Workstation Connect

Administrator's Guide

ZEBRA

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About This Document

Introduction

This guide provides information about developing applications forZebra Workstation Connect.

IMPORTANT: If you have a problem with your equipment, contact Zebra Global Customer Support for your region. Contact information is available at: zebra.com/support.

Configurations

This guide covers the following configurations:

Configuration	Description	Device Compatibility
CRD-TC5X-1SWS-01	TC5X Workstation Docking Cradle Kit with Std Cup, HDMI, Ethernet and multiple USB Ports. Included in kit: • Cradle (CRD-TC5X-1SWS1-01), • Power Supply (i.e. PWRBGA12V50W0WW) • DC Cable (i.e. CBL-DC-388A1-01). Country specific AC line cord sold separately.	All TC5X Mobile Computers including the TC51, TC56, TC52 and TC57.

Service Information

If you have a problem with your equipment, contact Zebra Global Customer Support for your region. Contact information is available at zebra.com/support.

When contacting support, please have the following information available:

- Serial number of the unit
- Model number or product name
- Software/firmware type or version number

Zebra responds to calls by email, telephone or fax within the time limits set forth in support agreements.

If your problem cannot be solved by Zebra Customer Support, you may need to return your equipment for servicing and will be given specific directions. Zebra is not responsible for any damages incurred during shipment if the approved shipping container is not used. Shipping the units improperly can possibly void the warranty.

If you purchased your Zebra business product from a Zebra business partner, contact that business partner for support.

System Administrator Configurations

The Zebra Workstation Connect leverages Android Desktop Mode to present the user with a desktop-like interface when connecting a mobile device to an external monitor via a workstation cradle. This guide describes the necessary steps to enable Desktop Mode and utilize the features of the Zebra Workstation Connect solution.

Zebra Workstation Connect System Administrator Configurations

System and application configurations on the mobile computer are applied to the Zebra Workstation Connect, these options include:

- Disable USB storage to prevent the usage of USB Flash drives connected to workstation cradle
- Restrict end user to access to Settings on the mobile device
- Restrict end user ability to launch applications
- Enable/Disable applications on the mobile device
- Install/Uninstall applications on the mobile device
- Launch applications on the mobile device screen
- Enable Mirror Mode
- Enable Desktop Mode

The configurations above are applicable to both the mobile device screen and on the secondary screen (external monitor). These configurations can be implemented on the device via StageNow following the instructions below.

Steps to Create a StageNow Profile/Barcodes

To create a StageNow Profile or Barcode, first download StageNow:
zebra.com/us/en/support-downloads/software/utilities/stagenow.html

Follow the steps below to complete the profile and create a barcode:

1. Login to StageNow with administrator credentials.
2. Click **Create New Profile** on the home page.
3. Select the appropriate MX version from the installation wizard window.
4. Select **Xpert Mode** from the wizard list and click continue.
5. Enter the profile name and start.
6. From the settings list, choose the appropriate setting and click to add.

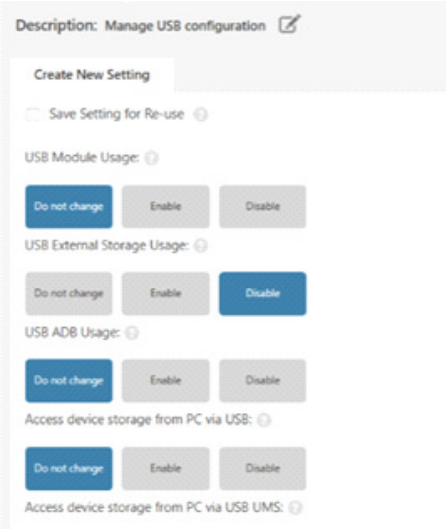
7. Complete the profile and create a barcode as required.
8. Scan the barcode using the StageNow Client on the device to stage the device.

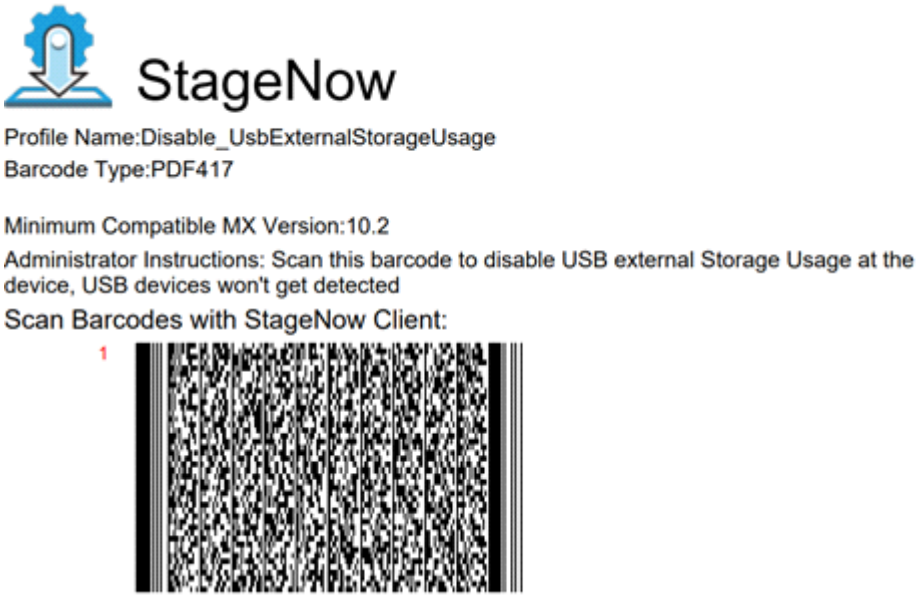
StageNow Barcodes Descriptions

Disable USB Storage

The mobile computer supports functionality to block USB external storage through StageNow. The administrator can choose to restrict external storage from USB, which is not allowed to be connected to the device. This action blocks USB storage without interfering with other types of USB peripherals such as keyboard, mouse, or headset.

This option is presented on the figure below, for additional information, refer to techdocs.zebra.com/mx/usbmgr/

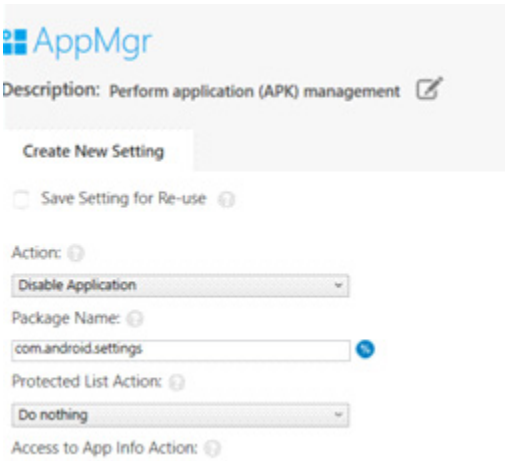




Restrict User Access to Settings

The mobile computer supports functionality to restrict access to settings (via a menu, the taskbar or an app) to end user through Stage Now. Admin User can choose to restrict complete Settings Application or a reduced version of it. These changes would reflect on Settings Application when user opens directly on device or from Zebra Workstation Connect on external monitor as well.

This option is presented on the following images, for additional information, refer to the following link techdocs.zebra.com/mx/appmgr/



Restricting User Access to Launch Applications

The mobile computer supports functionality to create a StageNow barcode using AccessMgr settings operation mode as single user with Allow List. In Add packages, add package name to the allow list, so that added app's only can be installed on the device, other apps installation are restricted.

Allow List applies only to user applications; it has no effect on System applications, which come preinstalled on the device. To control aspects of System applications, see AppMgr on the following link techdocs.zebra.com/mx/appmgr/.

Allow List can be used to control whether a device user is allowed to install a user application but cannot control whether an application can be installed using AppMgr. It also can be used to control whether a user application can be launched (by any means) once it is installed. AccessMgr also provides the option to control whether the device user can access a full or reduced version of the Android Settings panel.

These changes would reflect directly on the mobile device or from Zebra Workstation Connect on external monitor as well.

For additional information, refer to the following link: techdocs.zebra.com/stagenow/5-0/csp/access/

Enable or Disable Applications on the Mobile Device

Create a StageNow barcode using **UiMgr** settings by clicking the settings icon on the notification panel with the **Hide** option enabled. Next, scan the barcode using StageNow client on the device or scan the barcode shown below to show the settings icon (hidden in the above use case).

The mobile computer supports functionality to create a StageNow barcode using AppMgr settings with available options to enable/disable applications on the mobile device. From Application action options with app package name generate and scan the barcode using StageNow client on the device to see that specific app disabled.

These changes would reflect directly on the mobile device or from Zebra Workstation Connect on external monitor as well.

For Example: Disable Calculator

With AppMgr use package name of any particular app to disable it, in this case for Calculator use com.google.android.calculator with the Disable option, or scan below barcode:

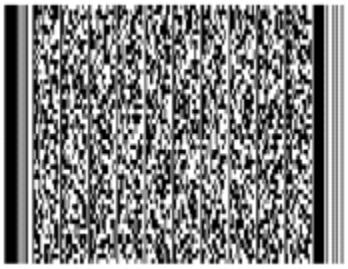
StageNow

Profile Name:Disable_CalculatorApp
Barcode Type:PDF417

Minimum Compatible MX Version:10.2
Administrator Instructions: Scan this barcode to disable calculator App on the device, Calculator will disappper from the app's list

Scan Barcodes with StageNow Client:

1



Similarly, Enable Calculator App using Enable application option with package name in the setting, scan below barcode to enable Calculator app on the device.

