CloudPortal Client Mockups

The following mockups describe our client application for our initial *alpha release* and is not the Full CloudPortal Client Mockups that will be use for the final release.

Our mockups are made using Balsamiq. They are intended to communicate *business ideas*, not necessarily any particular design or implementation. We want to focus on the *user's experience* (workflow) and *product scope*. However, this goal may be hard to achieve, so when this page mentions design or implementation details, just go with it.

Sign In Process

Assuming a person received an email notification with details about signing into our system, including an *account name* and a *password*, the person should be able to click the **Sign In** button on the CloudEco Home Page, and be presented with the following Sign In window:

Forgot Password Enter your account, and we'll reset your password and send instructions to the email address on file. Account Name Cancel Reset Password Already have an account? Sign in to our System Don't have an account, then Register for an Account Pory to a account, then Register for an Account Porgot your login? Search by Email Address CloudEco Sign In Account Search Enter the email address associated with your CloudEco account, and we'll reset your passworld and email you login instructions. Error: The email address supplied is not in our database. Email Address gaylord@focker.com
Already have an account? <u>Sign in to our System</u> Don't have an account, then <u>Register for an Account</u> Forgot your password? <u>Reset your password</u>

Each of these three panels (with the Registration panel described in the next section), are all inter-linked. For instance, if the **Sign In** panel, the user clicks the **Forgot Password**, but then remembers it, she will be able to click a link to go back to the sign in page.

Note: The mockups in this section do not determine security, however, we are not planning on emailing user passwords, but instead, will *reset a password* and email that temporary password to the user's email address. These passwords would only be valid for a couple of hours, and then the account becomes inactive. Of course, these are only initial thoughts.

Registration

Many links lead to the registration form, which has the following goals:

- Get account name.
- Get a valid email address.
- Get the user to agree to our licensing agreement (EULA).

The following is a diagram / illustration of our Registration form:

CloudEco Registration						
CloudEco is the <i>platform as a service</i> project initiated by Huawei It can support multiple frameworks, multiple cloud providers, and multiple application services all on a cloud scale platform. Sign up by filling in the information below:						
Email address: Your name:		Email address is used to sign in to the system. It is also used to confirm your account, but not for advertising purposes. See our <u>privacy statement</u> .				
Invitation Code:	A352K					
Contact In	formation					
Phone number:	503-235-2333	The contact information fields are optional.				
Mailing address:	8342 SE 3rd Ave Portland, OR 97003	op nonal.				
Licensing Agreement	By using the CloudEco service and any a "Service"), you ("You") accept and agree terms and conditions (the "Agreement" THIS AGREEMENT ON BEHALF OF A ✓ I have read and agree to the <u>Terms</u> Register!	ee to be bound by the following). IF YOU ARE ENTERING INTO COMPANY OR OTHER LEGAL				
		4				

Overall Layout

As you can tell in the following diagram, the main screen has three parts:

- Header
- Menubar or Row of Tabs

• Body



Note: This first illustration/diagram shows the entire organization of the application. We won't do that anymore. Instead, we'll concentrate on particular pieces in our illustrations. This allows us to update this first illustration/diagram without having to update everything else. Thanks for understanding.

Header

Along with the product name, it should have links (or buttons) to the following:

- User preferences and account details
- Logout

Menubar

The menubar is just a list of major links that goes to different parts of the products. Since we may have lots of tabs, we'll probably make this a **button bar** to be distinct. The available options include the following:

- Dashboard
- Applications
- Services

Body

The rest of the application will contain the contents of clicking on any item in the menubar. Details of this section show up in the various sections below.

Account Profile

Clicking on your name in the Header section of the application allows a user to customize his own profile, as shown in the following illustration / diagram. This is also has a link where the user can change his password.

Account Profile	*]
Change your contact information below. All fields, except for email address, are optional.		
Name Trey Anastasio		Reset Password
Username treya		Change your password by first entering your original password. See our <u>password guidelines</u> .
Email howard@ebento.biz		Original Password: **********
Phone 503-228-8433		Confirm Password:
Address 8703 NW 62nd Ave Beaverburg, OR 97522		Cancel
Reset Password Cancel Save]	

Dashboard

Since the dashboard is the first thing that a customer sees when they log in, we have the following goals:

- It must load very fast.
- It must give a good overview of the health of the entire system.
- It must be useful.
- It should tell them of recent changes.

