Content Provisioning Solution 2.0
Reviewer's Guide

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INTRODUCTION

Overview

This Reviewer's Guide provides an overview of the Interwoven® Content Provisioning Solution (CPS) – an industry-leading software solution that standardizes the way application updates are aggregated, synchronized and deployed throughout testing, staging and production environments.

The Content Provisioning solution is specifically designed for content rich organizations that are striving to control costs and reduce complexity within an increasingly dynamic application environment. It gives IT Operations full control over the provisioning of application assets, delivers reporting, version control, and rollback capabilities, and features configurable workflows to streamline the release process. As a result, key IT compliance requirements are met through an auditable, historical snapshot of all application changes. In addition, release management costs are reduced by automating error-prone manual processes while accelerating application time to market.

The Content Provisioning solution begins with an assessment of existing provisioning processes. This assessment reviews current processes and technologies within Web-based application environments, identifies areas of inefficiency, and designs a tailored implementation plan for a Content Provisioning solution.

As part of the solution, Interwoven provides two key products: **OpenDeploy®** and **ControlHub**:

- **OpenDeploy:** Provides secure, transactional aggregation and deployment capabilities.
- **ControlHub:** Is a centralized hub for released application content, which includes code (dynamic content), static content and configurations. Version control provides rollback capabilities while workflows streamline the provisioning process.

Audience

This guide is intended for IT professionals who would like an introduction to the Content Provisioning Solution. Reviewers should be familiar with the basics of their operating system and know how to use a web browser.

Assumptions

The Content Provisioning Solution is installed on a single system via a unified installer. OpenDeploy and ControlHub are automatically configured for integrated operation. Installation instructions can be found in the **ControlHub Installation Guide**.

Although additional OpenDeploy Base Servers and Receivers may be installed on different systems to facilitate distributed provisioning, this guide assumes everything is self-contained on a single system. Follow the steps in the Installation Guide to install CPS, preferably with the default values presented by the installer. If you are installing on a Windows server, you must have administrator privileges. You must have root privileges to install on a UNIX server.

After completing the steps above, proceed to WELCOME to the REVIEWER'S TOUR on the next page.

WELCOME TO THE REVIEWER'S TOUR

Product Uses

Please read the Assumptions section on page 1 before proceeding.

The Content Provisioning Solution delivers value to the following users:

1. The **Administrator** who sets up and manages OpenDeploy and ControlHub
2. The **User** who executes provisioning jobs
3. The **Developer** who may participate in the provisioning process, for example, by approving changes on a test server prior to deployment into production

The distribution environment may be as simple or sophisticated as required by the implementer. Systems may include a mix of Windows and Unix platforms. Each system that participates in the distribution environment runs an OpenDeploy Receiver or Base Server. A **Receiver** is an agent that handles incoming deployments. A **Base Server** is a sender that may also act as a receiver – typically to facilitate multi-tiered distribution. For convenience, this guide will rely on a single Base Server, installed as part of the CPS package, running loop-back deployments to itself.

The CPS package also includes **ControlHub** and the OpenDeploy **Administration Package**, which provide user interface and reporting functions.

PRODUCTIVITY THROUGH EASE OF USE

Intuitive Browser-based Interface

ControlHub's browser-based interface makes it easy to initiate, manage and monitor activity from anywhere. ControlHub is the main operations console. Administrators use the ControlHub UI to set up branches, Workareas, and access rules. Users run and track workflows and associated deployment jobs. Developers approve or reject updates from the ControlHub UI or the e-mail interface.

Using the ControlHub User Interface

After logging in, the ControlHub browser UI displays. The top left portion of the UI contains the ControlHub tabs including:

- **Content:** Set up and access information in branches and workareas.
- **Workflow:** Initiate and monitor workflows that define the steps in the content provisioning process.
- **Administration:** Perform administrative tasks associated with ControlHub.
- **Deployment:** Monitor aggregation and provisioning deployments.

The top right portion of the UI contains a tab to access the OpenDeploy Admin UI, a Logout tab, About tab containing information about the ControlHub application, and a Help tab to obtain information about using various ControlHub functions.

The ControlHub UI is intended to be simple and intuitive. When a tab is selected, relevant menus and panes display. The UI also displays a navigation tree on the left side of the UI window. Click on an arrow to expand or contract the navigation tree. As you click on each node in the tree, the right side of the UI provides details and functions that are relevant to the selected node.

ControlHub has a link to the OpenDeploy Admin UI. This lets Administrators configure deployments, and lets Users manually run or override ad hoc, scheduled and simulated deployments. The OpenDeploy Admin UI also provides a reporting center through which reports on all ControlHub (workflow) and OpenDeploy (deployment) events can be generated.

AUTOMATING THE CONTENT PROVISIONING PROCESS

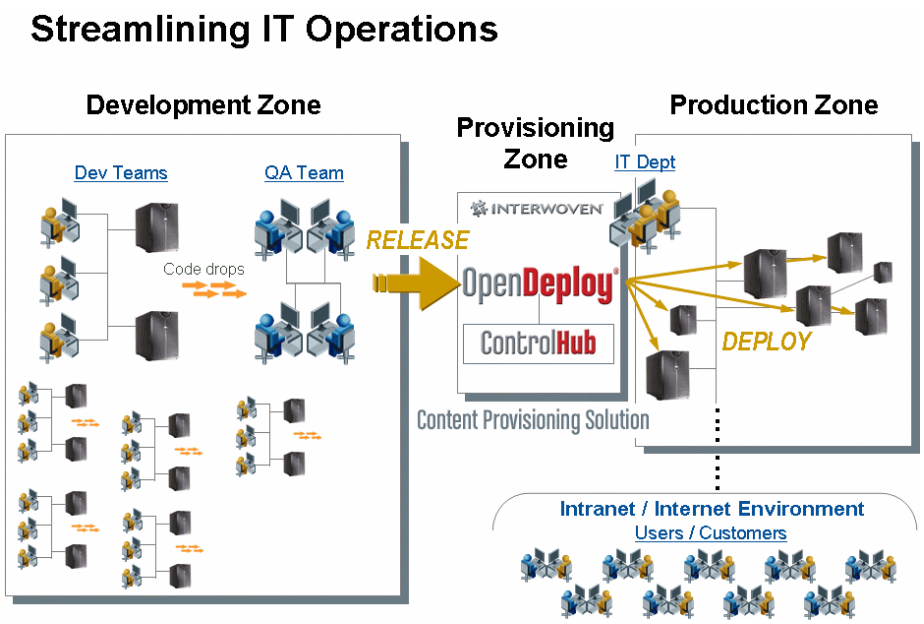
Automate Content Provisioning through ControlHub

In a “classic” model, applications were created in the “Development Zone” of the enterprise. The completed software was released and delivered to the IT Operations Department, who were responsible for rolling it out to servers in the “Production Zone.”

This classic flow is time-consuming and can be error prone. Today, large enterprises may support hundreds of applications and web-based content. Unlike mainframe or client-server applications, many of these applications require frequent updates, often on a weekly or even daily basis. Updates to today’s Web-based applications are typically pushed incrementally to live servers—often outside the confines of the firewall. Synchronization must also occur across distributed servers. These characteristics impact IT Operations by imposing a critical bottleneck for enterprises. Enterprises need a new model and a new tool to meet the content provisioning needs of the enterprise.