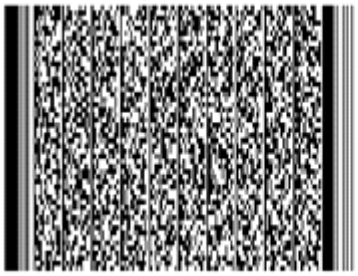
StageNow

Profile Name:Enable_CalculatorApp
Barcode Type:PDF417

Minimum Compatible MX Version:10.2
Administrator Instructions: Scan this barcode to enable calculator App on the device, Calculator will appper in app's list

Scan Barcodes with StageNow Client:

1



The same way, settings app (com.android.settings) can also be disabled from the app list if end user should not have privileges or need access to settings on the device. For additional information, refer to the following link https://techdocs.zebra.com/mx/appmgr/

Install/Uninstall applications on the mobile device

The mobile computer supports functionality to create a StageNow barcode using “AppMgr” settings with available options to install application from Application action options with APK path and name, generate and scan the barcode using StageNow client on the device to see that App gets installed.

NOTE: In the scenario above, APK should be copied or should be present on the mobile device

- Make use of FileMgr settings to bring APK on to the device by connecting to network and then make use of AppMgr to install the APK
- For additional information on FileMgr refer to the following link: techdocs.zebra.com/stagenow/5-0/csp/file/

In addition, the mobile computer supports the functionality to create a StageNow barcode using AppMgr settings with available options to uninstall application from Application action options with app package name, generate and scan the barcode using StageNow client on the device to see that application gets uninstalled.

These changes would reflect directly on the mobile device or from Zebra Workstation Connect on external monitor as well. For additional information on installing and uninstalling applications on the mobile device, refer to the following link techdocs.zebra.com/mx/appmgr/

Launch Applications on the Mobile Device Screen

Create a StageNow Profile/barcode using DisplayMgr settings with **Secondary Display Mode** and the **Mirror Device Screen** option enabled.

1. Add PowerMgr settings with OS Action set to **Reboot.**
2. Use StageNow client/App from device app list to scan the StageNow barcode, or Scan the barcode shown below.

NOTE: The device reboots to set the mirror mode automatically with resizable Windows turned on and Activity Resizability set to “All activities resizable”)

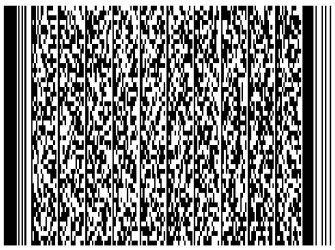
StageNow

Profile Name:DisableDesktopMode_EnableMirrorMode
Barcode Type:PDF417

Minimum Compatible MX Version:10.2
Administrator Instructions: Scan this barcode using StageNow client to enable device Mirror mode with Activity Resizability and Resizable windows turned on

Scan Barcodes with StageNow Client:

1



Install the APK on the Device Using AppMgr

Create a StageNow barcode using **AppMgr** settings with available options to install application from Application action options with apk path and name and scan the barcode using StageNow client on the device to see that the application gets installed.

NOTE: In the scenario above, the APK should be copied or be present on the mobile device.

NOTE: Use FileMgr settings to bring the APK onto the device by connecting to the network and use AppMgr to install the APK.

NOTE: Refer to techdocs.zebra.com/stagenow/5-0/csp/file/ for FileMgr settings.

Uninstall the APK on the Device Using AppMgr

Create a StageNow barcode using the **AppMgr** settings with options to uninstall application from Application action options with the application package name and scan the barcode using the StageNow client on the device to confirm that the application is uninstalled.

Launch an Application on the Device Using AppMgr

Create a StageNow barcode using the **AppMgr** settings with options to launch an application from the application action option using the application name and scan the barcode using StageNow client on the device to see that the application is launched.

Enable a Single User with Allow List

To control the installation of the applications on the device and usage of AccessMgr, enable a single user with Allow List.

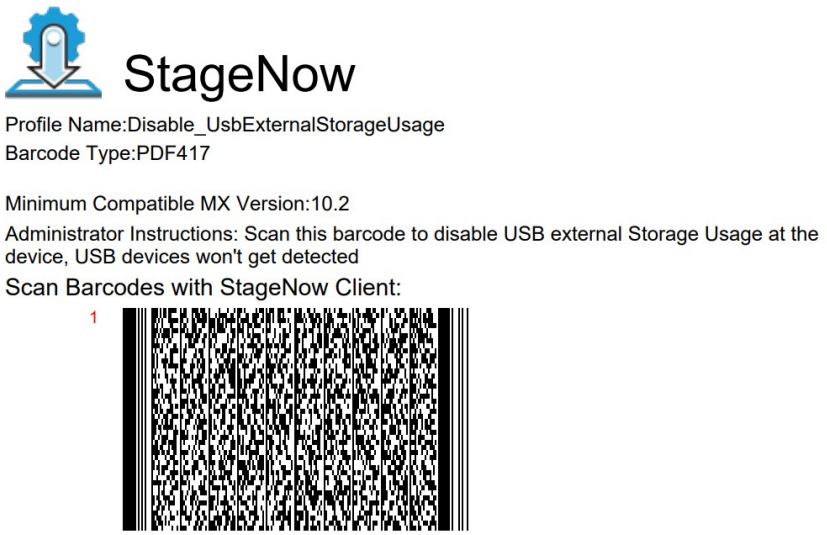
Create a StageNow barcode using **AccessMgr** settings operation mode as single user with Allow List. In Add packages, add package name to the allow list, so that added app's only can be installed on the device, other apps installation get restricted.

NOTE: Refer to techdocs.zebra.com/stagenow/5-0/csp/access/ for additional information on AccessMgr settings.

Disable External Storage Usage Using UsbMgr

Create a StageNow barcode using the **UsbMgr** setting with USB external storage usage set to disable. External USB storage will not be allowed to be connected to the device, scan the barcode in Figure 1 and connect to an external USB storage, which will not be allowed. This action blocks USB storage while not interfering with other type of USB peripherals including keyboard, mouse, headset, etc.

Figure 1 Disable USB External Storage Usage



Enable External Storage Usage Using UsbMgr

Create a StageNow barcode using the **UsbMgr** setting with USB external storage usage set to **Enable**. External USB storage is allowed to be connected to the device, scan the barcode below and try to connect an external USB storage, which will get detected.

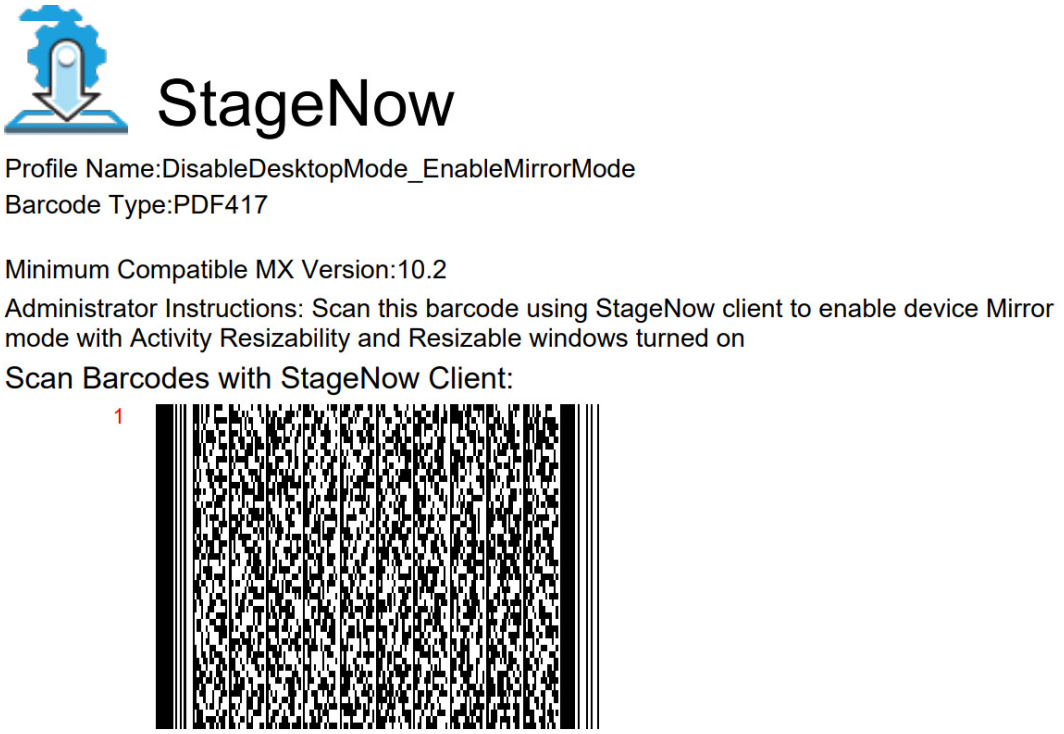
Figure 2 Enable Q Settings Icon on Notification Panel

NOTE: Refer UIMgr settings for other use cases related to UI settings.

Enable Mirror mode

Disable Desktop mode with Activity Resizability and Resizable windows turned on). Figure 3 below shows StageNow DisplayMgr settings and its equivalent settings on the device once after staging.

