



Jordi Bruguera i Cortada
jordi@grn.es

Jordi Massaguer i Pla
jordi.massaguerpla@opensuse.org

21/02/08

- 
- What's Linkat GNU/Linux About ?
 - Linkat GNU/Linux Features
 - Community and Services
 - Future Directions
 - Demo
 - Q&A

What's Linkat GNU/Linux About ?

A **Generalitat de Catalunya** – Department of Education sponsored project, consisting of:

- An education oriented GNU/Linux distribution featuring:
 - vendor **long term support**
 - **up to date software** versions
 - well **integrated with opensource** community
 - **catalan** language a must
 - **open** forge of development and software repositories
 - four flavours: **live, server, client** and **home**
 - three levels of **technical support for schools**
- An Internet portal. Visit it at <http://linkat.xtec.cat>

What's Linkat GNU/Linux About ?

So we need:

- vendor long term support**
(we have SLED10 from Novell)
- up to date software versions**
(we love openSuSE repos !!!)

Then we take best of each world combining:

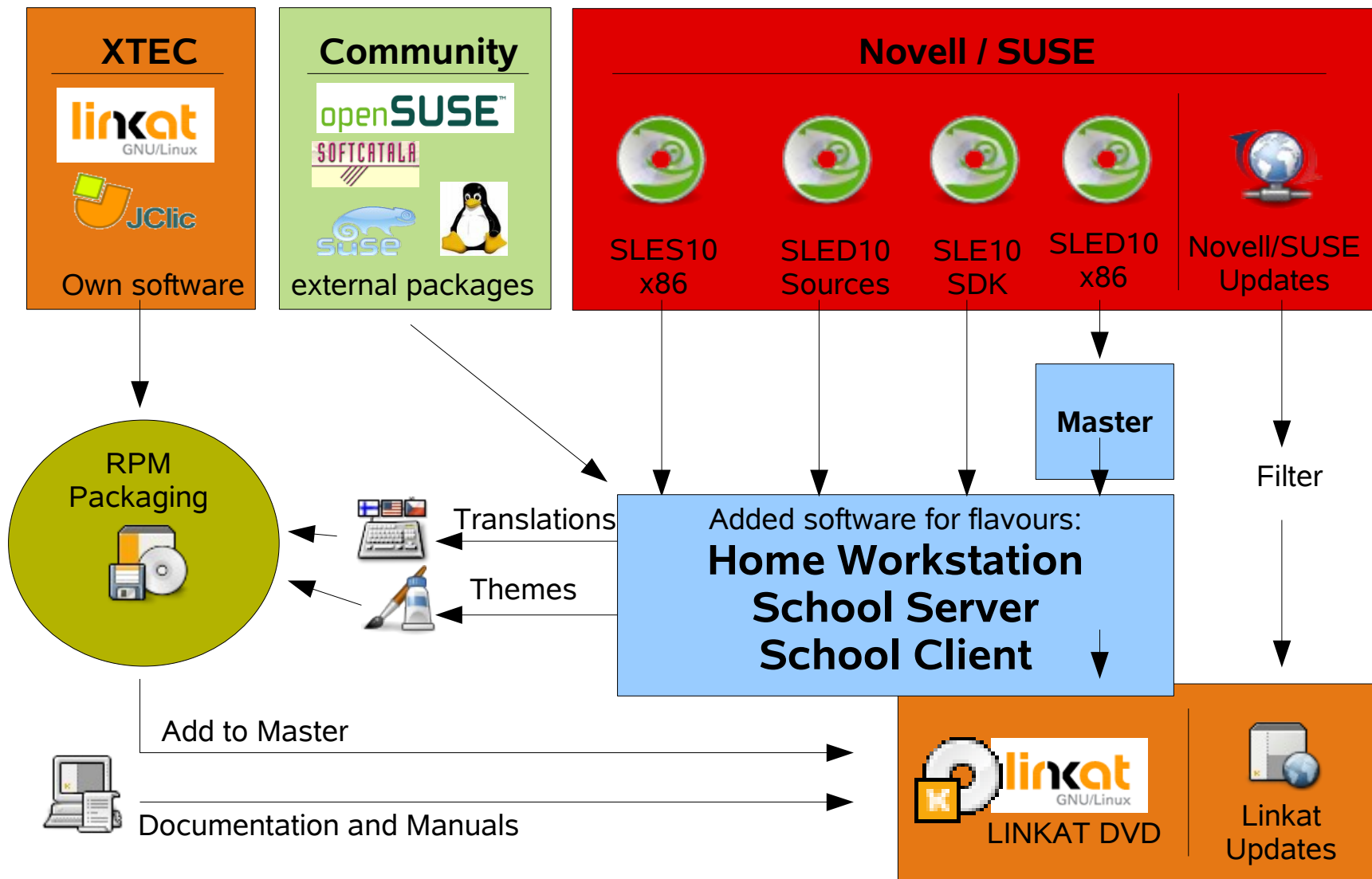
- A **SLED10 core** (kernel + core components)
- Latest applications from **OpenSuSE repos**

What's Linkat GNU/Linux About ?

Software policy:

- Get the most from educational software
- Opensource and GPL whenever possible except for:
 - Java
 - Acrobat Reader
 - RealPlayer
- Prefer older translated against newer untranslated
- Prefer supported vs. unsupported

What's Linkat GNU/Linux About ?



What's Linkat GNU/Linux About ?

Linkat timeline:

10/2005 - Project started

09/2006 - Linkat 1.0 (based on NLD9+SP2)

06/2007 - Linkat 1.1 (improvements + software)

12/2007 - Linkat 2.0 beta 1 (based on SLED10+SP1)


04/2008 - Linkat 2.0 final

What's Linkat GNU/Linux About ?

What has been done ?

Different teams working in parallel on:

- Client / Server configuration - School layout
- Translations and Documentation
- Branding and themeing
- RPM packaging
- LTSP
- YaST modules

- 
- What's Linkat GNU/Linux About ?
 - **Linkat GNU/Linux Features**
 - Community and Services
 - Future Directions
 - Demo
 - Q&A

Linkat Main Features

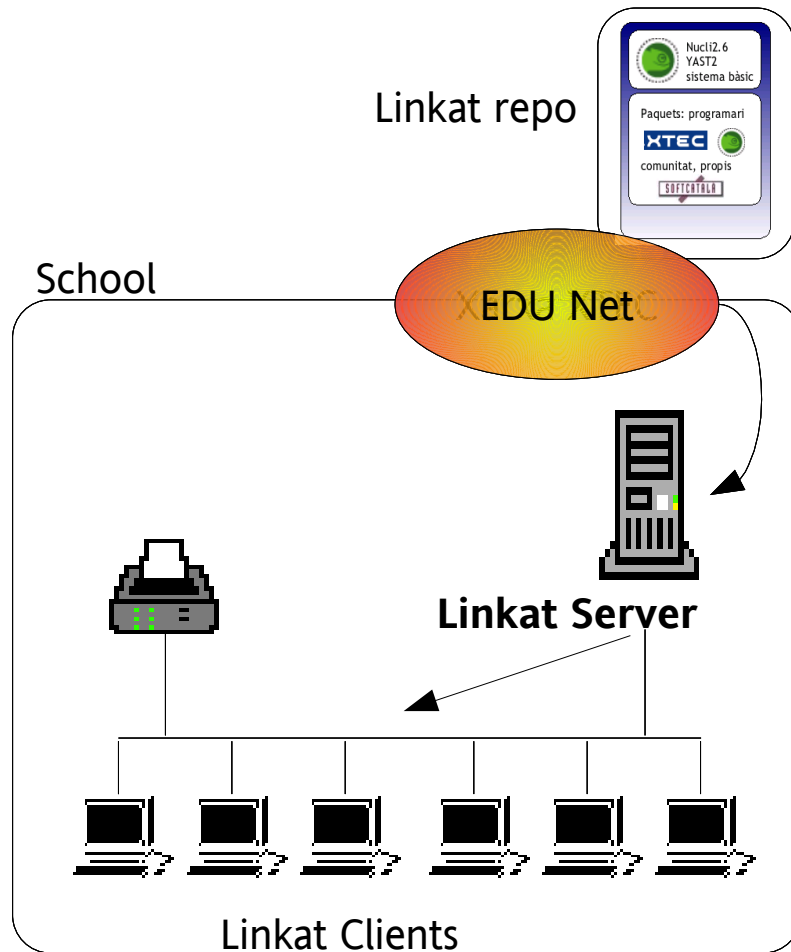
- 3 desktops provided:
- Gnome (supported)
 - KDE
 - XFCE
- 3 supported languages:
- catalan
 - spanish
 - english
- 3 installation methods:
- autonomous
 - school client
 - school server

