



Audit Trail API

This chapter describes the Audit Trail API:

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Using the Audit API

In your IoT FND NB API client application, use this IoT FND server URL to access the Audit Trail API WSDL:

`http://<server_address>/nbapi/audittrail?wsdl`

The time service used is Linux Epoch, see:

`http://www.epochconverter.com`

Audit API Method Calls

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getAuditTrailsByTime

This call lets the client retrieve the audit trail for a specified time range.

Prototype

```
<aud:getAuditTrailsByTime>
  <startTimeInMs>1329163991000</startTimeInMs>
  <endTimeInMs>1329166091000</endTimeInMs>
</aud:getAuditTrailsByTime>
```

Parameters

Table 1 describes the parameters in the interface.

Table 1 getAuditTrailsByTime Request

Parameter	Description
startTimeInMs	Audit trail entries start time for the specified time range in Epoch time format (for example, midnight on September 17, 2004 is specified as 109537920000).
endTimeInMs	Audit trail entries end time for the specified time range in Epoch time format.

getAuditTrailsByTime SOAP XML Request Format

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:aud="http://audittrail.nbapi.cgms.cisco.com/">
  <soapenv:Header/>
  <soapenv:Body>
    <aud:getAuditTrailsByTime>
      <startTimeInMs>1329163991000</startTimeInMs>
      <endTimeInMs>1329166091000</endTimeInMs>
    </aud:getAuditTrailsByTime>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Header>
    <seam:conversationId xmlns:seam="http://www.jboss.org/seam/webservice">54</seam:conversationId>
  </env:Header>
  <env:Body>
    <ns2:getAuditTrailsByTimeResponse xmlns:ns2="http://audittrail.nbapi.cgms.cisco.com/">
      <audit_trail>
        <details>N/A</details>
        <generatedAt>1329166073474</generatedAt>
        <id>2001000</id>
        <ipAddrNum>2130706433</ipAddrNum>
        <ipAddrStr>127.0.0.1</ipAddrStr>
        <operation>Login</operation>
        <status>Success</status>
        <userName>root</userName>
      </audit_trail>
      <audit_trail>
        <details>N/A</details>
        <generatedAt>1329164689460</generatedAt>
        <id>1001000</id>
        <ipAddrNum>2130706433</ipAddrNum>
        <ipAddrStr>127.0.0.1</ipAddrStr>
        <operation>Login</operation>
        <status>Success</status>
        <userName>root</userName>
      </audit_trail>
    </ns2:getAuditTrailsByTimeResponse>
  </env:Body>
</env:Envelope>
```

Audit API Method Calls

```
<details>N/A</details>
<generatedAt>1329164073521</generatedAt>
<id>1002</id>
<ipAddrNum>2130706433</ipAddrNum>
<ipAddrStr>127.0.0.1</ipAddrStr>
<operation>Login</operation>
<status>Success</status>
<userName>root</userName>
</audit_trail>
<audit_trail>
  <details>N/A</details>
  <generatedAt>1329164069521</generatedAt>
  <id>1001</id>
  <ipAddrNum>2130706433</ipAddrNum>
  <ipAddrStr>127.0.0.1</ipAddrStr>
  <operation>Password changed</operation>
  <status>Success</status>
  <userName>root</userName>
</audit_trail>
<audit_trail>
  <details>N/A</details>
  <generatedAt>1329164057605</generatedAt>
  <id>1000</id>
  <ipAddrNum>2130706433</ipAddrNum>
  <ipAddrStr>127.0.0.1</ipAddrStr>
  <operation>Login</operation>
  <status>Success</status>
  <userName>root</userName>
</audit_trail>
</ns2:getAuditTrailsByTimeResponse>
</env:Body>
</env:Envelope>
```

getAuditTrailsByUser

This call retrieves audit trail entries for a specified user and time range.

Prototype

