

Property Enhancements

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Property Enhancements

You can use the Cloudera Manager Safety Valves feature to extend CFM components beyond the default properties exposed in Cloudera Manager. The following sections describe how to configure different types of property files generated and used by NiFi and NiFi Registry.

XML Property Enhancements

In order to configure xml property files, dot notation is leveraged in order to represent the actual schema for a given property file. This allows users to enhance or overwrite xml based properties in Cloudera Manager using. The structure for naming is as follows:

```
xml.<properties-type>.<entity>.<identifier>.class
xml.<properties-type>.<entity>.<identifier>.property.<property-value>
```

Supported properties types for NiFi are authorizers (authorizers.xml) and loginIdentityProviders (used in login-identity-providers.xml). For NiFi Registry supported types are authorizers and identityProviders.

The below property key/value example creates a user group provider entry into the authorizers file for NiFi:

```
Name: xml.authorizers.userGroupProvider.file-user-group-provider.class
Value: org.apache.nifi.authorization.FileUserGroupProvider

Name: xml.authorizers.userGroupProvider.file-user-group-
provider.property.Initial User Identity 2
Value: CN=localhost, OU=NIFI
```

This translates to the following entry in the generated authorizers.xml file:

```
<authorizers>
.....
  <userGroupProvider>
    <identifier>file-user-group-provider</identifier>
    <class>org.apache.nifi.authorization.FileUserGroupProvider</class>
    <property name="Initial User Identity 2">CN=localhost, OU=NIFI</
property>
  </userGroupProvider>
...
...
</authorizers>
```

Properties names that have spaces are supported and do not need to be escaped.

Bootstrap and Properties File Enhancements

Both Bootstrap and Properties files can be enhanced using their respective safety valves (which are used to generate those respective files). The key and value can be entered using property editor or as hadoop property styled XML.

Below is an example of Safety Valve enhancements for nifi.properties (which decreases default flow election wait time)

NiFi Node Advanced Configuration Snippet (Safety Valve) for staging/nifi.properties.xml

NiFi Node Default Group

Show All Descriptions

View as XML

Name: nifi.cluster.flow.election.max.wait.time

Value: 1 min

Description: Description

Final

When entering safety valves be aware that if a property shares the same name as one already defined in CM it will override that value.

The NiFi Section for default values that can be overridden using safety valves. These can be pasted in as needed using the View as XML link for nifi.properties.xml safety valve. See NiFi Documentation for available property values and usages

The NiFi Registry section for default values that can be overridden using safety valves. These can be pasted in as needed using the View as XML link for nifi.registry.properties.xml safety valve. See NiFi Registry Documentation for available property values

Default Property Configuration Templates

The following default property configuration example templates are available for your ease of use.

NiFi Default Properties

```

<!--
  DO NOT INCLUDE COMMENTS WHEN COPYING TO CM XML EDITOR
-->
<!--
  This represents the default properties that can be copied and overridden
  using CM nifi.properties xml safety valves.
  One or more properties can be copied and edited as needed. Safety values
  can also be used for defining dynamic properties
  that may not exist by default (such as for content repository locations)
-->
<property>
<name>nifi.state.management.provider.local</name>
<value>local-provider</value>
</property>
<property>
<name>nifi.flowfile.repository.implementation</name>
<value>org.apache.nifi.controller.repository.WriteAheadFlowFileRepository</
value>
</property>
<property>
<name>nifi.content.repository.always.sync</name>
<value>>false</value>
</property>
<property>
<name>nifi.content.viewer.url</name>
<value>../nifi-content-viewer/</value>
</property>
<property>
<name>nifi.components.status.repository.buffer.size</name>
<value>1440</value>
</property>
<property>
<name>nifi.flowcontroller.graceful.shutdown.period</name>
<value>10 sec</value>

