

Senior Project - Waldo

Dynamic Call Handling Solution

Senior Project: 2010-2011

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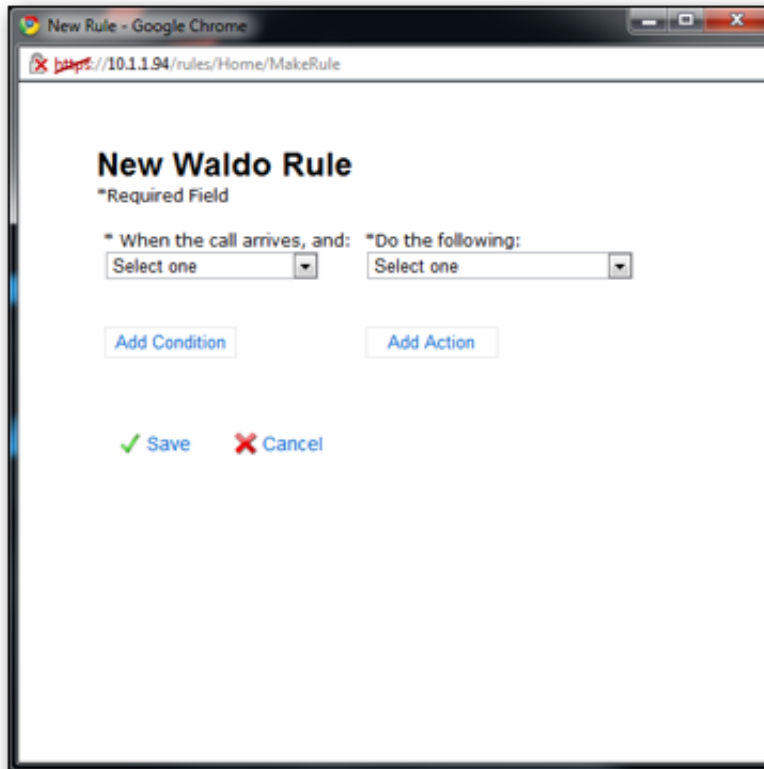
[Gold Systems, Inc.](#)

Boulder, CO

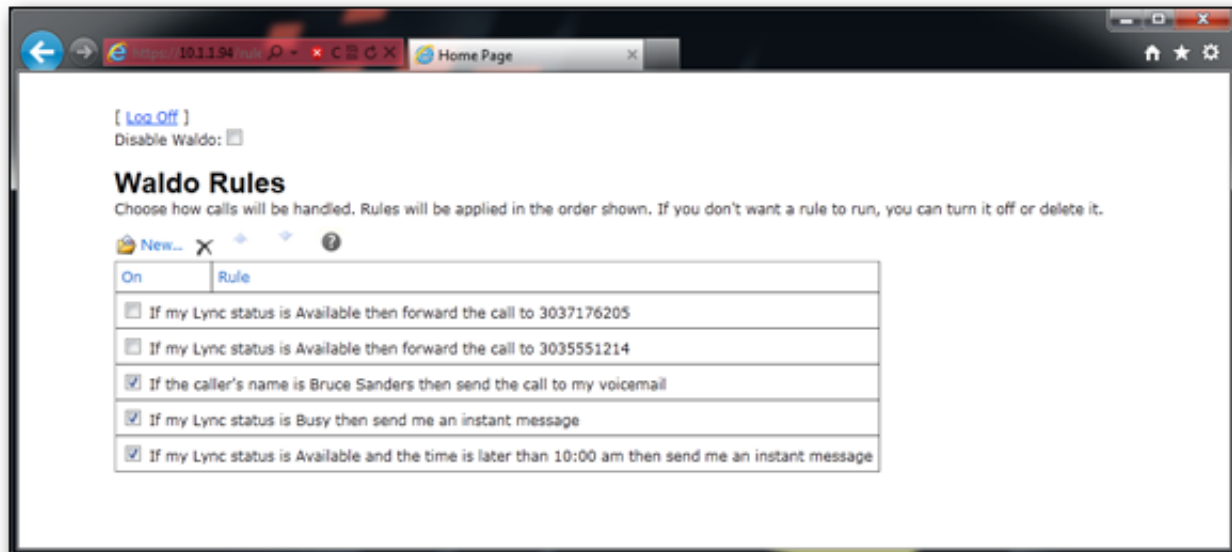
While there have been huge strides recently in telephone technology with the rise of smart phones, the basic functionality of the telephone has not changed. A phone will ring for a certain time and then transfer to voicemail or just transfer directly to voicemail if a cell phone doesn't have service. The problem with this approach is that there is available data that could be used to route the call in a more intelligent manner. The data available includes information about the caller, the time of day, and the callee's availability set via Microsoft's Lync communication client. Gold Systems works closely with Lync and wanted their phone system to be more integrated with Lync so each user has a customizable digital personal assistant to manage their incoming calls.

