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Hadoop Common / HADOOP-14445

## Use DelegationTokenIssuer to create KMS delegation tokens that can authenticate to all KMS instances

### ▼ Details

Type:	<input checked="" type="radio"/> Bug	Status:	RESOLVED
Priority:	<input checked="" type="radio"/> Major	Resolution:	Fixed
Affects Version/s:	2.8.0, 3.0.0-alpha1	Fix Version/s:	<a href="#">3.2.0</a> , <a href="#">3.0.4</a> , <a href="#">3.1.2</a>
Component/s:	<a href="#">kms</a>		
Labels:	None		
Environment:	CDH5.7.4, Kerberized, SSL, KMS-HA, at rest encryption		
Target Version/s:	<a href="#">2.8.4</a> , <a href="#">3.2.0</a>		
Hadoop Flags:	Reviewed		
Release Note:	▼ <!-- markdown -->		

This patch improves the KMS delegation token issuing and authentication logic, to enable tokens to authenticate with a set of KMS servers. The change is backport compatible, in that it keeps the existing authentication logic as a fall back.

Historically, KMS delegation tokens have ip:port as service, making KMS clients only able to use the token to authenticate with the KMS server specified as ip:port, even though the token is shared among all KMS servers at server-side. After this patch, newly created tokens will have the KMS URL as service.

A 'DelegationTokenIssuer' interface is introduced for token creation.

### ▼ Description

As discovered in [HADOOP-14441](#), KMS HA using LoadBalancingKMSClientProvider do not share delegation tokens. (a client uses KMS address/port as the key for delegation token)

```
DelegationTokenAuthenticatedURL#openConnection

if (!creds.getAllTokens().isEmpty()) {
    InetSocketAddress serviceAddr = new InetSocketAddress(url.getHost(),
        url.getPort());
    Text service = SecurityUtil.buildTokenService(serviceAddr);
    dToken = creds.getToken(service);
```

But KMS doc states:

Delegation Tokens

Similar to HTTP authentication, KMS uses Hadoop Authentication for delegation tokens too.

Under HA, A KMS instance must verify the delegation token given by another KMS instance, by checking the shared secret used to sign the delegation token. To do this, all KMS instances must be able to retrieve the shared secret from ZooKeeper.

We should either update the KMS documentation, or fix this code to share delegation tokens.

### ▼ Attachments

<a href="#">HADOOP-14445.002.patch</a>	38 kB	26/Dec/17 21:46
<a href="#">HADOOP-14445.003.patch</a>	52 kB	10/Jan/18 00:52
<a href="#">HADOOP-14445.004.patch</a>	71 kB	07/Mar/18 07:55
<a href="#">HADOOP-14445.05.patch</a>	73 kB	08/Mar/18 07:51
<a href="#">HADOOP-14445.06.patch</a>	72 kB	09/Mar/18 07:04

<a href="#">HADOOP-14445.07.patch</a>	71 kB	14/Mar/18 22:59
<a href="#">HADOOP-14445.08.patch</a>	81 kB	23/Mar/18 05:58
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<a href="#">HADOOP-14445.addendum.patch</a>	12 kB	15/Oct/18 03:27
<a href="#">HADOOP-14445.branch-2.000.precommit.patch</a>	0.4 kB	09/Apr/18 19:58
<a href="#">HADOOP-14445.branch-2.001.precommit.patch</a>	0.4 kB	09/Apr/18 20:54
<a href="#">HADOOP-14445.branch-2.01.patch</a>	82 kB	05/Apr/18 22:26
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<a href="#">HADOOP-14445.branch-2.03.patch</a>	83 kB	09/Apr/18 21:56
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<a href="#">HADOOP-14445.branch-2.05.patch</a>	82 kB	10/Apr/18 04:51
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<a href="#">HADOOP-14445.branch-2.8.006.patch</a>	82 kB	10/Apr/18 06:35
<a href="#">HADOOP-14445.branch-2.8.revert.patch</a>	85 kB	07/May/18 18:29
<a href="#">HADOOP-14445.branch-3.0.001.patch</a>	88 kB	12/Oct/18 16:45
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<a href="#">HADOOP-14445-branch-2.8.002.patch</a>	38 kB	26/Dec/17 03:38
<a href="#">HADOOP-14445-branch-2.8.patch</a>	31 kB	26/May/17 20:43

## Issue Links

### breaks

- ☒ [HADOOP-15408](#) HADOOP-14445 broke Spark. - RESOLVED
- ☒ [HADOOP-15431](#) KMSTokenRenewer should work with KMS\_DELEGATION\_TOKEN which has ip:port as ser... - RESOLVED
- ☒ [HADOOP-15861](#) Move DelegationTokenIssuer to the right path - RESOLVED
- ☒ [HADOOP-15997](#) KMS client uses wrong UGI after HADOOP-14445 - RESOLVED
- ☒ [HADOOP-16199](#) KMSLoadBalanceClientProvider does not select token correctly ✖ RESOLVED

Show 4 more links (1 breaks, 2 is duplicated by, 1 relates to)

## Activity

↑

Wei-Chiu Chuang added a comment - 22/May/17 17:33

I found my jira summary is confusing. It's actually the kms client (in LoadBalancingKMSClientProvider configuration) that's to blame. KMS instances do share delegation tokens, but client does not know it can send KMS#1's delegation token to KMS#2 for authentication.