Linkat Main Features

- Installable DVD and LiveDVD
- Install from Windows (thanks to Instlux !)
- LTSP capable
- Focused on Education
- Accesibility (festival voices)

Linkat GNU/Linux features

Client / Server configuration - School model



Auth model:

2 local users...

argo / alumn01

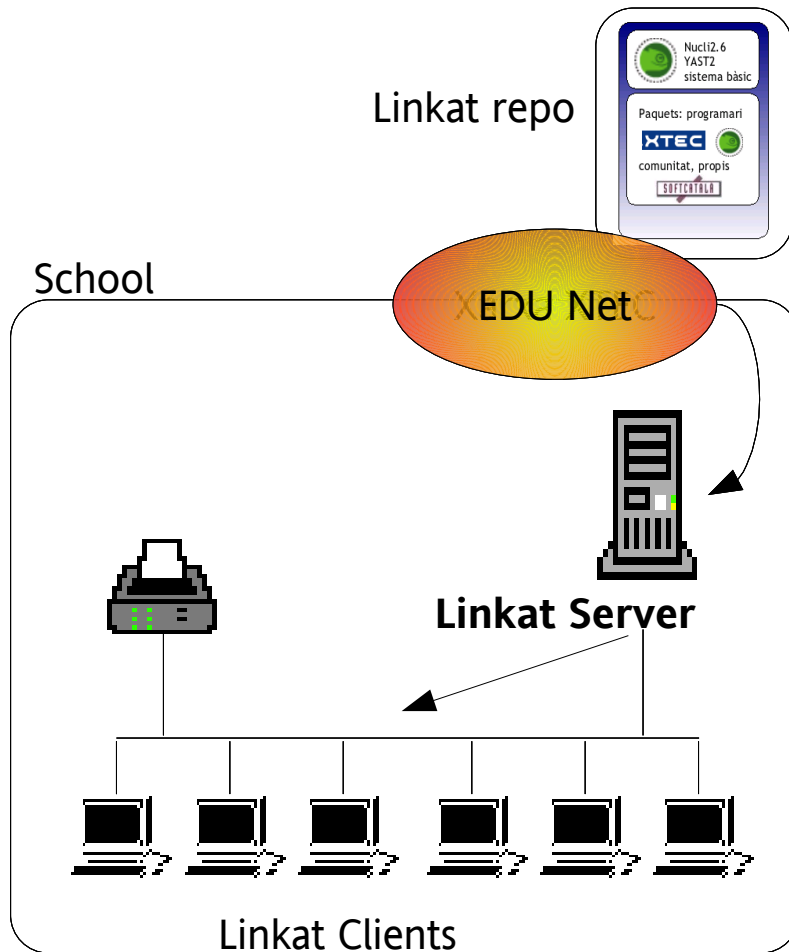
... and an **LDAP server**
(central auth)

- **home directories** on the server

- automounted with **NFS** and **autofs**

Linkat GNU/Linux features

Client / Server configuration - School model



Shared folders:

[T] (work folder, samba)

everybody: R/W -samba-

[S] (software folder - samba & NFS)

everybody: R

Admins: R/W

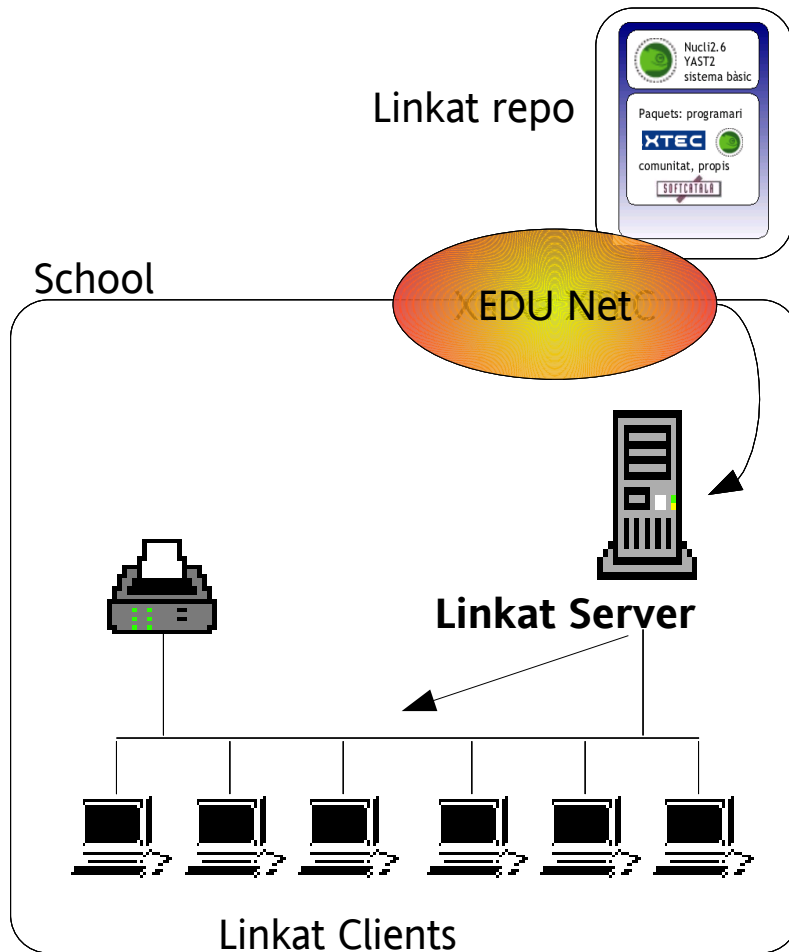
[P] (teachers folder - samba & NFS)

teachers: R/W

others: none

Linkat GNU/Linux features

Client / Server configuration - School model



Distributed repos & updates

1st stage:

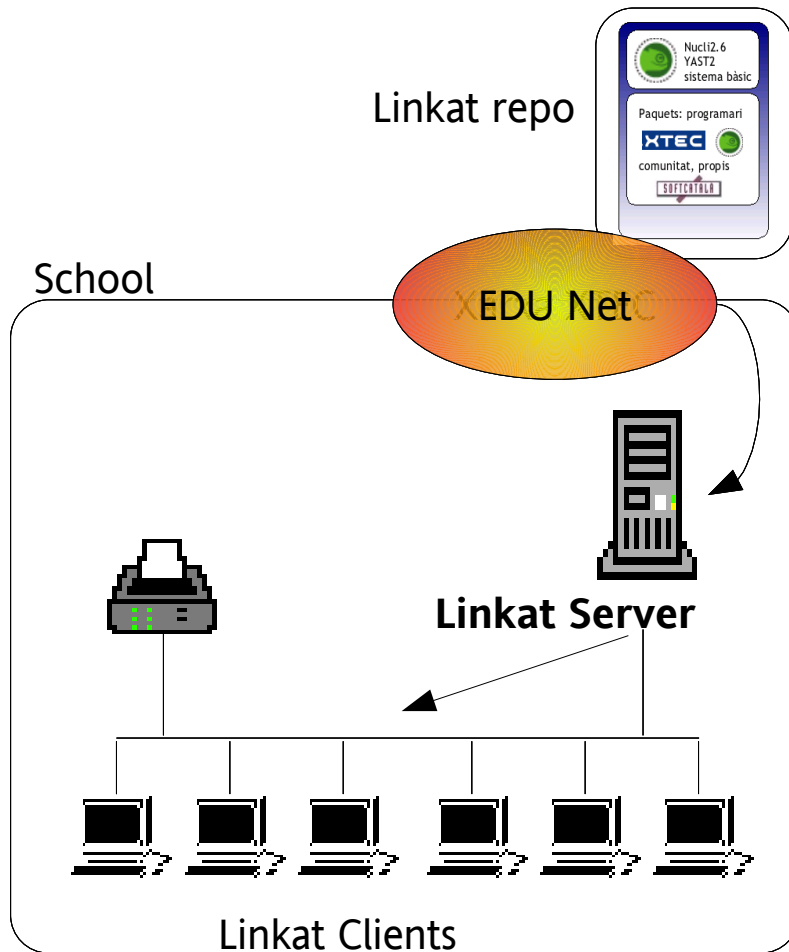
- Central repositories for:
 - updates
 - install source

2nd stage:

- School server mirrors nightly and offers both sources to clients.

Linkat GNU/Linux features

Client / Server configuration - School model



Now:

All work done from a script

Future:

Integrated in a YaST module

Translations and Documentation

Novell Spain translated SLED10SP1 to catalan.

(YaST and Icn) Revised by SoftCatalà <http://softcatala.org>
<http://i18n.opensuse.org/stats/SLE10-SP1/ca/>

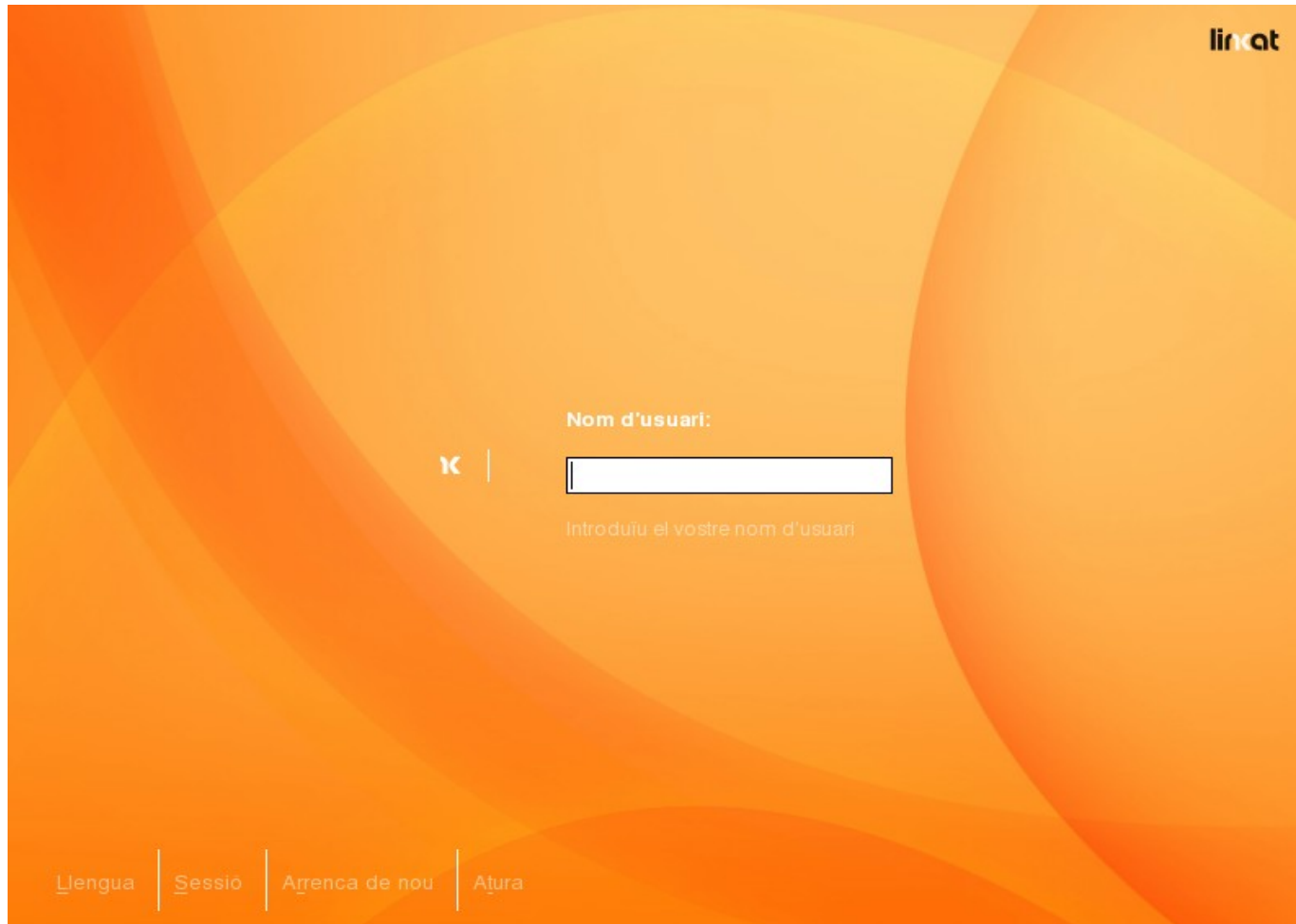
Catalan voices for Festival.

Contributed by TALP @ **UPC** (Univ. Politècnica de Catalunya)
<http://gps-tsc.upc.es/veu/festcat/>

Manuals and documentation

Created by Linkat Team & Edu Department.
<http://linkat.xtec.net/portal/content/view/22/150/>

