

# IS Devolved LCFG Service Review and Preview 2015

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# Package Recipes 2015

- Applications: ~~334~~ ~~435~~ 640
- Tags: ~~500~~ ~~804~~ 1333
- Revisions: ~~400~~ ~~598~~ 958
- IS, ECA, Geosciences,  
Physics
- [<http://edin.ac/1ePmYzU>](http://edin.ac/1ePmYzU)

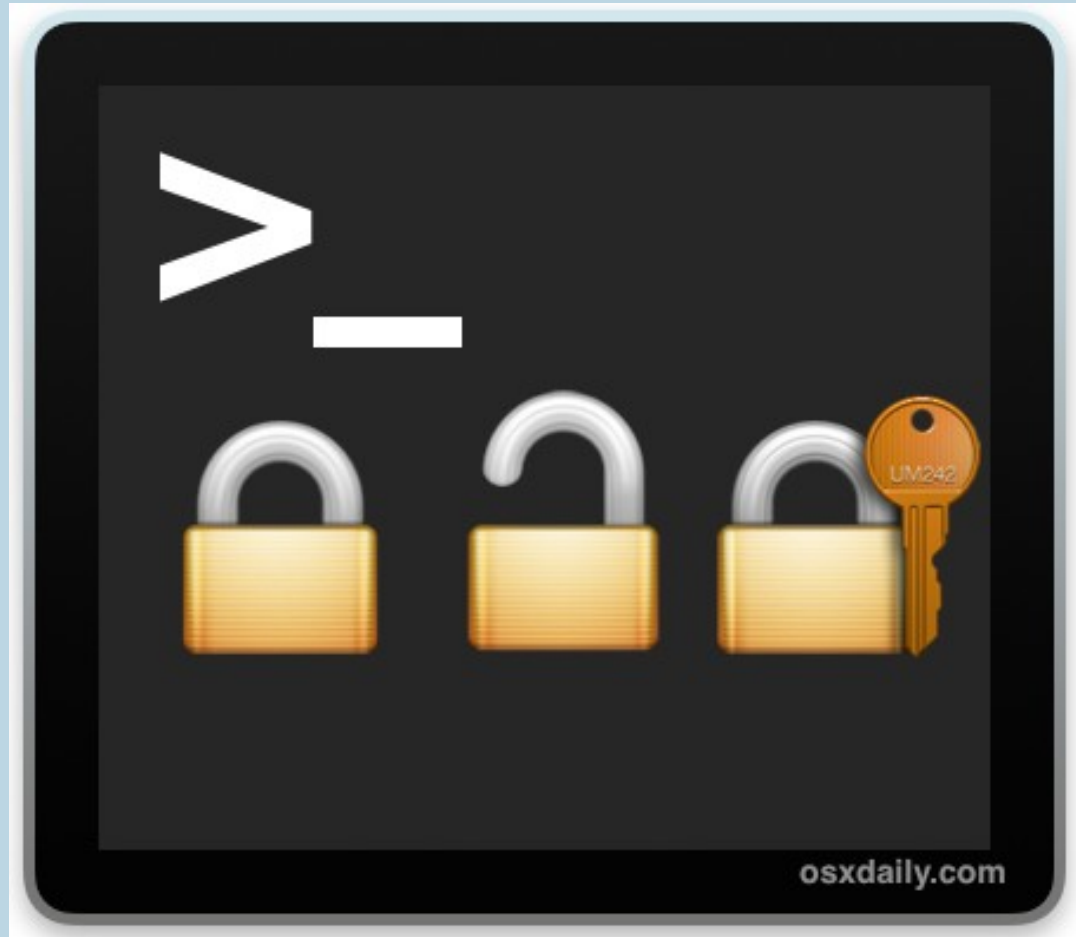
# IS Devolved Package Repositories 2015

- RPMs: ~~6407~~ ~~10446~~ 15360
- Apple Pkgs: ~~1142~~ ~~2423~~ (3040) 1392
- Currently 8Gb file limit
- Deprecated OSes
  - OS X 10.6, 10.7
  - Scientific Linux 5
- Command line submission

# Apple Introduced OS X 10.11



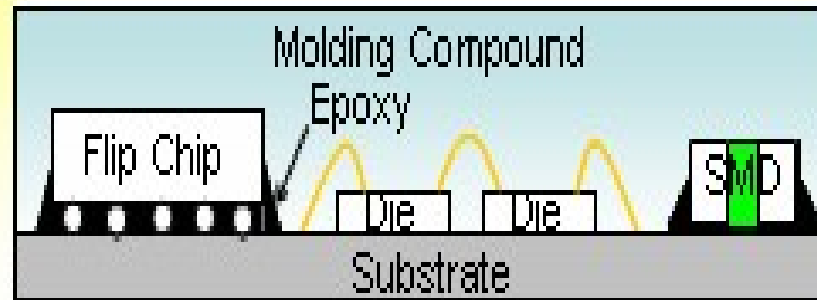
# New Feature: “rootless”



