Dell Edge Device Manager Version R15

Administrator's Guide

Notes, cautions, and warnings

ⓘ **NOTE: A NOTE indicates important information that helps you make better use of your product.**

⚠ **CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.**

⚠ **WARNING: A WARNING indicates a potential for property damage, personal injury, or death.**

Contents

1

Introduction

Edge Device Manager is the next generation management solution for Edge Gateway Devices that offers advanced feature options such as Cloud versus On-premises deployment, manage-from-anywhere via a Mobile App, enhanced security such as BIOS configuration and port lockdown. Other features include Device Discovery and Registration, the Asset and Inventory management, the Configuration management, OS and Applications deployment, Real-time commands, Monitoring, Alerts, Reporting, and Troubleshooting of endpoints.

ⓘ **NOTE: Wyse Management Suite UI will be re-branded to Edge Device Manager (EDM) after a valid license has been imported.**

The following information should be considered for selecting the EDM R15 Public vs Private cloud editions:

Private cloud

This edition is suited for users with the following requirements:

- Small, medium, or large deployments
- Need advanced features such as Delegated Administration, Reports, and Two Factor Authentication.
- Want the convenience of "monitor and manage from anywhere" via Mobile App.
- Want to install and maintain software and infrastructure on-site.

ⓘ **NOTE: Devices must be isolated from the Internet (no communication through a forward-proxy service)**

Public cloud

This edition is suited for users with the following requirements:

- Small, medium, or large deployments
- Want convenience and cost savings of not having to set up and maintain infrastructure and software.
- Need advanced features such as Delegated Administration, Reports, Two Factor Authentication.
- Want the convenience of "monitor and manage from anywhere" via Mobile App.
- Devices can be configured to communicate with external server either directly or through a forward-proxy service.
- Need to manage devices on non-corporate networks (home office, third party, partners, and so on)

Topics:

- Getting started with EDM on public cloud
- Getting started with EDM on private cloud
- Functional areas of the management console
- Configuring and managing Edge Gateway devices

Getting started with EDM on public cloud

This section provides you the important information on the general features to help you quickly get started as an administrator.

Logging In

This topic provides the basic steps to log in to the management console. To log in to the management console, ensure that you are using your correct User Name and Password.

> **ⓘ NOTE:**
>
> - You will receive your credentials when you sign up for Edge Device Manager Trial on www.wysemanagementsuite.com or when you purchase your subscription. You can purchase the Edge Device Manager subscription at Dell sales or your local Dell partner. For more details, see www.wysemanagementsuite.com.
>
> It is recommended to change your password after logging in for the first time.

1 Use a supported Web browser on any machine with access to the Internet to log in to the management console.
2 You can access Public Cloud (SaaS) edition of Edge Device Manager by pointing your web browser to following links:
   - US Datacenter: us1.wysemanagementsuite.com
   - EU Datacenter: eu1.wysemanagementsuite.com
3 Enter your Username and Password.

> **ⓘ NOTE: The default username and password is provided by Account Representative.**

4 Click **Sign In** option.

Changing your password

To change the login password, complete the following steps:

1 Click the Account link at the upper-right corner of the management console, and then click **Change Password** option.
2 Enter your current password.
3 Enter a new password.
4 Enter your new password in the **Confirm New Password** box.
5 Click **Change Password** option.

Logging out

To log out from the management console, click the Account link at the upper-right corner of the management console, and then click **Sign out** option.

Getting started with EDM on private cloud

Support information

EDM Server:

The software can be installed on a physical or virtual machine.

- Supported Operating System – Windows server 2012 R2 and Windows Server 2016
- Minimum Disk Space – 40 GB
- Minimum Memory (RAM) – 8 GB
- Minimum CPU Requirements – 4 CPU

For 50K devices:

- Supported Operating System – Windows server 2012 R2 and Windows Server 2016
- Minimum Disk Space –120 GB
- Minimum Memory (RAM) – 16 GB

- Minimum CPU requirements – 4 CPU

Edge Device Manager Repository

The software can be installed on a physical or virtual machine.

- Supported Operating System – Windows server 2012 R2 and Windows Server 2016
- Minimum Disk Space –120 GB
- Minimum Memory (RAM) – 16 GB
- Minimum CPU requirements – 4 CPU

(i) **NOTE: For public cloud EDM, the repository must be installed on a server within the DMZ which is externally accessible, and the fully qualified domain name (FQDN) of the server must be registered in public DNS.**

OS (Operating System) Language Pack Support for EDM Server

1   English
2   French
3   Italian
4   German
5   Spanish

Browser Support

1   Internet Explorer 11
2   Chrome version 58.0 and above
3   Firefox version 52.0 and above
4   Edge browser on Windows (English only)

Functional areas of the management console

The EDM management console is organized into the following functional areas:

1   **Dashboard**: This allows you to quickly view important summary of information for each functional area of the system.
2   **Groups**: This allows the flexibility to employ hierarchical Group Policy management for device configuration. Optionally, sub-groups of the Global Group Policy can be created to categorize devices according to corporate standards. For example, devices may be grouped based on job functions, device type, bring-your-own-device, and so on.
3   **Users**: Local users and users imported from Active Directory can be assigned global administrator, group administrator, and viewer roles to login to EDM. Users are given permissions to perform operations based on roles assigned to them.
4   **Devices**: This allows you to view and manage Devices, Device Types, and device-specific Configuration.
5   **Apps & Data**: This allows you to manage device Application inventory and policies.
6   **Rules**: This allows you to add, edit, and enable or disable rules such as auto grouping and alert notifications.
7   **Jobs**: Creates job for any task such as reboot, WOL, and application/image policy that needs to be pushed to registered devices. Administrator can track status of jobs by navigating to this tab.
8   **Events**: This allows you to view and audit system events and alerts.
9   **Portal Admin**: This allows administrators to perform system administration tasks such as local repositories, Active Directory Connector operations, Subscriptions, and other Self-Service settings/agreements out of the system. You can configure on-premises services and enable two-factor authentication here. For more information, see Managing Administrators and Viewers of the Management Console in the Administration Guide.

Configuring and managing Edge Gateway devices

The general approach to configure and manage Edge Gateway devices consists of the following high level steps:

- Configuration management is done through Policy Groups, under the **Groups** tab of the Web Console. Up to 10 levels deep, EDM supports a hierarchy of groups and subgroups. These Groups can be created manually or automatically based on defined rules and

needs. You can organize and manage based on functional groups (Example: Marketing, Sales and Engineering etc.). Others may want to organize based on the locations of the devices (Example: Time zone as the first level group, State at the second level, City at the third level, Building at the fourth level, Floor at the fifth level).

> ⓘ **NOTE:** You can create rules to automatically create groups or assign devices to existing groups based on device attributes such as subnet, time zone and location.

- Settings or policies that apply to all the devices in the tenant account are set at the Default Policy group. This is the global set of parameters that all groups and subgroups will inherit from.

- Settings or parameters that are configured at lower level groups takes precedence over settings that were configured at the parent or higher level groups.

- Parameters that are specific to a particular device may be configured from the Device Details page.

- Configuration parameters are pushed to all devices in that group and all the subgroups, when you create and publish the policy.

- Once a configuration is published and propagated to the devices, the settings will not be sent again to the devices until the next time the Administrator makes a change.

- New devices that are registered receives the configuration policy that is effective for the group to which it was registered.

- Applications, updates, and other such operations are done from the Apps and Data tab of the UI.

  - Applications are deployed based on Policy Groups.
  - Deployment of Applications to the devices may be scheduled immediately or a later time, based on specific time zone configured on device.

- Inventory of devices can be located by clicking Devices tab. By default, this shows a paginated, flat list of all the devices in the system. You can choose to view a subset of the devices using a variety of filter criteria, such as Groups or subgroups, device type OS type, status, subnet, platform or time zone.

  - Clicking the device entries listed on this page navigates to the Device Details page for that device. This shows a variety of detailed information for that device

  - The Device Details page also shows all the configuration parameters that apply to that device, and also the group level at which each parameter took effect.

  - This section also enables to set configuration parameters that are specific to that device. Parameters configured in this section overrides any parameters that were configured at the Groups and/or global level.

- You can generate and view canned reports based on predefined filters by navigating to Portal Admin and then clicking the Reports Tab.

- You will receive an alert notification and manage devices using mobile app is available for Android and iOS devices. Mobile app and its quick start guide can be downloaded by navigating to Portal Admin and then clicking the Alert Classification option.

Key features

The following are the new features in this release:

Private cloud Edge Device Manager installer

- New, Simple and powerful private cloud installer to install all the required components to run Edge Device Manager within 5 minutes.
- Edge Device Manager Installer can be installed on Windows 2012 R2 standard and Windows 2016 Standard servers.
- Private cloud installer deploys all the components required to support the Edge Device Manager functionality. Following Windows services are installed after successful installation of product:
  - Wyse Management Suite: Tomcat Service – Application Server that hosts Edge Device Manager application.
  - Wyse Management Suite: MariaDB – Relational Database for structured data and normalization.
  - Wyse Management Suite: MongoDB – No-SQL Database for performance and scalability.
  - Wyse Management Suite: Memcached – An application to launch the server faster.
  - Wyse Management Suite: Mosquitto – Used for push notifications to devices.
- Installer will configure the local repository to store application at the chosen path.

Getting started Wizard (Private Cloud)

Getting started wizard allows you to select Licensing model and optionally configure Edge Device Manager to enable email alerts and import certificate for secure communications.

Edge gateway 3001/3002/3003 support - Windows

- Added support for Edge gateway 3001/3002/3003 with Windows 10 2016 LTSB.
- All the existing Windows Edge gateway functionalities will be supported for these new platforms as well.
- The latest agent version must be used for full EDM support.

Edge gateway 3001/3002/3003 support - Ubuntu core 16.04 (Snappy)

- Added support for Edge gateway 3001/3002/3003 with Ubuntu core 16.04 (Snappy).
- All the existing snappy Edge gateway functionalities will be supported for these new platforms as well.
- Applications will be fetched from the new app store.
- The latest agent version must be used for full EDM support.

Edge Device Manager Mobile App

Edge Device Manager Mobile app available for Android and iOS devices allows administrator to manage and monitor devices from anywhere in real-time.

Following features are available through Mobile App.

1   View Dashboard, Device summary, Alerts, Jobs and Events.
2   Execute real time commands.

Alerts through Mobile App and Email

- Administrator can configure Edge Device Manager to receive critical, warning and, informational Alerts through Mobile App and/or Email.
- Admin can set the alert classification for each available alert from the Edge Device Manager console.

Device-Auto grouping capabilities

The administrator can create rules to automatically create groups or assign devices to existing groups, based on device attributes such as subnet, time zone, location, and custom values.

Wyse Management Suite Repository

- Wyse Management Suite Repository is a new component to store, manage and deploy application and OS images to your thin clients.
- Wyse Management Suite Repository replaces legacy on-premise gateway.
    - In addition to new features, it is recommended that you **replace** legacy on premise gateway with Wyse Management Suite Repository for significant performance gains for existing features.
    - Please note that you cannot upgrade legacy on-premise gateway to new Wyse Management Suite Repository.
- Supported on Windows 2012 R2 and Windows 2016 standard server.

(i) **NOTE: A local repository is automatically created as part of Wyse Management Suite Server installation.**

Simplified reporting

Ability to view data based on predefined filters and the ability to export predefined canned report. Reports for following information is available:

- Active App policies
- All App policies
- Unmanaged devices
- Online devices
- Offline devices
- All devices
- Audit Logs
- Current Alerts
- Alert History
- Group Policies
- Application Policies
- Remote Connections
- Remote Commands

Active Directory integration

Edge Device Manager supports import of Admin User names from Active Directory, to enable authentication through Active Directory.

Edge Device Manager server Setup from the Portal Admin

Following Server configurations can be done from the setup page:

- Enabling the CA validation
- Updating the SMTP details
- Updating the Domain/Well known certificate Authority details.(.pem and .pfx certificates can be uploaded)
- License can be imported from the Public cloud server.

Show device offline/online status

- Admin can filter devices by the online/offline status from the Device page.
- Admin can view the online/offline status from the device details page.
- Admin can export the online/offline status as part of the device export functionality.

Filter enhancements

- Filtering based on Subnet, OS Type and Platform is added on the device page.
- Filtering based on Device Types, Status and Detail status is added on the Jobs page.

Edge Device Manager localization (Preview)

- Edge Device Manager supports switching between English and Canadian French.

Simplified registration

Simplified registration is supported on Edge gateway and Embedded PCs.

- For public cloud, register your devices by providing Edge Device Manager URL and group token. You do not have to supply MQTT server URL.
- For private cloud, register your devices by providing Edge Device Manager URL and optionally a group token. Group token is an optional parameter in a single tenant private cloud server and the devices are registered to the unmanaged groups if the group token is not provided.

Discover Edge gateway/Embedded PC using DNS SRV records

Auto discover Edge Device Manager server using the DNS SRV record with following info:

- Edge Device Manager Server URL
    - DNS Record Type : DNS SRV
    - Record Name : _WMS_MGMT._tcp.<Domain>
    - Example : Edge Device Manager-betaserver.Dell.com
- Group Token
    - DNS Record Type : DNS Text
    - Record Name : _WMS_GROUPTOKEN.<Domain>
    - Example : defa-defadefa
- CA Validation
    - DNS Record Type : DNS Text

- Record Name : _WMS_CAVALIDATION.<Domain>
- Example : True

EDM Dashboard Overview

The Dashboard page allows you to quickly view important status information about the system and recent events that have been performed within the system. By clicking a link in the Alerts area, you can view details about that item.
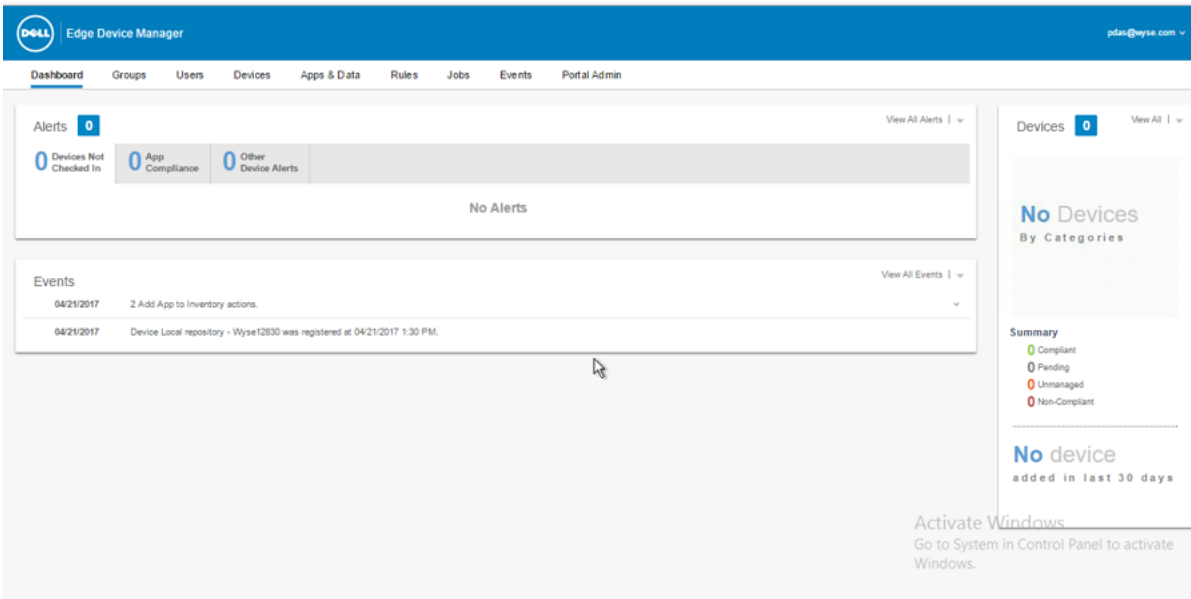
Figure 1. Dashboard

Links on the Dashboard page include:

- **Alerts**

  This section displays the summary of all the alerts. These allow you to quickly go to functional areas of the system that require your attention. This includes details for:

  - Devices Not Checked In
  - App Compliance
  - Other Device Alerts

  (i) **NOTE: By clicking View All Alerts, you can see the list of all the alerts in detail.**

- **Events**

  This section displays the summary of events happened in the last few days. It also displays the date at which the event has occurred.

  (i) **NOTE: By clicking View All Events, you can see the list of all the events in detail.**

- **Devices**

  This section displays the summary of the details of the devices. It includes the information about how many Compliant, Pending, Unmanaged, and Non-Compliant devices registered with EDM.

Managing Group Policies

Groups allow you to flexibly employ hierarchical Group Policy management for device configuration. Optionally, sub-groups of the Global Group Policy can be created to categorize devices according to corporate standards. For example, devices may be grouped based on job functions, device type, bring-your-own-device, and so on.

Figure 2. Groups

At each group, you can define policies for following device types:

- Edge Gateway
  - Snappy
  - Windows
- Embedded PC
  - Windows
  - Ubuntu

Policies are enforced in the following order:

- **Device**
- **Group**
- **Global**

1 The general guidelines to be followed to configure policies:

   a **Device Level Exceptions**— To configure a Device level policy:.

      1 In the Devices page, double-click on the name of the device which you want to configure.

      2 **Device Details** page is opened. Click on the **Summary** tab.

      3 In the **Device Configuration** section, click **Create/Edit Exceptions** and select the type of the device for which you want to manage the exceptions.

   b **Group Level Policies**— To configure Group Level Policies:

      1 In the Groups page, click the **Edit Policies** drop-down at the right pane of the following group except **Default Policy Group** which you want to configure.

      2 Select the device which you want to configure from the drop-down menu.

      3 The policy settings of respective devices are displayed on the left side.

      4 Click on any one of the settings and click **Configure this item**.

      5 After configuring, click **Save and Publish**.

      You can configure multi-level group polices by using the above mentioned steps.

   c **Global Level Policies**— To configure Global Level Policies:

      1 In the Groups page, click the **Edit Policies** drop-down at the right pane of the **Default Policy Group**.

      2 Select the device which you want to configure from the drop-down menu.

      3 The policy settings of respective devices are displayed on the left–hand side.

      4 Click on any one of the settings and click **Configure this item**.

      5 After configuring, click **Save and Publish**.

2 Policies are inherited in the order they are created. Any settings you configure in a Default Policy Group will be the default in all the policies below that Default Policy Group. Similarly for a Group, all Users and Devices in that Group will have Default Policy Group as their default.

3 You can create an exception for a Device in a Group to have a subset of policies to be different from the Group default. You can do this using the User Details page or the Device Details page. These detail pages display the configuration for that asset with details of where configurations are set that is Global, Group, User, and Device levels and allows you the option to create exceptions.

> ⓘ **NOTE: Exception: The settings which are applicable only for a particular device.**

4   When modifying lower-level policies, any policy that is an override to a higher-level policy will be indicated by a bullet symbol to the left of the policy type . For example System Personalization, Networking, Security and so on.

5   While modifying policies, an asterisk (*) will be placed to the right of the policy types to indicate that there are unsaved or unpublished changes. To review these changes prior to publishing them, click on the **View pending changes** link at the right of the panel.

6   After changing the Policy Settings, ensure you click **Save and Publish** option.

If a policy configuration has to be prioritized between the different levels the lowest-level policy takes precedence.

After configuring the Policy Settings, the Edge Gateway devices are notified about the changes in settings. Embedded PCs and Edge Gateways require a restart for changes to take effect for BIOS configurations.

Topics:

- Group Tree Hierarchy
- Unmanaged Group
- Edge Gateway Policy Settings
- Configuring the Windows Edge Gateway Settings
- Embedded PC Policy Settings

Group Tree Hierarchy

Group Tree Hierarchy consist of the following options:

- Add Group
- Edit Group
- Remove Group

Adding a Group

To add a group, complete the following steps:

1   On the **Groups** page, click **+** icon under the **Group Tree Hierarchy**.
2   On the **Add New Groups** dialog box, enter the group information such as **Group Name** and **Description**.

> ⓘ **NOTE: You cannot locally change the name and description of a group that has been imported from Active Directory as part of a Manual AD Sync import option. You must use Active Directory to change the name and description of a group, and then sync.**

3   On the **Registration** tab, enter the registration information.
4   Select the check box to enter the group token.

    The devices can be registered to a group by entering the group token found on the device registration screen.

5   Click **Save**. The Group is added to the list of available Groups on the Groups page.

Editing default policy group

After a Group is added, you can edit it by using the **Edit Group** option.
To edit a group, complete the following steps:

1   In the **Groups** page, click **Edit Group** option under the **Group Tree Hierarchy** option.
2   In the **Editing default policy group** dialog box, edit the group information such as **Group Name** and **Description**.
3   Under registration tab, select the check box to enable the group token.

    The devices can be registered to a group by entering the group token found on the device registration screen.

4   Click **Save** to make the changes.

Removing a Group

As an administrator you can remove a group from the group hierarchy.
To remove a group complete the following steps:

1   In the **Groups** page, click **Remove Group** icon under the **Group Tree Hierarchy**.

A warning message is displayed saying this action removes the group(s) from the group tree hierarchy.

ⓘ **NOTE: All devices include in the removing group gets moved to the selected target group. Quarantine group is intended for group based registration devices. If Quarantine group is selected as the destination group when removing a custom group, UI will ask for the second destination group to move users and mobile devices to.**

2   Click **Remove Group**.

Unmanaged Group

Devices that belong to unmanaged group do not use license or receive configuration or application policies. To add devices to the Unmanaged group you can use the Unmanaged group device registration key as part of the auto registration or manual device registration. No policies or configurations are applied to devices in the Unmanaged group.

ⓘ **NOTE:**

In previous versions of the product, Unmanaged Group was called as Quarantine Group.

To configure the Unmanaged group, do the following:

- Click the edit group option to edit the Unmanaged group. The **Editing Unmanaged Group** page is displayed.
- The following options are displayed on the page:
  - Group Name — Displays the name of the group.
  - Description — Displays a brief description of the group.
  - Group Token — Select this option to enable group token.
- Click **Save** to save the configuration.

ⓘ **NOTE:**

For Public Cloud, the Group Token for Unmanaged Group must be enabled to register devices to it. For Private Cloud, the Group Token for Unmanaged Group is automatically enabled.

Edge Gateway Policy Settings

Use this section to configure the Edge Gateway policy settings for Snappy and Windows devices.

- Configuring the Snappy Settings.
- Configuring the Windows Settings.

Configuring the Snappy Gateway Settings

Use this section to configure the settings for your Snappy Gateway devices.

System Personalization

Use this page to configure Edge Gateway device settings such as Time zone name, log level and device owner for Edge Gateway devices.

Table 1. System Personalization

Parameter	Description
Time Zone Name	Select your appropriate Time zone from the available Time Zones in the drop-down list.
Log Level	From the drop-down list, select your preferred log level. The available options are: • Info • Trace • Debug • Warning • Error • Critical • Log Always
Owner	Specifies the owner of the Edge Gateway device.

Login Experience

OS Admin Password— Use this option to specify a new password for the admin user.

By default, the password is set as ubuntu.

ⓘ IMPORTANT: **The OS Admin Password box cannot be left blank.**

Security

Use this section to define security settings such as port configuration, SSH, and others. By default, the SSH is enabled.

Table 2. Security Settings

Parameter	Description
Disable SSH	Check the box to disable the SSH connection on the Edge Gateway device. By default, the SSH is enabled.
Deactivate WebDM	Check the box to uninstall the Web Device Manager (WebDM). WebDM is a web-based management interface to your snappy device that allows for configuration and package installation.

Location

Use this page to configure location settings such as Floor, Building, Campus and so on.

Table 3. Location

Parameter	Description
Floor	Specifies the floor where your device is located.
Building	Specifies the Building where your device is located.
Campus	Specifies the campus where your device is located.
Formatted Address	Specifies the formatted address where your device is located.
Street Address Line One	Specifies the Street address where your device is located.
Street Address Line Two	Specifies the Street address where your device is located.
City	Specifies the city where your device is located.
Zip Code	Specifies the zip code of the city where your device is located.
Country	Specifies the country where your device is located.

Edge Gateway 5000 BIOS settings

Use this page to define Edge Gateway 5000 BIOS settings.

Table 4. General settings

Parameter	Description
Device Notes	Enter the device notes such as property ownership tag.

Table 5. System Configuration

Parameter	Description
Integrated NIC	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is disabled and not visible to the OS even if it has an IP address. • Enabled — The internal LAN is enabled. • Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).
Integrated NIC2	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is disabled and not visible to the OS even if it has an IP address. • Enabled — The internal LAN is enabled.
SMART Reporting	Check box to control the reporting of hard drive errors for integrated drivers during system startup.

Parameter	Description
Serial Port 1 RS232	Check box to determine how the built-in serial port operates. It lets you avoid resource conflicts between devices by disabling or remapping the address of the port. This port is at 2D0h with IRQ 7.
Serial Port 2 RS422	Check box to determine how the built-in serial port operates. It lets you avoid resource conflicts between devices by disabling or remapping the address of the port. This port is at 3E0h with IRQ 10.
Serial Port 3 RS485	Check box to determine how the built-in serial port operates. It lets you avoid resource conflicts between devices by disabling or remapping the address of the port. This port is at 2E0h with IRQ 11.
Serial Port 4 RS485	Check box to determine how the built-in serial port operates. It lets you avoid resource conflicts between devices by disabling or remapping the address of the port. This port is at 3E8h with IRQ 10.
Enable UEFI Network Stack	Check box to install or make available the UEFI Networking protocols, allowing pre-OS and early OS networking features to use any enabled NICs. This may be used without switching on the PXE.
Watchdog Timer Support	Check box to enable the Watchdog Timer feature.
WLAN Region Code	From the drop-down list, select the WLAN region code.

Table 6. USB Configuration

Parameter	Description
Enable USB 3.0 Ports	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Top USB Port 1	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Top USB Port 2	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Bottom USB Port 3	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Boot Support	Check box to allow the system to boot any type of USB Mass Storage Devices (HDD, memory key, floppy). USB-aware OS always see USB Mass Storage devices irrespective of this setting, provided the port is enabled.

Table 7. Wireless Settings

Parameter	Description
Enable WWAN	Check box to enable Wireless Wide Area Network (WWAN).
Enable WLAN	Check box to enable Wireless Local Area Network (WLAN).
Enable Bluetooth	Check box to enable Bluetooth.
Enable CANBus	Check box to enable CAN Bus.

Table 8. Security

Parameter	Description
Admin Setup Lockout	Check box to prevent users from entering Setup when Admin password is set.
Chassis Intrusion	Chassis Intrusion is a utility that the BIOS can use to tell you someone has opened the case. From the drop down list, you can select any of the following options: • Disable — Disable chassis intrusion feature. • Enable — Report intrusions during POST. • On-Silent — Enable intrusion detection but does not display any detected intrusion.
UEFI Capsule Firmware Update	Check box to control allowing the BIOS updates through UEFI capsule update packages by the system. Disabling this option blocks the BIOS updates from services such as Microsoft Windows Update and Linux Vendor Firmware Service (LVFS).