Wei-Chiu Chuang added a comment - 23/May/17 18:03

Another design requirement is to make sure this works for a client to access two different KMS clusters.

Rushabh Shah added a comment - 26/May/17 20:43

The patch includes this jira and [HADOOP-14134](#)

This will make RM conf independent of config key: hadoop.security.key.provider.path

This is just a branch-2.8 patch since we had internal patch for branch-2.8.

I don't think much code has been changed in trunk around this area.

Will try to post trunk patch by early next week.

**yzhangal:** Apologies for delay in posting the patch.

Kindly review.

Rushabh Shah added a comment - 26/May/17 20:51 - edited

weichiu: Thanks a lot for your test case from [HADOOP-14441](#).

I just added couple of things like renew and cancel token in addition to your test case.

Wei-Chiu Chuang added a comment - 26/May/17 21:42

Some quick and pretty minor reviews::

1. KMSClientProvider#clientProvidedUriText does not need to be public.

2. I would really like to see the kms delegation tokens printed in the log at INFO level, just like HDFS delegation tokens. This can be added in {{DistributedFileSystem#addDelegationTokens}}

Yongjun Zhang added a comment - 30/May/17 02:28 - edited

Hi shahrs87,

Thanks much for the patch and weichiu and asuresh for the discussion and review.

I did a review and here are my comments.

1. about new field "clientProvidedUriText"

a. typo "clientProvidedUriText" should be "clientProviderUriText"

b. make it private instead of public, and add accessor methods

c. AND provide a comment on the format of its value.

2. I would like to see a description of the solution as a detailed comment somewhere in the code, maybe right at the new field of item #1.

3. Suggest to change

```
public static KeyProvider createKeyProviderFromToken(final Configuration conf,
    final String tokenServiceValue) throws IOException {
```

to

```
public static KeyProvider createKeyProviderFromTokenService(final Configuration conf,
    final String tokenService) throws IOException {
```

4.

```
/**  
 * This method is created for testing of @LoadBalancingKMSClientProvider
```

```

* since multiple kms servers in unit tests will only differ in port number
* and multiple kms servers in real world application are designed to
* share the same port number.
* @param conf
* @param tokenServiceValue
* @return
* @throws IOException
*/
public static KeyProvider createKeyProviderFromToken(final Configuration conf,
    final String tokenServiceValue) throws IOException {
if (tokenServiceValue == null) {
    return null;
}
if (!tokenServiceValue.contains(",")) {
    return createKeyProviderFromUri(conf, URI.create(tokenServiceValue));
}
// The following code will be executed in just unit tests.
// The syntax for kms servers will be
// kms://localhost:port1/kms,kms://localhost:port2/kms
String[] keyProviderUrisStr = tokenServiceValue.split(".");

```

- a. Comment need to be changed to say that "," only appear in tokenServiceValue of unit tests because different ports need to be used in unit tests.  
b. And indicate what format to expect for production code, and what format to expect for unit test.  
c. We can separate the code used for test only to a separate method and call this method in the above method, to make it more clear.

5. With this solution, if we add a new kms server, the currently running application will not be able to use the new kms server. And if we replace an existing kms server with a different one, currently running application may fail. So the KMS HA may not be really HA.  
This may not be a big concern, but I would like to bring it up here.

Thanks.

▼  Yongjun Zhang added a comment - 30/May/17 02:39

It would be nice to have a description of the solution in this jira too [shahrs87](#). Thanks.

▼  Rushabh Shah added a comment - 30/May/17 15:30 - edited

[yzhangal](#): I understand that comments are not adequate in this patch.  
I submitted this patch just for iteration purpose.  
I will add verbose comments in my next patch.  
Thanks for the quick reviews [weichiu yzhangal](#).

And if we replace an existing kms server with a different one, currently running application may fail. So the KMS HA may not be really HA.

Also the current patch is incompatible since the new kms clients won't be able to find the token which in the format of ip:port. We can fallback to old behavior just by adding an if clause saying if we don't find a token with the new format, fallback to old format. In this way, we will be able to address the incompatibility.  
Let me know if you have any feedback. Once again thank you all !!

▼  Yongjun Zhang added a comment - 30/May/17 17:26

Thanks much [shahrs87](#).

My thinking is:

For clients which are running without the fix, the behavior will be the same as before;  
For clients which are started after installing the fix, the tokens will be stored with the new key;  
If different pieces of a client job are running with different software (some has the fix, some don't), then fallback may or may not work.

Does this make sense to you? Maybe we can add the tokens with both the old key and new key, then apply fallback when needed, so fallback will be successful?

asuresh's #2 proposal at

<https://issues.apache.org/jira/browse/HADOOP-14441>

[focusedCommentId=16019893&page=com.atlassian.jira.plugin.system.issuetabpanels:comment-tabpanel#comment-16019893](#)  
seems more robust, but I'm not sure how involved this solution is too.

Thanks.