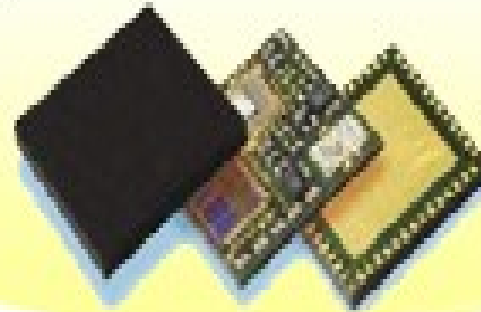
SIP 

The  
first,  
comprehensive  
& unbiased  
research on  
SIPs



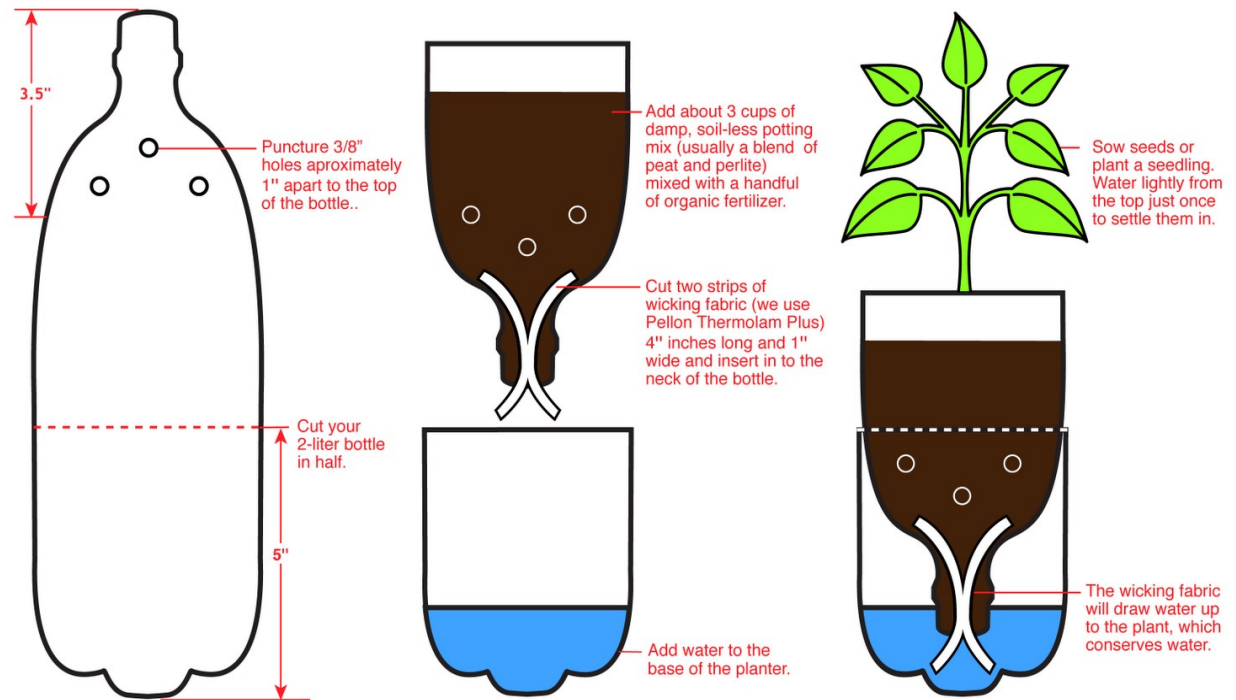


# SiP(System in Package)





## How to make a 2-Liter SIP (sub-irrigated planter)



To learn more visit us at: [greenroofgrowers.blogspot.com](http://greenroofgrowers.blogspot.com) and [f](#) The Singing Seed Design: Debbie Kong





# System Integrity Protection

- The root user can no longer write to Apple's definition of system paths:
  - /System
  - /usr
  - /bin
  - /sbin
  - and any pre-installed applications

# System Integrity Protection

- Paths and applications that third-party apps and installers can write to include:
  - /Applications
  - /Library
  - /usr/local