Table 9. BIOS Admin Password

Parameter	Description
Enable Admin Password	Check box to enable BIOS administrator password. Successful changes to this password take effect immediately.

Table 10. Power Management Settings

Parameter	Description
AC Recovery	From the drop down list, select an option to specify how the system behaves when AC power restored after an AC power loss. The available options are: • Power Off • Power On • Last Power State
Wake On LAN	From the drop down list, select an option to allow the computer to power up from the off state when triggered by a special LAN signal or from the hibernate state when triggered by a special wireless LAN signal.

Table 11. Auto On Settings

Parameter	Description
Auto On	From the drop down list, set the time of day when you would like the system to turn on automatically.

Table 12. POST Behavior Settings

Parameter	Description
Numlock LED	Check box to turn on the Numlock LED when the system boots.
Keyboard Errors	Check box to report keyboard related errors when the system boots.

Parameter	Description
Fastboot	From the drop down list, select an option to speed up the boot process by bypassing some compatibility steps. The available options are: · Minimal · Thorough · Auto
Extend BIOS POST Time	From the drop down list, select an option to create an additional pre-boot delay which allows the user to see POST status messages. The available options are: · 0 seconds · 5 seconds · 10 seconds

Table 13. Maintenance Settings

Parameter	Description
BIOS Recovery (from Hard Drive)	Check box to enable the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key.

Table 14. Reboot Schedule

Parameter	Description
Reboot Option	Some BIOS settings require system reboot. When **Reboot later** is selected, devices reboot when the current time matches the set time. From the drop down list, you can select any of the following options: · Reboot immediately · Reboot later · Do not reboot

Other Settings

Use this page to configure auto-pilot and firmware updates. You can configure to update the OS, BIOS and applications as they become available in the Canonical/Dell store. By default, the options are enabled.

Table 15. Other Settings

Parameter	Description
Enable Auto-Pilot	Check the box, if you want to enable the auto-pilot feature.
Enable Firmware Auto Update	Check the box, if you want to enable automatic updates.

Edge Gateway 3001 BIOS settings

Use this page to define Edge Gateway 3001 BIOS settings.

Table 16. General settings

Parameter	Description
Device Notes	Enter the device notes such as property ownership tag.

Table 17. System Configuration

Parameter	Description
Integrated NIC	From the drop-down list, select an option to control the on-board LAN controller. The available options are: · Disabled — The internal LAN is off and not visible to the OS. · Force Disabled — The internal LAN is off and not visible to the OS even if it has an IP address. · Enabled — The internal LAN is enabled. · Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).
Enable UEFI Network Stack	Check box to install or make available the UEFI Networking protocols, allowing pre-OS and early OS networking features to use any enabled NICs. This may be used without switching on the PXE.
Watchdog Timer Support	Check box to enable the Watchdog Timer feature.

Table 18. USB Configuration

Parameter	Description
Enable USB 3.0 Ports	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Top USB Port 1	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Top USB Port 2	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Boot Support	Check box to allow the system to boot any type of USB Mass Storage Devices (HDD, memory key, floppy). USB-aware OS always see USB Mass Storage devices irrespective of this setting, provided the port is enabled.

Table 19. Wireless Settings

Parameter	Description
Enable WWAN	Check box to enable Wireless Wide Area Network (WWAN).
Enable WLAN	Check box to enable Wireless Local Area Network (WLAN).

Table 20. Security

Parameter	Description
Admin Setup Lockout	Check box to prevent users from entering Setup when Admin password is set.
Chassis Intrusion	Chassis Intrusion is a utility that the BIOS can use to tell you someone has opened the case. From the drop down list, you can select any of the following options: • Disable — Disable chassis intrusion feature. • Enable — Report intrusions during POST. • On-Silent — Enable intrusion detection but does not display any detected intrusion.
UEFI Capsule Firmware Update	Check box to control allowing the BIOS updates through UEFI capsule update packages by the system. Disabling this option blocks the BIOS updates from services such as Microsoft Windows Update and Linux Vendor Firmware Service (LVFS).

Table 21. BIOS Admin Password Settings

Parameter	Description
Enable Admin Password	Check box to enable BIOS administrator password. Successful changes to this password take effect immediately.

Table 22. Power Management Settings

Parameter	Description
Wake On LAN	From the drop down list, select an option to allow the computer to power up from the off state when triggered by a special LAN signal or from the hibernate state when triggered by a special wireless LAN signal.

Table 23. Auto On Settings

Parameter	Description
Auto On	From the drop down list, set the time of day when you would like the system to turn on automatically.

Table 24. POST Behavior Settings

Parameter	Description
Numlock LED	Check box to turn on the Numlock LED when the system boots.
Keyboard Errors	Check box to report keyboard related errors when the system boots.
Fastboot	From the drop down list, select an option to speed up the boot process by bypassing some compatibility steps. The available options are: • Minimal • Thorough • Auto

Parameter	Description
Extend BIOS POST Time	From the drop down list, select an option to create an additional pre-boot delay which allows the user to see POST status messages. The available options are: · 0 seconds · 5 seconds · 10 seconds

Table 25. Maintenance Settings

Parameter	Description
BIOS Recovery (from Hard Drive)	Check box to enable the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key.

Table 26. Reboot Schedule

Parameter	Description
Reboot Option	Some BIOS settings require system reboot. When **Reboot later** is selected, devices reboot when the current time matches the set time. From the drop down list, select any of the following options: · Reboot immediately · Reboot later · Do not reboot

Edge Gateway 3002 BIOS settings

Use this page to define Edge Gateway 3002 BIOS settings.

Table 27. General

Parameter	Description
Device Notes	Enter the device notes such as property ownership tag.

Table 28. System Configuration

Parameter	Description
Integrated NIC	From the drop-down list, select an option to control the on-board LAN controller. The available options are: · Disabled — The internal LAN is off and not visible to the OS. · Force Disabled — The internal LAN is off and not visible to the OS even if it has an IP address. · Enabled — The internal LAN is enabled. · Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).
Integrated NIC 2	From the drop-down list, select an option to control the on-board LAN controller. The available options are: · Disabled — The internal LAN is off and not visible to the OS.

Parameter	Description
	• Force Disabled — The internal LAN is off and not visible to the OS even if it has an IP address. • Enabled— The internal LAN is enabled.
Enable UEFI Network Stack	Check box to install or make available the UEFI Networking protocols, allowing pre-OS and early OS networking features to use any enabled NICs. This may be used without switching on the PXE.
Watchdog Timer Support	Check box to enable the Watchdog Timer feature.

Table 29. USB Configuration

Parameter	Description
Enable USB 3.0 Ports	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Top USB Port 1	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Top USB Port 2	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Boot Support	Check box to allow the system to boot any type of USB Mass Storage Devices (HDD, memory key, floppy). USB-aware OS always see USB Mass Storage devices irrespective of this setting, provided the port is enabled.

Table 30. Wireless

Parameter	Description
Enable WWAN	Check box to enable Wireless Wide Area Network (WWAN).
Enable WLAN	Check box to enable Wireless Local Area Network (WLAN).

Table 31. Security

Parameter	Description
Admin Setup Lockout	Check box to prevent users from entering Setup when Admin password is set.
Chassis Intrusion	Chassis Intrusion is a utility that the BIOS can use to tell you someone has opened the case. From the drop down list, you can select any of the following options: • Disable — Disable chassis intrusion feature. • Enable — Report intrusions during POST. • On-Silent — Enable intrusion detection but does not display any detected intrusion.
UEFI Capsule Firmware Update	Check box to control allowing the BIOS updates through UEFI capsule update packages by the system. Disabling this option blocks the BIOS updates from services such as Microsoft Windows Update and Linux Vendor Firmware Service (LVFS).

DELL

Table 32. BIOS Admin Password

Parameter	Description
Enable Admin Password	Check box to enable BIOS administrator password. Successful changes to this password take effect immediately.

Table 33. Power Management Settings

Parameter	Description
Wake On LAN	From the drop down list, select an option to allow the computer to power up from the off state when triggered by a special LAN signal or from the hibernate state when triggered by a special wireless LAN signal.

Table 34. Auto On Settings

Parameter	Description
Auto On	From the drop down list, set the time of day when you would like the system to turn on automatically.

Table 35. POST Behavior Settings

Parameter	Description
Numlock LED	Check box to turn on the Numlock LED when the system boots.
Keyboard Errors	Check box to report keyboard related errors when the system boots.
Fastboot	From the drop down list, select an option to speed up the boot process by bypassing some compatibility steps. The available options are: • Minimal • Thorough • Auto
Extend BIOS POST Time	From the drop down list, select an option to create an additional pre-boot delay which allows the user to see POST status messages. The available options are: • 0 seconds • 5 seconds • 10 seconds

Table 36. Maintenance Settings

Parameter	Description
BIOS Recovery (from Hard Drive)	Select this option to enable the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key.

Table 37. Reboot Schedule

Parameter	Description
Reboot Option	Some BIOS settings require system reboot. When **Reboot later** is selected, devices reboot when the current time matches the set time. From the drop down list, select any of the following options: • Reboot immediately • Reboot later • Do not reboot

Edge Gateway 3003 BIOS settings

Use this page to define Edge Gateway 3003 BIOS settings.

Table 38. General

Parameter	Description
Device Notes	Enter the device notes such as property ownership tag.

Table 39. System Configuration

Parameter	Description
Integrated NIC	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is off and not visible to the OS even if it has an IP address. • Enabled — The internal LAN is enabled. • Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).
Integrated NIC 2	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is off and not visible to the OS even if it has an IP address. • Enabled — The internal LAN is enabled.
Enable UEFI Network Stack	Check box to install or make available the UEFI Networking protocols, allowing pre-OS and early OS networking features to use any enabled NICs. This may be used without switching on the PXE.
Watchdog Timer Support	Check box to enable the Watchdog Timer feature.

Table 40. USB Configuration

Parameter	Description
Enable USB 3.0 Ports	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Top USB Port 1	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Top USB Port 2	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Boot Support	Check box to allow the system to boot any type of USB Mass Storage Devices (HDD, memory key, floppy). USB-aware OS always see USB Mass Storage devices irrespective of this setting, provided the port is enabled.

Table 41. Wireless

Parameter	Description
Enable WWAN	Check box to enable Wireless Wide Area Network (WWAN).
Enable WLAN	Check box to enable Wireless Local Area Network (WLAN).
Enable Bluetooth	Check box to enable Bluetooth.
Enable CANBus	Check box to enable CAN Bus.

Table 42. Security

Parameter	Description
Admin Setup Lockout	Check box to prevent users from entering Setup when Admin password is set.
Chassis Intrusion	Chassis Intrusion is a utility that the BIOS can use to tell you someone has opened the case. From the drop down list, you can select any of the following options: · Disable — Disable chassis intrusion feature. · Enable — Report intrusions during POST. · On-Silent — Enable intrusion detection but does not display any detected intrusion.
UEFI Capsule Firmware Update	Check box to control allowing the BIOS updates through UEFI capsule update packages by the system. Disabling this option blocks the BIOS updates from services such as Microsoft Windows Update and Linux Vendor Firmware Service (LVFS).

Table 43. BIOS Admin Password

Parameter	Description
Enable Admin Password	Check box to enable BIOS administrator password. Successful changes to this password take effect immediately.

Table 44. Power Management

Parameter	Description
Wake On LAN	From the drop down list, select an option to allow the computer to power up from the off state when triggered by a special LAN signal or from the hibernate state when triggered by a special wireless LAN signal.

Table 45. Auto On

Parameter	Description
Auto On	From the drop down list, set the time of day when you would like the system to turn on automatically.

Table 46. POST Behavior

Parameter	Description
Numlock LED	Check box to turn on the Numlock LED when the system boots.
Keyboard Errors	Check box to report keyboard related errors when the system boots.
Fastboot	From the drop down list, select an option to speed up the boot process by bypassing some compatibility steps. The available options are: · Minimal · Thorough · Auto
Extend BIOS POST Time	From the drop down list, select an option to create an additional pre-boot delay which allows the user to see POST status messages. The available options are: · 0 seconds · 5 seconds · 10 seconds

Table 47. Maintenance

Parameter	Description
BIOS Recovery (from Hard Drive)	Select this option to enable the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key.

Table 48. Reboot Schedule

Parameter	Description
Reboot Option	Some BIOS settings require system reboot. When **Reboot later** is selected, devices reboot when the current time matches the set time. From the drop down list, select any of the following options: · Reboot immediately · Reboot later

Parameter	Description
	• Do not reboot

Configuring the Windows Edge Gateway Settings

Use this section to configure the settings for your Windows Edge Gateway devices.

System Personalization

Use this page to configure Edge Gateway device settings such as Time Servers, Time zone name, log level, and device owner.

Table 49. System Personalization

Parameter	Description
Time Servers (NTP Servers)	Enter the Time Servers to synchronize local time. Use comma separated list format.
Time zone Name	Select your appropriate Time zone from the available Time Zones in the drop-down list.
Log Level	From the drop-down list, select your preferred log level. The available options are: • Info • Trace • Debug • Warning • Error • Critical • Log Always
Owner	Specifies the owner of the Edge Gateway device.

Login Experience

OS Admin Credentials— This section specifies the admin username and password for the OS

The saved **OS Admin Username** and the **OS Admin Password** credentials are displayed.

Security

Enable Remote Access	Check box to enable the Remote Connection on the Edge Gateway device
Allow only remote Desktop with Network Level Authentication	Check box to allow desktops with only Network Level Authentication on the Edge Gateway device

Location

Use this page to configure location settings such as Floor, Building, Campus and so on.

Table 50. Location

Parameter	Description
Floor	Specifies the floor where your device is located.
Building	Specifies the Building where your device is located.
Campus	Specifies the campus where your device is located.
Formatted Address	Specifies the formatted address where your device is located.
Street Address Line One	Specifies the Street address where your device is located.
Street Address Line Two	Specifies the Street address where your device is located.
City	Specifies the city where your device is located.
Zip Code	Specifies the zip code of the city where your device is located.
Country	Specifies the country where your device is located.

Network

Use this page to customize the network configurations for the Edge Gateway Windows.

Parameter	Description
Radio State	Check box to change the Wireless radio state.
Windows Wireless Profiles	From the drop-down list, select your preferred Windows Wireless Profiles. Only Windows Wireless Profiles uploaded to File Repository are listed.

Other Settings

Use this page to specify additional customizations like Windows/firmware auto-update for Edge Gateway Windows.

Table 51.

Parameter	Description
Enable Windows Auto Update	Check box to enable the Windows automatic update feature.

Edge Gateway 5000 BIOS Settings

Use this page to define Edge Gateway 5000 BIOS settings such as Wake-On-LAN, Auto-On, and Admin Password.

Table 52. General

Parameter	Description
Device Notes	Enter the device notes such as property ownership tag.

Table 53. System Configuration

Parameter	Description
Integrated NIC	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is disabled and not visible to the OS even if it has an IP address. • Enabled — The internal LAN is enabled. • Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).
Integrated NIC 2	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is disabled and not visible to the OS even if it has an IP address. • Enabled — The internal LAN is enabled.
SMART Reporting	Check box to control the reporting of hard drive errors for integrated drivers during system startup.
Serial Port 1 RS232	Check box to determine how the built-in serial port operates. It lets you avoid resource conflicts between devices by disabling or remapping the address of the port. This port is at 2D0h with IRQ 7.
Serial Port 2 RS422	Check box to determine how the built-in serial port operates. It lets you avoid resource conflicts between devices by disabling or remapping the address of the port. This port is at 3E0h with IRQ 10.
Serial Port 3 RS485	Check box to determine how the built-in serial port operates. It lets you avoid resource conflicts between devices by disabling or remapping the address of the port. This port is at 2E0h with IRQ 11.
Serial Port 4 RS485	Check box to determine how the built-in serial port operates. It lets you avoid resource conflicts between devices by disabling or remapping the address of the port. This port is at 3E8h with IRQ 10.
Enable UEFI Network Stack	Check box to install or make available the UEFI Networking protocols, allowing pre-OS and early OS networking features to use any enabled NICs. This may be used without switching on the PXE.
Watchdog Timer Support	Check box to enable the Watchdog Timer feature.
WLAN Region Code	Select appropriate region

Table 54. USB Configuration

Parameter	Description
Enable USB 3.0 Ports	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Top USB Port 1	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Top USB Port 2	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Bottom USB Port 3	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Boot Support	Check box to allow the system to boot any type of USB Mass Storage Devices (HDD, memory key, floppy). USB-aware OS always see USB Mass Storage devices irrespective of this setting, provided the port is enabled.

Table 55. Wireless

Parameter	Description
Enable WWAN	Check box to enable Wireless Wide Area Network (WWAN).
Enable WLAN	Check box to enable Wireless Local Area Network (WLAN).
Enable Bluetooth	Check box to enable Bluetooth.
Enable CANBus	Check box to enable CAN Bus.

Table 56. Security

Parameter	Description
Admin Setup Lockout	Check box to prevent users from entering Setup when Admin password is set.
Chassis Intrusion	Chassis Intrusion is a utility that the BIOS can use to tell you someone has opened the case. From the drop down list, you can select any of the following options: • Disable — Disable chassis intrusion feature. • Enable — Report intrusions during POST. • On-Silent — Enable intrusion detection but does not display any detected intrusion.
UEFI Capsule Firmware Update	Check box to control allowing the BIOS updates through UEFI capsule update packages by the system. Disabling this option blocks the BIOS updates from services such as Microsoft Windows Update and Linux Vendor Firmware Service (LVFS).

Table 57. BIOS Admin Password

Parameter	Description
Enable Admin Password	Check box to enable BIOS administrator password. Successful changes to this password take effect immediately.

Table 58. Power Management

Parameter	Description
AC Recovery	From the drop down list, select an option to specify how the system behaves when AC power restored after an AC power loss. The available options are: · PowerOff · PowerOn · LastPowerState
Wake On LAN	From the drop down list, select an option to allow the computer to power up from the off state when triggered by a special LAN signal or from the hibernate state when triggered by a special wireless LAN signal.

Table 59. Auto On

Parameter	Description
Auto On	From the drop down list, set the time of day when you would like the system to turn on automatically.

Table 60. POST Behavior

Parameter	Description
Numlock LED	Check box to turn on the Numlock LED when the system boots.
Keyboard Errors	Check box to report keyboard related errors when the system boots.
Fastboot	From the drop down list, select an option to speed up the boot process by bypassing some compatibility steps. The available options are: · Minimal · Thorough · Auto
Extend BIOS POST Time	From the drop down list, select an option to create an additional pre-boot delay which allows the user to see POST status messages. The available options are: · 0 seconds · 5 seconds · 10 seconds

Table 61. Maintenance

Parameter	Description
BIOS Recovery (from Hard Drive)	Select this option to enable the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key.

Table 62. Reboot Schedule

Parameter	Description
Reboot Option	Some BIOS settings require system reboot. When **Reboot later** is selected, devices reboot when the current time matches the set time. From the drop down list, select any of the following options: • Reboot immediately • Reboot later • Do not reboot

Edge Gateway 3001 BIOS Settings

Use this page to define Edge Gateway 3001 BIOS settings such as Wake-On-LAN, Auto-On, and Admin Password.

Table 63. General

Parameter	Description
Device Notes	Enter the device notes such as property ownership tag.

Table 64. System Configuration

Parameter	Description
Integrated NIC	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is off and not visible to the OS even if it has an IP address. • Enabled — The internal LAN is enabled. • Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).
Enable UEFI Network Stack	Check box to install or make available the UEFI Networking protocols, allowing pre-OS and early OS networking features to use any enabled NICs. This may be used without switching on the PXE.
Watchdog Timer Support	Check box to enable the Watchdog Timer feature.

Table 65. USB Configuration

Parameter	Description
Enable USB 3.0 Ports	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable USB Port 1	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable USB Port 2	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Boot Support	Check box to allow the system to boot any type of USB Mass Storage Devices (HDD, memory key, floppy). USB-aware OS always see USB Mass Storage devices irrespective of this setting, provided the port is enabled.

Table 66. Wireless

Parameter	Description
Enable WWAN	Check box to enable Wireless Wide Area Network (WWAN).
Enable WLAN	Check box to enable Wireless Local Area Network (WLAN).

Table 67. Security

Parameter	Description
Admin Setup Lockout	Check box to prevent users from entering Setup when Admin password is set.
Chassis Intrusion	Chassis Intrusion is a utility that the BIOS can use to tell you someone has opened the case. From the drop down list, you can select any of the following options: • Disable — Disable chassis intrusion feature. • Enable — Report intrusions during POST. • On-Silent — Enable intrusion detection but does not display any detected intrusion.
UEFI Capsule Firmware Update	Check box to control allowing the BIOS updates through UEFI capsule update packages by the system. Disabling this option blocks the BIOS updates from services such as Microsoft Windows Update and Linux Vendor Firmware Service (LVFS).

Table 68. BIOS Admin Password

Parameter	Description
Enable Admin Password	Check box to enable BIOS administrator password. Successful changes to this password take effect immediately.

Table 69. Power Management

Parameter	Description
Wake On LAN	From the drop down list, select an option to allow the computer to power up from the off state when triggered by a special LAN signal or from the hibernate state when triggered by a special wireless LAN signal.

Table 70. Auto On

Parameter	Description
Auto On	From the drop down list, set the time of day when you would like the system to turn on automatically.

Table 71. POST Behavior

Parameter	Description
Numlock LED	Check box to turn on the Numlock LED when the system boots.
Keyboard Errors	Check box to report keyboard related errors when the system boots.
Fastboot	From the drop down list, select an option to speed up the boot process by bypassing some compatibility steps. The available options are: • Minimal • Thorough • Auto
Extend BIOS POST Time	From the drop down list, select an option to create an additional pre-boot delay which allows the user to see POST status messages. The available options are: • 0 seconds • 5 seconds • 10 seconds

Table 72. Maintenance

Parameter	Description
BIOS Recovery (from Hard Drive)	Check box to enable the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key.

Table 73. Reboot Schedule

Parameter	Description
Reboot Option	Some BIOS settings require system reboot. When **Reboot later** is selected, devices reboot when the current time matches the set time. From the drop down list, select any of the following options: • Reboot immediately • Reboot later

Parameter	Description
	• Do not reboot

Edge Gateway 3002 BIOS settings

Use this page to define Edge Gateway 3002 BIOS settings such as Wake-On-LAN, Auto-On, and Admin Password.

Table 74. General

Parameter	Description
Device Notes	Enter the device notes such as property ownership tag.

Table 75. System Configuration

Parameter	Description
Integrated NIC	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is disabled and not visible to the OS even if it has an IP address. • Enabled — The internal LAN is enabled. • Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).
Integrated NIC2	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is disabled and not visible to the OS even if it has an IP address. • Enabled — The internal LAN is enabled.
Enable UEFI Network Stack	Check box to install or make available the UEFI Networking protocols, allowing pre-OS and early OS networking features to use any enabled NICs. This may be used without switching on the PXE.
Watchdog Timer Support	Check box to enable the Watchdog Timer feature.

Table 76. USB Configuration

Parameter	Description
Enable USB 3.0 Ports	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable USB Port 1	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable USB Port 2	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Boot Support	Check box to allow the system to boot any type of USB Mass Storage Devices (HDD, memory key, floppy). USB-aware OS always

Parameter	Description
	see USB Mass Storage devices irrespective of this setting, provided the port is enabled.

Table 77. Wireless

Parameter	Description
Enable WWAN	Check box to enable Wireless Wide Area Network (WWAN).
Enable WLAN	Check box to enable Wireless Local Area Network (WLAN).

Table 78. Security

Parameter	Description
Admin Setup Lockout	Check box to prevent users from entering Setup when Admin password is set.
Chassis Intrusion	Chassis Intrusion is a utility that the BIOS can use to tell you someone has opened the case. From the drop down list, you can select any of the following options: · Disable — Disable chassis intrusion feature. · Enable — Report intrusions during POST. · On-Silent — Enable intrusion detection but does not display any detected intrusion.
UEFI Capsule Firmware Update	Check box to control allowing the BIOS updates through UEFI capsule update packages by the system. Disabling this option blocks the BIOS updates from services such as Microsoft Windows Update and Linux Vendor Firmware Service (LVFS).

Table 79. BIOS Admin Password

Parameter	Description
Enable Admin Password	Check box to enable BIOS administrator password. Successful changes to this password take effect immediately.

Table 80. Power Management

Parameter	Description
Wake On LAN	From the drop down list, select an option to allow the computer to power up from the off state when triggered by a special LAN signal or from the hibernate state when triggered by a special wireless LAN signal.

Table 81. Auto On

Parameter	Description
Auto On	From the drop down list, set the time of day when you would like the system to turn on automatically.

Table 82. POST Behavior

Parameter	Description
Numlock LED	Check box to turn on the Numlock LED when the system boots.
Keyboard Errors	Check box to report keyboard related errors when the system boots.
Fastboot	From the drop down list, select an option to speed up the boot process by bypassing some compatibility steps. The available options are: • Minimal • Thorough • Auto
Extend BIOS POST Time	From the drop down list, select an option to create an additional pre-boot delay which allows the user to see POST status messages. The available options are: • 0 seconds • 5 seconds • 10 seconds

Table 83. Maintenance

Parameter	Description
BIOS Recovery (from Hard Drive)	Check box to enable the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key.

Table 84. Reboot Schedule

Parameter	Description
Reboot Option	Some BIOS settings require system reboot. When "Reboot later" is selected, devices reboot when the current time matches the set time. From the drop down list, you c an select any of the following options: • Reboot immediately • Reboot later • Do not reboot

Edge Gateway 3003 BIOS settings

Use this page to define Edge Gateway 3003 BIOS settings such as Wake-On-LAN, Auto-On, and Admin Password.

Table 85. General settings

Parameter	Description
Device Notes	Enter the device notes such as property ownership tag.

Table 86. System Configuration

Parameter	Description
Integrated NIC 1	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is disabled and not visible to the OS even if it has an IP address. • Enabled — The internal LAN is enabled. • Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).
Integrated NIC2	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is disabled and not visible to the OS even if it has an IP address. • Enabled — The internal LAN is enabled.
Enable UEFI Network Stack	Check box to install or make available the UEFI Networking protocols, allowing pre-OS and early OS networking features to use any enabled NICs. This may be used without switching on the PXE.
Watchdog Timer Support	Check box to enable the Watchdog Timer feature.
WLAN Region Code	Select appropriate region

Table 87. USB Configuration

Parameter	Description
Enable USB 3.0 Ports	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Top USB Port 1	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Top USB Port 2	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Bottom USB Port 3	Check box to enable the device attached to this port. The device is also made available to the OS. If USB port is disabled, OS can not see any device attached to this port.
Enable Boot Support	Check box to allow the system to boot any type of USB Mass Storage Devices (HDD, memory key, floppy). USB-aware OS always see USB Mass Storage devices irrespective of this setting, provided the port is enabled.