Branding and Themeing



Linkat 2.0 GDM Login

Linkat GNU/Linux features

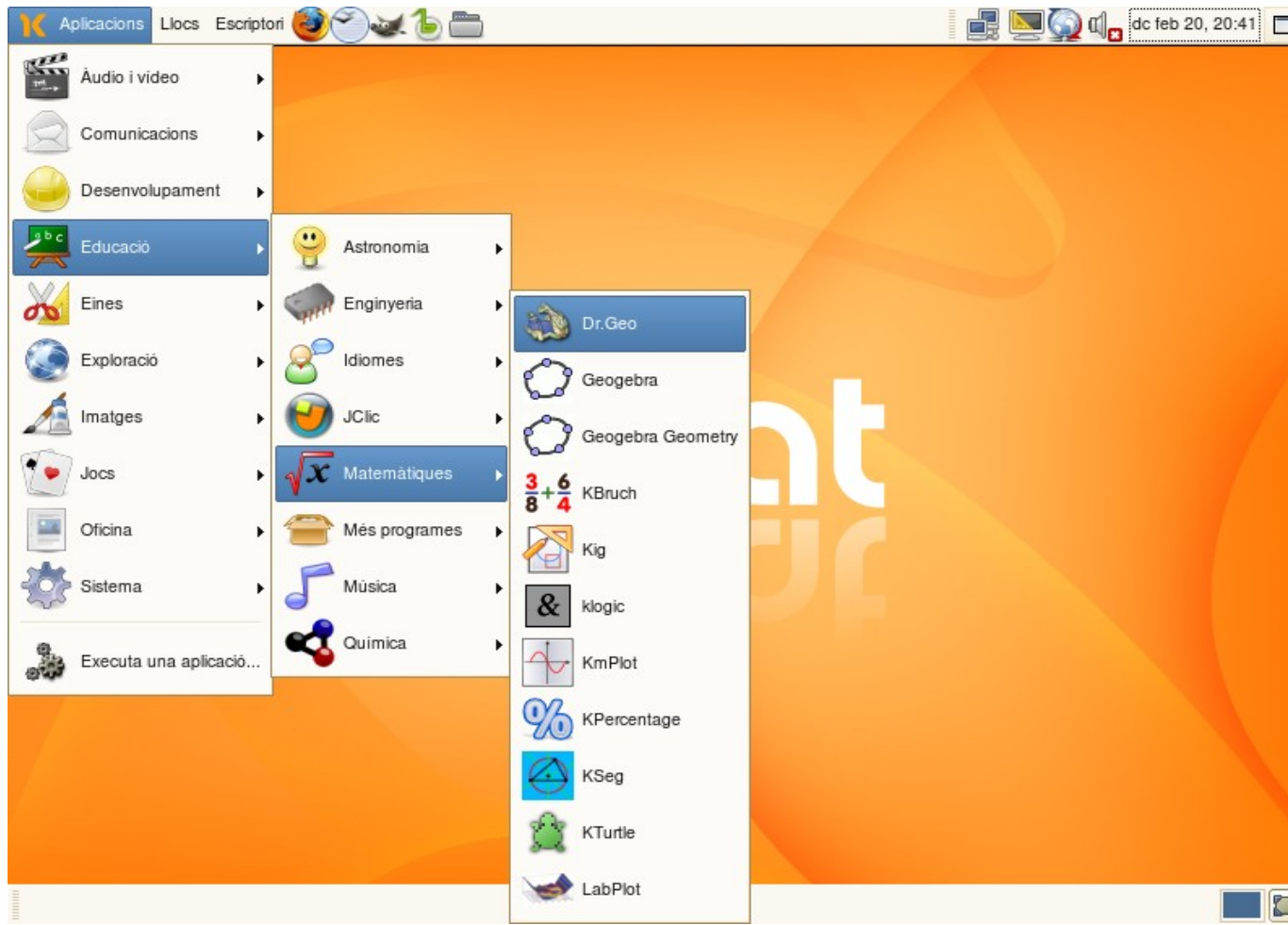
Branding and Themeing



Linkat 2.0 GDM Login

Linkat GNU/Linux features

Branding and Themeing



Linkat 2.0 GDM Login

Linkat GNU/Linux features

Branding and Themeing



Linkat 1.0 desktop

RPM packaging

Nearly every change, update, new software, fix, backport, etc, ends up in a RPM package....

... we tried to take advantage from what's already been packaged ... or recycle similar SPEC files....

Origins:

SLED10SP1

SUSE LINUX 10.1

OpenSUSE repositories

Packman, guru, etc

own RPM packaging from tar.gz

RPM packaging

Internal workshop on RPM packaging:

topics

- Authoritative sources for RPM packages
- Best practices
- Do not reinvent the wheel
- Always publish as RPM and SRPM @ the forge:
<https://projectes.lafarga.cat/projects/linkat/>

Linkat GNU/Linux features

RPM packaging

We are following usual guidelines from:


http://en.opensuse.org/SUSE_Package_Conventions

Also for kernel modules:

<http://www.suse.com/~agruen/KMPM/>

RPM packages count for

Linkat 1.0/1.1	70
Linkat 2.0	160

- 
- What's Linkat GNU/Linux About ?
 - Linkat GNU/Linux Features
 - **Community and Services**
 - Future Directions
 - Demo
 - Q&A

Community and services: Local

The diagram illustrates the structure of the linkat web: news site. On the left, an orange box contains the XTEC logo and the linkat GNU/Linux logo. Below it, a white box with a black border contains the text "linkat web: news". Lines connect this box to a screenshot of the linkat website on the right. The screenshot shows the linkat website interface, which includes a navigation menu, a main content area with news and announcements, and a sidebar with a search bar and a login form. The main content area features a "Benvingut/da a Linkat" section, a "FOSDEM '08" announcement, and a "Revises Programari Lliure i Codi Obert" section with a list of links and logos for various open-source projects.

Generalitat de Catalunya – Department of education runs a web site with news, documentation, links, download area and forum.

Community and services: Local

The diagram illustrates the relationship between XTEC, the linkat web: docs, and the linkat website. On the left, an orange box contains the XTEC logo and the linkat GNU/Linux logo. Below it, a white box with an orange border contains the text "linkat web: docs". Lines from this box point to a screenshot of the linkat website. The website screenshot shows the linkat GNU/Linux logo in the top left, a navigation menu with items like "INICI", "CARACTERÍSTIQUES", "DOCUMENTACIÓ", "DESCÀRREGUES", "COMUNITAT", and "ENLLAÇOS". The main content area is titled "Manuais i Tutorials" and is divided into two sections: "LINKAT 2 - Manuais i tutorials" and "LINKAT 1 - Manuais i tutorials". The LINKAT 2 section lists "Curs per SLED 10. Introducció al nou sistema SLED10 (Linka2) en format PDF" with sub-items "Course 6200 Manuals" and "Course 6201 Manuals". The LINKAT 1 section lists several manuals and guides, including "linkat-1-servidor.LTSP.pdf (741 K) Manual per instal·lar i configurar un servidor LTSP de la Linkat 1 en format PDF", "Linkat 1 amb servidors Linkat Guia per instal·lar la Linkat a les aules amb servidor Linkat HTTP", "Linkat 1 amb servidors Windows Guia per instal·lar la Linkat a les aules amb servidor Windows HTTP", "Introducció a la Linkat Guia d'introducció a la Linkat HTTP", and "linkat-1.0-manual.pdf (1,2 MB) Manual de la Linkat 1.0 en format PDF".

Generalitat de Catalunya – Department of education runs a web site with news, documentation, links, download area and forum.

Community and services: Local

The diagram illustrates the relationship between XTEC and the linkat GNU/Linux website. On the left, an orange box contains the XTEC logo and the linkat GNU/Linux logo. Below this, a white box with the text "linkat web: links" is connected by lines to a screenshot of the linkat website. The website screenshot shows a navigation menu with items like "Inici", "Característiques", "Documentació", "Descàrregues", "Comunitat", and "Enllaços". The main content area features a list of "Revistes de Programari Lliure i Codi Obert" (Free and Open Source Software Journals) with titles and brief descriptions, such as "Gaceta Tecnológica (Mirror local)", "Revista Begins (Mirror local)", "Revista EssentiaLibre (Mirror local)", "RevistaSL (Mirror local)", "Revista Soflix (Mirror local)", and "Revista UXI (Mirror local)". A sidebar on the right includes "Libres Manuals" and "edu365.com".