▼  Rushabh Shah added a comment - 30/May/17 17:47

For clients which are running without the fix, the behavior will be the same as before;

**KMSClientProvider.java**

```
public DelegationTokenAuthenticatedURL createKMSAuthenticatedURL() {
    return new DelegationTokenAuthenticatedURL(configurator) {
        @Override
        public Text getDelegationTokenService(URL url) {
            return clientProvidedUriText;
        }
    };
}
```

For example if a job was submitted with a token having tokenService in the format ip:port.

The newer client having the fix will fail to read the token with tokenService as full kms url even if the job client has acquired the token and the token is good to authenticate.

Does it make sense ?

▼  Yongjun Zhang added a comment - 31/May/17 18:23 - edited

Thanks shahrs87,

As I commented earlier, asuresh's #2 proposal at

<https://issues.apache.org/jira/browse/HADOOP-14441?focusedCommentId=16019893&page=com.atlassian.jira.plugin.system.issuetabpanels:comment-tabpanel#comment-16019893>

seems more robust, and more backward compatible.

We need hadoop.kms.authentication.zk-dt-secret-manager.enable set to true anyways.

Have you tried this approach? Any thought?

Thanks.

--Yongjun

▼  Rushabh Shah added a comment - 31/May/17 18:32

seems more robust, and more backward compatible.

I don't think its more robust since currently RM (kms token renewer) is still dependent on local conf to find the key provider since the current token service format is ip:port. It doesn't know anything about the protocol (http or https).

After this change, RM will instantiate a kms client provider independent of conf since the kms url is present in the token service value.

asuresh: please correct me if I am wrong.

We made this fix as a part of [HADOOP-14134](#).

Have you tried this approach? Any thought?

I haven't tried this approach yet.

▼  Yongjun Zhang added a comment - 31/May/17 22:42 - edited

Hi shahrs87,

The current format of key provider URL is:

```
/**
 * This provider expects URIs in the following form :
 * kms://<PROTO>@<AUTHORITY>/<PATH>
 *
 * where :
 * - PROTO = http or https
 * - AUTHORITY = <HOSTS>[:<PORT>]
 * - HOSTS = <HOSTNAME>[;<HOSTS>]
 * - HOSTNAME = string
```

```
* - PORT = integer
*
* If multiple hosts are provider, the Factory will create a
* {@link LoadBalancingKMSClientProvider} that round-robs requests
* across the provided list of hosts.
*/
```

Each host corresponds to one KMS, I thought we just need split the hosts part, and make each one its own URI with the corresponding host, and use that for tokenService key for each KMS.

So when we collect a delegation token from one KMS, we associate the token with each KMS and the corresponding URI. It's more robust to me because the info about each KMS is only about itself, no host concatenation in the key of <key, DT> map.

About

currently RM (kms token renewer) is still dependent on local conf to find the key provider since the current token service format is ip:port. It doesn't know anything about the protocol (http or https).

With either the current patch of the Arun's #2 solution, we can address this problem, so this seems an orthogonal issue, no?

Hi [asuresh](#), thanks for your earlier proposal, would you please comment here?

Thanks.

▼ Arun Suresh added a comment - 31/May/17 23:46

[yhangal](#), Apologies for the delay

Each host corresponds to one KMS, I thought we just need split the hosts part, and make each one its own URI with the corresponding host, and use that for tokenService key for each KMS.

I think the KMSClientProvider.KeyProviderFactory does this.

So when we collect a delegation token from one KMS, we associate the token with each KMS and the corresponding URI.

Yup... this was precisely what I was thinking.

▼ Rushabh Shah added a comment - 01/Jun/17 14:17 - edited

With either the current patch of the Arun's #2 solution, we can address this problem, so this seems an orthogonal issue, no?

Let me understand Arun's#2 proposed fix.

For example: if the loadbalancing kms url is `kms://https@kms01.example.com;kms02.example.com:9600/kms`

After applying Arun's#2 proposed fix, what will the token map look like ?

1.

TokenService	Token
<code>kms://https@kms01.example.com:9600/kms</code>	t1
<code>kms://https@kms02.example.com:9600/kms</code>	t1

or

2.

TokenService	Token
<code>kms01.example.com's ip:9600</code>	t1
<code>kms02.example.com's ip:9600</code>	t1

[asuresh](#) [yhangal](#)

▼ Arun Suresh added a comment - 01/Jun/17 17:13

[shahrs87](#), As per [SecurityUtil#buildTokenService](#) it should be the latter:

TokenService	Token
<code>kms01.example.com's ip:9600</code>	t1

kms02.example.com's ip:9600 t1

✓  Rushabh Shah added a comment - 01/Jun/17 17:25

Rushabh S Shah, As per SecurityUtil#buildTokenService it should be the latter:

#### About

currently RM (kms token renewer) is still dependent on local conf to find the key provider since the current token service format is ip:port. It doesn't know anything about the protocol (http or https).

With either the current patch of the Arun's #2 solution, we can address this problem, so this seems an orthogonal issue, no?

If its the latter, then RM would still depend on local conf to create key provider object to renew token.

✓  Arun Suresh added a comment - 01/Jun/17 17:29

Not sure I follow. Why is the fact that RM depends on local conf to create the key provider a bad thing ?

✓  Yongjun Zhang added a comment - 01/Jun/17 17:38

Thanks [shahrs87](#) and [asuresh](#).