Table 88. Wireless Settings

Parameter	Description
Enable WWAN	Check box to enable Wireless Wide Area Network (WWAN).
Enable WLAN	Check box to enable Wireless Local Area Network (WLAN).

Table 89. Security Settings

Parameter	Description
Admin Setup Lockout	Check box to prevent users from entering Setup when Admin password is set.
Chassis Intrusion	Chassis Intrusion is a utility that the BIOS can use to tell you someone has opened the case. From the drop down list, you can select any of the following options: • Disable — Disable chassis intrusion feature. • Enable — Report intrusions during POST. • On-Silent — Enable intrusion detection but does not display any detected intrusion.
UEFI Capsule Firmware Update	Select this check-box to control allowing the BIOS updates through UEFI capsule update packages by the system. Disabling this option blocks the BIOS updates from services such as Microsoft Windows Update and Linux Vendor Firmware Service (LVFS).

Table 90. BIOS Admin Password Settings

Parameter	Description
Enable Admin Password	Check box to enable BIOS administrator password. Successful changes to this password take effect immediately.

Table 91. Power Management Settings

Parameter	Description
Wake On LAN	From the drop down list, select an option to allow the computer to power up from the off state when triggered by a special LAN signal or from the hibernate state when triggered by a special wireless LAN signal.

Table 92. Auto On Settings

Parameter	Description
Auto On	From the drop down list, set the time of day when you would like the system to turn on automatically.

Table 93. POST Behavior Settings

Parameter	Description
Numlock LED	Check box to turn on the Numlock LED when the system boots.
Keyboard Errors	Check box to report keyboard related errors when the system boots.
Fastboot	From the drop down list, select an option to speed up the boot process by bypassing some compatibility steps. The available options are: • Minimal • Thorough • Auto

Parameter	Description
Extend BIOS POST Time	From the drop down list, select an option to create an additional pre-boot delay which allows the user to see POST status messages. The available options are: · 0 seconds · 5 seconds · 10 seconds

Table 94. Maintenance Settings

Parameter	Description
BIOS Recovery (from Hard Drive)	Check box to enable the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key.

Table 95. Reboot Schedule

Parameter	Description
Reboot Option	Some BIOS settings require system reboot. When **Reboot later** is selected, devices reboot when the current time matches the set time. From the drop down list, select any of the following options: · Reboot immediately · Reboot later · Do not reboot

Embedded PC Policy Settings

This section describes the steps for Embedded PC policy settings.

System Personalization

Use this page to define system personalization settings such as Time Servers, Time zone name, Log Level, and owner.

Table 96. System Personalization

Parameter	Description
Time Servers (NTP Servers)	Enter the Time Servers to synchronize local time. Use comma separated list format.
Timezone Name	Select your appropriate Time zone from the available Time Zones in the drop-down list.
Log Level	From the drop-down list, select your preferred log level. The available options are: · Info · Trace · Debug · Warning · Error · Critical

	• Log Always
Owner	Specifies the device owner.

Login Experience

OS Admin Credentials— Use this option to specify the admin username and password for the OS.

Security

Enable Remote Access— Check box to enable Remote access to the system.

Location

Use this page to configure location settings such as Floor, Building number and so on.

Parameter	Description
Floor	Specifies the floor where your device is located.
Building	Specifies the Building where your device is located.
Campus	Specifies the campus where your device is located.
Formatted Address	Specifies the formatted address where your device is located.
Street Address Line One	Specifies the Street address where your device is located.
Street Address Line Two	Specifies the Street address where your device is located.
City	Specifies the city where your device is located.
Zip Code	Specifies the zip code of the city where your device is located.
Country	Specifies the country where your device is located.

Network

Use this page to customize the network configurations like Radio state and manage wireless profiles for the Embedded PC — Windows.

Parameter	Description
Radio State	Check box to change the Wireless radio state.
Windows Wireless Profiles	From the drop-down list, select your preferred Windows Wireless Profiles. Only Windows Wireless Profiles uploaded to File Repository are listed.

Other

Use this page to specify additional customizations Windows/firmware auto-update for the Embedded PC — Windows.

Table 98. Other Settings

Parameter	Description
Enable Windows Auto Update	Check box to enable the Windows automatic update feature.

BIOS Embedded BOX PC 3000 Settings

Use this page to define BIOS settings such as Wake-On-LAN, Auto-On, and Admin Password and so on.

Table 99. General settings

Parameter	Description
Device Notes	Enter the device notes such as property ownership tag.

Table 100. System Configuration

Parameter	Description
COM1 — COM3	Select the option from the drop-down list. This option determines how the built-in port operates. It avoids resource conflicts between devices by disabling or remapping the address of the port.
Integrated NIC	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is off and not visible to the OS. • Enabled — The internal LAN is enabled. • Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).
Integrated NIC 2	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is off and not visible to the OS. • Enabled — The internal LAN is enabled. • Enabled w/PXE — The internal LAN is enabled (with PXE boot).
Enable UEFI Network Stack	Check-box to install or make available the UEFI Networking protocols, allowing pre-OS and early OS networking features to use any enabled NICs. This may be used without switching on the PXE.
SMART Reporting	Check-box to control the reporting of hard drive errors for integrated drivers during system startup.
Watchdog Timer Support	Check-box to enable the Watchdog Timer feature.

Parameter	Description
Audio	Check-box to enable the integrated audio controller and uncheck to completely disable audio controller, including microphone.
Microphone	Check-box to enable the Microphone.
Watchdog Timer Support	Check-box to enable the Watchdog Timer feature.
WLAN Region Code	Select the WLAN Region code from the drop-down list.

Table 101. USB Configuration

Parameter	Description
Front USB Ports	Check-box. If USB Port is enabled, the devices attached to this port is enabled and available for OS and if the USB Port is disabled, the OS can not see any device attached to this port.
USB 2.0 Ports	Check-box. If USB Port is enabled, the devices attached to this port is enabled and available for OS and if the USB Port is disabled, the OS can not see any device attached to this port.
Enable Boot Support	Check-box to allow the system to boot any type of USB Mass Storage Devices (HDD, memory key, floppy). USB-aware OS always see USB Mass Storage devices irrespective of this setting, provided the port is enabled.

Table 102. Miscellaneous Devices

Parameter	Description
Enable WWAN/Bluetooth/CANBus	Check-box to enable WWAN, Bluetooth and CANBus.
Enable WLAN	Check-box to enable WLAN.

Table 103. Security

Parameter	Description
Admin Setup Lockout	Check-box to prevent users from entering Setup when Admin password is set.
Chassis Intrusion	Chassis Intrusion is a utility that the bios can use to tell you someone has opened the case. From the drop down list, you can select any of the following options: • Disable — Disable chassis intrusion feature. • Enable — Report intrusions during POST. • On-Silent — Enable intrusion detection but does not display any detected intrusion.
UEFI Capsule Firmware Update	Check-box to control allowing the BIOS updates through UEFI capsule update packages by the system. Disabling this option blocks the BIOS updates from services such as Microsoft Windows Update and Linux Vendor Firmware Service (LVFS).

Table 104. Power Management Settings

Parameter	Description
AC Recovery	Select the Power state from the drop-down list. This option specifies the system's behavior when AC power is restored after a AC loss.
USB Wake Support	Check-box to enable the USB devices to wake the system by standby.
Wake On LAN / WLAN	From the drop down list, select an option to allow the computer to power up from the off state when triggered by a special LAN signal or from the hibernate state when triggered by a special wireless LAN signal.
Block Sleep	Check-box. If enabled, it blocks the system from entering to the sleep environment. The Intel Rapid start is disabled automatically, and the OS power option is blank if it was set to sleep.

Table 105. BIOS Admin Password

Parameter	Description
Enable Admin Password	Check-box to enable BIOS administrator password. Successful changes to this password take effect immediately.

Table 106. Auto On

Parameter	Description
Auto On	From the drop down list, set the time of day when you would like the system to turn on automatically.

Table 107. POST Behavior

Parameter	Description
Numlock LED	Select this check-box to turn on the Numlock LED when the system boots.
Keyboard Errors	Select this check-box to report keyboard related errors when the system boots.
Fastboot	From the drop down list, select an option to speed up the boot process by bypassing some compatibility steps. The available options are: · Minimal · Thorough · Auto
Extend BIOS POST Time	From the drop down list, select an option to create an additional pre-boot delay which allows the user to see POST status messages. The available options are: · 0 seconds · 5 seconds · 10 seconds

Table 108. Maintenance

Parameter	Description
BIOS Recovery (from Hard Drive)	Select this option to enable the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key.

Table 109. Reboot Schedule

Parameter	Description
Reboot Option	Some BIOS settings require system reboot. When "Reboot later" is selected, devices reboot when the current time matches the set time. From the drop down list, you c an select any of the following options: • Reboot immediately • Reboot later • Do not reboot

BIOS Embedded BOX PC 5000 Settings

Table 110. General settings

Parameter	Description
Device Notes	Enter the device notes such as property ownership tag.

Table 111. System Configuration

Parameter	Description
Serial Port 1 — Serial Port 4	Select the option from the drop-down list. This option determines how the built-in serial port operates. It avoids resource conflicts between devices by disabling or remapping the address of the port.
Integrated NIC	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is off and not visible to the OS. • Enabled — The internal LAN is enabled. • Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).
Integrated NIC 2	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is off and not visible to the OS. • Enabled — The internal LAN is enabled. • Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).

Parameter	Description
Enable UEFI Network Stack	Check-box to install or make available the UEFI Networking protocols, allowing pre-OS and early OS networking features to use any enabled NICs. This may be used without switching on the PXE.
SMART Reporting	Check-box to control the reporting of hard drive errors for integrated drivers during system startup.
Watchdog Timer Support	Check-box to enable the Watchdog Timer feature.
Audio	Check-box to enable the integrated audio controller and uncheck to completely disable audio controller, including microphone.
Microphone	Check-box to enable the Microphone.
Watchdog Timer Support	Check-box to enable the Watchdog Timer feature.
WLAN Region Code	Select the WLAN Region code from the drop-down list.

Table 112. USB Configuration

Parameter	Description
Top Port 1– Top Port 4	Check-box. If USB Port is enabled, the devices attached to this port is enabled and available for OS and if the USB Port is disabled, the OS can not see any device attached to this port.
Bottom Port 1 — Bottom Port 2	Check-box. If USB Port is enabled, the devices attached to this port is enabled and available for OS and if the USB Port is disabled, the OS can not see any device attached to this port.
CANBus/WWAN/Bluetooth/Bottom USB Port 3 and 4	Check-box. If USB Port is enabled, the devices attached to this port is enabled and available for OS and if the USB Port is disabled, the OS can not see any device attached to this port.
Enable Boot Support	Check-box to allow the system to boot any type of USB Mass Storage Devices (HDD, memory key, floppy). USB-aware OS always see USB Mass Storage devices irrespective of this setting, provided the port is enabled.

Table 113. Video

Parameter	Description
Video Mode	Select the video mode from the drop-down list. The platform supports video output on three of the four video connectors. Video output is always supported on Display Port1 and HDMI. This feature selects video output either on the DisplayPort2 or VGA. when DisplayPort is selected, the video output is available on DisplayPort1, DisplayPort2 and HDMI. When VGA is selected, the video output is available on DisplayPort1, HDMI and VGA. The final video output availability is also dependent on operating system support and configuration.

Table 114. Security

Parameter	Description
Admin Setup Lockout	Check-box to prevent users from entering Setup when Admin password is set.
Chassis Intrusion	Chassis Intrusion is a utility that the bios can use to tell you someone has opened the case. From the drop down list, you can select any of the following options: • Disable — Disable chassis intrusion feature. • Enable — Report intrusions during POST. • On-Silent — Enable intrusion detection but does not display any detected intrusion.
UEFI Capsule Firmware Update	Select this check-box to control allowing the BIOS updates through UEFI capsule update packages by the system. Disabling this option blocks the BIOS updates from services such as Microsoft Windows Update and Linux Vendor Firmware Service (LVFS).

Table 115. BIOS Admin Password

Parameter	Description
Enable Admin Password	Check-box to enable BIOS administrator password. Successful changes to this password take effect immediately.

Table 116. Miscellaneous Devices

Parameter	Description
Enable PCI Riser Module	Check-box to enable PCI Riser Module.

Table 117. Performance

Parameter	Description
Multi Core Support	Select the core support from the drop-down list. This option specifies whether the processor will have one or more cores enabled. The performance of some applications will improve with the additional cores.
Hyperthread Control	Check-box to enable HyperThreading in the processor.

Table 118. Auto On

Parameter	Description
Auto On	From the drop down list, set the time of day when you would like the system to turn on automatically.

Table 119. Power Management Settings

Parameter	Description
AC Recovery	Select the Power state from the drop-down list. This option specifies the system's behavior when AC power is restored after a AC loss.
USB Wake Support	Check-box to enable the USB devices to wake the system by standby.
Wake On LAN / WLAN	From the drop down list, select an option to allow the computer to power up from the off state when triggered by a special LAN signal or from the hibernate state when triggered by a special wireless LAN signal.
Block Sleep	Check-box. If enabled, it blocks the system from entering to the sleep environment. The Intel Rapid start is disabled automatically, and the OS power option is blank if it was set to sleep.

Table 120. POST Behavior

Parameter	Description
Numlock LED	Check-box to turn on the Numlock LED when the system boots.
Keyboard Errors	Check-box to report keyboard related errors when the system boots.
Fastboot	From the drop down list, select an option to speed up the boot process by bypassing some compatibility steps. The available options are: · Minimal · Thorough · Auto
Extend BIOS POST Time	From the drop down list, select an option to create an additional pre-boot delay which allows the user to see POST status messages. The available options are: · 0 seconds · 5 seconds · 10 seconds

Table 121. Wireless

Parameter	Description
Wireless Device Enable	Check-box to enable the internal wireless devices.

Table 122. Maintenance

Parameter	Description
BIOS Recovery (from Hard Drive)	Select this option to enable the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key.

Table 123. Reboot Schedule

Parameter	Description
Reboot Option	Some BIOS settings require system reboot. When **Reboot later** is selected, devices reboot when the current time matches the set time. From the drop down list, select any of the following options: • Reboot immediately • Reboot later • Do not reboot

Configuring the Embedded PC- Ubuntu System Personalization

Use this page to define system personalization settings such as Time zone name, Log Level, and owner.

Table 124. System Personalization

Parameter	Description
Timezone Name	Select your appropriate Time zone from the available Time Zones in the drop-down list.
Log Level	From the drop-down list, select your preferred log level. The available options are: • Info • Trace • Debug • Warning • Error • Critical • Log Always
Owner	Specifies the device owner.

Configuring the Embedded PC- Ubuntu Login Experience

OS Admin Credentials— Use this option to specify the password for the admin user.

Security

Table 125. Security

Parameter	Description
Disable SSH	Check the box to disable the SSH connection on the Edge Gateway device. By default, the SSH is enabled.

Configuring the Embedded PC- Ubuntu Location Settings

Use this page to configure location settings such as Floor, Building number and so on.

Table 126. Location

Parameter	Description
Floor	Specifies the floor where your device is located.
Building	Specifies the Building where your device is located.
Campus	Specifies the campus where your device is located.
Formatted Address	Specifies the formatted address where your device is located.
Street Address Line One	Specifies the Street address of line one where your device is located.
Street Address Line Two	Specifies the Street address of line two where your device is located.
City	Specifies the city where your device is located.
Zip Code	Specifies the zip code of the city where your device is located.
Country	Specifies the country where your device is located.

Configuring the Embedded PC- Ubuntu Other Settings

Use this page to specify additional configurations such as enabling auto pilot and so on.

Table 127. Other Settings

Parameter	Description
Enable Windows Auto Update	Check box to enable the Windows automatic update feature.

BIOS Embedded BOX PC 3000 Settings

Use this page to define BIOS settings such as Wake-On-LAN, Auto-On, and Admin Password and so on.

Table 128. General settings

Parameter	Description
Device Notes	Enter the device notes such as property ownership tag.

Table 129. System Configuration

Parameter	Description
COM1 — COM3	Select the option from the drop-down list. This option determines how the built-in port operates. It avoids resource conflicts between devices by disabling or remapping the address of the port.
Integrated NIC	From the drop-down list, select an option to control the on-board LAN controller. The available options are:

Parameter	Description
	• Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is off and not visible to the OS. • Enabled — The internal LAN is enabled. • Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).
Integrated NIC 2	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is off and not visible to the OS. • Enabled — The internal LAN is enabled. • Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).
Enable UEFI Network Stack	Check box to install or make available the UEFI Networking protocols, allowing pre-OS and early OS networking features to use any enabled NICs. This may be used without switching on the PXE.
SMART Reporting	Check box to control the reporting of hard drive errors for integrated drivers during system startup.
Watchdog Timer Support	Check box to enable the Watchdog Timer feature.
Audio	Check-box to enable the integrated audio controller and uncheck to completely disable audio controller, including microphone.
Microphone	Check box to enable the Microphone.
Watchdog Timer Support	Check box to enable the Watchdog Timer feature.
WLAN Region Code	Select the WLAN Region code from the drop-down list.

Table 130. USB Configuration

Parameter	Description
Front USB Ports	Check box. If USB Port is enabled, the devices attached to this port is enabled and available for OS and if the USB Port is disabled, the OS can not see any device attached to this port.
USB 2.0 Ports	Check box. If USB Port is enabled, the devices attached to this port is enabled and available for OS and if the USB Port is disabled, the OS can not see any device attached to this port.
Enable Boot Support	Check box to allow the system to boot any type of USB Mass Storage Devices (HDD, memory key, floppy). USB-aware OS always see USB Mass Storage devices irrespective of this setting, provided the port is enabled.

Table 131. Miscellaneous Devices

Parameter	Description
Enable WWAN/Bluetooth/CANBus	Check box to enable WWAN, Bluetooth and CANBus.
Enable WLAN	Check box to enable WLAN.

Table 132. Security

Parameter	Description
Admin Setup Lockout	Check box to prevent users from entering Setup when Admin password is set.
Chassis Intrusion	Chassis Intrusion is a utility that the bios can use to tell you someone has opened the case. From the drop down list, you can select any of the following options: • Disable — Disable chassis intrusion feature. • Enable — Report intrusions during POST. • On-Silent — Enable intrusion detection but does not display any detected intrusion.
UEFI Capsule Firmware Update	Check box to control allowing the BIOS updates through UEFI capsule update packages by the system. Disabling this option blocks the BIOS updates from services such as Microsoft Windows Update and Linux Vendor Firmware Service (LVFS).

Table 133. Power Management Settings

Parameter	Description
AC Recovery	Select the Power state from the drop-down list. This option specifies the system's behavior when AC power is restored after a AC loss.
USB Wake Support	Check box to enable the USB devices to wake the system by standby.
Wake On LAN / WLAN	From the drop down list, select an option to allow the computer to power up from the off state when triggered by a special LAN signal or from the hibernate state when triggered by a special wireless LAN signal.
Block Sleep	Check box. If enabled, it blocks the system from entering to the sleep environment. The Intel Rapid start is disabled automatically, and the OS power option is blank if it was set to sleep.

Table 134. BIOS Admin Password

Parameter	Description
Enable Admin Password	Check box to enable BIOS administrator password. Successful changes to this password take effect immediately.

Table 135. Auto On

Parameter	Description
Auto On	From the drop down list, set the time of day when you would like the system to turn on automatically.

Table 136. POST Behavior

Parameter	Description
Numlock LED	Check box to turn on the Numlock LED when the system boots.
Keyboard Errors	Check box to report keyboard related errors when the system boots.
Fastboot	From the drop down list, select an option to speed up the boot process by bypassing some compatibility steps. The available options are: · Minimal · Thorough · Auto
Extend BIOS POST Time	From the drop down list, select an option to create an additional pre-boot delay which allows the user to see POST status messages. The available options are: · 0 seconds · 5 seconds · 10 seconds

Table 137. Maintenance

Parameter	Description
BIOS Recovery (from Hard Drive)	Check box to enable the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key.

Table 138. Reboot Schedule

Parameter	Description
Reboot Option	Some BIOS settings require system reboot. When **Reboot later** is selected, devices reboot when the current time matches the set time. From the drop down list, select any of the following options: · Reboot immediately · Reboot later · Do not reboot

BIOS Embedded BOX PC 5000 Settings

Table 139. General settings

Parameter	Description
Device Notes	Enter the device notes such as property ownership tag.

Table 140. System Configuration

Parameter	Description
Serial Port 1 — Serial Port 4	Select the option from the drop-down list. This option determines how the built-in serial port operates. It avoids resource conflicts between devices by disabling or remapping the address of the port.
Integrated NIC	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is off and not visible to the OS. • Enabled — The internal LAN is enabled. • Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).
Integrated NIC 2	From the drop-down list, select an option to control the on-board LAN controller. The available options are: • Disabled — The internal LAN is off and not visible to the OS. • Force Disabled — The internal LAN is off and not visible to the OS. • Enabled — The internal LAN is enabled. • Enabled w/PXE — The internal LAN is enabled (with Preboot Execution Environment (PXE) boot).
Enable UEFI Network Stack	Check box to install or make available the UEFI Networking protocols, allowing pre-OS and early OS networking features to use any enabled NICs. This may be used without switching on the PXE.
SMART Reporting	Check box to control the reporting of hard drive errors for integrated drivers during system startup.
Watchdog Timer Support	Check box to enable the Watchdog Timer feature.
Audio	Check box to enable the integrated audio controller and uncheck to completely disable audio controller, including microphone.
Microphone	Check box to enable the Microphone.
Watchdog Timer Support	Check box to enable the Watchdog Timer feature.
WLAN Region Code	Select the WLAN Region code from the drop-down list.

Table 141. USB Configuration

Parameter	Description
Top Port 1– Top Port 4	Check box. If USB Port is enabled, the devices attached to this port is enabled and available for OS and if the USB Port is disabled, the OS can not see any device attached to this port.
Bottom Port 1 — Bottom Port 2	Check box. If USB Port is enabled, the devices attached to this port is enabled and available for OS and if the USB Port is disabled, the OS can not see any device attached to this port.
CANBus/WWAN/Bluetooth/Bottom USB Port 3 and 4	Check box. If USB Port is enabled, the devices attached to this port is enabled and available for OS and if the USB Port is disabled, the OS can not see any device attached to this port.
Enable Boot Support	Check box to allow the system to boot any type of USB Mass Storage Devices (HDD, memory key, floppy). USB-aware OS always

Parameter	Description
	see USB Mass Storage devices irrespective of this setting, provided the port is enabled.

Table 142. Video

Parameter	Description
Video Mode	Select the video mode from the drop-down list. The platform supports video output on three of the four video connectors. Video output is always supported on Display Port1 and HDMI. This feature selects video output either on the DisplayPort2 or VGA. when DisplayPort is selected, the video output is available on DisplayPort1, DisplayPort2 and HDMI. When VGA is selected, the video output is available on DisplayPort1, HDMI and VGA. The final video output availability is also dependent on operating system support and configuration.

Table 143. Security

Parameter	Description
Admin Setup Lockout	Check box to prevent users from entering Setup when Admin password is set.
Chassis Intrusion	Chassis Intrusion is a utility that the bios can use to tell you someone has opened the case. From the drop down list, you can select any of the following options: · Disable — Disable chassis intrusion feature. · Enable — Report intrusions during POST. · On-Silent — Enable intrusion detection but does not display any detected intrusion.
UEFI Capsule Firmware Update	Check box to control allowing the BIOS updates through UEFI capsule update packages by the system. Disabling this option blocks the BIOS updates from services such as Microsoft Windows Update and Linux Vendor Firmware Service (LVFS).

Table 144. BIOS Admin Password

Parameter	Description
Enable Admin Password	Check box to enable BIOS administrator password. Successful changes to this password take effect immediately.

Table 145. Miscellaneous Devices

Parameter	Description
Enable PCI Riser Module	Check box to enable PCI Riser Module.

Table 146. Performance

Parameter	Description
Multi Core Support	Select the core support from the drop-down list. This option specifies whether the processor will have one or more cores

Parameter	Description
	enabled. The performance of some applications will improve with the additional cores.
Hyperthread Control	Check box to enable HyperThreading in the processor.

Table 147. Auto On

Parameter	Description
Auto On	From the drop down list, set the time of day when you would like the system to turn on automatically.

Table 148. Power Management Settings

Parameter	Description
AC Recovery	Select the Power state from the drop-down list. This option specifies the system's behavior when AC power is restored after a AC loss.
USB Wake Support	Check box to enable the USB devices to wake the system by standby.
Wake On LAN / WLAN	From the drop down list, select an option to allow the computer to power up from the off state when triggered by a special LAN signal or from the hibernate state when triggered by a special wireless LAN signal.
Block Sleep	Check box. If enabled, it blocks the system from entering to the sleep environment. The Intel Rapid start is disabled automatically, and the OS power option is blank if it was set to sleep.

Table 149. POST Behavior

Parameter	Description
Numlock LED	Check box to turn on the Numlock LED when the system boots.
Keyboard Errors	Check box to report keyboard related errors when the system boots.
Fastboot	From the drop down list, select an option to speed up the boot process by bypassing some compatibility steps. The available options are: • Minimal • Thorough • Auto
Extend BIOS POST Time	From the drop down list, select an option to create an additional pre-boot delay which allows the user to see POST status messages. The available options are: • 0 seconds • 5 seconds • 10 seconds

Table 150. Maintenance

Parameter	Description
BIOS Recovery (from Hard Drive)	Select this option to enable the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key.

Table 151. Wireless

Parameter	Description
Wireless Device Enable	Check box to enable the internal wireless devices.

Table 152. Reboot Schedule

Parameter	Description
Reboot Option	Some BIOS settings require system reboot. When **Reboot later** is selected, devices reboot when the current time matches the set time. From the drop down list, select any of the following options: • Reboot immediately • Reboot later • Do not reboot

Managing Users

This section describes how to perform routine User management tasks in the management console. The following are the two types of users:

- **Administrators**: Edge Device Manager administrator can be assigned Global Administrator, Group Administrator or a viewer role.
  - a   Global Administrator has access to all Wyse Management Suite functions.
  - b   Group Administrator has access to all assets and functions for specific groups that are assigned to administrator.
  - c   Viewer has read only access to all data and can be assigned permissions to trigger specific real-time commands such as Shutdown and Restart.
- **Unassigned Admins**: Users imported from AD server are displayed under Unassigned admins. You can assign role to these users later from the portal page.

