

Exosite  
Boot Camp 2014

# Subdomain and Client Model Labs

## Subdomain and Client Models Labs

**Notes:**

### **Lab 0 - Subdomain Home page**

<yoursubdomain>.exosite.com/admin

1. When you go to your 'admin' area of your subdomain, the home page has some useful information.
2. Find the Vendor API Token - This is used for Vendor Fleet Management (Provisioning) API calls such as managing client models, posting content, etc.
3. What is your Vendor specific API Address? - This can be used by your devices to access Exosite's APIs (usually are at m2.exosite.com).

## Lab 1 - Create a custom Domain Theme

<yoursubdomain>.exosite.com/admin/theme

1. Go to your admin area of your subdomain, on the left side menu, click 'Domain Setup' and underneath that, click 'Theme'.
2. You will not see anything listed in your Theme table at first. Let's create a new theme using the 'Add Theme' form.
  - a. Theme Name: <whatever you want>
  - b. Theme Description <whatever you want>
  - c. Click Add.
3. You should now see your theme in the Theme List, you may need to do a page refresh. Click the 'Default' icon which should be red for your theme. It should go to green and now your subdomain is using this theme, which by default is just like the default Portals theme.
4. Click the edit icon (Pencil graphic) next to your theme to bring up the Theme Configuration box below.
5. Let's start by updating the **Header**.
6. Find the form item that says 'Logo image(300x82px)' and hit the 'Choose File' button. In your Labs code, find the 'subdomain\_labs' folder, then the 'theme' folder and then find the image file called header\_logo\_image\_300x82.png. Use this.
7. For the form item that says 'Background image(64x82px)', choose the file called 'header\_background\_image\_64x82.png'.
8. Under the section called 'Browser Tab', Change the Browser Tab Text to whatever you want to call your subdomain (keep it short).
9. Under that same section, find 'Browser tab icon' and click 'Choose File' to upload the file called 'browser\_tab\_favicon\_image\_50x50.png'.
10. Scroll down and click 'Submit' to update your them.
11. Did you see these changes?
12. Change the Header text colors to make them show up more clear on a white background.
13. Change the Widget colors and other colors to match your company's color scheme.
14. Can you upload your own logo image for your company? It needs to be 300x82. Recommend using a transparent png so that the header background appears behind it.

## Lab 2 – Custom CSS

With the custom themes, advanced HTML/CSS users can edit their custom CSS. Let's change the widget blocks to not have a border and change the title block.

1. Go to you Admin / Domain Setup / Theme page.
2. On the Theme List table, click the edit button next to your theme you want to edit, making sure it is selected as the default (green icon).
3. Go way to the bottom where you will see a box called 'User-defined CSS rules'. Fill in the following CSS code there and hit the 'Submit' button at the bottom.
4. Notice any differences?

```
div.block {  
background-color: #F0F0F0;  
border: 0px solid #e5e6e6;  
padding: .5em;  
}  
  
div.block div.blockcontent div.content {  
border: 0px solid #e5e6e6;  
padding: 0 1em;  
}  
  
div.block .blockcontent .title {  
background-color: #F7F7F7;  
padding: 5px 5px;  
text-align: left;  
font-size: larger;  
color: #888888;  
font-weight: lighter;  
}
```

### Lab 3 – Create a Portal to keep dashboard and device clones

To create domain dashboard (custom pages) in Exosite Portals, it is a good idea to create a portal dedicated for this that the admins have access to for this purpose.

1. Click on the 'Portals' item in the Domain Admin Menu (left side) and then click 'Portal List'.
2. Add the top you should have a form called 'Add Portal'. We will use this to create this dedicated portal for domain admins.
3. Fill in the following:
  - a. Portal Name: 'DOMAIN ADMIN'
  - b. Portal Owner: <Pick yourself>
  - c. Portal Plan: <You should have a plan call Domain Developer Plan with a balance of 1... these are included with a new subdomain>
  - d. Portal Description: 'This portal is for domain admins to keep clone dashboards and clone devices'
  - e. Click 'Add and Charge Domain'. (If you have a balance, this will subtract from that)

The screenshot shows the 'Add Portal' form in the TRAINING CO. ADMINISTRATION SYSTEM MANAGEMENT interface. The form is titled 'Add Portal' and is located on the right side of the page. The left sidebar contains a menu with items: DOMAIN ADMIN, Home, Domain Setup, Client Models, Users, Portals, Portal Limits, Portal List, Devices, Billing, and Terms. The 'Portals' section is currently selected. The form fields are: Portal Name (text input with 'DOMAIN ADMIN'), Portal Owner (dropdown menu with 'mikeaanenson@exosite.com'), Portal Plan (dropdown menu with 'Domain Developer Plan - \$25.00 - (Balance Available: 1)'), and Portal Description (text area with 'Domain Admin portal for clones, domain dashboards'). There are also fields for Portal Thumbnail (150px by 100px) and Set As Owner's Default Portal (checkbox). A red warning message is displayed at the bottom: 'WARNING! The Billing Account associated with this domain (mikeaanenson@exosite.com) will be charged when this Portal Plan is added if there is no balance available for the Plan.'

4. In the Portal List below, you should now have a portal called 'DOMAIN ADMIN'. Click this, which will take you to that Portal.

#### TIP:

If you need to invite others to help contribute to your subdomain (other admins), this is a good portal to invite them to as managers. Then on the Admin / Domain Setup / Admin Controls page you can add them as an admin to your subdomain.

#### TIP:

If you need to create other portals for development and testing, you can follow a similar approach, picking a plan (probably community for example).

#### Lab 4 – Create a default home page for your subdomain

By default, any portal created in your subdomain will use the Exosite generic default custom dashboard. Let's change that.

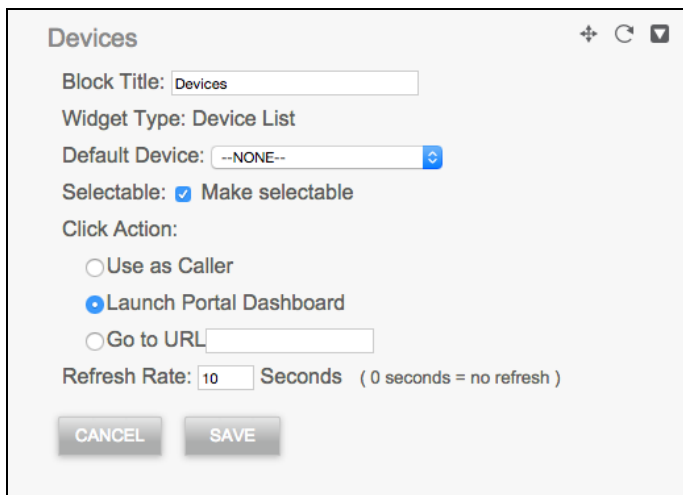
We will use the 'DOMAIN ADMIN' portal created in the last step.