Interwoven’s Content Provisioning Solution can be used to break this bottleneck by automating the content provisioning process. The Content Provisioning Solution, consisting of the ControlHub and OpenDeploy, can store application updates, organize change sets for multiple applications, handle versioning and rollback, handle workflow, and automatically notify IT staff via email. It also provides reporting and audit capabilities and a secure environment that limits access to content and functions. The illustration below shows the steps typically performed in the Development and Production Zones and how the Content Provisioning Solution automates this process.

We will illustrate the easy-to-use ControlHub content provisioning process as we walk you through this demo.

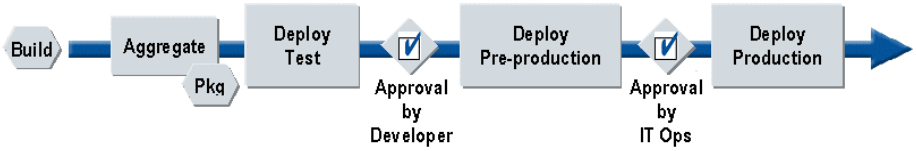


CONTENT PROVISIONING STEPS IN CONTROLHUB

In most enterprises, the application build process is typically done manually. It is time-consuming, inefficient and error-prone. ControlHub automates the steps in content provisioning, releasing change sets, and the application build process. The steps used in ControlHub and OpenDeploy are optional and configurable, so they can be tailored to meet the needs of each enterprise.

The process typically starts with building the application in ControlHub. OpenDeploy aggregates files into ControlHub, invoking a packaging step if necessary. OpenDeploy deploys the files to a test server, where a developer reviews the application files and approves them.

OpenDeploy then deploys the changes to pre-production servers. IT Operations approves that the application is behaving as expected in an environment that resembles production. After the approval from IT Operations, OpenDeploy deploys the build to production servers. The production deployment is flexible and may be on demand or scheduled. Reports are available as an audit trail. It is also possible to "rollback" production changes to an earlier version.



Demonstration of Content Provisioning

As part of the Reviewer's Guide, you will run though an example exercise to illustrate the steps used for content provisioning within Control Hub. In this example, you will utilize Content Provisioning to make an update to the sample application called the Ajuba Banking web application. The following are the steps you will perform in this exercise:

- First, you will login into ControlHub and initiate a workflow job (representing a task performed by IT Operations.) This job will use OpenDeploy to aggregate the Content into a branch and Workarea in ControlHub that has been pre-configured for the Ajuba Banking application.
- This workflow will use OpenDeploy to deploy the application to test, pre-production, and production servers. (For the purpose of this example, these three deployments will take place to the same Tomcat server installed with Content Provisioning.)
- The workflow will go through various approval steps and eventually submit the changes to the Staging area in Control Hub and version the changes by publishing a new Edition.
- After completing and deploying the first workflow, you will make updates to the Ajuba Bank web content (representing a task that might be performed by Development.) You will initiate another workflow and deploy the changes to the Production server and then display the changed web content.
- As part of this exercise, you will use ControlHub to "roll back" the job, which rolls back the application to the edition created by the first provisioning job. This demonstrates a change in the target application after the rollback job completes.

USING THE CONTROLHUB DEMO

Logging into ControlHub

Login into ControlHub http://<hostname>. Since you will be performing tasks as an IT Operations member, be sure you use a user with an Administrator role. Enter your Username and Password, and then select the role of Administrator from the drop-down box. Your role determines what you can access in ControlHub and OpenDeploy.

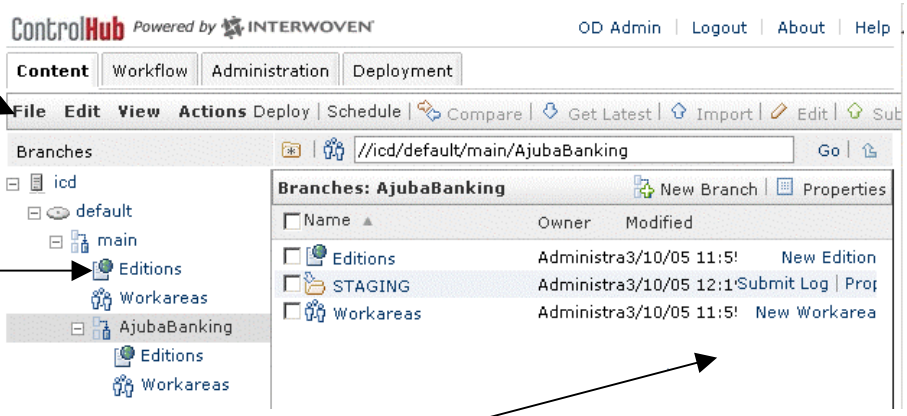
Login credentials include a system user ID and password, and an authorized role

Tour of the Content UI

Click on the Content tab to display the Content UI. The left side of the UI window provides a navigation tree for expanding functional areas such as branches, workareas, and editions. The top-level of the navigation tree is a branch, which corresponds to the application in Control Hub. The workarea is where updates are aggregated. Editions are snapshots of the application state as deployed to production. Click on an arrow to expand or contract the navigation tree. As you click on each node in the tree, the right side of the UI provides details and functions that are relevant to the selected node such as Editions, STAGING, and Workareas. New branches can also be added from this window and more information displayed about properties.

