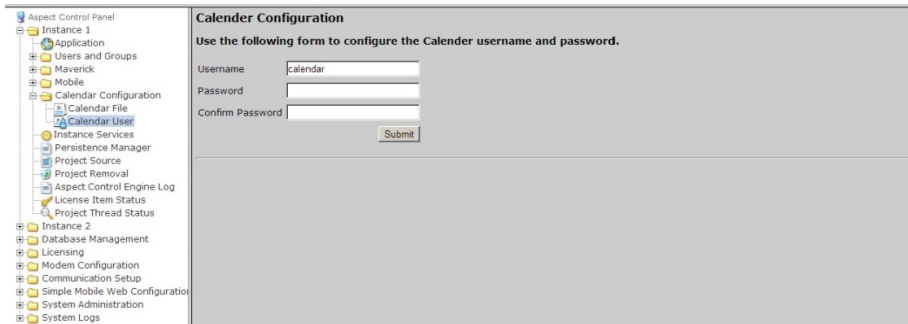


Figure 2-4 Calendar User Configuration

MOBILE

Administration of vSTAT users is accomplished through the Aspect Control Panel (WebUI) of an Aspect target. When logging in as an administrative user, a Mobile folder is present under each licensed instance of Aspect. The page provides the ability to download the current vSTAT configuration.

vSTAT configuration is downloaded as a .CSV file, which can be edited with any standard spreadsheet program such as Microsoft Excel, or even a text editor. To download the current configuration, click the download button and follow your browser's prompts to save the file locally to your PC.

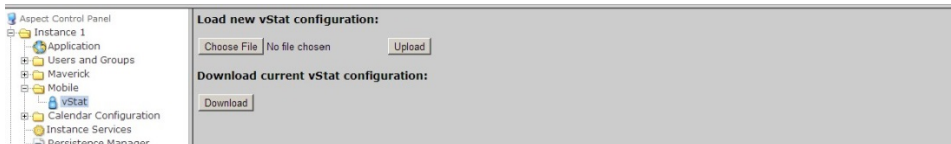


Figure 2-5 vSTAT Configuration

HTML5 Dashboard

In order to access the AutoMagic HTML5 User Interface, navigate to the Aspect Control Panel (WebUI) of an Aspect target. When logging in as an administrative user, a Mobile folder is present under each licensed instance of Aspect. To open the AutoMagic UI, expand the Mobile group and select AutoMagic.

Click the "Click to open AutoMagic UI" link to open the AutoMagic UI.

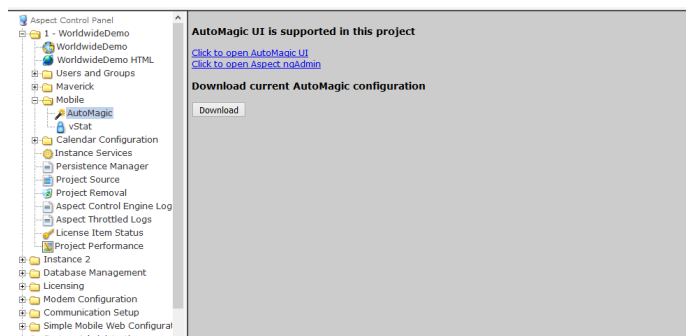


Figure 2-6 AutoMagic UI

USERS AND GROUPS

Users and Groups are included within each instance in the **Aspect® Nexus 2**. This provides the ability to manage users in the Aspect control instance it serves.



Figure 2-7 Instance Based Users and Groups

INSTANCE SERVICES

The Instance Services provides users with the ability to restart the Aspect Control Engine for the instance they are working with. Only one option is available in the Instance Services drop-down which will allow the instance to be reset.

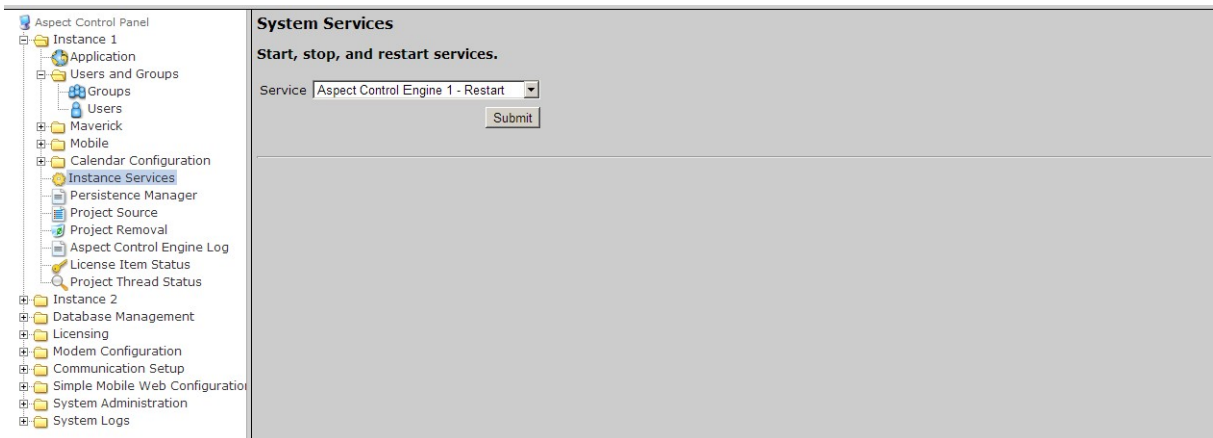


Figure 2-8 Instance Services

PERSISTENCE MANAGER

The Persistence Manager area is used to manage and delete Persisted data. Persisted data is localized data stored from Persisted Elements that may be present in an Aspect project, as well as data persisted by vSTAT elements when such functionality is implemented in a delivered solution.

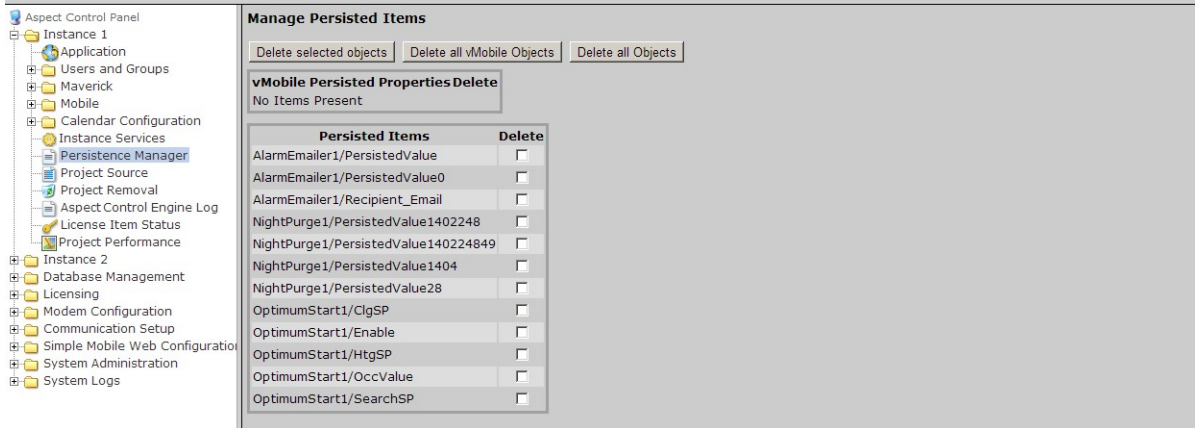


Figure 2-9 Persistence Manager

PROJECT SOURCE

The Project Source page provides administrators with the ability to download a password protected copy of the Aspect project deployed to the Instance. When selecting this in the Control Panel, you will be prompted to re-enter your credentials in order to download a copy of the project.