Waldo is a dynamic call handling solution that allows users to take advantage of their available user data. Users can create conditions using this data and then set up actions that describe how they would like to route incoming calls. These conditions and actions make up a series of rules which can filter incoming calls, much like email filters. Users can create these rules via a web application that resembles Outlook Web Application. Calls can either be forwarded to a phone, forwarded to voicemail or Waldo can query a user with an instant message. The instant message can be used to decide in real time how the user wants to handle the incoming call and also allows for text to speech communication back to the caller.

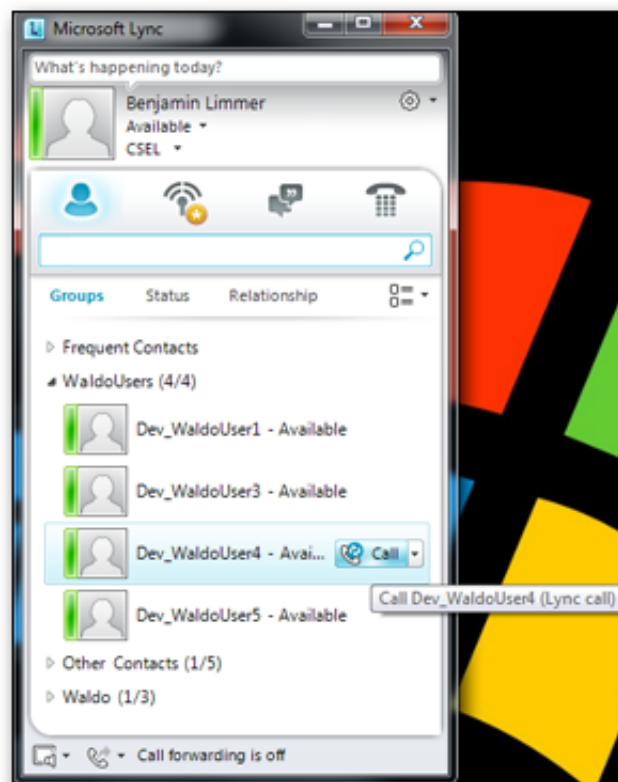
Video:   [Dynamic Call Handling Solution](#)