Navigation tree

Branch for managing application

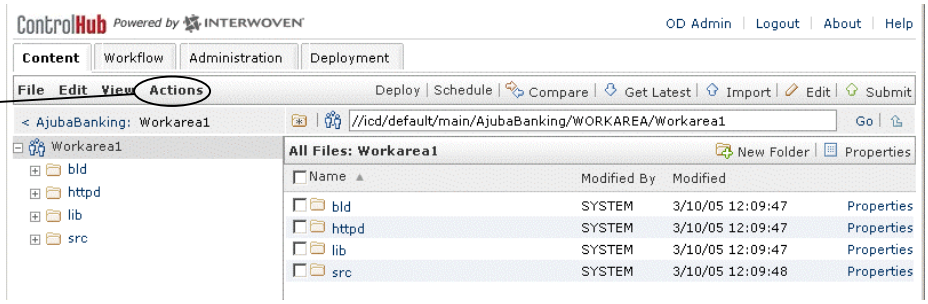


Workareas for aggregating code and content

Starting a Workflow in ControlHub

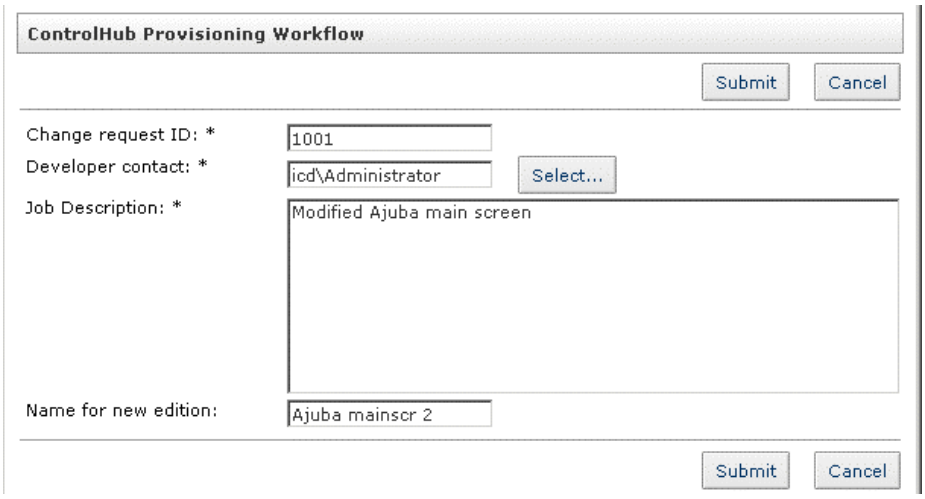
1. A branch and workarea for Ajuba Banking have been created for you. Navigate into AjubaBanking branch to the Workarea called Workarea1. (Click on the workarea name to get into the workarea, as shown below.)
2. Start the workflow by going to the Actions Menu and selecting "New Job."

Select Actions Menu to start a new job



3. A screen displays where you select the provisioning options. Select the option “Demo Provisioning” and the ControlHub Provisioning Workflow screen displays where you enter the provisioning information to be associated with the workflow.
4. Fill in any number for the change request. Select a user for the Development Contact (this is the Development person.)

   Note: ControlHub can be configured to set up email support for the person identified as the contact.
5. Enter some text for the job description.
6. Enter an edition name to help identify the edition, such as Ajuba mainscr2. If left blank, the system will number it as ed_0001.
7. Start the workflow by clicking “Submit.” The workflow has now started.



ControlHub Workflow and Change Request Overview

The steps you just performed are similar to the steps that IT Operations or Development might take to start the change request process. A change request may be initiated by development and contains all of the information needed for IT Operations to perform an update of the application. The current change request mechanism used by an Enterprise can still be used with Interwoven's Content Provisioning Solution.

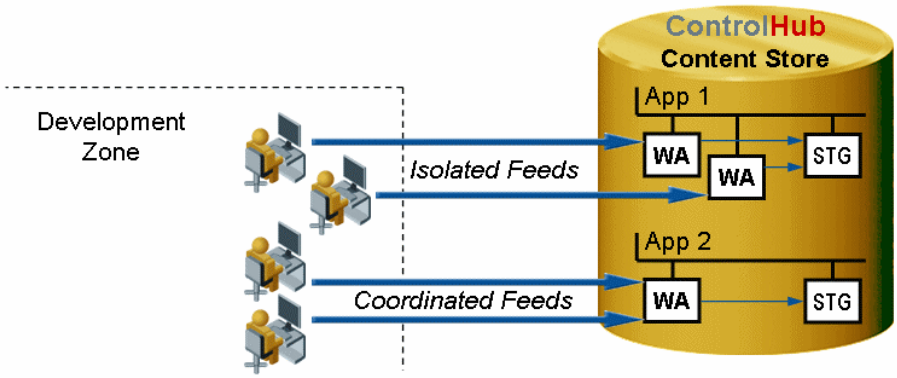
The Workflow is a powerful feature in ControlHub that can be used to automate the deployment and rollback process. Workflows are useful for content provisioning since multiple people may participate in the process, approvals are needed at various points, and patterns of interactions are repeated frequently. When a workflow is initiated, we refer to the workflow as a new job. A job can consist of one or more tasks, with each task representing a step in the workflow. When all of the tasks have been completed, the job is completed.

Alternatively, the files can be copied into a Workarea through ControlHub's file system interface, which makes the ControlHub content store appear as a drive on Windows systems or a file system mount on Unix.

Automated workflows ensure approvals and notifications occur at the appropriate points in the provisioning process. When code, content and configuration files are staged and ready to be provisioned, the new application version is saved as an "Edition" and OpenDeploy delivers the incremental changes to the target servers in the "Production Zone." Editions provide an efficient mechanism for recording the state of target servers at any point in time. As a result, OpenDeploy can instantly roll back an application to a previous state by simply deploying the files that differ between the previous and current Editions. Furthermore, Editions help satisfy audit requirements by preserving accurate snapshots of applications as they existed at specific points in time.

The Workflow process also includes Branches, which are either a single branch per application or multiple branches to accommodate patch and application releases. The illustration below shows how ControlHub obtains information, how it is stored in Workareas (WA) and sent to Staging Areas (STG).

Each group that releases updates for an application is considered a "feed" within the content provisioning process—feeds may come from a single group (isolated feed) or multiple sources (coordinated feeds.) Isolated feeds map to separate Workareas so that independent change sets can be provisioned separately. Coordinated feeds map to a single Workarea so that files related to a particular change set can be aggregated from multiple sources. Workareas on the same branch share the same Staging area, which is where a change set is promoted prior to creating an Edition.



MONITOR THE WORKFLOW

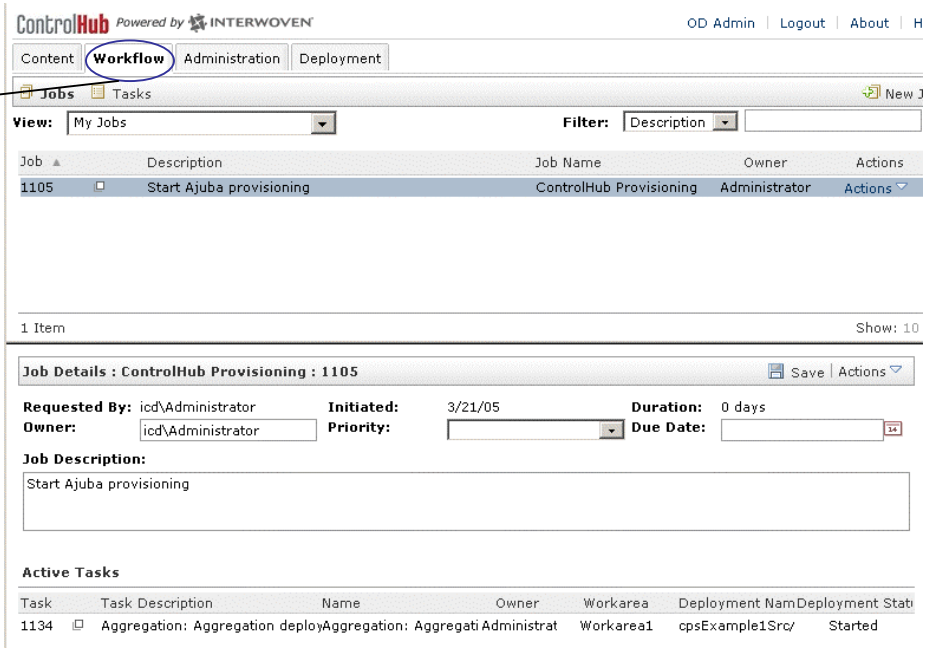
Monitoring Workflow Overview

ControlHub and OpenDeploy both offer a number of areas where you can track the status of a job. Depending on where you are in the Workflow, you can see information about the status in the Workflow, Deployment, or Content tabs in ControlHub. OpenDeploy also has extensive monitoring capabilities and a variety of reports you can display and print to track status and document an audit trail.

