

OntarioMD EMR Specification 4.0 Automated Authentication

DEVELOPER'S GUIDE

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Summary

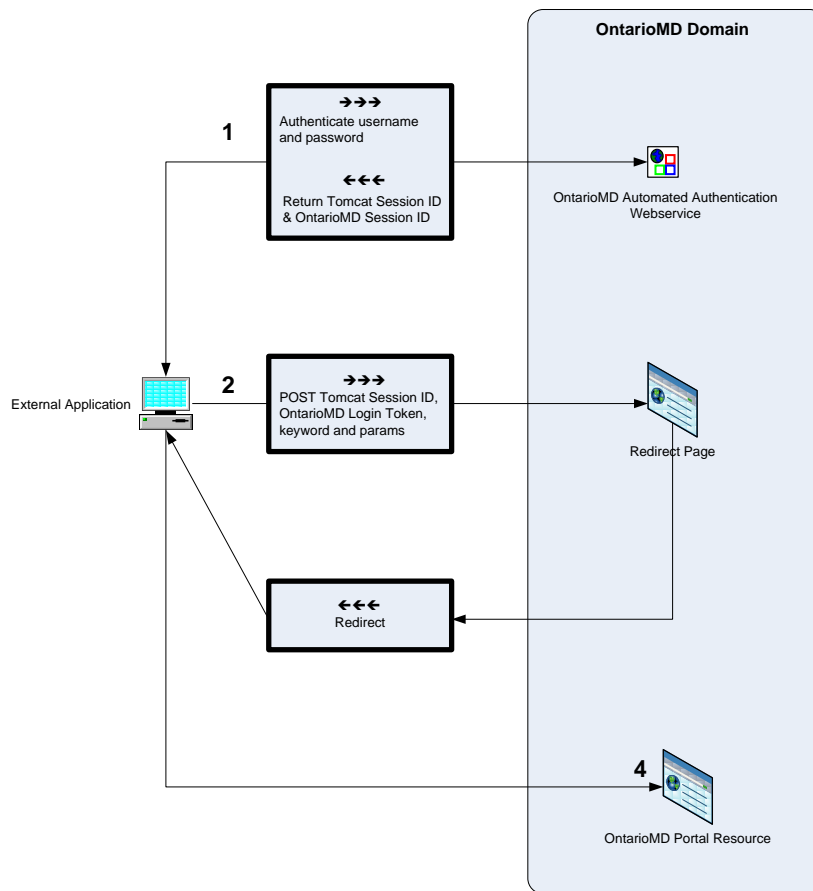
OntarioMD's Automated Authentication solution will provide external applications the ability to integrate online resources found on OntarioMD's portal website, www.OntarioMD.ca. Since access to OntarioMD's online resources requires logging into the portal website, this solution will provide automated authentication for external applications seeking direct access to OntarioMD resources such as the e-CPS Drug Search tool and a selection of disease-specific information.

The Automated Authentication solution is a two step process:

Step 1
 External applications must validate physician's login credentials in order to obtain a valid Tomcat and OntarioMD session id. This is accomplished via a call to a web service.

Step 2
 After obtaining a valid session id from the web service in Step 1, external applications can access OntarioMD resources via a redirect page which will accept parameters submitted by a standard HTTP form post. The redirect page will then forward the request to the specified destination within OntarioMD.

Below is a diagram showing the sequence of steps for automated authentication:



The following sections contain additional details for each step in the Automated Authentication solution.

Step 1: OntarioMD Automated Authentication Web Service

OntarioMD's Automated Authentication web service allows external applications to authenticate a registered OntarioMD.ca portal user and if valid, the web service will return a valid session identifier that will be used to link into the portal website. The external application will connect to the web service over an SSL connection to ensure that the sensitive information is encrypted.

Use the WSDL provided in **Appendix B** to call the *getSession* web method. Developers are free to choose any implementation of SOAP such as Apache Axis [<http://ws.apache.org/axis/>] to create web clients to talk to the Automated Authentication web service: *OMDAutomatedAuthentication*.

OMDAutomatedAuthentication : getSession

Input Parameters

Parameter	Type	Description
username	String	Username used to log into www.OntarioMD.ca
password	String	Password user to log into www.OntarioMD.ca
requestor	String	Unique identifier of the requestor. Internally, this value will be checked against a list of accepted <i>requestor</i> values as an additional level of security. Please email emr@ontariomd.com to obtain a valid <i>requestor</i> identifier.

Output Parameters

Parameter	Type	Description
returnCode	Integer	0 – success -1 – username/password invalid -2 – invalid requestor identifier
jsessionID	String	Tomcat session identifier; invalid after 60 minutes of inactivity
ptLoginToken	String	OntarioMD session identifier; invalid after 60 minutes of inactivity

Assumptions

1. If an error is encountered, the application will display an appropriate message to the user. External applications will be expected to properly handle any error codes that may be returned by the web service.
2. If a continual connection to the portal website is desired, it's up to the external application to manage the sessions.

