



Visium™

VSBB100 & Visium Manager - Initial Configuration

FOR VISIUM MANAGER VERSION 1.0.566 & OLDER

Revision History

REVISION	DATE	AUTHOR	DESCRIPTION
A	13/3/23	M. Perez	Initial Release

Although every effort has been taken to ensure the accuracy of this document it may be necessary, without notice, to make amendments or correct omissions. Specifications subject to change without notice.

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THE VISIUM ECOSYSTEM

1. The Visium Ecosystem – An Introduction

The Visium Set Back Box (VSBB) is designed to be managed in groups of similar configured devices for deployment within QAM or IP network. Typically, a video network will have a channel lineup which may change over time and is managed by a service provider. The VSBB has been designed to be a managed device which can be remotely configured and monitored to avoid site visits.

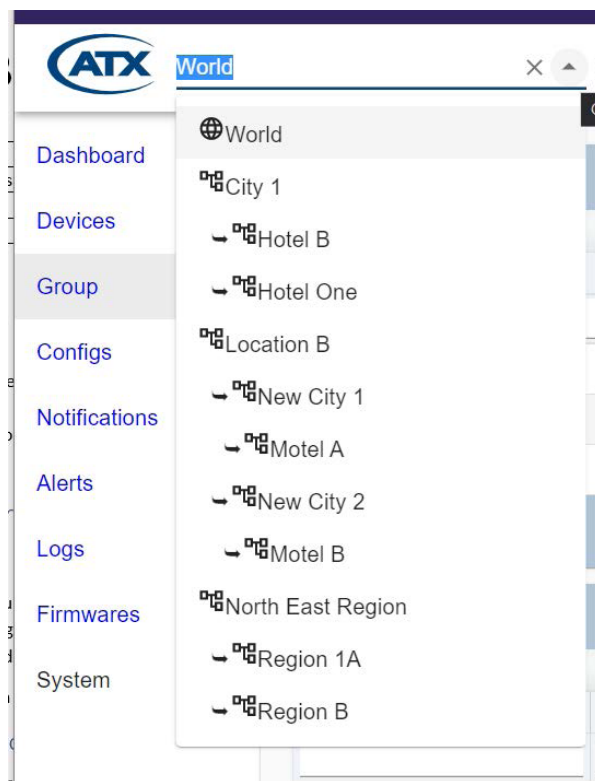
The ATX Cloud based Visium Manager allows a service provider to manage not just one box but multiple groups of boxes in a manner which fits with the service provider's needs.

This document describes a suggested configuration scheme and an operational approach to how to configure, deploy, manage, and monitor the VSBB.

Some Concepts:

Groups / Children

The Visium Manager organizes its devices in a hierarchical group / child structure. Just like a directory structure on a PC. This means a group can be within another group, called subgroups, which in turn can have subgroups. Any device can only be associated with a single group. In the manager, you would create a group, then could create “children” within that initial group and further break it down with more “children” within the previously created child. See below for an example:

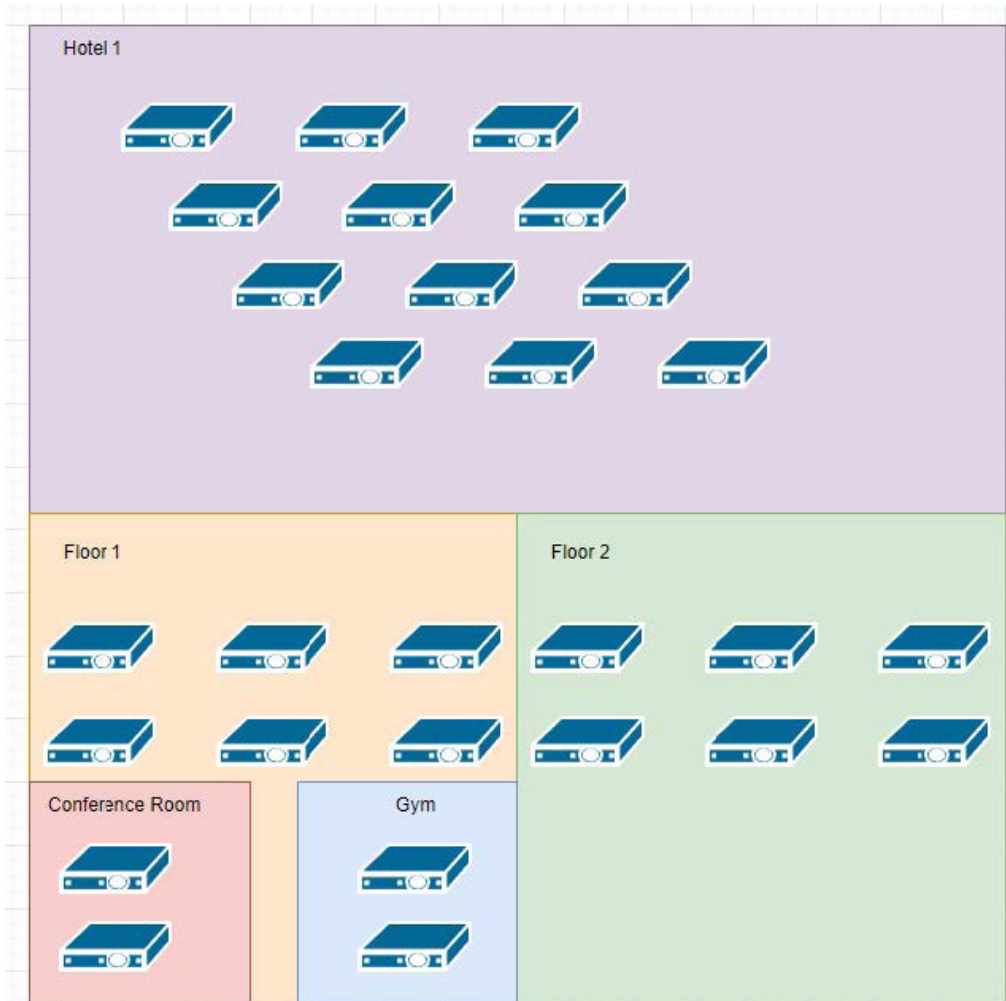


In this example above we see 3 main locations, each with their own sub-groups to help organize and separate a grouping of VSBBs that may require different configurations and channel plans.

Inheritance of Configurations

A subgroup inherits its configuration from its parent, until you overwrite its configuration with a specific configuration for the group. This means that you can create a group with a standard channel plan and create multiple subgroups (children) which inherit that channel plan. If you then need one of the subgroups to have a unique channel plan, you can assign one to that subgroup to overwrite the base configuration with a unique configuration for that subgroup.

An example would be if the conference rooms or gyms of a hotel don't need certain channels and/or you'd like the VSBBs to have specific settings, you can create a new subgroup for the hotel, assign those VSBBs to those subgroups (children), create new configurations and assign it to those subgroups to overwrite the base configuration without affecting the entire hotel.



In this example, we have a hotel with 2 floors worth of VSBBs where floor 1 then has 2 separate rooms where all need a slightly different channel plan. As all the boxes are within the main Hotel 1 group, they all initially can get the configuration for Hotel 1. The user then can create different configuration packages for the sub-groups, assign boxes to those sub-groups, then push the desired configuration to the boxes in those sub-groups within the Visium Manager without having to re-enroll those boxes via a USB stick. The user also can create the configuration plans ahead of time and load them to the boxes as they are added to the system to save time.

Configuration Elements

There are 2 configuration elements, the first is the VSBB Configuration Service which consists of the channel plan and includes all the elements of the VSBB that can be configured such as the Info Bar Timeout, Audio Output Mode, and many other configurable options. The second is the Firmware Image Service for the VSBB in the group. Having these separate means, they are independently inherited from their parent group. In simple terms this means the firmware images can be managed independently to the configurations allowing one firmware to be associated with the entire population of VSBBs or a subset of them.

Enrollment

A device is enrolled into a group using an enrollment file that is downloaded from the Visium Manager and put into the device via a FAT32 formatted USB stick.

Network Connectivity

For a device to access the network it needs to be told how to connect to the network. By default, the VSBBs are set to obtain an IP address via DHCP over Ethernet. To finetune the network configuration or to configure WiFi, a user would create a network configuration file that would then be loaded on a USB stick. A user can change the network mode from DHCP to Static as well as enter in the SSID and password when configuring WiFi.

Software Upgrades

Software Upgrades can be done via the Visium Manager but can also be done by loading a firmware file to a USB stick.

Theme

The overall look of the GUI can be altered using the Themes files provided by ATX (called “theme.zip”). Colors and fonts require CSS knowledge and should be left to an expert. A custom logo can easily be added and must be in an SVG format.



NOTES:

- CSS based on Chromium 55.0.2883.75
- If theme file is missing any logo, or font files, then the defaults will be used
- If theme.zip file only contains the file structure, then the defaults will be used

Initial configuration of a device

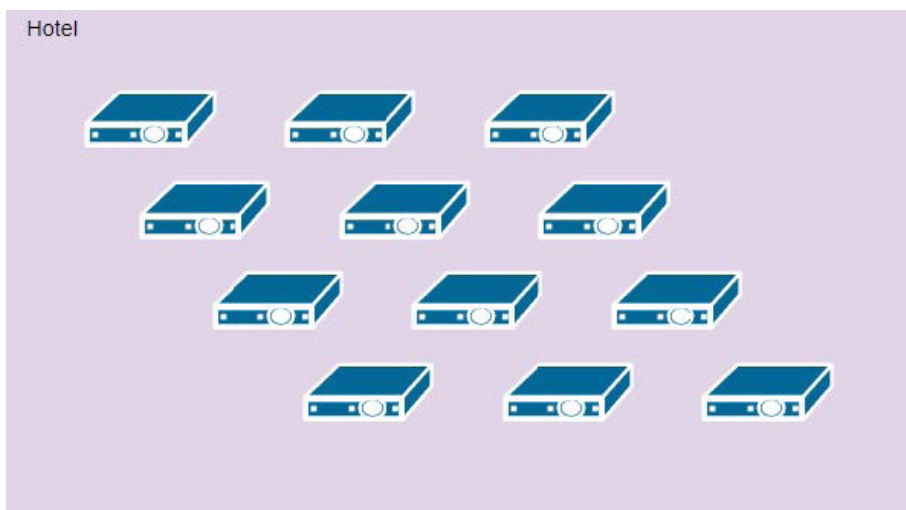
The initial VSBB from the factory has no configuration and thus one must be loaded via a USB stick. The USB Stick can have several files on it including:

- enrollment.json – Obtained from the Visium manager to enroll a VSBB into a Group on the manager. This file is case sensitive so it must match as it is shown here.
- networkconfig.json – Used to configure the networking of the VSBB. Instructions on configuring this file is included further in the manual. This file is case sensitive so it must match as it is shown here.
- UpgradeFile.bin – A firmware image to upgrade the VSBB. This file is case sensitive so it must match as it is shown here.

It is recommended at initial setup to manually upgrade the VSBB software via the USB stick, this will save time and data bandwidth. Specific instructions will be located further in this document.

How do I plan the Setup Within the Visium Manager?