Monitoring the Workflow in ControlHub

Go to the Workflow tab, select "Jobs.'" In this screen, you can monitor the state of the workflow. The top half of the screen shows the active workflow job you just initiated. The bottom half of the screen shows the active and completed tasks that comprise the workflow. Keep refreshing this page to get an updated list of tasks.

Execute and monitor provisioning and rollback jobs



IT staff monitor the status of workflows and jobs using the Workflow screen. Various options are available on this screen including:

- Place a check mark in the "Jobs" or "Task" fields to display more details associated with the job or task.
- Click the arrow next to the "Initiated Priority" field to display a drop-down menu where you can set priorities such as High, Medium or Low.
- Click the arrow next to the "Actions" field to display a drop-down menu where you can set these options: "Change Priorities" or "End Job."
- Click the numbers next to the "Duration Due Date" field to display a drop-down where you can view or change dates associated with the job or task.

Note: Actions that can be performed on this screen are tied to the user level. For example, a User may only be able to view the status but not make changes. An Administrator has full rights and can make changes.

AGGREGATION TECHNIQUES IN CONTROLHUB

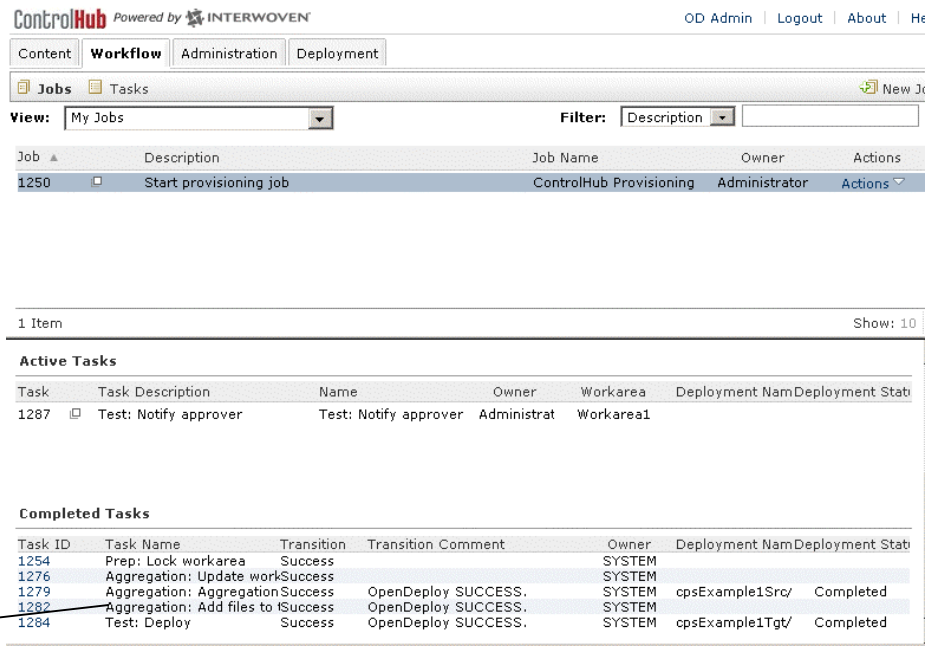
The ControlHub Aggregation Process

In preparing for updating an application, Developers and IT Operations must determine what will be included in a “change set” that will update an application or other content. Sources of information could come from many departments and sources such as different hosts or Software Configuration Management (SCM) and Content Management tools. Typically, Developers and IT Operations determine which files will be transferred and how they will be transferred. Once this is determined, then files can be “aggregated” into ControlHub. Either IT Operations or Developers can initiate a file transfer into ControlHub via a mounted file system interface or extracted from source repositories.

During the Workflow process, ControlHub uses OpenDeploy to automatically “aggregate” files so they can be deployed. Automating this process saves times and reduces the chance of error. The following section shows how files are aggregated during our demo exercise.

Aggregation Step

Eventually, you will see the Aggregation task in the Workflow tab. The aggregation step is split into two tiers of deployments. In the first tier deployment (named aggregation_tier1), Content is deployed from a development area to a temporary file system location. (OpenDeploy includes connectors for integrating this deployment with popular SCM tools.) OpenDeploy then invokes a script that builds the application. The second tier deployment (named aggregation_tier2) deploys the built files from the temporary file system location into ControlHub, specifically into Workarea1 under the AjubaBanking branch. The status of the OpenDeploy aggregation shown under the Workflow tab should eventually indicate "Success."



Aggregation tasks run during the deployment

- You can view the status of the deployment in the Workflow tab. You can also go to the Deployments tab to view the status of all OpenDeploy deployments.
- When the aggregation deployment is completed, go back to the Content tab and notice the new files and directories in the workarea.
- If for any reason, any of the workflow steps fail (such as an OpenDeploy deployment), review the failure messages and logs and correct the problem. Go back to the Workflow tab, click "Tasks" and retry that particular step.

DEPLOYING TO THE TEST SERVER

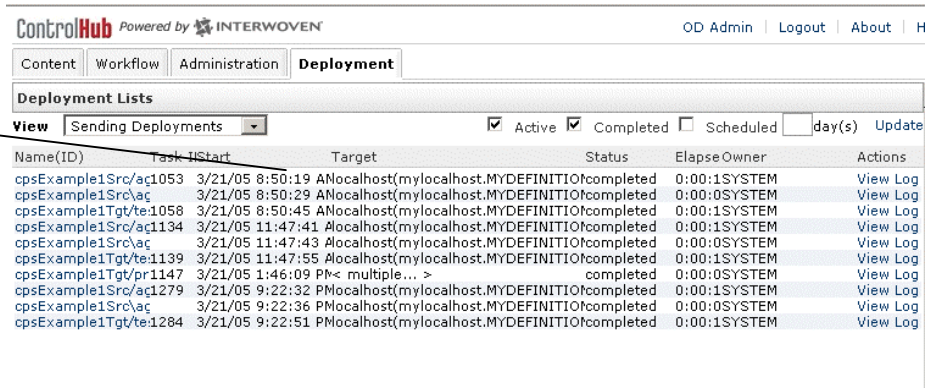
ControlHub can securely and transactionally deploy files to test, pre-production, and production servers. OpenDeploy automates and guarantees the delivery of updated files to target servers. The ControlHub workflow calls OpenDeploy to deploy updates to a test server, pre-production and production servers. There can be one or more servers in each case. Our example illustrates one test and multiple pre-production and production servers. The following section shows an example of how files are deployed to the test server in our demo exercise.

Deploy To Test Server

The workflow will automatically move to the task of deploying the application to the test server. The workflow will once again invoke OpenDeploy to do this.

View the status of the deployment from the Deployments tab. Periodically click the **Update** button to refresh the deployment status. Click the link associated with a "Completed" deployment, and review the details that display on the lower half of the screen.