The required credentials will be the same as the ones used to originally deploy the project.

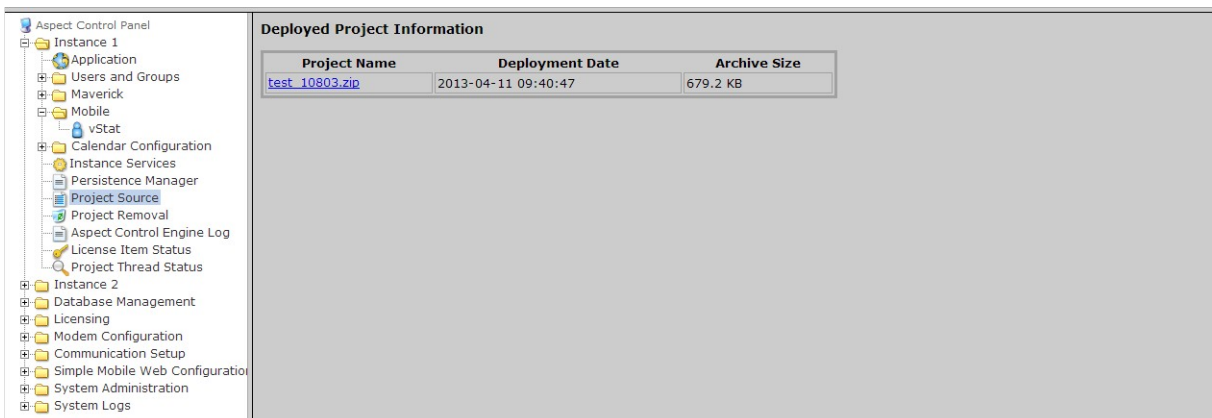


Figure 2-10 Project Source

PROJECT REMOVAL

The project removal page provides administrators the ability to remove a currently deployed project from an Aspect instance.

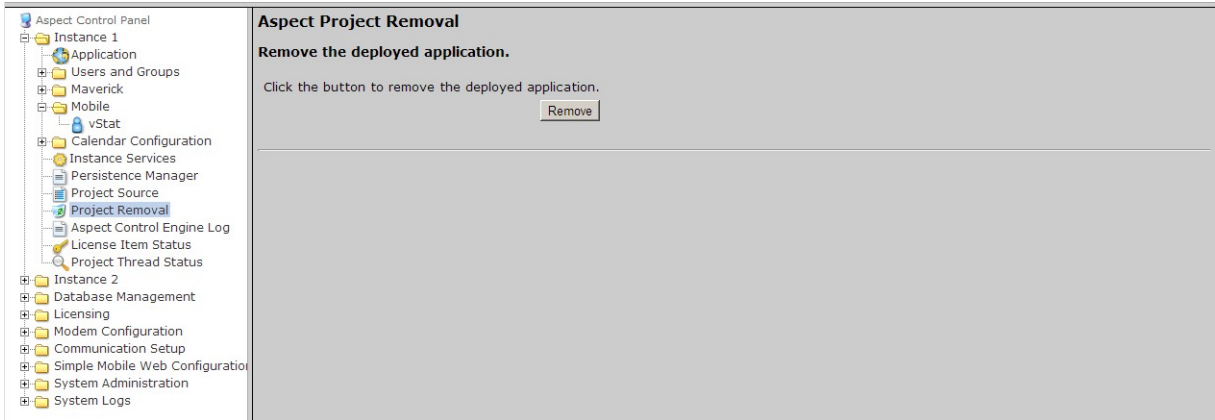


Figure 2-11 Project Removal

ASPECT CONTROL ENGINE LOG

The Aspect Control Engine log provides administrators and technicians the ability to view project status and debugging information relating to the health of the deployed Aspect project. Up to 10 pages of Aspect logs are contained and individual logs can be downloaded.



Figure 2-12 AspectFT Control Engine Logs

LICENSE ITEM STATUS

The License Item Status area provides the ability to view how many current license items a project may be using, as well as the maximum amount of licenses available for a particular feature or function.



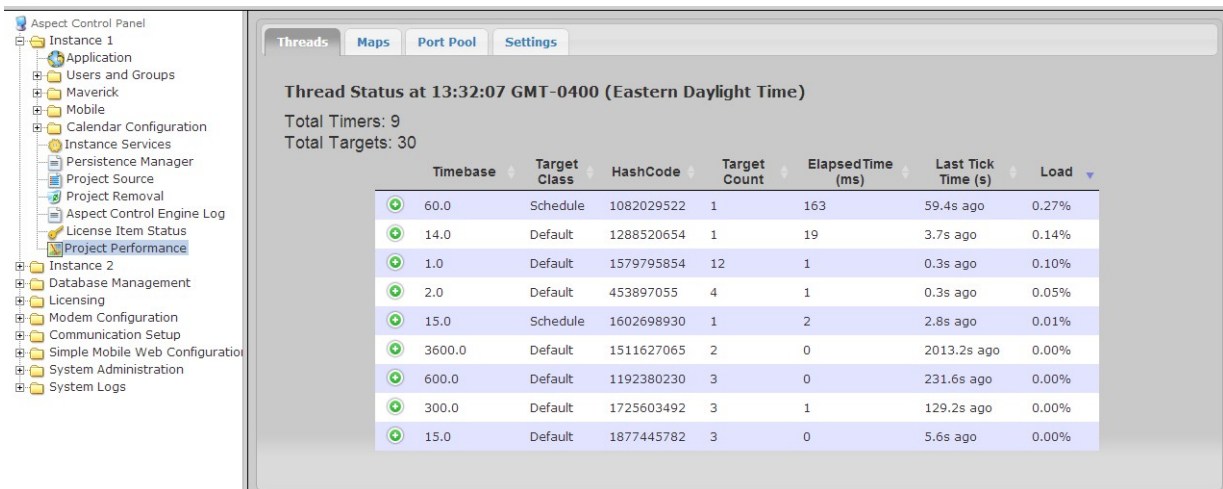
Token	Current	Max
MaverickDevice	0	0
PupDevice	0	256
BACnetDevice	0	256
ModbusRTUDevice	0	128
BACnetIPDevice	0	256
FTNetDevice	0	10
VStat	0	128
ModbusIPDevice	0	15
SdpDevice	0	0

Figure 2-13 License Item Status

PROJECT PERFORMANCE

The Project Performance area provides the ability to dynamically view and monitor the status of Threads, Maps, and Ports being used by the Aspect project loaded into the target.

By default, the all Tabs will update information every 15 seconds. You may adjust this update timer by choosing the Settings tab, and changing the Global Settings Update time.



