```
2014-06-10 10:43:30 -0700
LtiMessage: Request Tool Registration
LaunchUrl: http://localhost:5000/lti2_tp/registrations
<div id="ltiLaunchFormSubmitArea">
  <form action="http://localhost:5000/lti2_tp/registrations"
    name="ltiLaunchForm" id="ltiLaunchForm" method="post"
    encType="application/x-www-form-urlencoded">
      <input type="hidden" name="lti_message_type" value="ToolProxyRegistrationRequest"/>
      <input type="hidden" name="lti_version" value="LTI-2p0"/>
      <input type="hidden" name="user_id" value="2"/>
      <input type="hidden" name="roles" value="urn:lti:sysrole:ims/lis/SysAdmin"/>
      <input type="hidden" name="tc_profile_url" value="http://localhost:4000/lti2_tc/tool_consumer_profiles/a259be60-d2f4-0131-6e78-20c9d07c6451"/>
      <input type="hidden" name="reg_key" value="a259b730-d2f4-0131-6e78-20c9d07c6451"/>
      <input type="hidden" name="reg_password" value="932b1f69ae05d4cca4705e4aaafe3544"/>
      <input type="hidden" name="launch_presentation_return_url" value="http://localhost:4000/admin/tool_actions"/>
      <input type="hidden" name="launch_presentation_document_target" value="window"/>

</form>
</div>
<script language="javascript">
  document.ltiLaunchForm.submit();
</script>
```

```
2014-06-10 10:43:37 -0700
LtiService: Register ToolProxy with ToolConsumer
POST http://localhost:4000/lti2_tc/tools
Headers:
Authorization: OAuth oauth_consumer_key="a259b730-d2f4-0131-6e78-20c9d07c6451", oauth_nonce="8932107465
Content-Type: application/vnd.ims.lti.v2.toolproxy+json
Content-Length: 5374
X-IMS-EndRegistration-ID: aceea2d0-d2f4-0131-6e5f-20c9d07c6451
Body:
{"@context":["http://purl.imsglobal.org/ctx/lti/v2/ToolProxy"],"@type":"ToolProxy","@id":"ToolProxyProp
```

```
2014-06-10 10:43:47 -0700
Response: Register ToolProxy with ToolConsumer
Status: 201 Created
Headers:
content-type: application/vnd.ims.lti.v2.toolproxy.id+json; charset=utf-8
content-length: 213
{
  "@context": "http://purl.imsglobal.org/ctx/lti/v2/ToolProxyId",
  "@type": "ToolProxy",
  "@id": "http://localhost:4000/tools/acf93780-d2f4-0131-6e78-20c9d07c6451",
  "tool_proxy_guid": "acf93780-d2f4-0131-6e78-20c9d07c6451"
}
```

```
2014-06-10 10:44:37 -0700
LtiMessage: Lti Launch
LaunchUrl: http://localhost:5000/echoes
<div id="ltiLaunchFormSubmitArea">
  <form action="http://localhost:5000/echoes" target="_blank"
    name="ltiLaunchForm" id="ltiLaunchForm" method="post"
    encType="application/x-www-form-urlencoded">
      <input type="hidden" name="lti_version" value="LTI-2p0"/>
      <input type="hidden" name="lti_message_type" value="basic-lti-launch-request"/>
      <input type="hidden" name="resource_link_id" value="329"/>
      <input type="hidden" name="user_id" value="2"/>
      <input type="hidden" name="roles" value="Administrator"/>
      <input type="hidden" name="launch_presentation_return_url" value="http://localhost:4000/admin/course_page?method=show&course_id=5"/>
      <input type="hidden" name="launch_presentation_document_target" value="window"/>
      <input type="hidden" name="context_id" value="5"/>
      <input type="hidden" name="launch_presentation_locale" value="en_US"/>
      <input type="hidden" name="context_label" value="DPE001"/>
      <input type="hidden" name="context_title" value="Design of Personal Environments 1"/>
      <input type="hidden" name="lis_course_section_sourcedid" value="5"/>
      <input type="hidden" name="tool_consumer_info_product_family_code" value="LuMoS"/>
      <input type="hidden" name="tool_consumer_info_version" value="3.1"/>
      <input type="hidden" name="custom_referrer" value="Narcissus"/>