On the Deployment screen, display the status of the Deployment step

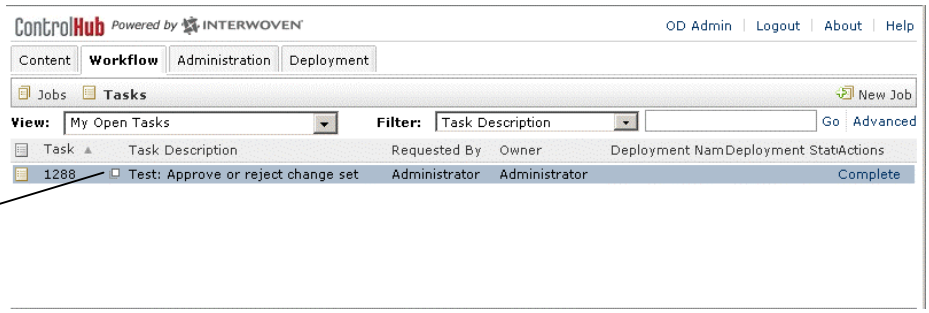


Approve Changes on Test Server

After deployment to the test server is complete, the Development Contact will own an approval task. Do the following:

1. Go to the Workflow tab, and select "Tasks" (If you specified a user other than the one you are currently logged in as, you will have to login into ControlHub as that user. Otherwise, go directly to "Tasks" under the Workflow tab.) You will find a task pending approval.

On the Workflow screen, display the Deployment step ready for approval



Go to next section before approving the task.

REVIEW WEB CONTENT PRIOR TO PUBLISHING CHANGE SET

ControlHub Makes It Easy to View Content Changes

Developers often find that they must fit into the IT Operations schedule when it is time to release an application. This causes a bottleneck in getting the change deployed in a timely manner. ControlHub and OpenDeploy enable IT Operations to roll out changes more efficiently, but with absolute control.

As shown in our demo example, you can make a change in web content and then start a ControlHub Workflow. Once the job is deployed to the test server and approved, you can launch a browser and view your change. At this point, you can decide whether to proceed with the changes. If you need to make another change, you can simply "End the Job" in ControlHub. The example below shows what the Ajuba Bank content looks like before it is deployed.

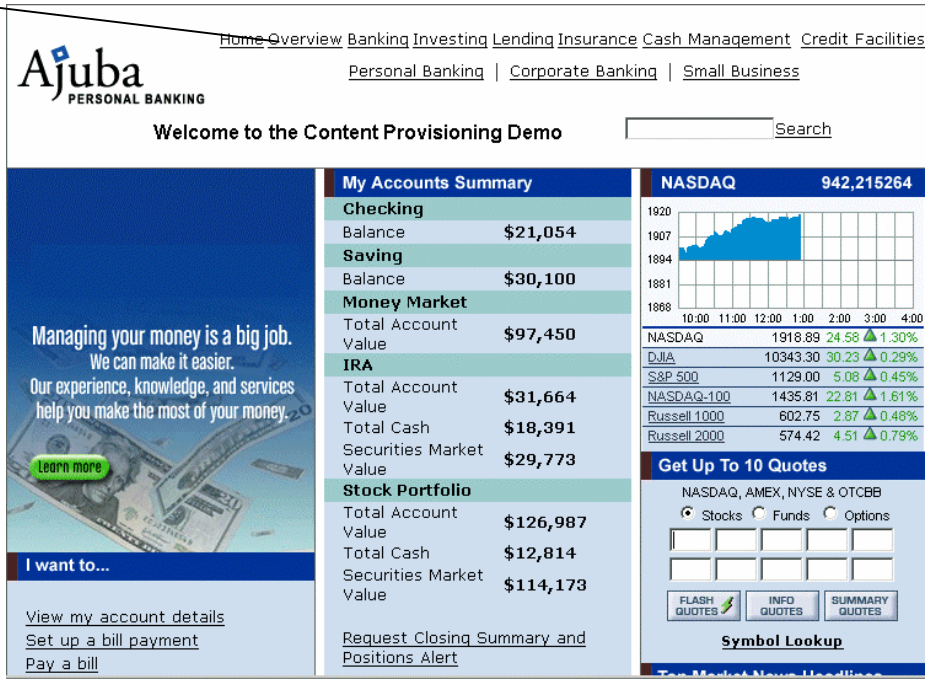
Viewing the Sample Application

Before proceeding with publishing the Ajuba bank web content page, you should view the web application by going to the following URL:

http://<localhost>:8081/bank/MyAccount

Enter this URL exactly as shown, do not refresh the page. The page may take a minute to load.

Ajuba Bank web page as it will be published



After looking at the deployed application sample above, you will assume the role of Developer. Go to the Workflow tab, go to "Tasks" under the Workflow tab and you will see a task waiting approval. Click on the task and information on the task displays. Click Approve and continue with the demo in the next section.

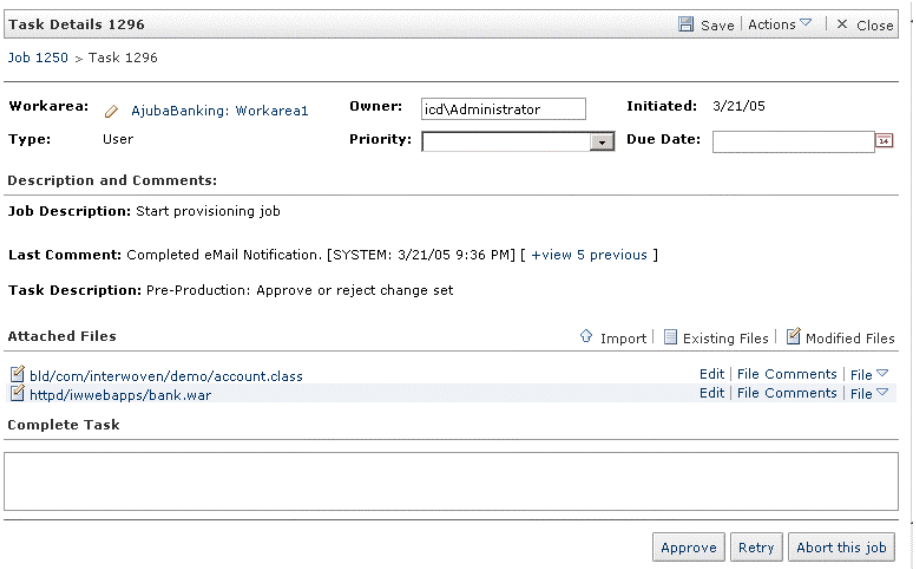
DEPLOYING TO THE PRE-PRODUCTION SERVERS

At this step in the process, IT Operations performs the pre-production deployment and approval to ensure that the Developer's application doesn't adversely impact production servers and other services that may be running on those servers. Pre-production is typically an exact replica of the production environment.

Once the Workflow has reached the test server and is approved, then ControlHub automatically deploys files to the pre-production server. Again, Developers and Administrators must approve the update for the deployment process to continue. If ControlHub is configured for email notification, it automatically notifies the IT or Developer by email of this action. The email option saves time, since Developers or IT staff won't have to monitor the job to find out its status.