I agree with what Arun suggested here about the format because that's what currently used. Introducing a new format would mean incompatibility.

In the future (a separate jira), I think it'd be nice to have a kms-nameservice like NameNode's nameservice, and associate the KMS related configs with a kms-nameservice. We might have multiple KMS-nameservices, say, one for each cluster. This would be a config format change.

Either ways, accessing local conf is necessary.

Thanks.

✓  Daryn Sharp added a comment - 01/Jun/17 18:57

*No more config-based solutions.* It's not logically possible to manage and update configs in a multi-cluster/multi-kms environment.

1. A token renewer, like the RM, must be able to instantiate a key provider client in the absence of any configs. That means the service must contain the provider uri or multi-kms environments are not possible.
2. Duplicating tokens is a no-go. The RM will attempt to unnecessarily renew all of them.

The current implementation is broken by design. If we absolutely must keep compatibility with a dubious mix-n-match version environment, it's either going to be hacky, or we abandon the current kms scheme and create a new one that works correctly.

✓  Yongjun Zhang added a comment - 02/Jun/17 16:35

Thanks [daryn](#).

No more config-based solutions

It seems unavoidable if we want to implement ksm-nameservice.

For this jira, maybe we just go with what [shahrs87](#) has, use key with concatenated host, if can't find match, fallback to original key format. If user add new KMS and replace KMS, the clients need to be restarted with the new config.

What do you think [shahrs87](#), [asuresh](#) and [daryn](#)?

Thanks.

✓  Daryn Sharp added a comment - 02/Jun/17 18:08

It seems unavoidable if we want to implement ksm-nameservice.

I'm not sure what this means but anything config based is not scalable. Updating configs of tens of thousands of nodes, launchers, oozie, storm, spark, etc and restarting the services is just not logically possible. This is largely why we added the ability for the NN to tell the client the kms uri, plus it added much needed multi-kms support.

If user add new KMS and replace KMS, the clients need to be restarted with the new config.

Another illustration of why a config-based approach is a bad idea. The cleanest way to manage a kms cluster is transparently via a cname or multi-A record.

I've consulted with Rushabh on the initial design, I'll review the actual patch today.

▼  [Yongjun Zhang](#) added a comment - 02/Jun/17 18:14

Thanks [daryn](#).

When I say it's unavoidable, I mean, if we use a nameservice, we need to consult the config to know what's associated with the nameservice. For example NN nameservice, if we do "distcp hdfs://nameservice1:/xyz hdfs://nameservice2:/abc", we need to look up nameservice1/2 in config, to know the associated NNs.

Similarly, if we use shared delegation token for all KMS servers, we could define a kms-nameservice to associate with the set of KMS servers, and the tokenService can just be the kms-nameservice, and from the config, we can find out the associated KMS server information.

Does that make sense?

▼  [Arun Suresh](#) added a comment - 02/Jun/17 18:42

[daryn](#), agreed that duplicating the entries is bad if the RM will blindly renew all of them. Although, IIRC, the tokens are renewed only if they are expired, so if they are renewed serially, it should not be a problem. But I do agree, since RM also renews DTs on other app events as well (app recovery etc) - for which duplicate renewal, might not be preventable.

The cleanest way to manage a kms cluster is transparently via a cname or multi-A record

True, in which case one would not even need the LoadBalancingKMSClientProvider.

I do like the idea of using a nameservice though, as [yzhangal](#) suggested which will ensure that we will still have only 1 single entry.

▼  [Daryn Sharp](#) added a comment - 02/Jun/17 19:48

I had a feeling "nameservice" alluded to the hdfs HA configuration – which is horrible for the reasons I've detailed and why we don't use it. I'll politely stress and repeat: **Updating configs of tens of thousands of nodes, launchers, oozie, storm, spark, etc and restarting the services is just not logically possible.**

Although, IIRC, the tokens are renewed only if they are expired, so if they are renewed serially, it should not be a problem.

The RM renews immediately to verify token validity and to determine the next renewal time. If they are expired, it's too late. Any kp token using just a service authority cannot determine the kp uri and is only renewable via the kp uri in the config – enforcing one and only 1 kms cluster. If the kp client can be instantiated via the service, then multi-kms setups are possible.

I do like the idea of using a nameservice though, as Yongjun Zhang suggested which will ensure that we will still have only 1 single entry.

There must be a disconnect here. 1 single entry is the advantage of just setting the service to the provider uri. Adding an extra layer of indirection through the config creates a logistical mess with no added benefits. I'm not going to bounce all my services and RMs because I added or changed a KMS cluster.

Here's the big picture we are trying to achieve:

- client requests kp uri from NN
- client creates kp client from kp uri
- client gets tokens and sets service to kp uri
- RM calls kms token renewer which uses kp uri in service to create kp client
- tasks use the NN->kp uri mapping established at job submission to locate tokens

It's config-less other than a setting on the NN. This is what we are running internally because the current kms client design is completely broken. We now have the ability to enable EZs on a NN and/or change kms cluster configuration without changing configs or restarting services.

We only care about this load balancing provider because we need to ensure the kp client can be instantiated from the service.