Timebase	Target Class	HashCode	Target Count	Elapsed Time (ms)	Last Tick Time (s)	Load
60.0	Schedule	1082029522	1	163	59.4s ago	0.27%
14.0	Default	1288520654	1	19	3.7s ago	0.14%
1.0	Default	1579795854	12	1	0.3s ago	0.10%
2.0	Default	453897055	4	1	0.3s ago	0.05%
15.0	Schedule	1602698930	1	2	2.8s ago	0.01%
3600.0	Default	1511627065	2	0	2013.2s ago	0.00%
600.0	Default	1192380230	3	0	231.6s ago	0.00%
300.0	Default	1725603492	3	1	129.2s ago	0.00%
15.0	Default	1877445782	3	0	5.6s ago	0.00%

Figure 2-14 Project Performance Threads

DATABASE MANAGEMENT

Database Management is the centralized location for all database storage and contains paths to MySQL Administration and SQLite Maintenance.

MYSQL ADMINISTRATION

The MySQL Administration page provides users with a link to access the phpMyAdmin side of the Aspect server target and contains the MySQL Database Server. Once accessed, users will be challenged with login credentials. The default, case sensitive, credentials are:

- Username - **matrixac1**
- Password - **aam**

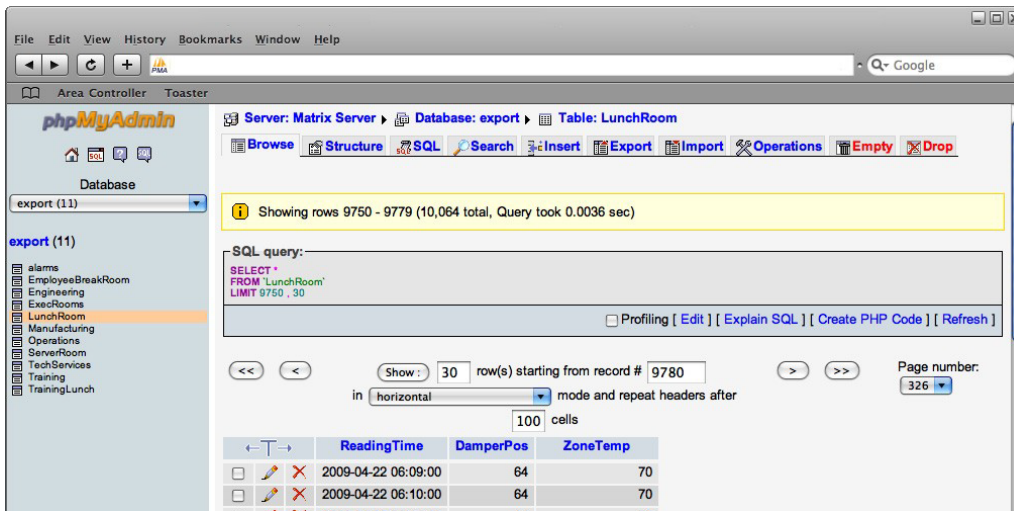


Figure 2-15 phpMyAdmin

SQLITE MAINTENANCE

The SQLite Maintenance page provides users with the ability to manage the SQLite database. This page shows the database files and sizes.

LICENSING

The license page provides the ability to view the current license status of the **Aspect® Nexus 2** as well as a method to upload/download license files. If a license file is uploaded, Cylon Controls recommends rebooting the **Aspect® Nexus 2** to ensure the license file is successfully applied.

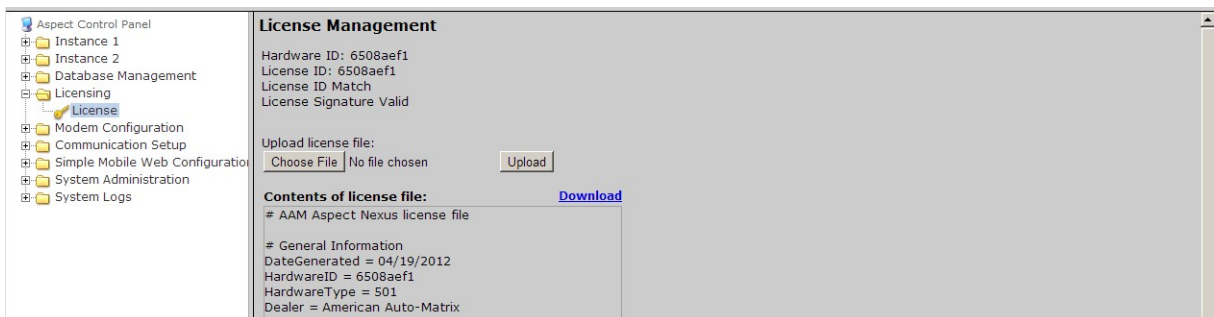


Figure 2-16 License Management

COMMUNICATION SETUP

The Communication Setup page provides administrators the ability to configure manual Out of Service entries, SDP Network Properties, BACnet IP Router, BBMD and Time Synchronization settings.

OOS MANAGER

The OOS Manager provides a single location that allows administrators to manually mark devices out of service using the Manual OOS check boxes.

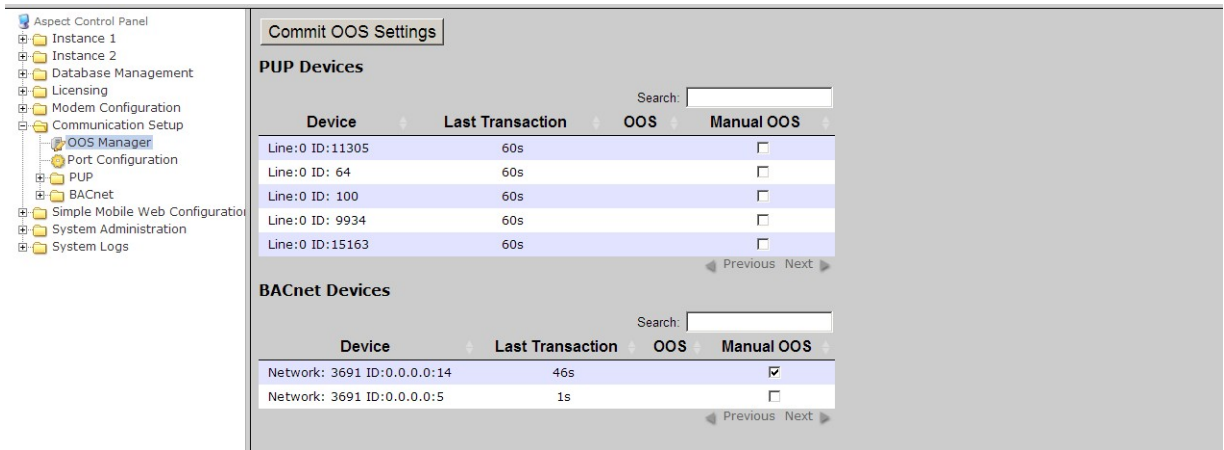


Figure 2-17 OOS Manager

SDP CONFIGURATION

The SDP Configuration page is used to configure network properties. These properties include read/write retries, the Out of Service timer and the timeout period.