**SIP**

Societal Impact of Pain



KEEP  
CALM  
AND KNOW  
SIP  
HAPPENS

# OS X 10.11 “El Capitan”

- LCFG Build Tools
  - Change default prefix to /usr/local
  - Add OS X macro definitions file
  - Rely on \$PATH to find utilities
- LCFG Framework
  - built from SVN
  - no devel versions
  - via a bash script
  - New LCFG osx vars header



# Configuration Repositories: Kerberised DAV SVN

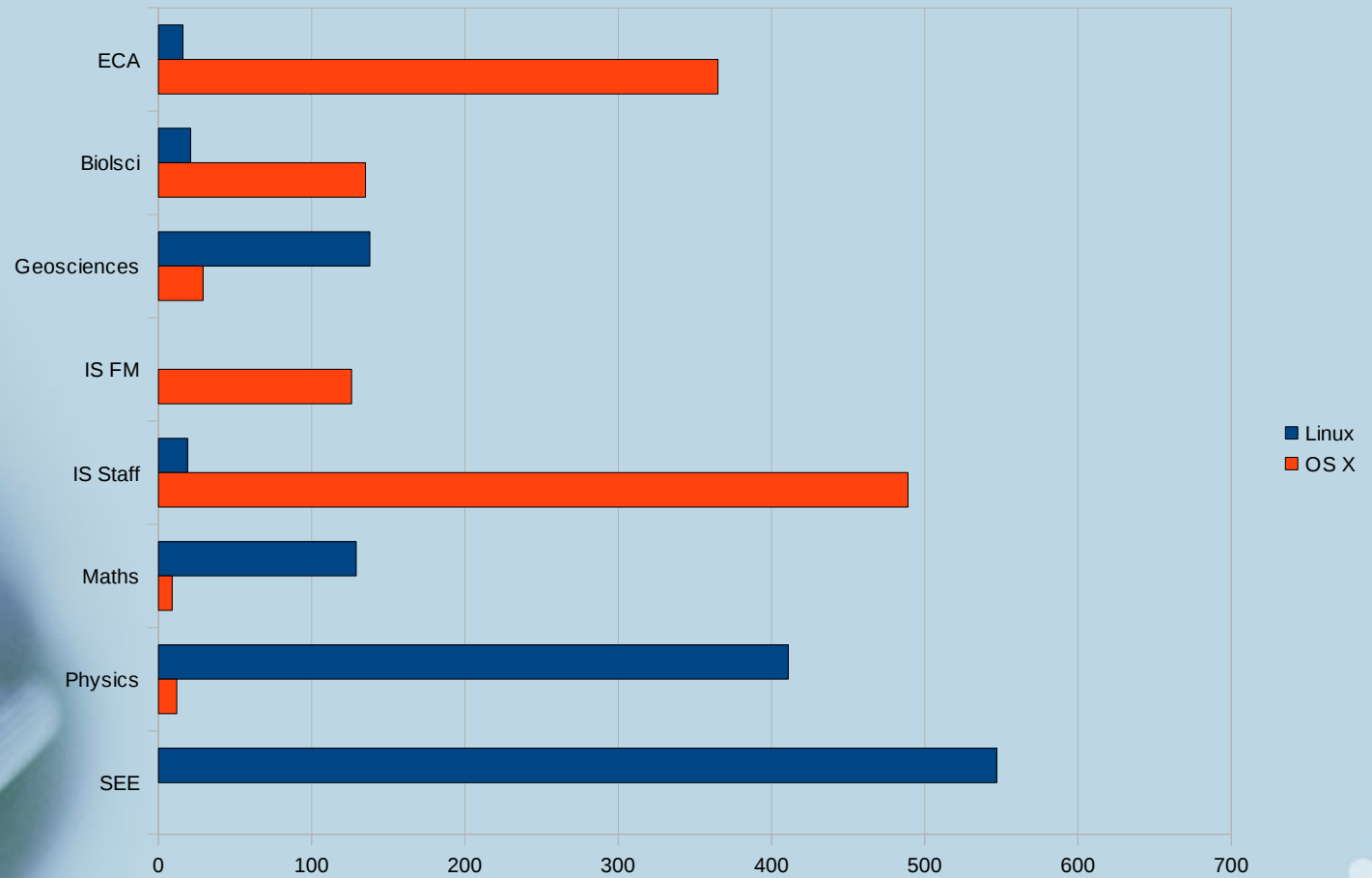
- Kerberos principals for authorisation
  - e.g. uun/geos.admin@EASE.ED.AC.UK
- Path based authorisation
  - sub-devolve your area
  - e.g. Web authors limited to particular headers and profiles
- Shared directories in “uoe” devolved area
  - sensu & tranquillity