```
<aud:getAuditTrailsByUser>
  <userName>endpoint_oper</userName>
  <startTimeInMs>1329163991000</startTimeInMs>
  <endTimeInMs>1329174551000</endTimeInMs>
</aud:getAuditTrailsByUser>
```

Parameters

Table 2 describes the parameters in the interface.

Table 2 getAuditTrailsbyUser Request

Parameter	Description
userName	Audit trail entries for the specified user name.
startTimeInMs	Audit trail entries start time for the specified time range.
endTimeInMs	Audit trail entries end time for the specified time range.

getAuditTrailsByUser SOAP XML Request Format Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:aud="http://audittrail.nbapi.cgms.cisco.com/">
  <soapenv:Header/>
  <soapenv:Body>
    <aud:getAuditTrailsByUser>
      <!--Optional:-->
      <userName>endpoint_oper</userName>
      <startTimeInMs>1329163991000</startTimeInMs>
      <endTimeInMs>1329174551000</endTimeInMs>
    </aud:getAuditTrailsByUser>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Header>
    <seam:conversationId xmlns:seam="http://www.jboss.org/seam/webservice">85</seam:conversationId>
  </env:Header>
  <env:Body>
    <ns2:getAuditTrailsByUserResponse xmlns:ns2="http://audittrail.nbapi.cgms.cisco.com/">
      <audit_trail>
        <details>N/A</details>
        <generatedAt>1329174503078</generatedAt>
        <id>2001003</id>
        <ipAddrNum>2130706433</ipAddrNum>
        <ipAddrStr>127.0.0.1</ipAddrStr>
        <operation>Logout</operation>
        <status>Success</status>
        <userName>endpoint_oper</userName>
      </audit_trail>
      <audit_trail>
        <details>N/A</details>
        <generatedAt>1329174494253</generatedAt>
        <id>2001002</id>
        <ipAddrNum>2130706433</ipAddrNum>
        <ipAddrStr>127.0.0.1</ipAddrStr>
        <operation>Login</operation>
        <status>Success</status>
      </audit_trail>
    </ns2:getAuditTrailsByUserResponse>
  </env:Body>
</env:Envelope>
```

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```
        <userName>endpoint_oper</userName>
    </audit_trail>
</ns2:getAuditTrailsByUserResponse>
</env:Body>
</env:Envelope>
```

getAuditTrailsByUserAndIp

This call retrieves audit trail entries for a specified user, IP address, and time range.

Prototype

```
<aud:getAuditTrailsByUserAndIp>
  <userName>endpoint_oper</userName>
  <ipAddr>127.0.0.1</ipAddr>
  <startTimeInMs>1329163991000</startTimeInMs>
  <endTimeInMs>1329174551000</endTimeInMs>
</aud:getAuditTrailsByUserAndIp>
```

Parameters

Table 3 describes the parameters in the interface.

Table 3 getAuditTrailsByUserandIP Request

Parameter	Description
userName	Audit trail entries for the specified user name.
ipAddr	Audit trail entries for the specified IP address.
startTimeInMs	Audit trail entries start time for the specified time range.
endTimeInMs	Audit trail entries end time for the specified time range.

getAuditTrailsByUserAndIp SOAP XML Request Format Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:aud="http://audittrail.nbapi.cgms.cisco.com/">
  <soapenv:Header/>
  <soapenv:Body>
    <aud:getAuditTrailsByUserAndIp>
      <userName>endpoint_oper</userName>
      <ipAddr>127.0.0.1</ipAddr>
      <startTimeInMs>1329163991000</startTimeInMs>
      <endTimeInMs>1329174551000</endTimeInMs>
    </aud:getAuditTrailsByUserAndIp>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Header>
    <seam:conversationId xmlns:seam="http://www.jboss.org/seam/webservice">86</seam:conversationId>
  </env:Header>
  <env:Body>
    <ns2:getAuditTrailsByUserAndIpResponse xmlns:ns2="http://audittrail.nbapi.cgms.cisco.com/">
      <audit_trail>
        <details>N/A</details>
        <generatedAt>1329174503078</generatedAt>
        <id>2001003</id>
        <ipAddrNum>2130706433</ipAddrNum>
        <ipAddrStr>127.0.0.1</ipAddrStr>
        <operation>Logout</operation>
        <status>Success</status>
        <userName>endpoint_oper</userName>
      </audit_trail>
      <audit_trail>
        <details>N/A</details>
        <generatedAt>1329174494253</generatedAt>
        <id>2001002</id>
        <ipAddrNum>2130706433</ipAddrNum>
      </audit_trail>
    </ns2:getAuditTrailsByUserAndIpResponse>
  </env:Body>
</env:Envelope>
```