1   If you select Administrator, you can perform the following actions:
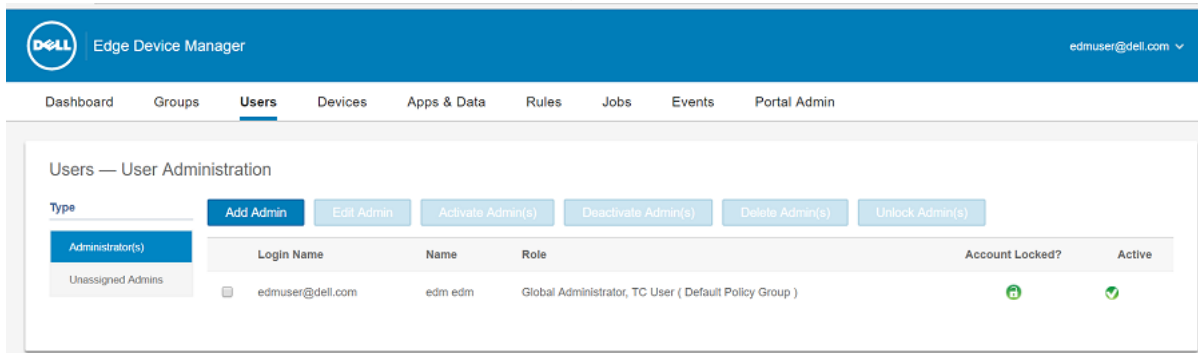
Figure 3. Administartor (s)

- Add Admin
- Edit Admin
- Activate Admin(s)
- Deactivate Admin(s)
- Delete Admin(s)
- Unlock Admin(s)

2   For better and faster management of users, you can select the users of your choice based on the following filtering options. If you select Unassigned Admins, you can perform the following actions:
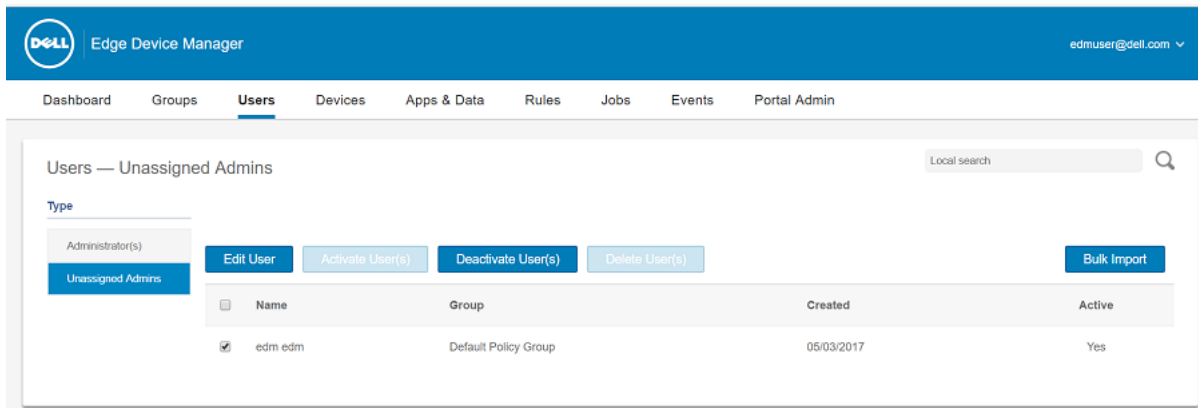
Figure 4. Unassigned admins

- Edit User
- Activate User(s)
- Deactivate User(s)
- Delete User(s)

3   Click **Bulk Import** option to import users from CSV file.

Topics:

- Adding new admin user
- Editing admin user
- Deactivating admin account
- Deleting an Admin

Adding new admin user

To add a new admin user, complete the following step:

1   Enter your email ID in the provided field.
2   Enter your preferred username in the provided field. Select the check box which appears below the provided field to use the same username as mentioned in email.
3   If you click **Personal Information** tab, enter the following details:
- First name
- Last name
- Title
- Mobile phone number
4   If you click **Roles** option, enter the following details:
- Under Roles section:
  - Select the preferred role from drop-down list. The following options are available:
    - Global Administrator
    - Group Administrator
    - Viewer
- Under Password section:
  - Select the **Enter Custom Password** radio button.

- Enter the custom password in the provided field. Check box to see the password.
- Select the radio button of **Generate random password** option to generate any random password.

5   Click **Save** to save the changes.

Editing admin user

To edit admin user, complete the following step:

1   Enter your email ID in the provided field.
2   Enter your preferred username in the provided field.

> ⓘ **NOTE: Updating the login name will force a log out from the console. Log into the console using the updated account login name. If you wish to proceed then click Yes.**

3   If you click **Personal Information** tab, enter the following details:
- First name
- Last name
- Title
- Mobile phone number
4   If you click **Roles** option, enter the following details:
- Under Roles section:
  - Select the preferred role from drop-down list. The following options are available:
    - Global Administrator
    - Group Administrator
    - Viewer
- Under Password section, you cannot update the password for portal administrator. Use the **Forgot Password** link on the portal login page to reset administrator passwords.

5   Click **Save** to save the changes.

Deactivating admin account

To deactivate an admin user, complete the following task:

> ⓘ **NOTE: Deactivating the user account prevents you from logging in and removes your account from registered devices list.**

1   Select the preferred user from the list and click the **Deactivate Admin(s)** tab.
    An alert window is displayed.
2   Click **OK** to deactivate the account.

Deleting an Admin

A User or Users must be deactivated prior to deleting.
To delete a User from the User management console, the following steps must be followed:

1   Select the check-box of the particular User or Users which you want to delete.
2   Select **Delete User(s)** from the **More Actions** drop-down menu.
3   Click **Yes**.

Managing Devices

This section describes how to perform routine Device management tasks in the management console. Device Management include the following:

- Inventory of devices can be located by clicking Devices tab. By default, this shows a the sequence of the devices, flat list of all the devices in the system. You may choose to view a subset of the devices using a variety of filter criteria, such as Groups or subgroups, device type OS type, status, subnet, platform or time zone.
- Clicking the device entry listed on this page navigates to the Device Details page for that device. This shows a variety of detailed information for that device.
- The Device Details page also shows all the configuration parameters that apply to that device, and also the group level at which each parameter took effect.
- This section also enables the set configuration parameters that are specific to that device. Parameters configured in this section overrides any parameters that were configured at the Groups and/or global level.
- Viewing and managing device details
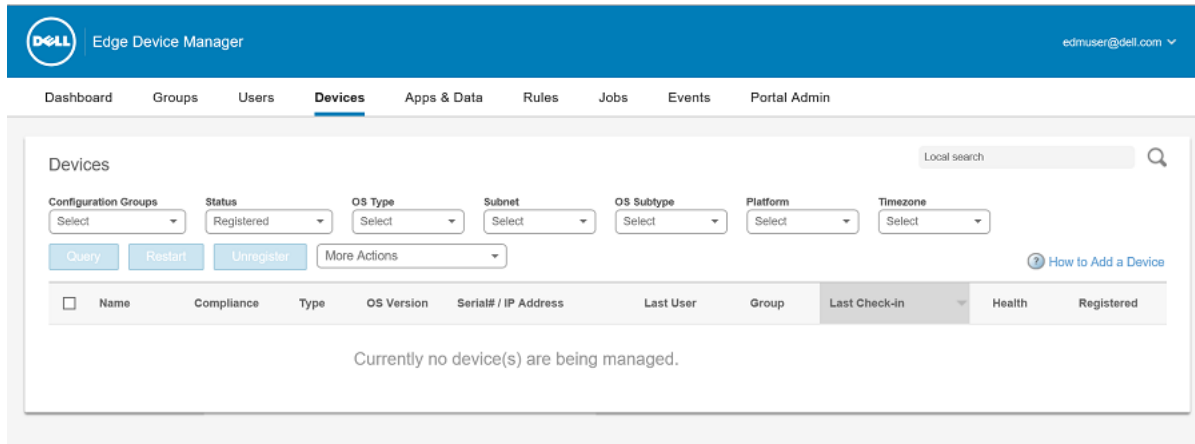
Figure 5. Devices

For better and faster management of devices, you can select the devices of your choice based on the following filtering options.

- Under the **Configuration Groups** drop-down list, you can select either default policy group or the groups which are added by an administrator.
- Under the **Status** drop-down list, you can select any of the following options:
  - **Registration**:
    - Registered
    - Not Registered
  - **Online Status**:
    - Online
    - Offline
    - Unknown
  - **Others**:

- Recently Added
- Under the **OS Types** drop-down list, you can select the type of the operating system
  - Edge Gateway
    - Snappy
    - Windows
  - Embedded PC
    - Windows
    - Ubuntu
- Under the **Subnet** drop-down list, you can select the subnet.
- Under the **OS Subnet** drop-down list, you can select the OS subnet.
- Under the **Platfrom** drop-down list, you can select the platform.
- Under the **Timezone** drop-down list, you can select the timezone.

Topics:

Registering devices to Edge Device Manager

Devices can be registered with EDM based on following methods:

1. Configuring appropriate option tags on DHCP Server.

2. Configuring appropriate DNS SRV records on DNS Server.

3. USB based registration.

4. File based registration.

> (i) **NOTE:**
> - For public cloud you must register your thin clients by providing Wyse Management Suite URL and the Group Token for the group to which you want to register this device.
> - For private cloud you must register your thin clients by providing Wyse Management Suite URL and optionally the Group Token for the group to which you want to register this device. Devices will be registered to the Unmanaged Group if the group token is not provided.

Automated registration of devices using DNS SRV record

The instructions described in this section mainly focuses on DNS_SRV record. The DNS record is _tcp_pcoip-tool in the domain that the client is configured to communicate with, and the configurations are expected to be done on the DNS server.

1. Navigate to _tcp under your domain, then right click and select **Other new records**.
2. Select **Service Location (SRV)** from resource record type list.
3. Click **Create Record**... option.
4. Enter the DNS Discovery with following tags:

- **Wyse Management Suite Server URL**
  - DNS Record Type : DNS SRV
  - Record Name : _WMS_MGMT_tcp.<Domain>
  - Value Returned : WMS Server URL

    For example : _WMS_MGMT_tcp.WDADEV.com

- **Group Token** (optional for New Agent and required for Old Agent)
  - DNS Record Type : DNS Text
  - Record Name : _WMS_GROUPTOKEN.<Domain>
  - Value Returned : Group Token as String

    For example : _WMS_GROUPTOKEN.WDADEV.com

- **CA Validation** (Optional)
  - DNS Record Type : DNS Text
  - Record Name : _WMS_CAVALIDATION.<Domain>
  - Value Returned : TRUE or FALSE (as String). CA Validation value is TRUE by default if not given.

    For example : _WMS_CAVALIDATION.WDADEV.com

Automated registration of devices using DHCP option tags

To configure the DHCP options, do the following:

1 Click the **IPv4** option and select the subnet.
2 Right click **Scope options** and select **Configure** options.
   a In the scope option window select the 165 tag and then enter Wyse Management Suite FQDN along with the port number. For example, https://<FQDN>:<PORT>
   b In the scope option window select the 199 tag and then enter the group token.

   > ⓘ | **NOTE:** This is optional for private cloud installations with only one tenant. If no group token is present, devices will register to unmanaged group.

   c In the scope option window select the 167 tag and set value as TRUE or FALSE for CA Validation, if not configured default value is TRUE.

   d
3 Click **OK**.

Edge Gateway and Embedded PC Registration from USB Device

Follow these steps to register Edge Gateway and Embedded PC from USB device:

1 Insert a USB drive into a PC or Laptop with which you are logged in to EDM.
2 Create a folder named **config** at the root level of the USB drive.
3 Within the **config** folder, create another folder named **ccm-wda**.
4 Download the Bootstrap file for the group to which you want to register the Edge Gateway/Embedded PC.
5 Rename the file to **reg.json** and place inside the **ccm-wda** folder on the USB drive.
6 Safely eject the USB drive and insert into the Edge Gateway/Embedded PC device and then, restart the device.

File based registration for Edge Gateway and Embedded PC

Follow these steps to do a File based registration for Edge Gateway and Embedded PCs:

1   Log in to EDM server.

2   Navigate to **Portal admin** > **Edge gateway and embedded PC registeration**.

3   Download the Bootstrap file for the group to which you want to register.

4   Copy the file into:

   - Snappy/Ubuntu Desktop Devices: **\root\config\ccm-wda** path on your device.
   - Windows Devices: **C:\config\ccm-wda** path on your device.

5   Restart the device.

Viewing and Managing Device Details

On the **Devices** page the following device related attributes are displayed.

- Device Name
- Compliance
- Device Type
- OS Version
- Serial# / IP Address
- Last User
- Group
- Last Checked-in
- Health
- Registered

(i) | **NOTE: Devices under quarantine group is displayed with red icon.**

1   Click a particular device to view the basic details of the device. The following device details are displayed on the **Device Details** page.

   - Compliance Status
   - Device Name
   - Device Type
   - OS Version
   - Last Logged-in User
   - Owned By
   - Agent Version
   - Serial Number
   - MAC Address
   - IP Address
   - Connection Type
   - Last Check-in

2   Use the following guidelines:

   - **Query** — Use the Query button to send a command to the device asking it to update its information in the system.
   - **Restart** — Use the Restart button to reboot the thin client. This tab is applicable for thin-client.
   - **Shutdown Now**— Use the Shutdown button to shut down the thin client. This tab is applicable for thin-client devices only.
   - **Unregister** — Use the Unregister button to remove the Device from system policies and management. This option is enabled for quarantine devices.
   - **Delete Device** — Use the Unregister button to delete the Device from system. Only a device that is not currently registered that is which does not have a Registered status can be deleted from the system. A device must be unregistered or deactivated prior to deleting.
   - **Change Group** — Use this option to select a new group for a particular device.
   - **Export Devices to CSV** — Use this action to generate a CSV with a list of the asset information for all the devices currently filtered on screen.

- **Summary tab**— Use the Summary tab to view and manage information on the Notes, Group Assignment, Alerts, and Device Configuration.

- **Change Group Assignment**— Use the Change Group Assignment button in Group Assignment section to change the group to which the Thin client belongs.

- **Device level exceptions (Applicable to all device types)**

  — The device configuration details such as default Policy group name and summary of current policy are displayed. To create or edit a device level exception, click **Create/Edit exceptions** and then configure a particular device policy on the Devices page.

- **System Info** — The followed details are seen under **System Info** tab:
  - Hardware Details
  - Operating System Details
  - Network Details – Current Connection.
  - Network Details – Network adapters
  - Network Details – Wi-Fi Profiles
  - Internal Hardware Details
  - BIOS Settings

- **Events tab** — Use the Events tab to view and manage information on the system events pertaining to a Device (creation, device registration, and various tasks performed by the system and the Device).

- **Troubleshooting Tab**— Use the Troubleshooting tab to view and manage the troubleshooting information.
  - **Task Troubleshooting**—
    - When you click the **Request Processes List** tab, the list of processes running in the client are displayed. You can select the **End Process** tab, to end the process and henceforth the admin can manage the client.
    - When you click the **Request Services List** tab, the list of services running on the client are displayed.

  ⓘ NOTE: Trouble Shooting option is available only for Windows based devices.

- **Installed Apps tab**— Installed Apps tab is located on Device information screen. The number next to the Installed Apps title displays the current number of installed applications.

  You can view the following details on the page:
  - Name
  - Version
  - Application Policy
  - Application Status
  - Remove applications when not managed

  For updating an application, select a particular application from the installed application list, and click **Update Application**. The list can be sorted by application name, publisher, or installed on date.

  ⓘ NOTE: Update Application option is available only for Snappy devices.

  The Installed Apps count will increase or decrease if applications are installed or uninstalled. The list will be updated when the device checks in or is queried next.

- **Unregister** command and **Change group assignment** commands are enabled for quarantine devices.

  ⓘ NOTE:

  Devices that are registered to other group should be able to change groups to Unmanaged group from Device tab

Apps and Data

The EDM Apps and Data section describes how to perform routine device Application and File inventory management tasks and to set policies using the management console
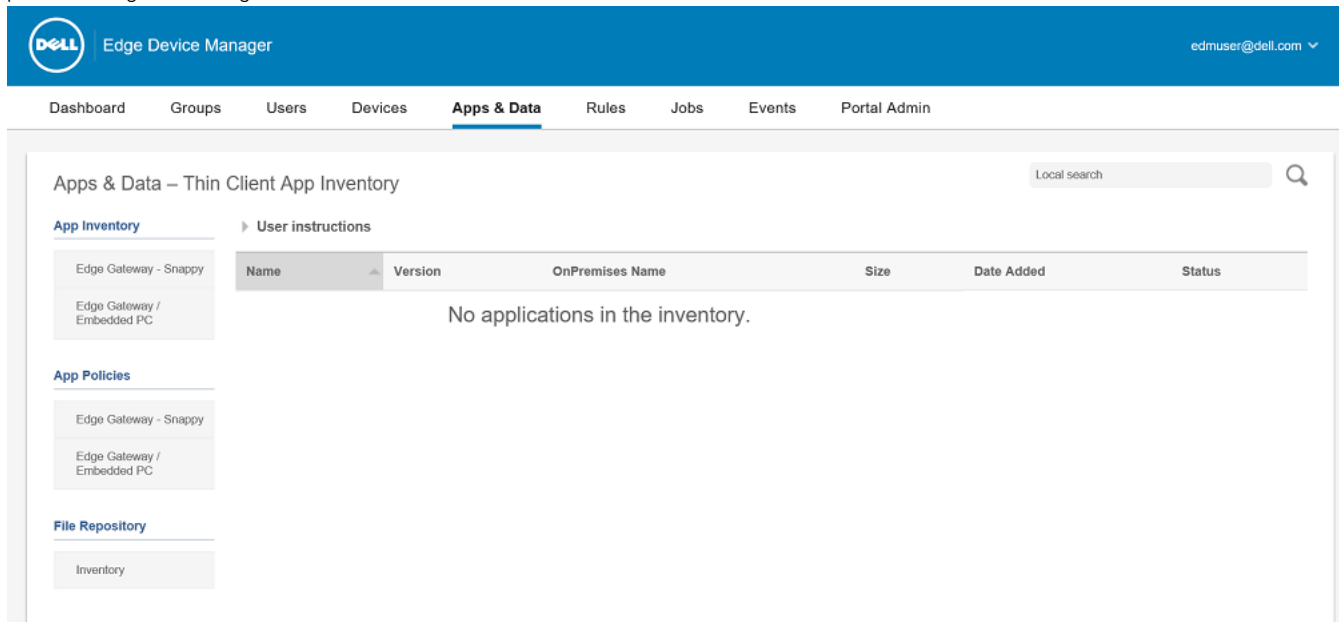

Figure 6.

Topics:

- Managing Edge Gateway - Snappy Inventory
- Managing Edge Gateway/Embedded PC
- Managing Edge Gateway – Snappy Policy
- Managing Edge Gateway/Embedded PC Policy
- Managing File Repository

Managing Edge Gateway - Snappy Inventory

The **Edge Gateway - Snappy** inventory page allows you to quickly view and manage the application inventory for your Edge Snappy device. To manage Edge Snappy Inventory:

- Click on **Add Apps** tab to add any application to the inventory. Then use the following guidelines:
  - **Search Type** — Select the type of search you want to perform (Application Name or Developer Name) from the drop-down to find the application you want to add.
  - **Name** — Type the name of the application you want to search for in this field.
  - Click **Search** to search in the application store that supports the Device Type you selected. The search results table with the related information such as the App Icon, Name, and Price of the application along with the names of the Supported Devices for the application is displayed.

- In the search results, check the box next to the application name that you want to add to the inventory and then click Add to Inventory. The selected application is added to the Mobile/Edge Gateway Snappy Inventory. If the selected application is already listed in the inventory, then an error message is displayed.
- You can remove any application from the inventory by selecting the application and clicking **Remove Apps** tab.

Managing Edge Gateway/Embedded PC

The **Embedded PC** inventory page allows you to quickly view and manage the application inventory for your Embedded PC device. To manage Embedded PC Inventory:

1 Follow the instructions specified on the page to add application to the Embedded PC Inventory.
2 After an application is added to the inventory, the application is listed on the page. The following application related attributes are displayed.
- Name
- OnPremises Name
- Size
- Date Added
- Status

Managing Edge Gateway – Snappy Policy

The Edge Gateway – Snappy Policy page allows you to quickly view and manage the application policies for the applications on your Edge Gateway snappy device. To manage Edge Snappy Policies:

1 Click the Apps and Data tab on the EDM portal.
2 Click Edge Gateway - Snappy in the navigation menu on the left pane of the window.
3 The Edge Gateway - Snappy Policies page with the overview of the information about the applications on your device is displayed.
4 Click Add Policy to add a policy to the inventory. The Add Edge Gateway – Snappy App Policy page is displayed. The following options are displayed on the page:
- Policy Name – Enter the name of the policy to be added.
- Group – From the drop-down list, select the group to which the policy has to be added.
- Snappy App – Select the file to be added.
- Task – Select the option from the drop-down list to install or uninstall an application.
- Config Params

   ⓘ NOTE: **App should be added in to the inventory before creating the policy. Snappy apps are added from the Canonical store.**
5 Click on **Save** to save the configuration.

The selected configuration is applied to the application.

Managing Edge Gateway/Embedded PC Policy

The Edge Gateway/Embedded PC Policies page allows you to quickly view and manage the application policies for the applications on your Edge Gateway — Windows and Embedded PC – Windows/Ubuntu devices. To manage Edge Gateway/Embedded PC Policies:

1 Click the **Apps & Data tab** on the Dell Management Portal.
2 Click **Edge Gateway/Embedded PC** in the navigation menu on the left pane of the window. The Edge Gateway/Embedded PC Policy page with the overview of the information about the applications on your device is displayed.
3 Click **Add Policy** to add a policy to the inventory. The **Add Edge Gateway/Embedded PC Policy** page is displayed. The following options are displayed on the page:
   a **Policy Name**— Enter the name of the policy to be added.
   b **Group**— From the drop-down list, select the group to which the policy has to be added.
   c **Task**— From the drop-down list, select your preferred windows application.

    d **OS Type**— The following OS are displayed:

- Edge Gateway – Windows
- Embedded PC – Windows
- Embedded PC – Ubuntu

        Select the option from the drop-down list for the appropriate OS.

    e **Application**— Enter the installer parameters in the text box.

    f **OS Subtype Filter**— From the drop-down list, select the subtype filter.

    g **Platfom Filter**— From the drop-down list, select the platform filter.

4   Click **Save** to save your changes.

Managing File Repository

The File Repository Inventory page (**Apps & Data > File Repository Inventory**) allows you to quickly view and manage the File Repository Inventory (thin client firmware and certificate files) that are available.

To add a new file, complete the following:

1   Choose a file to be uploaded. Click **Browse** option to search the file and place in the **File name** field.

2   From the drop-down list of Type option, select the preferred type of file.

3   Add a description in the provided field.

4   Select the check box to override the existing file.

> ⓘ **NOTE:** It adds the file to repository, but does not assign to any group or devices. You can assign the file to group or devices from configuration page.

5   Click **Upload** to upload the file.

Managing Rules

This section describes how to add and manage Rules in the management console. For better and easy management of Rules, following filtering options are provided:

For better and easy management of Rules, following filtering options are provided:

- Registration
- Unmanaged device Auto Assignment
- Alert notification

Topics:

Registering unmanaged devices

You can configure the Rules for Unmanaged devices using Registration option. You can select the Notification target or disable the notification alert for the following:

- Group Admin
- Global Admin
- Global and Group Admin

The Notification frequency can be configured for Every 4 Hours, Every 12 Hours, Daily or weekly to the target.

By default unmanaged devices are unregistered after 30 days and the duration can be configured through Apply rule after option ranging 1-30 days.

1   Under Registration option:
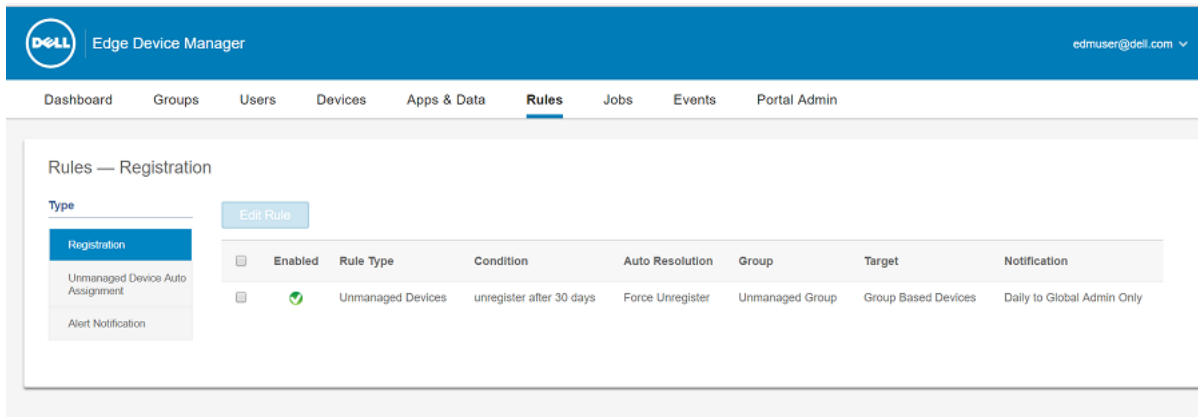
Figure 7.

a   To edit a rule, click **Edit Rule** option and edit the following details:

Figure 8.

- · Notification Target
- · Notification Frequency
- · Apply rule after (1–30) days

b   Click **Save** option to save the changes.

Creating Unmanaged Device Auto Assignment Rules

To create rules for unmanaged device auto assignment, complete the following steps:

1   Click Rules tab.
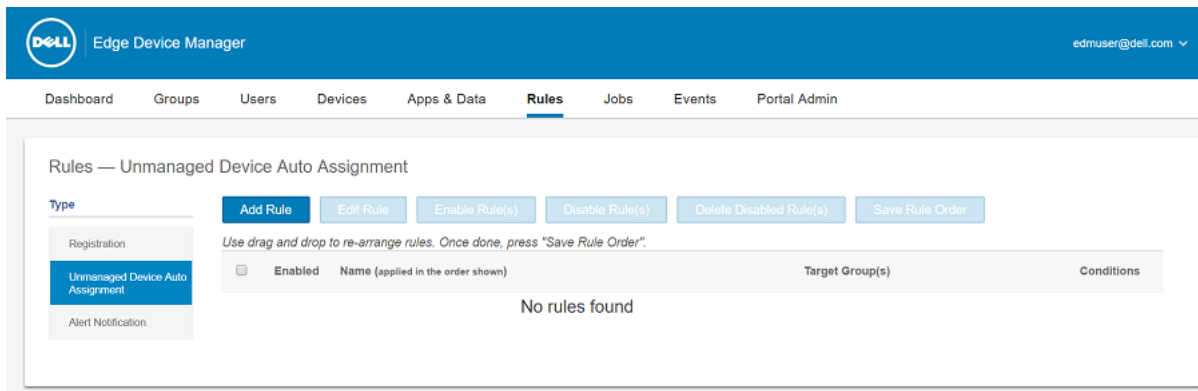2   Select Unmanaged Device Auto Assignment option.
3   Click Add Rules option.

