

Center for International Earth Science Information Network Earth Institute | Columbia University



## Alternative Approaches to Collaborative Software Deployment Leveraging Open Source Software

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- Open Source Software (OSS)
- Vendor-Supported OSS
- Commercial Software (with or without OSS components)
- Combinations of these options

\*Derived from: Yetman & Downs. 2011. Models for Deploying Open Source and Commercial Software to Support Earth Science Data Processing and Distribution. 2011 Fall AGU Meeting.





- Develop and share software as OS
  - License as open source
  - Provide access within OS community (Apache, SourceForge, etc.)
- Collaboratively contribute to OSS project
  - Adopt OS software
  - Test, enhance, document, etc., to improve software





- Adopt OSS product provided by vendor
  - Vendor provides services such as installation, hosting, enhancement, customization, documentation, 24x7 help
- Vendor contributes enhancements to OSS
  - Enhancements meeting customer needs are also applicable to the OSS community





- May or may not contain OSS components
- Identify common needs for enhancements among customers
- Collaborate on customizations within customer community (can become OSS)





- System composed of commercial and OSS
- Collaborating with OSS and customer communities



## Assessing Collaborative OSS Deployment Options\*



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Software	Collaborators	Risks	Benefits
Open Source Software (OSS)	Internal staff and OS community	OS community stagnation	Development & support from OS community and internal staff
Vendor-Supported OSS	Vendor and Community	Change in vendor services	Development & support from vendor & OS community
Commercial Software	Vendor & customer community	Product discontinuation	Development & support from vendor & customer community
Combinations of Commercial & OSS	OS and customer community, vendor, and internal staff	OS community stagnation, change in vendor services or products	Development & support from diversified communities