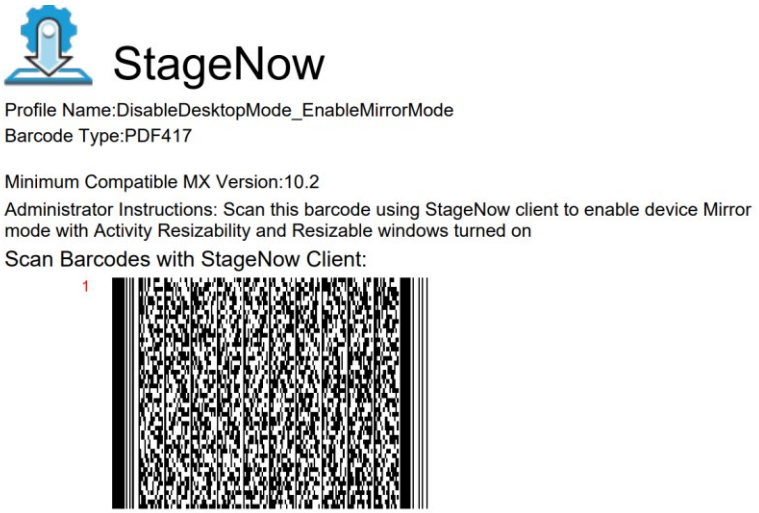
Figure 3 Display Manager Settings



a. Create a **StageNow** profile/barcode using:
   - DisplayMgr settings with **Secondary Display Mode** with **Mirror Device Screen** option
   - Select the **Turn On** option from **Resizable Windows.**
   - Select the **All Activities Resizable** option from the **Activity Resizability** option.
   - Add **PowerMgr** settings with **OS Action** set to **Reboot**.

b. Use **StageNow** from the device application list to scan the **StageNow** barcode or scan the barcode shown below in Figure 4.

Figure 4 Disable Desktop Mode/Enable Mirror Mode



NOTE: The device reboots to set the mirror mode automatically with resizable Windows turned on and **Activity Resizability** set to **All Activities Resizable**.

Zebra Workstation Connect Customization Administrator Configurations

Zebra Workstation Connect allows users to customize several of its features to control and tailor the environment presented to the end user. Configurable settings include:

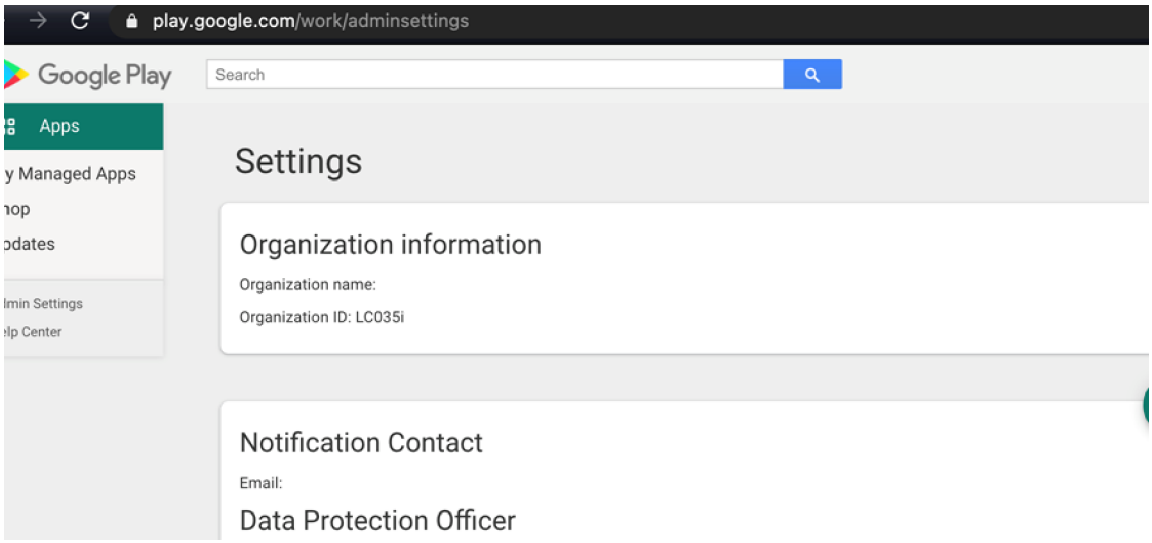
- Set-up the external monitor orientation
- Set-up the external monitor resolution
- Configure status icons presented on the taskbar
- Configure the wallpaper utilized on the Home Screen
- Configure shortcuts to be presented to the user on the desktop Home Screen
- Configure the disposition of applications when device is undocked from Zebra Workstation Cradle
- Configure the disposition of applications when device is docked in the Zebra Workstation Cradle

Enterprise Mobility Management (EMM) Support for the Remote Configuration of Zebra Workstation Connect

The Zebra Workstation Connect Desktop Launcher APK is available through the Google Play Store, and supports full production deployment, configuration, and activation using standard EMMs. EMM can configure Zebra Workstation Connect via Android Managed Configurations.

NOTE: Ensure that the current credentials to enter the Play Store are approved for the specific organization ID. This ID is located on the Settings screen under Organization information as seen in the figure below.

Figure 5 Application Restrictions



The configurations and the steps to implement them are described in this section. In a standard Enterprise Mobility Management (EMM) set up, the UI driven by the Application Restriction schema would differ from the images in this section. The following figures show the UI for the SOTI and Airwatch EMM Console respectively.

Figure 6 SOTI Console

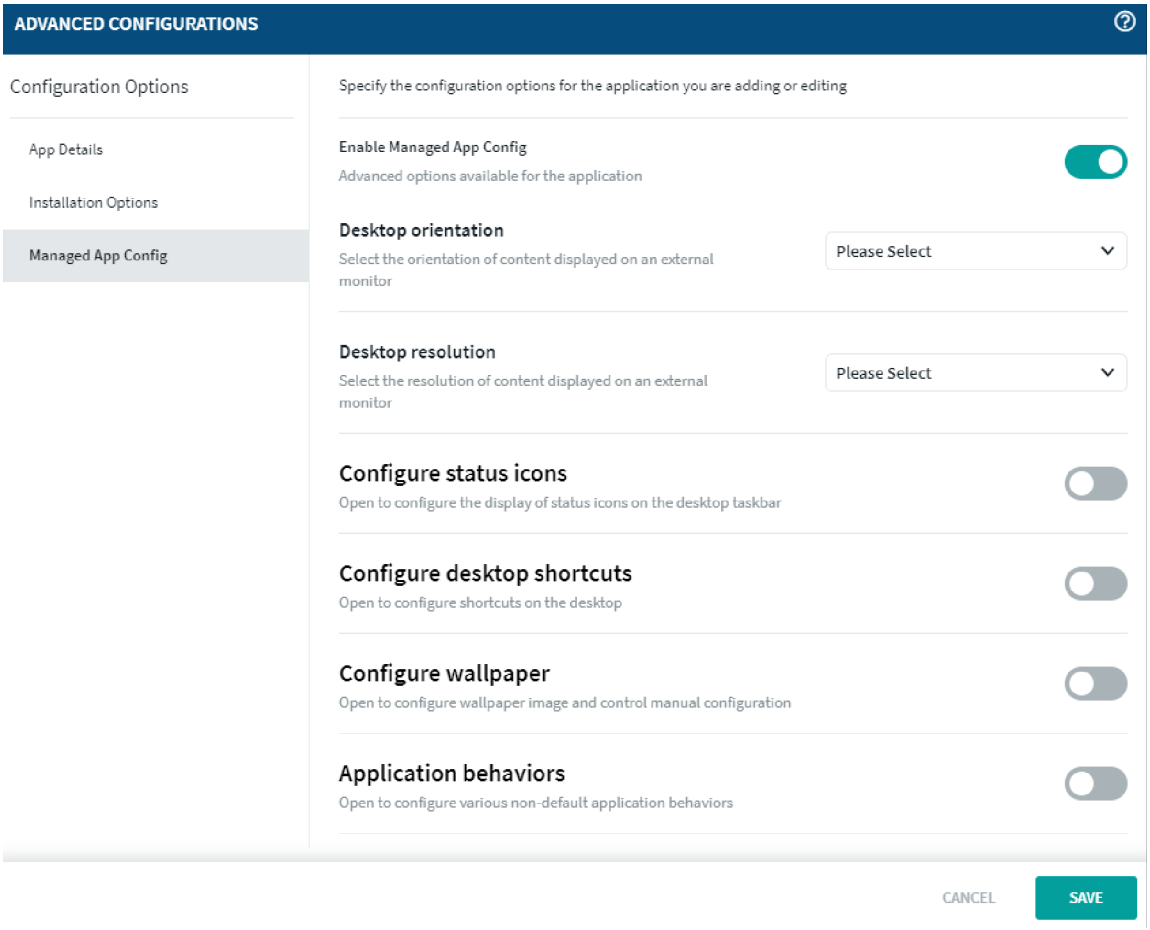
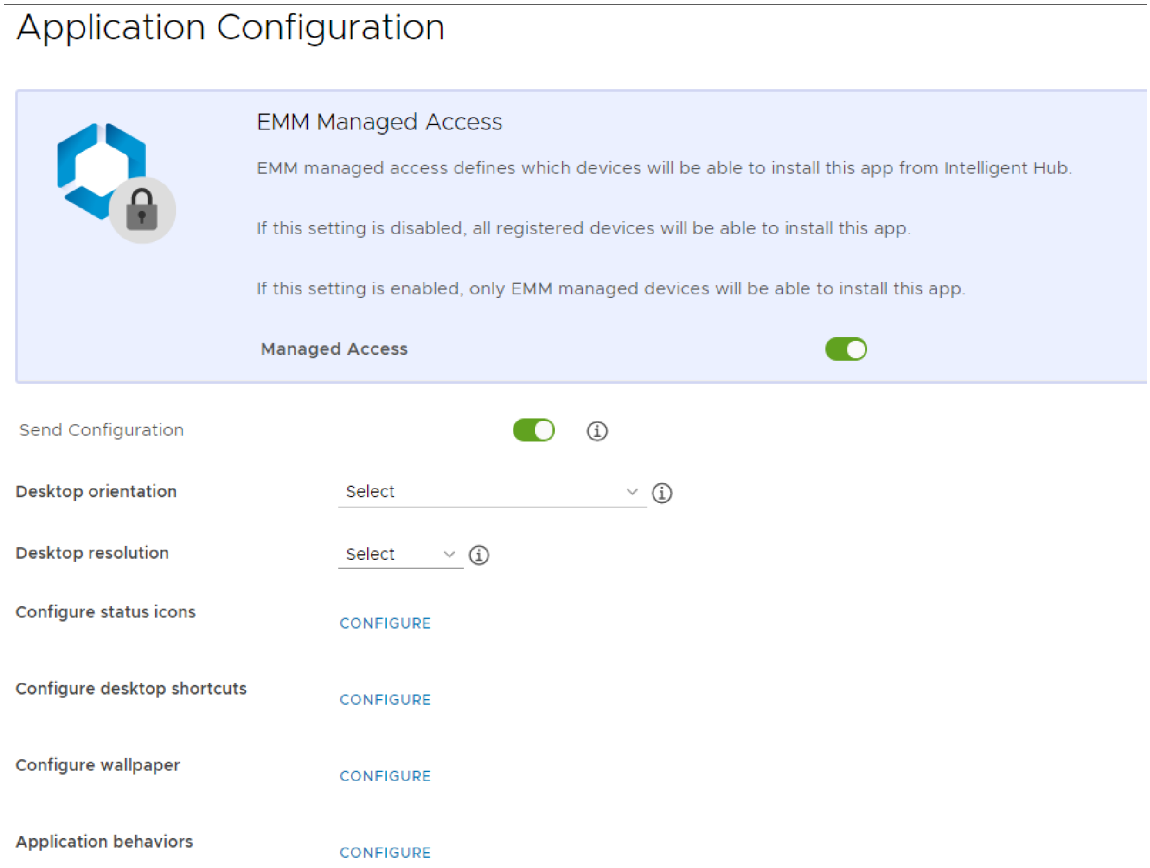


