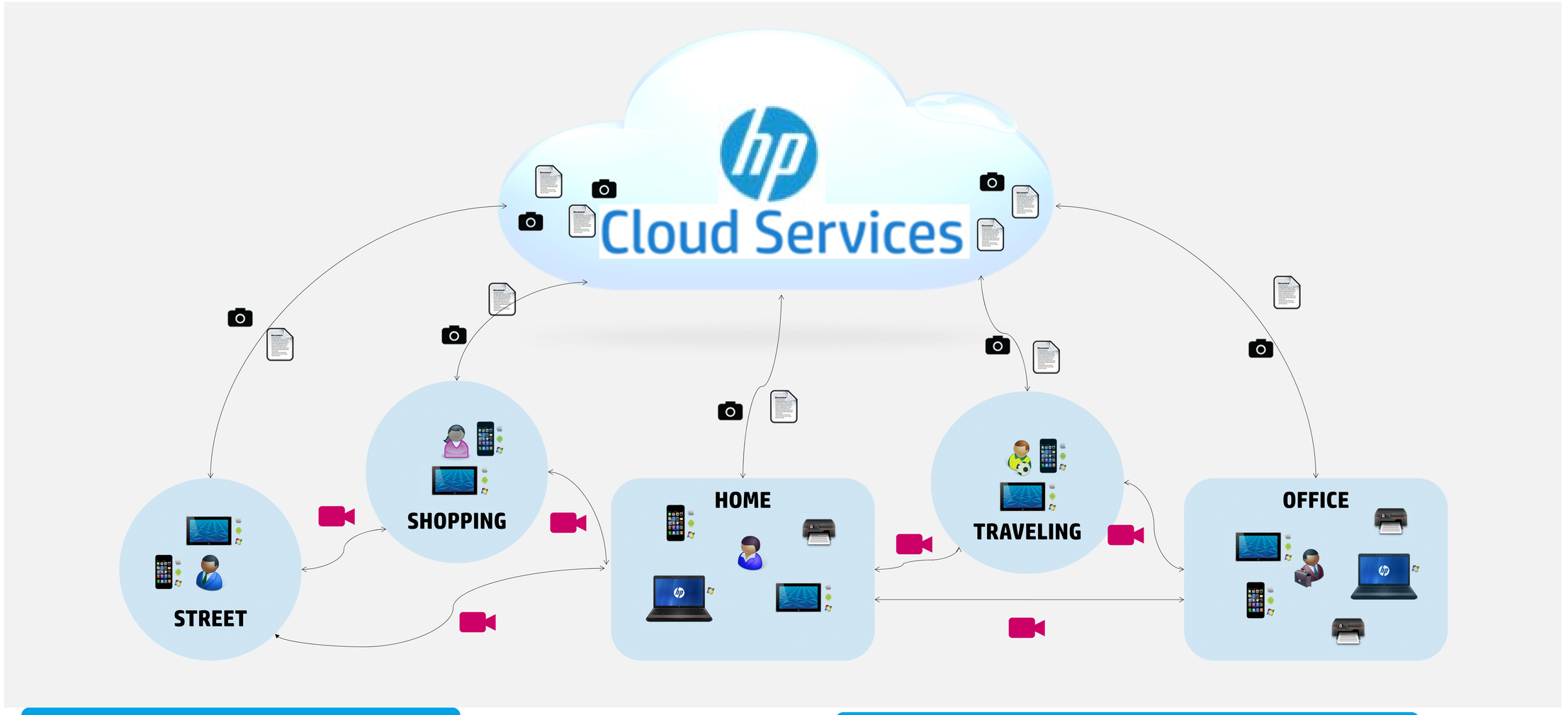
HP BETTER TOGETHER FRAMEWORK



Opportunity

Users interact with a diverse set of devices during the day. While each device works well independently, they do not work well together. BTF seizes the opportunity for HP to fill this gap with a multi-platform solution that seamlessly integrates the 3rd party devices the users may have with HP’s own devices, creating a halo effect around our brand.