1. In your 'DOMAIN ADMIN' portal, go to the Dashboards page (Menu on the left) and click '+Add Dashboard'.
  - a. It's name should be 'HOME'
  - b. fill in description, keep type custom.
2. Now go to that dashboard called 'HOME'. It should be blank.
3. Add a **'Text Box'** widget and call it 'WELCOME'.
4. Use the following widget settings:
  - a. Width 2, Height 2
  - b. In the Message Settings box, put the following text:

*Welcome to the Training web portal!*

```
<a class="exosite-button js-exosite-button" href="/manage/devices?new" id="add_device" type="button">Add Device</a>
```

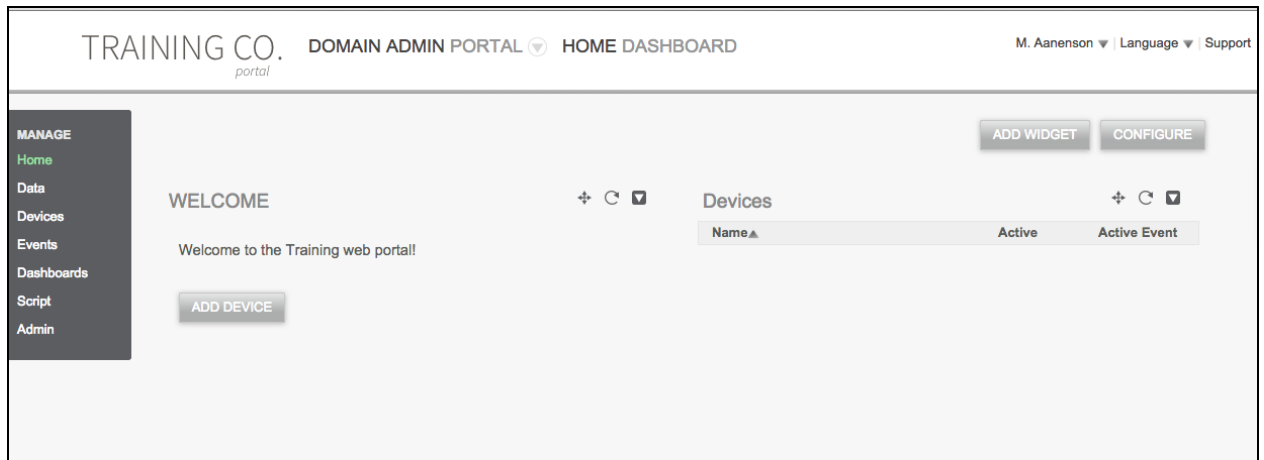
- c. Hit the SUBMIT button.
5. You should now see this widget on your dashboard. This is a place holder really for now until you can put more time into making this page meet your application requirements. (Maybe a fancy device table with a ADD DEVICE button, etc)
  6. Let's add one more widget here, this time add a **'Device List'** widget.
  7. Use the following widget settings:
    - a. Width 2, Height 2
    - b. For the **'Click Action'** select **'Launch Portal Dashboard'**
    - c. Set the Refresh Rate to 10.
    - d. Hit the SUBMIT button.



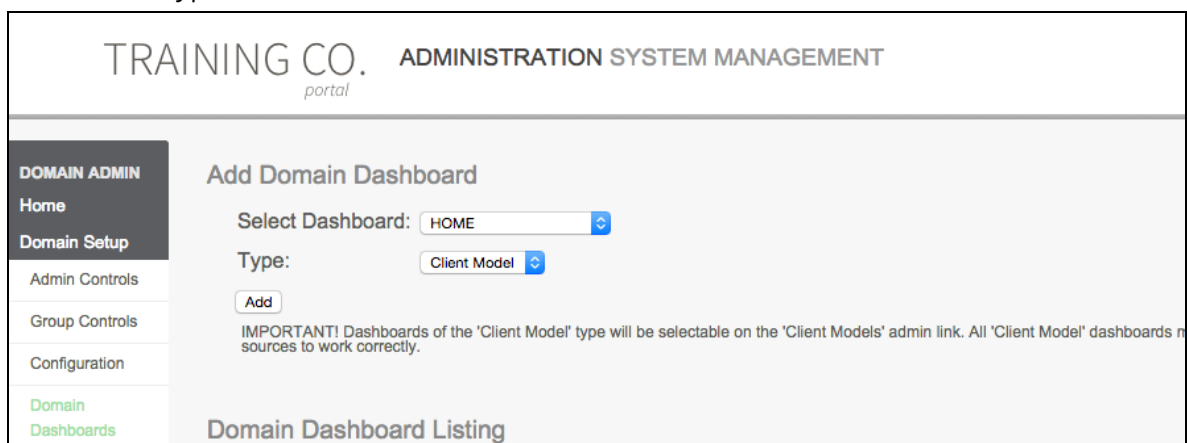
The screenshot shows a configuration window titled 'Devices'. It contains the following fields and options:

- Block Title:
- Widget Type: Device List
- Default Device:
- Selectable: ☒ Make selectable
- Click Action:
  - ☐ Use as Caller
  - ☒ Launch Portal Dashboard
  - ☐ Go to URL
- Refresh Rate:  Seconds (0 seconds = no refresh)
- Buttons: CANCEL, SAVE

You should now have a dashboard that looks like this:



8. Go back to the admin area now and under the Domain Admin menu on the left, under Domain Setup, you'll find a page call 'Domain Dashboards.
9. In the box at the top called 'Add Domain Dashboard', select your 'HOME' dashboard you just created, which should show up under your DOMAIN ADMIN portal.
10. Leave the type as 'Client Model' and click the 'Add' button.



11. You should now see your dashboard listed under the Domain Dashboard Listing table.
12. To apply this to new portals (new user sign-ups), go to your Domain Admin menu on the left, click 'Users' and then click the 'New Users' page.
13. Here, you can now select your domain dashboard as the default home page.
  - a. Default Dashboard template: <Select your HOME dashboard under Domain Dashboards>
  - b. Uncheck 'Create Default Device'
  - c. Click 'Submit' button.



TRAINING CO. ADMINISTRATION SYSTEM MANAGEMENT

portal

DOMAIN ADMIN

Home

Domain Setup

Client Models

Users

User List

Moderate

New Users

Portals

Devices

Billing

Terms

Default Settings for New User Portals

Current Default Dashboard: HOME

Default Dashboard Template: HOME(3076859508)

Create Default Device: ☐

Default Device Name: Device

Submit

NOTE: Setting the 'Default Dashboard Template' will copy the dashboard configuration entry in the database for the user. You should ONLY use put own. Any changes made to the 'Current Default Dashboard' will be reflected in new user dashboards. The 'Create Default Device' process also creat

uncheck this box, no dashboard will be created for the user. Setting a Domain Dashboard as the OOB dashboard will provide a read-only dashboa

Now when a new portal is created, that portal's default home page will be this domain dashboard which you can update (that clone dashboard) and your changes will apply to all users. You will note that users won't be given the option to add widgets or change anything on that dashboard, as domain dashboards are not editable by users.