      <input type="hidden" name="custom_pi" value="3.14159"/>
      <input type="hidden" name="custom_user_primary_email" value="admin@lumos.org"/>
      <input type="hidden" name="custom_discipline" value="DPE001"/>
      <input type="hidden" name="oauth_consumer_key" value="acf93780-d2f4-0131-6e78-20c9d07c6451"/>
      <input type="hidden" name="oauth_nonce" value="1471584111882"/>
      <input type="hidden" name="oauth_signature_method" value="HMAC-SHA1"/>
      <input type="hidden" name="oauth_timestamp" value="1402422277"/>
      <input type="hidden" name="oauth_version" value="1.0"/>
      <input type="hidden" name="oauth_callback" value="about:blank"/>
      <input type="hidden" name="oauth_signature" value="5DELQScmp4DVm/x0EN3TwF7TCOg="/>

      <a href="/admin/launches" target="_self">Return to Admin</a>

</form>
</div>
```

```
<script language="javascript">
  document.ltiLaunchForm.submit();
</script>



2014-06-10 10:44:51 -0700
LtiMessage: Reregister Tool
LaunchUrl: http://localhost:5000/lti2_tp/reregistrations
<div id="ltiLaunchFormSubmitArea">
  <form action="http://localhost:5000/lti2_tp/reregistrations"
    name="ltiLaunchForm" id="ltiLaunchForm" method="post"
    encType="application/x-www-form-urlencoded">
      <input type="hidden" name="tc_profile_url" value="http://localhost:4000/lti2_tc/tool_consumer_profiles/d91cf8f0-d2f4-0131-6e78-20c9d07c6451"/>
      <input type="hidden" name="launch_presentation_return_url" value="http://localhost:4000/admin/tool_actions"/>
      <input type="hidden" name="lti_message_type" value="ToolProxyReregistrationRequest"/>
      <input type="hidden" name="oauth_consumer_key" value="acf93780-d2f4-0131-6e78-20c9d07c6451"/>
      <input type="hidden" name="oauth_nonce" value="2915546831391"/>
      <input type="hidden" name="oauth_signature_method" value="HMAC-SHA1"/>
      <input type="hidden" name="oauth_timestamp" value="1402422291"/>
      <input type="hidden" name="oauth_version" value="1.0"/>
      <input type="hidden" name="oauth_callback" value="about:blank"/>
      <input type="hidden" name="oauth_signature" value="FzzJtNlTw9AvhlRMH5vqFGv3MIU="/>

</form>
</div>
<script language="javascript">
  document.ltiLaunchForm.submit();
</script>
```

```
                                    2014-06-10 10:44:54 -0700
                                    LtiService: ReRegister ToolProxy with ToolConsumer
                                    POST http://localhost:4000/lti2_tc/tools
                                    Headers:
                                    Authorization: OAuth oauth_consumer_key="acf93780-d2f4-0131-6e78-20c9d07c6451", oauth_nonce="7950076576
                                    Content-Type: application/vnd.ims.lti.v2.toolproxy+json
                                    Content-Length: 5376
                                    X-IMS-EndRegistration-ID: da9d0ec0-d2f4-0131-6e5f-20c9d07c6451
                                    Body:
                                    {"@context":["http://purl.imsglobal.org/ctx/lti/v2/ToolProxy"],"@type":"ToolProxy","@id":"ToolProxyProp
```

```
2014-06-10 10:45:03 -0700
Response: ReRegister ToolProxy with ToolConsumer
Status: 201 Created
Headers:
content-type: text/html; charset=utf-8
content-length: 1
```

```
2014-06-10 10:45:44 -0700
LtiMessage: Lti Launch
LaunchUrl: http://localhost:5000/echoes
<div id="ltiLaunchFormSubmitArea">
  <form action="http://localhost:5000/echoes" target="_blank"
    name="ltiLaunchForm" id="ltiLaunchForm" method="post"
    encType="application/x-www-form-urlencoded">
      <input type="hidden" name="lti_version" value="LTI-2p0"/>
