

HP Cloud Service Automation

Software Version 4.20

Marketplace Portal Customization, February 2015

Contents

- Introduction: Customize the Marketplace Portal to Meet Your Needs 2**
- Part 1: Prep Work 2**
- Part 2: Simple Customization from the HP CSA Provider Console 2**
- Part 3: Customizing with Themes 4**
 - Create a Custom Theme 4
 - Experiment with CSS Modifications 5
 - Customize Some Fonts 6
- Part 4: Understand the MPP Rendering Process 7**
- Part 5: Advanced Customization 8**
 - Header Content 8
 - Body Content 9
 - Delete an Existing Tile 12
 - Change the Image in a Tile 13
 - Change the Size of Tiles 13
- Experiment! 14**
- For More Information 14**

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Introduction: Customize the Marketplace Portal to Meet Your Needs

Each HP CSA customer has specific visual and functional expectations for the Marketplace Portal (MPP). Some may need a simple interface for browsing, ordering, and monitoring HP CSA on-demand services. Others may have more complex requirements that involve service approvals and custom display widgets.

This paper is intended to help you customize the MPP for your organization's requirements. It covers both the "look and feel" and the definition of content that is to be displayed.

Part 1: Prep Work

Before you start modifying the MPP configuration, you will want to define and collect the elements you will need for the custom interface.

- Make a list of the HP CSA and non-HP CSA functions that you need to access in the MPP. If your organization requires active approval for service requests, add this to the list.
- Define what information you would like to be able to view such as custom charts or web pages.
- Define visual requirements.

You may want the MPP's appearance to match your company's standards or at least common practices.

Define any special requirements such as users with visual impairments.

Collect the graphics and fonts that you want to use in your portal.

Part 2: Simple Customization from the HP CSA Provider Console

Some basic MPP customization options are available in the HP CSA Provider console. These include:

- Organization Logo
- Application Name. This is actually the name of the text that is displayed in the login screen and in the MPP Subscriber screen. It is not specific to a particular application.
- Welcome messages and warnings

- Select from existing themes. HP CSA 4.2 ships with 3 pre-built themes that define the MPP style: HP Enterprise, HP Playful, and HP Simplified. Later in this document you will learn how to create MPP themes for your organization.

CSA CONSUMER
Consumer Organization

How to customize your MPP demo

Summary
General Information
Portal Customization
Dashboard Widgets
LDAP
Access Control
Email Notifications
Operations
Catalogs

Application Labeling
Specify labels for different areas of the Marketplace Portal login screen

Application Name *
Low Vision Example

Portal Welcome Message
High Contrast and Big Fonts

Copyright Statement
Copyright 2014 streaminghome.com

External Organization Links
Personalize external links on the Marketplace Portal

Privacy Statement Link *
 Show Privacy Statement on Marketplace Portal
http://www8.hp.com/us/en/privacy/privacy.html

Terms and Conditions Link *
 Show Terms and Conditions on Marketplace Portal
http://www8.hp.com/us/en/privacy/terms-of-use.html

Application Enhancements
Change some of the Marketplace Portal parameters and details.

