



FAMIUM Personal Cloud

Contact

André Paul
Competence Center FAME
Phone +49 30 3463-7336
andre.paul@fokus.fraunhofer.de

Fraunhofer FOKUS
Kaiserin-Augusta-Allee 31
10589 Berlin
Germany

www.fokus.fraunhofer.de/go/famium

What is FAMIUM?

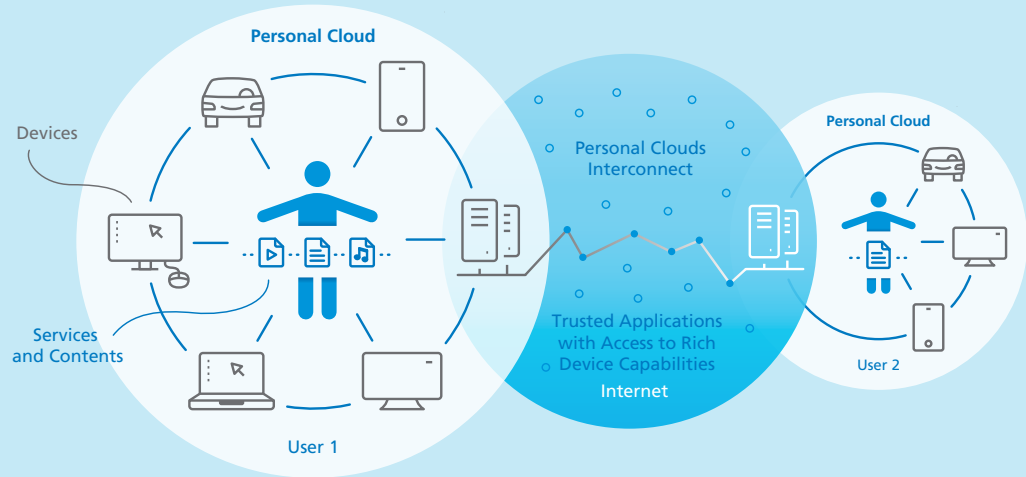
FAMIUM is an end-to-end prototype implementation for early technology evaluation and interoperability testing developed by Fraunhofer FOKUS' Competence Center Future Applications and Media (FAME). FAMIUM facilitates multi-screen content presentation and synchronization, adaptive media streaming and content protection.

FAMIUM includes a Chromium build with extended features of upcoming Web and streaming standards to allow early prototyping, experimentation and testing. These for example include W3C Presentation API, DIAL, Network service discovery, UPnP / DLNA, W3C TunerControl API, W3C Media Source Extensions (MSE) and Encrypted Media Extensions (EME). Furthermore, FAMIUM supports Dynamic Adaptive Streaming over HTTP (DASH) and Digital Rights Management (DRM).

FAMIUM Personal Cloud

The FAMIUM Personal Cloud is an overlay network for all your personal devices. It permanently connects your smartphone, your laptop and your TV and even your car in a secure way with each other. Personal Cloud applications can then access data and features from all connected devices.

By defining a new networking paradigm, we allow devices to find each other and discover each other services, no matter how they are connected and who owns them. Device capabilities are exposed as JavaScript APIs to web developers. Additionally, FAMIUM Personal Cloud is easy to extend with custom and future JavaScript APIs. A security model ensures that access to this rich capability is secure and remains under the control of the end user.



The FAMIUM Personal Cloud is well defined and highly extensible, meaning that for instance applications to share media and services, remote control TV playback, controlling TV rendered 3D games using phone gestures and movement, doing cross device advertising or multi-screen interactive apps, can all use the same framework.

Benefits

- The Personal Cloud is easy to use and integrate through established web technologies
- From a single device you can use and share device features offered by any of your devices
- Devices stay connected independent of their location
- No need to connect your devices for each application again and again - once devices are part of the Personal Cloud applications can start using other devices
- A single application paradigm for all devices
- Caters to extensibility

Features & Assets

- Applications use remote device features as local services
- Personal Clouds can be interconnected with each other for multi-user scenarios
- Provides service discovery to applications via JavaScript interfaces
- Easy device and service configuration for the user
- Enables secure device resource sharing over encrypted communication channels
- Supports a wide range of topics: Home entertainment/TV, Smart Home/IoT/embedded devices, Car infotainment/entertainment
- Fine-grained policy system for accessing device features

Key Technologies & Standards

- JavaScript
- W3C Web Notifications API
- W3C Widget Interface
- XACML
- UPnP/DLNA
- DIAL (Discovery and Launch)

At a glance

FAMIUM Personal Cloud allows you to connect all your personal devices, so you can access features and data from one device on the other.

Supported devices include smartphones, laptops, desktops, TVs, embedded and even cars.

Our solutions – what we offer

We are open to customizing or extending the FAMIUM Personal Cloud for your needs and use cases. You want to bring FAMIUM to your TV platform? You want to create an extensive smart home application that covers a wide range of supported devices? Or you are interested in training or tutorials of a multi-device platform? FAMIUM Personal Cloud has the right answer.