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```
    <ipAddrStr>127.0.0.1</ipAddrStr>
    <operation>Login</operation>
    <status>Success</status>
    <userName>endpoint_oper</userName>
  </audit_trail>
</ns2:getAuditTrailsByUserAndIpResponse>
</env:Body>
</env:Envelope>
```

getAuditTrailsByOperation

This call retrieves audit trail entries for a specified operation type and time range.

Prototype

```
<aud:getAuditTrailsByOperation>
  <operation>password changed</operation>
  <startTimeInMs>1329163991000</startTimeInMs>
  <endTimeInMs>1329174551000</endTimeInMs>
</aud:getAuditTrailsByOperation>
```

Parameters

Table 4 describes the parameters in the interface.

Table 4 getAuditTrailsByOperation Request

Parameter	Description
operation	Audit trail entries by operation type.
startTimeInMs	Audit trail entries start time for the specified time range.
endTimeInMs	Audit trail entries end time for the specified time range.

getAuditTrailsByOperation SOAP XML Request Format

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:aud="http://audittrail.nbapi.cgms.cisco.com/">
  <soapenv:Header/>
  <soapenv:Body>
    <aud:getAuditTrailsByOperation>
      <operation>password changed</operation>
      <startTimeInMs>1329163991000</startTimeInMs>
      <endTimeInMs>1329174551000</endTimeInMs>
    </aud:getAuditTrailsByOperation>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Header>
    <seam:conversationId xmlns:seam="http://www.jboss.org/seam/webservice">88</seam:conversationId>
  </env:Header>
  <env:Body>
    <ns2:getAuditTrailsByOperationResponse xmlns:ns2="http://audittrail.nbapi.cgms.cisco.com/">
      <audit_trail>
        <details>N/A</details>
        <generatedAt>1329164069521</generatedAt>
        <id>1001</id>
        <ipAddrNum>2130706433</ipAddrNum>
        <ipAddrStr>127.0.0.1</ipAddrStr>
        <operation>Password changed</operation>
        <status>Success</status>
        <userName>root</userName>
      </audit_trail>
    </ns2:getAuditTrailsByOperationResponse>
  </env:Body>
</env:Envelope>
```


getAuditTrailsByUserAndOperation

This call retrieves audit trail entries for a specified user, operation type, and time range.

Prototype

```
<aud:getAuditTrailsByUserAndOperation>
  <userName>endpoint_oper</userName>
  <operation>login</operation>
  <startTimeInMs>1329163991000</startTimeInMs>
  <endTimeInMs>1329174551000</endTimeInMs>
</aud:getAuditTrailsByUserAndOperation>
```

Parameters

Table 5 describes the parameters in the interface.

Table 5 getAuditTrailsByUserAndOperation Request

Parameter	Description
userName	Audit trail entries for the specified user.
operation	Audit trail entries for the specified operation type.
startTimeInMs	Audit trail entries start time for the specified time range.
endTimeInMs	Audit trail entries end time for the specified time range.

getAuditTrailsByUserAndOperation SOAP XML Request Format

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:aud="http://audittrail.nbapi.cgms.cisco.com/">
  <soapenv:Header/>
  <soapenv:Body>
    <aud:getAuditTrailsByUserAndOperation>
      <userName>endpoint_oper</userName>
      <operation>login</operation>
      <startTimeInMs>1329163991000</startTimeInMs>
      <endTimeInMs>1329174551000</endTimeInMs>
    </aud:getAuditTrailsByUserAndOperation>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Header>
    <seam:conversationId xmlns:seam="http://www.jboss.org/seam/webservice">89</seam:conversationId>
  </env:Header>
  <env:Body>
    <ns2:getAuditTrailsByUserAndOperationResponse
xmlns:ns2="http://audittrail.nbapi.cgms.cisco.com/">
      <audit_trail>
        <details>N/A</details>
        <generatedAt>1329174494253</generatedAt>
        <id>2001002</id>
        <ipAddrNum>2130706433</ipAddrNum>
        <ipAddrStr>127.0.0.1</ipAddrStr>
        <operation>Login</operation>
        <status>Success</status>
        <userName>endpoint_oper</userName>
      </audit_trail>
    </ns2:getAuditTrailsByUserAndOperationResponse>
  </env:Body>
</env:Envelope>
```

getAuditTrailsByUserIpAndOperation

This call retrieves audit trail entries for a specified user, IP address, operation type, and time range.

Prototype