Figure 9.

4   Enter the Name and select the Destination group.

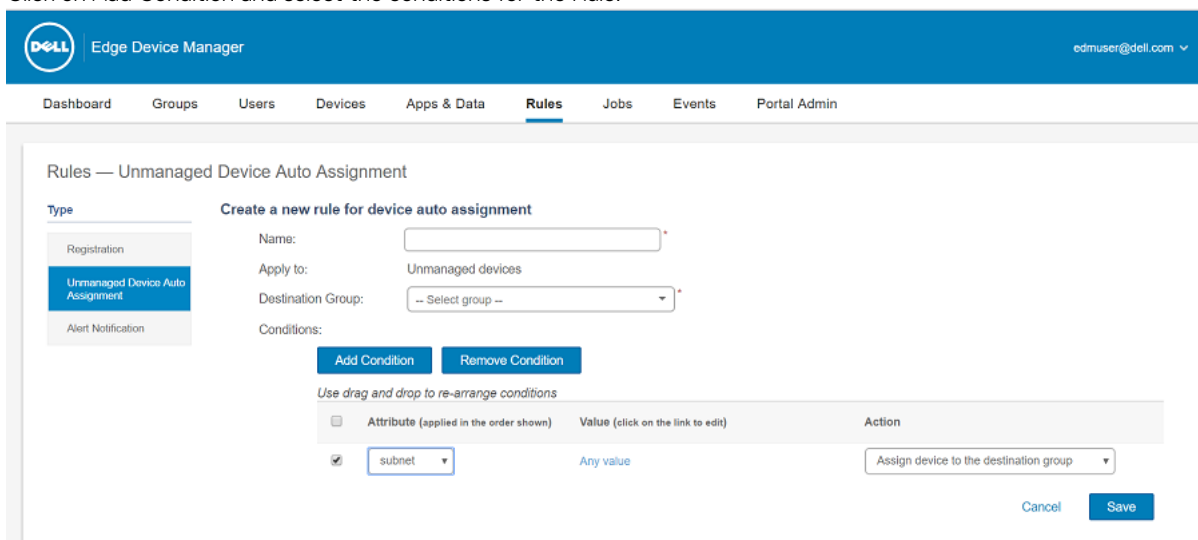5   Click on Add Condition and select the conditions for the Rule.

Figure 10.

6   Click Save.

7   After creating the Rule Discover the device to Unmanaged Group.

8   The Rule will be applied automatically and the device will be listed in the Destination group selected in the Rule.

Steps to Edit the Unmanaged Device Auto assignment Rule

1   Click Rules tab.

2   Select Unmanaged Device Auto Assignment option.

3   Select the Rule and click Edit option.

4   Make the changes and click Save.

Steps to disable and delete the Rule

1   Click Rules tab.

2   Select Unmanaged Device Auto Assignment option

3   Select the Rule and click Disable Rule option.

4   After Disabling the Rule select the Rule and click Delete Disabled Rule(s) option.

Steps To Save the Rule Order

We can change the order of the rule to be applied on the devices if multiple rules are present.

1   Click Rules tab.

2   Select Unmanaged Device Auto Assignment option.

3   Make Sure that Multiple Rules are Present.

4   Select the rule which you want to move and move it to the top.

5   Click the Save Rule Order.

Alert Notification

You can configure the rule for alert notification. You can select the Notification target or disable the notification alert for the following:

- Group Admin
- Global Admin
- Global and Group Admin

The Notification frequency can be configured for Immediately, Daily snapshot or Daily New alerts to the target.
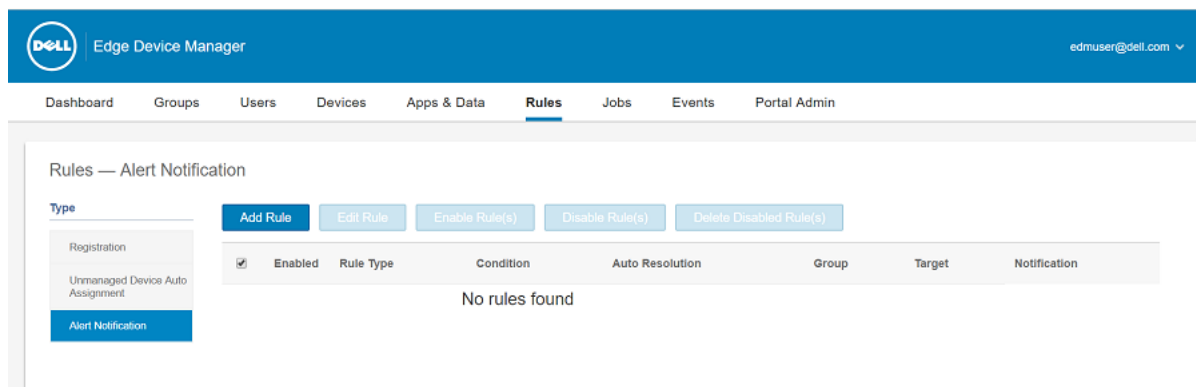
Under Alert notification option:

Figure 11.

1   To add a rule, click Add Rule option and enter the following details:

Figure 12.

- Rule
- Description
- Notification Target
- Notification Frequency

2   Click **Save** option to save the changes.

Managing Jobs

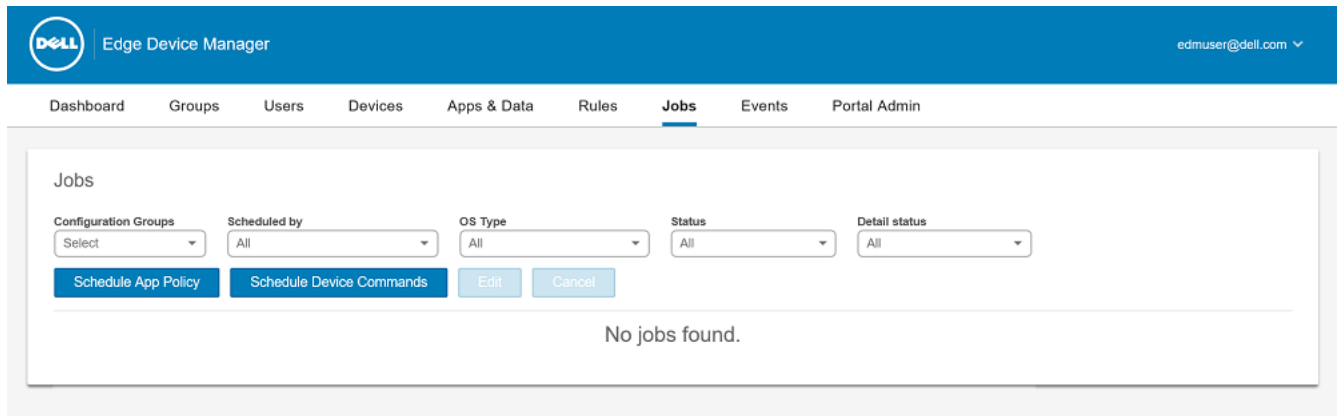This page describes how to schedule and manage jobs in the management console.

This include the following options:

- Configuration Groups: From the drop-down list, select the configuration group type.
- Scheduled by: From the drop-down list, select your preferred option. The available options are:
    - a   Admin
        - App Policy
        - Device Commands
    - b   System
        - Publish Group Configuration
        - Others
- OS Type: From the drop-down list, select the OS type. The available OS types are:
    - a   Edge Gateway Snappy
    - b   Edge Gateway Windows
    - c   Embedded PC Windows
    - d   Embedded PC Ubuntu
- Status: From the drop-down list, select the status of the job. The available options are:
- Edge Gateway
    - Snappy
    - Windows
- Embedded PC
    - Windows
    - Ubuntu
- Detail Status: From the drop-down list, select the status. The available options are:

    - a   1 or more failed
    - b   1 or more pending

c   1 or more In progress

d   1 or more cancelled

e   1 or more successful

Topics:

- Schedule application policy
- Schedule device command job

Schedule application policy

To schedule a application policy, complete the following task:

1   On jobs page, click **Schedule Application Policy** option.

     App Policy Job screen is displayed.

2   From the drop-down list, select the policy.

     Image or application is not a recurring job. One command per device is sent to the entire job schedule.

3   Enter the description in the provided filed.

4   From the drop-down list, select the date or time of execution.

5   Select the following details as per your preference:

     - Effective: Starting and ending date.

     - Start between: Starting and ending time.

     - On day(s): Select the week days.

6   Click **Preview** option to see the changes.

Schedule device command job

To schedule a device command job, complete the following task:

1   On jobs page, click **Schedule device command job** option.

     Device Command Job screen is displayed.

2   From the drop-down list, select the command.

     Device command is a recurring job, Commands are sent to affected devices on selected days between selected time.

3   From the drop-down list, select the OS type.

4   Enter the name in the provided field.

5   From the drop-down list, select the group type.

6   From the drop-down list, select the date or time of execution.

7   Select the following details as per your preference:

     - Effective: Starting and ending date.

     - Start between: Starting and ending time.

     - On day(s): Select the week days.

8   Click **Preview** option to see the changes.

Events

This section describes how to display all events and alerts in the management system with the help of management console. It also provides instructions on displaying an Audit of events and alerts for system auditing purposes.

Summary of Events and Alerts is used to obtain an easy-to-read daily summary of what has happened in system. Audit page is used to format the information into a typical audit log-view, where one line is displayed for each event in the order of time.
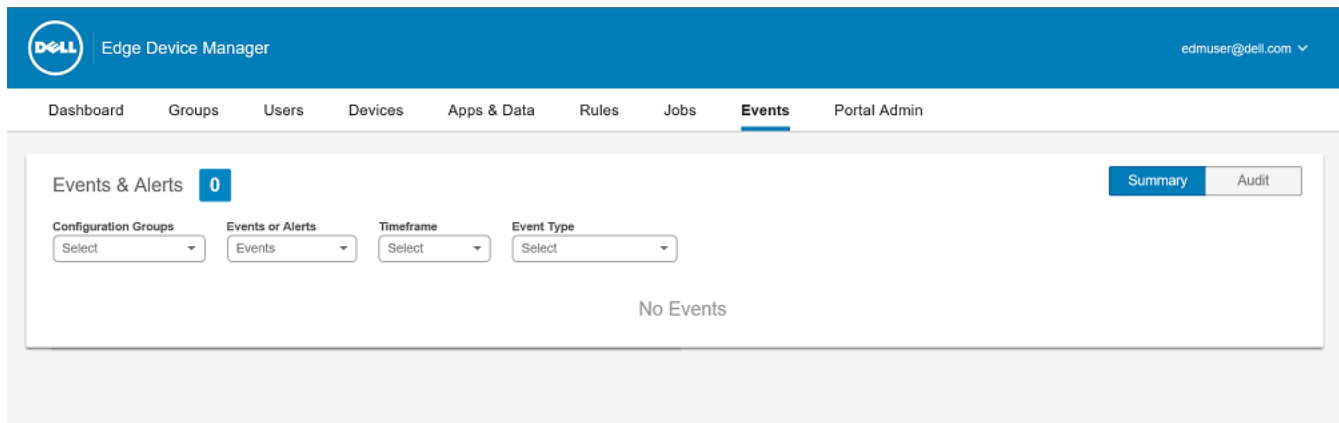

Figure 14.

This section includes:

- Displaying a Summary of Events
- Displaying an Audit of Events

Topics:

Displaying a Summary of Events

The **Events and Alerts** window allows you to display all the events and alerts that have taken place in the system. To log in to **Events and Alerts**, go to **Events** > **Summary**.
The following are the options that are available for which all the events can be easily distinguished:

1 **Configuration Groups**: To select the Configuration Group, click the drop-down menu and following options are displayed:
   - Default Policy Group
   - Quarantine Group
2 **Event** : To select the Event type, click the drop-down menu and following options are displayed:
   - Events
   - Current Alerts
   - Alert History
3 **Timeframe**: This option allows you to view the events which occurred in a particular timeframe. The available options in the drop-down menu are:

- Today
- Yesterday
- This Week
- Custom

4   **Event Groups**: All the events are classified under particular groups. The available options in the drop-down menu are:

- Access
- Registration
- Configuration
- Remote Commands
- Management
- Compliance

Displaying an Audit of Events

The **Audit** window allows you to quickly format the information into a typical audit log-view, where one line is displayed for each event in the order of time.

1   To open **Audit** window, go to **Events** > **Audit**
2   **Configuration Groups**: To select the Configuration Group, click the drop-down menu and following options are displayed.
- Default Policy Group
- Unmanaged Group
3   **Timeframe**: This option allows you to view the events which occurred in a particular timeframe. The available options in the drop-down menu are:
- Today
- Yesterday
- This Week
- Custom

Portal Administration

This section contains a brief overview of your system administration tasks that are required to set up and maintain your system.

Topics:

- Configuring Console Settings
- Configuring Account Settings
- System setup

Configuring Console Settings

This section helps you to configure settings for Dell Console Management.

Active Directory (AD)

To import Active Directory Users on Edge Device Manager Private Cloud, complete the following steps:

1. Login to EDM Private Cloud.
2. Navigate to **Portal Admin** > **Console Settings** > **Active Directory (AD)**
3. Click the **Add AD Server Information** link.
4. Enter AD Server Name, Domain Name, Server URL, Port and Save.
5. After the AD Server information is saved, click the **Import** Button.
6. Provide User Name, Password and Click Login (Search Base is optional. It is useful to limit the search to child domain or specific OU).
7. On the User Group Page, Click on the Group name (Click on Search button and enter the group name for quick search).
8. The selected group will be moved to right pane of the page. Click Next and on the next page click Import Users.

    ⓘ **NOTE:** The users with Invalid or No Last Name and Email can not be imported into Wyse Management Suite. Those users will be skipped during User import process.

9. After successful import of the users from AD, Wyse Management Suite Management Portal will show the confirmation message with number of users imported.
10. Go to **Users tab** > **Unassigned Admins** the Imported AD Users are listed here.
11. Select the desired user and click Edit User button to assign different Roles/Permissions.
12. After assigning the Roles to the AD Users, the AD users will be moved to Administrators tab under Users Page.
13. AD Users can now login to Wyse Management Suite Management Portal using Domain Credentials. To login using Domain Credentials, Launch the Wyse Management Suite Management Portal from Desktop Shortcut. On the login screen, Click "Sign in with your domain credentials" link. Enter Domain user credentials and click Sign In.
14. The Imported AD users can be Activated/Deactivated from Users Page using Global Admin login. Once the user is deactivated, they cannot login to Wyse Management Suite Management Portal.

Active Directory Federation Services (ADFS) Metadata Configuration

To configure the ADFS, do the following:

1 Provide EDM details to ADFS.

Hover the mouse over the **information (i)** icon to view the screenshot of **Add Relying Party Trust** Wizard. It shows you where to place the EDM xml files to ADFS server.

Click the link provided on the page to download the EDM xml file on your thin client.

2 Use EDM rules in ADFS. To view the EDM rules, click the link provided on the page. You can also download the EDM rules by clicking the link provided on the **EDM Rules** window.

Hover the mouse over the **information (i)** icon to view the screenshot of **Add Transform Claim Rule** Wizard. It shows you where to place the EDM Rules to ADFS server.

3 Allow tenants to enter ADFS configuration by uploading ADFS meta-data file. Click **Add Configuration** to configure the ADFS details.

   a Follow the instructions specified on the page.

   b Click **Load XML file** to upload the XML file stored on your local repository (thin client).

   c Provide details of Entity ID and X.509 Signing Certificate in the respective boxes.

   d Enter ADFS login URL address and ADFS logout URL address in the respective boxes.

   e Select the check box to enable SSO login using ADFS. This feature gives tenants the ability to configure SSO (Single Sign On) using Active Directory Federation Service (ADFS) which follows Security Assertion and Markup Language (SAML) standard specification.

   f Click **Test ADFS Login** to validate the configuration information entered by allowing tenants to test their setup before saving.

4 Tenants have the ability to activate/deactivate SSO login using ADFS.

5 Click **Save** to save the settings.

6 After you save the metadata file, you can update the configuration by clicking **Update Configuration**.

In the upper-right corner of the page, click the link to access the *Single Sign On with ADFS user guide*.

(i) **NOTE:** Tenants have the ability to login/logout using their AD credentials configured from their ADFS. You have to make sure that the AD users are imported to EDM server. On the login page, click on Sign in with your domain credentials. You need to provide the email address of your AD user and sign in.

Alert Classifications

The Alert page categorize the alerts as Critical, Warning, or Info.

(i) **NOTE:** To receive alerts through e-mail or mobile app, select the Alert Preferences option from the username menu displayed on the upper-right corner.

Select the preferred notification type such as, **Critical**, **Warning**, or **Info** for the following alerts:

- CPU Temperature Exceeded Threshold
- Chassis Temperature Exceeded Threshold
- Device Chassis Intrusion
- Device Health Alert
- Devices Missing Required Apps
- Device Not Checked In
- Restricted App Installed
- Watchdog Services Restarted

Edge Gateway and Embedded PC registration

- **Edge Gateway and Embedded PC Registration from USB Device**:

  a   Insert a USB drive into a PC or Laptop with which you are logged in to WMS.

  b   Within the "config" folder, create another folder named "ccm-wda".

  c   Create a folder named "config" at the root level of the USB drive.

  d   Download the Bootstrap file for the group to which you want to register the Edge Gateway/Embedded PC.

  e   Rename the file to reg.json and place inside the "ccm-wda" folder on the USB drive.

  f   Safely eject the USB drive and insert into the Edge Gateway/Embedded PC device, then reboot.

- Links to download Wyse Device Agents are available along with the links to instructions, separately for Windows Binaries and Ubuntu.

- The registered groups are also displayed.

External App Services

The External App services allows you to create secured API accounts. It provides the ability to create special accounts. These special accounts feature role based access that only provide access to EDM/CCM through API.
To configure the External App Service, complete the following task.

1   Login in to the Dell Management Console (EDM) and click the **Portal Admin** tab.

2   Select **External App Services** under Console Settings.

3   Select the **Add** tab to add an API service.

   The **Add External App Services** dialog box is displayed.

4   Enter the following details to add an External App Service.

   - Name
   - Description

5   Select the check box.

   If you select the check box, then the Global admin approval is not required to activate.

6   Click **Save** to save your changes.

File repository

Edge Device Manager has two types of repository:

- **Local Repository**: During EDM Private Cloud installation, We have to provide the Local Repository path in Wyse Management Suite Installer. Post installation, Go to **Portal Admin** > **File Repository** and select The Local Repository and click **Edit** option to view and edit Repository settings.

- **Wyse Management Suite Repository**: Login to Wyse Management Suite Public Cloud ,Go to **Portal Admin** > **File Repository** and Download the Wyse Management Suite Repository Installer. Post installation, Register Wyse Management Suite Repository to Wyse Management Suite Management Server by providing required Information (Public Or Private Cloud Server).

Follow the steps mentioned on the screen. The steps are:

1   Download the Wyse Management Suite repository.

2   After the installation process, start the application.

3   After installation, the service starts automatically. You must register the Wyse Management Suite repository to Wyse Management Suite server with your credentials.

Click the **Sync Files** option to sync the files and click the **Edit** option to edit the files.

1   When you click the Edit option, a window is displayed with Repository Server settings details.

2   From the drop down list of **Concurrent File Downloads** option, select the number of files.

3   You can enable or disable **Wake on LAN** option.

4   You can enable or disable **Fast File Upload and Download (HTTP)** option.

- When HTTP is enabled, the file upload and download happens over HTTP.

- When HTTP is not enabled, the file upload and download happens over HTTPS. The client device should have appropriate Certificate for HTTPS Communication.

5   You can add note in the provided box.

6   Click **Save Settings** option to save the changes.

Other Settings

You can use the following settings to enforce the APNS Warnings, License Expiration Warnings, and other Self Service Legal Agreements.

- **Dismiss License Expiration Warning on Dashboard page** — To disable the warning for a license expiration from appearing on the **Dashboard** page, select this check box. Enter the number of days before a device triggers a **Not Checked In** compliance alert and the range is 1–99.

Two-Factor Authentication

For enabling two factor authentication, you need to have at least two active global administrator users in the system. Create two or more global administrators before proceeding to the steps.
Complete the following step to enable the two factor authentication:

Select the check box to enable the two factor authentication.

Two factor authentication requires all administrators to verify the second authentication factor using one time passcodes to successfully login to the management portal. A onetime passcode will be emailed to the e-mail address on file after you sign in for the first time using username and password.

> ⓘ NOTE: **Eight attempts will be provided to verify the one time passcode after which the account will be locked. Only global administrator can unlock such locked out accounts.**

Generating reports

To generate reports, complete the following task:
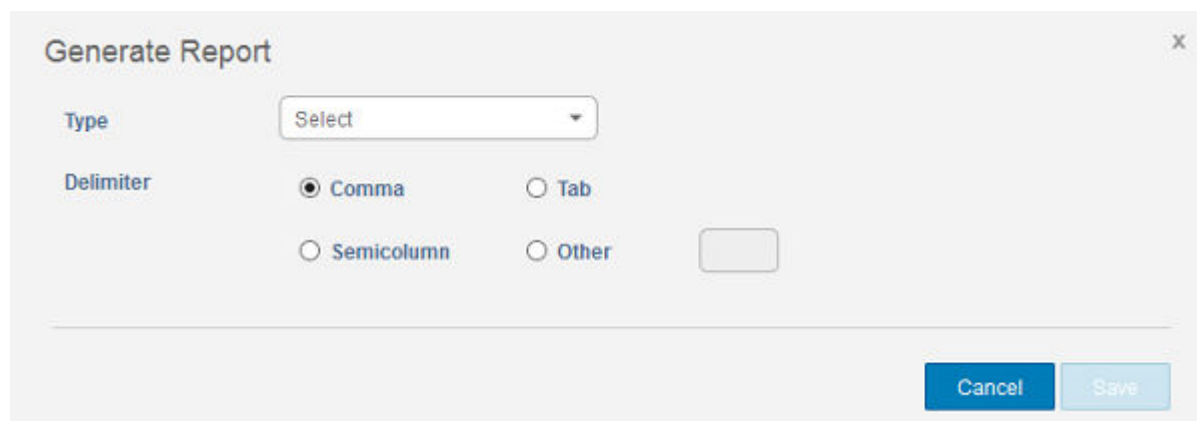
1   Go to **Portal Admin** > **Reports**.

2   Click **Generate Report** option.

Generate Report window is displayed.

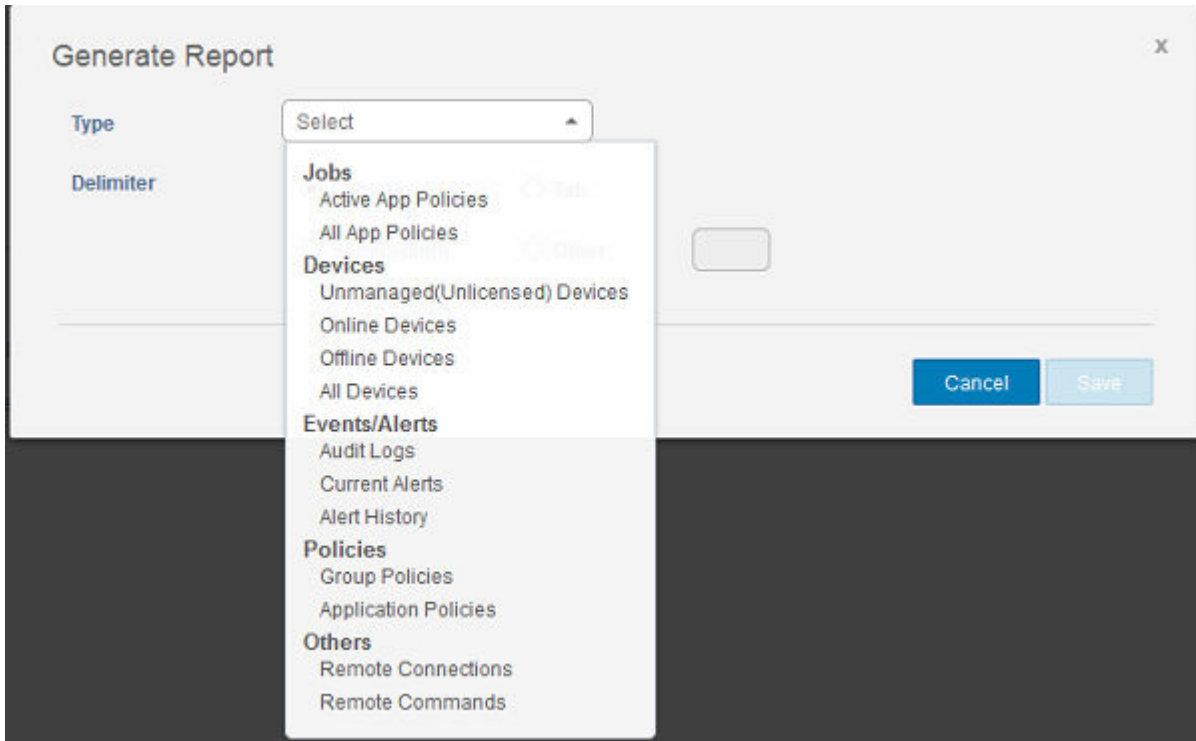3 From the drop-down list, select the type of the report.

- **Jobs**
    - Active App Policies
    - All App Policies
- **Devices**
    - Unmanaged (Unlicensed) Devices
    - Online Devices
    - Offline Devices
    - All Devices
- **Events/Alerts**
    - Audit Logs
    - Current Alerts
    - Alert History
- **Policies**
    - Group Policies
    - Application Policies
- **Others**
    - Remote Connections
    - Remote Commands

4 Select the preferred delimiter.

5 Click **Save** to save the changes.

Multi Tenant

This feature enables creation of additional tenant accounts which can be managed independently of one another. Each tenant account needs its own license key and can set up its own set of admin accounts, policies, OS images, application, rules, alerts, etc. Creation of these

tenant accounts will be handled from a higher level Operator account. Enabling multi-tenancy will result in certain global-level configuration to move away from this page and available on the Operator page.

1   Select the check box to enable multi-tenant option.
2   Enter the following the details:
   · Username
   · Password
   · Confirm password
   · Email
3   Click **Save Settings** option to save the changes.