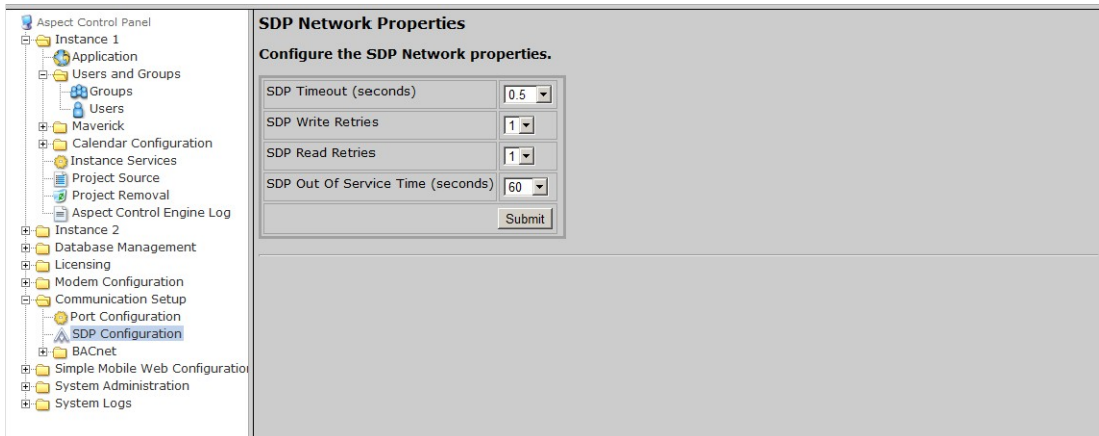


Figure 2-18 SDP Configuration Properties

BACNET SETTINGS

The BACnet Configuration area permits configuration of read/write retries, port configuration, and router settings for BACnet/IP.

BACnet Configuration

BACnet IP Configuration

UDP Port: 47808

IP Timeout (seconds): 0.5

IP Write Retries: 1

IP Read Retries: 1

IP Out Of Service Time (seconds): 60

IP Discovery Timeout (seconds): 3

BACnet MSTP Configuration

MSTP Timeout (seconds): 1.0

MSTP Write Retries: 1

MSTP Read Retries: 1

MSTP Out Of Service Time (seconds): 60

BACnet Router Configuration

Device Name: NexusX

BACnet Device Instance Number: 541

BACnet Ethernet Enabled: No

BACnet IP Enabled: Yes

BACnet IP Network Number: 555

BACnet Internal Network Number: 2651

BACnet NAT Network Enabled: No

Router Debug Level: 1

BACnet Debug Level: 1

Submit

Figure 2-19 BACnet Router Configuration

BBMD SETTINGS

The BBMD settings area is used to configure the BBMD table setup for BACnet networks.

BBMD Configuration

Configure BBMD.

[Add Device](#)

Entries may only be added to the BBMD configuration when BACnet IP or BACnet Ethernet protocols are enabled

IP Address	UDP Port	Subnet Mask	Delete
192.168.50.100	47808	255.255.255.255	<input type="checkbox"/>

Entries may only be added to the BBMD NAT configuration when BACnet NAT is enabled

IP Address UDP Port Subnet Mask Delete

Submit

Figure 2-20 BBMD Configuration

TIME SYNC SETTINGS

The Time Sync Settings area provides the ability to configure BACnet network time synchronizations.

Time Sync Configuration

Configure the BACnet Network configuration.

Time Sync Interval: 1 Hour

Time Sync Recipients (Up to four networks)

Submit

Figure 2-21 Time Synchronization Settings

SIMPLE MOBILE WEB CONFIGURATION

The Simple Mobile Web Configuration area provides users with the ability to generate web pages that can be viewed by handheld devices such as mobile communication devices (i.e. Mobile phone, PDA) that are unable to take on a full JVM implementation to view rich-graphic data displayed created and deployed to the target through Aspect Studio. The implementation requires the use of Database Raw Write blocks used within your application to populate database tables with point information.

To initially configure **Aspect® Nexus 2** to use this feature, you must first enter the hostname (IP address or resolvable name of the **Aspect® Nexus 2**), as well as the username and password assigned in phpMyAdmin that contains permissions to create and write data to tables.



The screenshot shows the 'Simple Mobile Web Configuration' window. On the left is a tree view of the Aspect Control Panel with 'Database Configuration' selected. The main window has a title bar 'Simple Mobile Web Configuration' and a subtitle 'Configure database connection for mobile device web access.' Below the subtitle are three input fields: 'Host' with the value '10.10.4.7', 'Username' with the value 'matrixac1', and 'Password' which is empty. A 'Submit' button is located at the bottom right of the form area.

Figure 2-22 Simple Mobile Web Configuration

SYSTEM ADMINISTRATION

The System Administration area contains system settings for the **Aspect® Nexus 2**. These fields include the User Manager, System Services, System Status, System Updates, Ethernet Settings, Time Settings Web Server Configuration, Process Status, Image Proxy Configuration, and CalDAV Server Configuration.

USER MANAGER

The User Manager area provides fields to setup, add and remove administrative users from the **Aspect® Nexus 2**. Administrative users are granted full access to the Aspect Control Panel while users/groups created within an instance are only allowed access to deployed projects.

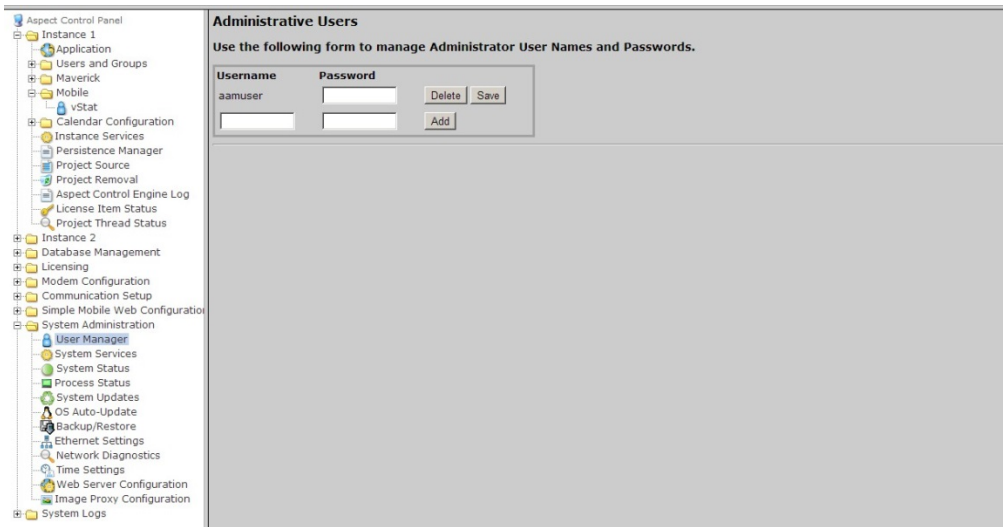


Figure 2-23 Administrative User Form

SYSTEM SERVICES

The System Services area provides administrators with the ability to control key services relative to the target. Through this area, users can restart specific services of the **Aspect® Nexus 2**. Simply select an option from the drop-down and click Submit. A message will indicate that the service has been stopped/started/restarted successfully.