```

```
</property>
<property>
<name>nifi.provenance.repository.debug.frequency</name>
<value>1_000_000</value>
</property>
<property>
<name>nifi.web.http.port</name>
<value>8080</value>
</property>
<property>
<name>nifi.security.user.knox.audiences</name>
<value/>
</property>
<property>
<name>nifi.provenance.repository.indexed.fields</name>
<value>EventType, FlowFileUUID, Filename, ProcessorID, Relationship</value>
</property>
<property>
<name>nifi.variable.registry.properties</name>
<value/>
</property>
<property>
<name>nifi.nar.library.directory</name>
<value>${NIFI_DIST}/lib</value>
</property>
<property>
<name>nifi.content.claim.max.appendable.size</name>
<value>1 MB</value>
</property>
<property>
<name>nifi.administrative.yield.duration</name>
<value>30 sec</value>
</property>
<property>
<name>nifi.provenance.repository.always.sync</name>
<value>>false</value>
</property>
<property>
<name>nifi.security.keyPasswd</name>
<value/>
</property>
<property>
<name>nifi.cluster.load.balance.max.thread.count</name>
<value>8</value>
</property>
<property>
<name>nifi.security.truststorePasswd</name>
<value/>
</property>
<property>
<name>nifi.provenance.repository.rollover.size</name>
<value>100 MB</value>
</property>
<property>
<name>nifi.zookeeper.root.node</name>
<value>ZK_NODE</value>
</property>
<property>
<name>nifi.cluster.load.balance.port</name>
<value>6342</value>
</property>
<property>
<name>nifi.flowfile.repository.checkpoint.interval</name>
<value>2 mins</value>
```

```
</property>
<property>
<name>nifi.cluster.load.balance.comms.timeout</name>
<value>30 sec</value>
</property>
<property>
<name>nifi.provenance.repository.concurrent.merge.threads</name>
<value>2</value>
</property>
<property>
<name>nifi.provenance.repository.encryption.key.provider.location</name>
<value/>
</property>
<property>
<name>nifi.web.https.port</name>
<value/>
</property>
<property>
<name>nifi.provenance.repository.max.storage.time</name>
<value>24 hours</value>
</property>
<property>
<name>nifi.flowservice.writedelay.interval</name>
<value>500 ms</value>
</property>
<property>
<name>nifi.cluster.flow.election.max.wait.time</name>
<value>5 mins</value>
</property>
<property>
<name>nifi.database.directory</name>
<value>${nifi.working.directory}/database_repository</value>
</property>
<property>
<name>nifi.cluster.flow.election.max.candidates</name>
<value/>
</property>
<property>
<name>nifi.security.keystorePasswd</name>
<value/>
</property>
<property>
<name>nifi.web.http.host</name>
<value>${CSD_HOST}</value>
</property>
<property>
<name>nifi.security.ocsp.responder.certificate</name>
<value/>
</property>
<property>
<name>nifi.remote.input.secure</name>
<value>false</value>
</property>
<property>
<name>nifi.cluster.node.max.concurrent.requests</name>
<value>100</value>
</property>
<property>
<name>nifi.nar.working.directory</name>
<value>${nifi.working.directory}/work/nar/</value>
</property>
<property>
<name>nifi.nar.library.autoload.directory</name>
<value>${nifi.working.directory}/extensions</value>
```

```
</property>
<property>
<name>nifi.queue.swap.threshold</name>
<value>20000</value>
</property>
<property>
<name>nifi.security.user.oidc.read.timeout</name>
<value>5 secs</value>
</property>
<property>
<name>nifi.sensitive.props.additional.keys</name>
<value/>
</property>
<property>
<name>nifi.ui.autorefresh.interval</name>
<value>30 sec</value>
</property>
<property>
<name>nifi.web.war.directory</name>
<value>${NIFI_DIST}/lib</value>
</property>
<property>
<name>nifi.cluster.load.balance.host</name>
<value/>
</property>
<property>
<name>nifi.provenance.repository.buffer.size</name>
<value>100000</value>
</property>
<property>
<name>nifi.bored.yield.duration</name>
<value>10 millis</value>
</property>
<property>
<name>nifi.content.repository.archive.max.usage.percentage</name>
<value>50%</value>
</property>
<property>
<name>nifi.security.keystoreType</name>
<value/>
</property>
<property>
<name>nifi.web.https.host</name>
<value>${CSD_HOST}</value>
</property>
<property>
<name>nifi.zookeeper.kerberos.removeRealmFromPrincipal</name>
<value/>
</property>
<property>
<name>nifi.cluster.is.node</name>
<value>true</value>
</property>
<property>
<name>nifi.remote.input.http.transaction.ttl</name>
<value>30 sec</value>
</property>
<property>
<name>nifi.content.repository.archive.enabled</name>
<value>true</value>
</property>
<property>
<name>nifi.web.proxy.host</name>
<value/>
```

```
</property>
<property>
<name>nifi.kerberos.spnego.authentication.expiration</name>