Generalitat de Catalunya – Department of education runs a web site with news, documentation, links, download area and forum.

Community and services: Local

The diagram illustrates the connection between the XTEC organization and the linkat website. On the left, an orange box contains the XTEC logo and the linkat GNU/Linux logo. Below this, a white box with the text "linkat web: downloads" has lines pointing to a screenshot of the linkat website's download page. The screenshot shows the website's navigation menu, a sidebar with categories like "Inici", "Característiques", "Documentació", "Descàrregues", "Comunitat", and "Enllaços", and the main content area titled "Descàrregues". The main content features a section for "Linkat 2.0 Beta 1", which includes a description of the beta version, a section for "DVD d'instal·lació" (DVD installation) with a download link for "linkat-2.0-beta1-dvd.iso" (3.1 GB), a section for "Instal·lació des de la xarxa" (Installation from the network) with a download link for "linkat-2.0-boot-cd.iso" (257M), and a section for "Màquina Virtual de VMware" (VMware Virtual Machine) with a download link for the VMware image. The VMware section also includes a note about the need for VMware Player and a link to the VMware website.

Generalitat de Catalunya – Department of education runs a web site with news, documentation, links, download area and forum.

Community and services: Local

The diagram illustrates the relationship between the XTEC organization and the linkat web forum. On the left, an orange box contains the XTEC logo and the linkat GNU/Linux logo. Below this, a white box with an orange border contains the text "linkat web: forum". Lines from this box point to a screenshot of the linkat forum website on the right.

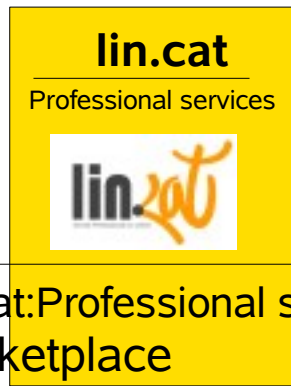
The screenshot shows the linkat GNU/Linux forum interface. The top navigation bar includes "MENÚ PRINCIPAL", "CERCA", and "LA WEB". The main content area is titled "Comunitat Linkat" and features a search bar, a "Notícies" section, and a table of forum topics. The table lists various categories such as "Fòrum General", "Programari GPL", "Incidències", "Instal·lació/Arrencada", and "Programari", each with a description, number of messages, and the date of the last post.

Fòrum general			
	Fòrum General Espai obert a tot tipus de comentaris, opinions i propostes sobre la Linkat.	846 Missatges 218 Temes	Darrer missatge per Igras en Re: Desinstal·lar la Lin... el Febrer 10, 2008, 01:28:35
	Programari GPL Espai per informar sobre aplicacions o eines que podem incloure a la Linkat	76 Missatges 13 Temes	Darrer missatge per jdevant en Re: Projecte gravació en... el Avui a les 12:02:46
Incidències			
	Incidències Linkat 2 Beta Espai per incidències de Linkat 2 Beta	96 Missatges 28 Temes	Darrer missatge per kimi en Actualitzacions???? el Febrer 11, 2008, 09:11:39
	Instal·lació/Arrencada Preguntes sobre instal·lació o problemes d'arrencada a la Linkat.	480 Missatges 129 Temes	Darrer missatge per Pablo Vigo en Re: Opció de copiar el D... el Febrer 01, 2008, 12:12:42
	Programari Preguntes sobre ús, instal·lació i configuració de programes que funcionen a la Linkat.	373 Missatges 116 Temes	Darrer missatge per Pablo Vigo en Re: Linkat 1.1 - Program... el Gener 18, 2008, 03:40:55

Generalitat de Catalunya – Department of education runs a web site with news, documentation, links, download area and forum.

Community and services: Local

lin.cat is a web frontend for a linkat marketplace run by the community. It offers non-official linkat services.

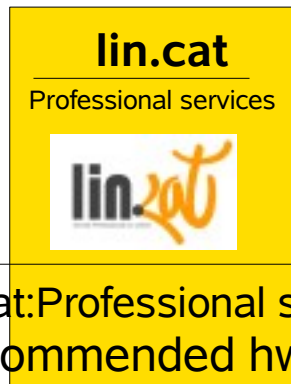


lin.cat: Professional services
Marketplace



Community and services: Local

lin.cat is a web frontend for a linkat marketplace run by the community. It offers non-official linkat services.

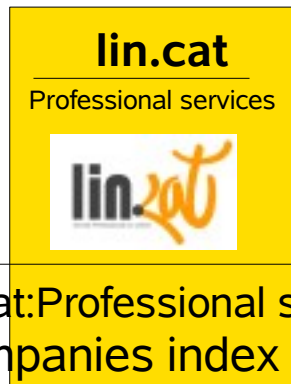


lin.cat: Professional services
Recommended hw

The screenshot shows a webpage with the "linkat" logo at the top, with the tagline "Serveis Professionals en Linkat" and the email "info@lin.cat". The main heading is "Ordinadors recomanats per Linkat 2.0". Below this, it states: "Els següents ordinadors han estat revisats que funcionen amb Linkat 2.0 Beta 1. Els ordinadors recomanats porten l'enganxina següent, apareixen en aquesta web i es poden comprar on s'indica." A small "linkat Recommended for Linkat 2.0" badge is shown. On the left is a photo of a tower PC. On the right, the specifications are listed: "Placa base: M2N VM", "CPU: AMD2 4200 Mhz Dual Core", "Memòria: 1 GB RAM DDR2 *", "Disc dur: 160 GB SATA2 *", "Tarja gràfica: VGA Nvidia GeForce 6100", "Tarja de so: AD1988", "Altres: Grabadora i DVD". A small asterisk at the bottom indicates "* Disponible".

Community and services: Local

lin.cat is a web frontend for a linkat marketplace run by the community. It offers non-official linkat services.



lin.cat: Professional services
Companies index



Installation, configuration and maintenance services



Hardware selling points



Education and courses



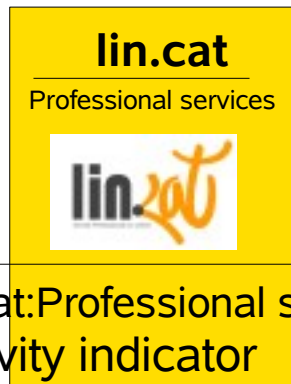
Books



Research papers

Community and services: Local

lin.cat is a web frontend for a linkat marketplace run by the community. It offers non-official linkat services.



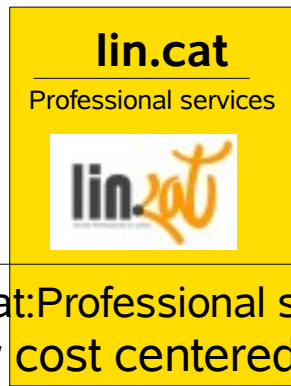
lin.cat: Professional services
Activity indicator

The screenshot shows the "linkat" logo with the tagline "Serveis Professionals en Linkat" and the email "info@lin.cat". Below the logo is the heading "Llistat d'empreses". A horizontal line separates the header from the content area. The content area lists "Servtelecom-JAVD, S.L.L." with contact information: "http://www.servtelecom.com/", "C/ Enric Castro Casanoves, 16 Local 3 - Riudoms", "Tarragona", "info@servtelecom.com", and "977850338". A horizontal line separates this entry from the next one, "Genos Open Source S.L.". A red circle highlights the text "activitat 100.0%" in the bottom right corner of the screenshot.

Proportional
to courses
assisted and
to clients

Community and services: Local

lin.cat is a web frontend for a linkat marketplace run by the community. It offers non-official linkat services.



