Messaging-App Interoperability with AtomJump
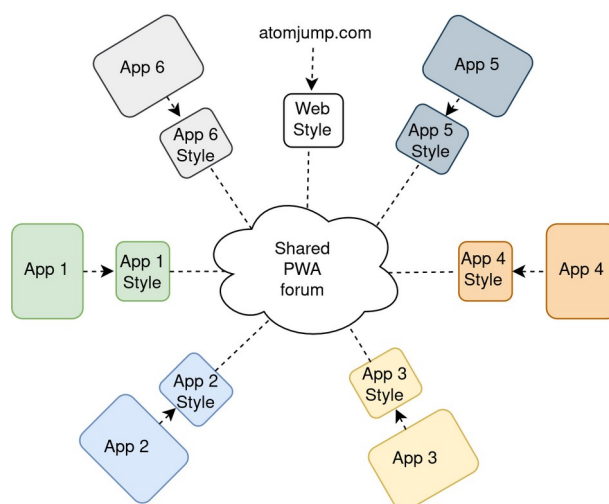
Ver 0.0.8

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Introduction

Each messaging app can send a user to a shared atomjump.com forum **in a browser** on the user's phone, as a way to provide a simple, interoperable forum that users from different apps can communicate over.
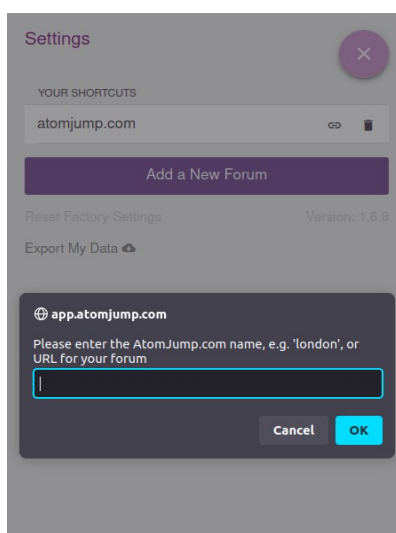
This
- **Simplifies interoperability** requirements (e.g. in the EU)
- **Prevents the need to degrade** the parent app's own security settings for communication with other external app users.
- **Removes the need to provide a complex "message-level" API** (Application Programmer's Interface) for other developers to integrate into their own apps, which may be slower or more error-prone.

The forum can be themed to look similar to the messaging app that it came from, so that the experience feels familiar to users.

A free-text forum-name input-box can be added to the messaging app, allowing users to agree a forum name between themselves outside the app e.g. "myfamily-name" which would correspond to the AtomJump page "https://myfamily-name.atomjump.com", and then enter it manually, or copy & paste this forum name into the app (see the sample screenshot). This forum can then be added as a shortcut to a user's list of groups. Alternatively, an agreement in the name of the shared forum can be communicated between messaging apps (with this format being agreed on between independent app developers).

Example Forum

For a demo, you can try out the following link on any phone (or desktop):
https://appdemo.atomjump.com

or for differently themed versions, with a range of popular messaging app's styles, that auto-start the messaging window:
https://appdemo.atomjump.com/go/?themed=whatsapp
https://appdemo.atomjump.com/go/?themed=telegram
https://appdemo.atomjump.com/go/?themed=signal
https://appdemo.atomjump.com/go/?themed=fbmsg
https://appdemo.atomjump.com/go/?themed=wechat
https://appdemo.atomjump.com/go/?themed=snap

Note: these themes are not necessarily approved by the app owners, themselves, and are only provided by way of example. Colour schemes may have some level of ownership/trade marking by their respective app developers, so caution should be taken before using a given theme in production.

AtomJump Background

The AtomJump Foundation publishes a **free, open source**, solution to enable 'messaging app' like capabilities inside a **PWA (Progressive Web App)**. While the experience may not include *all* commercial app features, the basic features of a modern messaging app are in place (see a feature list on the next page), and many users of AtomJump don't realise that they are not using a full app. The entire app interface loads over the web within around 2 seconds.

The AtomJump Foundation is a **non-profit organisation**, but there are still costs involved in hosting the web service. It earns this money on the optional private hosting of it's messaging product, and is therefore financially balanced and self-sustaining, with no outstanding debts or debtors. There are no advertisements on AtomJump.

As an organisation it accepts donations only if they are of a material or service nature e.g. hardware servers or bandwidth, and it does not accept any financial investment. There are no shares in the organisation, and while most staff are volunteers, key staff can be retained at an average salary level. The organisation is **fully independent** of all major technology providers, and hosting is carried out on it's own dedicated New Zealand premises, with it's own hardware and internal systems (which are all variations of open source products). The premises are designed to survive earthquakes and floods, and are low-energy-consumption, being powered 100% by renewable energy.

Future premises could, potentially, be located within other country or regional localities, and individual forums can be forwarded to be hosted within those particular countries, if desired. These forums can use different software plugins that represent different local laws, and they are independently hosted. If there is a service outage in one region, it will not affect another region.