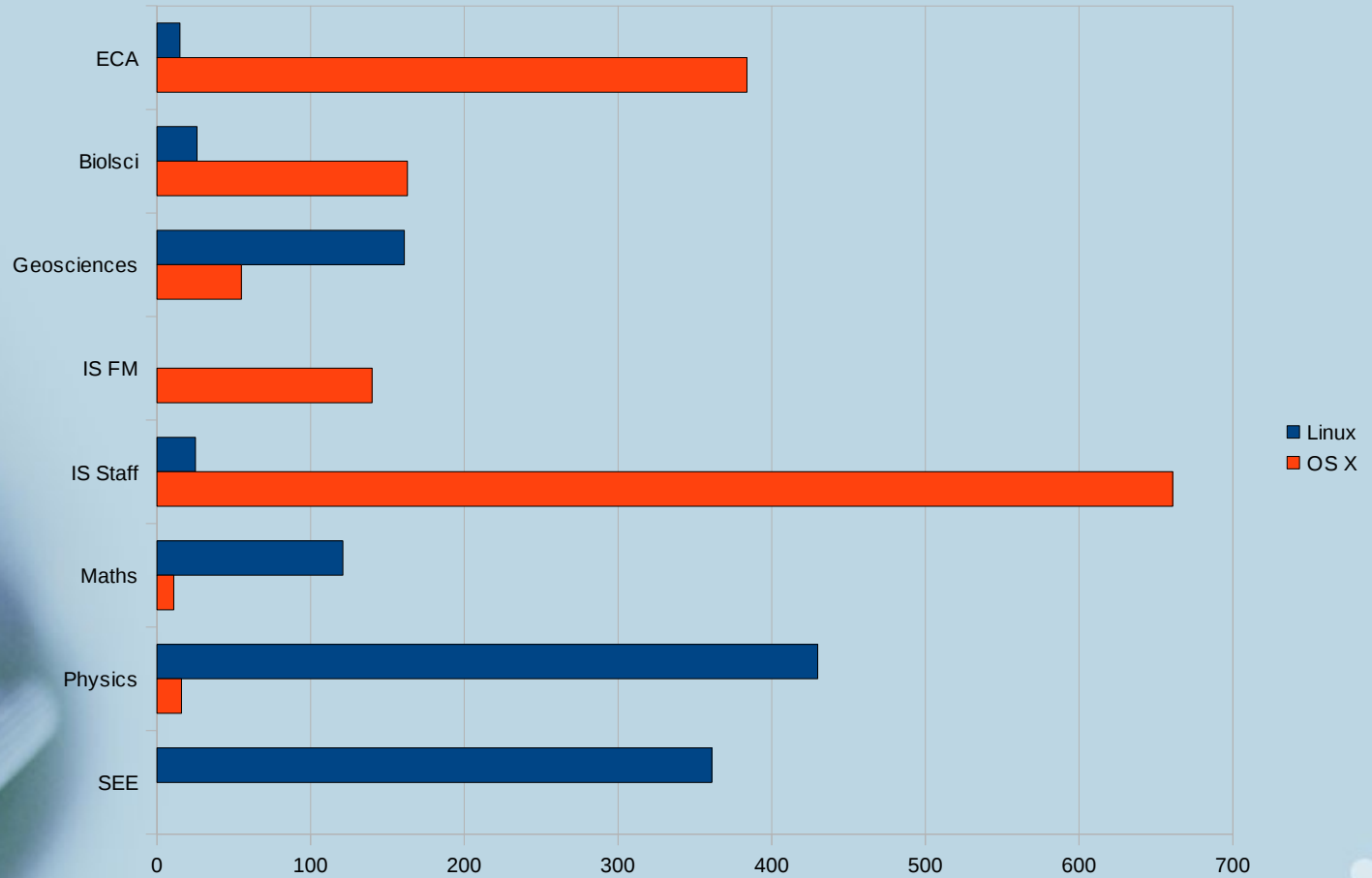
# IS ITI Enterprise use of LCFG

- LCFG servers
- EASE KDCs
- Shibboleth IdPs
- Jabber server
- [www.ca.is.ed.ac.uk](http://www.ca.is.ed.ac.uk)
- Wake-on-LAN