**TIP:**

Do not change which domain dashboard is used for this new user default dashboard setting or any updates you make won't be applied to older users.

### Lab 5 – Create another domain dashboard for use by your Client Model

Widgets can call domain dashboards with an RID of a client and the dashboard will use resources from that specific client in it's widgets. In this way, you can create one dashboard for you product's client model and when you go to it, depending on whatever device you called it for, it will that specific device's information.

This domain dashboard will then be used when we create the Client Model in the next Lab.

1. In your 'DOMAIN ADMIN' portal, go to the Dashboards page (Menu on the left) and click '+Add Dashboard'.
  - a. Give it a name of 'MODEL ONE INTERFACE'
  - b. Fill in the description ("Client Model One's domain dashboard" for example and keep the 'type' custom.
  - c. Save this.

**Dashboard Setup**

**What is a "Dashboard"?**  
A "Dashboard" is a different way to visualize data from the same Portal. Some applications may require a "Dashboard" for users and a different "Dashboard" for the maintenance team. It gives you a way to create different dashboards for the different ways you need to view your data.

**Dashboard Name**  
MODEL ONE INTERFAC

**Description**  
MODEL ONE domain dashboard

**Location**

**Thumbnail (150px by 100px)**  
Choose File No file chosen Clear (optional)

**Template**  
custom

**Layout**  
2 columns

QUIT SUBMIT

2. Now go to that dashboard called 'MODEL ONE INTERFACE'. It should be blank.
3. Add a 'Text Box' widget and give it a name of just a 'space'.
  - a. Width = 4, Height = 1
  - b. In the 'Message' box, use the following text, as you can see is HTML code:

```
<div style="text-align: center;">  
<h1>DEVICE ONE DASHBOARD</h1>  
</div>
```

Block Title:

Widget Type: Text Box

Widget Size:

Width:

Height:

Caption Settings:

Caption:

Font size:  pt

Font color:

☒ Black ☐ Blue ☐ Green ☐ Red

☐ Grey ☐ Medium Grey ☐ Light Grey

Message Settings:

Message:

```
<div style="text-align: center;">  
<h1>DEVICE ONE DASHBOARD</h1>  
</div>
```

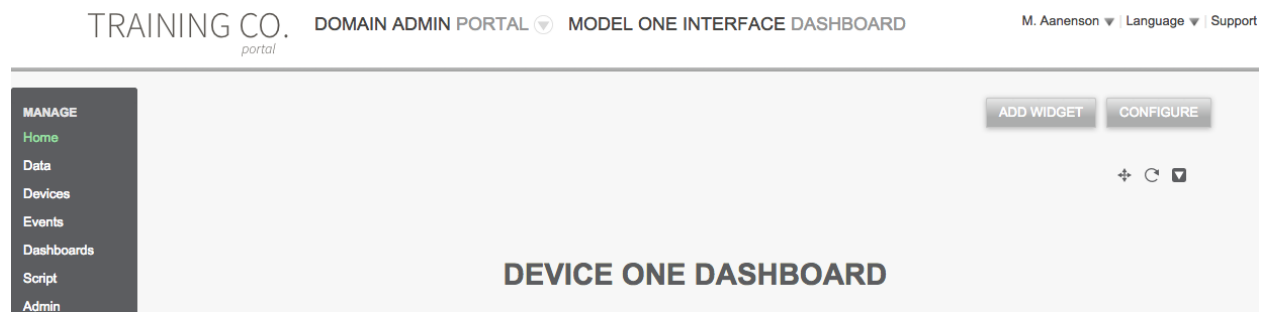
Font size:  pt

Font color:

☒ Black ☐ Blue ☐ Green ☐ Red

☐ Grey ☐ Medium Grey ☐ Light Grey

c. Submit this, you should see this on your dashboard



4. Add a 'line graph' widget and call it 'DATA 1 GRAPH'.
5. Use the following widget settings:
  - a. Insert the custom code from the Portals Lab, the code can be found in the 'portals\_labs' folder, called 'device\_table\_using\_portal\_api\_2.js'.
  - b. Keep refresh rate at 0 and leave all the other widget settings as is.
  - c. Hit the Submit button.
6. You should now see this widget on your dashboard. You likely will not see anything listed since you probably do not have any devices in this portal yet.
7. We will add one more widget, a 'Custom Widget' widget and call it 'CONFIGURATION'
  - a. Width = 2, Height = 2

- b. Select two data sources from the data source list, being 'Command' and 'Configuration'
- c. Pick a script template, using the template called 'Form'.
- d. Leave Refresh Rate to 0.
- e. Hit Submit.

Add widget

STEP:

TYPE

CONFIG

Block Title: CONFIGURATION

Widget Type: Custom Widget

Widget Size:

Width: 2

Height: 2

Data Source:

Select	Name
	DeviceOne CLONE
<input type="checkbox"/>	Alive
<input type="checkbox"/>	Cellular Status
<input checked="" type="checkbox"/>	Command
<input checked="" type="checkbox"/>	Configuration
<input type="checkbox"/>	Data1

View Data By:

☐ Duration: 1

Minute

☒ Count: 1

Script Template: Form

Script:

```
1  /**
2   * Form
3   * @version 1.0.0
4   */
5  function(container, portal)
6  {
7      var dataports = getDataports("", portal),
8          cx,
9          buttons,
10         styles,
11         colors,
12         messages;
13
14     styles =
15     {
16         dl:
17         {
18             "margin-left: 1em;"
19         },
20         div:
21         {
22             "position: absolute:"
```