<value>12 hours</value>
</property>
<property>
<name>nifi.remote.input.host</name>
<value/>
</property>
<property>
<name>nifi.cluster.firewall.file</name>
<value/>
</property>
<property>
<name>nifi.provenance.repository.rollover.time</name>
<value>30 secs</value>
</property>
<property>
<name>nifi.security.keystore</name>
<value/>
</property>
<property>
<name>nifi.security.user.knox.publicKey</name>
<value/>
</property>
<property>
<name>nifi.provenance.repository.directory.default</name>
<value>${nifi.working.directory}/provenance_repository</value>
</property>
<property>
<name>nifi.cluster.node.address</name>
<value>${CSD_HOST}</value>
</property>
<property>
<name>nifi.provenance.repository.compress.on.rollover</name>
<value>>true</value>
</property>
<property>
<name>nifi.sensitive.props.key</name>
<value/>
</property>
<property>
<name>nifi.state.management.configuration.file</name>
<value>${nifi.conf.directory}/state-management.xml</value>
</property>
<property>
<name>nifi.security.user.oidc.preferred.jwsalgorithm</name>
<value/>
</property>
<property>
<name>nifi.provenance.repository.implementation</name>
<value>org.apache.nifi.provenance.WriteAheadProvenanceRepository</value>
</property>
<property>
<name>nifi.web.proxy.globals.path</name>
<value/>
</property>
<property>
<name>nifi.zookeeper.auth.type</name>
<value/>
</property>
<property>
<name>nifi.kerberos.spnego.keytab.location</name>
<value>${CONF_DIR}/nifi.keytab</value>
```



```
</property>
<property>
<name>nifi.cluster.node.protocol.port</name>
<value>9088</value>
</property>
<property>
<name>nifi.components.status.repository.implementation</name>
<value>org.apache.nifi.controller.status.history.VolatileComponentStatusRepository</
value>
</property>
<property>
<name>nifi.sensitive.props.key.protected</name>
<value/>
</property>
<property>
<name>nifi.cluster.node.protocol.max.threads</name>
<value>50</value>
</property>
<property>
<name>nifi.cluster.node.connection.timeout</name>
<value>30 sec</value>
</property>
<property>
<name>nifi.flowfile.repository.partitions</name>
<value>256</value>
</property>
<property>
<name>nifi.security.user.oidc.client.id</name>
<value/>
</property>
<property>
<name>nifi.security.user.authorizer</name>
<value>managed-authorizer</value>
</property>
<property>
<name>nifi.flow.configuration.file</name>
<value>${nifi.working.directory}/flow.xml.gz</value>
</property>
<property>
<name>nifi.swap.in.period</name>
<value>5 sec</value>
</property>
<property>
<name>nifi.provenance.repository.encryption.key</name>
<value/>
</property>
<property>
<name>nifi.flow.configuration.archive.max.storage</name>
<value>500 MB</value>
</property>
<property>
<name>nifi.zookeeper.kerberos.removeHostFromPrincipal</name>
<value/>
</property>
<property>
<name>nifi.remote.input.http.enabled</name>
<value>true</value>
</property>
<property>
<name>nifi.flowfile.repository.directory</name>
<value>${nifi.working.directory}/flowfile_repository</value>
</property>
<property>
<name>nifi.security.user.oidc.client.secret</name>
```

```
</value/>
</property>
<property>
<name>nifi.provenance.repository.query.threads</name>
<value>2</value>
</property>
<property>
<name>nifi.flow.configuration.archive.enabled</name>
<value>>true</value>
</property>
<property>
<name>nifi.security.truststore</name>
<value/>
</property>
<property>
<name>nifi.documentation.working.directory</name>
<value>${nifi.working.directory}/work/docs/components</value>
</property>
<property>
<name>nifi.flow.configuration.archive.max.time</name>
<value>30 days</value>
</property>
<property>
<name>nifi.sensitive.props.algorithm</name>
<value>PBEWITHMD5AND256BITAES-CBC-OPENSSL</value>
</property>
<property>
<name>nifi.cluster.protocol.heartbeat.interval</name>
<value>5 sec</value>
</property>
<property>
<name>nifi.web.jetty.working.directory</name>
<value>${nifi.working.directory}/work/jetty</value>
</property>
<property>
<name>nifi.queue.backpressure.size</name>
<value>1 GB</value>
</property>
<property>
<name>nifi.security.user.login.identity.provider</name>
<value/>
</property>
<property>
<name>nifi.zookeeper.connect.timeout</name>
<value>3 secs</value>
</property>
<property>
<name>nifi.provenance.repository.index.threads</name>
<value>2</value>
</property>
<property>
<name>nifi.flow.configuration.archive.dir</name>
<value>${nifi.working.directory}/archive</value>
</property>
<property>
<name>nifi.authorizer.configuration.file</name>
<value>${nifi.conf.directory}/authorizers.xml</value>