Figure 7 Airwatch Console



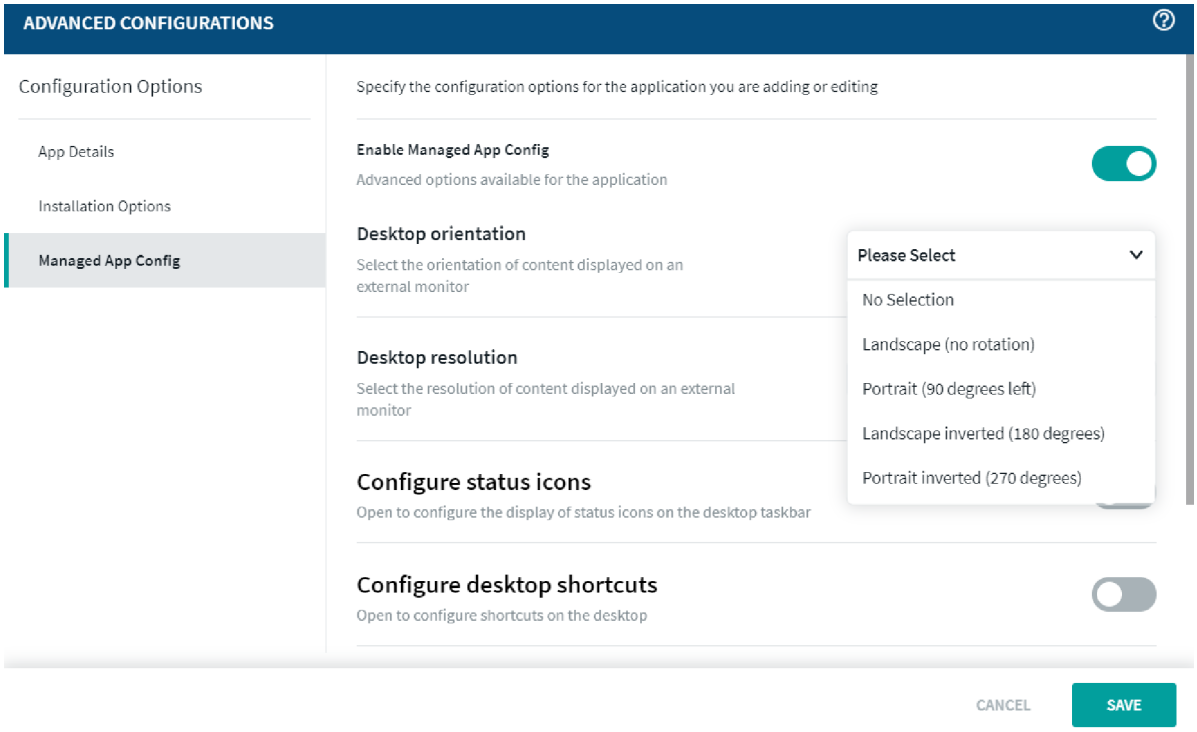
1. **Screen Orientation**

   Zebra Workstation Connect offers a method for the administrator to control the orientation on secondary screen (external monitor).

   Configurable options include:

   - Landscape (no rotation)
   - Portrait (90 degrees left)
   - Landscape Inverted (180 degrees)
   - Portrait Inverted (270 degrees)

Figure 8 SOTI Console



2. **Screen Resolution**

   Zebra Workstation Connect offers a method for the administrator to control the resolution on secondary screen (external monitor).

   Configurable options include:

   - The supported resolutions may be limited by the capabilities of the attached External Monitor
   - In Mirror Mode, the supported resolutions may be limited to the Resolutions supported by the Mobile Device Screen, since both must be set to match.

NOTE: Do not use the administrator configuration of **Orientation and Resolution of External Monitor** when using **Mirror Mode** to avoid inconsistent/unexpected behavior. Do not switch back to **Mirror Mode** from **Desktop Mode**.

Figure 9 SOTI Console

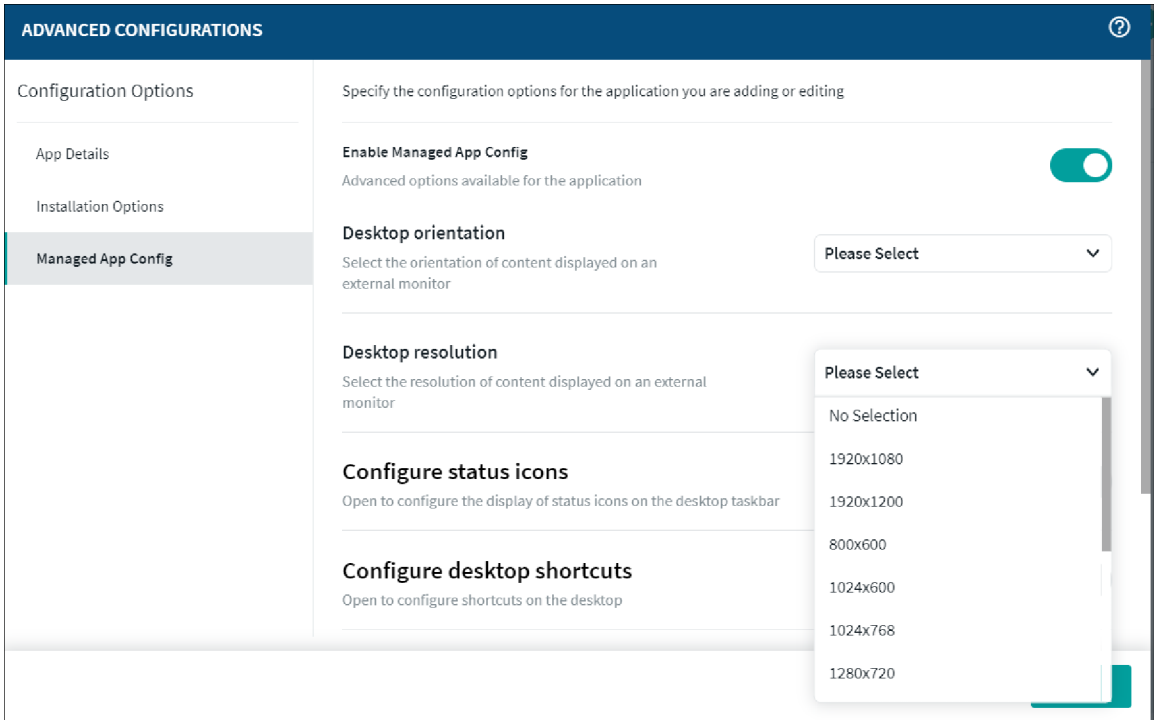
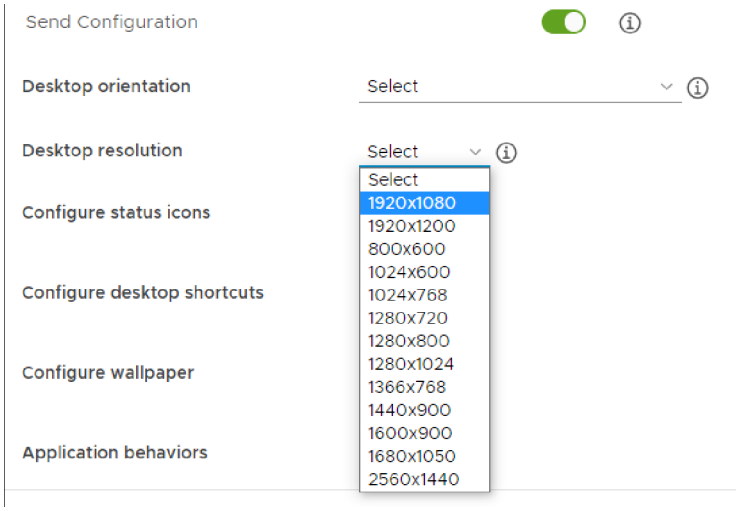