```
<aud:getAuditTrailsByUserIpAndOperation>
  <ipAddr>127.0.0.1</ipAddr>
  <userName>endpoint_oper</userName>
  <operation>login</operation>
  <startTimeInMs>1329163991000</startTimeInMs>
  <endTimeInMs>1329174551000</endTimeInMs>
</aud:getAuditTrailsByUserIpAndOperation>
```

Parameters

Table 6 describes the parameters in the interface.

Table 6 getAuditTrailsByUserIPAndOperation Request

Parameter	Description
ipAddr	Audit trail entries for the specified IP address.
userName	Audit trail entries for the specified user.
operation	Audit trail entries for the specified operation type.
startTimeInMs	Audit trail entries start time for the specified time range.
endTimeInMs	Audit trail entries end time for the specified time range.

getAuditTrailsByUserIpAndOperation SOAP XML Request Format

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:aud="http://audittrail.nbapi.cgms.cisco.com/">
  <soapenv:Header/>
  <soapenv:Body>
    <aud:getAuditTrailsByUserIpAndOperation>
      <ipAddr>127.0.0.1</ipAddr>
      <userName>endpoint_oper</userName>
      <operation>login</operation>
      <startTimeInMs>1329163991000</startTimeInMs>
      <endTimeInMs>1329174551000</endTimeInMs>
    </aud:getAuditTrailsByUserIpAndOperation>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Header>
    <seam:conversationId xmlns:seam="http://www.jboss.org/seam/webservice">90</seam:conversationId>
  </env:Header>
  <env:Body>
    <ns2:getAuditTrailsByUserIpAndOperationResponse
xmlns:ns2="http://audittrail.nbapi.cgms.cisco.com/">
      <audit_trail>
        <details>N/A</details>
        <generatedAt>1329174494253</generatedAt>
        <id>2001002</id>
        <ipAddrNum>2130706433</ipAddrNum>
        <ipAddrStr>127.0.0.1</ipAddrStr>
        <operation>Login</operation>
        <status>Success</status>
        <userName>endpoint_oper</userName>
      </audit_trail>
    </ns2:getAuditTrailsByUserIpAndOperationResponse>
  </env:Body>
</env:Envelope>
```

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```
</env:Body>  
</env:Envelope>
```

deleteAuditTrailsByTime

This call removes audit trail entries by the specified time.

Prototype

```
<aud:deleteAuditTrailsByTime>
  <startTimeInMs>1329163991000</arg0>
  <endTimeInMs>1329174551000</arg1>
</aud:deleteAuditTrailsByTime>
```

Parameters

[Table 7](#) describes the parameters in the interface.

Table 7 deleteAuditTrailsByTime Request

Parameter	Description
startTimeInMs	Delete audit trail entries start time by specified time range.
endTimeInMs	Delete audit trail entries end time by specified time range.

deleteAuditTrailsByTime SOAP XML Request Format

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:aud="http://audittrail.nbapi.cgms.cisco.com/">
  <soapenv:Header/>
  <soapenv:Body>
    <aud:deleteAuditTrailsByTime>
      <startTimeInMs>1329163991000</arg0>
      <endTimeInMs>1329174551000</arg1>
    </aud:deleteAuditTrailsByTime>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Header>
    <seam:conversationId xmlns:seam="http://www.jboss.org/seam/webservice">91</seam:conversationId>
  </env:Header>
  <env:Body>
    <ns2:deleteAuditTrailsByTimeResponse xmlns:ns2="http://audittrail.nbapi.cgms.cisco.com/">
      <delete_response>Successfully deleted audit trails.</delete_response>
    </ns2:deleteAuditTrailsByTimeResponse>
  </env:Body>
</env:Envelope>
```