      <input type="hidden" name="lti_message_type" value="basic-lti-launch-request"/>
      <input type="hidden" name="resource_link_id" value="329"/>
      <input type="hidden" name="user_id" value="2"/>
      <input type="hidden" name="roles" value="Administrator"/>
      <input type="hidden" name="launch_presentation_return_url" value="http://localhost:4000/admin/course_page?method=show&course_id=5"/>
      <input type="hidden" name="launch_presentation_document_target" value="window"/>
      <input type="hidden" name="context_id" value="5"/>
      <input type="hidden" name="launch_presentation_locale" value="en_US"/>
      <input type="hidden" name="context_label" value="DPE001"/>
      <input type="hidden" name="context_title" value="Design of Personal Environments 1"/>
      <input type="hidden" name="lis_course_section_sourcedid" value="5"/>
      <input type="hidden" name="tool_consumer_info_product_family_code" value="LuMoS"/>
      <input type="hidden" name="tool_consumer_info_version" value="3.1"/>
      <input type="hidden" name="custom_referrer" value="Narcissus"/>
      <input type="hidden" name="custom_pi" value="3.14159"/>
      <input type="hidden" name="custom_user_primary_email" value="admin@lumos.org"/>
      <input type="hidden" name="custom_discipline" value="DPE001"/>
      <input type="hidden" name="oauth_consumer_key" value="acf93780-d2f4-0131-6e78-20c9d07c6451"/>
      <input type="hidden" name="oauth_nonce" value="9808082784025"/>
      <input type="hidden" name="oauth_signature_method" value="HMAC-SHA1"/>
      <input type="hidden" name="oauth_timestamp" value="1402422344"/>
      <input type="hidden" name="oauth_version" value="1.0"/>
      <input type="hidden" name="oauth_callback" value="about:blank"/>
      <input type="hidden" name="oauth_signature" value="0XMf/u76D0eyeCpNhUmsaGa852o="/>

      <a href="/admin/launches" target="_self">Return to Admin</a>

</form>
```

```
</div>
<script language="javascript">
  document.ltiLaunchForm.submit();
</script>


2014-06-10 10:46:12 -0700
LtiService: EndRegistration ToolProxy
POST http://localhost:5100/lti2_tp/end_registration
Headers:
Authorization: OAuth oauth_consumer_key="acf93780-d2f4-0131-6e78-20c9d07c6451", oauth_nonce="5745439386174", oauth_signature_method="HMAC-SHA1", oa
Content-Type: application/vnd.ims.lti.v2.toolproxy+json
Content-Length: 236
X-IMS-EndRegistration-ID: da9d0ec0-d2f4-0131-6e5f-20c9d07c6451
Body:
{"@context":"http://purl.imsglobal.org/ctx/lti/v2/ToolProxyId","@type":"ToolProxy","@id":"http://localhost:4000/tools/acf93780-d2f4-0131-6e78-20c9d
```

```
                                         2014-06-10 10:46:12 -0700
                                         Response: EndRegistration ToolProxy
                                         Status: 201 Created
                                         Headers:
                                         content-type: application/vnd.ims.lti.v2.toolproxy.id+json; charset=utf-8
                                         content-length: 236
                                         {
                                           "@context": "http://purl.imsglobal.org/ctx/lti/v2/ToolProxyId",
                                           "@type": "ToolProxy",
                                           "@id": "http://localhost:4000/tools/acf93780-d2f4-0131-6e78-20c9d07c6451",
                                           "tool_proxy_guid": "acf93780-d2f4-0131-6e78-20c9d07c6451",
                                           "disposition": "commit"
                                         }
```

```
2014-06-10 10:46:29 -0700
LtiMessage: Lti Launch
LaunchUrl: http://localhost:5000/echoes