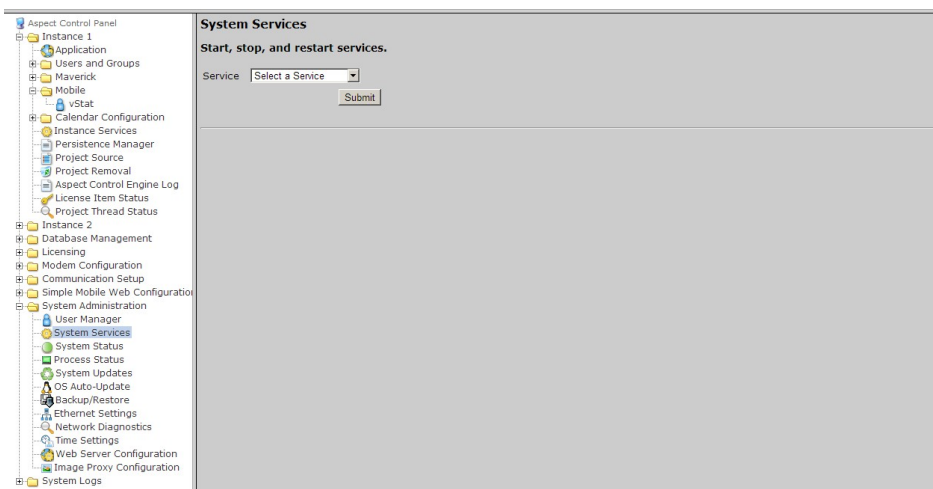


Figure 2-24 System Services

SYSTEM STATUS

The System Status page provides details on the current health of the system including Uptime, memory (RAM) utilization, disk space and all information pertaining to revision levels.

Status

View system status details.

Processor
Intel(R) Atom(TM) CPU D510 @ 1.66GHz

Uptime
3 days, 2:44, 0 users
load average: 0.07, 0.03, 0.00

Mac Address
00:0B:AB:2C:60:02

Serial Number
20047

Memory
57% used: 1062 M of 1868 M

Aspect Version
v3.0.0

Disc usage
/ on /dev/sdb3 - 4% used: 2.1G of 57G

Aspect Runtime Version
Instance 1 - v3.0.0 - 910129 bytes
Instance 2 - v3.0.0 - 910128 bytes

Supervisor Version
R_30_00_00

PUP Driver Version
R_30_00_00

FTNet Driver Version
R_30_00_00

Bacnet Driver Version
R_30_00_00

Bacnet Module Version
R_30_00_00

OS Version
Linux 2.6.32-358.2.1.el6.x86_64

License Status
Hardware ID: 6508aef1
License ID: 6508aef1
License ID Match
License Signature Valid

Figure 2-25 System Status Page

PROCESS STATUS

This shows the result of a top command which produces an updating list of current processes running.

top - 15:46:11 up 3 days, 2:45, 0 users, load average: 0.03, 0.02, 0.00
Tasks: 150 total, 1 running, 149 sleeping, 0 stopped, 0 zombie
Cpu(s): 0.1%us, 0.3%sy, 0.0%ni, 99.4%id, 0.1%wa, 0.0%hi, 0.0%si, 0.0%st
Mem: 1912684k total, 1089852k used, 822832k free, 146460k buffers
Swap: 2097144k total, 0k used, 2097144k free, 282172k cached

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
19533	apache	20	0	15028	1120	820	R	3.8	0.1	0:00.04	top
2241	root	20	0	1468m	3116	700	S	1.9	0.2	74:12.41	mix-com-srv
1	root	20	0	19352	1528	1220	S	0.0	0.1	0:02.04	init
2	root	20	0	0	0	0	S	0.0	0.0	0:00.01	kthreadd
3	root	RT	0	0	0	0	S	0.0	0.0	0:00.31	migration/0
4	root	20	0	0	0	0	S	0.0	0.0	0:00.99	ksoftirqd/0
5	root	RT	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
6	root	RT	0	0	0	0	S	0.0	0.0	0:00.36	watchdog/0
7	root	RT	0	0	0	0	S	0.0	0.0	0:00.31	migration/1
8	root	RT	0	0	0	0	S	0.0	0.0	0:00.00	migration/1
9	root	20	0	0	0	0	S	0.0	0.0	0:01.97	ksoftirqd/1
10	root	RT	0	0	0	0	S	0.0	0.0	0:00.39	watchdog/1
11	root	RT	0	0	0	0	S	0.0	0.0	0:00.34	migration/2
12	root	RT	0	0	0	0	S	0.0	0.0	0:00.00	migration/2
13	root	20	0	0	0	0	S	0.0	0.0	0:01.80	ksoftirqd/2
14	root	RT	0	0	0	0	S	0.0	0.0	0:00.34	watchdog/2
15	root	RT	0	0	0	0	S	0.0	0.0	0:00.32	migration/3
16	root	RT	0	0	0	0	S	0.0	0.0	0:00.00	migration/3
17	root	20	0	0	0	0	S	0.0	0.0	0:01.75	ksoftirqd/3
18	root	RT	0	0	0	0	S	0.0	0.0	0:00.36	watchdog/3
19	root	20	0	0	0	0	S	0.0	0.0	0:22.84	events/0
20	root	20	0	0	0	0	S	0.0	0.0	0:17.10	events/1
21	root	20	0	0	0	0	S	0.0	0.0	0:21.77	events/2
22	root	20	0	0	0	0	S	0.0	0.0	0:25.21	events/3
23	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cgroup
24	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khelper
25	root	20	0	0	0	0	S	0.0	0.0	0:00.00	netns
26	root	20	0	0	0	0	S	0.0	0.0	0:00.00	asvnc/mpr

Figure 2-26 Process Status

SYSTEM UPDATES

The System Updates area is used to perform firmware upgrades to the **Aspect® Nexus 2**. These firmware updates can be obtained via download from support.cylon.com.