▼  [Yongjun Zhang](#) added a comment - 05/Jun/17 20:59

Hi [daryn](#),

Thanks for your detailed sharing. Would you please take a look at [shahrs87](#)'s patch as you planned? thanks.

▼  [Yongjun Zhang](#) added a comment - 19/Jul/17 21:50

Hi [shahrs87](#),

Wonder if you have any update on this issue?

Thanks much.

▼  [Daryn Sharp](#) added a comment - 20/Jul/17 13:14

We've been really busy stabilizing 2.8 for production but plan to circle back to this jira soon.

▼  [Yongjun Zhang](#) added a comment - 20/Jul/17 16:51

Thanks [daryn](#).

▼  [Xiao Chen](#) added a comment - 27/Nov/17 19:44

Hi [shahrs87](#) and [daryn](#),

Hope you had a great thanksgiving..

Any updates on this?

▼  [Xiao Chen](#) added a comment - 28/Nov/17 07:02

Thanks all for the discussions about this, and Rushabh for a demonstration patch.

I've read through the comments of this one as well as [HADOOP-14441](#). The patch would also take care of [HADOOP-14134](#).

To summarize and make sure my understanding is correct:

- We all agree the token sharing will be an issue
- For HDFS clients, the kp uri is already provided by NN. (Already done by [HADOOP-14104](#))
- Token should be recognized from UGI credentials when clients trying to authenticate. (reason for [HADOOP-14441](#))
- Token renewal currently reads configs. We'd want this to be read from the token, and make sure it's HA'ed. (reason for [HADOOP-14134](#))
- Besides the ip:port of the KMS instance, there's also information about whether it's http or https. We'd need a way to get this information, during renewal/cancellation.
- Backwards compatible: old clients should work with new server; new clients should work with old server.

Having a way to let clients work without reading configs feels to me to be a better approach, and more inline with [HADOOP-14104](#), and the 'transparent' name of HDFS encryption. It feels to me a 'nameservice' solution doesn't add much value than the current way of using the full kp uri, which by itself is a representation of available services. For added KMS scenario, I think it's fine to let existing tokens to use the existing instances in that token's uri - presumably this is better than deploying the config and restarting the client. For removed KMS instances, LBKMSCP handles it.

It seems to me the patch here has handled most of this pretty well. I plan to take a crack at this tomorrow to:

- rebase to trunk
- address some earlier comments
- modify with some of my thoughts: seems we can use LBKMSCP to store the full provider uri; some tests to verify compatibility

If you have any comments, please let me know.

▼  [Rushabh Shah](#) added a comment - 28/Nov/17 17:47

Hi [xiaochen](#),

Thanks for taking a look at the patch.

You have summarized it pretty well.

I just have to figure out how the old tokens will work with the upgraded resourcemanager.

The current patch will break cancelling and renewing old tokens (ip:port format) with the upgraded resourcemanager.

Do you mind if I refresh the patch in few days ?

Right now my high priority work is to add support EZ for Webhdfs file system ([HDFS-12355](#)).

It seems the progress is stuck there in getting reviews. Since you are reviewing many of my EZ related patches, do you mind reviewing [HDFS-12396](#) ?

Since that progress is stuck, I will find some cycles to update this patch.

Hope you don't mind.

▼ Daryn Sharp added a comment - 28/Nov/17 17:59

The super easy solution to compatibility: if kp conf is set, unconditionally use it, else use the token's service to instantiate the provider.

Today the token service is irrelevant and there "can be only one provider" per the conf. Let's keep that. It's compatible for both old/new clients submitting jobs.

Before enabling the new behavior, leave the RM's kp conf set during the transition. New clients acquire tokens with a service uri but it continues to be ignored by the RM. When all clients are upgraded, remove the kp conf from the RM's conf. Done.

▼ Xiao Chen added a comment - 28/Nov/17 18:01 - edited

Thanks for the offering [shahrs87](#), totally fine if you want to update the patch - I just want momentum on this. 😊

For compatibility, I think we need:

- old client works with new format token
- old client renewer works with new token
- new client works with old format token
- new client renewer works with old format token (the RM case you commented)

This is rather exhaustive, but IMO necessary to support rolling upgrade and clients that talks to multiple clusters.

I'll review [HDFS-12355](#) and related jiras.

▼ Xiao Chen added a comment - 28/Nov/17 18:08

Oops, message race with Daryn.

if kp conf is set, unconditionally use it

Yeah I think this takes care of all those enumerations. 😊

This way we'd require all clients to update their config (remove kp) after the upgrade though. Since this would be a one-off, I think it's probably fine. Assuming we document it clearly. Will think about this in more details during review...

▼ Daryn Sharp added a comment - 05/Dec/17 20:18

This way we'd require all clients to update their config (remove kp) after the upgrade though.

Eventually, yes, but there should be no rush. The client is going to use the kp specified by the NN. It only falls back to conf when the NN is old and cannot tell the client if it uses a kp or not.

▼ Xiao Chen added a comment - 07/Dec/17 04:55

Looking around this again, I don't think the conf override solution can solve the following problem:

For pure kms operations like `hadoop key list`, we rely on the kp conf to list from the correct kms. Even with this fix, we'd still need the conf. It's not reasonable to let client separate their configurations for different purpose of the hadoop rpc / apis.