<div id="ltiLaunchFormSubmitArea">
  <form action="http://localhost:5000/echoes" target="_blank"
    name="ltiLaunchForm" id="ltiLaunchForm" method="post"
    encType="application/x-www-form-urlencoded">
      <input type="hidden" name="lti_version" value="LTI-2p0"/>
      <input type="hidden" name="lti_message_type" value="basic-lti-launch-request"/>
      <input type="hidden" name="resource_link_id" value="329"/>
      <input type="hidden" name="user_id" value="2"/>
      <input type="hidden" name="roles" value="Administrator"/>
      <input type="hidden" name="launch_presentation_return_url" value="http://localhost:4000/admin/course_page?method=show&course_id=5"/>
      <input type="hidden" name="launch_presentation_document_target" value="window"/>
      <input type="hidden" name="context_id" value="5"/>
      <input type="hidden" name="launch_presentation_locale" value="en_US"/>
      <input type="hidden" name="context_label" value="DPE001"/>
      <input type="hidden" name="context_title" value="Design of Personal Environments 1"/>
      <input type="hidden" name="lis_course_section_sourcedid" value="5"/>
      <input type="hidden" name="tool_consumer_info_product_family_code" value="LuMoS"/>
      <input type="hidden" name="tool_consumer_info_version" value="3.1"/>
      <input type="hidden" name="custom_referrer" value="Narcissus"/>
      <input type="hidden" name="custom_pi" value="3.14159"/>
      <input type="hidden" name="custom_user_primary_email" value="admin@lumos.org"/>
      <input type="hidden" name="custom_discipline" value="DPE001"/>
      <input type="hidden" name="oauth_consumer_key" value="acf93780-d2f4-0131-6e78-20c9d07c6451"/>
      <input type="hidden" name="oauth_nonce" value="5810741396457"/>
      <input type="hidden" name="oauth_signature_method" value="HMAC-SHA1"/>
      <input type="hidden" name="oauth_timestamp" value="1402422389"/>
      <input type="hidden" name="oauth_version" value="1.0"/>
      <input type="hidden" name="oauth_callback" value="about:blank"/>
      <input type="hidden" name="oauth_signature" value="sPuVUeJtG7OC9QXBFdAkwkAZbnc="/>

      <a href="/admin/launches" target="_self">Return to Admin</a>


</form>
</div>
<script language="javascript">
  document.ltiLaunchForm.submit();
</script>


2014-06-10 10:46:46 -0700
LtiMessage: Reregister Tool
LaunchUrl: http://localhost:5000/lti2_tp/reregistrations
<div id="ltiLaunchFormSubmitArea">
  <form action="http://localhost:5000/lti2_tp/reregistrations"
    name="ltiLaunchForm" id="ltiLaunchForm" method="post"
    encType="application/x-www-form-urlencoded">
      <input type="hidden" name="tc_profile_url" value="http://localhost:4000/lti2_tc/tool_consumer_profiles/1d9a8090-d2f5-0131-6e78-20c9d07c6451"/
      <input type="hidden" name="launch_presentation_return_url" value="http://localhost:4000/admin/tool_actions"/>
      <input type="hidden" name="lti_message_type" value="ToolProxyReregistrationRequest"/>
      <input type="hidden" name="oauth_consumer_key" value="acf93780-d2f4-0131-6e78-20c9d07c6451"/>
      <input type="hidden" name="oauth_nonce" value="2099230084750"/>
```

```
          <input type="hidden" name="oauth_signature_method" value="HMAC-SHA1"/>
          <input type="hidden" name="oauth_timestamp" value="1402422406"/>
          <input type="hidden" name="oauth_version" value="1.0"/>
          <input type="hidden" name="oauth_callback" value="about:blank"/>
          <input type="hidden" name="oauth_signature" value="FulobhL9sR0BKPU9Ug/J7VBnIF8="/>

  </form>
  </div>
  <script language="javascript">
    document.ltiLaunchForm.submit();
