

# Asynchronous Servlets AJAX / Comet

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# Async Servlets

- Allow better AJAX long polling
- Servlet can return request thread
  - But the HTTP request is not finished
  - Servlet gives away AsyncContext
  - AsyncContext still holds original request & response
  - Request & response can later be used & committed
    - e.g. When
      - JMS message arrives
      - Web Service invokeAsync() finishes
    - DO NOT start a new Thread for long running task
      - Bloody stupid resource wasting

# Async Servlet Example

```
@WebServlet(urlPatterns = "/check-messages",
            asyncSupported = true)
public class CheckMessagesServlet extends
            HttpServlet {
    @EJB
    AjaxChatListeners chatListeners;

    protected void doGet(request, response) {
        AsyncContext asyncContext =
            request.startAsync(request, response);
        chatListeners.addListener(asyncContext);
    }
}
```

**@Singleton**

```
public class AjaxChatListeners {

    List<AsyncContext> list =
        new LinkedList<AsyncContext>();

    public void addListener(AsyncContext asyncContext) {
        listeners.add(asyncContext);
    }

    public void fireMessageFromJMS(String message) {
        Iterator<AsyncContext> iterator = list.iterator();
        while (iterator.hasNext()) {
            AsyncContext listener = iterator.next();
            PrintWriter writer = listener
                .getResponse().getWriter();
            writer.println(message);
            writer.close();
            listener.complete();
            iterator.remove();
        }
    }
}
```