Figure 10 Airwatch Console



3. Configure the Status Icons on the Taskbar

Zebra Workstation Connect supports the administrator to configure which icons are shown on the Status Area of the taskbar. By default, the following Status icons are displayed on the taskbar: battery, Bluetooth, Cellular, Ethernet, VPN, Wi-Fi. The administrator can select whether to show or hide each status icon on the Taskbar as presented on the image below:

Figure 11 SOTI Console

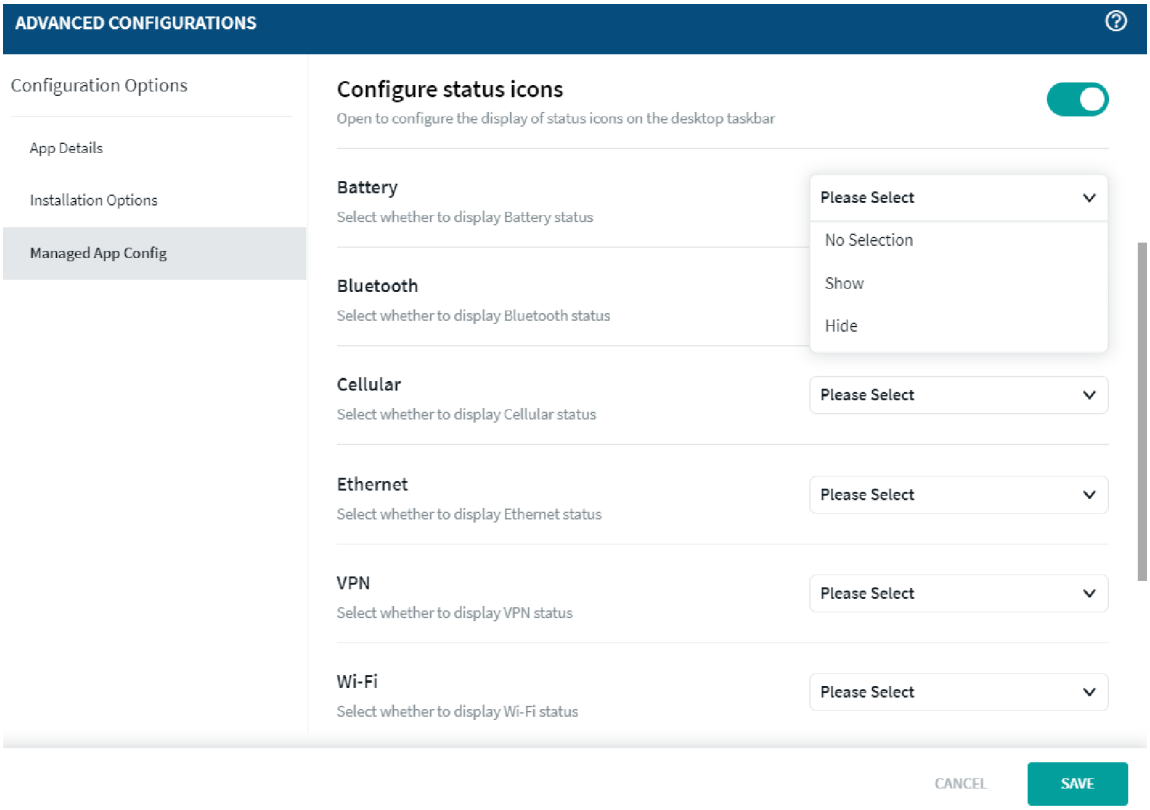
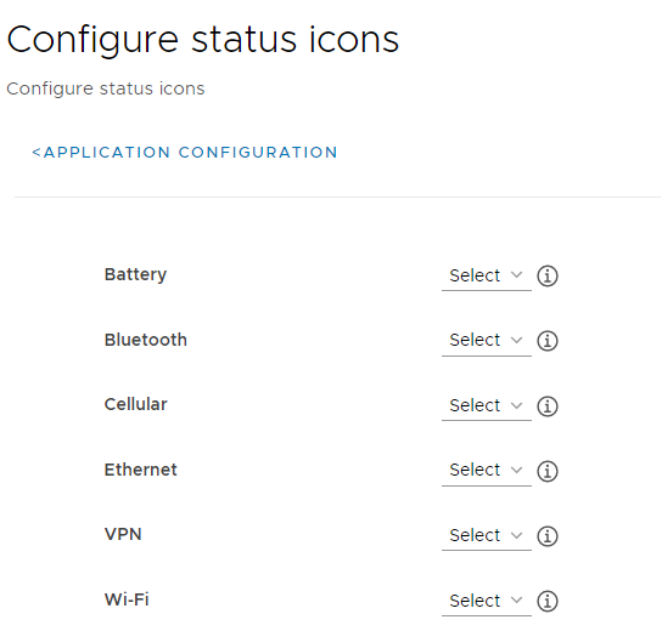


Figure 12 Airwatch Console



4. **Configure the Home Screen Wallpaper**

   Set Desktop Wallpaper: The Admin can change the Wallpaper to use to any supported image file stored on the device, including any downloaded to the device by the Admin. Enter the device path and file name of the image file to set as desktop wallpaper (Note: The recommended maximum Wallpaper resolution is 4000x2500)

   Reset the Wallpaper to Default: The Admin can restore the Wallpaper to use to the default without having to download the default image file to the device. Wallpaper file path need to be left blank to use the default wallpaper (restore to default)

   Allow or Disallow User Control: Zebra Workstation Connect supports configuration by the Admin of whether the Device User is allowed to set the Wallpaper to use.

Figure 13 SOTI Console

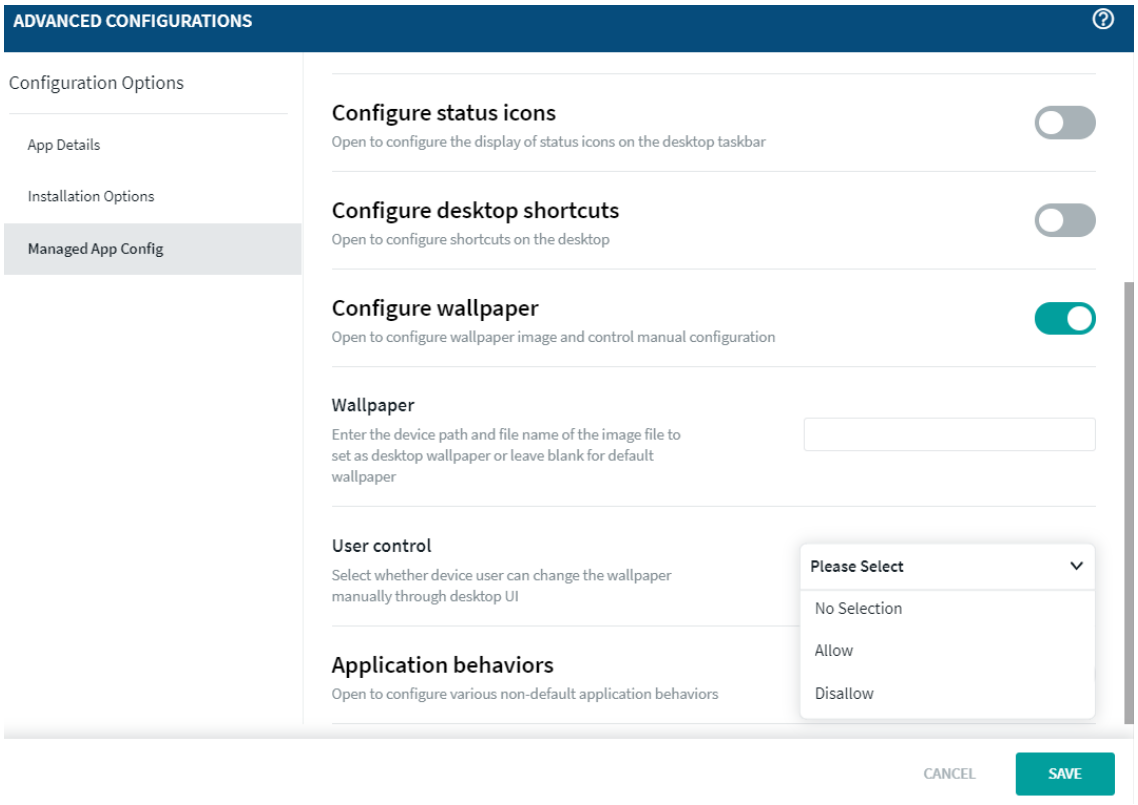
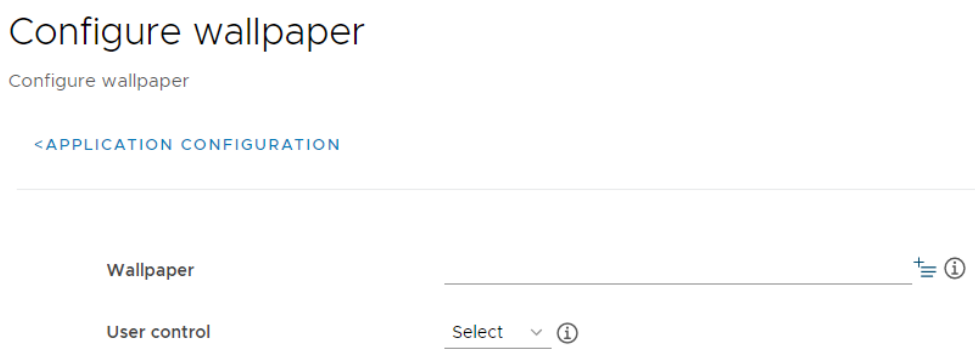


Figure 14 Airwatch Console



5. **Configure Home Screen Shortcuts**

- Add/change shortcuts or delete all /specific shortcuts: Specify app shortcuts by entering valid package name and activity name for each shortcut (both are mandatory). Leave blank for no icons (e.g., to have no shortcuts on the desktop launcher)
- Sort shortcuts either alphabetically or by date added.