Featured Category *
Application Servers

Subscription End Date Period (months)
 Enforce End Date
12

History Details
 Show Verbose Errors

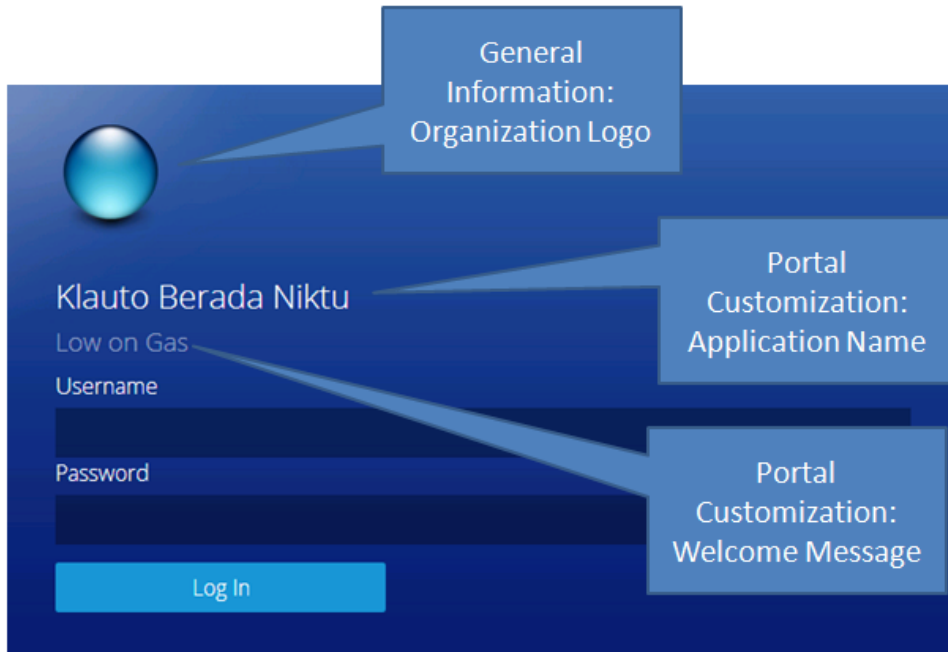
Save Reset



WARNING

- In the provider portal there is an option to set the **Organization Display Name**. This actually *renames* the organization in the database and changes the login URL. If directory services are not correctly modified, all users in that organization will be locked out.
- The **Organization Display Name** is not visible in the MPP.

After the provider portal settings are saved, the next MPP login screen will display the new values. When a user logs in, they are visible in all MPP screens.



Part 3: Customizing with Themes

Themes are used to define many of the colors, fonts, and graphics used in the MPP. HP CSA 4.2 allows an administrator to select a theme that will be used by every member of an organization.

If you are familiar with CSS style sheets, this section will get you to the point where you can do the next level of customization to the MPP interface.

Create a Custom Theme

Themes are kept in `CSA/portal/node_modules/mpp-ui/dist/bower_components/[THEME NAME]`. The default themes are in these folders:

Theme Name	Folder
HP Enterprise	mpp-enterprise-theme
HP Playful	mpp-pilot-theme
HP Simplified	mpp-theme

1. Copy one of the existing folders to a folder with the name of the new theme. The important file is the style sheet `/dist/main.css`. Each `main.css` style sheet is approximately 8000 lines long, and is kept in a minimized format. You can edit this file with a special CSS editor, or you can expand it with an online CSS beautifier.

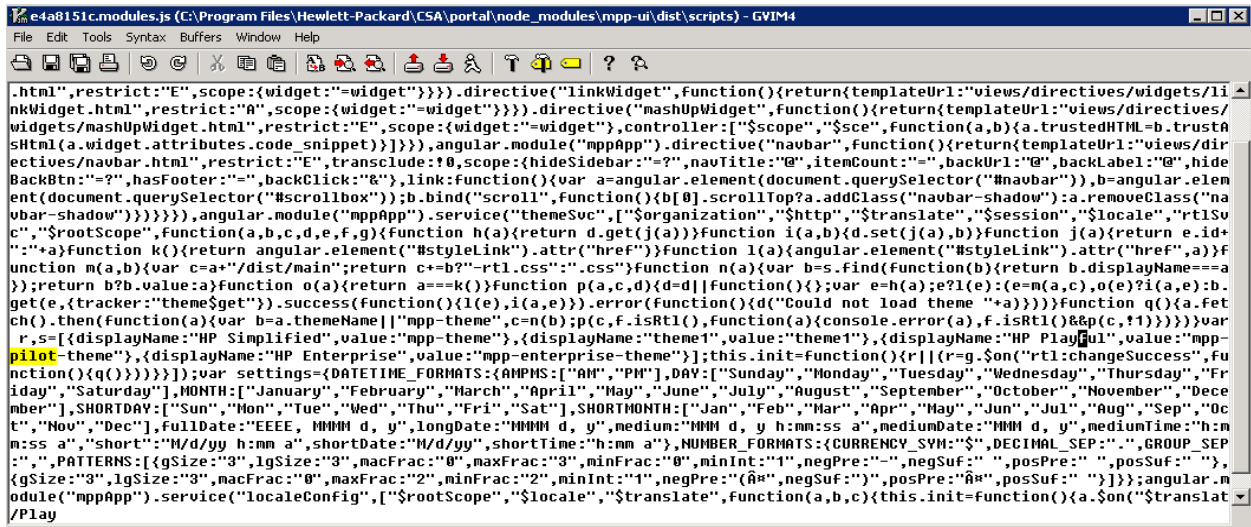
2. In the Organizations/Portal Customization screen, scroll down to the **Themes** section.