  </script>
```

```
                                  2014-06-10 10:46:48 -0700
                                  LtiService: ReRegister ToolProxy with ToolConsumer
                                  POST http://localhost:4000/lti2_tc/tools
                                  Headers:
                                  Authorization: OAuth oauth_consumer_key="acf93780-d2f4-0131-6e78-20c9d07c6451", oauth_nonce="5764528042
                                  Content-Type: application/vnd.ims.lti.v2.toolproxy+json
                                  Content-Length: 5376
                                  X-IMS-EndRegistration-ID: 1eb2ec30-d2f5-0131-6e5f-20c9d07c6451
                                  Body:
                                  {"@context":["http://purl.imsglobal.org/ctx/lti/v2/ToolProxy"],"@type":"ToolProxy","@id":"ToolProxyProp
```

```
2014-06-10 10:46:58 -0700
Response: ReRegister ToolProxy with ToolConsumer
Status: 201 Created
Headers:
content-type: text/html; charset=utf-8
content-length: 1
```

```
2014-06-10 10:47:04 -0700
LtiMessage: Reregister Tool
LaunchUrl: http://localhost:5000/lti2_tp/reregistrations
<div id="ltiLaunchFormSubmitArea">
  <form action="http://localhost:5000/lti2_tp/reregistrations"
    name="ltiLaunchForm" id="ltiLaunchForm" method="post"
    encType="application/x-www-form-urlencoded">
      <input type="hidden" name="tc_profile_url" value="http://localhost:4000/lti2_tc/tool_consumer_profiles/281fd010-d2f5-0131-6e78-20c9d07c6451"/
      <input type="hidden" name="launch_presentation_return_url" value="http://localhost:4000/admin/tool_actions"/>
      <input type="hidden" name="lti_message_type" value="ToolProxyReregistrationRequest"/>
      <input type="hidden" name="oauth_consumer_key" value="acf93780-d2f4-0131-6e78-20c9d07c6451"/>
      <input type="hidden" name="oauth_nonce" value="1612801540886"/>
      <input type="hidden" name="oauth_signature_method" value="HMAC-SHA1"/>
      <input type="hidden" name="oauth_timestamp" value="1402422424"/>
      <input type="hidden" name="oauth_version" value="1.0"/>
      <input type="hidden" name="oauth_callback" value="about:blank"/>
      <input type="hidden" name="oauth_signature" value="hNViVTdVWGYQS4dL8E76rJRrQUg="/>

  </form>
  </div>
  <script language="javascript">
    document.ltiLaunchForm.submit();
  </script>
```

```
                                  2014-06-10 10:47:05 -0700
                                  LtiService: ReRegister ToolProxy with ToolConsumer
                                  POST http://localhost:4000/lti2_tc/tools
                                  Headers:
                                  Authorization: OAuth oauth_consumer_key="acf93780-d2f4-0131-6e78-20c9d07c6451", oauth_nonce="9102772935
                                  Content-Type: application/vnd.ims.lti.v2.toolproxy+json
                                  Content-Length: 5376
                                  X-IMS-EndRegistration-ID: 292ef240-d2f5-0131-6e5f-20c9d07c6451
                                  Body:
                                  {"@context":["http://purl.imsglobal.org/ctx/lti/v2/ToolProxy"],"@type":"ToolProxy","@id":"ToolProxyProp
```

```
2014-06-10 10:47:15 -0700
Response: ReRegister ToolProxy with ToolConsumer
Status: 201 Created
Headers:
content-type: text/html; charset=utf-8
content-length: 1
```

```
2014-06-10 10:47:19 -0700
LtiService: EndRegistration ToolProxy
POST http://localhost:5100/lti2_tp/end_registration
Headers:
Authorization: OAuth oauth_consumer_key="acf93780-d2f4-0131-6e78-20c9d07c6451", oauth_nonce="7796795763246", oauth_signature_method="HMAC-SHA1", oa
