Code in the cloud with Eclipse Che
A developer workspace cloud

... Not just a cloud IDE!
Sun TAN
@sunsengdavidtan
Serli
http://www.serli.com
Java Developer, Eclipse Che committer

Stévan LE MEUR
@stevanlm
Codenvy
http://www.codenvy.com
Product Manager
1. The Developer Environment Configuration Problem
2. Introduction to Eclipse Che
3. Live Demo
4. Q&A Session
Configuration is constant and pervasive, costing organizations time and money.
Setting Up Developer Workspace

Projects
- Large number
- Different technologies
- Many intersection points

Teams
- Newcomers
- Various skills
- Heterogeneous tastes
- System permissions

Goal
Contribute Immediately

Continuous delivery demands rapid contributions and agility.
Reality: Manual Workspace Configuration

Django and PHP with Eclipse

Tomcat with IntelliJ

Compile and install Ruby

Mozilla Webmaker with Vagrant + Separate Scripts

Manual, error-prone and time consuming (day or even weeks).
The Need: Developer Workspace Codification

- **Developers**: want environments ready to code with nothing to install

- **Teams**: want modern architectures without absorbing their complexity

- **DevOps**: want versionable workspaces integrated with their tool chain

- **CIOs**: want IP governance controls and enforceable coding practices

**How to deliver?**

1. **Recipes** that define workspaces.
2. **Automation** to manage workspace lifecycle.
3. **Microservices** for developer tasks using Docker.
4. **Workflow** that enforces corporate coding policies.
5. **Analytics** to benchmark developer performance.
Codenvy - Eclipse Che

Developer workspace cloud that eliminates configuration hell. Develop in mega workspaces with unlimited resources. Use your tools or ours - no compromises.

Workspaces, Web IDE and Offline Sync
Craft code anywhere in non-thrashing mega workspaces that never run out of resources.

Automation and Governance
Provision developer workspaces that are simply shareable and securely managed.

Repeatable, Shareable, Scalable, and Compliant
Eclipse Che Extensibility

Che combines a kernel, developer REST services, machines and a JavaScript cloud IDE.

Developers customize Che by writing extensions at any tier, overriding any behavior.

Codenvy is a multi-tenant system that runs Eclipse Che extensions.
The Codenvy IP Advantage

Eclipse Che

- IDE + SDK
- REST API
- Che Extensions
  - java
  - javascript
  - c++
  - maven
  - gradle
  - 55+
- Your Extensions

Codenvy Platform

- Automation
  - Factories
  - Contrib
- Management
  - Admin
  - Analytics
- Operations
  - API
  - CLI
  - Browser
  - Mobile
  - HA
  - Tenancy
  - Metering
  - Security

- Eclipse Che Extensions
  - Languages
    - External Integration Plug-Ins
  - Editors
    - Projects
  - Project
  - Builder
  - Runner
  - REST API
  - Runner
- Developer Microservice Plug-Ins
  - Code
  - Build
  - Run
  - Source
  - Query

- Elastic Docker Machine Pool

Distribution

- update.codenvy.com
- Notices
- Accounts
- Binaries
- Installers

Offerings

- SaaS @ codenvy.com
- On-Prem @ Your Datacenter
- Managed @ Any Datacenter

Installation

- 1-Node
- n-Node
- CentOS 6
- CentOS 7

Cloud Marketplaces

- IBM
- AWS
- Google
- ...
Developers: Code and Command

Eclipse Che Demo
Power and Flexibility

Develop in Any Linux-Runnable Language

Eclipse Che: 55+ Open Source Plug-Ins

Create New Project

- Android
- AngularJS - Gulp
- AngularJS - Yeoman
- Ant Java Console
- C++
- Cassandra
- Clojure
- Couchbase
- Derby
- Django
- GWT
- Go
- Go Web
- Google App Engine Java
- Grails
- Groovy
- H2
- HSQLDB
- JRuby
- JRuby Spring
- JSF
- JSP
- Jython
- Jython Servlet
- Kotlin
- Lift

- Maven Java Console
- MongoDB
- MySQL
- Neo4j
- NoSQL
- PHP
- PHP Google App Engine
- Play 1.0
- Play 2.0
- PostgreSQL
- Python 2.7
- Python 2.7 Google App Engine Guestbook
- Python 2.7 Web
- Python 3.4
- Qt
- Rails
- Rhino
- Risk
- Ruby
- Scala
- Shade
- Spring
- Struts
- Swing
- Tapestry
- Thymeleaf
- Twitter Bootstrap
- Vaadin

Plugin Name

- CodeMirror Editor
- Orion Editor
- C++
- Datasource
- SQL Editor
- Google App Engine
- Git
- GitHub
- Go
- Java
- Java Debugger
- PHP
- Python
- Ruby
- SSH

Plugin Name

- Ant
- Builder
- Maven
- Runner
- Factory
- Common Editor
- Java JS Editor
- Permissions
- Subscription
- SupportHelp
- AngularJS
- BasicJS Wizard
- GruntJS
- GulpJS
- JavaScript
- Bower

Key Bindings

- Orion
- CodeMirror

(default)

- Default
- Emacs
- Vim
- Sublime
Editing Features

- Code Folding
- Autocomplete
- Syntax highlighting
- Syntax checking
- Javadoc lookup
- Outline
- ‘Jump to’ navigation
- Package explorer
Datasource Management

Use Codenvy’s predefined datasources, or create new ones.
SQL Editing and Execution

Syntax highlighting and checking for SQL.

Execute SQL on-the-fly to test queries and see their results in Codenvy.

View table schemas, object details.
Codenvy Factories Create Workspace Replicas

Factory = JSON Blueprint Versioned with Code

Project = Isolated Workspace Replica
Project = Isolated Workspace Replica
Project = Isolated Workspace Replica
Docker + Factories: Endless Possibilities

Instant Code Review & Run
One-Click Developer On Boarding
Task Oriented Workspaces
Automate Workspace Creation

Plugin & Extensions Testing
Issue-Tracker Integrated with Factory

Secure Code & Run

Workspaces Without Maintenance
CI Integration

Easy Workspace Sharing

Simpler Training Sessions
Live Tutorials

Simplify Project Contribution Flow
Instant & Consistent Environments

Live Tutorials

Simpler Training Sessions

Instant & Consistent Environments
Thank You