Project Vision

- Simplify the content access from anywhere and from any device;
- Diversity of use: share content, contacts, and objects;
- Multi-platform – Android, iOS, Windows (and potentially others);
- The framework may be reused to develop similar solutions;
- It provides a software platform and services to integrate devices and its contents;
- Allows applications to stream audio and video between devices, locally and over the Internet.

Critical Success Factors

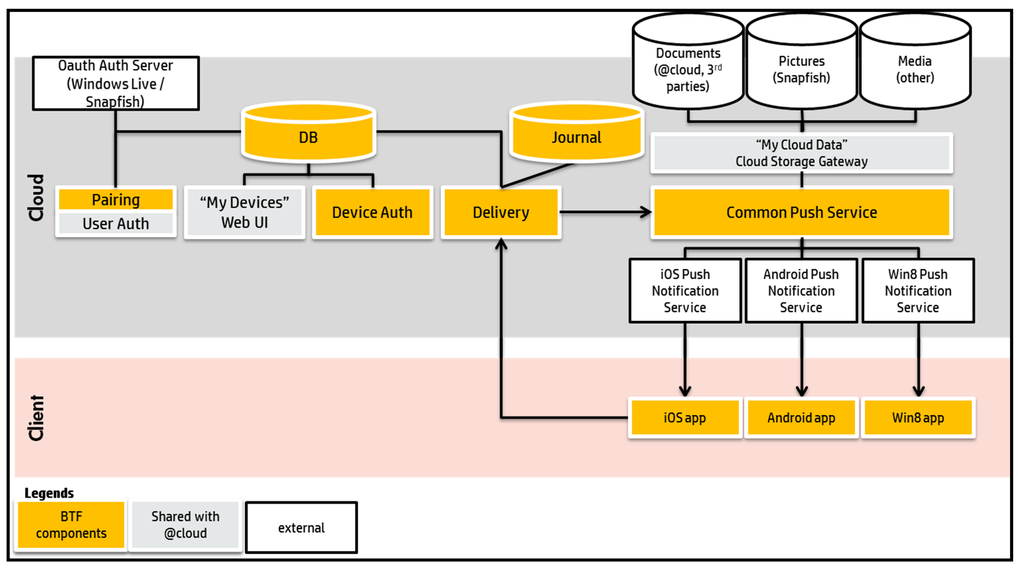
- **Pairing >>**Devices from the same user know and trust each other;
- **Presence/Location >>** Devices quickly and easily find each other;
- **Synchronization >>** Content propagates among devices subject to user configuration;
- **Media Streaming (P2P) >>** Audio & Video streamming;

Key Technologies

	LOCAL	REMOTE (over SSL)
Authentication and Pairing	OAuth, DevID	OAuth, DevID
Presence/Location	SSDP, mDNS	Cloud Services, Push Notifications
Content Synchronization	Sockets, UPnP/DLNA, Cloud Services	Cloud Services, Push Notifications, Cloud storage
Media Streaming	UPnP/DLNA, Bonjour	WebRTC, libjingle

Already in use Under evaluation

Solution Architecture



Achievements

- Users can securely register their devices with the solution;
- Devices see other devices from the same user (paired devices);
- Photos and documents are manually or automatically propagated to paired devices, or stored on @Cloud;
- Prints documents and photos via ePrint PPL, or a printer connected to another paired device;
- A device can request phone calls through a paired smartphone;
- A video (or any) URL can be shared with one or more paired devices;

Next Steps

- Finalize implementation of the functional requirements, security, performance, scalability and integration with HP @Cloud;
- Run an internal trial with mobile devices in the hands of participants to be selected by the sponsor, and cloud services hosted on HP Cloud;
- Transition the project to the PCBU for productization;

About the Program

- **Research and Development Team**
  - Leonardo Pilatti, PIT Manager
  - Ricardo Moreira, Project Manager
  - Roque Scheer, Solution Arquitect
  - + 11 Developers and Test Engineers

Sponsors

Carlos Montalvo, PCBU VP

Soma Santhiveeran, PCBU Sponsor