Content-Type: application/vnd.ims.lti.v2.toolproxy+json
```

```
Content-Length: 236
X-IMS-EndRegistration-ID: 292ef240-d2f5-0131-6e5f-20c9d07c6451
Body:
{"@context":"http://purl.imsglobal.org/ctx/lti/v2/ToolProxyId","@type":"ToolProxy","@id":"http://localhost:4000/tools/acf93780-d2f4-0131-6e78-20c9d
```

```
                                        2014-06-10 10:47:19 -0700
                                        Response: EndRegistration ToolProxy
                                        Status: 201 Created
                                        Headers:
                                        content-type: application/vnd.ims.lti.v2.toolproxy.id+json; charset=utf-8
                                        content-length: 236
                                        {
                                          "@context": "http://purl.imsglobal.org/ctx/lti/v2/ToolProxyId",
                                          "@type": "ToolProxy",
                                          "@id": "http://localhost:4000/tools/acf93780-d2f4-0131-6e78-20c9d07c6451",
                                          "tool_proxy_guid": "acf93780-d2f4-0131-6e78-20c9d07c6451",
                                          "disposition": "commit"
                                        }
```

```
2014-06-10 10:47:31 -0700
LtiMessage: Lti Launch
LaunchUrl: http://localhost:5000/echoes
<div id="ltiLaunchFormSubmitArea">
  <form action="http://localhost:5000/echoes" target="_blank"
    name="ltiLaunchForm" id="ltiLaunchForm" method="post"
    encType="application/x-www-form-urlencoded">
      <input type="hidden" name="lti_version" value="LTI-2p0"/>
      <input type="hidden" name="lti_message_type" value="basic-lti-launch-request"/>
      <input type="hidden" name="resource_link_id" value="329"/>
      <input type="hidden" name="user_id" value="2"/>
      <input type="hidden" name="roles" value="Administrator"/>
      <input type="hidden" name="launch_presentation_return_url" value="http://localhost:4000/admin/course_page?method=show&course_id=5"/>
      <input type="hidden" name="launch_presentation_document_target" value="window"/>
      <input type="hidden" name="context_id" value="5"/>
      <input type="hidden" name="launch_presentation_locale" value="en_US"/>
      <input type="hidden" name="context_label" value="DPE001"/>
      <input type="hidden" name="context_title" value="Design of Personal Environments 1"/>
      <input type="hidden" name="lis_course_section_sourcedid" value="5"/>
      <input type="hidden" name="tool_consumer_info_product_family_code" value="LuMoS"/>
      <input type="hidden" name="tool_consumer_info_version" value="3.1"/>
      <input type="hidden" name="custom_referrer" value="Narcissus"/>
      <input type="hidden" name="custom_pi" value="3.14159"/>
      <input type="hidden" name="custom_user_primary_email" value="admin@lumos.org"/>
      <input type="hidden" name="custom_discipline" value="DPE001"/>
      <input type="hidden" name="oauth_consumer_key" value="acf93780-d2f4-0131-6e78-20c9d07c6451"/>
      <input type="hidden" name="oauth_nonce" value="9324388362256"/>
      <input type="hidden" name="oauth_signature_method" value="HMAC-SHA1"/>
      <input type="hidden" name="oauth_timestamp" value="1402422451"/>
      <input type="hidden" name="oauth_version" value="1.0"/>
      <input type="hidden" name="oauth_callback" value="about:blank"/>
      <input type="hidden" name="oauth_signature" value="F/4ycEJa6Cf++jHgBJnsostftNg="/>

      <a href="/admin/launches" target="_self">Return to Admin</a>


</form>
</div>
<script language="javascript">
  document.ltiLaunchForm.submit();
</script>
```