

Business Use Case: ActivityStreams delivering content for required action based on an automatically triggered event.

## 1. Use Case Identification -

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|---------------|----------|
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| Version       | 1.0      |

## 2. Actors

Primary Actor: Developer

Secondary Actor: Tester

## 3. Definitions

**Developer** - A person responsible for running continuous integration builds of a software product.

**Tester** - A person responsible for verification of a software product's functions.

**Source Control/Build System** – A software system that supports a software repository capability and a compilation/build mechanism that packages software for installation.

**Test System** – A software system capable of deploying, executing and collected automated test results. The test system can be a separate system known as a test harness, or can be a set of software programs built and installed with the product build. The actual form a system takes is not important for this use case.

**ActivityStream** – An ActivityStream is a list of recent activities generated around a particular work task or artifact or process. Each activity in an ActivityStream is represented in a standard JSON (or any mark up language) format.

**OpenSocial Gadget/Embedded Experience** – a user interface component that provides a small, granular view of a particular aspect of an application. The gadget can be embedded within an activity in an ActivityStream to create an embedded experience.

## 4. Background & Business Goals

Notify a test team member, or an entire test team, to begin verification of a product software build that has been deployed into a test cloud and verified with basic automated tests. Notification occurs via an automated post of an activity containing an embedded experience to an ActivityStream.

## 5. Concept of Operations

### 5.1. Current Service or Solution

A test team member is notified via e-mail, or by instant messaging or by watching a build/test system console that testing on an application is complete.

## 5.2. *Desired Social Business Implementation*

Notification to begin verification of a deployed production build is received via ActivityStream and the activity is marked as “required” action. The activity contains an embedded experience which shows the results of the automated test runs and permits actions like querying the test system, the cloud system under test or the test case repository for more information, as necessary.

### 5.2.1 Benefits

Instant Messaging solutions do not lend themselves to this particular scenario because the activity sent to the tester’s ActivityStream is automated. The test automation system generates the activity when the test run is complete. The use of instant messaging implies manual intervention and makes the inclusion of contextual data about how the automated tests ran difficult to include.

Events could be published to a tester using other event technology such as RSS, Atom or even MQTT. However, the ActivityStream format is currently the best-fit format for distributing activities that contain embedded experience gadgets, which are fully functional read/write mini-applications in context to the activity.

Atom publishing technology, by itself, lacks the ability to express much of the activity-specific metadata in a machine-parsed format for user activities. With extensions specified in <http://activitystrea.ms/specs/atom/1.0/>, Atom technology can be used to publish events to a stream.

The rich metadata present in an ActivityStream-compliant stream makes more data available and a richer ecosystem of supporting software exists that could take advantage of it.

ActivityStream information can be stored and processed via analytics if necessary for additional insights into activities and solutions taking place in the organization.

## 6. Social Business Standards

ActivityStreams,

OpenSocial Gadgets/Embedded Experiences

OAuth 2

### 6.1. *Standards Gaps*

For ActivityStreams:

There needs to be a way to articulate the priority and “required status” of an activity when it is posted to a stream.

## 7. Architecture Overview Diagram