Because of these goals, we think that having two "summary" panels would be appropriate:

- Applications
- Services

Each of these are described in the following sections:

Application Dashboard

The Application Panel in the Dashboard should list all of the applications and their general health, e.g. running, stopped, etc.

If the application started, but warnings have been detected in the log file, we can set the status to warning. If we do, we'll need a way for the customer to view the logs and clear the warning status.

Clicking on various bits in the panel should allow the customer to jump to details and more specific information.

A button to start a new Application would be useful, especially when the user first registers and hasn't started/uploaded any applications.



Services Dashboard

The Services Panel in the Dashboard should list all of the services and their general health, e.g. running, stopped, etc.

If a service started, but warnings were detected in the logs, we can set the status to warning. However, since the user can't really update or affect the service, perhaps this isn't too helpful.

Clicking on various bits in the panel should allow the customer to jump to details and more specific information.

A button to start a new Service would be useful, especially when the user first registers and hasn't started/uploaded any services.



Applications

The **Applications** section lists all applications a user has created as a series of **vertical tabs**. Clicking any particular **Application Tab** shows the *meta information* associated with that application as well as a series of *sub tabs* for additional information associated with that application, as you can see in the illustration on the right.

The sub tabs available for an application include:

- Information
- Environment
- Logs
- Files

• Crashes

Create a New Application

On the list of Applications is a New button that allows the user to start a new application, as seen in the following mockup:

Oreate a New Application Application Name: mongrue Application VRL: mongrue.cloude-eco.com Runtime: Ruby, v1.8 Number of Instances: 3 200 Mb 200 Mb Description: Memory Reservation: 200 Mb	
Application Name: mongrue Application VRL: mongrue.cloude-eco.com Runtime: Ruby, v1.8 Number of Instances: 3 3 mongrue Memory Reservation: 200 Mb	
Runtime: Ruby, v1.8 Number of Instances: 3 3 public Memory Reservation: 200 Mb	
Number of Instances: 3 Image: Constraint of the system into the tree of the system into the system intot the sys	
Memory Reservation: 200 Mb	
	ny-node.zip

Note: The process for uploading a new application (or even updating an existing application) is quite complicated and we are going to see if HTML5 technologies will allow us to drag and drop files from the customer's file system into a panel.

If the file is a **Zip Archive**, the file will be uploaded to the system (showing a progress bar at the bottom of the panel) and the contents of the archive will be displayed to the customer in a tree panel.

If the file is a **War Archive**, it will behave similarly to the Zip archive, except that the file won't actually be extracted on the server. It will, however, appear like it was extracted when it is displayed in a tree panel.

If the file is an **individual file**, its upload status will be shown in the progress bar, and when it is completed, it will show up in the folder that was the destination of the drag.

Note: The progress panel will be invisible when no file is being uploaded.

Information

When you first select an application, you are shown the Information Subtab, as shown in the following illustration/diagram:

Bob-Latest	Information	Environment Logs Files	Crashes	\]	
Bob-Released	Name	mongrue (Node.js)	Ø	Delete App		
Cat-Stable	URL	mongrue.cloudfoundry.com	Ø	Services		
Cat-v2	Health	Running	ΠĊ	mongodb-800a		
mongrue	Instances	1	$\Diamond \bigtriangledown$	rabbitmq-3823	Checking a box	
fuzzytoast	Version	17			associates the service with this application.	
E New	Memory	64 Mb	0			
IT New	FDS	256 Mb	0			
	Disk	2048 Mb	0		Many entries have action buttons to start/stop/re	start,
	Created	9 Sep 2011			edit, change state, etc. don't.	Some

Clicking any particular Application Tab shows the meta information associated with that application, as you see under the Information sub-tab.