Checking the code, I think old clients / renewer should always work even with the new token. IMO we need to have a fall back logic to the configurations, rather than override. Specifically, when

{new clients cannot find the new token format, new renewer cannot create kp from the token format}

, they'll use the config as a last measure. Error handling is still tricky since we'd ideally want to tell from the exception or client log on what exactly was attempted and failed.

Other than the above I think this really should work.

Some minor comments:

- I'd mark `DelegationTokenAuthenticatedURL#getIdentityTokenService` as `InterfaceAudience.Private`.
- Add comments on the KMSCP override of the above method to explain why.

4/19/23, 11:50 PM

[HADOOP-14445] Use DelegationTokenIssuer to create KMS delegation tokens that can authenticate to all KMS instances - ASF JIRA

- I'm scared of `SecurityUtil#useIpForTokenService`, which is used to build `TokenService`. I don't see any problems but would love to see a test covering it.
- Can we extract the unit-test-only `KMSUtil` code to a test-only method, and make it only possible to execute from unit test? Maybe via some injector or better approaches.

genericqa added a comment - 26/Dec/17 04:59

+1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	30m 42s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 1 new or modified test files.
<b>branch-2.8 Compile Tests</b>			
0	mvndep	1m 14s	Maven dependency ordering for branch
+1	mvninstall	7m 38s	branch-2.8 passed
+1	compile	6m 59s	branch-2.8 passed
+1	checkstyle	0m 26s	branch-2.8 passed
+1	mvnsite	1m 26s	branch-2.8 passed
+1	findbugs	2m 12s	branch-2.8 passed
+1	javadoc	1m 9s	branch-2.8 passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 8s	Maven dependency ordering for patch
+1	mvninstall	1m 2s	the patch passed
+1	compile	6m 54s	the patch passed
+1	javac	6m 54s	the patch passed
-0	checkstyle	0m 26s	hadoop-common-project: The patch generated 3 new + 23 unchanged - 0 fixed = 26 total (was 23)
+1	mvnsite	1m 24s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	findbugs	2m 35s	the patch passed
+1	javadoc	1m 8s	the patch passed
<b>Other Tests</b>			
+1	unit	8m 25s	hadoop-common in the patch passed.
+1	unit	2m 17s	hadoop-kms in the patch passed.
+1	asflicense	0m 24s	The patch does not generate ASF License warnings.
		77m 49s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:c2d96dd
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12903676/HADOOP-14445-branch-2.8.002.patch">https://issues.apache.org/jira/secure/attachment/12903676/HADOOP-14445-branch-2.8.002.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux 70d209c119f3 3.13.0-135-generic #184-Ubuntu SMP Wed Oct 18 11:55:51 UTC 2017 x86_64 x86_64 GNU/Linux
Build tool	maven

Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	branch-2.8 / 19f518d
maven	version: Apache Maven 3.0.5
Default Java	1.7.0_151
findbugs	v3.0.0
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/13886/artifact/out/diff-checkstyle-hadoop-common-project.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/13886/artifact/out/diff-checkstyle-hadoop-common-project.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/13886/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/13886/testReport/</a>
Max. process+thread count	1680 (vs. ulimit of 5000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/13886/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/13886/console</a>
Powered by	Apache Yetus 0.7.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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genericqa added a comment - 26/Dec/17 23:27

 -1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 11s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 2 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 10s	Maven dependency ordering for branch
+1	mvninstall	19m 42s	trunk passed
+1	compile	15m 21s	trunk passed
+1	checkstyle	0m 43s	trunk passed
+1	mvnsite	1m 48s	trunk passed
+1	shadedclient	13m 41s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 19s	trunk passed
+1	javadoc	1m 24s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 9s	Maven dependency ordering for patch
+1	mvninstall	1m 18s	the patch passed
+1	compile	13m 55s	the patch passed
+1	javac	13m 55s	the patch passed
-0	checkstyle	0m 42s	hadoop-common-project: The patch generated 8 new + 122 unchanged - 4 fixed = 130 total (was 126)
+1	mvnsite	1m 39s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	shadedclient	10m 19s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 16s	the patch passed
+1	javadoc	1m 15s	the patch passed
<b>Other Tests</b>			

-1	unit	8m 14s	hadoop-common in the patch failed.
+1	unit	3m 58s	hadoop-kms in the patch passed.
+1	asflicense	0m 33s	The patch does not generate ASF License warnings.
		98m 48s	

Reason	Tests
Failed junit tests	hadoop.fs.viewfs.TestViewFileSystemLocalFileSystem
	hadoop.fs.viewfs.TestViewFileSystemWithAuthorityLocalFileSystem

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:5b98639
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12903738/HADOOP-14445.002.patch">https://issues.apache.org/jira/secure/attachment/12903738/HADOOP-14445.002.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux 49f3f4226fe0 3.13.0-135-generic #184-Ubuntu SMP Wed Oct 18 11:55:51 UTC 2017 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 52babbb
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_151
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/13889/artifact/out/diff-checkstyle-hadoop-common-project.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/13889/artifact/out/diff-checkstyle-hadoop-common-project.txt</a>
unit	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/13889/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/13889/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/13889/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/13889/testReport/</a>
Max. process+thread count	1714 (vs. ulimit of 5000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/13889/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/13889/console</a>
Powered by	Apache Yetus 0.7.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼ Rushabh Shah added a comment - 26/Dec/17 23:51 - edited

Thanks [weichiu](#), [yzhangal](#) and [xiaochen](#) for the great discussion and review comments on the first patch.