Type in the name of your new theme in the drop-down menu.

NOTE:

DO NOT press [Enter] after the theme name. Instead, move the mouse pointer out of the **Theme** area and down to the [Save] button. If you do not follow this process, it will look as though HP CSA accepted your theme name, but it didn't.

3. Edit the raw file mpp-ui/dist/scripts/Odd40724.modules.js. This file is used to match the new theme name to the theme directory.
- Search for the theme name/directory name section with the string "HP Playful"
 - Add in a section similar to {displayName:"MyNewTheme", value:"MyNewTheme"},



```
.html",restrict:"E",scope:{widget:"=widget"}}).directive("linkWidget",function(){return{templateUrl:"views/directives/widgets/li  
nkWidget.html",restrict:"A",scope:{widget:"=widget"}}).directive("mashUpWidget",function(){return{templateUrl:"views/directives/  
widgets/mashUpWidget.html",restrict:"E",scope:{widget:"=widget"},controller:["$scope","$sce",function(a,b){a.trustedHTML=b.trustA  
SHTML(a.widget.attributes.code_snippet)}}}),angular.module("mppApp").directive("navbar",function(){return{templateUrl:"views/dir  
ectives/navbar.html",restrict:"E",transclude:true,scope:{hideSidebar:"=?",navTitle:"@",itemCount:"=",backUrl:"@",backLabel:"@",hide  
BackBtn:"=?",hasFooter:"=",backClick:"&"},link:function(){var a=angular.element(document.querySelector("#navbar")),b=angular.elem  
ent(document.querySelector("#scrollbox"));b.bind("scroll",function(){b[0].scrollTop?a.addClass("navbar-shadow"):a.removeClass("na  
vbar-shadow")}}}),angular.module("mppApp").service("themeSvc",["$organization","$http","$translate","$session","$locale","rtlSu  
c","$rootScope",function(a,b,c,d,e,f,g){function h(a){return d.get(j(a))}function i(a,b){d.set(j(a),b)}function j(a){return e.id+  
":"+a}function k(){return angular.element("#styleLink").attr("href")}function l(a){angular.element("#styleLink").attr("href",a)}f  
unction m(a,b){var c=a+"/dist/main";return c+b?"-rtl.css":".css"}function n(a){var b=s.find(function(b){return b.displayName===a  
});return b?b.value:a}function o(a){return a===k()}function p(a,c,d){d=d||function(){}}var e=h(a);e?l(e):(e=m(a,c),o(e)?i(a,e):b.  
get(e,{tracker:"theme$get"}).success(function(){l(e,i(a,e))}).error(function(){d("Could not load theme "+a)}))}function q(){a.fet  
ch().then(function(a){var b=a.themeName||"mpp-theme",c=n(b);p(c,f.isRTL(),function(a){console.error(a),f.isRTL()&&p(c,!1)}))}var  
r,s=[{displayName:"HP Simplified",value:"mpp-theme"},{displayName:"theme1",value:"theme1"},{displayName:"HP Playful",value:"mpp-  
playful-theme"},{displayName:"HP Enterprise",value:"mpp-enterprise-theme"}];this.init=function(){r||r=$.getJSON("rtl:changeSuccess",fu  
nction(){q()}))};var settings={DATETIME_FORMATS:{AMPMS:["AM","PM"],DAY:["Sunday","Monday","Tuesday","Wednesday","Thursday","Fr  
iday","Saturday"],MONTH:["January","February","March","April","May","June","July","August","September","October","November","Dece  
mber"],SHORTDAY:["Sun","Mon","Tue","Wed","Thu","Fri","Sat"],SHORTMONTH:["Jan","Feb","Mar","Apr","May","Jun","Jul","Aug","Sep","Oc  
t","Nov","Dec"],FullDate:"EEEE, MMMM d, y",longDate:"MMMM d, y",medium:"MMMM d, y h:mm:ss a",mediumDate:"MMM d, y",mediumTime:"h:m  
m:ss a",short:"M/d/yy h:mm a",shortDate:"M/d/yy",shortTime:"h:mm a"},NUMBER_FORMATS:{CURRENCY_SYM:"$",DECIMAL_SEP:".",GROUP_SEP  
:""},PATTERNS:{gSize:"3",lgSize:"3",macFrac:"0",maxFrac:"3",minFrac:"0",minInt:"1",negPre:"-",negSuf:"",posPre:"",posSuf:""},  
{gSize:"3",lgSize:"3",macFrac:"0",maxFrac:"2",minFrac:"2",minInt:"1",negPre:"(â",negSuf:")",posPre:"â",posSuf:""};angular.m  
odule("mppApp").service("localeConfig",["$rootScope","$locale","$translate",function(a,b,c){this.init=function(){a.$on("$translat
```