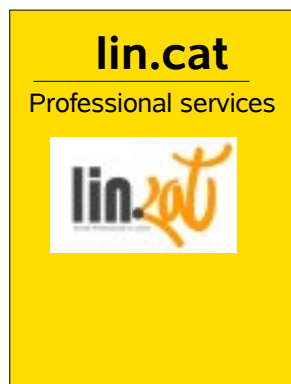
lin.cat: Professional services
Low cost centered



Centered on
“low cost
computer
rooms” as a
killer
application
based on
linkat, LTSP
and Thin
desktops

Community and services: Local

comkat is a developer community around linkat run by the community.



Two types of users:

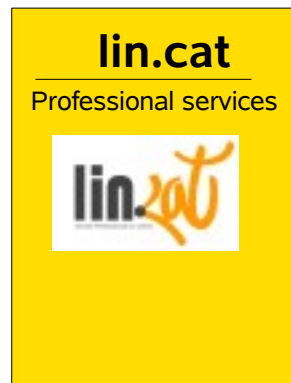
- Admin users: Users who can give access or deny it to developers, as well as remove rpms
- Developers: Users who write rpms and upload them.



comkat: community repository

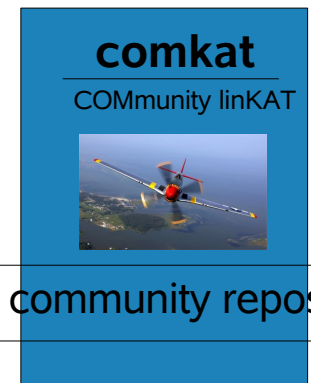
Community and services: Local

comkat is a developer community around linkat run by the community.



Two codes of conduct.

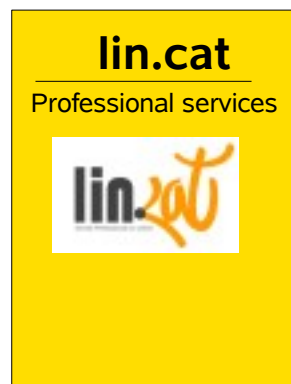
- Code of conduct for admins: Allow anyone to be a developer except the ones that do not respect the code of conduct for developers. Decide who can be a new administrator.
- Code of conduct for developers: Do not upload stuff that is not legal, nor free, nor recommended for people under age of 18.



comkat: community repository

Community and services: Local

comkat is a developer community around linkat run by the community.



- Current admins:
- People from Universities
 - People from Schools
 - People from Private sector.



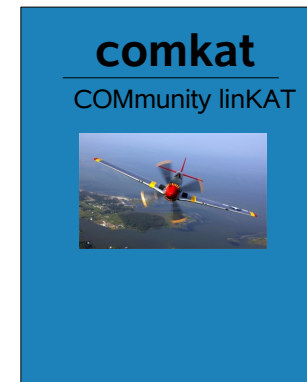
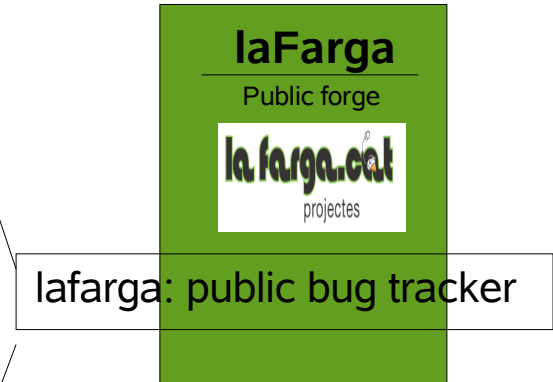
comkat: community repository

Community and services: Local



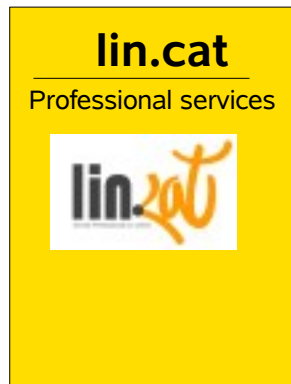
The screenshot shows the lafarga.cat public bug tracker interface. At the top, there is a search bar for 'Errades (bugs)' and a 'Search' button. Below the search bar is a navigation menu with tabs for Home, My Page, Project Tree, Project Openings, and Linkat GNU/Linux. The main content area displays a list of bug reports with columns for Summary, Open Date, Assigned To, and Submitted By. The list includes items such as 'Muntatge pendrive USB amb Linkat 2' and 'Tomcat no arrenca en Linkat 1.1'.

Summary	Open Date	Assigned To	Submitted By
Muntatge pendrive USB amb Linkat 2	* 2007-10-19 11:40	Nobody	Juan de Gracia
Tomcat no arrenca en Linkat 1.1	* 2007-11-20 13:31	Nobody	Juan de Gracia
El paquet del programari geogebra informa erròniament del número de versió	* 2007-11-22 10:01	Nobody	Toni Ginard
El logotip de la Generalitat no es veu bé a la primera pantalla	* 2007-12-01 14:41	Nobody	Jordi Mas
Milleres en la traducció del procés d'instal·lació	* 2007-12-01 15:56	Nobody	Jordi Mas
Menú àudio i vídeo	* 2007-12-01 16:01	Nobody	Jordi Mas
El Planner no surt en català	* 2007-12-01 16:07	Nobody	Jordi Mas
Kino surt en anglès	* 2007-12-02 15:06	Nobody	Jordi Mas
Àudio del portàtil	* 2007-12-03 20:38	Jordi Bruguera	Manuel Garcia
NVU en anglès	* 2007-12-04 13:04	Nobody	Xavier Belanche Alonso



Generalitat de Catalunya – Secretariat for Telecommunications and the Information Society runs a public forge where anyone can has his own project. Linkat bug tracker and source code is hosted there.

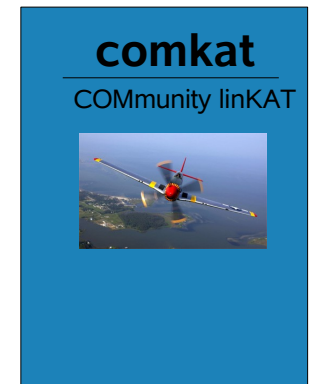
Community and services: Local



The screenshot shows the website for lafarga.cat, which is a public forge. The page has a green header with the site name and a search bar. Below the header is a navigation menu with tabs for Home, My Page, Project Tree, Project Openings, and Linkat GNU/Linux. A secondary menu includes Forums, Tracker, Lists, Tasks, Downloads, Surveys, News, SCM, and Mediawiki. The main content area shows a list of projects, with the current view filtered to show releases for the 'linkat' project. A table lists various releases with columns for Package, Release & Notes, Filename, Size, D/L, Arch, Type, and Author.