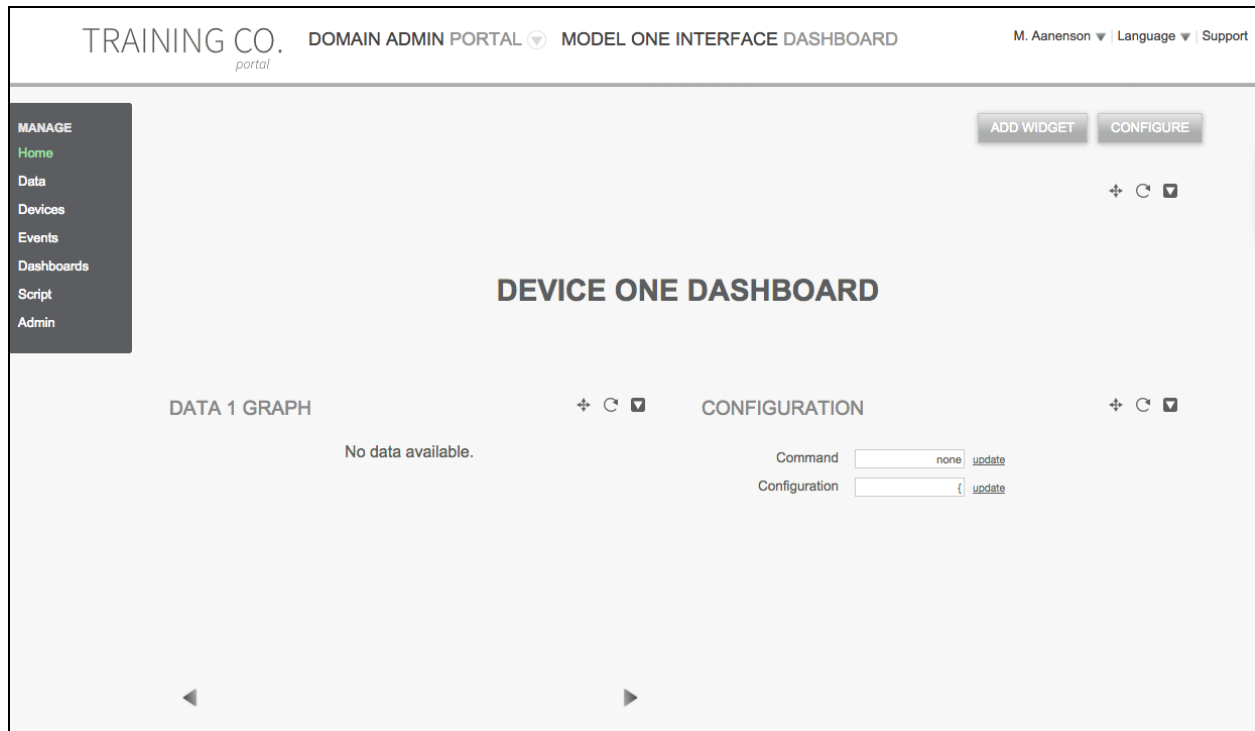
Note: Press F11 to toggle full screen mode or press Ctrl+Enter to update your script while your cursor is focused on the editor.

Refresh Rate: 0 Seconds ( 0 seconds = no refresh )

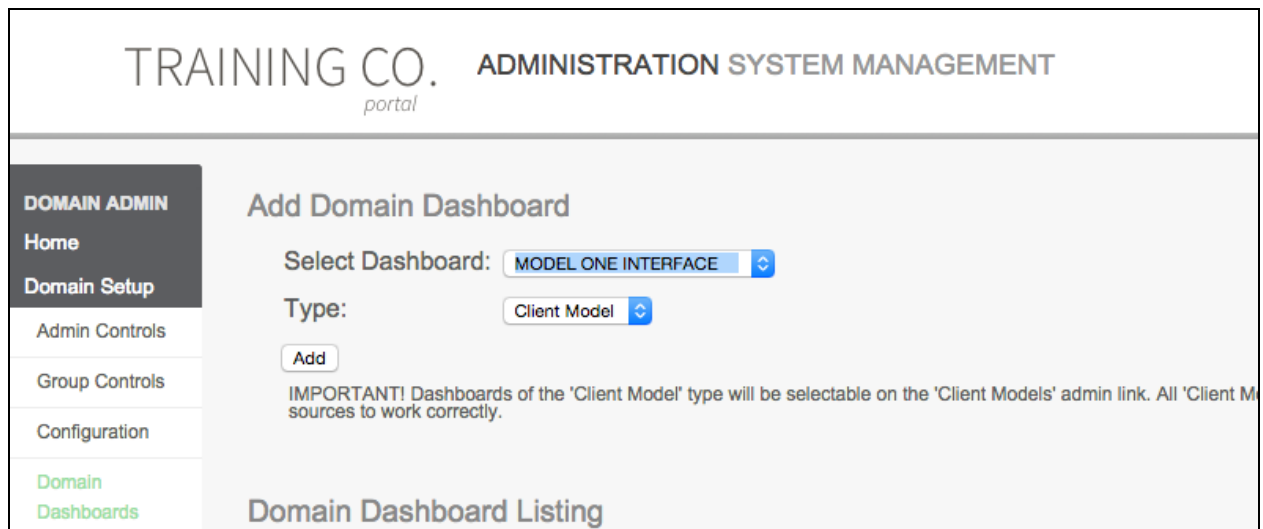
QUIT

SUBMIT

- f. Your dashboard should now look like this:



8. Go back to the admin area now and under the Domain Admin menu on the left, under Domain Setup, you'll find a page call 'Domain Dashboards.
9. In the box at the top called 'Add Domain Dashboard', select your 'MODEL ONE INTERFACE' dashboard you just created, which should show up under your DOMAIN ADMIN portal.
10. Leave the type as 'Client Model' and click the 'Add' button.



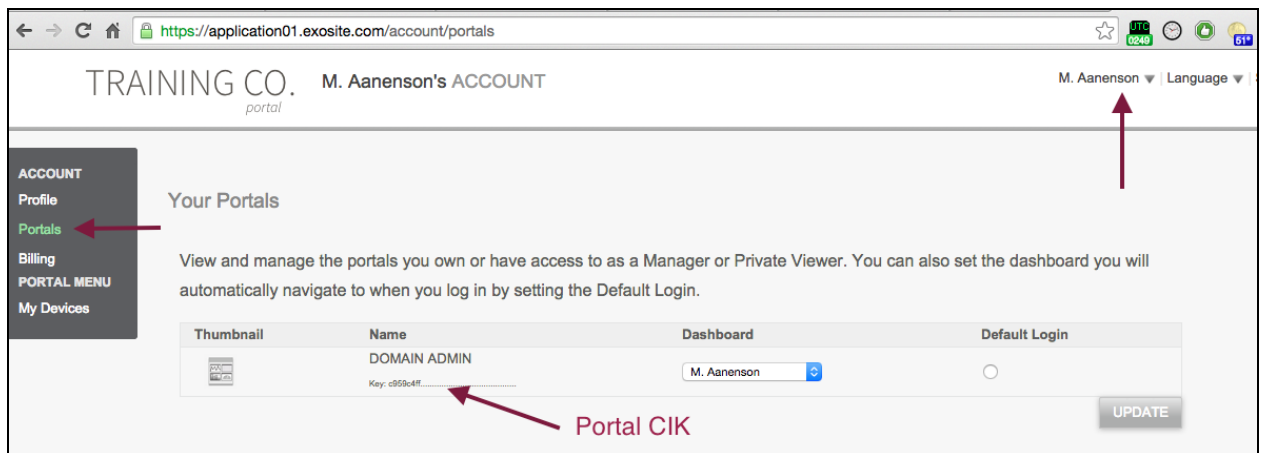
11. You should now see your dashboard listed under the Domain Dashboard Listing table.