Experiment with CSS Modifications

You now need to return to the main.css file for your theme. As you modify elements of your style sheet, you will need to log out of the MPP and then log back in to see the results. This is because much of the MPP content is downloaded at login time.

You can start with a simple modification of the document's background color. Find this section in your main.css file, and set the background color to something that you prefer. This background color is consistent as you navigate among MPP screens.

```
html, body .st-container, .st-pusher, .st-content {  
    background-color: purple;  
}
```

The very top of the screen is a custom angular component, a "navbar." By default, it is a partially transparent color, so your main background color will show through a bit.

Now you can make the background a bit more interesting. Download an image file and put it in your theme's images folder (actually, there are replications of original themes within each theme, so be careful). The author copied the file "redVertical.png" into the folder "mpp-theme/images/" within the new theme. (again, be careful, as this looks like a recursive file structure).

```
.bg-body {  
    background: url (mpp-theme/images/redVertical.png) no-repeat center center  
    fixed;  
    background-size: cover;  
    color: #FFF;  
}
```

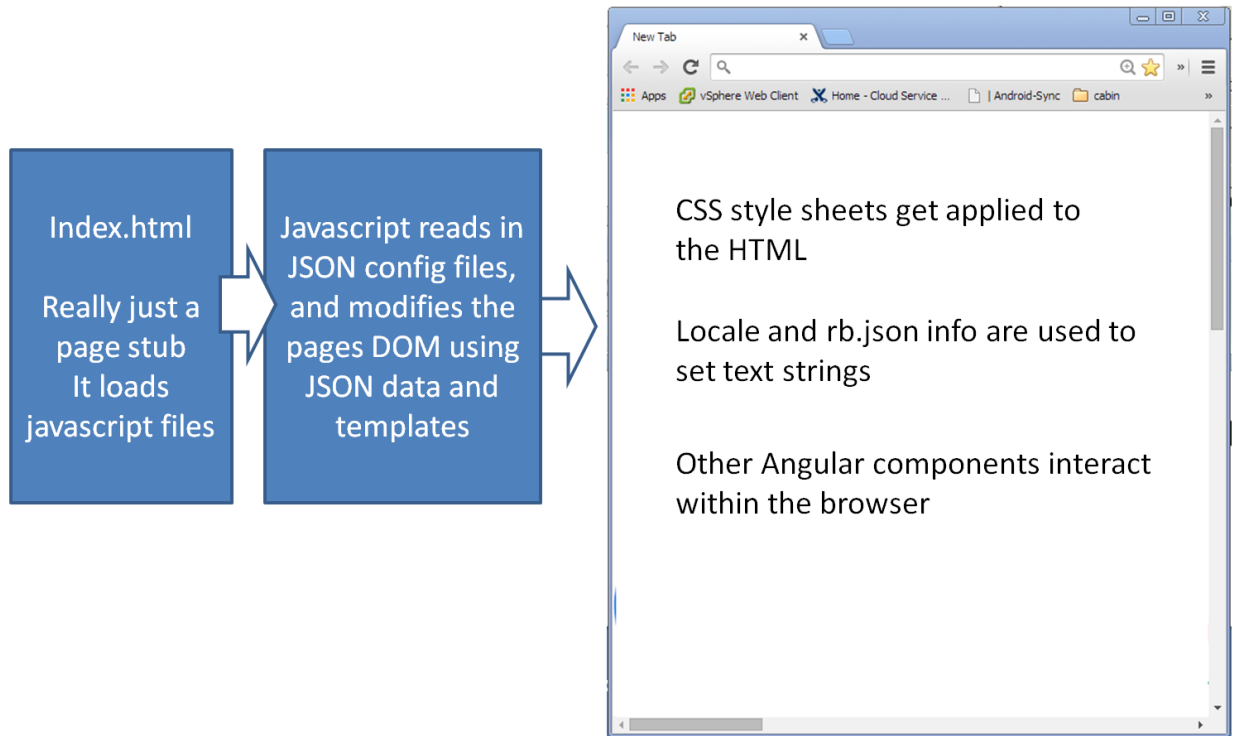
Customize Some Fonts

You can modify some of the MPP-wide text by selecting the font family, font size, and color. Here are two modified entries that will affect the font size and font color of the MPP:

```
h3, .h3 {  
    font-size: 5em;  
    line-height: 1.1;  
}  
  
h1, h2, h3, h4, h5, h6, .h1, .h2, .h3, .h4, .h5, .h6 {  
    font-family: inherit;  
    font-weight: 500;  
    line-height: 1.1;  
    color: red;  
}
```

Part 4: Understand the MPP Rendering Process

If you wish to go beyond basic customization, you need to know how the server side of MPP creates portal content. This process is summarized in the following diagram:



Take a look at the components that can be modified to allow your MPP modification.