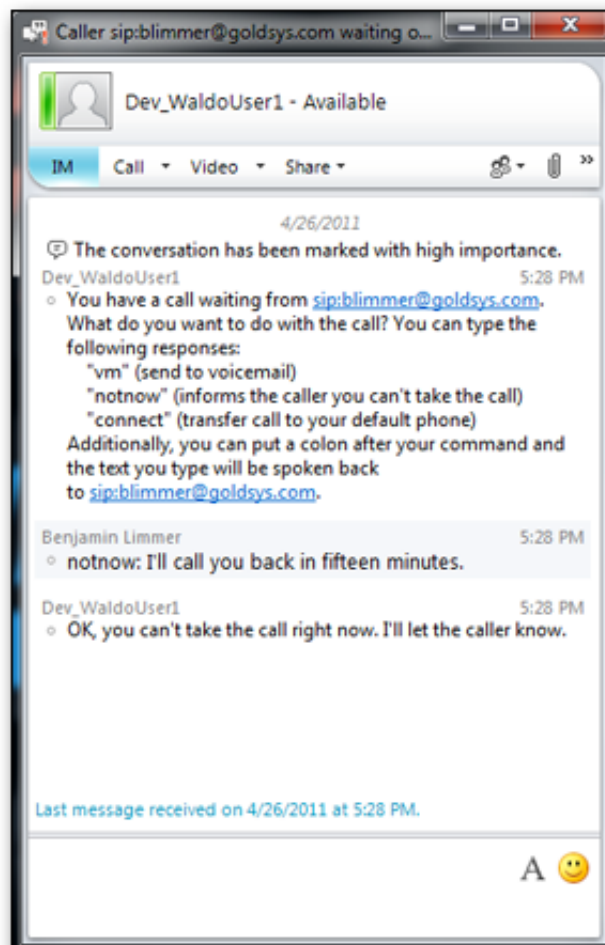
Creating a New Rule



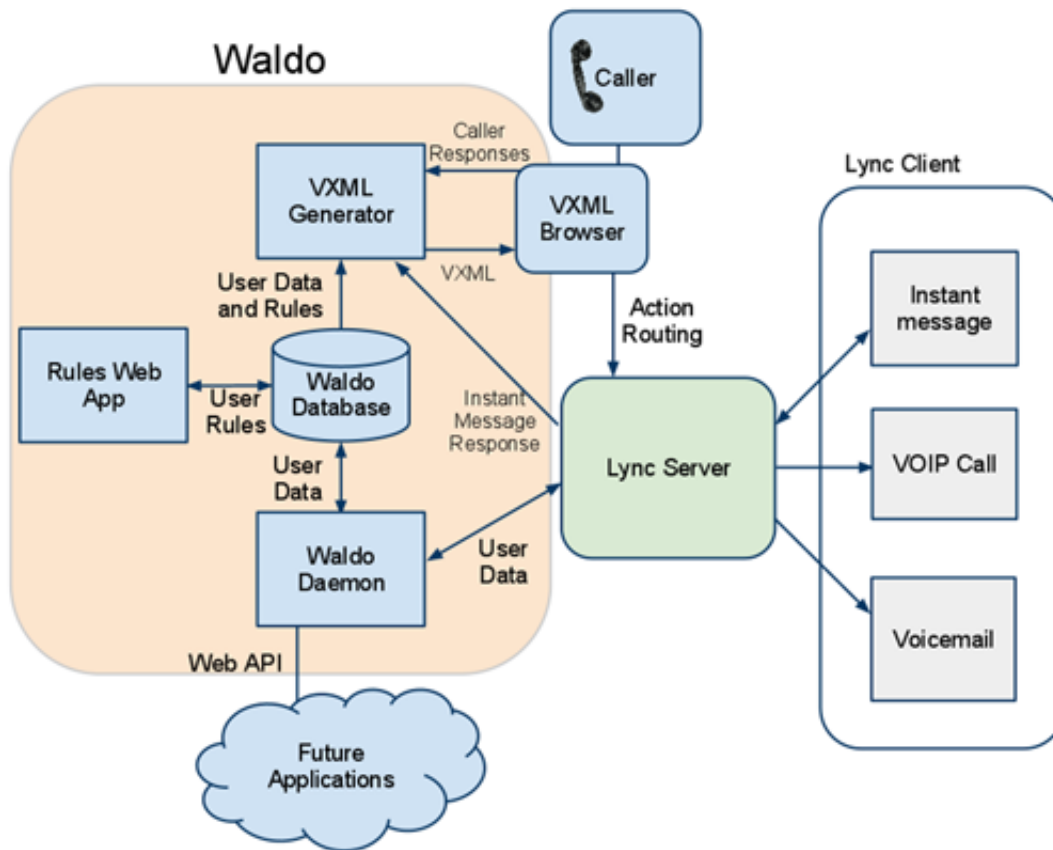
Waldo Rules



Lync Availability



Instant Messaging



Architecture