

# Networked Alarm



Application

Service

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Waking the User Using Dimmer Lights and Music & Adjusting Alarm Activation Time Through Traffic Updates and Calendar Events

HomeOS

Platform

Windows Phone 7

What is HomeOS?

HomeOS is the operating system developed by Microsoft Research that allows for a centralized control of the devices in the home.

How do we use it for our alarm?

HomeOS does the actual storing of alarms and settings for our application, as well as adjustments to the alarms based on user-specified constraints. The methods of alarm execution are also carried out within HomeOS.



Main Menu | Alarm Setting Screen | Settings Screen

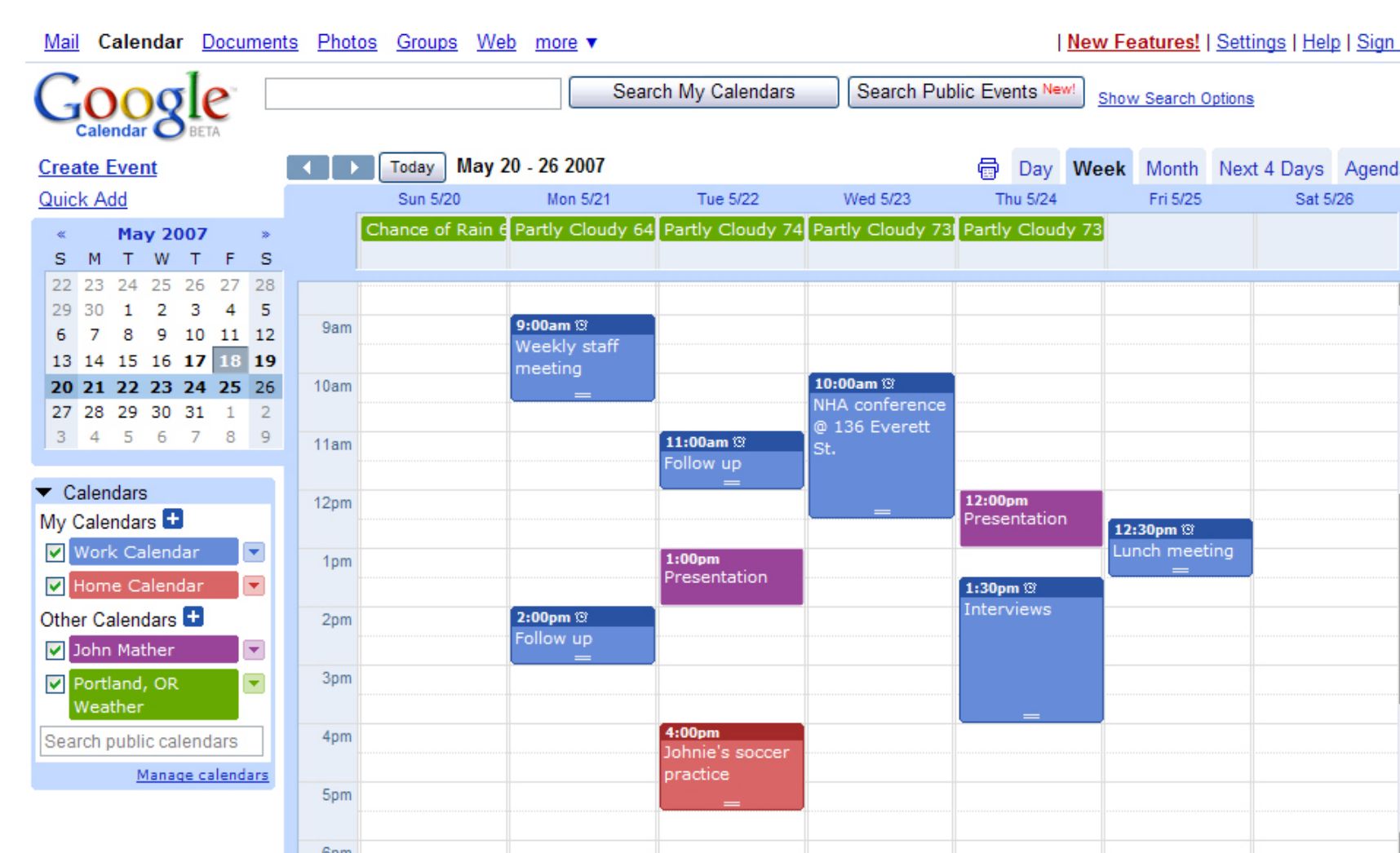
How do we use it for our alarm?