Configuring Account Settings

This section helps you to configure account settings for Dell Management Console.

Custom Branding

With Custom Branding, you can add the name of your company and its logo or brand to customize the CCM portal look and feel for your users. You can upload your own header logo, favicon, add a header title, and change header colors.
You can access the **Custom Branding** page by clicking on **Portal Administrator** > **Account** > **Custom Branding**.
To access and specify custom branding :

1   Click **Enable Custom Branding** on the **Custom Branding** page to access the custom branding options.
2   To add a Header logo, click **Browse** under **Header Logo** and select the header logo image from the folder location. The maximum size of the header logo permitted is 500*50 pixels.
3   To add a Title, you can enter the title under **Title** and select **Display title in browser window/tab** to view the title on the browser.
4   If you want specific colors for the header, you can select the **Header background color** and **Header text color** by specifying the color code.
5   To add a **icon**, click **Browse** under **Favicon** and select the icon image from the folder location. You need to save the icon images as **.ico** files only.
6   Click **Save Settings** to save the custom branding settings.

License Subscription

The Subscription page of the management console allows you to view your management console license subscription information and usage, and to manage your license subscriptions.

To open **Subscriptions**, go to **Portal Admin** > **Account** > **Subscription**. This page also displays License Usage related information and Server Information. In License Usage section, you can view the following details:
   · Registered Thin Client Devices
   · Server information
   · Import License (Private cloud)
   · Export License for Private Cloud (Public cloud)

System setup

·   **Certificate validation**: Select the check box to perform server certificate validation for all device-to-server communication.
·   **Update SMTP for Email Alerts**

Enter the following details:

- SMTP server
- Send from address
- Username
- Password
- Test address
- **Current Certificate**: It provides the information about the current certificate.

  Select the following option and enter the details:
  - **Key/Certificate**: Upload HTTPS key/certificate file pair (only PEM format is supported).
  - **PKCS-12**: Upload HTTPS PKCS-12 (.pfx, .p12). Apache intermediate certificate is needed for IIS pfx.
- Click **Save** option to save the changes.

Feature list

- Highly scalable solution to manage Edge Gateway devices
- Group based management
- Multi Level Groups and Inheritance
- Configuration Policy management
- View effective configuration at device level after inheritance
- Application policy management
- Asset, Inventory and Systems management
- Automatic Device discovery
- Real-time commands
- Smart Scheduling
- Alerts, Events and Audit logs Secure communication (HTTPS)
- Manage devices behind firewalls
- Mobile App
- Alerts via Email and Mobile app
- Delegated Administration
- Dynamic group creation and assignment based on device attributes
- Two-factor authentication
- Active directory authentication for role based administration
- Multi-tenancy
- Enterprise Grade Reporting
- Multiple repositories
- Enable/Disable HW ports
- BIOS configuration

Custom configuration

If you select the **Setup Type** as **Custom**, you can choose either **Embedded MongoDB** or **External MongoDB** as the Mongo Database Server.
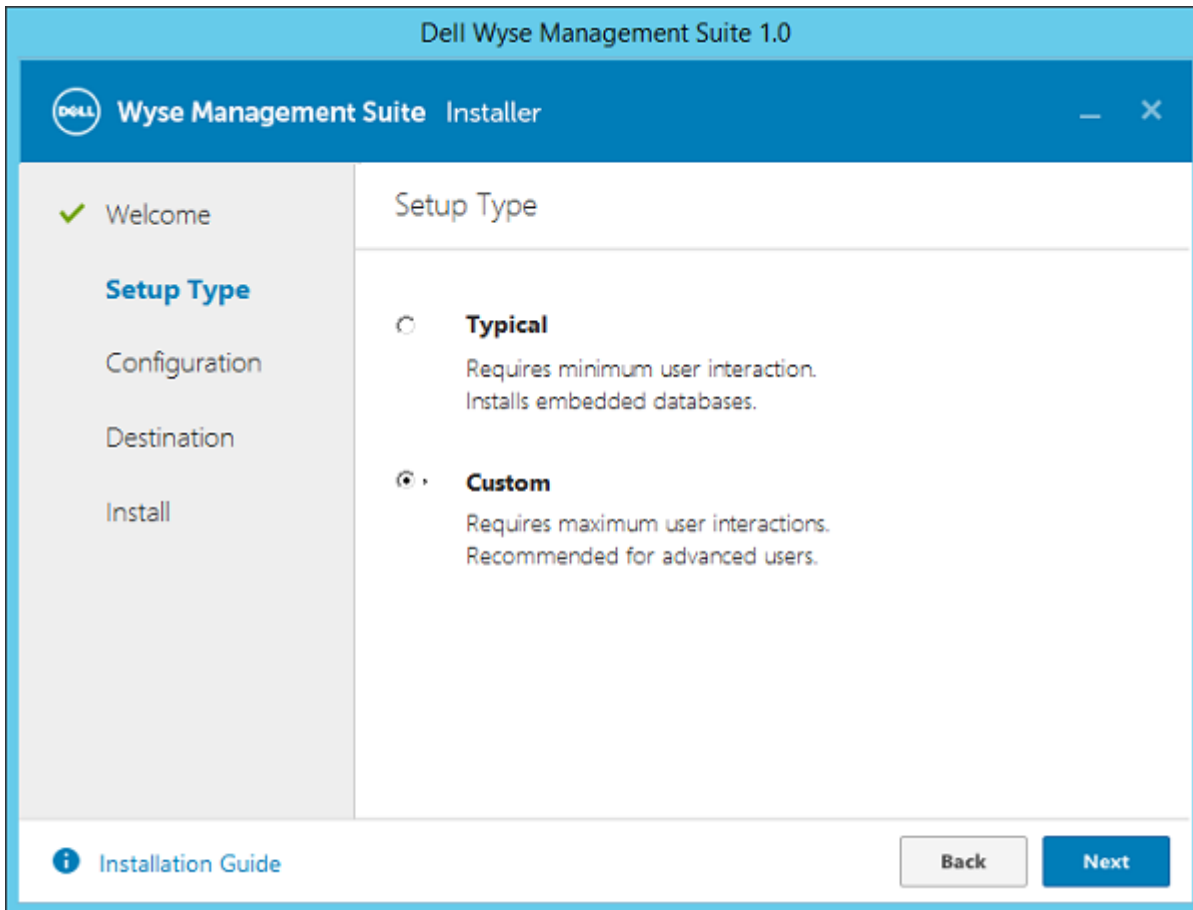

Figure 17. Setup type

- If **Embedded MongoDB** is selected, then provide your password and then click **Next**.

  ⓘ **NOTE: Username and Database server details are not required if the Embedded Mongo database is selected, and the respective fields are grayed out.**

Figure 18. Mongo Database Server

- If **External MongoDB** is selected, then provide username, password and database server details, and then click **Next**.

Figure 19. Mongo Database Server

- If **Embedded MariaDB** is selected, then provide username and password and then click **Next**.

Figure 20. MariaDB Database Server

- If **External MariaDB** is selected, then provide username, password and database server details, and then click **Next**.
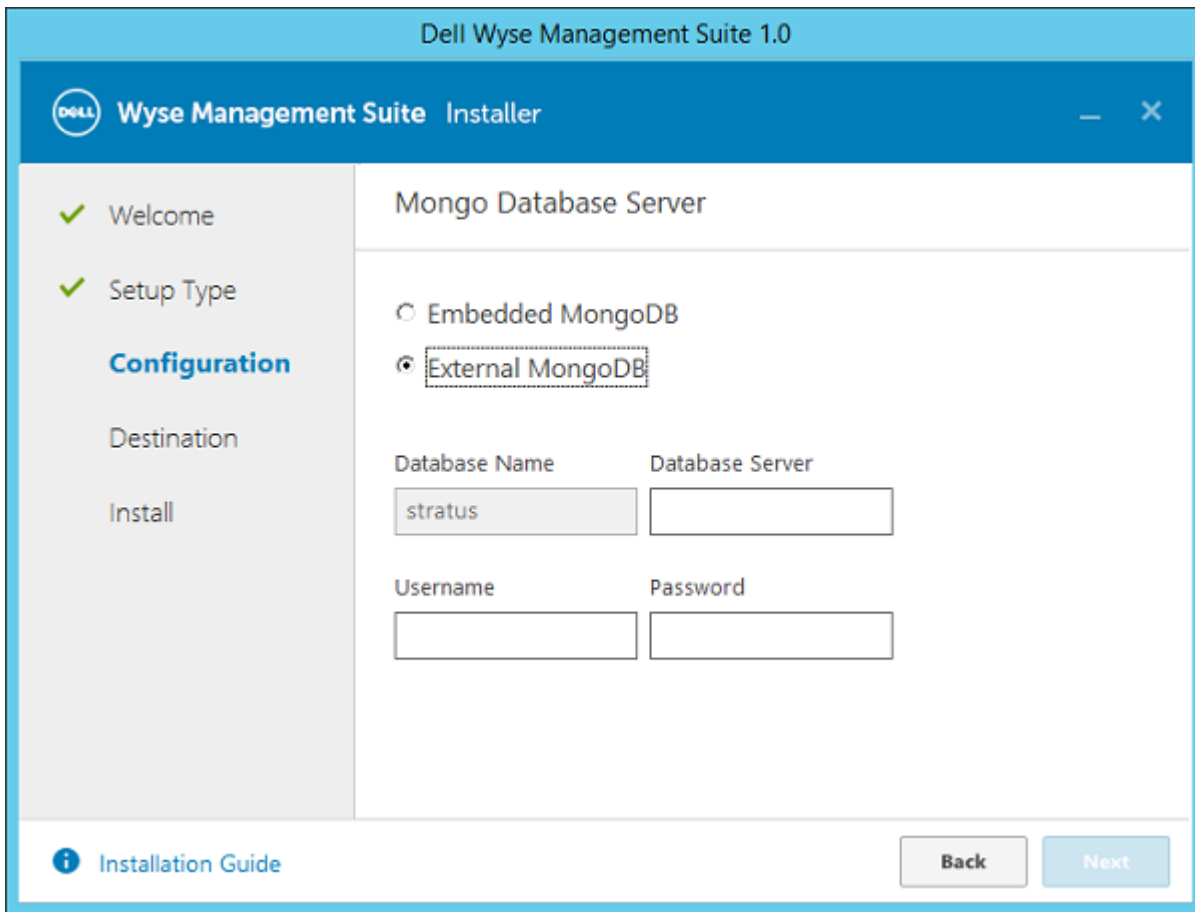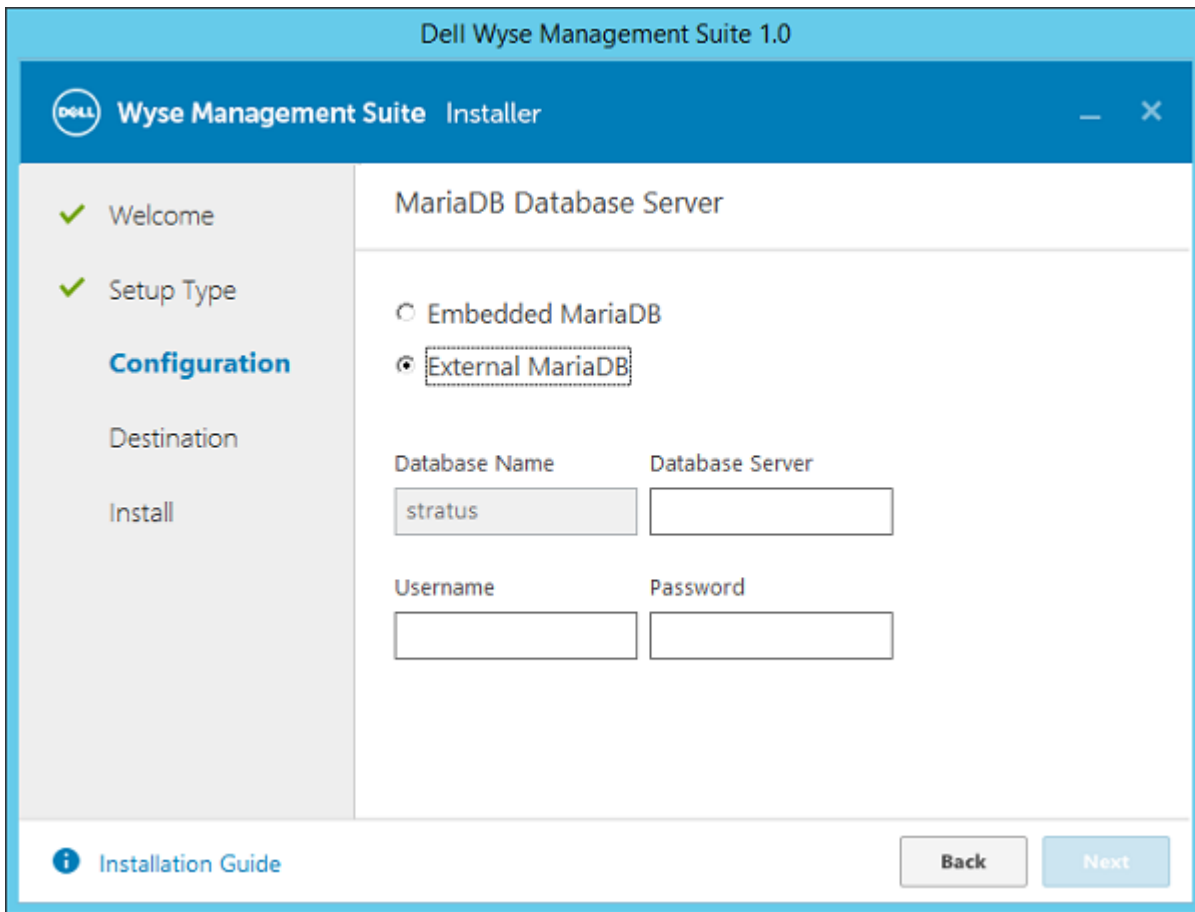
Figure 21. MariaDB Database Server

Follow the step sin the section **Installing WMS on-premise and initial setup**, to complete the installation.

Supported devices

Supported devices

- Edge gateway 5000 running Windows 10 LTSB 15
- Edge gateway 3001 running Windows 10 LTSB 16
- Edge gateway 3002 running Windows 10 LTSB 16
- Edge gateway 3003 running Windows 10 LTSB 16
- Edge gateway 5000 running Ubuntu 16.04
- Edge gateway 3001 running Ubuntu 16.04
- Edge gateway 3002 running Ubuntu 16.04
- Edge gateway 3003 running Ubuntu 16.04
- Embedded PC 3000 running Windows 7 Pro
- Embedded PC 3000 running Windows 7 Pro for FES
- Embedded PC 3000 running Windows Embedded Standard 7P
- Embedded PC 3000 running Windows Embedded Standard 7E
- Embedded PC 3000 running Windows 10 LTSB 15
- Embedded PC 3000 running Windows 10 Pro
- Embedded PC 5000 running Windows 7 Pro
- Embedded PC 5000 running Windows 7 Pro for FES
- Embedded PC 5000 running Windows Embedded Standard 7P
- Embedded PC 5000 running Windows Embedded Standard 7E
- Embedded PC 5000 running Windows 10 LTSB 15
- Embedded PC 5000 running Windows 10 Pro
- Embedded PC 3000 running Ubuntu 16.04
- Embedded PC 5000 running Ubuntu 16.04

Wireless Profiles Password Editor

This tool is used to capture the Wireless profiles and allows you to edit the passwords. Captured profiles are saved to a selected XML file. The same XML file can be used to configure Edge Gateway devices through EDM.

ⓘ **NOTE:**
.NET Framework 4.5 must be installed to run this tool on any Windows OS or Windows Embedded OS.

Topics:

Configuring the Wireless Profiles Password Editor

To configure the Wireless Profiles Password Editor, do the following:

1. Click the **Browse** button, to open the save dialog box. Select the existing XML file, or provide a file name to create a new XML profile.
2. Click the **Export WIFI Profiles**. If any of the profiles are configured in the device, those profiles are exported to the selected XML file. Number of exported profiles are displayed below the **Password** text box. **Profiles combo box** is listed automatically with the exported profile names.
3. Select **Profiles combo box**, to list the profiles exported. Select any combo box item. On selecting the item, the authentication type is displayed adjacent to the combo box, and **Password** text box is loaded with the current password text, if Password is valid for the selected profile authentication type.
4. Edit the password and click the **Change Password** tab. Changed password is encrypted and saved to the XML profile.

Limitations of Wireless Profiles Password Editor

The following are the limitations of Wireless Profiles Password Editor:

- Passwords are valid only for the following authentication types:
  - WPAPSK
  - WPA2PSK

- Passwords do not exist for the following enterprise authentication profile types:
  - WPA
  - WPA2

Third party licenses

The table provides the details about third party licenses.

Sl No	Component Name	license Type
1	apache-tomcat-7.0.72	Apache License, Version 2.0
2	jdk1.8.0_112	Oracle Binary Code License
3	jre1.8.0_112	Oracle Binary Code License
4	mariadb-10.0.26-winx64	GNU GPL V2
5	mosquitto-1.3	Eclipse Public licenses- v 1.0
6	bootstrap-2.3.2	Apache License, Version 2.0
7	backbone-1.3.3	MIT
8	aopalliance-1.0.jar	Public Domain
9	aspectjweaver-1.7.2.jar	Eclipse Public licenses- v 1.0
10	bcprov-jdk16-1.46.jar	MIT
11	commons-codec-1.9.jar	Apache License, Version 2.0
12	commons-logging-1.1.1.jar	Apache License, Version 2.0
13	hamcrest-core-1.3.jar	BSD-3 Clause
14	jackson-annotations-2.2.2.jar	Apache License, Version 2.0
15	jackson-core-2.2.2.jar	Apache License, Version 2.0
16	jackson-databind-2.2.2.jar	Apache License, Version 2.0
17	log4j-1.2.17.jar	Apache License, Version 2.0
18	apache-tomcat-8.5.11	Apache License, Version 2.0
19	mosquitto-3.1	Eclipse Public licenses- v 1.0
20	Gradle Wrapper 2.14	Apache 2.0 License
21	Gradle Wrapper 3.3	Apache 2.0 License
22	HockeySDK-Ios3.7.0	MIT

SI No	Component Name	license Type
23	Relayrides / pushy - v0.9.3	MIT
24	zlib-1.2.8	zlib license
25	yaml-cpp-0.5.1	MIT
26	wiredtiger	GNU GPL V2
27	unicode-8.0.0	unicode licensesagreement
28	snappy-1.1.2	BSD 3 Clause
29	scons-2.5.0	MIT
30	S2	Apache 2.0
31	pcre-8.38	PCRE licenses
32	mozjs-38	MPL-2.0 ,GPL-2,LGPL-2.1,BSD-2-Clause,MIT,LGPL-2+, public-domain,ICU
33	asio-asio-1-11-0	Boost Software licensesVersion 1.0
34	IntelRDFPMathLib20U1	BSD 3 Clause
35	gperftools-2.2	BSD 3 Clause
36	boost-1.56.0	Boost Software licenses- Version 1.0
37	mongo-tools	Apache 2.0
38	mongoDB 3.2.9	GNU Affero General Public License(AGPL)

License Type Details:

Apache License, Version 2.0

Apache License

Version 2.0, January 2004

http://www.apache.org/licenses/

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1   Definitions.
- "License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.
- "Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.
- "Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.
- "You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

- "Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

- "Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

- "Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

- "Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

- "Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

- "Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

1. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright licensesto reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

2. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent licensesto make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such licensesapplies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this licensesfor that Work shall terminate as of the date such litigation is filed.

3. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

    a. You must give any other recipients of the Work or Derivative Works a copy of this License; and

    b. You must cause any modified files to carry prominent notices stating that You changed the files; and

    c. You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work excluding those notices that do not pertain to any part of the Derivative Works; and

    d. If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

4. You may add Your own copyright statement to Your modifications and may provide additional or different licensesterms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate licensesagreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This licensesdoes not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND,

either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8   Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this licensesor out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9   Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache licensesto your work.

To apply the Apache licensesto your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the licensesat

http://www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software distributed under the licensesis distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the licensesfor the specific language governing permissions and limitations under the License.

Oracle Binary Code License

Oracle Binary Code licensesAgreement for the Java SE Platform Products and JavaFXORACLE AMERICA, INC. ("ORACLE"), FOR AND ON BEHALF OF ITSELF AND ITS SUBSIDIARIES AND AFFILIATES UNDER COMMON CONTROL, IS WILLING TO licensesTHE SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT ALL OF THE TERMS CONTAINED IN THIS BINARY CODE licensesAGREEMENT AND SUPPLEMENTAL licensesTERMS (COLLECTIVELY "AGREEMENT"). PLEASE READ THE AGREEMENT CAREFULLY. BY SELECTING THE "ACCEPT licensesAGREEMENT" (OR THE EQUIVALENT) BUTTON AND/OR BY USING THE SOFTWARE YOU ACKNOWLEDGE THAT YOU HAVE READ THE TERMS AND AGREE TO THEM. IF YOU ARE AGREEING TO THESE TERMS ON BEHALF OF A COMPANY OR OTHER LEGAL ENTITY, YOU REPRESENT THAT YOU HAVE THE LEGAL AUTHORITY TO BIND THE LEGAL ENTITY TO THESE TERMS. IF YOU DO NOT HAVE SUCH AUTHORITY, OR IF YOU DO NOT WISH TO BE BOUND BY THE TERMS, THEN SELECT THE "DECLINE licensesAGREEMENT" (OR THE EQUIVALENT) BUTTON AND YOU MUST NOT USE THE SOFTWARE ON THIS SITE OR ANY OTHER MEDIA ON WHICH THE SOFTWARE IS CONTAINED.

1   DEFINITIONS. "Software" means the software identified above in binary form that you selected for download, install or use (in the version You selected for download, install or use) from Oracle or its authorized licensees, any other machine readable materials (including, but not limited to, libraries, source files, header files, and data files), any updates or error corrections provided by Oracle, and any user manuals, programming guides and other documentation provided to you by Oracle under this Agreement. "General Purpose Desktop Computers and Servers" means computers, including desktop and laptop computers, or servers, used for general computing functions under end user control (such as but not specifically limited to email, general purpose Internet browsing, and office suite productivity tools). The use of Software in systems and solutions that provide dedicated functionality (other than as mentioned above) or designed for use in embedded or function-specific software applications, for example but not limited to: Software embedded in or bundled with industrial control systems, wireless mobile telephones, wireless handheld devices, kiosks, TV/ STB, Blu-ray Disc devices, telematics and network control switching equipment, printers and storage management systems, and other related systems are excluded from this definition and not licensed under this Agreement. "Programs" means (a) Java technology

applets and applications intended to run on the Java Platform, Standard Edition platform on Java-enabled General Purpose Desktop Computers and Servers; and (b) JavaFX technology applications intended to run on the JavaFX Runtime on JavaFX-enabled General Purpose Desktop Computers and Servers. "Commercial Features" means those features identified in Table 1-1 (Commercial Features In Java SE Product Editions) of the Java SE documentation accessible at http://www.oracle.com/technetwork/java/javase/documentation/index.html. "README File" means the README file for the Software accessible at http://www.oracle.com/technetwork/java/javase/documentation/index.html.

2   licensesTO USE. Subject to the terms and conditions of this Agreement including, but not limited to, the Java Technology Restrictions of the Supplemental licensesTerms, Oracle grants you a non-exclusive, non-transferable, limited licenseswithout licensesfees to reproduce and use internally the Software complete and unmodified for the sole purpose of running Programs. THE licensesSET FORTH IN THIS SECTION 2 DOES NOT EXTEND TO THE COMMERCIAL FEATURES. YOUR RIGHTS AND OBLIGATIONS RELATED TO THE COMMERCIAL FEATURES ARE AS SET FORTH IN THE SUPPLEMENTAL TERMS ALONG WITH ADDITIONAL licenses FOR DEVELOPERS AND PUBLISHERS

3   RESTRICTIONS. Software is copyrighted. Title to Software and all associated intellectual property rights is retained by Oracle and/or its licensors. Unless enforcement is prohibited by applicable law, you may not modify, decompile, or reverse engineer Software. You acknowledge that the Software is developed for general use in a variety of information management applications; it is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use the Software in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle disclaims any express or implied warranty of fitness for such uses. No right, title or interest in or to any trademark, service mark, logo or trade name of Oracle or its licensors is granted under this Agreement. Additional restrictions for developers and/or publishers licenses are set forth in the Supplemental licensesTerms.

4   DISCLAIMER OF WARRANTY. THE SOFTWARE IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. ORACLE FURTHER DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT.

5   LIMITATION OF LIABILITY. IN NO EVENT SHALL ORACLE BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, OR DAMAGES FOR LOSS OF PROFITS, REVENUE, DATA OR DATA USE, INCURRED BY YOU OR ANY THIRD PARTY, WHETHER IN AN ACTION IN CONTRACT OR TORT, EVEN IF ORACLE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. ORACLE'S ENTIRE LIABILITY FOR DAMAGES HEREUNDER SHALL IN NO EVENT EXCEED ONE THOUSAND DOLLARS (U.S. $1,000).

6   TERMINATION. This Agreement is effective until terminated. You may terminate this Agreement at any time by destroying all copies of Software. This Agreement will terminate immediately without notice from Oracle if you fail to comply with any provision of this Agreement. Either party may terminate this Agreement immediately should any Software become, or in either party's opinion be likely to become, the subject of a claim of infringement of any intellectual property right. Upon termination, you must destroy all copies of Software.

7   EXPORT REGULATIONS. You agree that U.S. export control laws and other applicable export and import laws govern your use of the Software, including technical data; additional information can be found on Oracle's Global Trade Compliance web site (http://www.oracle.com/us/products/export). You agree that neither the Software nor any direct product thereof will be exported, directly, or indirectly, in violation of these laws, or will be used for any purpose prohibited by these laws including, without limitation, nuclear, chemical, or biological weapons proliferation.

8   TRADEMARKS AND LOGOS. You acknowledge and agree as between youand Oracle that Oracle owns the ORACLE and JAVA trademarks and all ORACLE- and JAVA-related trademarks, service marks, logos and other branddesignations ("Oracle Marks"), and you agree to comply with the ThirdParty Usage Guidelines for Oracle Trademarks currently located athttp://www.oracle.com/us/legal/third-party-trademarks/index.html . Any use you make of the Oracle Marks inures to Oracle's benefit.

9   U.S. GOVERNMENT licensesRIGHTS. If Software is being acquired by or on behalf of the U.S. Government or by a U.S. Government prime contractor or subcontractor (at any tier), then the Government's rights in Software and accompanying documentation shall be only those set forth in this Agreement.