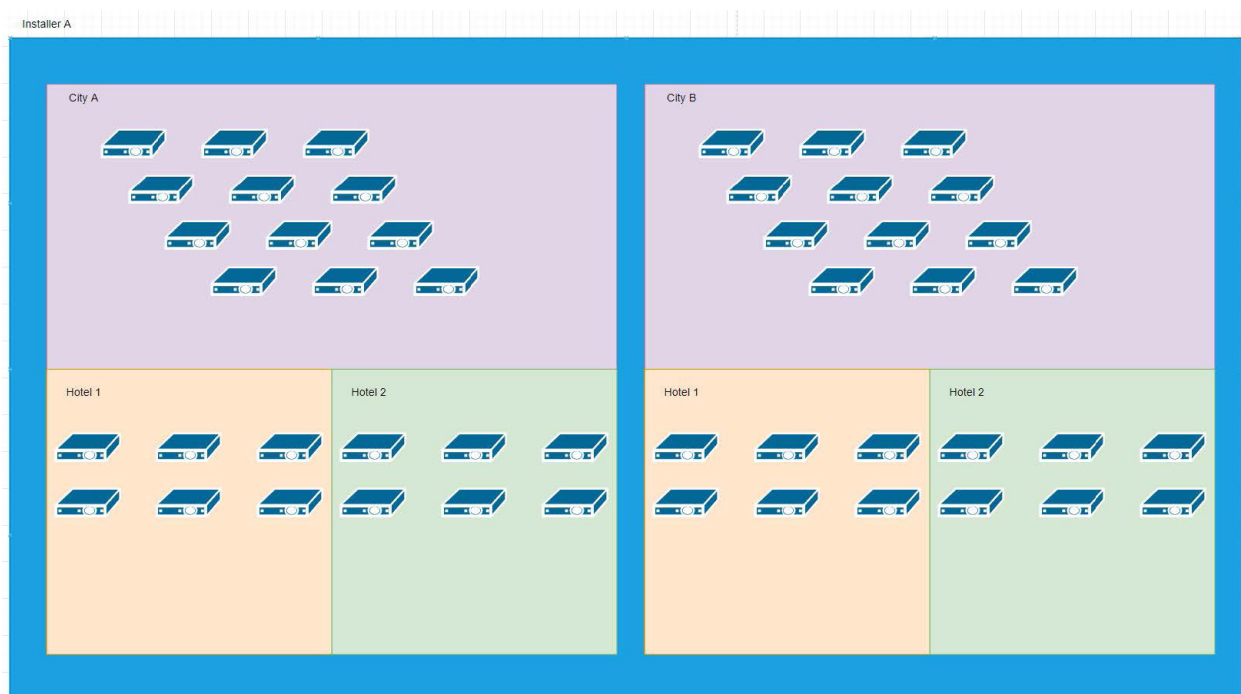
Before starting to use the Visium Manager, a Service Provider should consider how they want to use the manager. Do they just need one configuration to provide the same channel lineup to all their VSBB's, or do they need to think about countries, regions, cities, and sites with multiple channel lineups per site?



In the example above, we see that this is a simple setup where only 1 Main group is needed in the manager for this account and all VSBBs will receive one configuration. In the manager, it would look like this when looking through the “World” dropdown:



The device labeled “monitor-g2137000000088” is the VSBB assigned to this group and any subsequent boxes would show up under “Hotel”.



The example above is a more complex setup where “Installer A” is the main group with “City A” and “City B” being two main sub-groups. Each “City” sub-group then has 2 sub-groups where each of those sub-groups is a different Hotel.



NOTE: VSBB's can be moved from one group to another within the Visium manager, therefore changing VSBB locations after initial enrollment is possible however it's time-consuming and having a plan will save hours of re-work in the future.

Suggestions will be provided in the manual on how to better organize your boxes using the provided fields.

Organization is key in being able to troubleshoot effectively using the Visium Manager; having a well-thought-out structure can save hours in troubleshooting and configuration deployments.

As an example, instead of going room to room to troubleshoot a problem, using the manager a tech can analyze the data shown to determine if a specific group or subgroup is showing a problem. Once the tech sees that a specific subgroup is showing a problem, they can then quickly and efficiently work the problem and potentially push out a configuration change that may potentially fix the issues across the group.

VISIUM MANAGER UI OVERVIEW

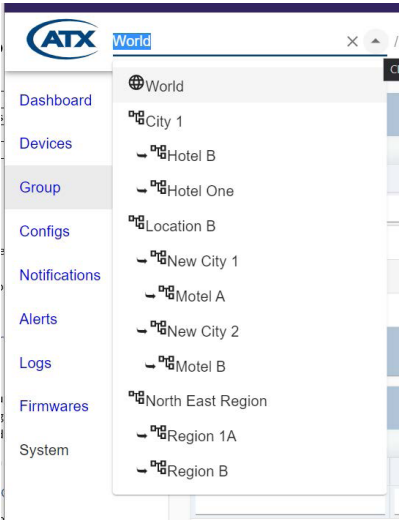
2. Visium Manager UI Overview

2.1 Navigation

VSBB100 devices managed by the Visium manager are organized in a hierarchical group structure. This means a group can be within another group, called subgroups, which in turn can have subgroups. The VSBB100 device can only be associated with a single group.

Navigation between groups is done via the top navigation bar. Clicking the Down Arrow will reveal the subgroups and devices. You can click any device of subgroup to navigate to that group.

The left-hand menu options: Dashboard, Devices, Group, Logs and Configs are “group aware”, which will display information for the current group, subgroups and their associated VSBB100.



2.2 Search Filters

The first row of each table contains a per column search filter. Using these fields will allow the user to reduce the table size. Multiple columns can be searched at the same time.

Devices											
Node											Daemon
Name	Tags	Owner	Customer ID	Site ID	Location	Serial Number	Reported IPs	MAC Address	Device Group	Device Class	Installed Firmware

2.3 Expanding/Collapsing Sections

Each section can be expanded or collapsed by clicking the “^” on the top left of the section.

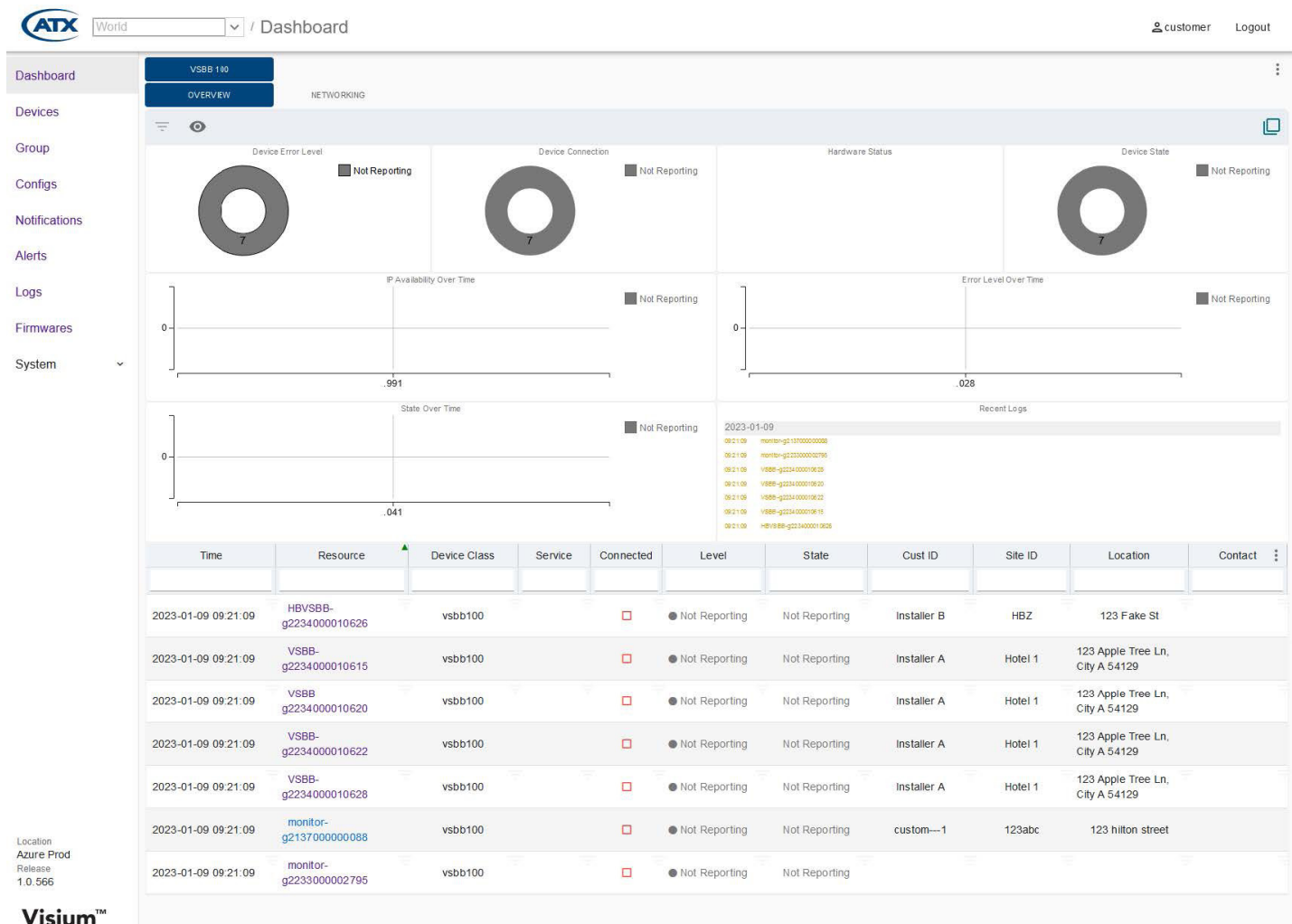


THE WEB INTERFACE

3. The Web Interface

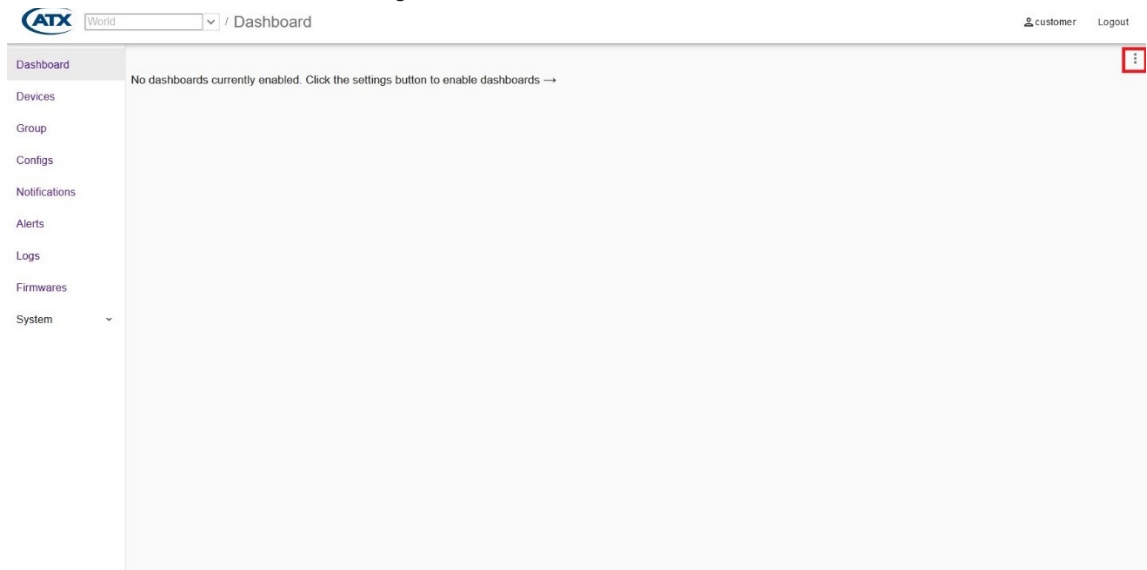
The web interface of the Visium Manager is separated into 3 sections:

- The header at the top shows the user that is logged in, the current page being displayed, and the selected “Group” or “Sub-group” from the drop-down menu. The “Logout” link is located here as well.
- The navigation pane on the left shows all the clickable settings menus along with the release version of the interface at the bottom.
- The center section shows the viewable and configurable options from the menu clicked on the Navigation pane.



3.1 The “Dashboard” Menu Page

The Dashboard can be configured by the user to show relevant information for various ATX products. Upon logging in for the first time, the Dashboard will have to be configured to display information for the desired product. To configure the Dashboard, click on the 3 dots at the far right of the Dashboard screen.