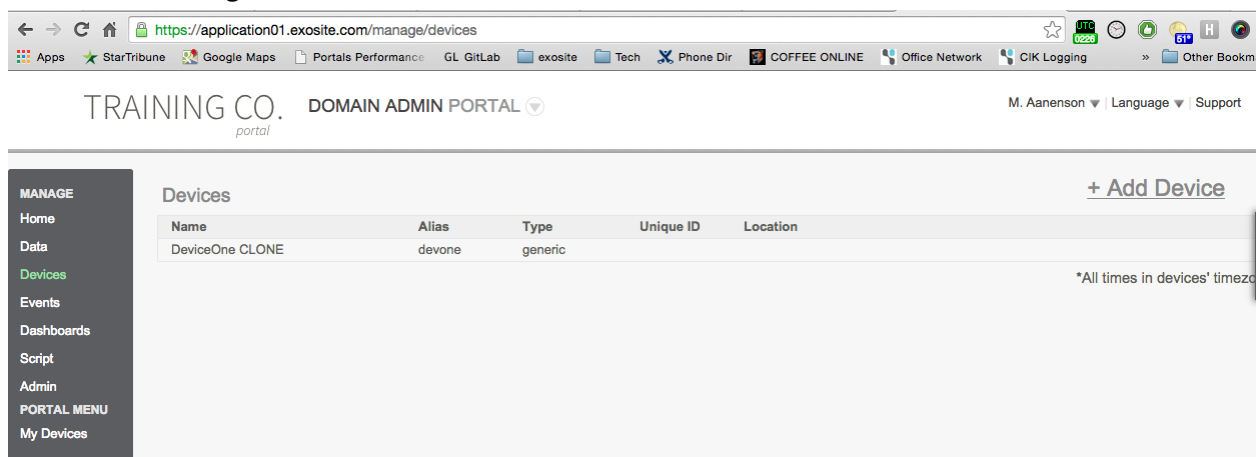
## Lab 6 - Create a Client Model

To create a client model, we first must have a 'Clone' device client to point it at. These steps will walk through that process and then creating the client model.

1. Go to your 'DOMAIN ADMIN' Portal and get the portal CIK.
  - a. This can be found if you go under your username drop-down menu in upper-right, click on Account, then click the 'Portals' Menu item on the left.



2. To save time, here is a pre-created client CIK you can copy into your DOMAIN ADMIN Portal. Use your Exoline tool to make a copy in your own portal.
  - a. `$ exo copy <PORTAL CIK> b37bb52fe3f85ddb1166096a5198c394df181e25`
  - b. `$ exo portals clearcache <PORATL CIK>`
  - c. Note: the portals clearcache command will make portals clear it's cache so if you go to your devices page, the device will be there right away.
3. You now have a device (generic type) in your DOMAIN ADMIN portal. We are going to use this as the CLONE for your new client model. You can verify this by going to this portals 'Devices' page, it should look something like this:



4. Go to your subdomain's 'admin' area and go to 'Client Models' menu item on the left and then 'Manage Models'.
5. At the top of the Manage Models page is a form to add a new client model. Fill in the following information, anything else just leave blank for now. You can edit client models after they are created.
  - a. Model Name: Product One (you can pick whatever you want)
  - b. Model ID: product1 (*this can not be changed, don't use spaces to make life easier*)
  - c. Clone from Device: Select your device under neath your DOMAIN ADMIN portal that we copied earlier.
  - d. Domain Dashboard: Select the Domain Dashboard we created in the previous step called 'MODEL ONE INTERFACE'
  - e. Example SN: 000001
  - f. Company Name: Your company name
  - g. Company Contact Email: Use your Email for now
  - h. Published: Check this box
  - i. Click 'Add' to add the client model
  - j. These images show these configuration options

**Model**

Vendor: application01

Model Name: Product One

Unique Model ID: product1

Clone from Device: DeviceOne CLONE (RID:f08b632fad6df73e0eeb777149bf4ccf7434ceb)

f08b632fad6df73e0eeb777149bf4ccf7434ceb

Select the device from the drop-down menu or enter the 40 digit RID of the device you wish to clone. You can find the RID in Admin Devices Page.

Domain Dashboard: MODEL ONE INTERFACE

Changing the Domain Dashboard will automatically update all user's dashboards who have this client model.

Example Serial Number (SN): 000001

Shared SN Value: When the user clicks on the Serial Number input box, this value will remain.

Remove Non-alphanumeric SN: ☐ No ☒ Yes

Automatically removes all non-alphanumeric values (a-z, 1-0) both for that the user inputs when provisioning their device AND when admin adds serial numbers to the One Platform. Choose 'No' if serial numbers require non-alphanumeric values.

Alternate 'Serial Number' Text: Replaces all 'Serial Number' text when users add or interact with this device

'NOTE' for SN: Adds a note about how to input SN (e.g. do not include colons in MAC addr)

'NOTE' for Device: Specifies additional information about Device Name (e.g. Device 1). This text



DOMAIN ADMIN

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Client Models

Manage Models

Serial Numbers

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Picture of Serial Number

Choose File No file chosen

Location:

Confirm Page:

Your [client model name] [device] was successfully enabled with the CiK<br/>[device cik]<br/><br/>Your [device] will need to connect to the Exosite platform within 24 hours or your provision request will expire and you will need to re-enable your [device] from the Re-Enable block in your [device] pop-up. If you have any problems connecting, please contact your [device] provider at<br/><br/><b>Company name:</b> [company name]<br/><b>Company email contact information:</b> [company email]<br/>

Company Name:

Application 01

Company Contact Email:

myemail@myco.com

Published:

☒

When a client model is published, it will be available for users to select in the 'Add Device' process on their portals. Client models that are not published can still work normally after they have been added to the dashboard. Click on the icon below to publish or unpublish the client model

Add

k. You should then see your client model listed in the Model Listing at the bottom, like so. You can publish/unpublish by clicking the green (or red) icon in this table.

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Company Name:

Application 01

Company Contact Email:

myemail@myco.com

Published:

☒

When a client model is published, it will be available for users to select in the 'Add Device' process on their portals. Client models that are not published can still work normally after they have been added to the dashboard. Click on the icon below to publish or unpublish the client model

Add

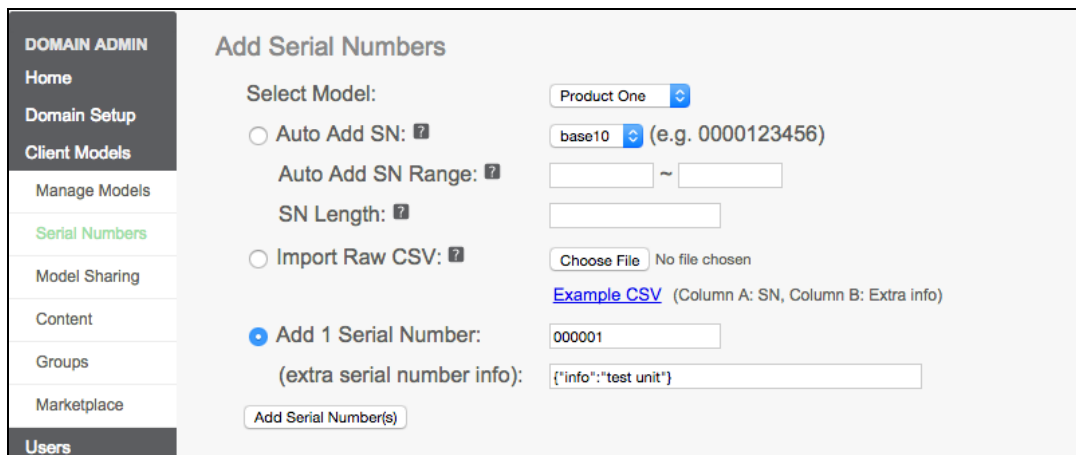
Model Listing

Delete	Edit	Published	Model Name	Device Picture	Unique Model ID	Example Serial Number (SN)	Shared SN Value	Clone from Device
			Product One		product1	000001		ff08b632fad6d773e0eeb7f7f49bf4ccf7434

## Lab 8 – Add serial numbers for your client model

Now that you have a client model, it can not be used until it has a ‘whitelist’ or range of available serial numbers. This lab will add some serial numbers and a range.