- **Index.html.** As noted, it contains very little content, and most of that is over-written later in the process. One important feature is that this file loads a sequence of JavaScript files. If you are going to eventually create custom widgets that depend on local javascript libraries, load those libraries here.

Implementation Note: Some of the javascript files that are loaded are common libraries. Others are javascript files that contain embedded HTML templates that define MPP sub-page content. Modification of these files is not encouraged.

- **JSON Config Files.**

Dashboard.json. This is the client-side definition file. It defines the rows of content that the subscriber sees in the MPP. Note that this “tile” definition is a *global* configuration file; the content structure that is defined in this file will be applied to *all users in all organizations*.

mpp.json configures server-side behavior of the MPP (but not the CSA server back end). Settings include port number, key file, providers, HA, logging, cef, and proxy.

Now you can go back to the server side to define what content gets generated.

Part 5: Advanced Customization

Back up and then edit the file `csa/portal/node_modules/mpp-server/conf/dashboard.json`. There are really only two major structures in the `dashboard.json` file: the structure that defines the header and the structure that defines the tiles of functionality.

Header Content

```
{
  "header": {
    "icon": {
      "url": "mpp-theme/dist/mpp-theme/images/csa-backgrounds-dashoard.png"
    },
    "description": "csaShop.banner.description",
    "subDescription": "csaShop.banner.subDescription",
    "link": {
      "label": "csaShop.banner.link",
      "url": "#/shop"
    },
    "background": {
      "className": "bg-clouds btn-inverted background-cover"
    }
  },
}
```

The header icon section points to a specific path that is relative to folder `csa\portal\node_modules\mpp-ui\dist\bower_components\mpp-theme`.

NOTE:

- This really isn't a background image. It's a foreground image/icon.
- This image does not go through a CSS class mapping.
- You can add a new graphic to the folder and change the name in `dashboard.json`, or just change the contents of the specified file.