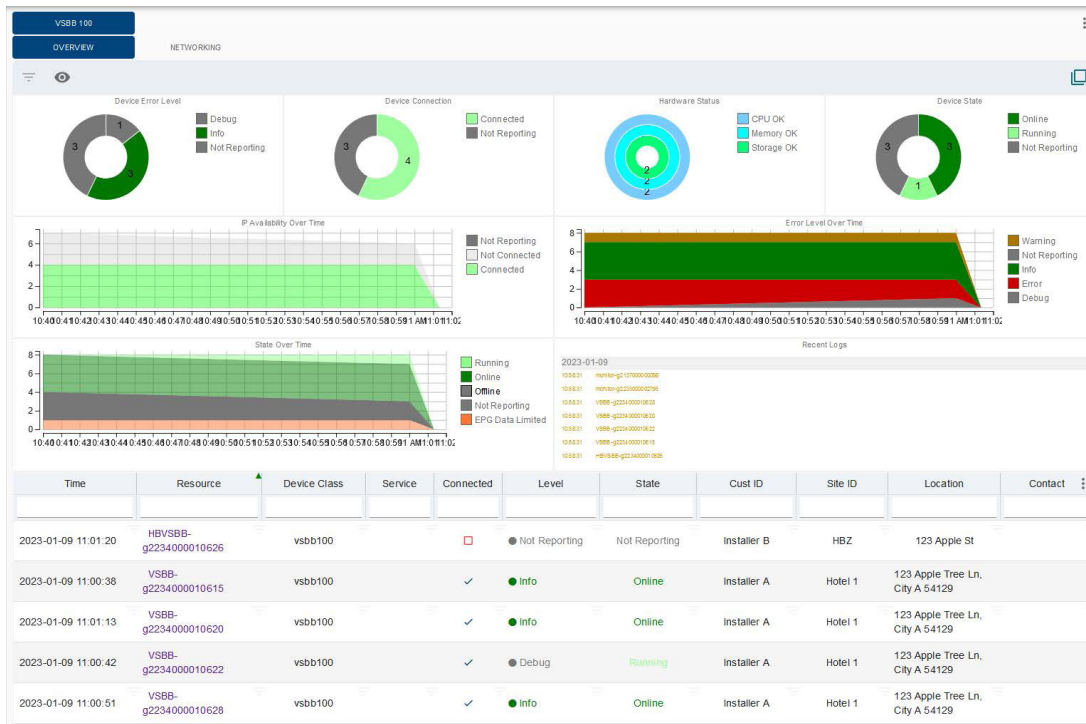


The user may then select the products that would be most beneficial to see on the Dashboard. If the user will only be monitoring the VSBB 100, the user would only need to activate one or both options under “VSBB 100.”

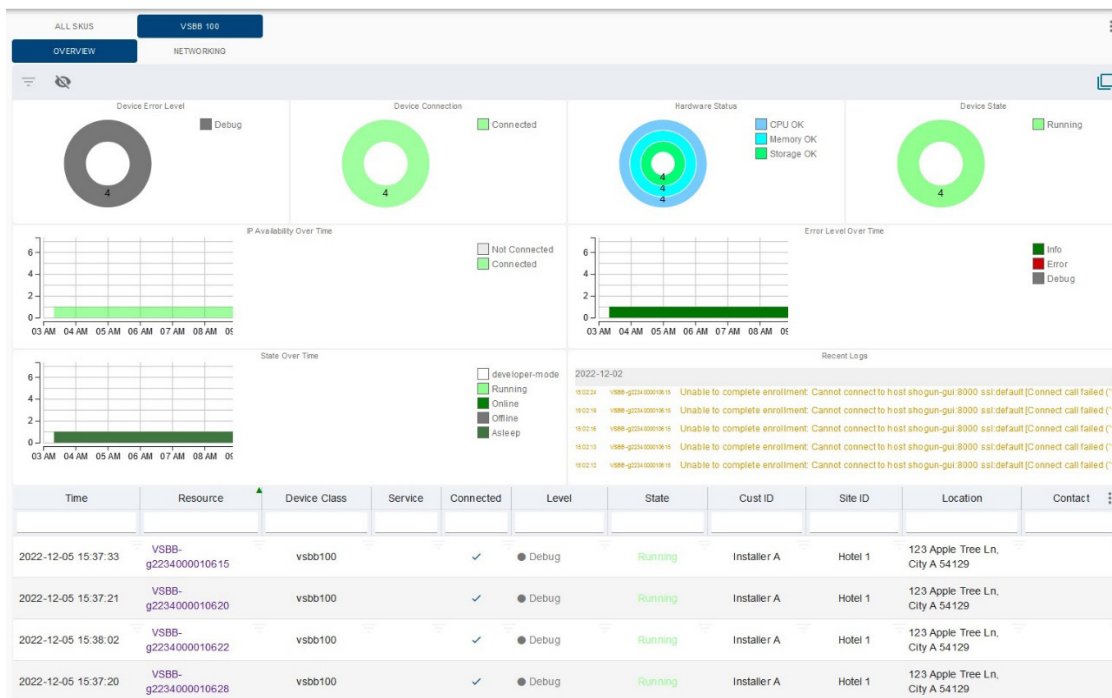
Select dashboards to enable. Click the settings button to return to dashboard ->

Dashboard Records			
Records			
Name	Unique Slug	Interface Role	Selected
Cache Blade			
Viewership	cacheblade-segments	dashboard	<input type="checkbox"/>
All SKUs			
Device Timeline	device-dt	dashboard	<input checked="" type="checkbox"/>
Overview	device-overview	dashboard	<input checked="" type="checkbox"/>
Streaming Monitor			
Streaming Timeline	monitor-st	dashboard	<input type="checkbox"/>
Overview	monitor-results	dashboard	<input type="checkbox"/>
Streaming Timeline	monitor-timeline	dashboard	<input type="checkbox"/>
VSBB 100			
Overview	vsbb-device	dashboard	<input checked="" type="checkbox"/>
Networking	vsbb-network	dashboard	<input checked="" type="checkbox"/>

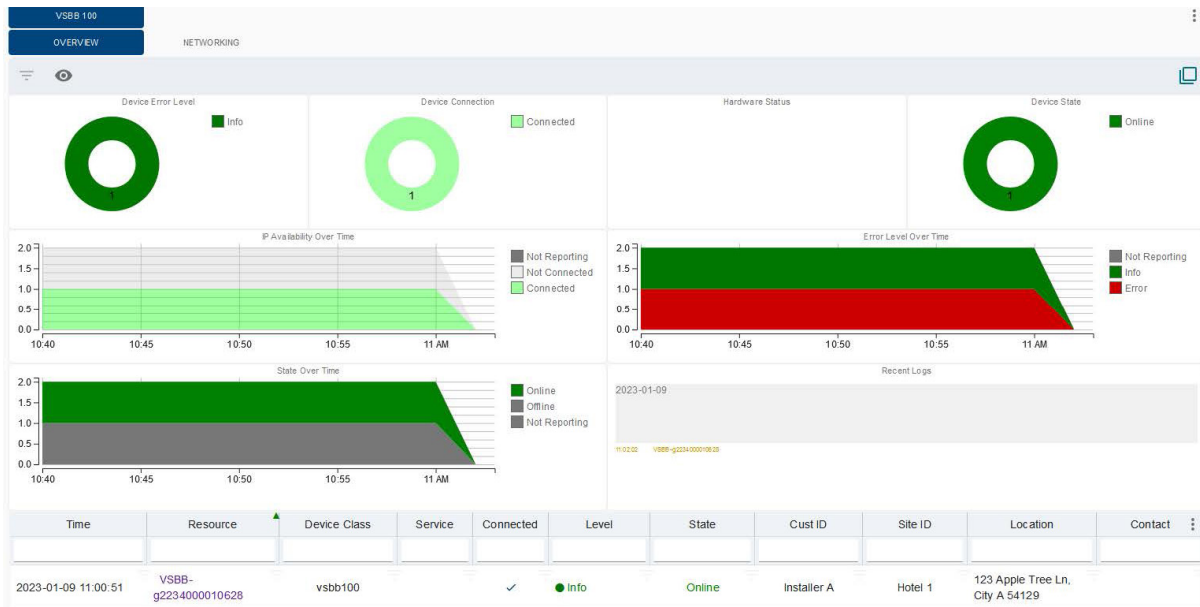
The user will now be able to see information regarding the desired products.



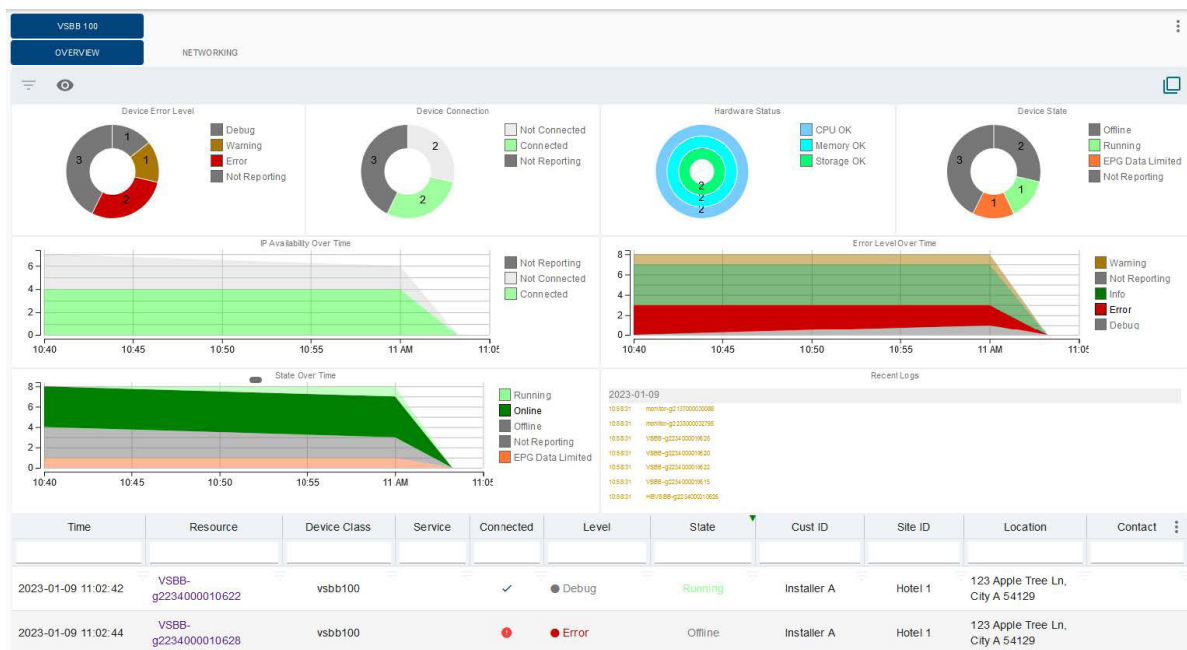
When adding products to the Dashboard, the devices would appear on the Header of the Dashboard page. By clicking “VSBB100” in the example above, the user would see the VSBB 100s that have been added to the manager. Each device type would then have subpages within them to examine various aspects of the devices on the system. For the VSBB 100 device category, a user can see the basic Overview stats for the devices and the Networking Status.



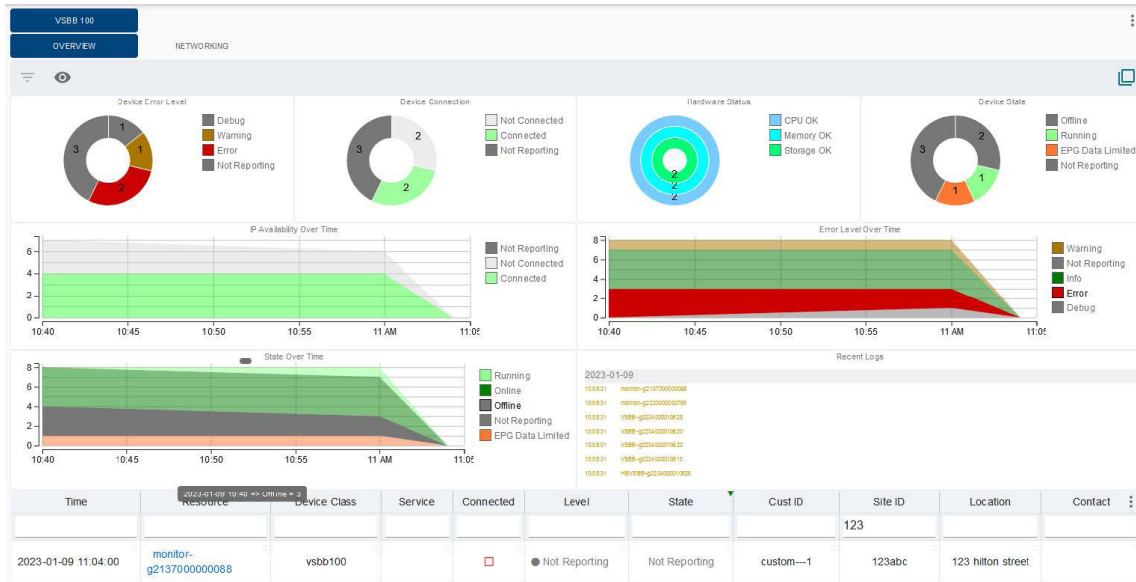
In the Overview page, a user can get a quick look at the status of all the devices in a group, sub-group, or in total when looking in the World view. A user can click on individual devices to see the information for that specific device and can also filter/sort devices by either clicking on a header in the sortable fields or by typing in the open space of a sortable field.