10   GOVERNING LAW. This agreement is governed by the substantive and procedural laws of California. You and Oracle agree to submit to the exclusive jurisdiction of, and venue in, the courts of San Francisco, or Santa Clara counties in California in any dispute arising out of or relating to this agreement.

11   SEVERABILITY. If any provision of this Agreement is held to be unenforceable, this Agreement will remain in effect with the provision omitted, unless omission would frustrate the intent of the parties, in which case this Agreement will immediately terminate.

12   INTEGRATION. This Agreement is the entire agreement between you and Oracle relating to its subject matter. It supersedes all prior or contemporaneous oral or written communications, proposals, representations and warranties and prevails over any conflicting or additional terms of any quote, order, acknowledgment, or other communication between the parties relating to its subject matter during the term of this Agreement. No modification of this Agreement will be binding, unless in writing and signed by an authorized representative of each party.SUPPLEMENTAL licensesTERMSThese Supplemental licensesTerms add to or modify the terms of the Binary Code licensesAgreement. Capitalized terms not defined in these Supplemental Terms shall have the same meanings ascribed to them in the Binary Code licensesAgreement. These Supplemental Terms shall supersede any inconsistent or conflicting terms in the Binary Code licensesAgreement, or in any licensescontained within the Software.

a   COMMERCIAL FEATURES. You may not use the Commercial Features for running Programs, Java applets or applications in your internal business operations or for any commercial or production purpose, or for any purpose other than as set forth in Sections

B, C, D and E of these Supplemental Terms. If You want to use the Commercial Features for any purpose other than as permitted in this Agreement, You must obtain a separate licensesfrom Oracle.

b SOFTWARE INTERNAL USE FOR DEVELOPMENT licensesGRANT. Subject to the terms and conditions of this Agreement and restrictions and exceptions set forth in the README File incorporated herein by reference, including, but not limited to the Java Technology Restrictions of these Supplemental Terms, Oracle grants you a non-exclusive, non-transferable, limited licenseswithout fees to reproduce internally and use internally the Software complete and unmodified for the purpose of designing, developing, and testing your Programs.

c licensesTO DISTRIBUTE SOFTWARE. Subject to the terms and conditions of this Agreement and restrictions and exceptions set forth in the README File, including, but not limited to the Java Technology Restrictions and Limitations on Redistribution of these Supplemental Terms, Oracle grants you a non-exclusive, non-transferable, limited licenseswithout fees to reproduce and distribute the Software, provided that

1 you distribute the Software complete and unmodified and only bundled as part of, and for the sole purpose of running, your Programs,

2 the Programs add significant and primary functionality to the Software

3 you do not distribute additional software intended to replace any component(s) of the Software, (iv) you do not remove or alter any proprietary legends or notices contained in the Software, (v) you only distribute the Software subject to a licensesagreement that:

    a is a complete, unmodified reproduction of this Agreement; or

    b protects Oracle's interests consistent with the terms contained in this Agreement and that includes the notice set forth in Section H, and

4 you agree to defend and indemnify Oracle and its licensors from and against any damages, costs, liabilities, settlement amounts and/or expenses (including attorneys' fees) incurred in connection with any claim, lawsuit or action by any third party that arises or results from the use or distribution of any and all Programs and/or Software. The licensesset forth in this Section C does not extend to the Software identified in Section G.D. licensesTO DISTRIBUTE REDISTRIBUTABLES. Subject to the terms and conditions of this Agreement and restrictions and exceptions set forth in the README File, including but not limited to the Java Technology Restrictions and Limitations on Redistribution of these Supplemental Terms, Oracle grants you a non-exclusive, non-transferable, limited licenseswithout fees to reproduce and distribute those files specifically identified as redistributable in the README File ("Redistributables") provided that:

    a you distribute the Redistributables complete and unmodified, and only bundled as part of Programs,

    b the Programs add significant and primary functionality to the Redistributables,

    c you do not distribute additional software intended to supersede any component(s) of the Redistributables (unless otherwise specified in the applicable README File),

    d you do not remove or alter any proprietary legends or notices contained in or on the Redistributables,

    e you only distribute the Redistributables pursuant to a licensesagreement that: (a) is a complete, unmodified reproduction of this Agreement; or (b) protects Oracle's interests consistent with the terms contained in the Agreement and includes the notice set forth in Section H,

    f you agree to defend and indemnify Oracle and its licensors from and against any damages, costs, liabilities, settlement amounts and/or expenses (including attorneys' fees) incurred in connection with any claim, lawsuit or action by any third party that arises or results from the use or distribution of any and all Programs and/or Software. The licensesset forth in this Section D does not extend to the Software identified in Section G.E. DISTRIBUTION BY PUBLISHERS. This section pertains to your distribution of the JavaTM SE Development Kit Software ("JDK") with your printed book or magazine (as those terms are commonly used in the industry) relating to Java technology ("Publication"). Subject to and conditioned upon your compliance with the restrictions and obligations contained in the Agreement, Oracle hereby grants to you a non-exclusive, nontransferable limited right to reproduce complete and unmodified copies of the JDK on electronic media (the "Media") for the sole purpose of inclusion and distribution with your Publication(s), subject to the following terms: (i) You may not distribute the JDK on a stand-alone basis; it must be distributed with your Publication(s); (ii) You are responsible for downloading the JDK from the applicable Oracle web site; (iii) You must refer to the JDK as JavaTM SE Development Kit; (iv) The JDK must be reproduced in its entirety and without any modification whatsoever (including with respect to all proprietary notices) and distributed with your Publication subject to a licensesagreement that is a complete, unmodified reproduction of this Agreement; (v) The Media label shall include the following information: "Copyright [YEAR], Oracle America, Inc. All rights reserved. Use is subject to licensesterms. ORACLE and JAVA trademarks and all ORACLE- and JAVA-related trademarks, service marks, logos and other brand designations are trademarks or registered trademarks of Oracle in the U.S. and other countries." [YEAR] is the year of Oracle's release of the Software; the year information can typically be found in the Software's "About" box or screen. This information must be placed on the Media label in such a manner as to only apply to the JDK; (vi) You must clearly identify the JDK as Oracle's product on the Media holder or Media label, and you may not state or imply that Oracle is responsible for any third-party software contained on the Media;

g   You may not include any third party software on the Media which is intended to be a replacement or substitute for the JDK;

h   You agree to defend and indemnify Oracle and its licensors from and against any damages, costs, liabilities, settlement amounts and/or expenses (including attorneys' fees) incurred in connection with any claim, lawsuit or action by any third party that arises or results from the use or distribution of the JDK and/or the Publication; ; and

i   You shall provide Oracle with a written notice for each Publication; such notice shall include the following information: (1) title of Publication, (2) author(s), (3) date of Publication, and (4) ISBN or ISSN numbers. Such notice shall be sent to Oracle America, Inc., 500 Oracle Parkway, Redwood Shores, California 94065 U.S.A , Attention: General Counsel.F. JAVA TECHNOLOGY RESTRICTIONS. You may not create, modify, or change the behavior of, or authorize your licensees to create, modify, or change the behavior of, classes, interfaces, or subpackages that are in any way identified as "java", "javax", "sun", "oracle" or similar convention as specified by Oracle in any naming convention designation.G. LIMITATIONS ON REDISTRIBUTION. You may not redistribute or otherwise transfer patches, bug fixes or updates made available by Oracle through Oracle Premier Support, including those made available under Oracle's Java SE Support program.H. COMMERCIAL FEATURES NOTICE. For purpose of complying with Supplemental Term Section C.(v)(b) and D.(v)(b), your licensesagreement shall include the following notice, where the notice is displayed in a manner that anyone using the Software will see the notice:Use of the Commercial Features for any commercial or production purpose requires a separate licensesfrom Oracle. "Commercial Features" means those features identified Table 1-1 (Commercial Features In Java SE Product Editions) of the Java SE documentation accessible at http://www.oracle.com/technetwork/java/javase/documentation/index.html I. SOURCE CODE. Software may contain source code that, unless expressly licensed for other purposes, is provided solely for reference purposes pursuant to the terms of this Agreement. Source code may not be redistributed unless expressly provided for in this Agreement.J. THIRD PARTY CODE. Additional copyright notices and licensesterms applicable to portions of the Software are set forth in the THIRDPARTYLICENSEREADME file accessible at http://www.oracle.com/technetwork/java/javase/documentation/index.html. In addition to any terms and conditions of any third party opensource/freeware licensesidentified in the THIRDPARTYLICENSEREADME file, the disclaimer of warranty and limitation of liability provisions in paragraphs 4 and 5 of the Binary Code licensesAgreement shall apply to all Software in this distribution.K. TERMINATION FOR INFRINGEMENT. Either party may terminate this Agreement immediately should any Software become, or in either party's opinion be likely to become, the subject of a claim of infringement of any intellectual property right.L. INSTALLATION AND AUTO-UPDATE. The Software's installation and auto-update processes transmit a limited amount of data to Oracle (or its service provider) about those specific processes to help Oracle understand and optimize them. Oracle does not associate the data with personally identifiable information. You can find more information about the data Oracle collects as a result of your Software download at http://www.oracle.com/technetwork/java/javase/documentation/index.html.For inquiries please contact: Oracle America, Inc., 500 Oracle Parkway,Redwood Shores, California 94065, USA.Last updated 02 April 2013

GNU GPL V2

This program is free software; you can redistribute it and/or modify it underthe terms of the GNU General Public licensesas published by the Free SoftwareFoundation; version 2 of the License.This program is distributed in the hope that it will be useful, but WITHOUTANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESSFOR A PARTICULAR PURPOSE. See the GNU General Public licensesfor more details.You should have received a copy of the GNU General Public licensesalong withthis program; if not, write to the Free Software Foundation, Inc., 51 Franklin St,Fifth Floor, Boston, MA 02110-1301 USA

Eclipse Public licenses- v 1.0

THE ACCOMPANYING PROGRAM IS PROVIDED UNDER THE TERMS OF THIS ECLIPSE PUBLIC licenses("AGREEMENT"). ANY USE, REPRODUCTION OR DISTRIBUTION OF THE PROGRAM CONSTITUTES RECIPIENT'S ACCEPTANCE OF THIS AGREEMENT.

1   DEFINITIONS

: "Contribution" means:

- in the case of the initial Contributor, the initial code and documentation distributed under this Agreement, and
- in the case of each subsequent Contributor:
- changes to the Program, and
- additions to the Program;

where such changes and/or additions to the Program originate from and are distributed by that particular Contributor. A Contribution 'originates' from a Contributor if it was added to the Program by such Contributor itself or anyone acting on such Contributor's behalf. Contributions do not include additions to the Program which: (i) are separate modules of software distributed in conjunction with the Program under their own licensesagreement, and (ii) are not derivative works of the Program.

"Contributor" means any person or entity that distributes the Program.

"Licensed Patents " mean patent claims licensable by a Contributor which are necessarily infringed by the use or sale of its Contribution alone or when combined with the Program.

"Program" means the Contributions distributed in accordance with this Agreement.

"Recipient" means anyone who receives the Program under this Agreement, including all Contributors.

2   GRANT OF RIGHTS

a   Subject to the terms of this Agreement, each Contributor hereby grants Recipient a non-exclusive, worldwide, royalty-free copyright licensesto reproduce, prepare derivative works of, publicly display, publicly perform, distribute and sublicensesthe Contribution of such Contributor, if any, and such derivative works, in source code and object code form.

b   Subject to the terms of this Agreement, each Contributor hereby grants Recipient a non-exclusive, worldwide, royalty-free patent licensesunder Licensed Patents to make, use, sell, offer to sell, import and otherwise transfer the Contribution of such Contributor, if any, in source code and object code form. This patent licensesshall apply to the combination of the Contribution and the Program if, at the time the Contribution is added by the Contributor, such addition of the Contribution causes such combination to be covered by the Licensed Patents. The patent licensesshall not apply to any other combinations which include the Contribution. No hardware per se is licensed hereunder.

c   Recipient understands that although each Contributor grants the licenses to its Contributions set forth herein, no assurances are provided by any Contributor that the Program does not infringe the patent or other intellectual property rights of any other entity. Each Contributor disclaims any liability to Recipient for claims brought by any other entity based on infringement of intellectual property rights or otherwise. As a condition to exercising the rights and licenses granted hereunder, each Recipient hereby assumes sole responsibility to secure any other intellectual property rights needed, if any. For example, if a third party patent licensesis required to allow Recipient to distribute the Program, it is Recipient's responsibility to acquire that licensesbefore distributing the Program.

d   Each Contributor represents that to its knowledge it has sufficient copyright rights in its Contribution, if any, to grant the copyright licensesset forth in this Agreement.

3   REQUIREMENTS

A Contributor may choose to distribute the Program in object code form under its own licensesagreement, provided that:

a   it complies with the terms and conditions of this Agreement; andb) its licensesagreement:i) effectively disclaims on behalf of all Contributors all warranties and conditions, express and implied, including warranties or conditions of title and non-infringement, and implied warranties or conditions of merchantability and fitness for a particular purpose;ii) effectively excludes on behalf of all Contributors all liability for damages, including direct, indirect, special, incidental and consequential damages, such as lost profits;iii) states that any provisions which differ from this Agreement are offered by that Contributor alone and not by any other party; andiv) states that source code for the Program is available from such Contributor, and informs licensees how to obtain it in a reasonable manner on or through a medium customarily used for software exchange.When the Program is made available in source code form:a) it must be made available under this Agreement; and

b   a copy of this Agreement must be included with each copy of the Program.Contributors may not remove or alter any copyright notices contained within the Program.Each Contributor must identify itself as the originator of its Contribution, if any, in a manner that reasonably allows subsequent Recipients to identify the originator of the Contribution.

4   COMMERCIAL DISTRIBUTION

•   Commercial distributors of software may accept certain responsibilities with respect to end users, business partners and the like. While this licensesis intended to facilitate the commercial use of the Program, the Contributor who includes the Program in a commercial product offering should do so in a manner which does not create potential liability for other Contributors. Therefore, if a Contributor includes the Program in a commercial product offering, such Contributor ("Commercial Contributor") hereby agrees to defend and indemnify every other Contributor ("Indemnified Contributor") against any losses, damages and costs (collectively "Losses") arising from claims, lawsuits and other legal actions brought by a third party against the Indemnified Contributor to the extent caused by the acts or omissions of such Commercial Contributor in connection with its distribution of the Program in a commercial product offering. The obligations in this section do not apply to any claims or Losses relating to any actual or alleged intellectual property infringement. In order to qualify, an Indemnified Contributor must: a) promptly notify the Commercial Contributor in writing of such claim, and b) allow the Commercial Contributor to control, and cooperate with the Commercial Contributor in, the defense and any related settlement negotiations. The Indemnified Contributor may participate in any such claim at its own expense.

•   For example, a Contributor might include the Program in a commercial product offering, Product X. That Contributor is then a Commercial Contributor. If that Commercial Contributor then makes performance claims, or offers warranties related to Product X, those performance claims and warranties are such Commercial Contributor's responsibility alone. Under this section, the

Commercial Contributor would have to defend claims against the other Contributors related to those performance claims and warranties, and if a court requires any other Contributor to pay any damages as a result, the Commercial Contributor must pay those damages.

5   NO WARRANTY:

- EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, THE PROGRAM IS PROVIDED ON AN "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OR CONDITIONS OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Each Recipient is solely responsible for determining the appropriateness of using and distributing the Program and assumes all risks associated with its exercise of rights under this Agreement , including but not limited to the risks and costs of program errors, compliance with applicable laws, damage to or loss of data, programs or equipment, and unavailability or interruption of operations.

6   DISCLAIMER OF LIABILITY

- EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER RECIPIENT NOR ANY CONTRIBUTORS SHALL HAVE ANY LIABILITY FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION LOST PROFITS), HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OR DISTRIBUTION OF THE PROGRAM OR THE EXERCISE OF ANY RIGHTS GRANTED HEREUNDER, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

7   GENERAL

- If any provision of this Agreement is invalid or unenforceable under applicable law, it shall not affect the validity or enforceability of the remainder of the terms of this Agreement, and without further action by the parties hereto, such provision shall be reformed to the minimum extent necessary to make such provision valid and enforceable.

- If Recipient institutes patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Program itself (excluding combinations of the Program with other software or hardware) infringes such Recipient's patent(s), then such Recipient's rights granted under Section 2(b) shall terminate as of the date such litigation is filed.

- All Recipient's rights under this Agreement shall terminate if it fails to comply with any of the material terms or conditions of this Agreement and does not cure such failure in a reasonable period of time after becoming aware of such noncompliance. If all Recipient's rights under this Agreement terminate, Recipient agrees to cease use and distribution of the Program as soon as reasonably practicable. However, Recipient's obligations under this Agreement and any licenses granted by Recipient relating to the Program shall continue and survive.

- Everyone is permitted to copy and distribute copies of this Agreement, but in order to avoid inconsistency the Agreement is copyrighted and may only be modified in the following manner. The Agreement Steward reserves the right to publish new versions (including revisions) of this Agreement from time to time. No one other than the Agreement Steward has the right to modify this Agreement. The Eclipse Foundation is the initial Agreement Steward. The Eclipse Foundation may assign the responsibility to serve as the Agreement Steward to a suitable separate entity. Each new version of the Agreement will be given a distinguishing version number. The Program (including Contributions) may always be distributed subject to the version of the Agreement under which it was received. In addition, after a new version of the Agreement is published, Contributor may elect to distribute the Program (including its Contributions) under the new version. Except as expressly stated in Sections 2(a) and 2(b) above, Recipient receives no rights or licenses to the intellectual property of any Contributor under this Agreement, whether expressly, by implication, estoppel or otherwise. All rights in the Program not expressly granted under this Agreement are reserved.

- This Agreement is governed by the laws of the State of New York and the intellectual property laws of the United States of America. No party to this Agreement will bring a legal action under this Agreement more than one year after the cause of action arose. Each party waives its rights to a jury trial in any resulting litigation.

MIT

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Public Domain

The AOP Alliance project is a joint open-source project between several software engineering people who are interested in AOP and Java. LICENCE: all the source code provided by AOP Alliance is Public Domain

MIT

LICENSECopyright (c) 2000 - 2016 The Legion of the Bouncy Castle Inc. (https://www.bouncycastle.org)Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

BSD-3 Clause

BSD licenses Copyright (c) 2000-2006, www.hamcrest.org All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. Neither the name of Hamcrest nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

MIT

licenses

The Hockey SDK is provided under the following license:

The MIT licenses

Copyright (c) Microsoft Corporation.

All rights reserved.

- Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:
- The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.
- THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.
- Except as noted below, PLCrashReporter is provided under the following license:

Copyright (c) 2008 - 2015 Plausible Labs Cooperative, Inc.

1   The protobuf-c library, as well as the PLCrashLogWriterEncoding.cfile are licensed as follows:

Copyright 2008, Dave Benson.

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the licenses at http://www.apache.org/licenses/LICENSE-2.0 Unless required by applicable law or agreed to in writing, software distributed under the licensesis distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the licensesfor the specific language governing permissions and limitations under the License.

2   TTTAttributedLabel is licensed as follows:

Copyright (c) 2011 Mattt Thompson (http://mattt.me/)

- Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

- The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

- THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

3   SFHFKeychainUtils is licensed as follows: Created by Buzz Andersen on 10/20/08. Based partly on code by Jonathan Wight, Jon Crosby, and Mike Malone. Copyright 2008 Sci-Fi Hi-Fi. All rights reserved.

- Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

- The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

- THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

4   GZIP is licensed as follow:

Created by Nick Lockwood on 03/06/2012.

Copyright (C) 2012 Charcoal Design

Distributed under the permissive zlib licensesGet the latest version from here:

https://github.com/nicklockwood/GZIP

This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software. Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions:

a   The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.

b   Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.

c   This notice may not be removed or altered from any source distribution.

MIT

The MIT licenses(MIT) Copyright (c) 2016 TuroPermission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

zlib license

Copyright (c) <"year"> <"copyright holders">

This software is provided 'as-is', without any express or impliedwarranty. In no event will the authors be held liable for any damagesarising from the use of this software.Permission is granted to anyone to use this software for any purpose,including commercial applications, and to alter it and redistribute itfreely, subject to the following restrictions:

1   The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required

2   Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software

3   This notice may not be removed or altered from any source distribution.

MIT

Copyright (c) 2008 Jesse Beder. Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

GNU GPL V2

Copyright (c) 2014-2016 MongoDB, Inc.

Copyright (c) 2008-2014 WiredTiger, Inc.

All rights reserved.

This program is free software: you can redistribute it and/or modify it under the terms of either version 2 or version 3 of the GNU General Public licensesas published by the Free Software Foundation. This program is distributed in the hope that it will be useful, but WITHOUT

ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public licensesfor more details. For a licensesto use the WiredTiger software under conditions other than those described by the GNU General Public License, or for technical support for this software, contact WiredTiger, Inc. at info@wiredtiger.com. For further information, see the licensing section in the documentation.

unicode licensesagreement

EXHIBIT 1

UNICODE, INC. licensesAGREEMENT - DATA FILES AND SOFTWAREUnicode Data Files include all data files under the directorieshttp://www.unicode.org/Public/, http://www.unicode.org/reports/,http://www.unicode.org/cldr/data/, http://source.icu-project.org/repos/icu/, andhttp://www.unicode.org/utility/trac/browser/.Unicode Data Files do not include PDF online code charts under thedirectory http://www.unicode.org/Public/.Software includes any source code published in the Unicode Standardor under the directorieshttp://www.unicode.org/Public/, http://www.unicode.org/reports/,http://www.unicode.org/cldr/data/, http://source.icu-project.org/repos/icu/, andhttp://www.unicode.org/utility/trac/browser/.

NOTICE TO USER: Carefully read the following legal agreement.BY DOWNLOADING, INSTALLING, COPYING OR OTHERWISE USING UNICODE INC.'SDATA FILES ("DATA FILES"), AND/OR SOFTWARE ("SOFTWARE"),YOU UNEQUIVOCALLY ACCEPT, AND AGREE TO BE BOUND BY, ALL OF THETERMS AND CONDITIONS OF THIS AGREEMENT.IF YOU DO NOT AGREE, DO NOT DOWNLOAD, INSTALL, COPY, DISTRIBUTE OR USETHE DATA FILES OR SOFTWARE.COPYRIGHT AND PERMISSION NOTICE

Copyright © 1991-2017 Unicode, Inc. All rights reserved.Distributed under the Terms of Use in http://www.unicode.org/copyright.html.Permission is hereby granted, free of charge, to any person obtaining copy of the Unicode data files and any associated documentation(the "Data Files") or Unicode software and any associated documentation(the "Software") to deal in the Data Files or Softwarewithout restriction, including without limitation the rights to use,copy, modify, merge, publish, distribute, and/or sell copies ofthe Data Files or Software, and to permit persons to whom the Data Filesor Software are furnished to do so, provided that either(a) this copyright and permission notice appear with all copiesof the Data Files or Software, or(b) this copyright and permission notice appear in associatedDocumentation.

THE DATA FILES AND SOFTWARE ARE PROVIDED "AS IS", WITHOUT WARRANTY OFANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THEWARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE ANDNONINFRINGEMENT OF THIRD PARTY RIGHTS.IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THISNOTICE BE LIABLE FOR ANY CLAIM, OR ANY SPECIAL INDIRECT OR CONSEQUENTIALDAMAGES, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE,DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHERTORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE ORPERFORMANCE OF THE DATA FILES OR SOFTWARE.

Except as contained in this notice, the name of a copyright holdershall not be used in advertising or otherwise to promote the sale,use or other dealings in these Data Files or Software without priorwritten authorization of the copyright holder.

BSD 3 Clause

Copyright 2011, Google Inc. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:
- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- Neither the name of Google Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

MIT

Copyright and licensesfor SCons - a software construction tool

This copyright and licensesdo not apply to any other software with which this software may have been included.

Copyright (c) 2001 - 2016 The SCons Foundation Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

PCRE license

PCRE LICENCE

PCRE is a library of functions to support regular expressions whose syntax and semantics are as close as possible to those of the Perl 5 language.

Release 8 of PCRE is distributed under the terms of the "BSD" licence, as specified below. The documentation for PCRE, supplied in the "doc" directory, is distributed under the same terms as the software itself. The data in the testdata directory is not copyrighted and is in the public domain.

The basic library functions are written in C and are freestanding. Also included in the distribution is a set of C++ wrapper functions, and a just-in-time compiler that can be used to optimize pattern matching. These are both optional features that can be omitted when the library is built.

THE BASIC LIBRARY FUNCTIONS

Written by: Philip Hazel

Email local part: ph10

Email domain: cam.ac.uk University of Cambridge Computing Service, Cambridge, England.

Copyright (c) 1997-2015 University of Cambridge All rights reserved.

PCRE JUST-IN-TIME COMPILATION SUPPORT

Written by: Zoltan Herczeg Email local part: hzmester Emain domain: freemail.hu Copyright(c) 2010-2015 Zoltan Herczeg All rights reserved.

STACK-LESS JUST-IN-TIME COMPILER

Written by: Zoltan Herczeg Email local part: hzmester Emain domain: freemail.hu Copyright(c) 2009-2015 Zoltan Herczeg All rights reserved.

THE C++ WRAPPER FUNCTIONS

Contributed by: Google Inc. Copyright (c) 2007-2012, Google Inc.

All rights reserved.

THE "BSD" LICENCE Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

· Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- Neither the name of the University of Cambridge nor the name of Google Inc. nor the names of their contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

End

MPL-2.0 ,GPL-2,LGPL-2.1,BSD-2-Clause,MIT,LGPL-2+, public-domain,ICU

Format: http://www.debian.org/doc/packaging-manuals/copyright-format/1.0/Upstream-Name: SpiderMonkeySource: http://ftp.mozilla.org/pub/mozilla.org/js/ Repacked latest Firefox 38 ESR to more closely match mozjs38 tarball

License: MPL-2.0 This Source Code Form is subject to the terms of the Mozilla Public License, version 2.0.

The complete text of the Mozilla Public licensescan be found in the `LICENSE' file in the source tarball or online at <http://mozilla.org/MPL/2.0/>.

License: GPL-2 This program is free software: you can redistribute it and/or modify it under the terms of the GNU General Public licensesas published by the Free Software Foundation, version 2 of the License.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public licensesfor more details.

You should have received a copy of the GNU General Public licensesalong with this program. If not, see <http://www.gnu.org/licenses/>.

On Debian systems, the complete text of the GNU General Public licensescan be found in the file /usr/share/common-licenses/GPL-2'.

License: LGPL-2.1 This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public licensesas published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public licensesfor more details.

You should have received a copy of the GNU Lesser General Public licensesalong with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

On Debian systems, the complete text of the GNU Lesser General Public licensescan be found in the file `/usr/share/common-licenses/LGPL-2.1'.