The "background" section at the bottom specifies a bitmap that will go underneath the icon. It describes a class that is resolved in your theme's style sheet, `main.css`. By default, the mapping is to `mpp-theme/images/csa-dashboard-background.png`.

In between the header foreground image and background image are lines that describe the text, subtext, and link in the header. The text for the fields "csaShop.banner.description", "csaHop.banner.subDescription" and "CsaShop.banner.link" can be found within your `rb.json` file. The active `rb.json` file is specified by the locale setting on your computer. You will find the different language files in the folder `\portal\node_modules\mpp-ui\dist\locales`.

Edit the welcome message strings in the "csaShop" section of your `rb.json`:

```
"csaShop": {
  "title": "Shop Dashboard",
  "banner": {
    "description": "Cloud Stuff",
    "subDescription": "Order your own Cloud Services",
    "link": "Shop till you Drop"
  }
}
```


Body Content

Most of the file dashboard.json is used to specify the non-header sections of the MPP. In this file, “sections” refers to rows of content and “tiles” refers to the items within each row.

Text strings are de-referenced in the locale’s rb.json file, just as they were for the previous banner section. Style-related definitions are also references to the current theme’s main.css definition.

Note that tile definitions include links; most of these are referring back to the same javascript page, but with an identifier. An example of this would be the line:

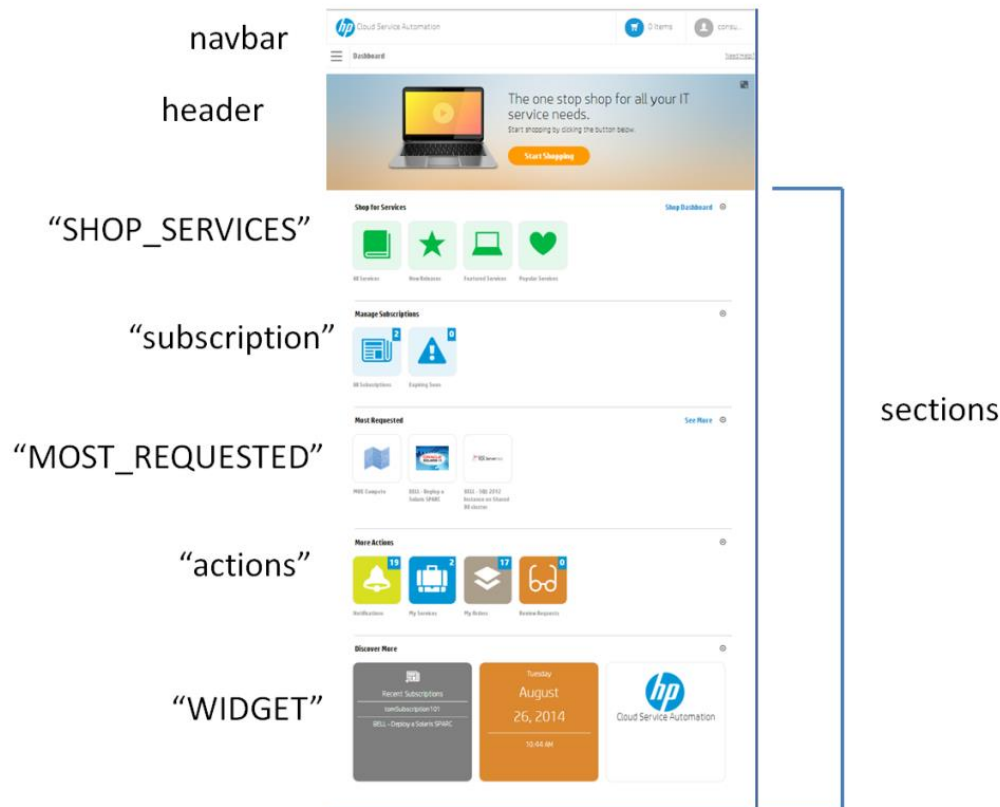
```
“url”: “shop”
```

You can (carefully) edit the remainder of the dashboard.json file, specifying only the rows and elements that you wish to have in the MPP.

