



Ohio Supercomputer Center

An **OH·TECH** Consortium Member

Developing Apps To Extend Open OnDemand

Eric Franz, Jeremy Nicklas, David E. Hudak
Ohio Supercomputer Center

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Open OnDemand Overview

- Open OnDemand
 - Open source software project (v1.1 out now)
 - Provides web access to HPC clusters
 - Currently piloted at a number of HPC Centers





OnDemand Demo

- Dashboard
- Files
- Job Composer
- Terminal
- ParaView



Developing and Sharing Apps in OnDemand

- Apps customize and extend OnDemand
- We realized that we can't write every app
- OnDemand platform enables users to write and share apps
 - Inspired by HubZero and Galaxy projects
- Users can develop and run apps in their home directory
- Users can share apps with other users that share a UNIX group



Developing and Sharing Apps in OnDemand: Tools

Developer Menu	One place for all developer features Located in top menu in Dashboard
Developer Documentation	Pretty self explanatory...
My Sandbox Apps	List of apps I'm developing Create new app and open app in App Editor
App Editor	Edit app metadata Open file and shell apps to edit code Displays git status of app's source code
My Shared Apps	Apps installed here will be visible to your group



App Demo

- App Development: Create Matlab app from ParaView app
 - Clone ParaView app from GitHub repo
 - Modify app source code to launch Matlab
 - Test app
 - Commit changes to git
- App Sharing: Share Matlab app with your group (peer-to-peer sharing)
 - Clone Matlab app into “My Shared Apps”
 - New app appears in group members’ Dashboards



Summary

- Users can develop and run their own apps through OnDemand
 - I demoed a very simple app
 - Current support a wide range of web apps: Ruby, Python, Node.js
- Users can share apps with other users through OnDemand
 - Deploy app to “My Shared Apps” (peer-to-peer)
- OnDemand administrator can publish apps for all users
 - Requires escalated privileges



Open OnDemand is ready for your center

- Make Open OnDemand work for you and help us make it better
- Learn more at our website
 - <https://osc.github.io/Open-OnDemand/>
- Join our mailing list
 - <https://lists.osu.edu/mailman/listinfo/ood-users>
- Install it at your center
 - <https://osc.github.io/ood-documentation/master/installation.html>
- We are open to collaboration