1. Go to the Admin / Client Models / Serial Numbers page using the admin menu on the left.
2. In the ‘Add Serial Numbers’ form on the top, select your new Client Model called ‘Product One’ (or whatever name you gave it)
3. Next select the option for ‘Add One Serial Number’ and put the following in:
  - a. Use **000001** for your serial number
  - b. For the (extra serial number info) field use: **{"info":"test unit"}**



- c. Click ‘Add Serial Number(s)’
4. You should now see that serial number 000001 in the serial number list for your client model.



Delete	Disable	Re-Enable	Serial Number	Status	RID	Extra
			000001	Not Used		{"info":"test unit"}

5. Next we’ll add a range of serial numbers, go bac to the top and use the Add Serial Numbers form again.
  - a. Select your model
  - b. Select the ‘Auto Add SN’ option and use **base10**.
  - c. Specify your SN Range as **2 ~ 10**
  - d. Specify your SN Length as **6**
  - e. Hit Add Serial Numbers button.

### Add Serial Numbers

Select Model: Product One

☒ Auto Add SN: base10 (e.g. 0000123456)

Auto Add SN Range: 2 ~ 10

SN Length: 6

☐ Import Raw CSV: Choose File No file chosen

[Example CSV](#) (Column A: SN, Column B: Extra info)

☐ Add 1 Serial Number:

(extra serial number info):

Add Serial Number(s)

6. You should now see this range listed at the top for your client model.

### Add Serial Numbers

Select Model: Product One

☒ Auto Add SN: base10 (e.g. 0000123456)

Auto Add SN Range:  ~

SN Length:

Current Ranges:

Delete	Format	Case	Length	First value	Last value
	base10		6	000002	000010

☐ Import Raw CSV: Choose File No file chosen

[Example CSV](#) (Column A: SN, Column B: Extra info)

☐ Add 1 Serial Number:

(extra serial number info):

Add Serial Number(s)

Note: Serial numbers here should match the exact serial number your device will activate with. So if your device will activate with a MAC address with all lower case but with colons, choose the proper base type of mac:48 which understand what a MAC address with colons is. If it doesn't use colons you could then choose base16 and provide a length of 12. Note that the 'Convert SN Casing' will automatically take what a user has entered in the 'Add Device' wizard and convert it to whatever you specify has a helper.

Examples:

### Add Serial Numbers

Select Model: Product One

☒ Auto Add SN: mac:48 (e.g. 00:55:CC:DE:FF:22)

Auto Add SN Range: 00:00:00:00:00:00 ~ 00:ff:00:ff:00:00

Convert SN Casing: lowercase

Select Model:	Product One
<input checked="" type="radio"/> Auto Add SN: ?	base16 (e.g. 00C3F1)
Auto Add SN Range: ?	0000000000 ~ FFFFFFFF
SN Length: ?	12
Convert SN Casing: ?	UPPERCASE

Current Ranges:					
Delete	Format	Case	Length	First value	Last value
	base10		6	000002	000010
	base16	upper	12	000000000000	FFFFFFFFFFFF
	mac:48	lower		00:00:00:00:00:00	00:ff:00:ff:00:00

## Lab 8 – Add some content for your Client Model

Vendors can post content for their client models that can be used for things such as firmware updates, media, or configuration files. We'll post a example file to mimic a firmware content post.

1. Go to the Admin / Client Models / Content page using the admin menu on the left.
2. In the 'Add Content' form on the top, select your Client Model called 'Product One' (or whatever name you gave it)
  - a. Name: firmware\_110
  - b. Meta: firmware version 1.1.0
  - c. MiME Type: application/binary
  - d. Data File: find the 'firmware\_110.py' file in your labs folder
  - e. Click "Add Content"

**DOMAIN ADMIN**

- Home
- Domain Setup
- Client Models
  - Manage Models
  - Serial Numbers
  - Model Sharing
  - Content**
  - Groups

### Add Content

Select Model: Product One

Name: firmware\_110

Meta: firmware version 1.1.0

MiME Type: application/binary

Data File: Choose File firmware\_110.py

Add Content

### Content List

3. You should now see this in the Content List for your model:

**DOMAIN ADMIN**

- Home
- Domain Setup
- Client Models
  - Manage Models
  - Serial Numbers
  - Model Sharing
  - Content**
  - Groups
  - Marketplace
- Users
- Portals
- Devices
- Billing
- Terms

### Add Content

Select Model: Product One

Name:

Meta:

MiME Type:

Data File: Choose File No file chosen

Add Content

### Content List

Select Model: Product One

Show Result(s)

Delete	Edit	Name	Meta	Last Updated	MiME Type	File Size
		firmware_110	firmware version 1.1.0	03:47:58 Oct 21, 14	application/binary	54 Bytes

4. You've successfully posted some content for your client model.

## Lab 9 - Let's add a device using your client model

Now that your client model is created and published, users can add it in their portal using a drop down menu to select it.

First we'll create another portal to use for testing this instead of your 'DOMAIN ADMIN' portal we have been using. This is similar to Lab 3 to get started.

1. Click on the 'Portals' item in the Domain Admin Menu (left side) and then click 'Portal List'.
2. Add the top you should have a form called 'Add Portal'. We will use this to create this testing portal.
3. Fill in the following:
  - a. Portal Name: 'New User Test'
  - b. Portal Owner: <Pick yourself>
  - c. Portal Plan: <You should have a plan call Community Plan with a balance of 20... these are included with a new subdomain>
  - d. Portal Description: 'This portal is for domain admins to test user portal experience'
  - e. Click 'Add and Charge Domain'. (If you have a balance, this will subtract from that)

The screenshot shows the 'Add Portal' form in the Domain Admin interface. The left sidebar contains a menu with items: DOMAIN ADMIN, Home, Domain Setup, Client Models, Users, Portals, Portal Limits, Portal List (highlighted), Devices, Billing, and Terms. The main form area is titled 'Add Portal' and contains the following fields: Portal Name (text input with 'New User Test'), Portal Owner (dropdown menu with 'mikeaanenson@exosite.com'), Portal Plan (dropdown menu with 'Community - \$7.00 - (Balance Available: 1)'), and Portal Description (text area with 'This portal is for domain admins to test user portal experience'). Below these fields are options for 'Portal Thumbnail (150px by 100px)' (with a 'Choose File' button and 'No file chosen' text) and 'Set As Owner's Default Portal' (checkbox, optional). At the bottom is an 'Add and Charge Domain' button. A red warning message at the bottom states: 'WARNING! The Billing Account associated with this domain (mikeaanenson@exosite.com) will be charged when this Portal Plan is added if there is no balance available for the Plan.'