Clicking on a single device



Clicking on a sortable field (State) to sort by device name



Filtering by typing in a column (Site ID)

3.1.1 The “NETWORKING” Sub-menu

When looking in the “Networking” window, the user can get a look at the network status for various devices and see detailed network statistics. This page would be useful in troubleshooting network errors or to determine if network issues may be causing problems with the performance of a single or group of VSBB 100s.

When in the “World” view, the user will see all the devices. When selecting a “Group” or “Sub-group”, only those devices enrolled in the group or sub-group will be displayed.

Clicking on a row in either menu will isolate the device in the viewing window. Clicking on the “Resource” name will bring up the Device Configuration page for that device. *The Device Configuration page will be covered further down.*

VSBB 100															
OVERVIEW															
NETWORKING															
<div>WiFi Level Errors</div> <div>WiFi Level OK</div> <div>Tx/Rx Errors</div> <div>RX OK</div> <div>TX OK</div> <div>Pkt Drop Error</div>															
Time	Resource	Device Class	Level	Interface	Enabled	IP Address	WiFi SSID	WiFi Level	Tx/Err	Rx/Err	Pkt Drops	Rx/Bytes	Tx/Bytes	Over	Cust ID
2022-12-05 15:37:33	VSBB-g2234000010615	vsbb100	Error	ra0	<input checked="" type="checkbox"/>	192.168.120.6/24	The Matrix	89	0	0	3	1786457	119650	60	Installer A
2022-12-05 15:38:21	VSBB-g2234000010620	vsbb100	Error	ra0	<input checked="" type="checkbox"/>	192.168.120.6/24	The Matrix	79	0	0	2	45623	1336	60	Installer A
2022-12-05 15:38:02	VSBB-g2234000010622	vsbb100	Error	ra0	<input checked="" type="checkbox"/>	192.168.120.6/24	The Matrix	79	0	0	3	3010304	122722	60	Installer A
2022-12-05 15:38:20	VSBB-g2234000010628	vsbb100	Error	ra0	<input checked="" type="checkbox"/>	192.168.120.6/24	The Matrix	81	0	0	1	39337143	428655	60	Installer A
2022-12-05 15:38:31	monitor-g21370000000088	vsbb100	Not Reporting		<input checked="" type="checkbox"/>										custom---1
2022-12-05 15:38:31	monitor-g22330000002795	vsbb100	Not Reporting		<input checked="" type="checkbox"/>										123abc

3.3 The “Group” Menu Page

When under the “World” view, a user can see all the groups and enrollment files created under the account login. On this page, a user can create a new group as well as enrollment files.

3.3.1 Groups Section

When in the “World” view, the user can see all the main groups and can search/filter them based on name, custom tags, or the owner.

Dashboard

Devices

Group

Configs

Notifications

Alerts

Logs

Firmwares

Children

Records

Name

Tags

Owner

Hotel Test

MP Hotel 1

MP Hotel 2

SMU demo

customer-demo-group

customer-demo-group

customer-demo-group

view_firmware

+ ADD GROUP

Clicking on a group will enter the “Group” page of that specific group. There, the user can edit the group’s metadata, assign configuration packages, create sub-groups, and enrollment files.

Hotel Test Metadata

Name

Hotel Test

Tags

Owner

customer-demo-group

Device Group

«World (Stand Alone Cluster)»

✓SAVE

✗DELETE

Config Packages

Available

0/3 selected

☐ SMU demo config
 ☐ SMU demo channel config
 ☐ MP Hotel 1 Master Config

Selected

0/0 selected

Current Bindings

Resource Type	Role	Config Slot	Role	Config Package	Service	Assigned To
VSBB Device	Default	bridge	Default			
		firmware	Default			
VSBB Streaming Monitor	Default	Config Slot	Role	Config Package	Service	Assigned To
		monitor	Default			
VSBB STB	Default	Config Slot	Role	Config Package	Service	Assigned To
		logd/lan	Default			

✓SAVE

Children

Name	Tags	Owner
floor 1		customer-demo-group

+ ADD GROUP

Enrollments

Name	Tags	Owners	Name Template	Enroll Into	Valid Until	Customer ID	Location	Site ID

+ NEW ENROLLMENT

APPLY

3.3.2 Enrollment Section

When in the “World” view, the user can see all the enrollment files and can search/filter them based on name, custom tags, and other metadata. If an expiration date is configured for an enrollment file, a user can quickly see if the enrollment file has expired.

When creating the enrollment file under the “World” view, a user must assign the file to a group. When creating an enrollment file within a group, the file is automatically assigned to that group. Clicking on an enrollment file after creating it will open the configuration page for the enrollment file.

3.4 The “Configs” Menu Page

The “Configs” page shows the configuration packages that have been created through the account login and can also create packages within this page. When in the “World” view, the user can see every package and when in a specific group or sub-group the user will only see the configuration packages assigned to that group or sub-group.

The user can also quickly see what device group the package has been assigned to and how many enrolled devices have that configuration.

Dashboard	Config Packages					
	Config Package Name	Tags	Owners	Services	Device Groups	Affected Devices
Devices						
Group						
Configs	SMU demo config		view_firmware	Required Firmware SMU demo config	monitor-g2233000002795 SMU demo	1
Notifications	SMU demo channel config		view_firmware		SMU demo	1
Alerts				VP Hotel 1 VSBB Config and Channel Plan Floor 1 VP Hotel 1 VSBB Config and Channel Plan Floor 2 MP Hotel 1 VSBB Config and Channel Plan Master VSBB Base Firmware	Floor 1 Floor 2 MP Hotel 1	6
Logs	MP Hotel 1 Master Config		customer-demo-group			
Firmwares						
System						
	+ ADD CONFIG PACKAGE					

Clicking on a package will bring up the package configuration window.

3.4.1 The Package Configuration Window

After creating a Configuration Package, the user would then click on it to begin configuring the package. Within the package, a user adds in various “Services” which are essentially individual configuration parameters for a VSBB. Think of the package as a “Folder” and the services as “Files”. The VSBB opens the folder, reads the files, and applies the instructions contained in the files. For example, one file (or “Service”) can be the Firmware file which tells the VSBB which firmware it should pull from the Visium Manager, and the other file (or “Service”) can be the main configuration for the VSBB that would also contain the Channel Map. Specific instructions are provided further in the manual.

Hotel Test Package Metadata

Config Package Name
Hotel Test Package

Tags

Owners
customer-demo-group

✓SAVE

✗DELETE

Notes

Hotel Test Package Services

Name	Owners	Service Type	Tags
VSBB Config & Channel Plan	customer-demo-group	VSBB Client	
VSBB Firmware	customer-demo-group	Required Firmware	

Add Service

Resource Type	Role	Bindings					
		Config Slot	Role	Create	Config Package	Current	Assigned To
VSBB Device	Default	bridge	Default	+			
		firmware	Default	+			
VSBB Streaming Monitor	Default						
		monitor	Default	+			
VSBB STB	Default						
		ipgclient	Default	+			

Create

Select a service type

3.5 The “Notifications” Menu Page (to be implemented at a later date)

The Notifications menu is used to create a group of users who would receive an email notification for a specific event.

3.6 The “Alerts” Menu Page (to be implemented at a later date)

The Alerts menu will show alerts that have met the triggers entered by the user.

3.7 The “Logs” Menu Page

The Logs menu will show recent log events for all devices on the account via the “World” or specific group & sub-group devices when in those group views.

<div> World </div> <div> / Logs </div> <div> customer Logout </div>												
Dashboard	<div> <div> </div> <div> Logs </div> </div>											
Devices												
Group												
Configs												
Notifications												
Alerts												
Logs												
Firmwares												
System												

Time	Resource	Device Class	Host	Level	Source	Line	Message	Cust ID	Site ID	Location	Contact
2022-12-02 15:02:24	g2234000010615-device	vsbb100	ceprabridge	Warning	shogunservice.ceprabridge: G2234000010615	261	Unable to complete enrollment: Cannot connect to host shogun-gui:8000 ssl default [Connect call failed ("10.0.192.248", 8000)]	Installer A	Hotel 1	123 Apple Tree Ln, City A 54129	
2022-12-02 15:02:19	g2234000010615-device	vsbb100	ceprabridge	Warning	shogunservice.ceprabridge: G2234000010615	261	Unable to complete enrollment: Cannot connect to host shogun-gui:8000 ssl default [Connect call failed ("10.0.192.248", 8000)]	Installer A	Hotel 1	123 Apple Tree Ln, City A 54129	
2022-12-02 15:02:16	g2234000010615-device	vsbb100	ceprabridge	Warning	shogunservice.ceprabridge: G2234000010615	261	Unable to complete enrollment: Cannot connect to host shogun-gui:8000 ssl default [Connect call failed ("10.0.192.248", 8000)]	Installer A	Hotel 1	123 Apple Tree Ln, City A 54129	
2022-12-02 15:02:13	g2234000010615-device	vsbb100	ceprabridge	Warning	shogunservice.ceprabridge: G2234000010615	261	Unable to complete enrollment: Cannot connect to host shogun-gui:8000 ssl default [Connect call failed ("10.0.192.248", 8000)]	Installer A	Hotel 1	123 Apple Tree Ln, City A 54129	
2022-12-02 15:02:12	g2234000010615-device	vsbb100	ceprabridge	Warning	shogunservice.ceprabridge: G2234000010615	261	Unable to complete enrollment: Cannot connect to host shogun-gui:8000 ssl default [Connect call failed ("10.0.192.248", 8000)]	Installer A	Hotel 1	123 Apple Tree Ln, City A 54129	

3.8 The “Firmwares” Menu Page

The Firmwares page will show all the released firmware for a specific device. The user can search and filter devices using the search fields to show only the needed files. To download a firmware package, the user would click on the blue file link and select a location on their computer to save the file. By default, only GA releases will be shown. To see all versions of software including developer versions, the user can remove “true” from the GA Release column.

<div> World </div> <div> / Firmware Management </div> <div> customer Logout </div>												
Dashboard	<div> <div> <div>Uploaded Firmware</div> <div> <div> <div>Name</div> <div>GA Release</div> <div>Resource Type</div> <div>Version</div> <div>File</div> <div>Notes</div> </div> <div> <div> <div>+</div> <div>UPLOAD FIRMWARE</div> </div> </div> </div> </div> </div>											
Devices												
Group												
Configs												
Notifications												
Alerts												
Logs												
Firmwares												
System												

Uploaded Firmware						
Name	GA Release	Resource Type	Version	File	Notes	
VSBB100	<input type="checkbox"/>	VSBB Device	1.0.1.60	Download		
VSBB100	<input type="checkbox"/>	VSBB Device	1.0.1.52	Download		
VSBB100	<input type="checkbox"/>	VSBB Device	1.0.1.44	Download		
VSBB100	<input type="checkbox"/>	VSBB Device	1.0.1.33	Download		
VSBB100	<input type="checkbox"/>	VSBB Device	1.0.1.26	Download		
VSBB100	<input type="checkbox"/>	VSBB Device	1.0.1.10	Download		
VSBB105	<input type="checkbox"/>	VSBB Device	1.0.0.105	Download		
+ UPLOAD FIRMWARE						

3.9 The “System” Menu Page

The Setup page provides several sub menus to help configure the system.

3.9.1 “Setup” Sub-menu (ATX Only)

This page allows the user to configure the SocketIO Bridge URL and ATXNode/Native Bridge URL. The user can also configure the License Server and SMTP Configuration.

3.9.2 “Users” Sub-menu

In the future, the main user will be able to create logins for other users within their company. At the moment, ATX will create one user per company.

3.9.3 “Licenses” Sub-menu

Displays licensing information for the system.

ENROLLMENT PROCESS

4. Enrollment Process

The enrollment process for a VSBB100 is completed by downloading an enrollment.json file from the Visium manager to a FAT32 formatted USB device and inserting it into the VSBB100.

The enrollment requires creating the following:

- Group
- Config Package
- Enrollment File

Creating a new group, config package and enrollment file for each VSBB100 is not required because the same files can all be re-used multiple times.

