Introducing: Intents

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LXQt

What is XDG?

What is this spec?

Many programs and desktops use the MIME system[MIME] to represent the types of files. Frequently, it is necessary to work out the correct name or contents, and looking up the correct MIME type in a database.

It is also useful to store information about each type, such as a textual description of it, or a list of applications that can be used to view or edi

For interoperability, it is useful for different programs to use the same database so that different programs agree on the type of a file and infor only have to install new information in one place.

This specification attempts to unify the MIME database systems currently in use by GNOME[GNOME], KDE[KDE] and ROX[ROX], and pro

The MIME database does NOT store user preferences (such as a user's preferred application for handling files of a particular type). It may be u be viewed with a particular application.

Language used in this specification

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "M described in RFC 2119[RFC-2119].

Unified system

In discussions about the previous systems used by GNOME, KDE and ROX (see the "History and related systems" document), it was clear that separate, and not due to any fundamental disagreements between developers. Everyone is keen to see them merged.

Three specs

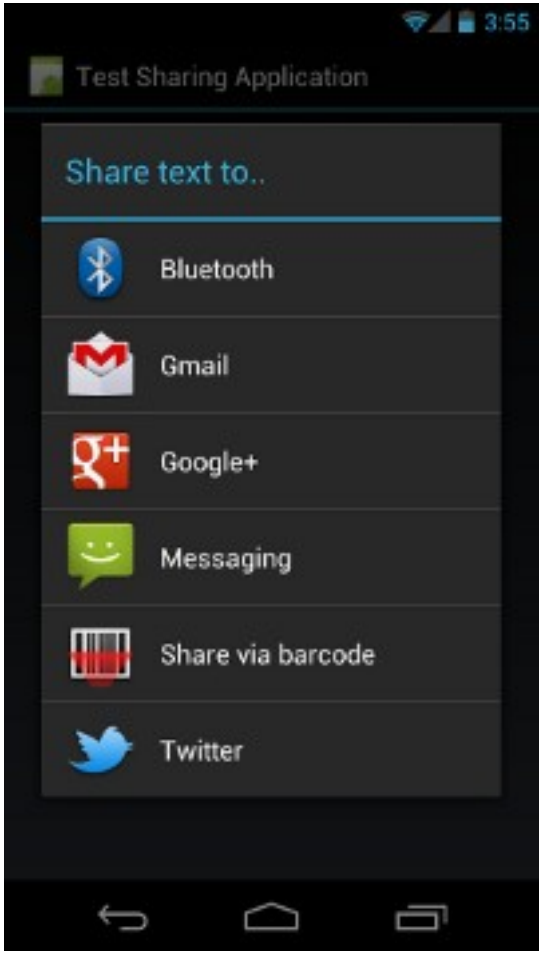
- desktop-entry: Describe applications
- shared-mime-info: Describe file types
- mime-actions: Associate apps with file types

What are intents?

“A way to leverage the capabilities of registered (installed) applications to implement generic actions through those services.”

- Popular on Android
- Not-so-popular on the web (webintents.org)