4. In the Portal List below, you should now have a portal called 'New User Test'. Click this, which will take you to that Portal.
5. This portal should look something like this, since we have set the default home page up now for new users.

The screenshot shows the 'New User Test' portal dashboard. The header includes 'TRAINING CO. portal', 'New User Test PORTAL', and 'DEFAULT HOME DASHBOARD'. The top right shows the user 'M. Aanenson' and links for 'Language' and 'Support'. The left sidebar has a 'MANAGE' section with links: Home (highlighted), Data, Devices, Events, Dashboards, Script, and Admin. The main content area is titled 'WELCOME' and contains the text 'Welcome to the Training web portal!' and an 'ADD DEVICE' button. On the right, there is a 'Devices' section with a table header: 'Name', 'Active', and 'Active Event'.

- Click on the 'ADD DEVICE' button on this page in the welcome widget, which should bring up the add device wizard.

The screenshot shows the 'TRAINING CO. portal' header with 'New User Test PORTAL' and user 'M. Aanenson'. A left sidebar lists 'MANAGE' options: Home, Data, Devices (highlighted), Events, Dashboards, Script, and Admin. The main area is titled 'Device Setup' and shows 'STEP: SETUP TYPE'. It contains two instructions: 'How do I know which device type to choose?' and 'What does the device look like?'. The first instruction has a radio button selected for 'Select a supported device below.' with a dropdown menu showing 'Product One'. The second instruction has a radio button for 'I want to create a generic device.' and a text input field with 'model'. 'QUIT' and 'CONTINUE' buttons are at the bottom.

- Select your client model from the supported devices below list and click 'Continue'.
- Enter the device's serial number (use 000001) in this case, give it a name like 'Test-000001' and hit 'Continue'

The screenshot shows the 'Device Setup' page at 'STEP: DEVICE SETUP'. The left sidebar is the same. The main area has instructions: 'Where can I find my Serial Number?' and 'Your Serial Number can be found in the position from the image below.' The steps are: 1. Enter device Serial Number (input field with '000001'), 2. Please enter a device name (input field with 'Test-000001'), and 3. Please enter a device location (optional - can be a string or GPS decimal degrees) (empty input field). 'QUIT' and 'CONTINUE' buttons are at the bottom.

- You can then hit the 'QUIT' button on the last page. This will bring you to the domain dashboard for this device, which should say it is not activated yet.

TRAINING CO. *portal* New User Test PORTAL MODEL ONE INTERFACE DASHBOARD M. Aanenson | Language | Support

Select the device to show: Test-000001

This device has not yet been activated or does not exist. Please activate your device or confirm the device RID and try again.

## DEVICE ONE DASHBOARD

DATA 1 GRAPH CONFIGURATION

No data available. Command none update

10. Click on the 'Home' menu item on the left, you should now see your device in the home page's device list widget. If you click on the device in that widget, it should bring you to the domain dashboard for it that we set up.

TRAINING CO. *portal* New User Test PORTAL DEFAULT HOME DASHBOARD M. Aanenson | Language | Support

WELCOME

Welcome to the Training web portal!

ADD DEVICE

### Devices

Name▲	Active	Active Event
Test-000001	Off	No

11. Let's examine the state of the device by clicking on the 'Devices' menu item on the left Manage menu. Then click on your device in the Device table.



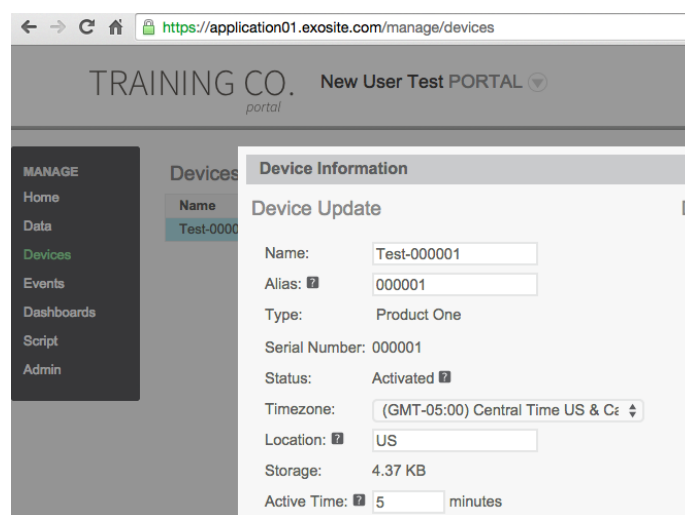
The screenshot shows a web browser window with the URL <https://application01.exosite.com/manage/devices>. The page header includes 'TRAINING CO. portal' and 'New User Test PORTAL'. A left sidebar menu lists 'MANAGE' options: Home, Data, Devices (highlighted), Events, Dashboards, Script, and Admin. The main content area is titled 'Devices' and shows a table with one device: 'Test-000001'. A 'Device Information' modal is open, displaying the following details:

Device Information	
Device Update	
Name:	<input type="text" value="Test-000001"/>
Alias:	<input type="text" value="000001"/>
Type:	Product One
Serial Number:	000001
Status:	Not Activated
Timezone:	(GMT-05:00) Central Time US & C...
Location:	<input type="text" value="US"/>
Storage:	243 B
Active Time:	<input type="text" value="5"/> minutes
CIK:	844ca30aa8f8c34dfa0577a6204efef854b6ec8

12. Note that the 'Status' is listed as 'Not Activated'. It's waiting for your device to call in to activate at this point.
  - a. Note there is a 24-hour window once a client has been claimed by an owner for the device to activate, otherwise the CIK will become expired and will need to be re-enabled.
13. On your computer, open the labs file called **'vendor\_model\_device\_emulator.py'** with a code editor or with the Python 'IDLE' IDE (right - click and choose open with IDLE).
14. Edit the line that says `vendor = '<YOUR_VENDOR_ID_HERE>'` to be replaced by your vendor id (same as your subdomain prefix `<vendorid>.exosite.com`)
15. Save the file and run it using the syntax editor, command line (`> python vendor_model_device_emulator.py`) or with the IDLE IDE.
16. You should see that it attempts to activate, be successful, check for content, and start reading and writing data.

```
get stored CIK from non-volatile memory
problem getting stored CIK
try to activate
attempt to activate on Exosite OnePlatform
Activation Response: New CIK:48d636965b69dace1fb055e177e23a158c228464
storing new CIK to non-volatile memory
starting main loop
write data to Exosite OnePlatform
read data from Exosite OnePlatform
Command Value:command=1
read data from Exosite OnePlatform
Command Value:config=%7b
Checking for new firmware
EX0: attempt get content list on Exosite OnePlatform
--Content List:--
firmware_110
-----
get stored firmware version from non-volatile memory
problem getting stored firmware version
storing firmware version to non-volatile memory
current firmware: 100
found new firmware to download: firmware_110
EX0: attempt to download content firmware from Exosite OnePlatform
Got New Download
UPDATING....
storing firmware version to non-volatile memory
updated firmware
get stored firmware version from non-volatile memory
current version: 110
stopping app loop in ~100 seconds
write data to Exosite OnePlatform
read data from Exosite OnePlatform
Command Value:command=1
read data from Exosite OnePlatform
Command Value:config=%7b
```