GROUP CREATION

5. Group Creation

Name	Tags	Owner
Hotel Test		customer-demo-group
MP Hotel 1		customer-demo-group
MP Hotel 2		customer-demo-group
SMU demo		view_firmware

+ ADD GROUP

Add Group: Group

Name: Hotel A

Tags:

Owner: customer-demo-group

Device Group: «World (Stand Alone Cluster)»

Notes:

X CANCEL ✓ SAVE

1. From the left-hand menu select “Group”
2. Under the “Children” Section click on “+ ADD GROUP”
3. From the pop-up window, fill in the required fields:
 - Name (Required): Name for the group
 - Tags (Optional): Comma separate list and no spaces
 - Owner (Required): Which user group will have permission to access the new group
 - Device Group (Required): This will determine the location of group within the group tree structure. Select “<< World (Stand Alone Cluster) >>” to create a top-level group
 - Notes (Optional)
4. If subgroups are required, then repeat the process but in step 3.d select the parent under the “Device group”
 - If creating multiple subgroups, refresh the page after creating each subgroup. Otherwise, only the last created subgroup will remain.

Groups created under the “WORLD” view should be unique from one-another and is recommended to follow a naming convention to better help differentiate WORLD groups from various log in accounts to the Visium Manager. For example, let’s say 2 completely different log in accounts manage a hotel named “Luxury Suites”. One log in is “Harper-Technologies” and the other is “Hospitality-Solutions”. If one log in creates a group named “Luxury Suites” under the WORLD view, the other log in will have to enter in a different name for theirs. Therefore, having a naming convention that may better differentiate groups from one another would be beneficial. One that may work would be to have the company initials at the forefront, followed by the name of the group, then a unique identifier such as city zip code, numbers of the street address, etc. As an example, these two can be: “HT Luxury Suites 76179”, and the other “HS Luxury Suites 91950”. There may be instances where certain log ins may have similar initials but having a unique type of identifier at the end should help with these situations. Sub-groups have no naming restrictions within the Visium Manager.

Add Group: Group

Name

Floor 1

Tags

Owner

customer-demo-group

Device Group

Hotel A

Notes

X CANCEL

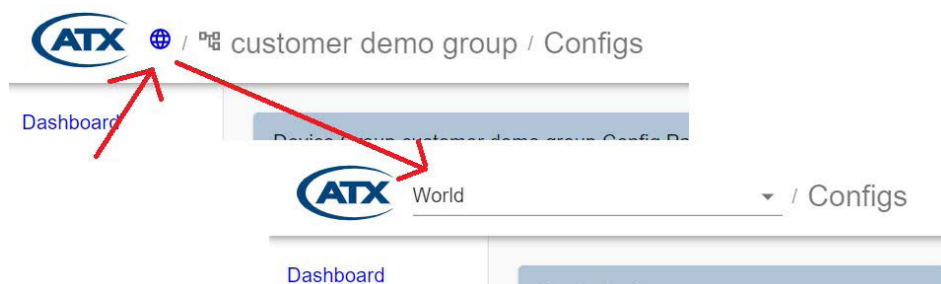
✓ SAVE

SERVICES AND CONFIG PACKAGES

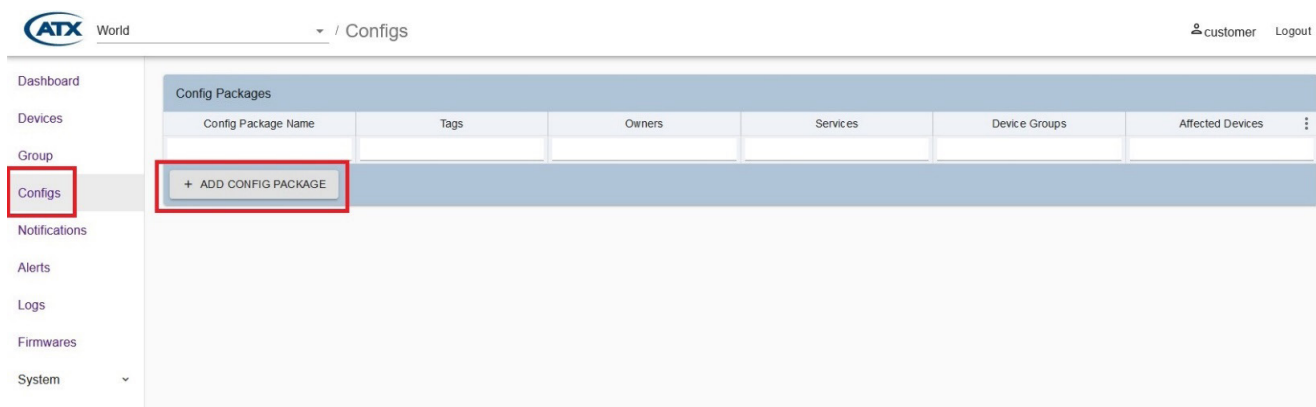
6. Services and Config Packages

The Visium Manager has services and config packages. For the VSBB100, the user can assign either one of the following: a concentrator, firmware or VSBB Config Service to a package. The most common services would be Firmware and VSBB Config. Each config package must contain one or more services. Only Config Packages can be assigned to groups or devices, see section: Assigning a Config Package for more details.

6.1 Creating a Config Package



- Using the top navigation ensure it is on the “World” view
 - If not, then click the “World” Icon



- Click on the “Configs” link on the navigation bar to the left of the interface
- If no Config package has been created, click “+ ADD CONFIG PACKAGE”
- From the pop-up window, fill in the required fields:
 - Provide a name for the group
 - Provide an owner for the group
 - Click Save

Create a new Config Package: ServiceGroup

Config Package Name

MP Hotel 1 Master Config

Tags

Owners

customer-demo-group

Notes

This config will be the base configuration for the entire hotel.

X CANCEL

✓ SAVE

5. Click on the name of the newly created config package to begin adding Services
6. Two services can be created and added to the config package:
 - Required Firmware (optional)
 - VSBB Config (required)



NOTE: The user can create individual configuration packages within each group and sub-group. When doing this, the package is automatically assigned to that group or sub-group. When creating the Config Package through the “World”, the user would then need to assign the package in a group or sub-groups configuration page.

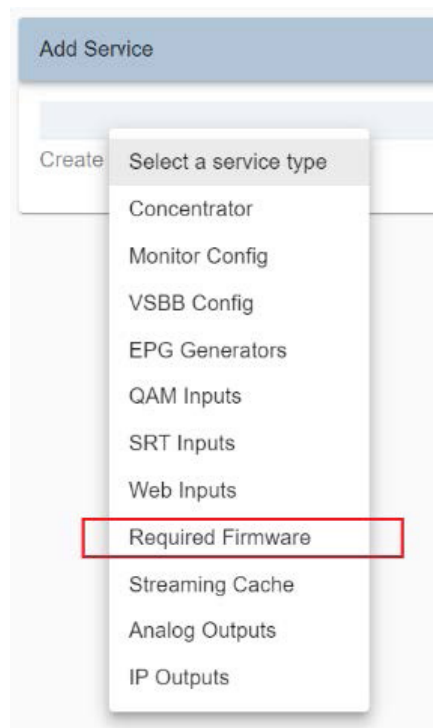
6.1.1 Adding a Required Firmware Service (Optional)

A “Required Firmware” Service is used when the installer wants to designate a minimum software version for boxes as they are enrolled and come online. Upon enrolling and coming online, the VSBBs would take and install the stated software version if it is newer than the currently installed firmware.



NOTE: Upgrading the VSBB can also be done individually with a USB drive. See Section: *Upgrading the VSBB100 with a USB Drive.*

1. Under the Add Service section, click on the “Create Select a service type” dropdown arrow and select the “Required Firmware”



2. Provide a Name for the required firmware the click “Save”

3. In the Package “Services” Section, click on the newly created required firmware service

MP Hotel 1 Master Config Services			
Name	Owners	Service Type	Tags
VSBB Device Firmware	customer-demo-group	Required Firmware	

View VSBB Device Firmware

4. Under “Firmware Target” click “+ New Record”

Firmware Targets	
Resource Type	Firmware Target
+ NEW RECORD	

5. In the popup window select the following information:
- Resource Type: VSBB Device
 - Firmware Target: Select the most recent Firmware version
 - Click Save

Firmware Targets

Resource Type

+ NEW RECORD

New Record: FirmwareTarget

Resource Type
VSBB Device

Firmware Target
VSBB100: 1.0.1.10

X CANCEL

✓ SAVE

6. Click on the “Configs” link on the left again to refresh the page to add a new service as stated in the next section.

6.1.2 Adding a VSBB Config Service

The “VSBB Config” Service is the service file containing all the operational parameters of a VSBB100 along with the channel plan.

1. Under the Add Services Section, select the “VSBB Config”

Select a service type

Concentrator
Monitor Config
VSBB Config
EPG Generators
QAM Inputs
SRT Inputs
Web Inputs
Required Firmware
Streaming Cache
Analog Outputs
IP Outputs

Add Service

Adding:

Name

MP Hotel 1 Master Service Config

Tags

Owners

customer-demo-group

Service Role

Notes

This will be the base box configuration and Channel Map for all boxes in Hotel 1

Config Package

MP Hotel 1 Master Config

3. In the “Package Services” Section, click on the newly created VSBB Config
4. The VSBB config is divided into two sections: VSBB Settings and Channel Plan

6.1.2.1. VSBB Settings

This section is divided into several smaller sections, where each section controls various behaviors of the VSBB.

Metadata: This section provides the ability to add notes, tags and change the name of the VSBB config.

Add Service

Adding:

Name

MP Hotel 1 Master Service Config

Tags

Owners

customer-demo-group

Service Role

Notes

This will be the base box configuration and Channel Map for all boxes in Hotel 1

Config Package

MP Hotel 1 Master Config

Timer Sections: Allows the user to configure how long various On-Screen Displays (OSD) are on the screen before they disappear. This section also includes the ability to set the various sleep timer options.

Timer Settings

Info Bar Timeout

5

Menu Timeout

10

CC Notification Timeout

5

Search Timeout (Matches)

5

Search Timeout (No Match)

2

Search Timeout (1 Match)

2

Sleep Timer Durations (m)

0,2,30,60,90,120,180

Power On: These settings control the default settings when the VSBB is turned on either after a power outage, walk form Sleep or pressing the power on button. Values of “Not Set” and “-1” indicate to not override the current setting on the VSBB.

Power On

Start Channel

Default Audio Language

eng

Audio Output Mode

Not Set

Contrast

-1

Saturation

-1

Aspect Ratio

Not Set

Resolution

Not Set

CC Track

CC1

Start Volume

100

Default Subtitle Language

eng

Brightness

-1

Hue

-1

Sharpness

-1

Pan/Scan

Not Set

CC Active on Start

☐

Hidden Features: This section allows you configure the key sequence to open the Installer Menu and how long to press the power button to cause a reboot.

EPG Settings: Configuration options for the Electronic Program Guide. The VEMS manager has a built in “Demo Data Source” that can be used for testing. This guide data is artificially created and rotated every 6 hours.

Hidden Features

Installer Menu Trigger

5011602

Power Reboot Duration

10

EPG Settings

EPG Feed

Demo Data Source

EPG Hours Displayed

2.5

Timezone

Empty, search below

Add to Timezone

US/Central (CDT, CPT, CST, CWT, EST)

Time Format

%-I:%M %p

Date Format

%a, %-d %b, %Y

EPG Rows

7

SAVE

CANCEL

Over time, more EPG providers may be added along with the ability to potentially let users add in their own EPG sources.

6.1.2.2. Channel Plan

Channel Plan					
Enabled	Channel	TMSID	Station	URL	
<input type="checkbox"/>					
<input checked="" type="checkbox"/>	1	10057	BRAVO	qam256://57.0MHz#2	X
<input checked="" type="checkbox"/>	2	1	LChnl	udp://239.31.1.1:8000#1	X
+ CSV					

Enabled: Ability to have a channel configured but not available to tune

Channel: The channel number used in the EPG and for tuning

TMSID: ID used by the guide data to populate the EPG and INFO bar. A TMSID of “1” indicates this is local channel that is not available in the guide data

Station: Name of the Station. Cells that include a “pencil” all the editing of the Station Name, Call Sign, Language and Location

URL: A URL scheme is used to determine how to tune the channel. Below a description on how to tune to QAM and UDP

QAM: qam<modulation><encryption>://<frequency>Mhz<program-number>

Available Options:

- modulation: 64, 128, 256
- encryption: proi
- frequency: between 57 and 10008 in Mhz
- program number: any valid MPEG program number. This value is optional, if no program number is specified then the first program found in the PMT will be used

Examples:

- qam256://57Mhz#2
- qam256+proi://375Mhz

UDP: udp<encryption>://<multicast-port><program-number>

Available Options:

- encryption: proi
- multicast-port: any valid multicast address and port number
- program number: any valid MPEG program number. This value is optional, if no program number is specified then the first program found in the PMT will be used.