The Windows Phone 7 is the user interface for our alarm. Through it, the user can set an alarm time. In future expansions, users will be linked to current traffic conditions and their calendars so that they can visually confirm an appropriately adjusted alarm time.

## Time Management

Google Calendar Integration

If the alarm the user sets is for a time that occurs after the first event in his or her calendar for that day, the alarm can automatically wake the user up earlier.



Dimming Lights

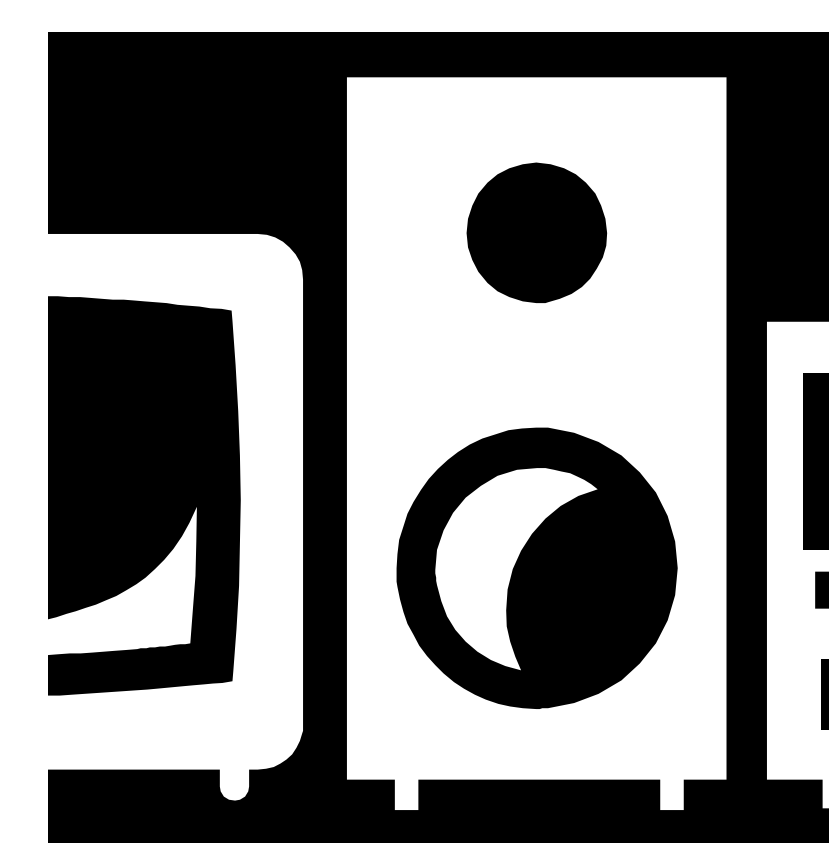
In order to wake the user up gradually, zwave dimmer lights can be utilized to slowly bring up the brightness of a light in the room. If the user needs a slightly more bothersome alarm, the lights can be flashed on and off to get his or her attention.

Traffic Conditions

From the user's origin and destination, the alarm can use WSDOT's real time traffic updates to figure commute time into adjusting itself to go off earlier.

Seattle Area Travel Times

State Route/Interstate	Route Description	Distance (miles)	Average Travel Time (minutes)	Current Travel Time (minutes)	Via HOV (min.)
520	Auburn to Renton	9.8	10	10	10
405	Bellevue to Bothell	9.7	10	10	10
405/5	Bellevue to Everett	26.1	26	26	27
405/5	Bellevue to Federal Way	24.6	25	25	25
405/30	Bellevue to Issaquah	9.6	9	10	10
405	Bellevue to Lynnwood	14.9	15	15	15
405/252	Bellevue to Redmond	6.0	8	7	7
405	Bellevue to Renton	11.2	11	11	11
405/30	Bellevue to Seattle	10.6	11	12	12



Playing Music

Like a modern alarm application, music can be played to awake the user. Future applications may allow a choice of song, or even allow HomeOS to access the user's sound system to play the alarm music.