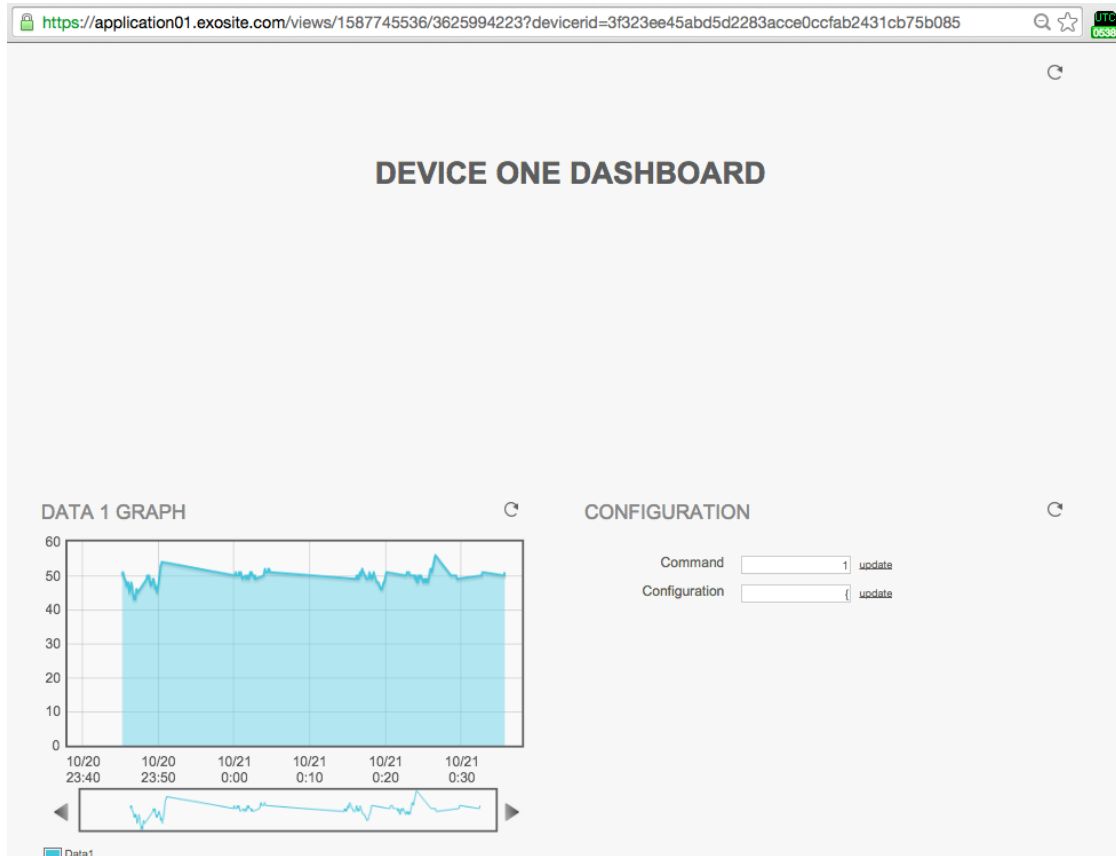
17.Also, if you look at the status of your device again, it should show up as 'Activated'.



The screenshot shows a web browser at the URL <https://application01.exosite.com/manage/devices>. The page header includes 'TRAINING CO. portal' and 'New User Test PORTAL'. A left sidebar contains navigation links: MANAGE, Home, Data, Devices (highlighted), Events, Dashboards, Script, and Admin. The main content area is titled 'Device Information' and 'Device Update'. It displays details for a device named 'Test-00001':

Device Information	
Name:	Test-00001
Alias:	000001
Type:	Product One
Serial Number:	000001
Status:	Activated
Timezone:	(GMT-05:00) Central Time US & C
Location:	US
Storage:	4.37 KB
Active Time:	5 minutes

18. You can go back to the home page now in your portal and click on the device. you should see active data in the widgets on the domain dashboard now for it.



19. You've now tested out your client model and have the foundation to create your own.

### Lab 10 - Create another domain dashboard and add it to the menu

Admins can create their own menu on the left which can call make calls to any of the /manage pages, external links, or domain dashboards.

Let's create a menu item called 'My Devices'. We'll use the device table widget developed in the Portals Labs.

1. In your 'DOMAIN ADMIN' portal, go to the Dashboards page (Menu on the left) and click '+Add Dashboard'.
  - a. It's name should be 'DEVICE TABLE'
  - b. Fill in the description, keep the type custom.
2. Now go to that dashboard called 'DEVICE TABLE'. It should be blank.
3. Add a 'custom widget' widget and call it 'DEVICES'.
4. Use the following widget settings:
  - a. Width 4, Height 2
  - b. Insert the custom code from the Portals Lab, the code can be found in the 'portals\_labs' folder, called 'device\_table\_using\_portal\_api\_2.js'.
  - c. Keep refresh rate at 0 and leave all the other widget settings as is.
  - d. Hit the SAVE button.
5. You should now see this widget on your dashboard. You likely will not see anything listed since you probably do not have any devices in this portal yet.
6. Go back to the admin area now and under the Domain Admin menu on the left, under Domain Setup, you'll find a page call 'Domain Dashboards'.
7. In the box at the top called 'Add Domain Dashboard', select your 'DEVICE TABLE' dashboard you just created, which should show up under your DOMAIN ADMIN portal.
8. Leave the type as 'Client Model' and click the 'Add' button.
9. You should now see your dashboard listed under the Domain Dashboard Listing table.
10. To make this page available in the menu, go to the Domain Admin menu and select 'Domain Setup', then 'Configuration'.
11. Scroll down until you see the section 'Secondary Portal Menu'.
12. Click the 'Enable' button for the first item and enter a Display Name of 'My Devices'. In the next column, use the drop-down menu to select your 'DEVICE TABLE domain dashboard'.
13. Scroll down a bit (not all the way to the bottom though) and click the 'Submit' button.
14. Go back to your Portal (you can click the top logo in the header) and you should see your new menu item on the left.