I have attached trunk and branch-2.8 version of the patch.

Except for checkstyle warnings, the patch is ready to review.

I thought the trunk and branch-2.8 patch would be identical but that is not the case.

There is some difference in `KMSClientProvider` because of [HADOOP-14987](#).

The change in [HADOOP-14987](#) is only for debugging purpose and there is no feature or major enhancement.

@Xiao: Since you are one of the contributor in that jira, we can backport that jira all the way back to branch-2.8 if you don't mind.

I implemented what we discussed in previous comments.

To summarize let me write below.

- While instantiating `KMSClientProvider`, the token service will be initialized to be the same as `CommonConfigurationKeysPublic.HADOOP_SECURITY_KEY_PROVIDER_PATH`.
- `KMSTokenRenewer` will try to instantiate `KeyProvider` from token service field.  
If it fails to instantiate, it will fallback to the configuration.

I think that should take care of backward compatibility and key shell use cases.

Also added a test case to test backward compatibility for token renewal and cancellation.

I have tried to incorporate all the previous review comments from everyone.

Please let me know if I missed one.

▼  Xiao Chen added a comment - 28/Dec/17 06:35

Thanks a lot [shahrs87](#) for the latest patch, looks good overall.

Some comments from code review:

KMSCP:

- I think we can improve the comments with `dtService` to be clearer. Suggest something along the lines of:

```
/* The value is read from
   ◦ CommonConfigurationKeysPublic.HADOOP_SECURITY_KEY_PROVIDER_PATH from
   ◦ the conf when creating the KeyProvider, and used as the token's service.
   ◦ With this value, later the KeyProviderFactory will be able to instantiate
   ◦ KeyProvider from the token to renew / cancel, without the need to read
   ◦ configs.
```

- Now that we handle the port stuff nicely in unit tests, `fallbackDefaultPortForTesting` and related logic can be removed.
- On `renew` and `cancel`, suggest to add a debug log when `keyProvider == null` for supportability.
- Let's use `HADOOP_SECURITY_KEY_PROVIDER_PATH` instead of `KeyProviderFactory.KEY_PROVIDER_PATH`.

KMSUtil:

- When `createKeyProviderForTests` returns non-null value (before `return kp`), add a info log, since this should only happen in tests

TestKMS:

- It's great to see extra assertions were done in `getTokenService`.
- `doKMSWithZKWithDelegationToken`, do we need to loop through the tokens and verify? After this fix, there would only be 1 kms-dt mapping to the entire url right? IMO we should verify there's just 1 kms-dt.
- `doKMSWithZKWithDelegationToken`, besides verifying renewal, we should also verify some key operations.
- Happy to see the compat test, thanks! We should also verify some key operations too here.
- Trivial, `createKeyProviderForTests` should have a line break after.

HdfsKMSUtil:

- Looks like we can remove the not-used `createKeyProvider` method.

There is also 1 thing that I think missed in the recent compat discussions:

For the clients to 'work', besides creating the kp and the token renewer, there is also the complication of `DelegationTokenAuthenticatedURL` recognizing the token. How would we handle the case where the job submitter's `DelegationTokenAuthenticatedURL#getDelegationTokenService` did not match the cluster's mapper's version, to prevent issues similar to [HADOOP-14441](#)? In other words, if I submit a job using the new jar and get a new format token, but when it's distributed to the cluster, the mappers are still on the old version which tries to get the ip, it won't recognize it and will fall back to kerberos.

IMHO, since `token.setService` is done in KMSCP, what matters here would be to require the job submitter (whoever gets the token) to be on the same version of the mappers (or whatever is actually authenticating using the token). Otherwise, handling this at code level bi-directional would require 1) duplicating the same token with ip (for new submitter, old mapper) and 2) falling back to check old format in `DTAuthURL` (for old submitter, new mapper), which sounds tedious and ugly. Curious to learn the thoughts from you and [daryn](#).

▼  Rushabh Shah added a comment - 02/Jan/18 21:02

Thanks [xiaochen](#) for the review.

There is also 1 thing that I think missed in the recent compat discussions:

That is an excellent catch.

The general contract for hadoop upgrade is client should be the last one to upgrade after all the servers are upgraded.

But this argument doesn't hold true for multi cluster support. We need to support that.

Personally I don't like the idea of duplicating the tokens with different service fields because once the token lifetime expires, RM will have to renew 2 tokens instead of one.

One way I can think is have a conf like `hadoop.kms.token.use.new.format` and treat this release as bridge release.

Default this conf to false.

If the conf value is false, the client will create the token with old format.

KMSCP will have support for renewing/cancelling both format of tokens.

Once all the servers, clients, servers and all the clusters are upgraded, set the conf value to true.

If the conf value is true, it will add the token with new format.

I am also not a big supporter of conf based solutions but to ensure backwards compatibility I am proposing this.

Xiao: Let me know what you think.

Daryn is not back from vacation. He should be in tomorrow. I will discuss with him tomorrow and will update the ticket.