</property>
<property>
<name>nifi.security.truststoreType</name>
<value>JKS</value>
</property>
<property>
<name>nifi.flow.configuration.archive.max.count</name>
```

```
<value/>
</property>
<property>
<name>nifi.kerberos.service.keytab.location</name>
<value>${CONF_DIR}/nifi.keytab</value>
</property>
<property>
<name>nifi.provenance.repository.encryption.key.provider.implementation</
name>
<value/>
</property>
<property>
<name>nifi.provenance.repository.encryption.key.id</name>
<value/>
</property>
<property>
<name>nifi.cluster.protocol.is.secure</name>
<value>>false</value>
</property>
<property>
<name>nifi.content.repository.archive.max.retention.period</name>
<value>12 hours</value>
</property>
<property>
<name>nifi.content.repository.directory.default</name>
<value>${nifi.working.directory}/content_repository</value>
</property>
<property>
<name>nifi.cluster.node.read.timeout</name>
<value>30 sec</value>
</property>
<property>
<name>nifi.h2.url.append</name>
<value>;LOCK_TIMEOUT=25000;WRITE_DELAY=0;AUTO_SERVER=FALSE</value>
</property>
<property>
<name>nifi.web.jetty.threads</name>
<value>200</value>
</property>
<property>
<name>nifi.zookeeper.connect.string</name>
<value>${ZK_QUORUM}</value>
</property>
<property>
<name>nifi.swap.manager.implementation</name>
<value>org.apache.nifi.controller.FileSystemSwapManager</value>
</property>
<property>
<name>nifi.flowfile.repository.wal.implementation</name>
<value>org.apache.nifi.wali.SequentialAccessWriteAheadLog</value>
</property>
<property>
<name>nifi.sensitive.props.provider</name>
<value>BC</value>
</property>
<property>
<name>nifi.zookeeper.session.timeout</name>
<value>3 secs</value>
</property>
<property>
<name>nifi.security.user.knox.url</name>
<value/>
</property>
<property>
```

```
<name>nifi.content.claim.max.flow.files</name>
<value>100</value>
</property>
<property>
<name>nifi.components.status.snapshot.frequency</name>
<value>1 min</value>
</property>
<property>
<name>nifi.cluster.node.protocol.threads</name>
<value>10</value>
</property>
<property>
<name>nifi.security.user.oidc.connect.timeout</name>
<value>5 secs</value>
</property>
<property>
<name>nifi.security.ocsp.responder.url</name>
<value/>
</property>
<property>
<name>nifi.security.user.knox.cookieName</name>
<value>hadoop-jwt</value>
</property>
<property>
<name>nifi.swap.in.threads</name>
<value>1</value>
</property>
<property>
<name>nifi.swap.out.threads</name>
<value>4</value>
</property>
<property>
<name>nifi.web.max.header.size</name>
<value>16 KB</value>
</property>
<property>
<name>nifi.cluster.node.event.history.size</name>
<value>25</value>
</property>
<property>
<name>nifi.remote.contents.cache.expiration</name>
<value>30 secs</value>
</property>
<property>
<name>nifi.web.http.network.interface.default</name>
<value/>
</property>
<property>
<name>nifi.flowcontroller.autoResumeState</name>
<value>true</value>
</property>
<property>
<name>nifi.provenance.repository.index.shard.size</name>
<value>500 MB</value>
</property>
<property>
<name>nifi.provenance.repository.max.attribute.length</name>
<value>65536</value>
</property>
<property>
<name>nifi.cluster.load.balance.connections.per.node</name>
<value>4</value>
</property>
<property>
```

```

<name>nifi.swap.out.period</name>
<value>5 sec</value>
</property>
<property>
<name>nifi.templates.directory</name>
<value>${nifi.conf.directory}/templates</value>
</property>
<property>
<name>nifi.web.https.network.interface.default</name>
<value/>
</property>
<property>
<name>nifi.provenance.repository.max.storage.size</name>
<value>1 GB</value>
</property>
<property>
<name>nifi.queue.backpressure.count</name>
<value>10000</value>
</property>
<property>
<name>nifi.remote.input.socket.port</name>
<value/>
</property>
<property>
<name>nifi.provenance.repository.indexed.attributes</name>
<value/>
</property>
<property>
<name>nifi.flowfile.repository.always.sync</name>
<value>false</value>
</property>
<property>
<name>nifi.login.identity.provider.configuration.file</name>
<value>${nifi.conf.directory}/login-identity-providers.xml</value>
</property>
<property>
<name>nifi.state.management.provider.cluster</name>
<value>zk-provider</value>
</property>
<property>
<name>nifi.ui.banner.text</name>
<value/>
</property>
<property>
<name>nifi.security.user.oidc.discovery.url</name>
<value/>
</property>
<property>
<name>nifi.content.repository.implementation</name>
<value>org.apache.nifi.controller.repository.FileSystemRepository</value>
</property>