NOTE:

Because the MPP content definition is specified in dashboard.json, the settings are global. All users in all organizations will have exactly the same content.

An unmodified dashboard.json file will refer to the default sections and items shipped with CSA 4.2. The following diagram shows the (internal) section names and the default content.



```
"sections": [{  
  "label": "common.section.SHOP_SERVICES.label",  
  "seeMore": {  
    "label": "shop.title",
```

```
"url": "#/shop"
},
"tiles": {
  "default": {
    "className": "green"
  },
  "items": [{
    "label": "common.items.ALL_SERVICES",
    "icon": {
      "className": "icon-catalog"
    },
    "hotkey": "ctrl+shift+3",
    "link": "#/service"
  }, {
    "label": "common.items.NEW_RELEASES",
    "icon": {
      "className": "icon-star"
    },
    "link": "#/featuredServices/new_releases"
  }, {
    "label": "common.items.FEATURED_SERVICES",
    "icon": {
      "className": "icon-laptop"
    },
    "link": "#/service?category={featuredCategory}&featured=true"
  }, {
    "label": "common.items.POPULAR_SERVICES",
    "icon": {
      "className": "icon-heart"
    },
    "link": "#/featuredServices/most_requested"
  ]
}
}, {
  "label": "common.section.subscription.label",
  "tiles": {
    "default": {
      "className": "light-blue"
    },
    "items": [{
      "label": "common.items.ALL_SUBSCRIPTIONS",
      "link": "#/subscription",
      "icon": {
        "className": "icon-subscription"
      },
      "hotkey": "ctrl+shift+7",
      "count": "api/subscription/count?state=ALL"
    }, {
      "label": "common.items.EXPIRING",
      "icon": {
        "className": "icon-alert"
      },
      "count": "api/subscription/count?state=EXPIRING_SOON",
      "link": "#/featuredSubscriptions/expiring_soon"
    }
  ]
}
```

```
}
}, {
  "type": {
    "name": "CATALOG_CATEGORY",

    "category": "MOST_REQUESTED"
  },
  "seeMore": "#/featuredServices/most_requested"
}, {
  "label": "common.section.actions.label",
  "tiles": {
    "items": [{
      "label": "notification.list.title",
      "className": "lemon",
      "icon": {
        "className": "icon-notification"
      },
      "link": "#/notification",
      "hotkey": "ctrl+shift+4",
      "count": "api/notification/total-count"
    }, {
      "label": "myservice.list.title",
      "className": "dark-blue",
      "icon": {
        "className": "icon-mystuff"
      },
      "link": "#/myservice",
      "hotkey": "ctrl+shift+8",
      "count": "api/myservice/count?state=ALL"
    }, {
      "label": "common.items.orders",
      "className": "rock",
      "icon": {
        "className": "icon-services"
      },
      "link": "#/request",
      "hotkey": "ctrl+shift+6",
      "count": "api/request/count?state=ALL"
    }, {
      "label": "common.items.review",
      "icon": {
        "className": "icon-review"
      },
      "className": "orange",
      "link": "#/approval?status=DECISION_PENDING",
      "hotkey": "ctrl+shift+5",
      "count": "api/approval/count?state=DECISION_PENDING"
    }
  ]
}
}, {
  "type": {
    "name": "WIZARD",
    "category": "WIZARD"
  },
  "tiles": {
```

```
"default": {
  "className": "black background-cubes background-repeat",
  "icon": {
    "className": "icon-monitor"
  }
}
}, {
  "type": {
    "name": "WIDGET",
    "category": "WIDGET"
  }
}]
}
```

Delete an Existing Tile

If you are in an organization that does not require an approval mechanism, removing this section enables the "Review Requests" tile:

```
{
  "label": "common.items.review",
  "icon": {
    "className": "icon-review"
  },
  "className": "orange",
  "link": "#/approval?status=DECISION_PENDING",
  "hotkey": "ctrl+shift+5",
  "count": "api/approval/count?state=DECISION_PENDING"
}]
```

Caution:

Be very careful to make sure that curly brackets, square brackets, and commas remain balanced in the `dashboard.json` file.