Note: Many of the line entries may have a reasonable action associated with it. For instance:

- · Health / Status: Allows the user to stop/start/restart the application.
- Instances: Allows the user to increase/decrease the number of instances associated with the application.
- Memory: Allows the user to change the amount of memory allocated.

On the right side, is a **Delete Application** button and a list of **Services**. A checkbox shows which services are associated with this application as well as allowing the user to change this association.

Environment Variables

The **Environment** sub tab shows you a list of *environment variables* that are set and available for your application to query (using the normal methods that most programmers are used to).

Information Environment Logs File	s Cro	ashes		
Variable Name		Value	4	
WORLD	Ø	cloudeco	0	_
MODEL	Ø	18a	0	The pencil icon that shows up when you hover a field, allows you to edit
+			7	that field in-line. Intuitive, baby.
Add new Variable Entry	_			

Note: The pencil icons only show up when you hover over a field. Clicking the pencil icon, turns the text into a field where the name or value can be changed.

Information Environment Logs File	s Cro	ashes		
Variable Name		Value	8	
WORLD	Ø	cloudeco d	0	
MODEL	Ø	18a 🔪 🗸	x	In Datum to any Easter small
•			4	Hit Return to save, Esc to cancel. Or use the handy-dandy icons.

Clicking the Logs sub tab shows the logs for *all instances*. This can be limited, as shown below, by clicking the **Instance Buttons**. Logs can be further filtered by entering text in a field. Note: Cloud Foundry's vmc program only filters the logs based on a *prefix*. We could probably improve upon that.



Files

The **Files** sub tab lists the current files that are stored on the instances. This is often helpful to see what version of an application was actually pushed. In our case, double-clicking or clicking a "View" icon should show the contents of the file in a new browser window.



Crashes and Crashlogs

Clicking the Crashes sub tab shows all of the crashes for the user's applications, as shown in the following illustration:

Information Environment Logs Files Crashes							
Name	Instance ID	Crashed Time	View				
hello-spring-1	2801de2c3c202ea58c16b1e30285a22a	04/12/2011 12:15PM	Logs				
hello-spring-2	861c8e8b2105cadc01df11b9d5e435c7	04/12/2011 12:15PM	Logs				
hello-spring-3	3427ff302dcb575302a324f0b774b7c7	04/12/2011 12:15PM	Logs				
hello-spring-4	19253968dd3cf03d694b6e14f71b723e	04/12/2011 12:15PM	Logs				

Each *crash* has a link to view the logs for that application. Seems that crash logs aren't really different than the regular logs, so we'll end up reusing a lot of the same code to display them.

Information Environment Logs Files Crashes	
<< Back	(g filter
====> logs/stderr.log <====	
Apr 12, 2011 4:15:10 PM org.apache.coyote.http11.Http11Pro	ptocol init
INFO: Initializing Coyote HTTP/1.1 on http-55643	We'll reuse the code for "Logs" to
Apr 12, 2011 4:15:10 PM org.apache.catalina.startup.Catalina	load display "Crash Logs", as the two aren't different in their results.
INFO: Initialization processed in 305 ms	a ch cance ch an their results.
Apr 12, 2011 4:15:10 PM org.apache.catalina.realm.JAASRe	alm setContainer

Services

Under Cloud Foundry, the **Services** are tucked away and hidden from the user. Only a few environment variables detailing connection information is readily available to an application. However, for our initial alpha release, we will display information about a particular service.

Service Information

Selecting a service shows both general information about the selected service as well as a list of *associated applications*. Clicking a check box should associate/de-associate the application. **Note:** This has the same effect as going to the **Application** tab and associating/de-associating a Service.

Mongo-dev Mongo-proust	Name Service	mongodb-800ab	0	Delete Service	
Mongo-qa Rabbit-dev	Health Version	Running	٥D	Bob-Latest Bob-Released Cat-Stable	Checking a box associates the service with this application.
+ New	Created Updated	9 Sep 2011 15 Sep 2011		☑ Cat-v2 ☑ mongrue	Many entries have
	Description	MongoDB NoSQL store	0	idzzytoast	start/stop/restart, edit, change state, etc. Some don't.