Step 2: HTTP POST to Redirect Page

The Redirect page acts as a gateway between the third party application and OntarioMD's portal website. Through a standard web browser, the application will POST *jsessionId*, *ptLoginToken*, *keyword*, *params*, *username* and *requestor* to the redirect page for processing.

Redirect Page URL: <https://www.ontariomd.ca/AutoAuthentication/redirect.jsp>

Input (HTTP POST parameters)

Parameter	Type	Description
<i>jsessionId</i>	String	Tomcat session id
<i>ptLoginToken</i>	String	OntarioMD session id
<i>keyword</i>	String	A unique keyword identifying which web page to redirect. Refer to Appendix A for keywords
<i>params</i>	String	If any parameters are required by the destination web page will be specified here. Key/value pairs will be separated by "&" if more than one is required. For instance: &ecpsSearchValue=advair&userid=test.user...etc
<i>requestor</i>	String	Unique identifier of the requestor This value must be checked against a valid list of requestors as additional security and logging purposes. If the requestor provided is not valid, then service will be denied. Requestor ID will be provided by OntarioMD.
<i>username</i>	String	Username used to login to OntarioMD.ca

Troubleshooting

The following table summarizes the expected output if there are errors with the inputted HTTP POST parameters.

Problem	Result
<i>jsessionId</i> parameter is null	Error message: "jsessionID cannot be null"
<i>ptLoginToken</i> parameter is null	Error message: "ptLoginToken cannot be null"
<i>keyword</i> parameter is null	Error message: "Keyword cannot be null"
<i>requestor</i> parameter is null	Error message: "Requestor cannot be null"
<i>username</i> parameter is null	Error message: "Username cannot be null"
<i>keyword</i> parameter is invalid	Error message: "Error accessing the resource requested. Possible cause of error: no keyword-to-URL mapping found. Check keyword is valid."
<i>params</i> parameter is invalid	www.OntarioMD.ca login page is displayed in the web browser
<i>jsessionId</i> parameter is invalid	www.OntarioMD.ca login page is displayed in the web browser
<i>ptLoginToken</i> parameter is invalid	www.OntarioMD.ca login page is displayed in the web browser

Sample HTML Form

Developers can use this sample HTML form to test connectivity to the OntarioMD's portal website.

```
<html>
<body>
<form id="loginFormID" name="loginForm"
action=https://www.ontariomd.ca/AutoAuthentication/redirect.jsp method="post">
  <p>JSESSIONID:</p>
  <input type="text" size="70" id="jsessionID" name="jsessionID" value=""/>
  <p>PT login Token:</p>
  <input type="text" size="70" id="ptLoginToken" name="ptLoginToken" value=""/>
  <p>Keyword:</p>
  <input type="text" size="100" id="keyword" name="keyword" value=""/>
  <p>Params:</p>
  <input type="text" size="200" id="params" name="params" value=""/>
  <p>Requestor:</p>
  <input type="text" size="50" id="requestor" name="requestor" value=""/>
  <p>Username:</p>
  <input type="text" size="50" id="username" name="username" value=""/>
  <p></p>
  <input type="submit" value="Submit">
</form>
</body>
</html>
```

Appendix A: Keywords

The following table summarizes what parameter values are required to reach the various destinations that will be available to external applications within the portal website.

Community	Keyword	Params	Notes
OntarioMD Home Page	Main		
Disease community	See Disease Communities table for all disease communities and their corresponding keywords		
eCPS Drug Search	eCPS	E.g.: If a drug search for Advair is requested, the params value would be: <code>&ecpsSearchValue=advair</code>	Requests for the eCPS Drug Search will also contain a search terms entered by the physician.

Disease Community Keywords

NOTE: This table will change as diseases are created or removed from the portal website.

Disease Community	Keyword
Acne	Acne
Acute Bronchitis	AcuteBronchitis
Addiction Medicine	AddictionMedicine
Allergy	Allergy
Alzheimer's Disease	AlzheimersDisease
Andropause	Andropause
Anxiety Disorders	AnxietyDisorders
Appendicitis	Appendicitis
Asthma	Asthma
Atrial Fibrillation	AtrialFibrillation
Avian Flu	AvianFlu
Benign Prostatic Hyperplasia	BenignProstaticHyperplasia
Bipolar Disorder	BipolarDisorder
Breast Cancer	BreastCancer
CHF	CHF
COPD	COPD
CVA (Stroke)	CVA