Stop and restart the `hpmarketplaceportal` service, then log back into the MPP. The review tile will now be gone.



Change the Image in a Tile

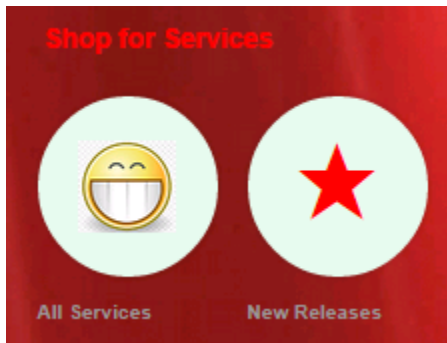
Normally, HP CSA icons are specified in main.css by pointing to glyphs, which are compact and fast bitmap representations. A glyph entry in the main.css will look something like this:

```
.icon-catalog-option:before {  
    content: "\e11a";  
}
```

You can change the tile images to bitmaps. Once again, you will be specifying a theme-relative directory where the new bitmap is kept.

```
.icon-catalog:before {  
    content: url (mpp-theme/images/smile.png);  
}
```

Log out and then back in to get your new cheered-up theme.

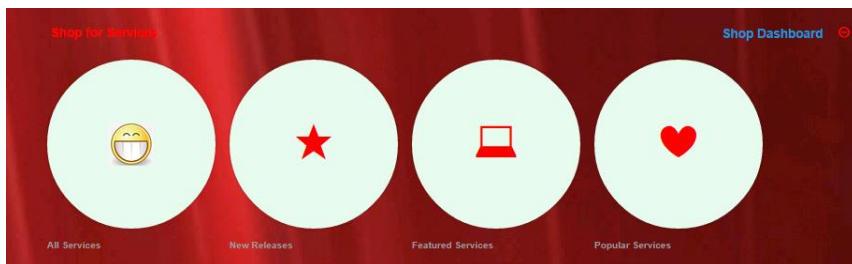


Change the Size of Tiles

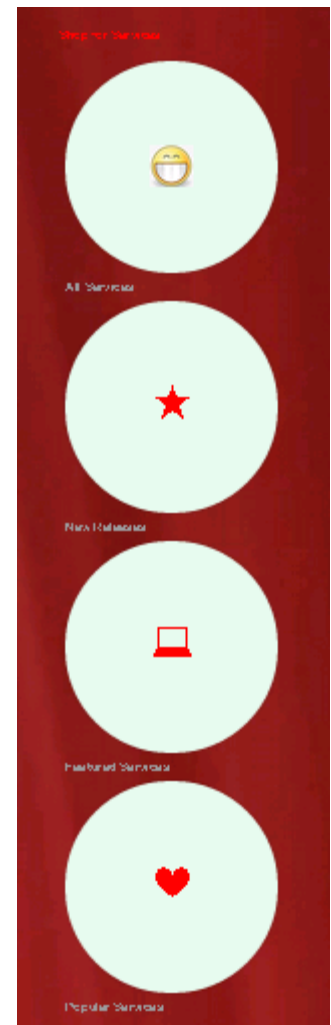
Customers frequently request that the size of MPP tiles be modified. Once again, this is configured in the main.css style sheet.

You can specify a new fixed size for tiles:

```
mpp-tile.tile {  
    width: 240px;  
}
```



You can also specify a relative size for the tiles. If you specify a large tile size, the page layout will wrap content vertically.



Experiment!

Use your browser's Inspect feature to specify elements that you would like to modify. The inspector will also give you clues to tell you which parts of the style sheet you need to modify.

For More Information

To access other toolkits to design and extend cloud services running on HP CloudSystem, go to <http://www.hp.com/go/csdevelopers>.

For more information about HP CloudSystem, visit <http://www.hp.com/go/cloudsystem>

HP software product documentation can be found at <https://softwaresupport.hp.com/>

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