Your Guide to Developing SAP Commerce Cloud Applications Locally

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Agenda

▪ SAP Commerce Cloud or SAP Hybris Commerce?
▪ manifest.json / local.properties / localextensions.xml
▪ Cloud Platform Managed Properties
▪ Solr and Language Pack Customization
▪ B2C / B2B
▪ Branching and Merging
▪ CI/CD
▪ Integrations
▪ Troubleshooting
▪ Roadmap
SAP Commerce Cloud or SAP Hybris Commerce?

It’s Both!

SAP Commerce Cloud

Microsoft Azure

SAP Commerce

Cloud Build Platform

SAP Commerce Cloud Portal

SAP Cloud Platform

IaaS
Local Development

local.properties
localextensions.xml
*-web-spring.xml

SAP Commerce Cloud Deployment

Manifest.json

Tool to automate creation of Manifest.json from local files being worked on
Cloud Platform Managed Properties

Not all properties set will be kept

Some properties are overridden by the Cloud Platform during deployment

Example:

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database connection</td>
<td>db.url</td>
</tr>
<tr>
<td></td>
<td>db.driver</td>
</tr>
<tr>
<td></td>
<td>db.username</td>
</tr>
<tr>
<td></td>
<td>db.password db.tableprefix</td>
</tr>
<tr>
<td></td>
<td>- (defaults)</td>
</tr>
</tbody>
</table>
Handling release numbering in manifest.json

Using 6.7?

```json
{
    "commerceSuiteVersion": "6.7.0.1",
    "extensions": [
        ...
    ]
}
```

Using 18XX?

```json
{
    "commerceSuiteVersion": "18.08.1",
    "extensions": [
        ...
    ]
}
```
Language Pack Configuration

Create "_LANGUAGES_" folder in source

Add your language pack zip files to this folder

Add the following in your Manifest.json with the languages you have:

```json
"properties": [
  {
    "key": "lang.packs",
    "value": "de,en,es,es_CO,fr,it,ja,ko,pt,ru,zh,zh_TW,hi,id,cs,cy"
  },
]"
Solr Configuration

Create “_SOLR_” folder in source

Add any files you want to override

For solrconfig.xml you will need to denote the node (e.g. master-solrconfig.xml, slave-solrconfig.xml)

WARNING: Be very careful as you could break your search if you deploy incorrect files. Open a ticket to get the right templates
B2C / B2B

1. **Separate code bases**: B2C and B2B are running on individual code bases, individual subscriptions, individual manifest files, etc. Requires maintaining 2 separate code bases.

2. **Shared common code, different repo**: B2C and B2B are sharing common code base (git submodule) but they have different repos. Maintain different manifest files and non-common code. Deploy as separate application.

3. **Same code base**: B2C and B2B are sharing code base and subscription. Just be aware that the shared subscription (and database, infrastructure, blob storage, and etc.) implies that the customer's stores have to share the same resources. One of the stores has to use a subdomain.
Branching and Merging

- 1 code repository per Commerce Cloud subscription
- Multiple environments
- Branch and Merge is necessary
SAP Commerce Cloud focuses on providing the building blocks of a release pipeline, such as creation of build artifacts, creation of environments and processes to deploy builds to environments.

- **Per commit builds**
  - Where per-commit builds are required on a project, the recommended approach is to combine SAP Commerce Cloud with a build system—such as Jenkins—that supports this feature.

- **Automated Regression Tests**
  - To support the use case of automated regression tests leading to the promotion of builds between environments, the recommended approach is to use an external test suite regression test suite and use this to call the Cloud Portal to promote a build to an environment.
CI/CD

- **Build Frequency**
  - Can build through Cloud portal as often as you want. Typically we see:
    - Project Setup – 2-3 builds a day
    - Project Delivery – 1 per evening to enable quality assurance on the latest features
    - Project Testing – Every 2-3 days

- **Initialization and Updates**
  - Initialization and update processes must be triggered from the Cloud Portal as part of a deployment
Integrations

1. Cloud Hot Folders
2. SAP Cloud Platform Integration
3. SAP Commerce, Data Hub (coming soon)
4. Customization
SAP CPI - Integration based on Integration Object Level APIs (Inbound)

Process View

SAP Commerce Cloud

IDoc XML/SOAP...

Cloud Platform Integrations

Bulk oData APIs on Integration Object level
SAP CPI - Integration based on Integration Object Level APIs (Outbound)

Process View

Payload(s) defined on Integration Object level
Integrations

- Can Cloud Hot Folders work?
  - Yes: Use Cloud Hot Folders
  - No: Currently Using Data Hub?
    - Yes: Able to wait until available?
      - Yes: Use Data Hub
      - No: Plan to Migrate to SCPI in future
    - No: Can SCPI work?
      - Yes: Use SCPI
      - No: Customize

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Troubleshooting – Build Issues

- In Cloud Portal click the “download build log” button for the build you want to review
Troubleshooting – Centralized Logs

- No access to server…how do I look at the logs? Centralized logging with Kibana!
- Select the Logging option for your environment

![Environment Management Interface]

1. **Deployment**
   - Environments
   - Builds

2. **Configuration**
   - Repository

<table>
<thead>
<tr>
<th>Environment</th>
<th>Web Proxy</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storefront</td>
<td>Default</td>
<td>Storefront</td>
</tr>
<tr>
<td>Backoffice</td>
<td>Default</td>
<td>Backoffice</td>
</tr>
<tr>
<td>Solr</td>
<td>Default</td>
<td>Solr</td>
</tr>
<tr>
<td>Logging</td>
<td>Default</td>
<td>logging:kibana</td>
</tr>
</tbody>
</table>

**Summary**
- Status: Available
- Build: sample-cloud-store 20180725.3
- Type: Development
- IP Address: Deployed
Troubleshooting – Centralized Logs

• Find yourself searching the same thing constantly? Use Saved Searches

• Turn those saved searches into comprehensive dashboards and visualizations

• Sample dashboard and saved searches provided in ALF
Troubleshooting – Centralized Logs
Know What’s Changed

Read the release notes of every new version and evaluate against your projects

Watch the webinars that cover what’s new and what’s in the roadmap
Deliver engaging customer experience and augment our foundational capabilities with intelligence through machine learning, natural language processing, and Big Data.
Extra Resources: How-To Videos

https://wiki.hybris.com/display/education/Cloud+Portal
Extra Resources: Product Documentation

https://help.hybris.com
Extra Resources: ALF Commerce Cloud Project Execution Guidebook
https://wiki.hybris.com/display/hybrisALF/Commerce+Cloud+Project+Execution+Guidebook

Our new SAP Commerce Cloud features the same great industry leading commerce solution, but with these new features come some potentially different ways of doing things than you would with an on-premise instance. This section covers many topics of consideration for both architecture and development on SAP Commerce Cloud.

This document will not discuss project delivery aspects of SAP Commerce Cloud. Delivering an SAP Commerce Cloud project is not any different than a typical e-commerce project, which we have outlined extensively in our Project Delivery Framework section of ALF.

- New vs. Legacy Commerce Cloud
- Infrastructure Landscape
  - Nodes
  - Containers
  - Environments
  - The Build Process
  - Commerce Instances
  - Ephemeral Disk Storage
  - Relational Database
  - Web Tier
  - SoLr Cluster
Thank you.

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