Cholecystitis	Cholecystitis
Chronic Pain	ChronicPain
Colon Cancer	ColonCancer
Contraception	Contraception
Coronary Artery Disease	CoronaryArteryDisease
Depression	Depression
Diabetes	Diabetes
Dyslipidemia	Dyslipidemia
Eating Disorders	EatingDisorders
Erectile Dysfunction	ErectileDysfunction
GERD	GERD
HIV and AIDS	HIVandAIDS
Headache	Headache
Hepatitis	Hepatitis
Herpes	Herpes
Hypertension	Hypertension
Infertility	Infertility
Inflammatory Bowel Disease	InflammatoryBowelDisease
Influenza	Influenza
Irritable Bowel Syndrome	IrritableBowelSyndrome
Lung Cancer	LungCancer
Menopause	Menopause
Obesity	Obesity
Osteoporosis	Osteoporosis
Ovarian Cancer	OvarianCancer
Palliative Care	PalliativeCare
Parkinson's Disease	ParkinsonsDisease
Prostate Cancer	ProstateCancer
Psoriasis	Psoriasis
Rheumatoid Arthritis/Autoimmune	RheumatoidArthritis
SARS	SARS
STIs	STIs
Schizophrenia	Schizophrenia
Sinusitis	Sinusitis
Smoking Cessation	SmokingCessation
Thyroid Disorders	ThyroidDisorders
Urinary Incontinence	UrinaryIncontinence
West Nile Virus	WestNileVirus

Appendix B: OMDAutomatedAuthentication.wsdl

External applications can use this WSDL to call the *getSession* web method. Developers are free to choose any implementation of SOAP to create web clients to talk to the Automated Authentication web service:

OMDAutomatedAuthentication.

```
<?xml version="1.0" encoding="UTF-8"?>
<wsdl:definitions targetNamespace="urn:OMDAutomatedAuthentication" xmlns="http://schemas.xmlsoap.org/wsdl/"
xmlns:apacheSOAP="http://xml.apache.org/xml-soap" xmlns:impl="urn:OMDAutomatedAuthentication"
xmlns:intf="urn:OMDAutomatedAuthentication" xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:tns2="http://data.omdautoauthentication" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
xmlns:wsdlsoap="http://schemas.xmlsoap.org/wsdl/soap/" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <wsdl:types>
    <schema targetNamespace="http://data.omdautoauthentication" xmlns="http://www.w3.org/2001/XMLSchema">
      <import namespace="http://schemas.xmlsoap.org/soap/encoding/">
      <complexType name="ReturnMessage">
        <sequence>
          <element name="jsessionID" nillable="true" type="xsd:string"/>
          <element name="plLoginOccured" nillable="true" type="xsd:string"/>
          <element name="ptLoginToken" nillable="true" type="xsd:string"/>
          <element name="returnCode" type="xsd:int"/>
        </sequence>
      </complexType>
    </schema>
  </wsdl:types>

  <wsdl:message name="getSessionResponse">
    <wsdl:part name="getSessionReturn" type="tns2:ReturnMessage"/>
  </wsdl:message>
  <wsdl:message name="getSessionRequest">
    <wsdl:part name="username" type="xsd:string"/>
    <wsdl:part name="password" type="xsd:string"/>
    <wsdl:part name="incomingRequestor" type="xsd:string"/>
  </wsdl:message>
  <wsdl:portType name="AutoAuthentication">
    <wsdl:operation name="getSession" parameterOrder="username password incomingRequestor">
      <wsdl:input message="impl:getSessionRequest" name="getSessionRequest"/>
      <wsdl:output message="impl:getSessionResponse" name="getSessionResponse"/>
    </wsdl:operation>
  </wsdl:portType>
  <wsdl:binding name="OMDAutomatedAuthenticationSoapBinding" type="impl:AutoAuthentication">
    <wsdlsoap:binding style="rpc" transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="getSession">
      <wsdlsoap:operation soapAction="">
      <wsdl:input name="getSessionRequest">
        <wsdlsoap:body encodingStyle="http://schemas.xmlsoap.org/soap/encoding/"
namespace="urn:OMDAutomatedAuthentication" use="encoded"/>
      </wsdl:input>
      <wsdl:output name="getSessionResponse">
        <wsdlsoap:body encodingStyle="http://schemas.xmlsoap.org/soap/encoding/"
namespace="urn:OMDAutomatedAuthentication" use="encoded"/>
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
  <wsdl:service name="AutoAuthenticationService">
    <wsdl:port binding="impl:OMDAutomatedAuthenticationSoapBinding" name="OMDAutomatedAuthentication">
      <wsdlsoap:address location="https://www.ontariomd.ca/services/OMDAutomatedAuthentication"/>
    </wsdl:port>
  </wsdl:service>
</wsdl:definitions>
```