Deploying to the Pre-Production Server

Go to the workflow tab. You will see that the deployment to the pre-production server is in progress. The name of this deployment is PreProductionDeploy. Wait for this deployment to complete by monitoring the status of the deployment in the Deployments tab.



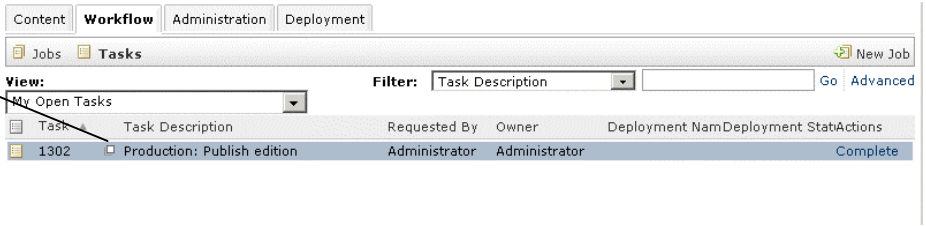
Approve Changes On Pre-Production Server

Once the deployment is completed, you will see another approval task. Approval is needed from the IT Operations Staff. Go to the Workflow tab, click "Tasks" and approve the changes.

Submit to Staging and Publish Edition

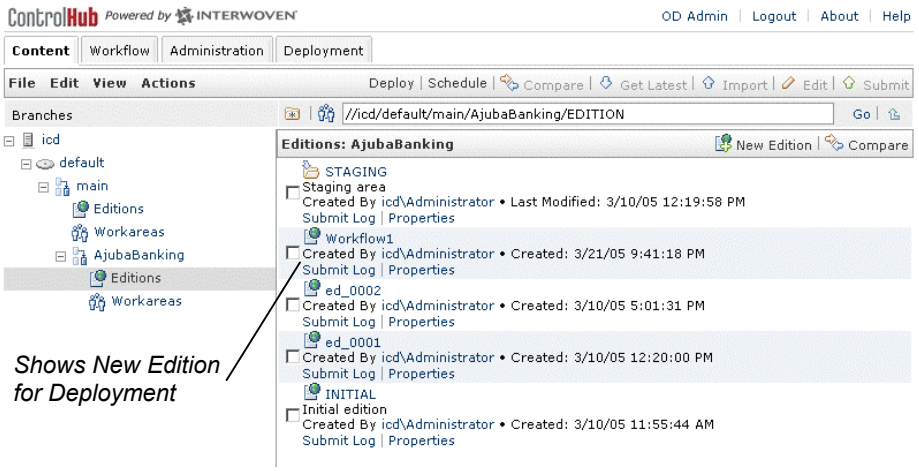
Shows New Edition for Deployment

Go to the Workflow tab, click "Jobs" and notice at this point the changes in the Workarea are being submitted to the Staging area and an Edition is published. The Edition is a snapshot of the application files for future rollback or audit.



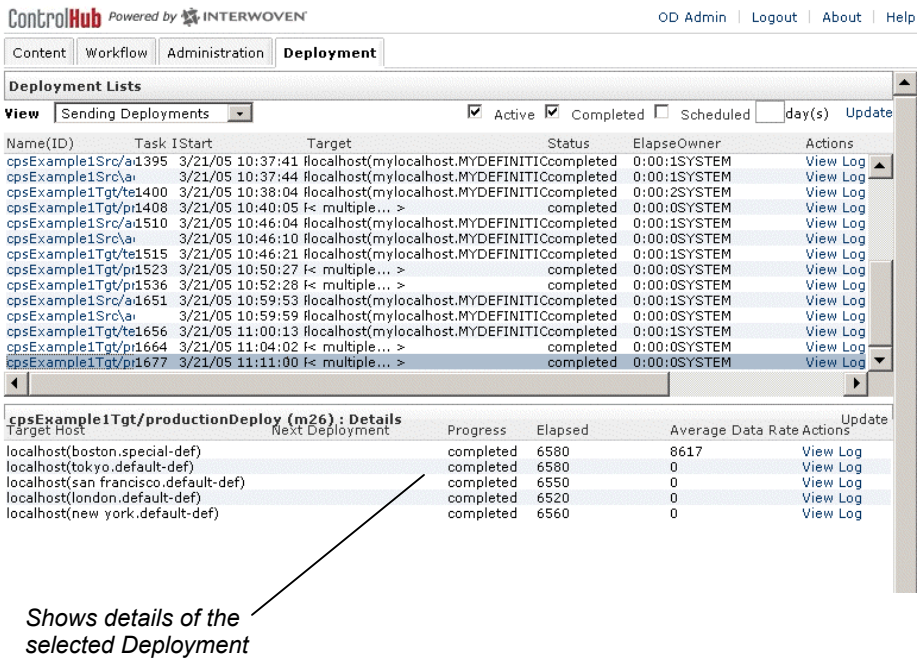
View New Editions

As part of the final deployment process, ControlHub creates a new Edition and displays it in the Editions area of the Content tab. Go to the Content Tab, AjubaBanking branch and select Editions. You will see a new Edition was published for the change set just deployed.



The final deployment is to the production server. Once the deployment is complete, the workflow job is complete.

Go the Deployment tab to see the completed production deployment. Click on the desired deployment to see the details in the lower portion of the screen.