Package	Release & Notes	Filename	Size	D/L	Arch	Type	Author
aaa_base-linkat_1							
2007-05-25 10:29							
aaa_base-9-29-41							
aaa_base-9-29-41.i586.rpm			112 KB	10	i386	rpm	linkat
aaa_base-9-29-41.src.rpm			104 KB	4	i386	Source rpm	linkat
aaa_skel-linkat_1							
2007-06-06 16:11							
aaa_skel-2004.6.8-40							
aaa_skel-2004.6.8-40.i586.rpm			25.33 MB	2	i386	rpm	linkat
aaa_skel-2004.6.8-40.src.rpm			25.23 MB	1	i386	Source rpm	linkat
2007-05-31 12:32							
aaa_skel-2004.6.8-37							
aaa_skel-2004.6.8-37.i586.rpm			7.87 MB	2	i386	rpm	linkat
aaa_skel-2004.6.8-37.src.rpm			7.8 MB	4	i386	Source rpm	linkat
2007-05-25 11:44							
aaa_skel-2004.6.8-35							
aaa_skel-2004.6.8-35.i586.rpm			7.87 MB	2	i386	rpm	linkat
aaa_skel-2004.6.8-35.src.rpm			7.8 MB	3	i386	Source rpm	linkat

lafarga: linkat source code



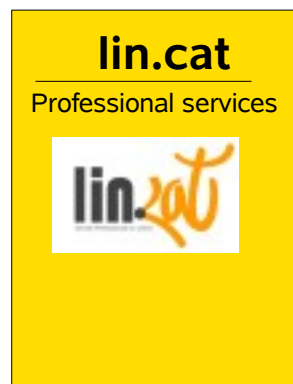
Generalitat de Catalunya – Secretariat for Telecommunications and the Information Society runs a public forge where anyone can has his own project. Linkat bug tracker and source code is hosted there.

Community and services: Local



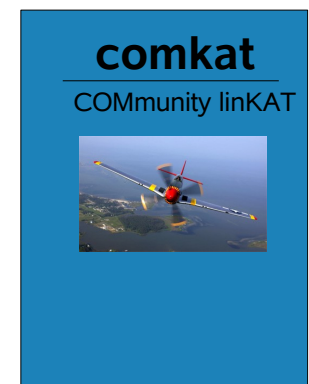
Government:

- linkat project
- support to public schools (60% of Catalan Schools)
- free support
- free documentation
- release source code
- open bug traquer



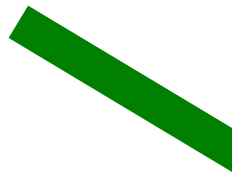
Community and marketplace

- marketplace
- community repository
- paid support to private schools (40% of Catalan Schools)
- paid services to anyone else
- free additional packages



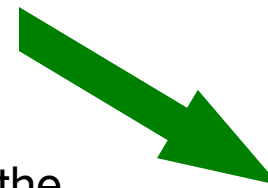
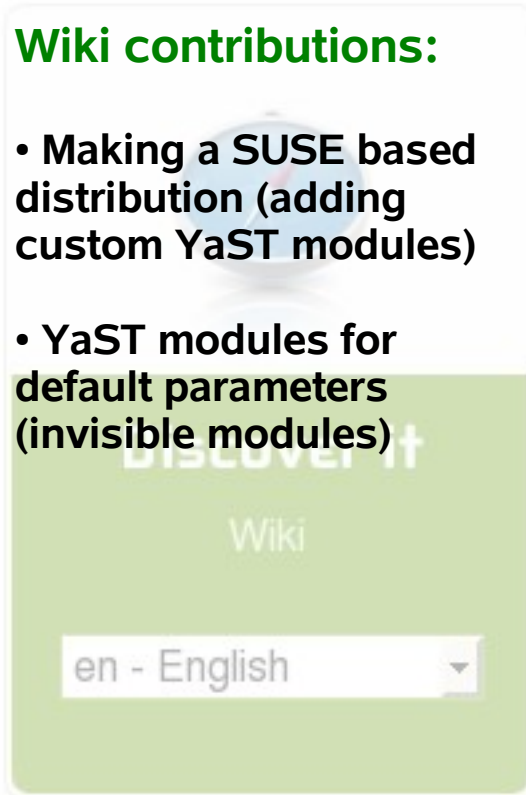
We are looking for sponsors!!!

Community and services: Global



Wiki contributions:

- Making a SUSE based distribution (adding custom YaST modules)
- YaST modules for default parameters (invisible modules)



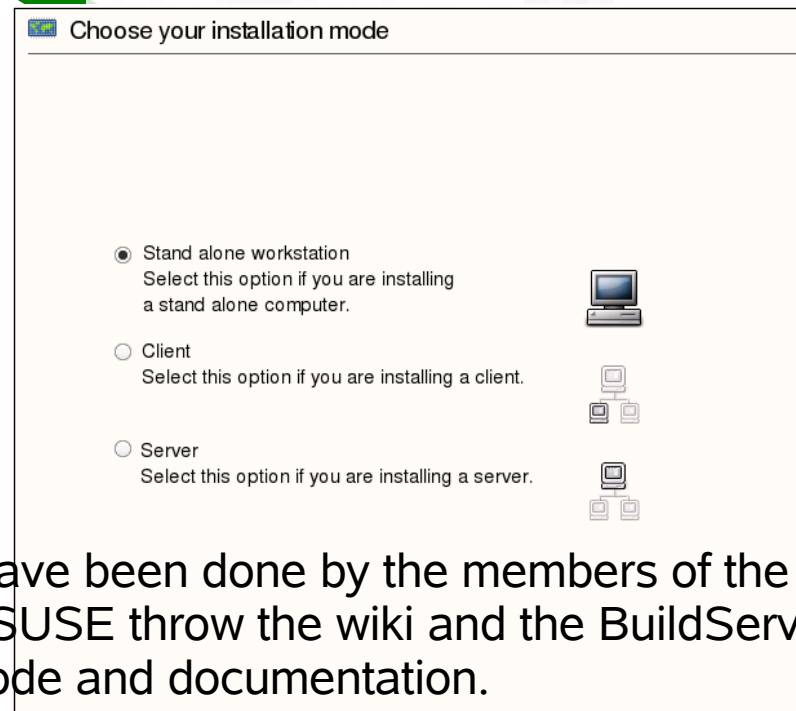
Some contributions have been done by the members of the linkat project to openSUSE, through the wiki and the BuildService, by publishing code and documentation.

Community and services: Global



YaST code contribution:

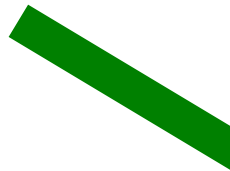
- YaST module for adding additional patterns



Some contributions have been done by the members of the linkat project to openSUSE through the wiki and the BuildService, by publishing their code and documentation.