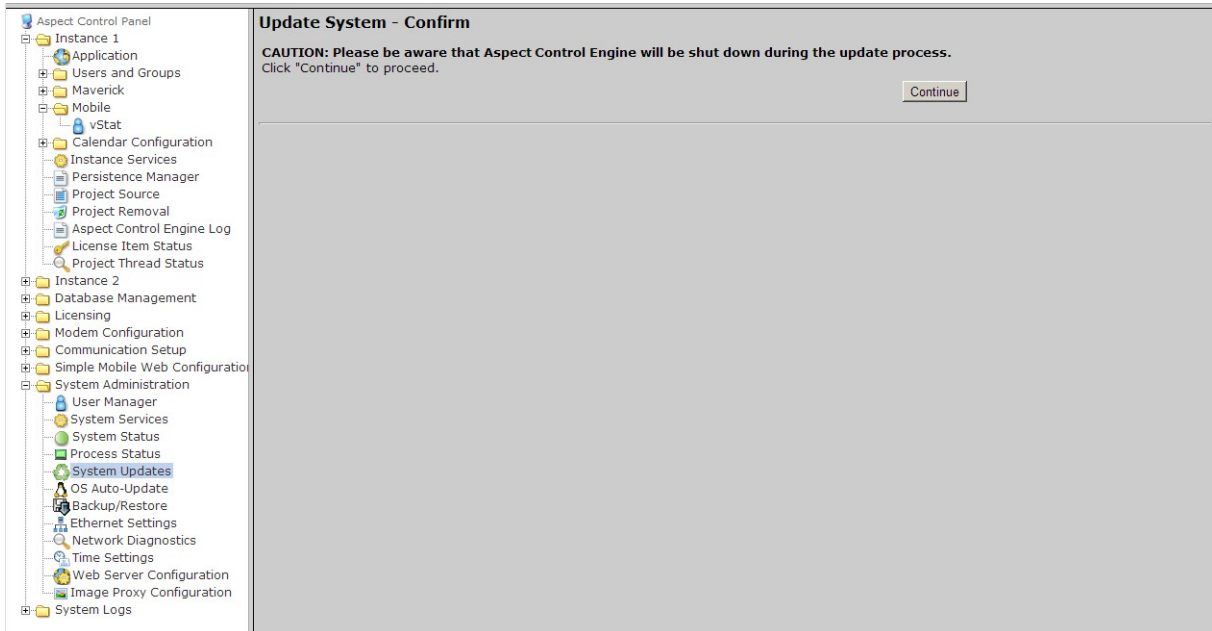


Figure 2-27 System Updates

OS AUTO UPDATE

Permits whether to allow or disallow automatic YUM updates to the Operating System. It is recommended to leave this setting at “Enabled”.

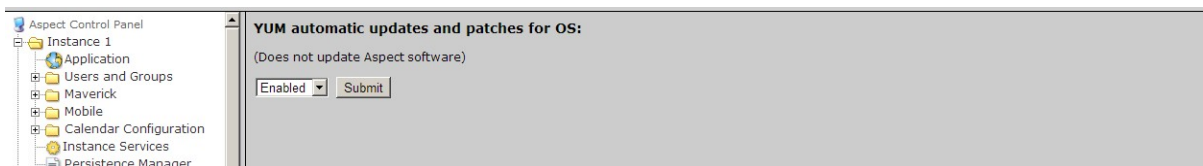


Figure 2-28 OS Auto Update

ETHERNET SETTINGS

The Ethernet Settings area permits for Ethernet address configuration of the **Aspect® Nexus 2**. The **Aspect® Nexus 2** can support static IP addresses or DHCP addressing from a valid DHCP server. Simply select the appropriate address setting for your application.

- To configure the device to use DHCP addressing, select the “Obtain an IP Address Automatically” radio button. In most DHCP environments, a resolvable DNS name or reserved IP address is assigned to the **Aspect® Nexus 2** by the local network administrator prior to configuring the device for this option.

- To configure the device to use a static IP address, select the “Use the following IP Address” radio button, then enter your IP address, subnet mask, gateway, and DNS information into the boxes provided below.

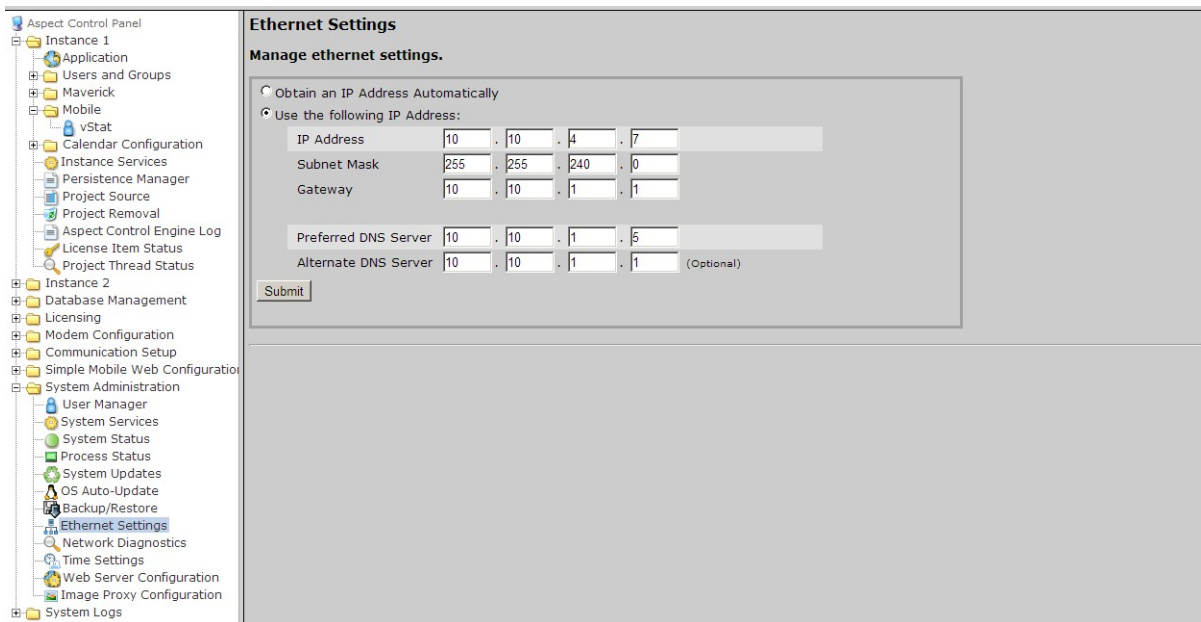


Figure 2-29 Ethernet Settings

NETWORK DIAGNOSTICS

The Network Diagnostics area contains useful troubleshooting methods for IP network connectivity problems without the need for additional tools.

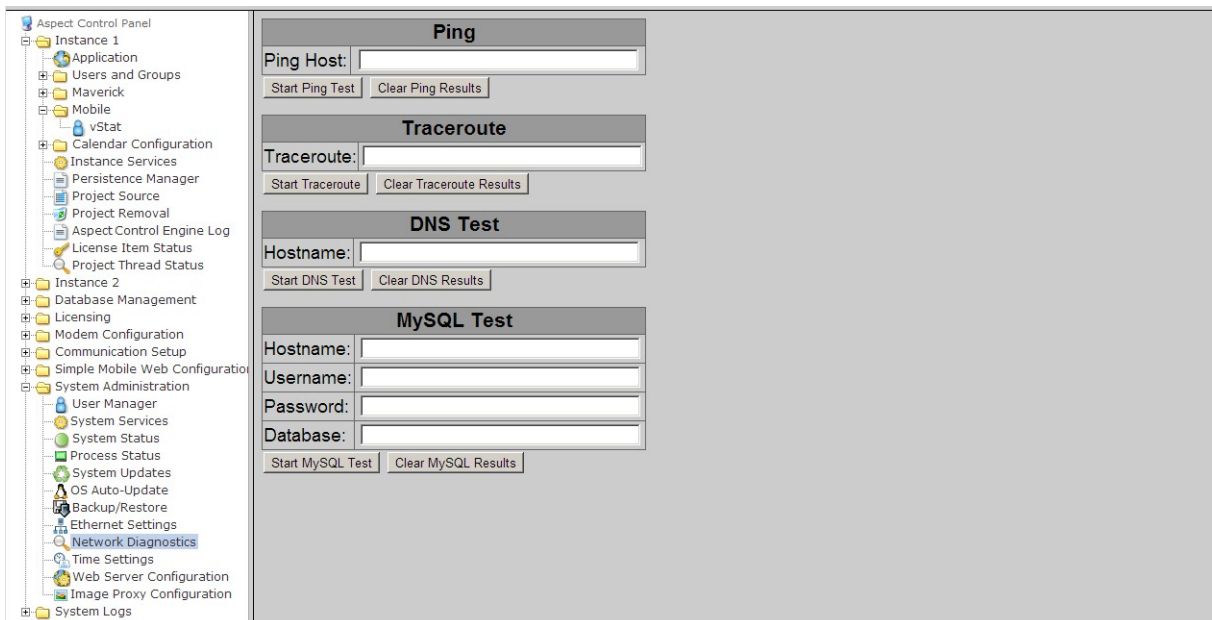


Figure 2-30 Network Diagnostics

TIME SETTINGS

The Time Settings area allows users to configure the **Aspect® Nexus 2** Time and Date parameters. In this section, users can set the following items using the appropriate drop-downs and editors:

- System Time - specified in military time
- System Date - specified in MM/DD/YYYY
- TimeZone/Region - specified in one of many configurable options
- Time Server Synchronization - Specifies an NTP time server on the Internet with which to sync the system time to. Refer to pool.ntp.org for information relative to other available NTP servers available.

The screenshot shows the 'Time/Date Settings' configuration page. On the left is a tree view of the system configuration. The main content area is titled 'Time/Date Settings' and contains the following configuration options:

Set System Time	15 49	Submit
Set System Date	04/19/2013	Submit
Set TimeZone/Region	America/New_York	Submit
Time Server Synchronization	nist1-nj.ustiming.org	Submit

Figure 2-31 Time/Date Settings

WEB SERVER CONFIGURATION

The Web Server Configuration area is used to set a label for the login screen and change port settings for the following:

- Aspect Control Panel - defaults to port 80(HTTP)
- Aspect Control Engine - defaults to port 7226
- Simple Mobile Web - defaults to port 8080

The screenshot shows the 'Web Server Configuration' page. On the left is a tree view of the system configuration. The main content area is titled 'Web Server Configuration' and contains the following configuration options:

Device Label	Nexus 1.08.03	Submit
Port	80	Submit
AspectFT Control Engine Port	7226	Submit
Simple Mobile Web Port	8080	Submit

Figure 2-32 Web Server Configuration Page

IMAGE PROXY CONFIGURATION

The Image Proxy Configuration page permits users to enable or disable image proxy, allowing Aspect to access external sites retrieve graphics.

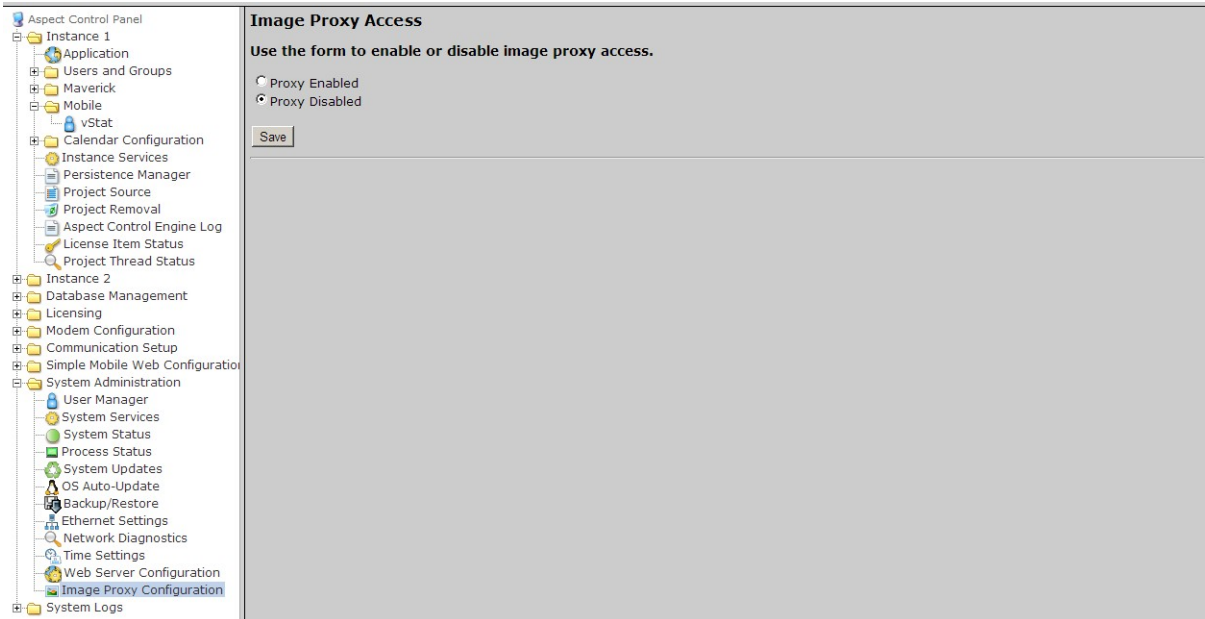


Figure 2-33 Image Proxy Configuration

CALDAV SERVER ADMINISTRATION

CalDAV is installed on the Aspect family using two open source applications- Baikal Server and AgetDAV. From here users are able to launch Baikal Server administration as well as the AgetDAV HTML5 CalDAV Client. Customization of the Client Interface is also configured through this menu option. For installation, requirements, and additional details regarding the CalDAV setup, please refer to the Aspect Studio Online Help file.

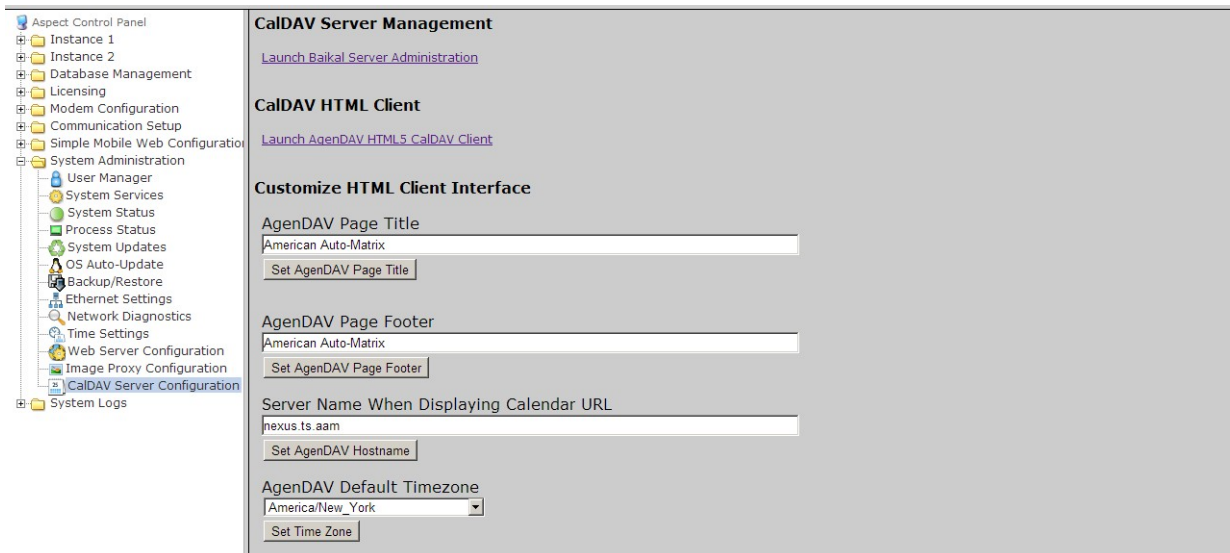


Figure 2-34 CalDAV Server Administration

SYSTEM LOGS

The System Logs area provides users with the ability to view and download messages generated by the **Aspect® Nexus 2** and the Aspect control engine. The System Logs area provides the following logs:

- Diagnostic Buffer - provides kernel operating system output for the device. The information shown here is for diagnostic purposes and may be referenced during troubleshooting session with Cylon Controls.
- Remote Logging - The Remote Logging page is used to allow or disallow centralized syslog messaging. All Aspect targets support the ability to send their log information to a centralized Aspect target or IT-supported syslog server.
- System Log - contains information processed by the sub-level operating system outside of Aspect
- Update Log- shows any recent YUM updates in the system.

DIAGNOSTIC BUFFER

The Diagnostic Buffer provides diagnostic information regarding the **Aspect® Nexus 2** hardware and OS details.

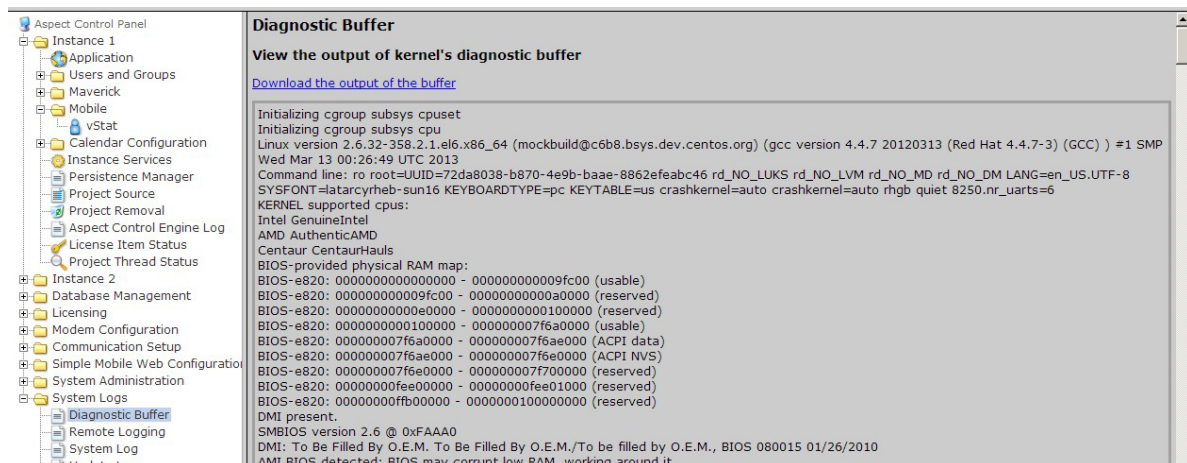


Figure 2-35 Diagnostic Buffer

REMOTE LOGGING

The Remote Logging page is used to allow or disallow centralized syslog messaging. All Aspect targets support the ability to send their log information to a centralized Aspect target or IT-supported syslog server.

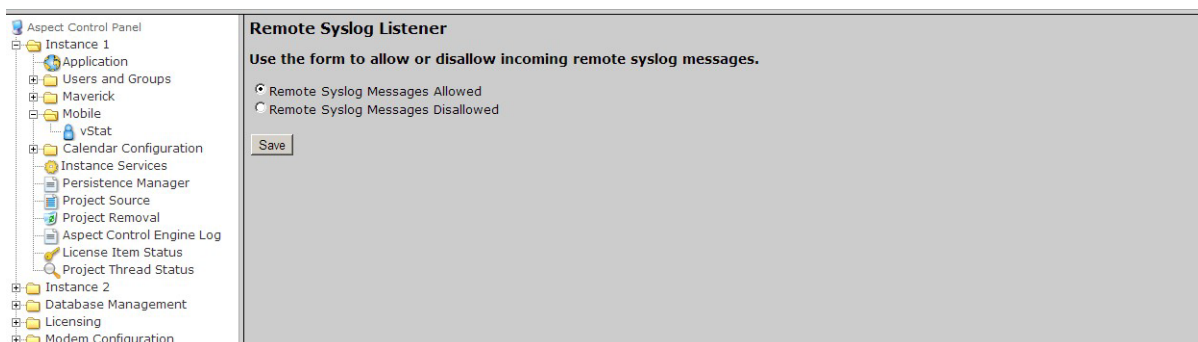


Figure 2-36 Remote Logging

SYSTEM LOG

The System Log area provides complete syslog information for the hardware. Information provided within this log includes boot up details and lower level information regarding runtime of the system.

UPDATE LOG

The update log shows all recent updates to the operating system.

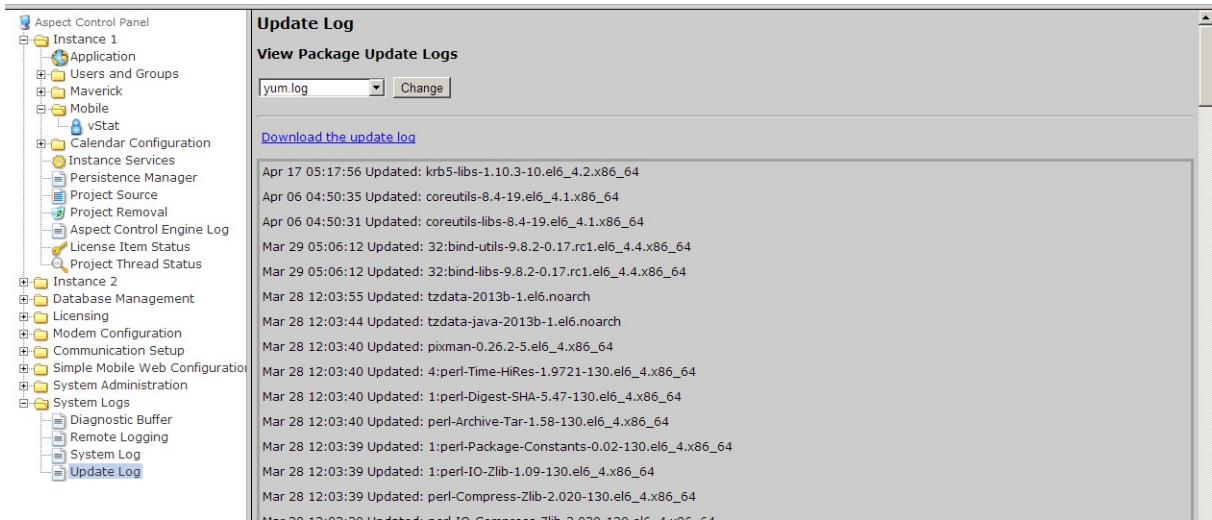


Figure 2-37 Update Log



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