Figure 15 SOTI Console

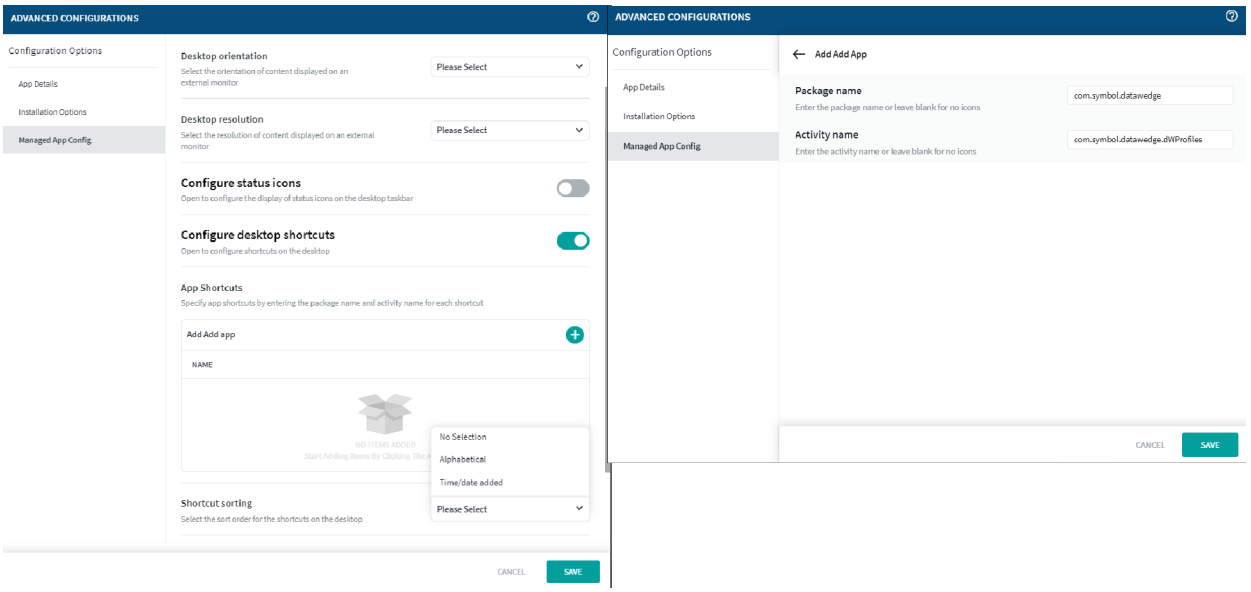
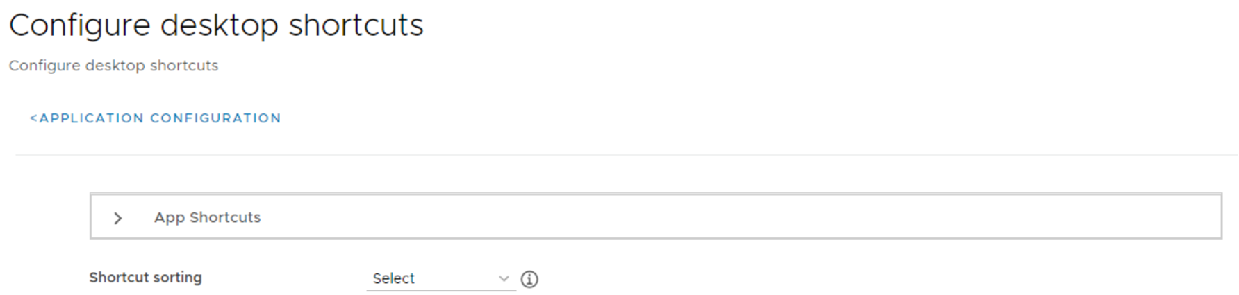


Figure 16 Airwatch Console



6. **Configure Automatic Application Disposition**

   Zebra Workstation Connect allows administrator to configure the criteria that will be used to determine the automatic handling of applications when the device is docked or undocked from a supported cradle or dock.

   To add the criteria for an automatic application disposition:

Figure 17 SOTI Console

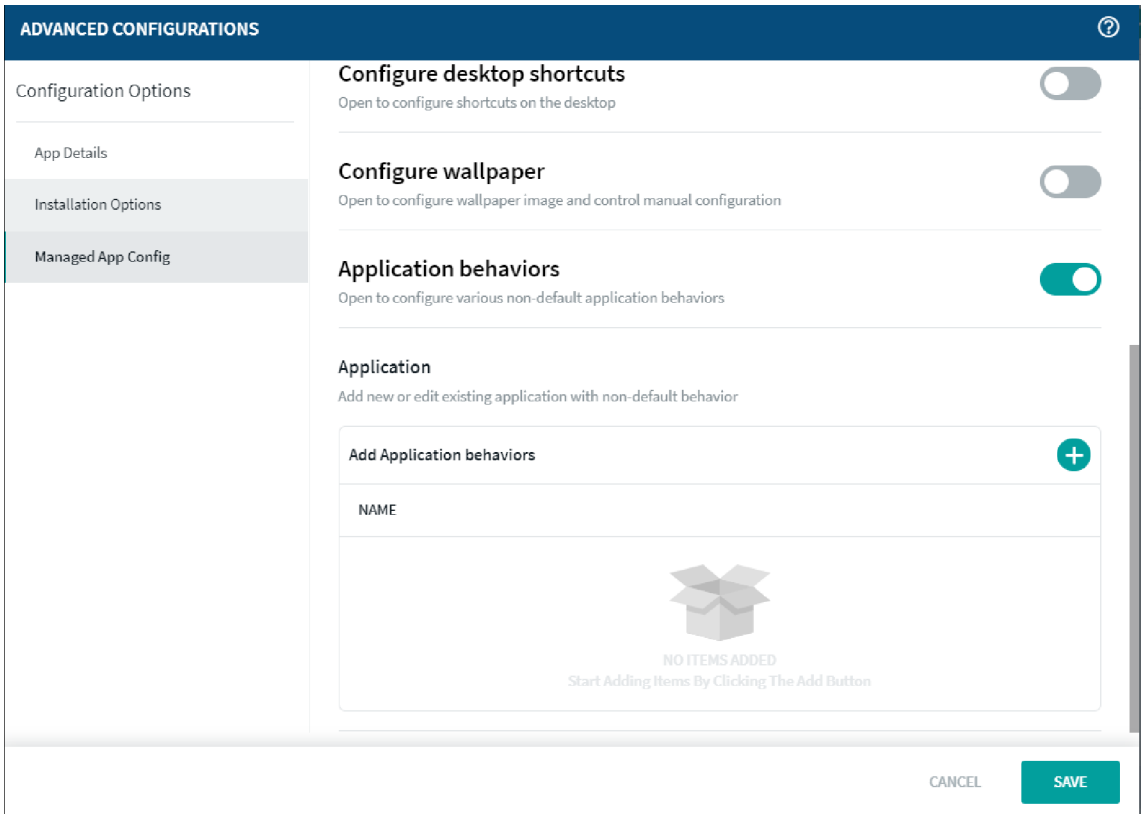
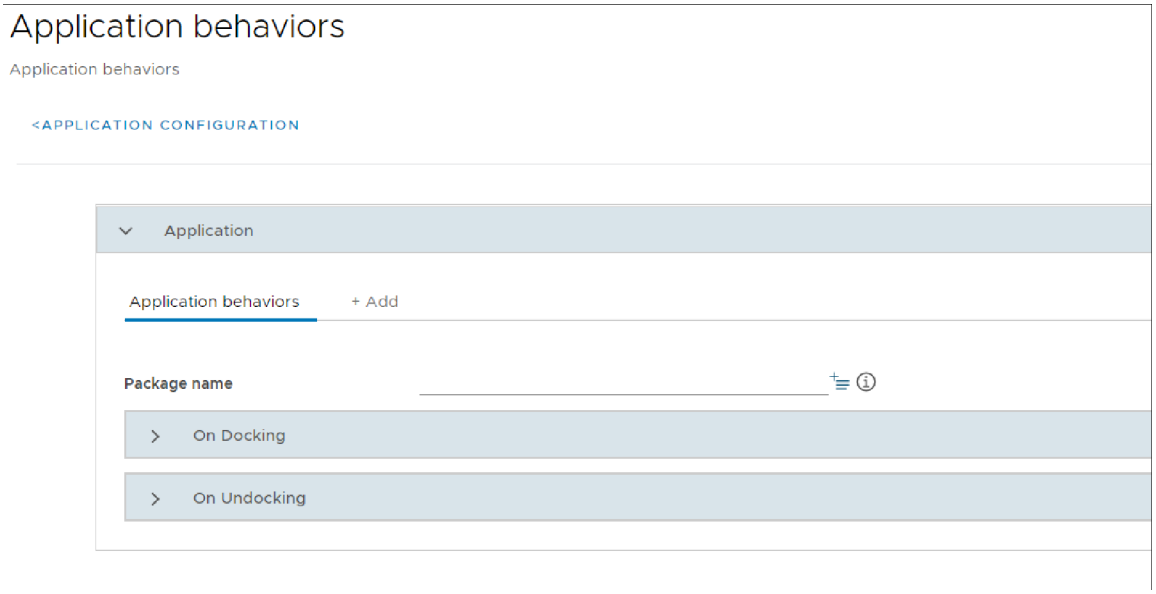