```

NiFi Registry Default Properties

```

<!--
DO NOT INCLUDE COMMENTS WHEN COPYING TO CM XML EDITOR
-->
<!--
This represents the default properties that can be copied and overridden
using CM nifi-registry.properties xml safety valves.
One or more properties can be copied and edited as needed. Safety values
can also be used for defining dynamic properties

```

```
        that may not exist by default
-->
<property>
<name>nifi.registry.web.war.directory</name>
<value>${NIFI_REGISTRY_DIST}/lib</value>
</property>
<property>
<name>nifi.registry.web.http.host</name>
<value>${CSD_HOST}</value>
</property>
<property>
<name>nifi.registry.db.driver.class</name>
<value>org.h2.Driver</value>
</property>
<property>
<name>nifi.registry.web.jetty.working.directory</name>
<value>${nifi.registry.working.directory}/work/jetty</value>
</property>
<property>
<name>nifi.registry.db.username</name>
<value>nifireg</value>
</property>
<property>
<name>nifi.registry.web.https.port</name>
<value/>
</property>
<property>
<name>nifi.registry.security.truststore</name>
<value/>
</property>
<property>
<name>nifi.registry.db.url.append</name>
<value/>
</property>
<property>
<name>nifi.registry.security.truststorePasswd</name>
<value/>
</property>
<property>
<name>nifi.registry.web.https.host</name>
<value/>
</property>
<property>
<name>nifi.registry.security.keystoreType</name>
<value/>
</property>
<property>
<name>nifi.registry.db.directory</name>
<value/>
</property>
<property>
<name>nifi.registry.security.identity.provider</name>
<value/>
</property>
<property>
<name>nifi.registry.web.jetty.threads</name>
<value>200</value>
</property>
<property>
<name>nifi.registry.kerberos.service.keytab.location</name>
<value>${CONF_DIR}/nifiregistry.keytab</value>
</property>
<property>
<name>nifi.registry.kerberos.spnego.keytab.location</name>
```

```
<value>${CONF_DIR}/nifiregistry.keytab</value>
</property>
<property>
<name>nifi.registry.db.driver.directory</name>
<value/>
</property>
<property>
<name>nifi.registry.db.password</name>
<value>nifiereg</value>
</property>
<property>
<name>nifi.registry.security.keystorePasswd</name>
<value/>
</property>
<property>
<name>nifi.registry.security.truststoreType</name>
<value/>
</property>
<property>
<name>nifi.registry.security.authorizer</name>
<value>managed-authorizer</value>
</property>
<property>
<name>nifi.registry.db.maxConnections</name>
<value>5</value>
</property>
<property>
<name>nifi.registry.providers.configuration.file</name>
<value>${nifi.registry.conf.directory}/providers.xml</value>
</property>
<property>
<name>nifi.registry.db.url</name>
<value>jdbc:h2:${nifi.registry.working.directory}/database/nifi-registry-
primary;AUTOCOMMIT=OFF;DB_CLOSE_ON_EXIT=FALSE;LOCK_MODE=3;LOCK_TIMEOUT=25000;WRITE_DELAY=
value>
</property>
<property>
<name>nifi.registry.kerberos.spnego.authentication.expiration</name>
<value>12 hours</value>
</property>
<property>
<name>nifi.registry.security.keystore</name>
<value/>
</property>
<property>
<name>nifi.registry.security.authorizers.configuration.file</name>
<value>${nifi.registry.conf.directory}/authorizers.xml</value>
</property>
<property>
<name>nifi.registry.security.keyPasswd</name>
<value/>
</property>
<property>
<name>nifi.registry.security.identity.providers.configuration.file</name>
<value>${nifi.registry.conf.directory}/identity-providers.xml</value>
</property>
<property>
<name>nifi.registry.web.http.port</name>
<value>18080</value>
</property>
<property>
<name>nifi.registry.security.needClientAuth</name>
<value/>
</property>
```

```
<property>  
<name>nifi.registry.db.sql.debug</name>  
<value>>false</value>  
</property>
```