Examples:

- udp://239.31.1.2:8000
- udp+proi://239.41.2.3:8450#3



NOTE: When adding channels to the lineup, click on the (+) button and immediately save without entering information and repeat for the exact number of channels in the plan. Once the plan is populated with the number of needed channels, go into each one individually to enter the required information and URLs.

Create: Tuning Channel

Enabled

☒

Channel

Schedule Identifier (TMSID)

Content URL

https://example.com:8080/path/to/folder/

Channel Name

Callsign

Language

Location

X CANCEL

✓ SAVE

Channel Plan: errors, unsaved

Enabled	Channel	TMSID	Station	URL	
<input checked="" type="checkbox"/>	[Need a number, with an optional period or dash followed by another number]	TMSID is required		URL is required	×
<input checked="" type="checkbox"/>	[Need a number, with an optional period or dash followed by another number]	TMSID is required		URL is required	×
<input checked="" type="checkbox"/>	Duplicate channel	TMSID is required		URL is required	×
<input checked="" type="checkbox"/>	Duplicate channel	TMSID is required		URL is required	×

+ CSV

Create: Tuning Channel

Enabled ☒

Channel

TMSID

Content URL

X CANCEL ✓ SAVE

Channel Plan

Enabled	Channel	TMSID	Station	URL	
<input checked="" type="checkbox"/>	100	AMC (10021)		udp://239.1.1.1:6000#1	×
<input checked="" type="checkbox"/>	101	BET (10051)		udp+proi://239.1.1.2:6000#210	×
<input checked="" type="checkbox"/>	102	1	LOBBY	qam256://57.0MHz#4	×
<input checked="" type="checkbox"/>	103	2	WELCOME	qam64+proi://57.0MHz#127	×

+ CSV

Once done, you may have to select the services with an EPG TMSID and reselect the TMSID to properly save and show the station call letters & TMSID in the correct column.

Channel Plan

Enabled	Channel	TMSID	Station	URL	
<input checked="" type="checkbox"/>	100	10021	AMC	udp://239.1.1.1:6000#1	×
<input checked="" type="checkbox"/>	101	10051	BET	udp+proi://239.1.1.2:6000#210	×

CSV

For services without non-standard TMSID (channel with no EPG data), you can click on the pencil icon in the Station column to provide some basic information for the channel.

Create: Custom Channel

Channel Name

Front Desk

Callsign

LOBBY

Language

Eng

Location

X CANCEL

✓ SAVE



NOTE: A TMSID value is require to save the lineup.

6.2 Assigning a Config Package

- 1. On the left-hand menu click on “Group”
- 2. Using the top navigation to ensure you are on the correct group where you want the config package to be assigned
- 3. Under the “Config Package” Section, select the package under “Config Packages -> Available” and click the small right arrow to move the package to the “selected” Section

Config Packages

Available

1/2 selected

☒

MP Hotel 1 Master Config

☐

MP Hotel 1 Floor 1 Config

☐

Selected

0/0 selected

Current Bindings

Resource Type	Role	Bindings
---------------	------	----------

✓ SAVE

- 4. Click Save

CREATE AN ENROLLMENT JSON FILE

7. Create an Enrollment JSON File

1. On the left-hand menu click on “Group”
2. Using the top navigation to ensure you are in the correct group where you want the VSBB100 added.
3. Under the “Enrollments” click on “+ New Enrollment”
4. From the pop-up window, fill in the required fields:
 - Provide a name for the enrollment
 - Provide an owner for the enrollment
 - Ensure “Enroll Into” is the correct group
 - Click Save
 - Filling in the Customer ID, Site ID, Notes and Location fields are not required but may help an installer stay organized as all this data except the Notes are populated on the Dashboard and Devices section of the manager

New Enrollment: Enrollment

Name
MP Hotel 1 Master Enrollment

Tags

Owners
customer-demo-group

Enrollment Target
Name Template
VSBB-%(serial_number)s
Valid Until
2022-11-30
Nov 30, 2022, 12:26 p.m. CST
Enroll Into
MP Hotel 1

Tracking
Customer ID
InstallerGroup A
Site ID
City A
Location
123 Apple Tree Ln, City A 00004

Notes
This is the enrollment file to be used for all standard VSBBs in the hotel. For specific subgroups (Floor 1, Floor 2, etc. You may use the enrollment file for those subgroups.

X CANCEL ✓ SAVE

5. Click on the Name of the newly created Enrollment

Name	Tags	Owners	Name Template	Enroll Into	Valid Until	Customer ID	Location	Site ID
MP Hotel 1 Master Enrollment		customer-demo-group	VSBB-%(serial_number)s	MP Hotel 1		InstallerGroup A	123 Apple Tree Ln, City A 00004	City A

+ NEW ENROLLMENT

- Click on “Download” to download the JSON file

MP Hotel 1 Master Enrollment

Name: MP Hotel 1 Master Enrollment

Tags:

Owners: customer-demo-group

Enrollment Target

Name Template: VSBB-%(serial_number)s

Enroll into: MP Hotel 1

Valid Until: 2022 - 11 - 30 - 12 - 27 - Nov 30, 2022, 12:27 p.m. CST

Tracking

Customer ID: InstallerGroup A

Site ID: City A

Location: 123 Apple Tree Ln, City A 00004

Buttons:

- Save the enrollment file to a FAT32 formatted USB stick and ensure the name is enrollment.json
- Plug the USB into a VSBB and connect the power
- After the VSBB has completed booting it will be enrolled as per the enrollment file
- Reboot the box one more time to finish applying the enrollment
- Apply changes, see section: Applying Changes

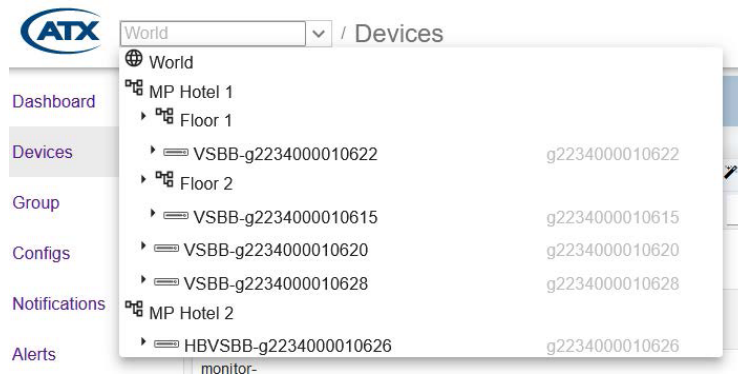
MANAGING VSBB 100S

8. Managing VSBB 100s

8.1 Moving VSBBs to a New Group

Once a VSBB 100 has come online using an enrollment file, the user can move the box to a new group using the following procedure:

1. Select the group in the manager where the VSBB 100 is currently online.



2. Click on the desired VSBB 100.

Devices in MP Hotel 1											
Name	Tags	Owner	Customer ID	Site ID	Location	Contact	Group	Serial Number	Reported IPs	MAC Address	Device Class
VSBB-g2234000010615		customer-demo-group	Installer A	Hotel 1	123 Apple Tree Ln, City A 54129		Floor 2	g2234000010615	192.168.120.65		vsbb100
VSBB-g2234000010620		customer-demo-group	Installer A	Hotel 1	123 Apple Tree Ln, City A 54129		MP Hotel 1	g2234000010620	192.168.120.62		vsbb100
VSBB-g2234000010622		customer-demo-group	Installer A	Hotel 1	123 Apple Tree Ln, City A 54129		Floor 1	g2234000010622	192.168.120.63		vsbb100
VSBB-g2234000010628		customer-demo-group	Installer A	Hotel 1	123 Apple Tree Ln, City A 54129		MP Hotel 1	g2234000010628	192.168.120.64		vsbb100

3. In the “Device Tracking” section, select the new group from the “Group” drop down menu.

Device Metadata

Name
VSBB-g2234000010615

Tags

Owner
customer-demo-group

Notes

Device Tracking

Customer ID
Installer A

«World (Stand Alone Cluster)»
MP Hotel 1
Floor 1
Floor 2
MP Hotel 2
North Building
Conference Rooms
Lobby
South Building
Common Areas
Conference Rooms

Site ID
Hotel 1
Contact
Serial Number
g2234000010615
MAC Address
unset
Enrollment
MP Hotel 1 Enrollment

In this example, we are moving the VSBB 100 from “Floor 2” to “Floor 1”

4. Click the “Save” button

Device Metadata

Name

VSBB-g2234000010615

Tags

Owner

customer-demo-group

Notes

Device Tracking

Customer ID

Installer A

Location

123 Apple Tree Ln, City A 54129

Group

Floor 1

Reported IPs

192.168.120.65

Device Class

vsbb100

Site ID

Hotel 1

Contact

Serial Number

g2234000010615

MAC Address

unset

Enrollment

MP Hotel 1 Enrollment

✓ SAVE

✗ DELETE

5. Click the Apply button.

Device Metadata

Name

VSBB-g2234000010615

Tags

Owner

customer-demo-group

Notes

Device Tracking

Customer ID

Installer A

Location

123 Apple Tree Ln, City A 54129

Group

Floor 1

Reported IPs

192.168.120.65

Device Class

vsbb100

Site ID

Hotel 1

Contact

Serial Number

g2234000010615

MAC Address

unset

Enrollment

MP Hotel 1 Enrollment

✓ SAVE

✗ DELETE

Device Config Packages

Config Packages

☐ Available
0/2 selected

☐ Hotel Test Package

☐ MP Hotel 1 Master Config

☐ Selected
0/0 selected

Current Bindings

Resource Type	Role	Bindings
---------------	------	----------

▶ APPLY

6. On the next menu, click the Apply button one more time:

7. Changes have been applied, the VSBB will be moved to the new group and receive the configuration for its new group.

8.2 Special Configurations for Individual VSBB 100s

There may be a situation where a user may want to assign a unique configuration to individual VSBB 100s within a group. When this situation arises, the user can assign specific configuration packages to the VSBB 100. When this is done, the specific boxes will then ignore any changes made and pushed to the rest of the VSBB 100s within the group. For example:

- There are ten VSBB 100s within Group A and have “Configuration A” assigned
- The user would like to assign a unique configuration to VSBB 100 with name “VSBB-g2234000010615” that is currently in Group A and has “Configuration A” assigned
- The user assigns “Configuration B” to this VSBB 100
- The user modifies the channel lineup or other configurable parameters for VSBBs with “Configuration A” at a later date
 - VSBB with name “VSBB-g2234000010615” will ignore those changes
- The user modifies the channel lineup or other configurable parameters for “Configuration B” assigned to “VSBB-g2234000010615”
 - Only VSBB-g2234000010615 will receive the changes. The rest of the VSBB 100s with “Configuration A” will ignore those changes.
- If at some point the user would like VSBB-g2234000010615 to receive “Configuration A” again, the user can remove “Configuration B” from the VSBB and it will begin to receive the original configuration (Configuration A) once again

To accomplish this task, the user may do the following:

1. Select the group where the VSBB is located.
2. Create a configuration package for the VSBB 100 as normal.
3. Go to the “Devices” menu and select the desired VSBB 100.
4. Under the “Device Config Packages” section, select the desired configuration packaged and click the right arrow icon.

Device Config Packages

Config Packages

Available

1/2 selected

☒ Hotel Test Package

☐ MP Hotel 1 Master Config

Selected

0/0 selected

Current Bindings

5. Click the Save button.

Device Config Packages

Config Packages

Available

0/1 selected

☐ MP Hotel 1 Master Config

Selected

0/1 selected

☐ Hotel Test Package

Current Bindings

Resource Type	Role	Bindings				
		Config Slot	Role	Config Package	Service	Assigned To
VSBB Device	S3	bridge	S3			
		firmware	S3			
VSBB Streaming Monitor	S3	Config Slot	Role	Config Package	Service	Assigned To
		monitor	S3			
VSBB STB	S3	Config Slot	Role	Config Package	Service	Assigned To
		ipgclient	S3	MP Hotel 1 Master Config	MP Hotel 1 VSBB Config and Channel Plan Floor 2	Floor 1
		ipgtheme	S3			

SAVE

6. Click the Apply button.

Device Config Packages

Config Packages

Available

0/1 selected

☐ MP Hotel 1 Master Config

Selected

0/1 selected

☐ Hotel Test Package

Current Bindings

Resource Type	Role	Bindings				
		Config Slot	Role	Config Package	Service	Assigned To
VSBB Device	S3	bridge	S3			
		firmware	S3			
VSBB Streaming Monitor	S3	Config Slot	Role	Config Package	Service	Assigned To
		monitor	S3			
		Config Slot	Role	Config Package	Service	Assigned To

APPLY

7. On the next window, click the Apply button once more.

Group Floor 1 Apply

Name

Floor 1

Changes planned

VSBB-g2234000010615 32 changes: 26 in chassis firmware 6 in chassis firmware file

APPLY X CANCEL

Applied Configurations

Device	Start Date	Download
--------	------------	----------

To remove the specific configuration, do the following:

1. Select the device from the Devices menu.
2. Under the Device Config Packages section, select the assigned configuration package on the right side then click the left arrow icon.