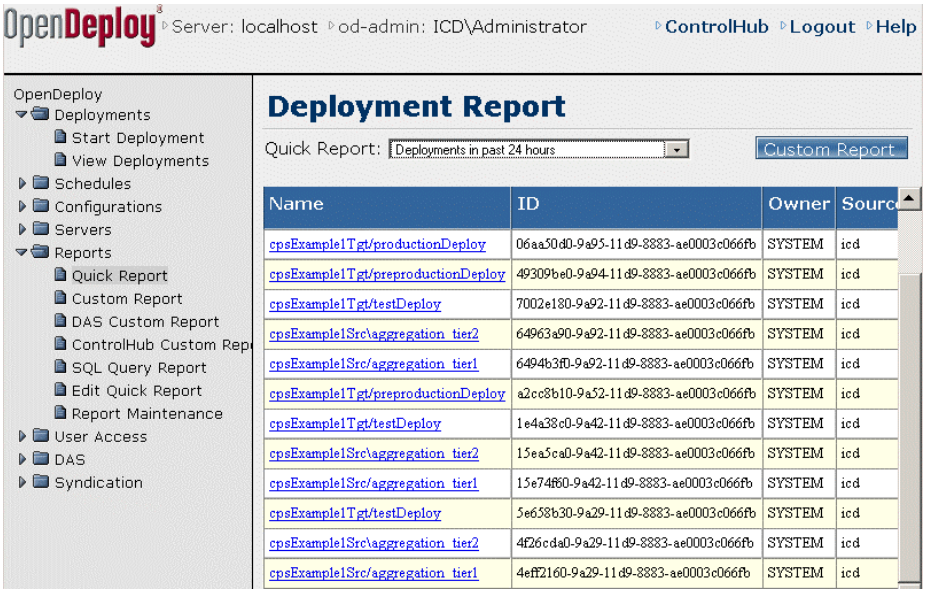


GENERATING REPORTS

View Reports

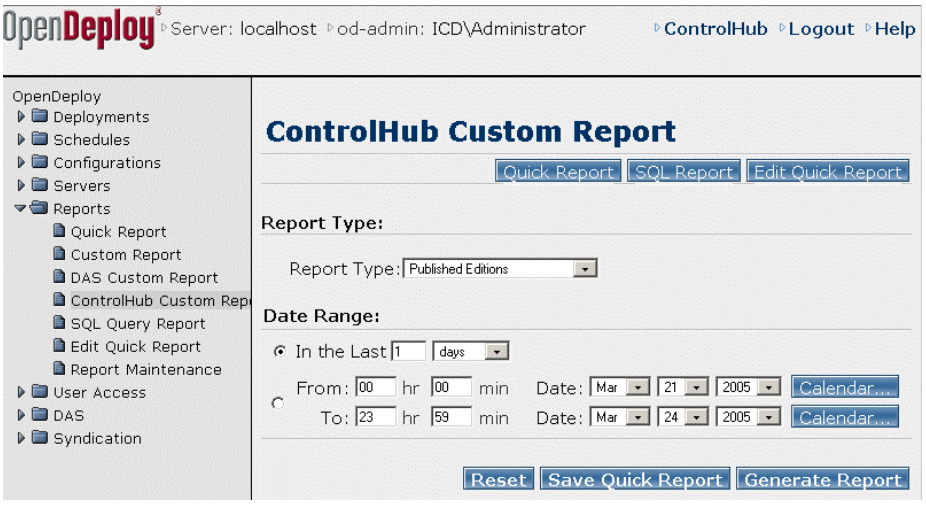
OpenDeploy has extensive reporting features that let Developers and IT staff track and print reports. Using OpenDeploy reports, they can quickly obtain information, print the report as an audit trail, and satisfy various compliance requirements.

Click on the ODAdmin link at the top of the ControlHub UI. This will take you to the OpenDeploy Administration UI. Select Reports. Run a Quick Report of "Deployments completed in the past 24 hours." You can get more detail on the individual OpenDeploy deployments and the specific files deployed.



Create Custom Reports

ControlHub also gives you the option to create custom reports from the OpenDeploy Reports menu. For example, to generate a report showing the Published editions, you would select Report > Custom Reports and then specify Published Editions from the “Report Type” field and enter the desired time period.



AGGREGATING MODIFIED CONTENT IN CONTROLHUB

Since the Content Provisioning Solution does not include a Software Configuration Management (SCM) or Content Management (CM) tools, you make changes in the files in your development system. Once you have made changes to your files, start a new workflow in ControlHub and the files will be aggregated from your development system to ControlHub. In the instructions below, you will modify the sample Ajuba Bank web content and then launch ControlHub and run another deployment to display your changes.

Updating Content

In this example, you will utilize Content Provisioning to make an update to the Ajuba Banking web application (representing a task performed by Development.) The source of the Content resides in the following location:

```
<control-hub>/examples/CPSExample1/sampleApplication/
AjubaBanking
```

Make the following changes. Go to this directory:

```
<control-hub>/examples/CPSExample1/sampleApplication/
AjubaBanking/src/bank/JavaSource/com/interwoven/demo/
account.java
```

- Change the text "Welcome to the Content Provisioning Demo" to "Greetings Customer" (or some other text of your choosing.)

Go to this directory:

```
<control-hub>/examples/CPSExample1/sampleApplication/
AjubaBanking/src/bank/WebContent/account.jsp
```

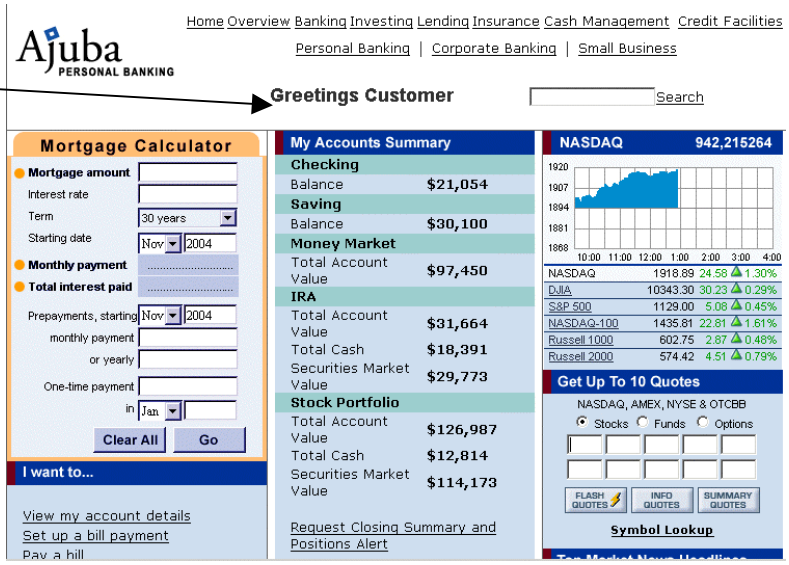
- Search for ad.jpg and replace that with calculator.gif.

Once you have completed the changes, save the files. Then initiate a workflow job (representing a task performed by IT Operations) and follow the steps used previously to publish the job.

Note: In a real world situation, after making these changes, Development would contact IT Operations indicating that a change set is ready for aggregation into ControlHub and for deployment to target servers.

The example below shows how the changed Ajuba application would look after you make this change and publish the changes via ControlHub:

Shows Changes to the Ajuba web page



ROLLBACK—GOING BACK TO A PREVIOUS VERSION IS NO PROBLEM

CPS Automates the Rollback Process

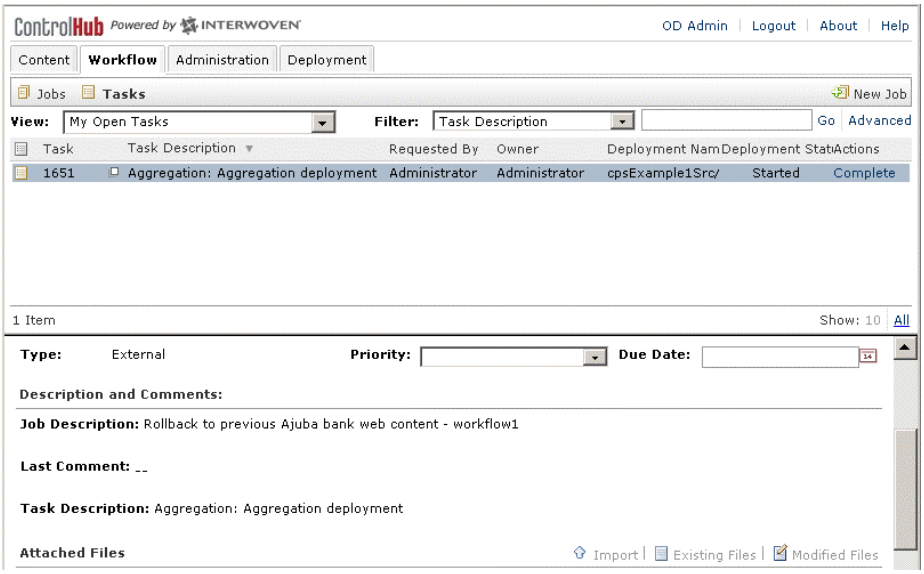
Interwoven's Content Provisioning Solution contains a configurable rollback workflow feature that can be used to rollback production servers to the content contained in a previous Edition stored within Control Hub. This feature makes it easy to go back to an early version and can also be used to satisfy compliance regulations.