Android Intents: ACTION_SEND

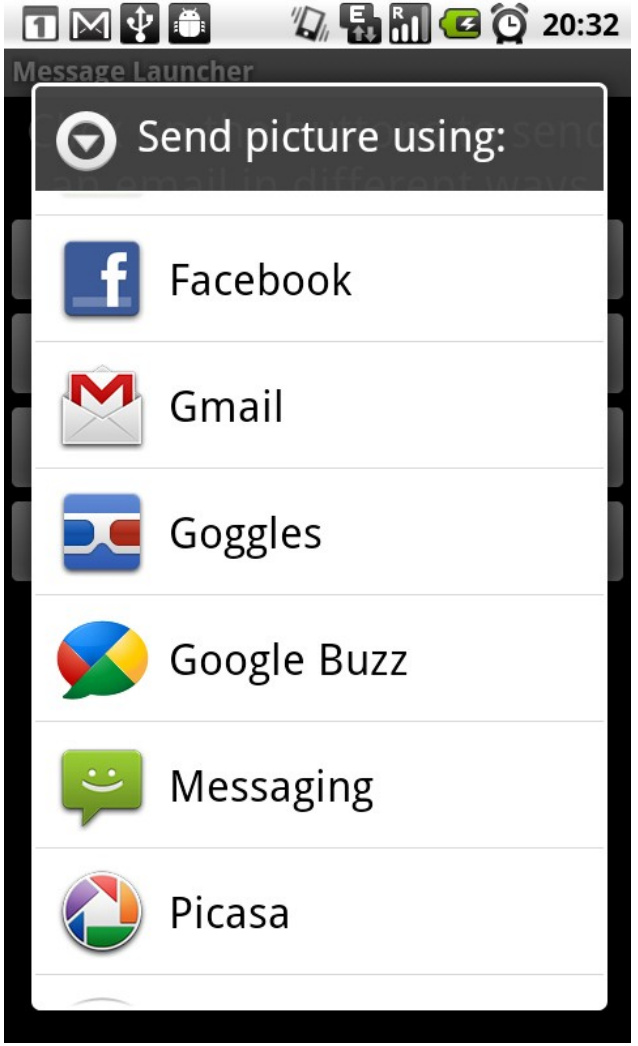


The problem

File manager: “I want Dropbox integration!”
Photo gallery: “I want Flickr integration!”

- Each app developer has to implement the service
- No plugin support? Bloat for the rest of the userbase
- Libraries avoid code duplication but bindings might not be available for the language
- *“If we do Flickr, we also have to do Picasa...”*

Android Intents: Send Picture



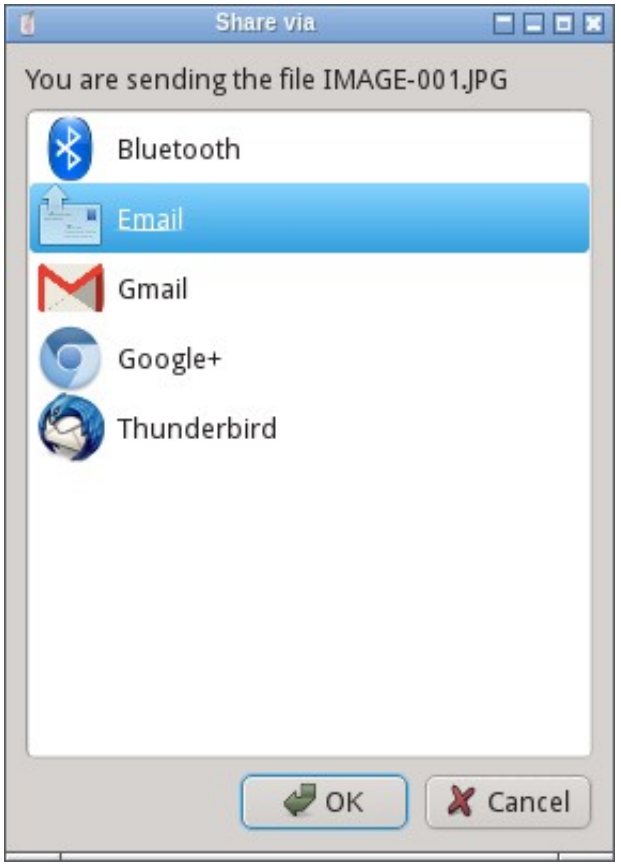
In a nutshell

Services (providers)

- Specialized apps provide the functionality
- Who better to trust for Dropbox integration than a Dropbox client?

- **Clients**
- “I want to do <foo>”
  Here is a list of apps that can do <foo>
- Immediately relevant to the user
  Don't have Dropbox installed? No Dropbox providers to show.

XDG Intents: ShareFile concept



XDG Intents: ShareFile service

D-Bus based

Share a file via Email (attachment)

```
[Desktop Entry]
Name=Thunderbird
Comment=Email Client
Intents=org.fd.intents.ShareFile;
Exec=thunderbird
```

Desktop use cases

- Screenshot app: Upload to various online services.
- User management app: Take a webcam picture for the user's avatar.
- Every app ever: Pick a file from a file manager (aka Ctrl+O)

  *File pickers are **not** a solved problem on Linux*

Portals: communication over Intents

- Communicate between sandboxed apps through D-Bus
- kdbus permits high bandwidth communication (eg. transmit file data between apps)
- Uses XDG intents to discover available services

More improvements: View / Edit

- Current mime-actions spec only supports opening files
- Introduce “View” and “Edit”
- Backwards-compatible: Current apps support generic “Open”

View / Edit Syntax

ImageEdit.desktop

```
[Desktop Entry]
Name=ImageEdit
MimeType=image/png;image/jpeg;
Edit=image/png;image/jpeg;
Exec=image-edit
```

The case of the default Web Browser

- $BROWSER
- x-www-browser (Debian)
- org.gnome.desktop.default-applications
- “defaults.list”
- x-scheme-handler/http
- Categories: WebBrowser

The LXQt community

python-xdg (with Intents support)
https://github.com/Adys/python-xdg

LXDE Github
https://github.com/LXDE

Web / Email
http://join.lxde.org

Questions?

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