Figure 18 Airwatch Console



Specify the package name of the application:

Figure 19 SOTI Console

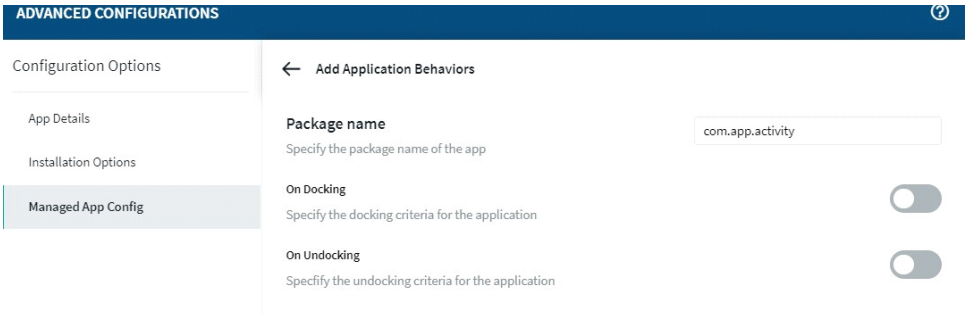
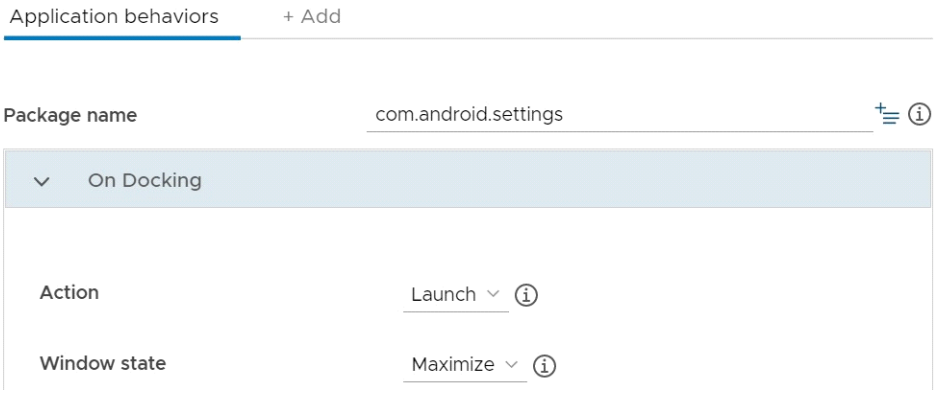


Figure 20 Airwatch Console



a. Specify the **Docking Criteria** for the app by giving the Action and the Window state. Next, select the action of the application. The available actions are:

- Stop
- Launch

- Move

NOTE: The application then launches in the foreground.

Figure 21 SOTI Console

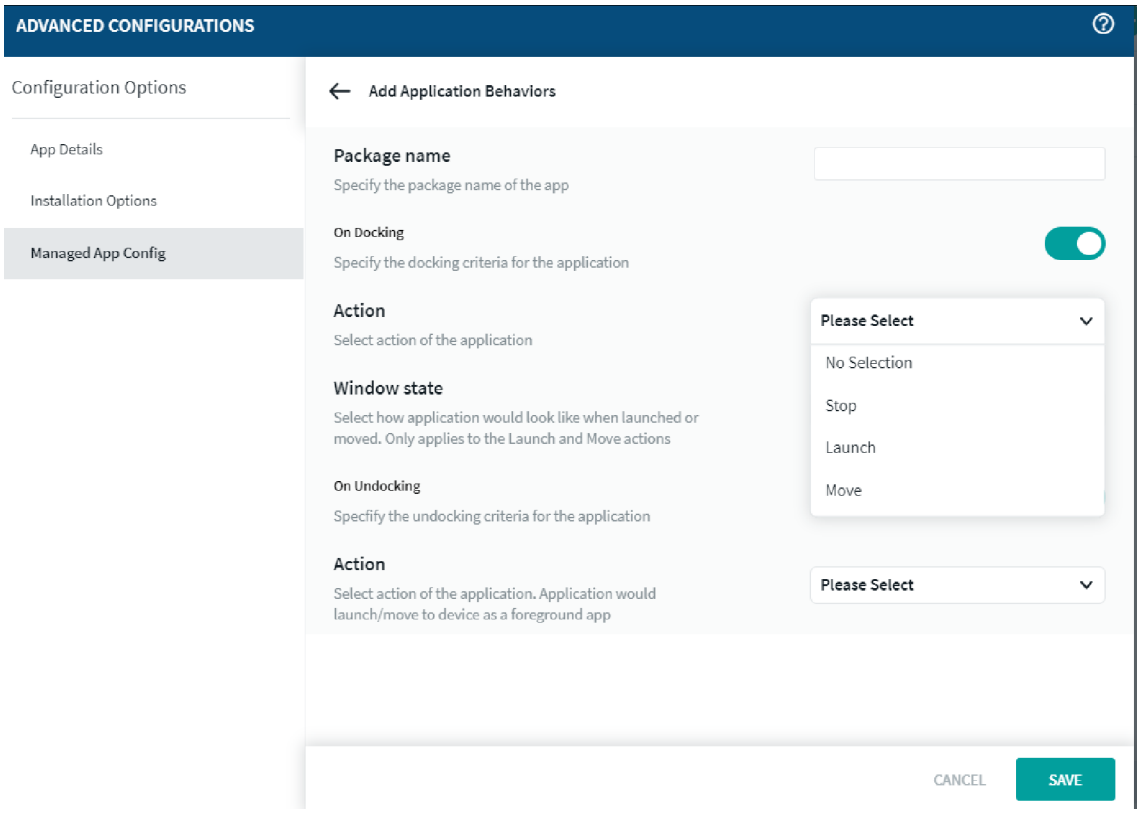
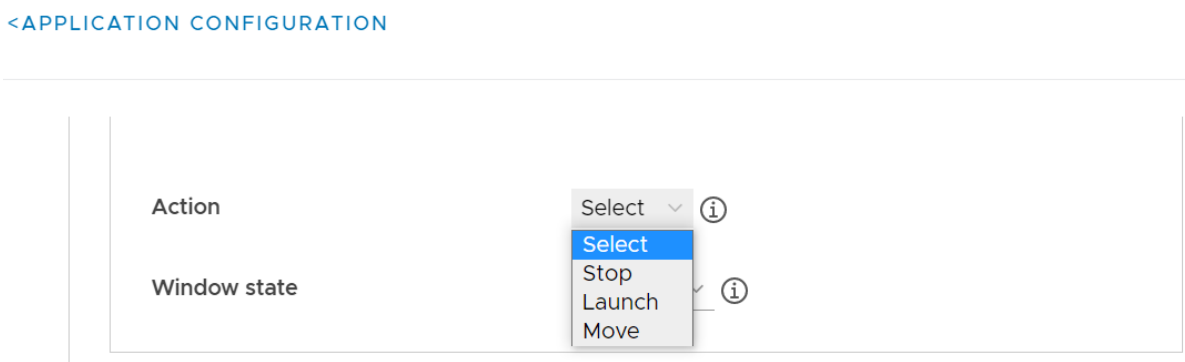


Figure 22 Airwatch Console



b. Configure how application would look like when launched or moved by selecting its **Window State**. This setting only applies to the **Launch** and **Move** actions.

NOTE: If the **Docking Criteria** is not specified by the administrator, the default docking behavior for all of the applications would remain as keeping apps on mobile device screen and presenting corresponding icons on the taskbar.