Device Config Packages

Config Packages

Available
0/1 selected

MP Hotel 1 Master Config

Selected
1/1 selected

Hotel Test Package

3. Click the Save button.

Device Config Packages

Config Packages

Available
0/2 selected

Hotel Test Package

MP Hotel 1 Master Config

Selected
0/0 selected

Current Bindings

Resource Type	Role	Bindings				
		Config Slot	Role	Config Package	Service	Assigned To
VSBB Device	S3	bridge	S3			
		firmware	S3			
VSBB Streaming Monitor	S3	monitor	S3			
VSBB STB	S3	ipgclient	S3	MP Hotel 1 Master Config	MP Hotel 1 VSBB Config and Channel Plan Floor 2	Floor 1
		ipgtheme	S3			

SAVE

4. Click the Apply button.

Device Config Packages

Config Packages

Available
0/2 selected

Hotel Test Package

MP Hotel 1 Master Config

Selected
0/0 selected

Current Bindings

Resource Type	Role	Bindings				
		Config Slot	Role	Config Package	Service	Assigned To
VSBB Device	S3	bridge	S3			
		firmware	S3			
VSBB Streaming Monitor	S3	monitor	S3			
VSBB STB	S3	ipgclient	S3	MP Hotel 1 Master Config	MP Hotel 1 VSBB Config and Channel Plan Floor 2	Floor 1
		ipgtheme	S3			

SAVE

APPLY

APPLYING CHANGES

9. Applying Changes

An “Apply” is used when changes have been made to a Service within a Configuration Package such as updating the Channel Plan, VSBB settings, or modifying the Required Firmware service. When an “Apply” is sent, the changes are essentially pushed to all the VSBB’s that have been assigned the Configuration Package which has been modified. Use this process after making any changes to an existing configuration and/or service for a specified group.



NOTE: • Not all changes made on the Visium Manager require an “Apply”.
• All newly added devices require an “apply”

1. On the left-hand menu navigate to either Device or Groups
2. If an “Apply” is required then, on the bottom right hand of the screen, click the “Apply” button

Device Apply

Name:
monitor-g2137000000088

Changes planned:
monitor-g2137000000088 149 changes: 21 in chassis.firmware 4 in chassis.firmware.file 1 in chassis 59 in stb 7 in stb.default_sleep_timer 9 in stb.epgfetch 12 in stb.tuning.channels []
17 in stb.tuning.channels [] station 18 in stb.tuning.channels [] tuning 1 in stb.tuning

APPLY

Applied Configurations

Device	Start Date	Download
monitor-g2137000000088	2022-11-14 20:39	Download
monitor-g2137000000088	2022-11-14 20:34	Download
monitor-g2137000000088	2022-11-14 19:19	Download
monitor-g2137000000088	2022-11-09 16:42	Download

APPLY

3. A new page will display a list of changes and which devices will be affected

Device Group floor 1 Apply

Name:
floor 1

Changes planned:
monitor-g2137000000088 149 changes: 21 in chassis.firmware 4 in chassis.firmware.file 1 in chassis 59 in stb 7 in stb.default_sleep_timer 9 in stb.epgfetch 12 in stb.tuning.channels []
17 in stb.tuning.channels [] station 18 in stb.tuning.channels [] tuning 1 in stb.tuning

APPLY X CANCEL

4. Click “Apply” again, this will apply changes

Device Group floor 1 Apply

Name:
Apply Changes

Changes planned:
APPLY X CANCEL

Cluster apply complete

ADVANCED CONCEPTS

10. Advanced Concepts

10.1 Using “Service Roles”

Traditionally, an installer would create a package and enrollment file for every group and sub-group that needs a different configuration and/or Channel Plan. Using the Service Role function, an installer can assign different configurations and channel plans using a single package and single enrollment file.

If a config package has multiple different “VSBB configs”, each config can be assigned a different service role (i.e., role1 and role2). Then devices can be assigned one of those two roles. After an “Apply” the device will get the config based on the service role that has been assigned.

Upon enrolling boxes, the installer can then assign the Service Roles the boxes as they become available on the Visium Manager. The issue with this method is that each box must be edited as it comes online then moved into their appropriate sub-groups if the installer only wants to use one enrollment file. This can be time consuming if there are hundreds of boxes that must be adjusted manually one by one as they come online.

It may be more beneficial to create new config packages for each subgroup instead and then if needed, new service configs can be created within a sub-groups config package and assigned later as needed. One way to save time is to create an enrollment file per subgroup (with the same master config file attached to the subgroup) and use them to bring boxes online into their respective sub-groups. This will at least group boxes to specific subgroups making it easier to sift through boxes as they come online to assign the correct service role.

10.1.1 Procedure

To create multiple Service Roles on one Config Package

1. Create a package as normal, create the Channel Plan with a VSBB Config service and assign a Service Role designator.
 - Value may only have characters from: a-zA-Z0-9._- and must start with a letter (a-zA-Z)
 - Example “S2”

MP Hotel 1 VSBB Config and Channel Plan Floor 1

Name
MP Hotel 1 VSBB Config and Channel Plan Floor 1

Tags

Owners
customer-demo-group

Service Role
S2

2. Add as many new VSBB Config services to the same package and modify their parameters as needed.
 - Enter in a new Service Role designator.
 - Example “S3”.

MP Hotel 1 VSBB Config and Channel Plan Floor 2

Name
MP Hotel 1 VSBB Config and Channel Plan Floor 2

Tags

Owners
customer-demo-group

Service Role
S3

- If each group of VSBBs will require different firmware versions, you can also add a new “Required Firmware” service and assign the appropriate Service Role.

Add Service

Adding:

Name
MP Hotel 1 VSBB Firmware Floor 2

Tags

Owners
customer-demo-group

Service Role
S3

Notes
The boxes on Floor 2 will need firmware 1.0.41

Config Package
MP Hotel 1 Master Config

- Assign the one configuration package to all the sub-groups as needed.
- Create your one enrollment file as normal.
- Enroll a VSBB as normal.
- Once the VSBB is in the Devices section of the Visium Manager, click on it.
- Expand the Device Metadata section and change the Device Group as needed.

Device Metadata

Name
VSBB-g2234000010615

Tags

Owner
customer-demo-group

«World (Stand Alone Cluster)»

- Hotel Test
 - floor 1
 - MP Hotel 1**
 - Floor 1
 - Floor 2**

Moving the VSBB from MP Hotel 1 (main group) to sub-group Floor 2

- Scroll down to the Device Resources section and assign the Role needed that was assigned earlier by clicking on the Service.

Device Resources								
Name	Role	Tags	Owners	Identifier	Resource Type	Resource Slot	Installed Firmware	Services
g2233000002795-device			view_firmware		VSBB Device	chassis	1.0.1.60	
g2233000002795-monitor	Click to edit g2233000002795-device		view_firmware		VSEB Streaming Monitor	monitor	1.0.1.60	
g2233000002795-vsbb			view_firmware		VSBB STB	stb	1.0.1.60	

Edit: g2234000010615-device

Name

g2234000010615-device

Device

VSBB-g2234000010615

Role

S3

Tags

Identifier

unset

Notes

Owners

customer-demo-group

Resource Class

Resource Type

VSBB Device

Resource Slot

chassis

Firmware

Installed Firmware

1.0.1.60

Target Firmware

Capacity

Resource Capacity

1

Disabled Slots

X CANCEL

X DELETE

✓ SAVE

Assign the Service Role for the Service

Device Resources								
Name	Role	Tags	Owners	Identifier	Resource Type	Resource Slot	Installed Firmware	Services
g2234000010615-device	S3		customer-demo-group		VSBB Device	chassis	1.0.1.60	
g2234000010615-monitor	S3		customer-demo-group		VSBB Streaming Monitor	monitor	1.0.1.60	
g2234000010615-vsbb	S3		customer-demo-group		VSBB STB	stb	1.0.1.60	

All services for this VSBB have been assigned the S3 Service Role

10. When done, scroll down to the “Device Apply” section and click the “Apply” button.
11. The box will then be placed in the appropriate group and take its new config & channel plan from the assigned Service Roll.

10.1.1.1. Using Multiple Enrollment Files

To speed up the process a step, you can create an enrollment file within each sub-group to bring up the VSBB100s in their respective sub-groups. Since you should have assigned the configuration package to the sub-group already, the box will download it with the only task left being to assign the correct Service Role to the VSBBs as they show up in the Visium Manager.

10.1.2 Adding a Monitoring Config Service (For Use with MD16/MD8 & the Streaming Blade)

The “Monitoring Config” Service is used for monitoring the status of the Streaming services from the Streaming Blade in conjunction with the VSBB100-PB Monitoring Probe. The status of a streaming channel is reported to the Visium Manager allowing the user to see if a channel is playing or is in an errored state.

1. Under the Add Service Section, select the “Monitor Config”
2. Provide a Name for the Monitoring Config and optionally add a tag and/or notes
3. It is recommended to change the minimum play period to 10 seconds
4. Enter the number of monitoring probes in the “Number of Monitors” field if there are more than 1
 - A user may want to monitor specific streaming channels using more than one monitoring probe to confirm the validity of a streaming channel's status.
 - Using the Monitor Index value, a user can bind specific probes to a group of streaming channels. See section 4.1.2.1 for an example.
5. Click Save

Add Service

Adding:

Name: MP Hotel 1 Monitoring

Tags:

Owners: customer-demo-group

Service Role:

Config Package: MP Hotel 1 Master Config

Monitoring Process

Minimum Play Period: 10

Corruption Threshold: 0.001

Enabled: ☒

DRM

Stream Registry: https://streaming0.watchdishtv.com/serviceeppinterface/serviceeppdata

Widevine Server: https://dish-sb.conax.cloud/widevine/license

Fairplay Server: https://dish-sb.conax.cloud/fairplay/license

DRM Token URL: /serviceeppinterface/drmtoken?contentID=

Playready Server: https://dish-sb.conax.cloud/cxplayready/rightsmanager.asmx

Fairplay Certificate URL: https://dish-sb.conax.cloud/fairplay/certificates/6EC9D5E98067A8DC54623487CE1602D1D9CF71

Fairplay Scanning: ☐

Fairplay Scan All: ☐

Multiple Monitor Setup

Number of Monitors: 1

Monitor Index (0 based): 0

10.1.2.1. Utilizing Multiple Monitors for Different Streaming Channels Using the Monitor Index

There may be situations where a user would need a group of monitoring probes to monitor a group of streaming channels. In this example, let's say a site has 30 streaming channels and the installer would like to have 3 different groups of monitoring probes monitor different groups of streaming channels. The Monitor Index logic spreads out the channels automatically so the installer would need to decide how many groups of channels will be monitored by a probe or group of probes.

The installer would then create a “Monitor Config” Service for every group of probes that they would like to be active. For example, if the installer needs to have 3 groups of probes, they would create 3 “Monitor Config” services within the package and configure each one with the number of probes (“Monitors”), and the desired Monitor Index. See below for a breakdown example:

Monitoring Service “1”

- 3 Monitors with Index “0”
 - This would mean that if we take 3 monitoring probes and configure them with Index 0, they will monitor the status of channels 1-10 (or the amount created by the Monitor Index Logic)

Monitoring Service “2”

- 4 Monitors with Index “1”
 - That means that if we take 4 monitoring probes and configure them with Index 1, they will monitor the status of channels 11-20 (or the amount created by the Monitor Index Logic)

Monitoring Service “3”

- 2 Monitors with Index “2”
 - That means that if we take 2 monitoring probes and configure them with Index 2, they will monitor the status of channels 21-30 (or the amount created by the Monitor Index Logic)



NOTE: A user does not need to configure multiple monitors, the above is just an example if a user would prefer to have more than one monitor per group of streaming services.