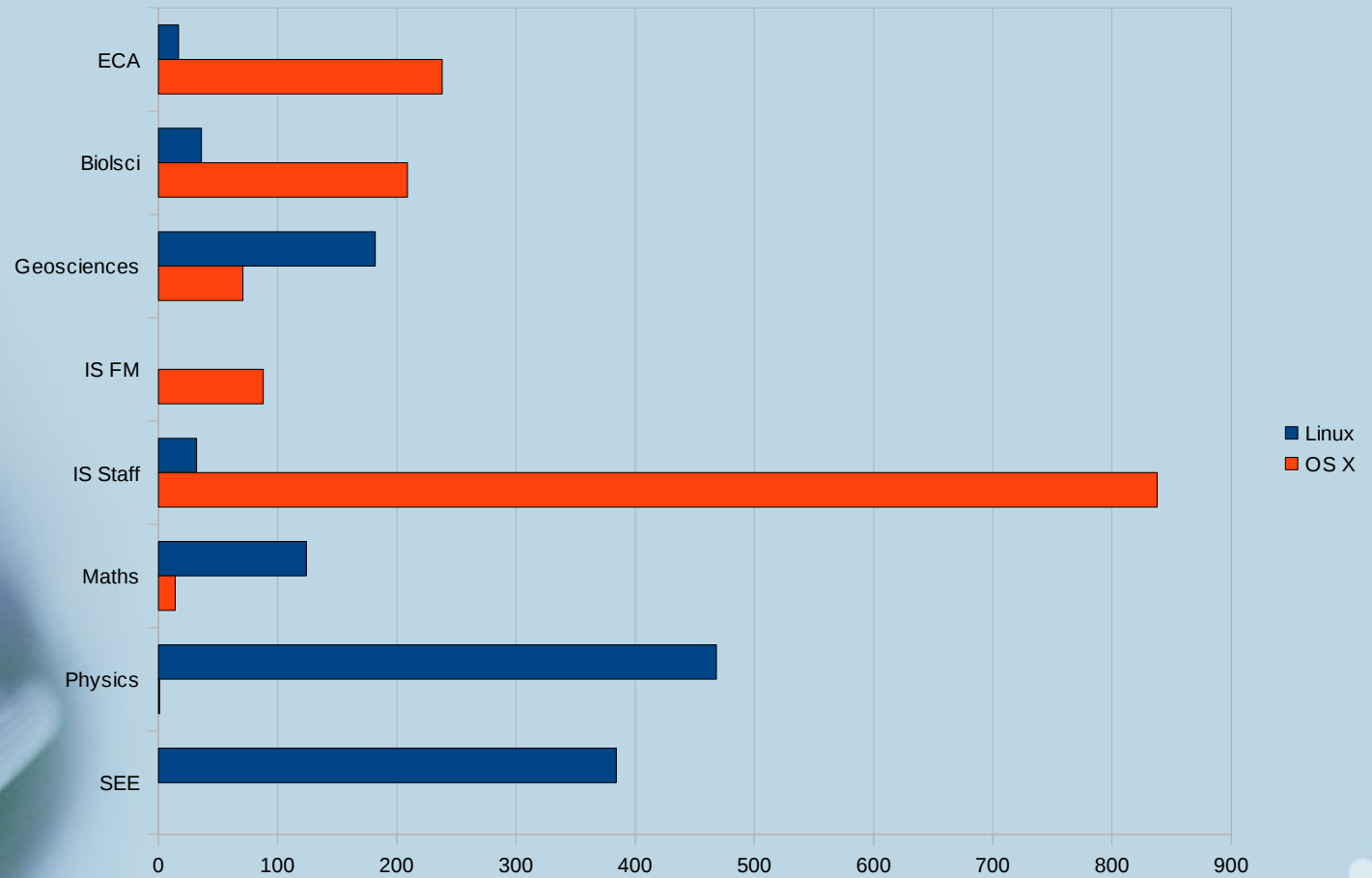
# Clients 2013



# Clients 2014



# Clients 2015



# Clients 2015

- ~~1189~~ 1290 Linux
  - 914 Scientific Linux 6
  - 373 Scientific Linux 7
- ~~1462~~ 1491 Apple OS X
  - 328 63 10.6 “Snow Leopard”
  - 259 82 10.7 “Lion”
  - 334 115 10.8 “Mountain Lion”
  - 478 156 10.9 “Mavericks”
  - 62 1071 10.10 “Yosemite”



# IS ITI Enterprise Challenges

- Transformation of IS
  - New CIO's objectives
  - Service Management mantra
  - ITIL everywhere
- Critical Infrastructure
  - Change management
  - Rigorous testing
  - Release schedule
- Puppet
  - IS Applications promoting
  - IS ITI Enterprise developing



# 2016 ...

- Apple OS X
  - Apple Mac OS X 10.6 (10.7/10.8 too?)
  - Standardise on OS X 10.10/10.11?
  - Last release?
- Scientific Linux
  - 7.x Server Support
  - Data Encryption
  - Kerberised CIFS & autofs
  - Common MDP client configuration?