Figure 23 SOTI Console

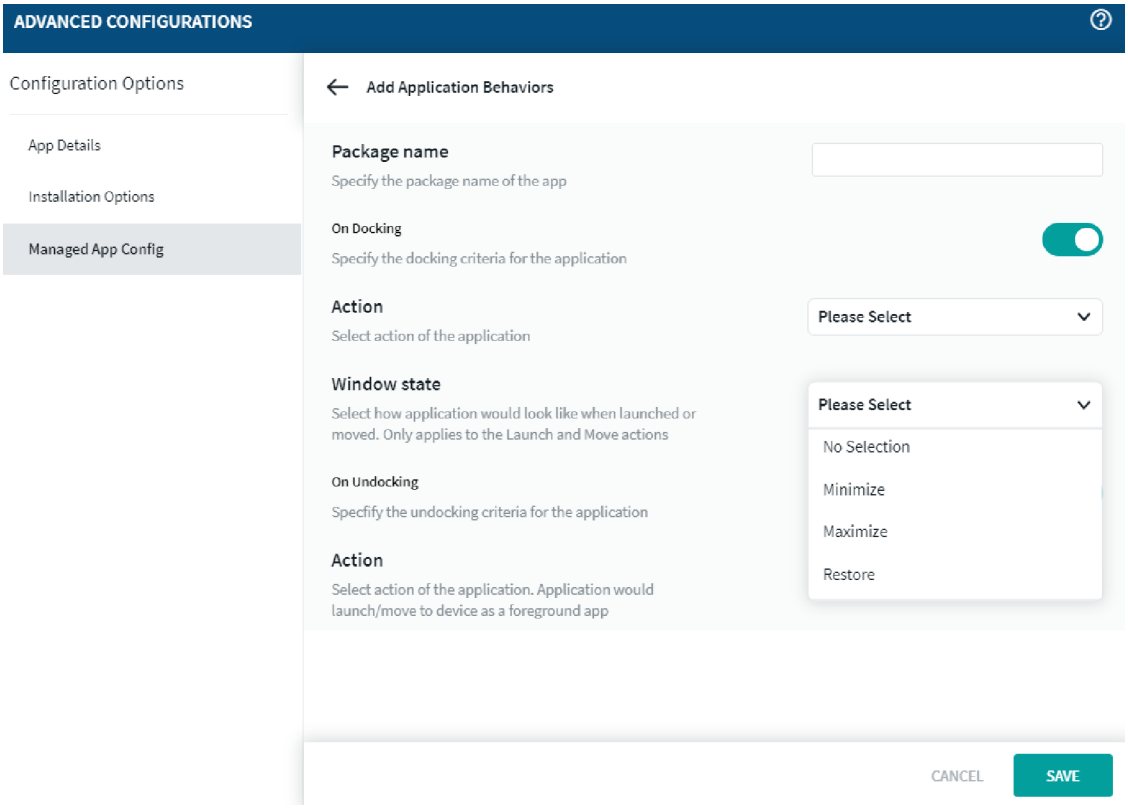
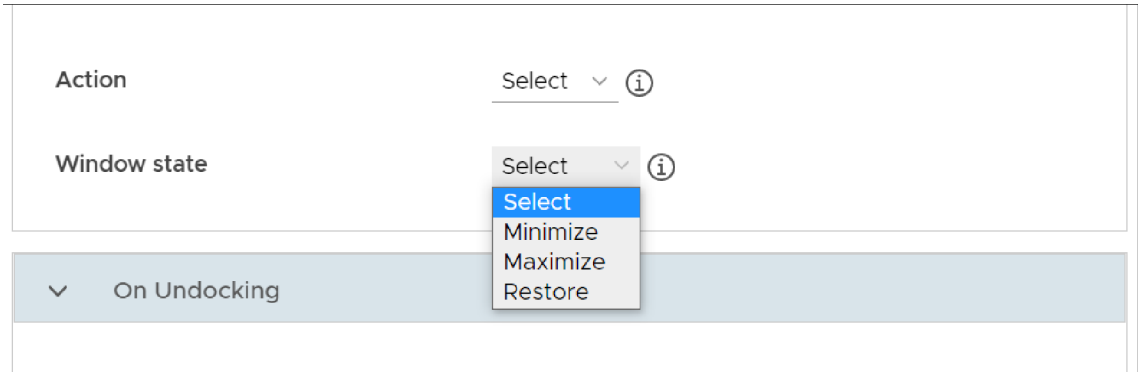


Figure 24 Airwatch Console



c. Specify the **Undocking Criteria** for the app by giving only the Action. The **Window State** is not required to specify because for any app defined here the window state would be set to **Maximize** by default. If the undocking criteria is not specified by the administrator, the default undocking behavior for all applications remains set to **Minimize**.

Figure 25 SOTI Console

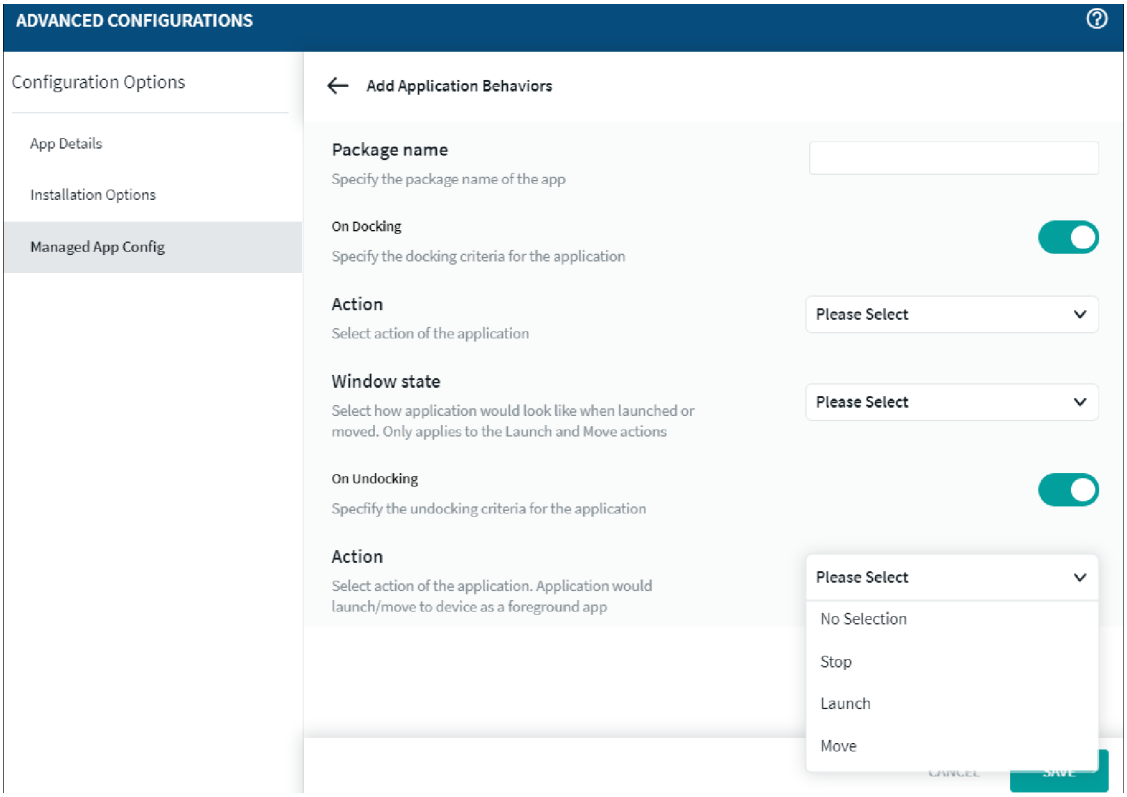
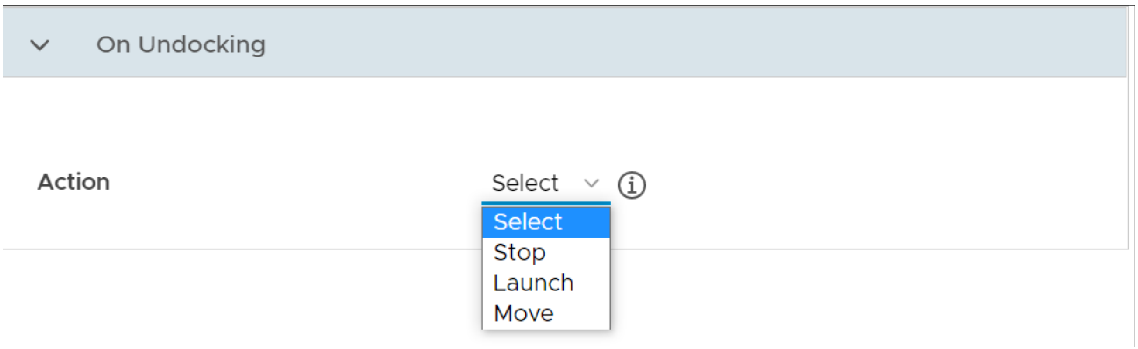


Figure 26 Airwatch Console



Zebra Workstation Connect Managed Configuration Support Notes

- When a new managed configuration is applied to the device, the updated settings are applied to the next docking event.
- For Home Screen application shortcuts, the device operator can overwrite the administrator configured settings and the changes are applied to the next docking event
- Only the orientation and resolution managed configuration settings will remain intact when Zebra Workstation Connect is uninstalled and reinstalled, other configurations will not be saved.
- Perform an Enterprise-Reset or a Factory-Reset to clear the managed configurations.

Supported Features

- The device supports intent (Intent.ACTION_DOCK_EVENT) to be used by developers to detect the docking/undocking, allowing to differentiate between a charging cradle and a Zebra Workstation Cradle.
- The device supports audio using a headset or headphone connected to the following:
  - The Workstation Cradle using a USB headset/headphone connected to any of the USB-A ports.
  - An external monitor with USB or an audio jack with audio out capabilities and a headset/headphone connected to the monitor.

NOTE: If the headset/headphone is connected to both cradle and external monitor with audio capability then precedence will be given to the headset/headphone connected to the cradle.

The device supports touch input from the touch monitor when connected to a Workstation Cradle to navigate the Mirror Mode or Desktop Mode user interface. Ensure that the USB cable being used to facilitate touch functionality is connected between the external monitor and the Workstation Cradle USB-Type A ports.