License: BSD-2-Clause Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1   Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2   Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS ``AS IS'' AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)

HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

License: BSD-3-Clause Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1 Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2 Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS ``AS IS'' AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

License: MIT Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Files: *Copyright: 2005-2014 Mozilla CorporationLicense: MPL-2.0

Files: js/src/dtoa.cCopyright: 1991, 2000, 2001 Lucent TechnologiesLicense: Other

Permission to use, copy, modify, and distribute this software for any purpose without fee is hereby granted, provided that this entire notice is included in all copies of any software which is or includes a copy or modification of this software and in all copies of the supporting documentation for such software.

THIS SOFTWARE IS BEING PROVIDED "AS IS", WITHOUT ANY EXPRESS OR IMPLIED WARRANTY. IN PARTICULAR, NEITHER THE AUTHOR NOR LUCENT MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND CONCERNING THE MERCHANTABILITY OF THIS SOFTWARE OR ITS FITNESS FOR ANY PARTICULAR PURPOSE.

Files: js/src/assembler/assembler/AbstractMacroAssembler.h

js/src/assembler/assembler/AssemblerBuffer.h

js/src/assembler/assembler/CodeLocation.h

js/src/assembler/assembler/LinkBuffer.h

js/src/assembler/assembler/MacroAssemblerCodeRef.h

js/src/assembler/assembler/MacroAssembler.h

js/src/assembler/assembler/MacroAssemblerX86_64.h

js/src/assembler/assembler/MacroAssemblerX86Common.h

js/src/assembler/assembler/MacroAssemblerX86.h

js/src/assembler/assembler/RepatchBuffer.h

js/src/assembler/assembler/X86Assembler.h

js/src/assembler/jit/ExecutableAllocator.cpp

js/src/assembler/jit/ExecutableAllocator.h

js/src/assembler/jit/ExecutableAllocatorOS2.cpp

js/src/assembler/jit/ExecutableAllocatorPosix.cpp

js/src/assembler/jit/ExecutableAllocatorWin.cpp

js/src/assembler/wtf/Assertions.h

js/src/assembler/wtf/SegmentedVector.h

js/src/assembler/wtf/VMTags.h js/src/yarr/*

Copyright: 2003-2009 Apple Inc.License: BSD-2-Clause

Files: js/src/assembler/assembler/ARMAssembler.cpp

js/src/assembler/assembler/ARMAssembler.h

js/src/assembler/assembler/AssemblerBufferWithConstantPool.h

js/src/assembler/assembler/MacroAssemblerARM.cppCopyright: 2009-2010 University of SzegedLicense: BSD-2-Clause

Files: js/src/assembler/assembler/ARMv7Assembler.h js/src/assembler/assembler/MacroAssemblerARM.h js/src/assembler/assembler/
MacroAssemblerARMv7.hCopyright: 2009-2010 University of Szeged 2008-2009 Apple Inc.License: BSD-2-Clause

Files: js/src/assembler/assembler/MacroAssemblerMIPS.hCopyright: 2010 MIPS Technologies, Inc., 2008 Apple Inc.License: BSD-2-Clause

Files: js/src/assembler/assembler/MIPSAssembler.hCopyright: 2010 MIPS Technologies, Inc., 2009 University of Szeged, 2009 Apple
Inc.License: BSD-2-Clause

Files: js/src/assembler/wtf/Assertions.cppCopyright: 2007-2009 Torch Mobile, Inc., 2003, 2006, 2007 Apple Inc.License: BSD-2-Clause

Files: js/src/assembler/jit/ExecutableAllocatorSymbian.cppCopyright: 2009 Nokia Corporation and/or its subsidiary(-ies)License: LGPL-2+

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public licensesas published
by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of
MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public licensesfor more details.

You should have received a copy of the GNU Lesser General Public licensesalong with this library; if not, write to the Free Software
Foundation, Inc., 51 Franklin Street - Suite 500, Boston, MA 02110-1335, USA.

On Debian systems, the complete text of the GNU Lesser General Public licensescan be found in `/usr/share/common-licenses/LGPL-2'

Files: js/src/builtin/js2c.py js/src/builtin/jsmin.py js/src/builtin/macros.pyCopyright: 2006-2012 the V8 project authorsLicense: BSD-3-
Clause

Files: js/src/config/mkdepend/*Copyright: 1992 Network Computing Devices, Inc. 1993, 1994, 1998 The Open GroupLicense: Other
Permission to use, copy, modify, distribute, and sell this software and its documentation for any purpose is hereby granted without fee,

provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation. . The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE OPEN GROUP BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Files: js/src/config/mkdepend/imakemdep.hCopyright: 1993, 1994 X ConsortiumLicense: MIT

Files: js/src/ctypes/libffi/*

Copyright: 1996-2003, 2007-2008, Red Hat, Inc.

2002, 2006-2009, Free Software Foundation, Inc

2009, Bradley Smith <brad@brad-smith.co.uk>

1998, Cygnus Solutions

2004, Simon Posnjak

2005, Axis Communications AB

2004, 2009, Anthony Green

2000, Hewlett Packard Company

2004, Renesas Technology

2008, David Daney

2003-2004, Randolph Chung <tausq@debian.org>

1998, Geoffrey Keating

2001, John Hornkvist

2000, 2007, Software AG

2002-2008, Kaz Kojima

2002, Ranjit Mathew

2002, Bo Thorsen

2002, Roger Sayle

License: MIT

Files: js/src/jit-test/tests/arguments/strict-args.js

js/src/jit-test/tests/arguments/strict-nested-shadow-eval.js

js/src/jit-test/tests/arguments/nonstrict-assign.js

js/src/jit-test/tests/arguments/strict-nested-assign-shadowed-var.js

js/src/jit-test/tests/arguments/nonstrict-noargs.js

js/src/jit-test/tests/arguments/strict-nested-assign-shadow-function.js

js/src/jit-test/tests/arguments/strict-assign-outer-param.js

js/src/jit-test/tests/arguments/strict-nested-assign-shadowed-catch.js

js/src/jit-test/tests/arguments/nonstrict-assign-parameter-get-element.js

js/src/jit-test/tests/arguments/nonstrict-assign-element-get-parameter.js

js/src/jit-test/tests/arguments/strict-assign-after.js

js/src/jit-test/tests/arguments/strict-eval-mutation.js

js/src/jit-test/tests/arguments/strict-assign.js

js/src/jit-test/tests/arguments/strict-nested-assign-shadowed-catch-call.js

js/src/jit-test/tests/arguments/strict-nested-shadow-maybe-eval.js

js/src/jit-test/tests/arguments/strict-noargs.js

js/src/jit-test/tests/arguments/strict-nested-assign-shadow-function-name.js

js/src/jit-test/tests/arguments/strict-nested-eval.js

js/src/jit-test/tests/arguments/strict-eval.js

js/src/jit-test/tests/arguments/nonstrict-args.js

js/src/jit-test/tests/arguments/strict-assign-outer-param-psych.js

js/src/jit-test/tests/arguments/strict-assign-parameter-get-element.js

js/src/jit-test/tests/arguments/strict-maybe-assign-outer.js

js/src/jit-test/tests/arguments/nonstrict-later-assign.js

js/src/jit-test/tests/arguments/strict-maybe-nested-eval.js

js/src/jit-test/tests/arguments/strict-args-flushstack.js

js/src/jit-test/tests/arguments/strict-assign-arguments-element.js

js/src/jit-test/tests/arguments/strict-args-generator-flushstack.js

js/src/jit-test/tests/arguments/strict-nested-assign-shadow-function-call.js

js/src/jit-test/tests/basic/bug584565.js

js/src/jit-test/tests/basic/bug586917.js

js/src/jit-test/tests/basic/wrap-primitive-this.js

js/src/jit-test/tests/basic/bug513898-regexp.js

js/src/jit-test/tests/basic/bug625141-2.js

js/src/jit-test/tests/basic/bug625141-1.js

Copyright: not applicableLicense: public-domain The files listed have been put on the public domain by the Mozilla contributors, as stated in the licensesheaders of each file.

Files: js/src/yarr/Yarr.h

js/src/yarr/YarrInterpreter.cpp

js/src/yarr/YarrPattern.cpp

js/src/yarr/YarrPattern.h

Copyright: 2010 Peter Varga <pvarga@inf.u-szeged.hu>, 2010 University of Szeged, 2009 Apple Inc.

License: BSD-2-Clause

Files: js/src/jit-test/tests/sunspider/* js/src/metrics/jint/sunspider/*Copyright: 2007 Apple Inc.,

2005 Bob Ippolito,

2004 Arthur Langereis,

1999-2002 Paul Johnston,

Arthur Langereis,

Ian Osgood,

Isaac Gouy,

Jesse Millikan,

Rich Moore,

Simon Speich

License: BSD-2-Clause Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1   Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2   Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

Files: js/src/jit-test/tests/v8-v5/check-crypto.js

js/src/v8/crypto.js

Copyright: 2003-2005 Tom WuLicense: MIT

Files: js/src/jit-test/tests/v8-v5/check-deltablue.js js/src/v8/deltablue.jsCopyright:

2008 the V8 project authors

2008 Google

1996 John Maloney

1996 Mario Wolczko

License: GPL-2+

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public licensesas published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public licensesfor more details.

You should have received a copy of the GNU General Public licensesalong with this package; if not, write to the Free Software Foundation, Inc., 51 Franklin St, Fifth Floor, Boston, MA 02110-1301 USA

On Debian systems, the full text of the GNU General Public licensesversion 2 can be found in the file `/usr/share/common-licenses/GPL-2'.

Files: js/src/jit-test/v8-v5/check-regexp.js

js/src/jit-test/v8-v5/check-richards.js

js/src/jit-test/v8-v5/check-splay.js

js/src/metrics/jint/v8/base.js

js/src/metrics/jint/v8/crypto.js

js/src/metrics/jint/v8/deltablue.js

js/src/metrics/jint/v8/richards.js

js/src/metrics/jint/v8/run-earley-boyer.js

js/src/metrics/jint/v8/run-raytrace.js

js/src/metrics/jint/v8/run-richards.js

js/src/metrics/jint/v8/run.js

js/src/v8/base.js

js/src/v8/crypto.js

js/src/v8/deltablue.js

js/src/v8/richards.js

js/src/v8/run-crypto.js

js/src/v8/run-deltablue.js

js/src/v8/run-earley-boyer.js

js/src/v8/run-raytrace.js

js/src/v8/run-richards.js

js/src/v8/run.js js/src/v8-dtoa/*Copyright: 2006-2010 the V8 project authors

2007, 2008 GoogleLicense: BSD-3-ClauseFiles: js/src/metrics/jint/sunspider/crypto-md5.js

js/src/metrics/jint/sunspider/crypto-sha1.js

js/src/metrics/jint/sunspider/math-cordic.js

Copyright: 2007 Apple Inc., 1999-2002 Paul Johnston, Greg Holt, Andrew Kepert, Ydnar, Lostinet, Rich MooreLicense: BSD-2-ClauseFiles: js/src/jit-test/tests/sunspider/check-date-format-xparb.js js/src/metrics/jint/sunspider/date-format-xparb.js

Copyright: 2004 Baron SchwartzLicense: LGPL-2.1

Files: js/src/python/which/*Copyright: 2002-2005 ActiveState Corp.License: Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: .

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Files: mfbt/MSStdInt.hCopyright: 2006-2008 Alexander ChemerisLicense: BSD-3-Clause

Files: intl/icu/*Copyright: 1995-2012 International Business Machines Corporation and othersLicense: ICU Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, provided that the above copyright notice(s) and this permission notice appear in all copies of the Software and that both the above copyright notice(s) and this permission notice appear in supporting documentation.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS NOTICE BE LIABLE FOR ANY CLAIM, OR ANY SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization of the copyright holder.

Files: debian/*Copyright: 2013- Laszlo Boszormenyi (GCS) <gcs@debian.org>, 2010 Canonical Ltd.License: GPL-2

Boost Software licensesVersion 1.0

Boost Software licenses- Version 1.0 - August 17th, 2003Permission is hereby granted, free of charge, to any person or organization obtaining a copy of the software and accompanying documentation covered by this licenses(the "Software") to use, reproduce, display, distribute,execute, and transmit the Software, and to prepare derivative works of theSoftware, and to permit third-parties to whom the Software is furnished todo so, all subject to the following:The copyright notices in the Software and this entire statement, including the above licensesgrant, this restriction and the following disclaimer,must be included in all copies of the Software, in whole or in part, and all derivative works of the Software, unless such copies or derivativeworks are solely in the form of machine-executable object code generated bya source language processor.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS ORIMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY,FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT. IN NO EVENTSHALL THE COPYRIGHT HOLDERS OR ANYONE DISTRIBUTING THE SOFTWARE BE LIABLEFOR ANY DAMAGES OR OTHER LIABILITY, WHETHER IN CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHERDEALINGS IN THE SOFTWARE.

BSD 3 Clause

Copyright (c) 2011, Intel Corp. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. Redistributions in binary form must reproduce the above copyright notice, his list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. Neither the name of Intel Corporation nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

BSD 3 Clause

Copyright (c) 2005, Google Inc.All rights reserved.Redistribution and use in source and binary forms, with or withoutmodification, are permitted provided that the following conditions aremet: Redistributions of source code must retain the above copyrightnotice, this list of conditions and the following disclaimer. Redistributions in binary form must reproduce the abovecopyright notice, this list of conditions and the following disclaimerin the documentation and/or other materials provided with thedistribution. Neither the name of Google Inc. nor the names of itscontributors may be used to endorse or promote products derived fromthis software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS"AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOTLIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FORA PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHTOWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOTLIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANYTHEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT(INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USEOF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Boost Software licenses- Version 1.0

Boost Software licenses- Version 1.0 - August 17th, 2003Permission is hereby granted, free of charge, to any person or organizationobtaining a copy of the software and accompanying documentation covered bythis licenses(the "Software") to use, reproduce, display, distribute,execute, and transmit the Software, and to prepare derivative works of theSoftware, and to permit third-parties to whom the Software is furnished todo so, all subject to the following:The copyright notices in the Software and this entire statement, includingthe above licensesgrant, this restriction and the following disclaimer,must be included in all copies of the Software, in whole or in part, andall derivative works of the Software, unless such copies or derivativeworks are solely in the form of machine-executable object code generated bya source language processor.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS ORIMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY,FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT. IN NO EVENTSHALL THE COPYRIGHT HOLDERS OR ANYONE DISTRIBUTING THE SOFTWARE BE LIABLEFOR ANY DAMAGES OR OTHER LIABILITY, WHETHER IN CONTRACT, TORT OR OTHERWISE,ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHERDEALINGS IN THE SOFTWARE.

GNU Affero General Public License(AGPL)

GNU AFFERO GENERAL PUBLIC licenses

Version 3, 19 November 2007 Copyright (C) 2007 Free Software Foundation, Inc. Everyone is permitted to copy and distribute verbatim copies of this licensesdocument, but changing it is not allowed.

Preamble The GNU Affero General Public licensesis a free, copyleft licensesfor software and other kinds of works, specifically designed to ensure cooperation with the community in the case of network server software. The licenses for most software and other practical works are designed to take away your freedom to share and change the works. By contrast, our General Public licenses are intended to guarantee your freedom to share and change all versions of a program--to make sure it remains free software for all its users. When we speak of free software, we are referring to freedom, not price. Our General Public licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs, and that you know you can do these things. Developers that use our General Public licenses protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this licenseswhich gives you legal permission to copy, distribute and/or modify the software. A secondary benefit of defending all users' freedom is that improvements made in alternate versions of the program, if they receive widespread use, become available for other developers to incorporate. Many developers of free software are heartened and encouraged by the resulting cooperation. However, in the case of software used on network servers, this result may fail to come about. The GNU General Public licensespermits making a modified version and letting the public access it on a server without ever releasing its source code to the public. The GNU Affero General Public licensesis designed specifically to ensure that, in such cases, the modified source code becomes available to the community. It requires the operator of a network server to provide the source code of the modified version running there to the users of that server. Therefore, public use of a modified version, on a publicly accessible server, gives the public access to the source code of the modified version. An older license, called the Affero General Public licensesand published by Affero, was designed to accomplish similar goals. This is a different license, not a version of the Affero GPL, but Affero has released a new version of the Affero GPL which permits relicensing under this license. The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS 0. Definitions.

"This License" refers to version 3 of the GNU Affero General Public License. "Copyright" also means copyright-like laws that apply to other kinds of works, such as semiconductor masks. "The Program" refers to any copyrightable work licensed under this License. Each licensee is addressed as "you". "Licensees" and "recipients" may be individuals or organizations. To "modify" a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy. The resulting work is called a "modified version" of the earlier work or a work "based on" the earlier work. A "covered work" means either the unmodified Program or a work based on the Program. To "propagate" a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well. To "convey" a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network, with no transfer of a copy, is not conveying. An interactive user interface displays "Appropriate Legal Notices" to the extent that it includes a convenient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the user that there is no warranty for the work (except to the extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion. 1. Source Code. The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work. A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language. The "System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it. The "Corresponding Source" for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work. The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source. The Corresponding Source for a work in source code form is that same work. 2. Basic Permissions. All rights granted under this licensesare granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This licensesexplicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered by this licensesonly if the output, given its content, constitutes a covered work. This licensesacknowledges your rights of fair use or other equivalent, as provided by copyright law. You may make, run and propagate covered works that you do not convey, without conditions so long as your licensesotherwise remains in force. You may convey covered works to others for the sole

purpose of having them make modifications exclusively for you, or provide you with facilities for running those works, provided that you comply with the terms of this licensesin conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on your behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you. Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed; section 10 makes it unnecessary. 3. Protecting Users' Legal Rights From Anti-Circumvention Law. No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures. When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this licenseswith respect to the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing, against the work's users, your or third parties' legal rights to forbid circumvention of technological measures. 4. Conveying Verbatim Copies. You may convey verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice; keep intact all notices stating that this licensesand any non-permissive terms added in accord with section 7 apply to the code; keep intact all notices of the absence of any warranty; and give all recipients a copy of this licensesalong with the Program. You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee. 5. Conveying Modified Source Versions. You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions: a) The work must carry prominent notices stating that you modified it, and giving a relevant date. b) The work must carry prominent notices stating that it is released under this licensesand any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices". c) You must licensesthe entire work, as a whole, under this licensesto anyone who comes into possession of a copy. This licenseswill therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This licensesgives no permission to licensesthe work in any other way, but it does not invalidate such permission if you have separately received it. d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so. A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this licensesto apply to the other parts of the aggregate. 6. Conveying Non-Source Forms. You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways: a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange. b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge. c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b. d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements. e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d. A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work. A "User Product" is either (1) a "consumer product", which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, "normally used" refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular user actually uses, or expects or is expected to use, the product. A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product. "Installation Information" for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in no case prevented or

interfered with solely because modification has been made. If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized), the Corresponding Source conveyed under this section must be accompanied by the Installation Information. But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in ROM). The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network. Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying. 7. Additional Terms. "Additional permissions" are terms that supplement the terms of this licensesby making exceptions from one or more of its conditions. Additional permissions that are applicable to the entire Program shall be treated as though they were included in this License, to the extent that they are valid under applicable law. If additional permissions apply only to part of the Program, that part may be used separately under those permissions, but the entire Program remains governed by this licenseswithout regard to the additional permissions. When you convey a copy of a covered work, you may at your option remove any additional permissions from that copy, or from any part of it. (Additional permissions may be written to require their own removal in certain cases when you modify the work.) You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission. Notwithstanding any other provision of this License, for material you add to a covered work, you may (if authorized by the copyright holders of that material) supplement the terms of this licenseswith terms: a) Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this License; or b) Requiring preservation of specified reasonable legal notices or author attributions in that material or in the Appropriate Legal Notices displayed by works containing it; or c) Prohibiting misrepresentation of the origin of that material, or requiring that modified versions of such material be marked in reasonable ways as different from the original version; or d) Limiting the use for publicity purposes of names of licensors or authors of the material; or e) Declining to grant rights under trademark law for use of some trade names, trademarks, or service marks; or f) Requiring indemnification of licensors and authors of that material by anyone who conveys the material (or modified versions of it) with contractual assumptions of liability to the recipient, for any liability that these contractual assumptions directly impose on those licensors and authors. All other non-permissive additional terms are considered "further restrictions" within the meaning of section 10. If the Program as you received it, or any part of it, contains a notice stating that it is governed by this licensesalong with a term that is a further restriction, you may remove that term. If a licensesdocument contains a further restriction but permits relicensing or conveying under this License, you may add to a covered work material governed by the terms of that licensesdocument, provided that the further restriction does not survive such relicensing or conveying. If you add terms to a covered work in accord with this section, you must place, in the relevant source files, a statement of the additional terms that apply to those files, or a notice indicating where to find the applicable terms. Additional terms, permissive or non-permissive, may be stated in the form of a separately written license, or stated as exceptions; the above requirements apply either way. 8. Termination. You may not propagate or modify a covered work except as expressly provided under this License. Any attempt otherwise to propagate or modify it is void, and will automatically terminate your rights under this licenses(including any patent licenses granted under the third paragraph of section 11). However, if you cease all violation of this License, then your licensesfrom a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation. Moreover, your licensesfrom a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this licenses(for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice. Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this License. If your rights have been terminated and not permanently reinstated, you do not qualify to receive new licenses for the same material under section 10. 9. Acceptance Not Required for Having Copies. You are not required to accept this licensesin order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance. However, nothing other than this licensesgrants you permission to propagate or modify any covered work. These actions infringe copyright if you do not accept this License. Therefore, by modifying or propagating a covered work, you indicate your acceptance of this licensesto do so. 10. Automatic Licensing of Downstream Recipients. Each time you convey a covered work, the recipient automatically receives a licensesfrom the original licensors, to run, modify and propagate that work, subject to this License. You are not responsible for enforcing compliance by third parties with this License. An "entity transaction" is a transaction transferring control of an organization, or substantially all assets of one, or subdividing an organization, or merging organizations. If propagation of a covered work results from an entity transaction, each party to that transaction who receives a copy of the work also receives whatever licenses to the work the party's predecessor in interest had or could give under the previous paragraph, plus a right to possession of the Corresponding Source of the work from the predecessor in interest, if the predecessor has it or can get it with reasonable efforts. You may not impose any further restrictions on the exercise of the rights granted or affirmed under this License. For example, you may not impose a licensesfee, royalty, or other charge for exercise of rights granted under this License, and you may not initiate litigation (including a cross-claim or

counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program or any portion of it. 11. Patents. A "contributor" is a copyright holder who authorizes use under this licensesof the Program or a work on which the Program is based. The work thus licensed is called the contributor's "contributor version". A contributor's "essential patent claims" are all patent claims owned or controlled by the contributor, whether already acquired or hereafter acquired, that would be infringed by some manner, permitted by this License, of making, using, or selling its contributor version, but do not include claims that would be infringed only as a consequence of further modification of the contributor version. For purposes of this definition, "control" includes the right to grant patent sublicenses in a manner consistent with the requirements of this License. Each contributor grants you a non-exclusive, worldwide, royalty-free patent licensesunder the contributor's essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contents of its contributor version. In the following three paragraphs, a "patent license" is any express agreement or commitment, however denominated, not to enforce a patent (such as an express permission to practice a patent or covenant not to sue for patent infringement). To "grant" such a patent licensesto a party means to make such an agreement or commitment not to enforce a patent against the party. If you convey a covered work, knowingly relying on a patent license, and the Corresponding Source of the work is not available for anyone to copy, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means, then you must either (1) cause the Corresponding Source to be so available, or (2) arrange to deprive yourself of the benefit of the patent licensesfor this particular work, or (3) arrange, in a manner consistent with the requirements of this License, to extend the patent licensesto downstream recipients. "Knowingly relying" means you have actual knowledge that, but for the patent license, your conveying the covered work in a country, or your recipient's use of the covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid. If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by procuring conveyance of, a covered work, and grant a patent licensesto some of the parties receiving the covered work authorizing them to use, propagate, modify or convey a specific copy of the covered work, then the patent licensesyou grant is automatically extended to all recipients of the covered work and works based on it. A patent licensesis "discriminatory" if it does not include within the scope of its coverage, prohibits the exercise of, or is conditioned on the non-exercise of one or more of the rights that are specifically granted under this License. You may not convey a covered work if you are a party to an arrangement with a third party that is in the business of distributing software, under which you make payment to the third party based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a discriminatory patent licenses(a) in connection with copies of the covered work conveyed by you (or copies made from those copies), or (b) primarily for and in connection with specific products or compilations that contain the covered work, unless you entered into that arrangement, or that patent licenseswas granted, prior to 28 March 2007. Nothing in this licensesshall be construed as excluding or limiting any implied licensesor other defenses to infringement that may otherwise be available to you under applicable patent law. 12. No Surrender of Others' Freedom. If conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot convey a covered work so as to satisfy simultaneously your obligations under this licensesand any other pertinent obligations, then as a consequence you may not convey it at all. For example, if you agree to terms that obligate you to collect a royalty for further conveying from those to whom you convey the Program, the only way you could satisfy both those terms and this licenseswould be to refrain entirely from conveying the Program. 13. Remote Network Interaction; Use with the GNU General Public License. Notwithstanding any other provision of this License, if you modify the Program, your modified version must prominently offer all users interacting with it remotely through a computer network (if your version supports such interaction) an opportunity to receive the Corresponding Source of your version by providing access to the Corresponding Source from a network server at no charge, through some standard or customary means of facilitating copying of software. This Corresponding Source shall include the Corresponding Source for any work covered by version 3 of the GNU General Public licensesthat is incorporated pursuant to the following paragraph. Notwithstanding any other provision of this License, you have permission to link or combine any covered work with a work licensed under version 3 of the GNU General Public licensesinto a single combined work, and to convey the resulting work. The terms of this licenseswill continue to apply to the part which is the covered work, but the work with which it is combined will remain governed by version 3 of the GNU General Public License. 14. Revised Versions of this License. The Free Software Foundation may publish revised and/or new versions of the GNU Affero General Public licensesfrom time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. Each version is given a distinguishing version number. If the Program specifies that a certain numbered version of the GNU Affero General Public licenses"or any later version" applies to it, you have the option of following the terms and conditions either of that numbered version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of the GNU Affero General Public License, you may choose any version ever published by the Free Software Foundation. If the Program specifies that a proxy can decide which future versions of the GNU Affero General Public licensescan be used, that proxy's public statement of acceptance of a version permanently authorizes you to choose that version for the Program. Later licensesversions may give you additional or different permissions. However, no additional obligations are imposed on any author or copyright holder as a result of your choosing to follow a later version. 15. Disclaimer of Warranty.

THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY

OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION. 16. Limitation of Liability. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MODIFIES AND/OR CONVEYS THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. 17. Interpretation of Sections 15 and 16. If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms. To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively state the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.