Community and services: Global

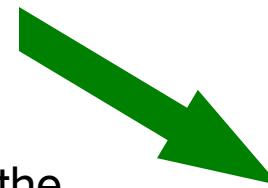


Build Service

- Linkat as a related project to Educational Desktop and Educational Server

- Jclic program as our main contribution


Build Service



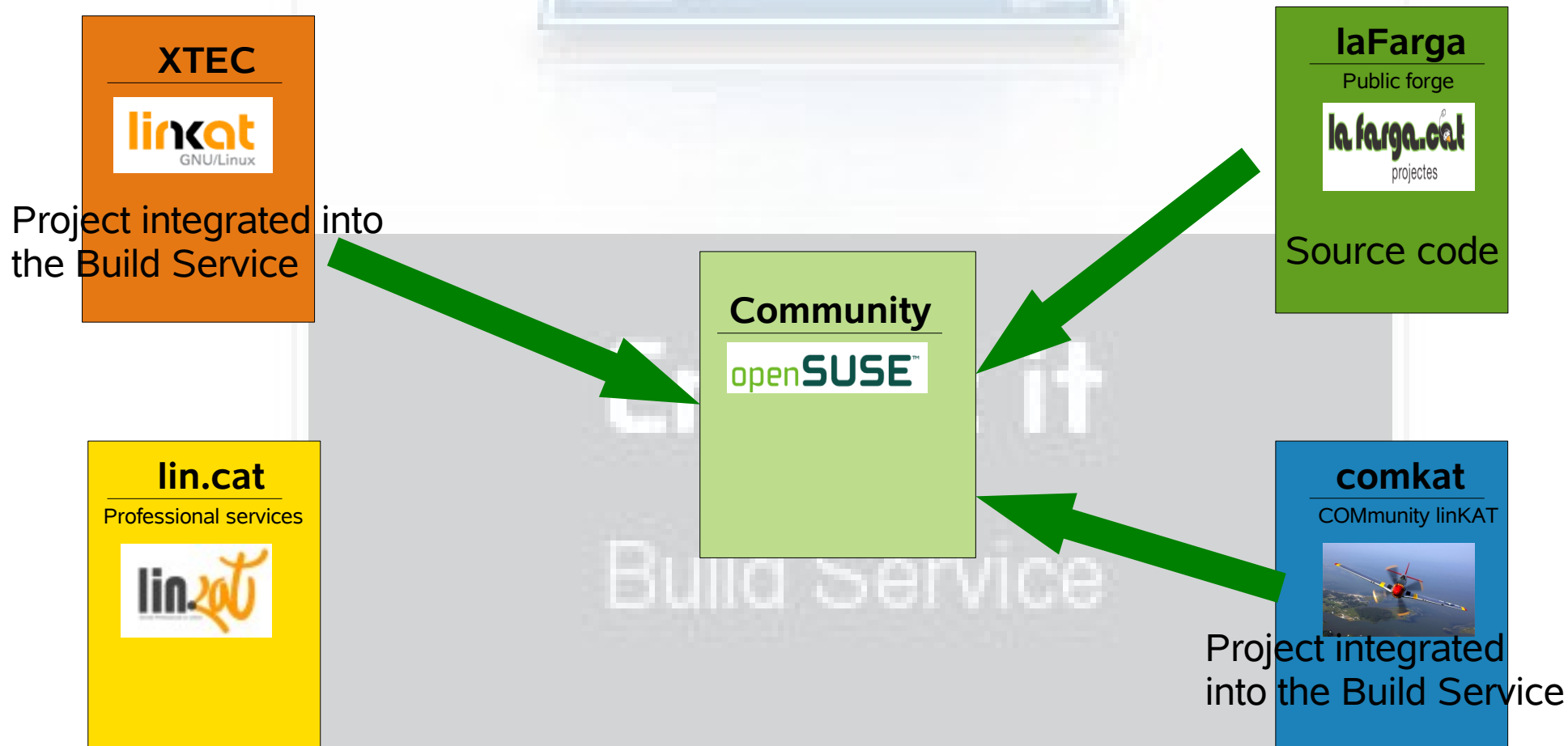
Community

openSUSE™

Some contributions have been done by the members of the linkat project to openSUSE through the wiki and the BuildService, by publishing their code and documentation.

- 
- What's Linkat GNU/Linux About ?
 - Linkat GNU/Linux Features
 - Community and Services
 - Future Directions
 - Demo
 - Q&A

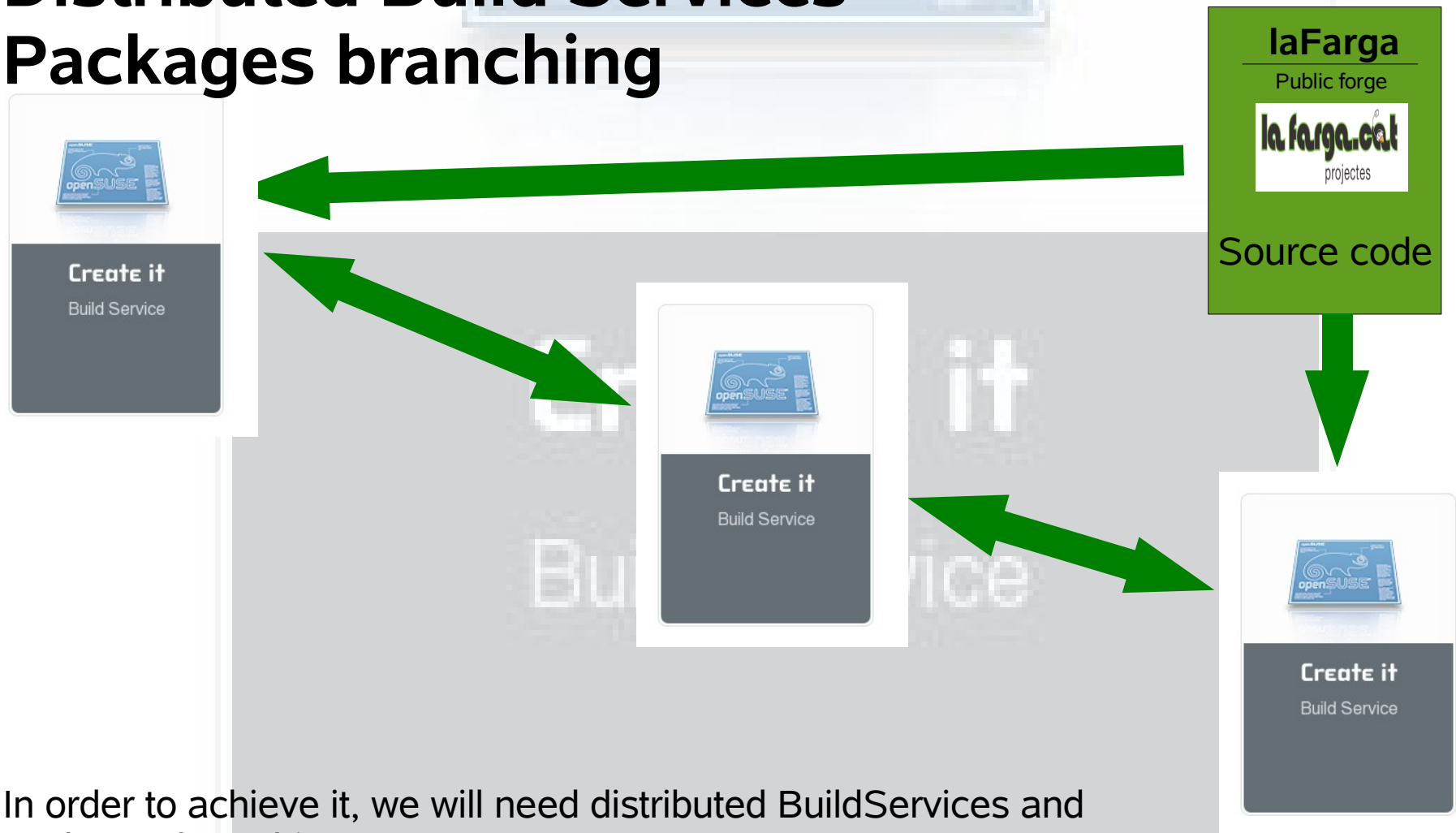
Future directions: Collaborate through the Build Service




We would like to see linkat and comkat as BuildService projects at openSUSE so all three communities were closer and more code were contributed.

Future directions: Collaborate through the Build Service

Distributed Build Services Packages branching



In order to achieve it, we will need distributed BuildServices and packages branching.

- 
- What's Linkat GNU/Linux About ?
 - Linkat GNU/Linux Features
 - Community and Services
 - Future Directions
 - Demo
 - Q&A

- 
- What's Linkat GNU/Linux About ?
 - Linkat GNU/Linux Features
 - Community and Services
 - Future Directions
 - Demo
 - Q&A

Thanks !

linkat
GNU/Linux