

# Subscription-Less Web Push Framework

## draft-chiussi-webpush-subscription-less-framework-00

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# Purpose of the Draft

Spark discussion in the WG on the applicability of different “flavors” of Web Push, based on different notions of subscription:

- There are a number of important application use cases in dire need of a lightweight, ubiquitous mechanism for pushing something to the UE
- Could we think of Web Push as a way to support those use cases?

# Subscription-Less Web Push

- Current Web Push hinges on the notion of the UA explicitly creating a subscription to the Push Service
- This is for very good reasons:
  - Privacy
  - Intrusiveness
  - Avoiding “Anarchy”
  - ...
- However, there are a number of use cases where there could be good reasons for somewhat relaxing these constraints
- In those situations, could we conceive a “subscription-less” (or perhaps a “subscription-loose”) form of Web Push?
  - Still reasonable?
- Not all implications and aspects of subscription have been fully fleshed out
  - Discovery, management, ...

# Use Cases – 1 and 2

- Use Case 1: Waking up dormant UEs
  - There is a strong need for a lightweight mechanism to ping and wake up a UE involving only the browser
    - E.g., small cells, tracking dormant UE without paging, waking up just for presence, etc.
  - A wide class of services would benefit from such a mechanism
  - The UA may be subscribed to applications other than tracking, or not be subscribed to anything
- Local Alarms or Urgent Notifications
  - In a hyper-local service (e.g., smart building or smart venue), how to send local alarms and urgent notifications
    - E.g., amber alerts, emergencies, crowd management, missing person, etc.
  - User may be willing to trade some privacy, given the value of the service or the information
  - For maximizing coverage, explicit subscription should not be required

# Use Cases – 3 and 4

- Relaxed user privacy expectations
  - E.g., venue where a provider “owns” connectivity (e.g., captive portal) and the user “expects” a relationship with that provider
  - Subscription to some applications could be implicit as the UE connects to the network
  - UA could create local “limited subscriptions” allowing a controlled volume of push messages
- Cross-application volume control
  - With current subscription model, regulating global push volume to a UA and policing individual application push may be problematic
  - Users are sensitive to global push volume
  - “Fairness” to applications must be achieved. What is fairness in this case?

# What is Reasonable?

- Define location-dependent subscription models
  - In well-defined areas, Web Push subscriptions can operate “differently”
- Define Web Push message types with associated Push Authorities that do not always require explicit subscriptions
  - e,.g., wake up message type, with regulated frequency
  - Regulation on subscription-less volume over given periods of time and frequency
  - Define implicit subscriptions in conjunction with a Push “watchdog”
- Define a Push Authority in charge of regulating global volume to individual UAs and policing applications
- Combinations of all the above?

# Next Steps

- Spearhead discussion on these topics
- Gather feedback
- Work on “regulated subscription-less” framework for well-defined use cases