AtomJump PWA Features

Messaging App Interface Features	AtomJump PWA Support
'Typing' indicator	Yes
Message 'read' indicator	No
Multi-language support	Yes, 15 languages supported
Video conferencing	Yes, Up to 20 users in a group
Video uploads from the gallery	Yes
Multi-image uploads from the gallery	Yes
Audio uploads from the gallery	Yes
PDF upload	Yes
General file upload	No
Live image capture/upload	Yes
Live video recording/upload	Yes
Live audio recording/upoad	Yes
Emoticons	Yes
Stickers	Yes
Group notifications by email	Yes, optional*
Notifications	Yes, optional, but 'pull' rather than 'push'
Password-protected forums	Yes, but on a purchase (NZ$15 / year)
Forum access from multiple devices	Yes*
Forum spreadsheet download	Yes*
Forum PDF output	Yes*
Forum PDF output/image output desktop sync	Yes*
Client-to-Server encryption	Yes*
End-to-end encryption	No (See Hate-speech-detection support)
Group moderation	Yes, by any user*
Hate-speech-detection	Yes* (Note: Supporting E2EE would break this)
Regional functionality variations	Yes*

* Some of these features may not be available in app-store messaging apps

Using AtomJump.com

While using a hosted atomjump.com page is optional, and you are welcome to freely host this yourself (as all AtomJump software is open source, see http://atomjump.org), here are some ways of allowing an interoperable forum between apps using atomjump.com.

A Shared Temporary Forum

This shared forum URL lasts for around 2 days, is free and can be used as a temporary space for two or more users from different apps to meet and greet.

```
https://ajmp.co/8jxa6zrca
```

It is security-by-obscurity: the 9 letter random code makes it unique, but there is no password-protection on the content itself. Note: this *short* URL redirects immediately to a longer URL, e.g. "https://atomjump.com/wp/one-time/?u=8jxa6zrca". You can use the full version of the URL to add themes, below. You can also append the 2 or 3 letter AtomJump language code e.g. 'fr' is appended to the above URL to make "https://ajmp.co/8jxa6zrcafr", which opens with a French interface.

Note: if you are auto-generating your own 9-letter code, some letters are removed to avoid human-level confusion. These are the letters we choose from: "abcdefghjkmnpqrstuvwxyz123456789"

A Shared Public Forum

This option provides an indefinitely retained forum, with a maximum rotating limit of several hundred messages, and is useful for ongoing chats between people where the information discussed is not high-security.

```
https://any-name-here.atomjump.com
```

Where "any-name-here" can be an obscure forum name, agreed between the apps, if desired (using the English latin characters, only, i.e. 'a-z', '0-9', or '-'). This option is free, and provides a good set of introductory guides for new users. Users are anonymous by default but can set their own personal name. There is no password on the forum, by default, and users should be made aware that the forum is open, prior to entry to the page, unless they choose to add a forum password (adding a forum password costs NZD$15 per year and the payment process takes place on atomjump.com).

A Shared Private Forum

This option provides an indefinitely retained private forum, and is useful for ongoing chats with e.g. family or close friends, or internal company communications. Users must agree on a shared forum password between themselves (adding this password costs NZD$15 per year and the payment process takes place on atomjump.com).

```
https://any-name-here.atomjump.com
```

Custom Themes and Languages

		Example
theme	The CSS theme name for the *embedded messaging page* itself on https://any-name-here.atomjump.com page. This theme is some variation of https://src.atomjump.com/atomjump/loop/-/raw/master/css/comments.css. You will need to send this .css file to the AtomJump Foundation (e.g. green.css), when it is ready, and we will distribute it over our servers.	green
themep	The CSS theme name for the *parent page* of https://any-name-here.atomjump.com. This generally corresponds to the same .css file and the same name as the 'theme', above, but it can be different.	green
themed	A joint CSS theme used for *both* the parent page and the messaging page	green
lang	Default the interface and surrounding text to one of 15 different languages (users can still change the language on their own machine). Note: you can also use the format "https://any-name-here.atomjump.com/fr/" A full list of languages is available in the "Change Language" plugin https://atomjump.com/wp/language-switcher/. The two-letter/three-letter format is specific to AtomJump.	en, fr, hi, cht
autostart	Automatically open the messaging popup, rather than showing the parent page of e.g. https://any-name-here.atomjump.com. Note: you can also use the format "https://any-name-here.atomjump.com/go/" to auto-start the forum.	true

E.g.
https://appdemo.atomjump.com/?themed=whatsapp
https://appdemo.atomjump.com/?autostart=true&themed=whatsapp
https://appdemo.atomjump.com/go/
https://appdemo.atomjump.com/fr/

https://ajmp.co/8jxcdfdj8
https://ajmp.co/8jxcdfdj8fr
https://atomjump.com/wp/one-time/?u=8jxcdfdj8fr
https://atomjump.com/wp/one-time/?u=8jxcdfdj8&lang=fr
https://atomjump.com/wp/one-time/?u=8jxcdfdj8&lang=fr&themed=whatsapp

Background Pictures

Forum-page (e.g. https://any-name-here.atomjump.com) background pictures are generally auto-selected from a partner firm (Pixabay), based on the topic of the title, or if there are no relevant pictures, the page will default to a generic AtomJump cloud-scape. Users of a password-protected forum can request AtomJump put in a specific background image at the time of purchase.

Naming Etiquette

While this is not a hard ruleset, this can be useful for assisting people with knowing which type of forum they are on:

If the forum is intended to be used by a particular language, use the 3-letter standard language code (ISO 639-2) in the subdomain name: e.g.

```
https://sometopic-fra.atomjump.com/
```

If the forum is intended to be used in a particular country, use the 2-letter country code (ISO 3166-1 A-2) in the subdomain name, e.g.

```
https://sometopic-nz.atomjump.com/
```

would be for a New Zealand-based discussion group (nz).

If there is both a country and a language for the forum, you can append them e.g.

```
https://sometopic-nz-fra.atomjump.com/
```

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Further information

http://atomjump.org
https://atomjump.com