10.2 Using Metadata to be More Organized

Organization is very important when it comes to optimizing the workflow in the Visium Manager. As potentially hundreds of VSBBs come online, being able to sift through the devices efficiently on the main Dashboard when there are issues can save an installer plenty of time and money.

When creating an enrollment file, a user has the ability to enter in various information that will automatically populate to the VSBBs as they are brought online using the enrollment file. Let's look at the example below for an enrollment file:

MP Hotel 1 Enrollment

Name

MP Hotel 1 Enrollment

Tags

Owners

customer-demo-group

Notes

This is the main enrollment file to be used for all new VSBBs being enrolled at MP Hotel 1

Enrollment Target

Name Template

VSBB-%(serial_number)s

Valid Until

2022 ▾ 12 ▾ 01 ▾

Dec 1, 2022, 4:50 p.m. CST

Enroll Into

MP Hotel 1

Tracking

Customer ID

Installer A

Site ID

Hotel 1

Location

123 Apple Tree Ln, City A 54129

✓ SAVE

✗ DELETE

⬇️ DOWNLOAD

10.2.1 Fields

Name: This is the name we are giving this enrollment file. We are clearly labelling and designating this as the main Enrollment file for MP Hotel 1.

Tags: None are entered here but an integrator can use various tags to further help search for a specific box.

Owners: Here we select the owner group that is in charge of this enrollment file (usually the main login)

Name Template: This is the name that the VSBBs will adopt as they are enrolled and come online. In this example, each box will be labeled as “VSBB” followed by the boxes’ serial number.

Enroll Into: This is the group that the VSBBs will be assigned to when given this enrollment file.

Valid Until: The integrator can set an expiration date for the enrollment file so that an installer cannot use the enrollment file to enroll boxes at another site, room, location, etc. on accident or on purpose and cause potential issues with organization in the Visium manager.

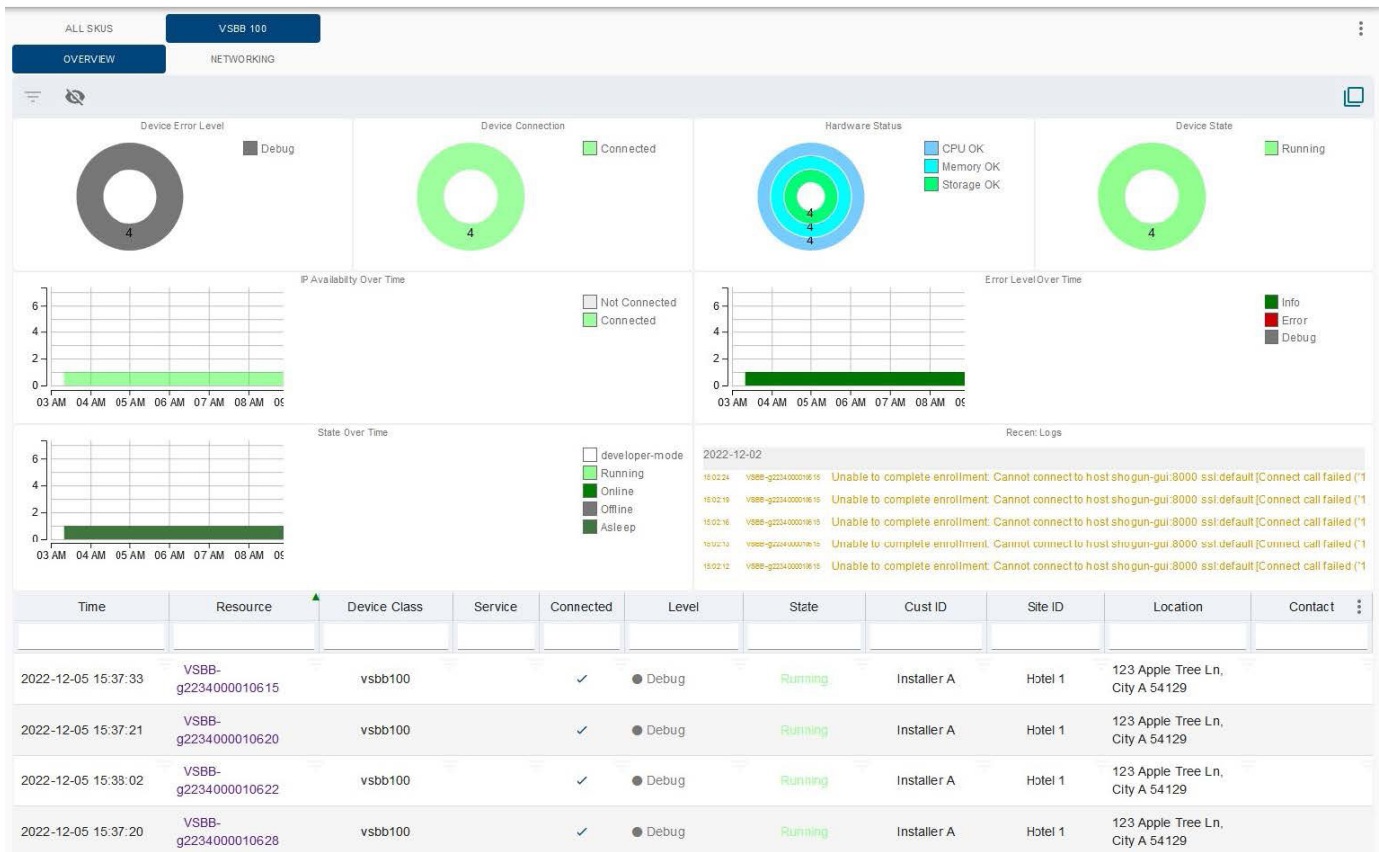
Customer ID: An integrator can be creative in using this field. Perhaps an integrator manages various companies that go out and do the installations or perhaps it is a big hotel chain with various hotels in the integrator's network. In the example above, we can say that we manage 3 Installers: Installer A, Installer B, and Installer C. This particular hotel is being handled by Installer A so that is what we are putting there.

Site ID: As with "Customer ID", an integrator can use this field creatively to further help organize. In the example above, we are noting that this enrollment file is for Hotel 1 and is being handled by Installer A (Customer ID). In another example, if it's a big hotel chain, the Customer ID can be: Superb Inn, and the Site ID can be a location such as: 347893 or "Fairview" (perhaps the city or the street it's on).

Location: Here, the integrator can enter a physical address or if it's more site specific, can enter in a Floor, Wing, or other designator that would alert the installer as to where the VSBB is physically.

10.2.2 Using the Dashboard

As boxes come online when using better organization, an integrator would then have a better overview of where boxes are and can search more efficiently. See below for a simplified example:



Now an installer can utilize the filters more effectively if they need to only see devices at a specific Location, or perhaps see devices from a specific Customer ID or Site ID.

When a specific device is clicked, the integrator can then also add in Contact information, such as a name, phone number, or email address in the Contact field:

Device Metadata

Name

VSBB-g2234C00010615

Tags

Owner

customer-demo-group

Notes

Device Tracking

Customer ID

Installer A

Location

123 Apple Tree Ln, City A 54129

Device Group

Floor 2

Reported IPs

Device Class

vsbb100

Site ID

Hotel 1

Contact

Serial Number

g2234000010615

MAC Address

unset

Enrollment

MP Hotel 1 Enrollment

✓SAVE

✕DELETE

INSTALLER MENU

11. Installer Menu

To access the installer menu to obtain on screen diagnostics enter in 5-0-1-1-6-0-2 and press OK. This value can be changed in the VSBB Configuration, under the “Hidden Features” Section.
See “VSBB100 Installers Operational Manual” for more details about the Installer Menu.

Hidden Features

Installer Menu Trigger	Power Reboot Duration
5011602	10

UPGRADING THE VSBB100 WITH A USB DRIVE

12. Upgrading the VSBB100 with a USB Drive

1. On the left-hand menu click on the “Firmware”
2. Click on the Firmware file under the “File” column of the release you want to use.

Uploaded Firmware							
Name	Tags	Owners	Resource Type	Version	File	File Size	MD5
VSBB100		view_firmware	VSBB Device	1.0.1.44	2022-08-05-VSBB100-1.0.1.44-develop.bin	163.49MB	6598a098b672...
VSBB100		view_firmware	VSBB Device	1.0.1.33	2022-07-12-VSBB100-1.0.1.33-develop.bin	163.31MB	0ca39f080926...
VSBB100		view_firmware	VSBB Device	1.0.1.10	2022-05-16-VSBB100-1.0.1.10-develop.bin	162.92MB	4eacd02af97d...
+ UPLOAD FIRMWARE							

3. Save the Firmware file to a FAT32 formatted USB drive.
4. Rename File to “UpgradeFile.bin” (make sure to match the case as shown here).
5. Insert the USB into the VSBB and power cycle the device.
6. If the VSBB has detected the upgrade file properly, you should see an upgrade status animation on the screen.
7. When the upgrade has completed the VSBB will automatically reboot, immediately remove the USB drive to prevent a re-upgrade of the VSBB.

12.1 Failed USB Upgrades

If the Upgrade with a USB drive fails, remove the USB drive and power cycle the device. The VSBB will reboot into the last working state.

Below are two reasons for a failed upgrade:

- The currently installed VSBB release is the same release as the Upgrade File
- The currently installed VSBB release is a newer release than the Upgrade File

NETWORK CONFIGURATION WITH A USB DRIVE

13. Network Configuration with a USB Drive

The VSBB has a wired (default DHCP) and a wireless network interface. To configure the either network interface:

1. Create a networkconfig.json, see section 7.1 Network Configuration File for details.
2. Save to USB
3. Install USB
4. Wait for the on-screen messages to complete the configuration
5. Remove USB

13.1 Network Configuration File

Copy the below text into a text editor and save the file to a USB drive with the name as networkconfig.json

```
{
  "interfaces": [
    {
      "ipv4_enable": true, "name": "eth0", "dhcp": true, "ip_address": "",
      "mask": "",
      "gateway": "",
      "dns1": "",
      "dns2": ""
    },
    {
      "ipv4_enable": true, "name": "ra0", "dhcp": true, "ip_address": "",
      "mask": "",
      "gateway": "",
      "dns1": "",
      "dns2": "",
      "ssid": "wifil", "key": "wifi-password"
    }
  ]
}
```

Attributes	Value	Description
ipv4_enable	true false	This value will enable to disable the network interface
name	eth0 ra0	Determine which interface will be configured: eth0 -> wired interface ra0 -> wireless interface
dhcp	true false	Enable or disable dhcp on the interface
ip_address	Valid ipv4 address	Used to configure a static IP address. NOTE: only applies when dhcp is false
mask	Valid ipv4 subnet	Used to configure a subnet when a static IP address has been configured NOTE: only applies when dhcp is false

gateway	Valid ipv4 address	Used to configure a subnet when a static IP address has been configured NOTE: only applies when dhcp is false
dns1 dns2	Valid ipv4 address	Used to configure DNS sever IP address. NOTE: when dhcp is configure for true, these values will override DNS servers provided by the DHCP sever.
ssid	Text	Wireless SSID Access Point name to connect
key	Text	Wireless SSID password

UPDATING THE THEME WITH A USB DRIVE

14. Updating the theme with a USB Drive

See “VSBB100 Installers Operational Manual” for more details.

SERVICE & SUPPORT

15. Service & Support

15.1 Contact ATX Networks

Please contact ATX Technical Support for assistance with any ATX products. Please contact ATX to obtain a valid RMA number for any ATX products that require service and are in or out-of-warranty before returning a failed module to ATX.

TECHNICAL SUPPORT

Tel: 289.204.7800 – press 1
Toll-Free: 866.YOUR.ATX (866.968.7289) USA & Canada only
Email: support@atx.com

SALES ASSISTANCE

Tel: 289.204.7800 – press 2
Toll-Free: 866.YOUR.ATX (866.968.7289) USA & Canada only
Email: insidesales@atx.com

FOR HELP WITH AN EXISTING ORDER

Tel: 289.204.7800 – press 3
Toll-Free: 866.YOUR.ATX (866.968.7289) USA & Canada only
Email: orders@atx.com
Web: www.atx.com



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