Rollback Changes to the Ajuba Web Content

In this exercise, we are going to show you how easy it is to "roll back" to an earlier job using ControlHub. Use the Edition created earlier, either ed_0001 or the name you gave the Edition during the first provisioning workflow job. In our example, this will be the Ajuba application before we made the change to the greetings and graphics.

Navigate into the workarea Workarea1. Select Actions and "New Job". Specify Demo Rollback as the workflow type. Enter the requested information that includes the Edition name to rollback, in our example this is Workflow1.

The rollback process will begin. Monitor the state of the workflow through the Workflow tab as shown below.



The workflow will copy the older Edition into the workarea and then deploy that Edition to the production server. As with the provisioning workflow, the changes are submitted to the Staging area and a new Edition is published.

Displaying the Rollback

Once the rollback is published, go to the following URL:

http://<localhost>:8081/bank/MyAccount

Enter this URL exactly as shown, do not refresh the page. The page may take a minute to load. You will see the Ajuba bank web page as it looked before you made the content changes.

CONCLUSION OF DEMO EXAMPLE

This concludes the ControlHub demonstration. To customize these workflows further, edit the workflow configuration files.

In <control-hub-home>/local/config/wft/controlhub:

demo_provisioning.cfg

demo_provisioning.wft

Within these files, there are a number of options that can be turned on or off such as the deployment to test and pre-production servers.

Finally, in this example, approvals were performed through the ControlHub UI. Email notification is also possible by specifying email addresses for different users in the file:

<control-hub-home>/local/config/wft/solutions/email_map.cfg.

CONCLUSION

Interwoven's Content Provisioning Solution, containing ControlHub and OpenDeploy, is an industry-leading software product that automates complex distribution processes for enterprise code, content and configurations:

- **Content provisioning:** Controlled provisioning of code, content and configuration updates to applications. With OpenDeploy and ControlHub, IT departments can control how application updates are deployed to test and production servers without impacting existing development tools and processes.
- **Standardize code deployment:** Standardizes aggregation, approval, and deployment of content and code. Eliminates the "bottleneck" caused by waiting in a queue for your changes to be implemented.

IT organizations that automate content provisioning processes with the Content Provisioning Solution realize the following benefits:

- **Save money:** Substantially reduce application management costs
- **Accelerate application rollout:** Streamline inefficient, manual change and deployment processes
- **Ensure compliance:** Capture audit trail for all code and content activity
- **Ensure accuracy:** Synchronize application updates and automate rollback, if needed

This concludes the Reviewer's Tour. The remaining sections of this guide provide the following:

- *CONTACT INFORMATION* for obtaining evaluation assistance and additional product details
- *SYSTEM REQUIREMENTS AND AVAILABILITY* for running ControlHub & OpenDeploy
- *CONTENT PROVISIONING SOLUTION* FEATURES SUMMARY, which includes key product features and benefits

CONTACT INFORMATION

Product Evaluation Assistance

For prompt assistance in reviewing Interwoven's Content Provisioning Solution, please contact your Interwoven account representative.

Additional Information

For more information about the Contact Provisioning Solution or other Interwoven products, please use the following contact details:

- Web site: http://www.interwoven.com
- E-mail: info@interwoven.com
- Telephone:
  Global headquarters (USA): +1 408-530-5800 or 888-468-3796
  European headquarters (UK): +44 (0) 1344 631900
  Asia-Pacific headquarters (Singapore): +65 6220 3380
  Or visit the web site to find the nearest Interwoven office.

SYSTEM REQUIREMENTS AND AVAILABILITY

Supported Platforms

ControlHub and OpenDeploy are available for Windows servers and popular Unix platforms, including Solaris, Linux, AIX and HP-UX. Please refer to the product Release Notes for specific information about operating system support and locale certification for versions of OpenDeploy and ControlHub.

Memory and Storage Requirements

A system running ControlHub and OpenDeploy should have at least 256MB of RAM. The ControlHub and OpenDeploy software requires approximately 200-600MB of disk storage, depending upon the configuration. Please refer to the product Release Notes for specific requirements.

Supported Databases

Deployments of XML-based structured content are supported to the leading relational databases, including Oracle, SQL Server, DB2, MySQL, Sybase and Informix. Please refer to the product Release Notes for specific information about database support.

Cross-version Compatibility

Many global enterprises have production servers geographically located at multiple sites and have stringent requirements and schedule constraints regarding software upgrades. ControlHub and OpenDeploy supports distribution between different versions of the software. This facilitates a phased approach to upgrades, typically starting with source systems, through hubs, and finally to target systems. Please refer to the product Release Notes for specific details concerning cross-version compatibility.

CONTENT PROVISIONING SOLUTION FEATURES SUMMARY

ControlHub Features

Feature	Benefit
Browser-based UI	Easily initiate, manage and monitor activity from anywhere
Centralized administration	Enable IT staff to manage large installations via SNMP and built-in administration support
Scheduler	Automate timely delivery of updates
Authorization & security	Segment responsibilities and protect assets
Reporting & logging	Maintain snapshots of change activity and satisfy compliance requirements
Parallel deployment & transactions	Deliver updates reliably to multiple destinations and platforms simultaneously
Multi-tiered & routed deployment	Scale distribution throughout the enterprise
Versioning	Track, compare and rollback applications and maintain audit readiness
Email Services	Support in-line, actionable workflow tasks
Intelligent Delivery module*	Publish, expire and syndicate content based on metadata
ControlHub *	Control provisioning of application changes
* Licensed add-on	

OpenDeploy Features

Feature	Benefit
Browser-based UI	Easily initiate, manage and monitor activity from anywhere
Centralized administration	Enable IT staff to manage large installations via SNMP and built-in administration support
Scheduler	Automate timely delivery of updates
Authorization & security	Segment responsibilities and protect assets
Reporting & logging	Maintain snapshots of change activity and satisfy compliance requirements
Parallel deployment & transactions	Deliver updates reliably to multiple destinations and platforms simultaneously
Multi-tiered & routed deployment	Scale distribution throughout the enterprise
ContentServices™	Incorporate distribution and provisioning through web services API
Manipulation features	Tailor jobs with rules for filtering, compression, permissions and more
DAS	Provide TeamSite® users with up-to-date access to database content
DataDeploy™ module*	Synchronize database content for applications, personalization, portals and search
Intelligent Delivery module*	Publish, expire and syndicate content based on metadata
ControlHub *	Control provisioning of application changes
* Licensed add-on	