I will address all the review comments in next patch when we have clear way for fixing the last compatibility issue.

  Xiao Chen added a comment - 03/Jan/18 07:31

Thanks for the comments Rushabh.

Agree on duplicating tokens is bad. Conf solution would be better than duplicating tokens, and is necessary for compat. This will bring us down to only support 1-direction compat (instead of bi-directional).

But even with conf, there could also be a time that it's not rolled to all nodes simultaneously (e.g. config deploy timing, multi-cluster etc.). Good we can control when the token creation would use new format, but it looks like we'd still need the fallback in `DelegationTokenAuthenticatedURL#getDelegationTokenService` right (which I'm okay with...)? I thought this could be another layer of authfilters, which can be taken out once we're sure no one is using the old token format. But perhaps just a fallback logic would be easier to do.

I know this stirs too many fallbacks and make the code difficult to read, but seems to be the only way to support rolling upgrade / deployment..

  genericqa added a comment - 10/Jan/18 02:29

 +1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 10s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 2 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 14s	Maven dependency ordering for branch
+1	mvninstall	16m 19s	trunk passed
+1	compile	12m 50s	trunk passed
+1	checkstyle	0m 42s	trunk passed
+1	mvnsite	1m 33s	trunk passed
+1	shadedclient	12m 19s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 0s	trunk passed
+1	javadoc	1m 15s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 8s	Maven dependency ordering for patch
+1	mvninstall	1m 3s	the patch passed
+1	compile	11m 40s	the patch passed
+1	javac	11m 40s	the patch passed

-0	checkstyle	0m 41s	hadoop-common-project: The patch generated 12 new + 122 unchanged - 4 fixed = 134 total (was 126)
+1	mvnsite	1m 31s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	shadedclient	10m 1s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 14s	the patch passed
+1	javadoc	1m 15s	the patch passed
			<b>Other Tests</b>
+1	unit	8m 39s	hadoop-common in the patch passed.
+1	unit	4m 0s	hadoop-kms in the patch passed.
+1	asflicense	0m 33s	The patch does not generate ASF License warnings.
		88m 32s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:5b98639
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12905371/HADOOP-14445.003.patch">https://issues.apache.org/jira/secure/attachment/12905371/HADOOP-14445.003.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux 65541762e658 3.13.0-135-generic #184-Ubuntu SMP Wed Oct 18 11:55:51 UTC 2017 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 8ee7080
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_151
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/13940/artifact/out/diff-checkstyle-hadoop-common-project.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/13940/artifact/out/diff-checkstyle-hadoop-common-project.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/13940/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/13940/testReport/</a>
Max. process+thread count	1431 (vs. ulimit of 5000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/13940/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/13940/console</a>
Powered by	Apache Yetus 0.7.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼  Rushabh Shah added a comment - 10/Jan/18 15:45

Attaching a new patch for trunk which fixes the incompatibility that were discussed in previous comments and addressing the review comments made by Xiao on the previous patch.

Added a bunch of test cases to verify compatibility.

I think we can improve the comments with dtService to be clearer. Suggest something along the lines of:

Addressed in latest patch.

Now that we handle the port stuff nicely in unit tests, fallbackDefaultPortForTesting and related logic can be removed.

Addressed in latest patch.

On renew and cancel, suggest to add a debug log when keyProvider == null for supportability.

Addressed in latest patch.

Let's use HADOOP\_SECURITY\_KEY\_PROVIDER\_PATH instead of KeyProviderFactory.KEY\_PROVIDER\_PATH.

Addressed in latest patch.

When createKeyProviderForTests returns non-null value (before return kp), add a info log, since this should only happen in tests

Addressed in latest patch.

doKMSWithZKWithDelegationToken, do we need to loop through the tokens and verify? After this fix, there would only be 1 kms-dt mapping to the entire url right? IMO we should verify there's just 1 kms-dt.

Addressed in latest patch.

doKMSWithZKWithDelegationToken, besides verifying renewal, we should also verify some key operations.

This patch has nothing to do with key operations. Key shell commands don't use delegation tokens. They use kerberos tickets. This jira is only changing delegation token handling part. The existing key shell tests are enough.

If you think existing tests are not enough, then please open a new jira to cover that.

Happy to see the compat test, thanks! We should also verify some key operations too here.

Same comment as last one.

HdfsKMSUtil: Looks like we can remove the not-used createKeyProvider method.

This method is getting called from DFSUtil#createKeyProviderCryptoExtension. Namenode calls this method to create key provider.

So we cannot remove this method.

xiaochen: please review.

  Xiao Chen added a comment - 24/Jan/18 17:26 - edited

Thanks for the work here Rushabh, latest patch looks really promising! Appreciate the thorough test coverage.

I also ran some more tests with this patch on a test cluster, and things look good. The binary upgrade is compatible, and the format switch is done with an additional config deployment. This is more or less inline with what daryn suggested above I think.

Some comments in latest patch, mostly nits:

- We need some sort of formal documentation on upgrading -> changing the config. Either in docs or a detailed release note would do.
- KMSCP: Please rename the variables to be the common hadoop naming convention (xxx\_KEY, xxx\_DEFAULT)
- The above config should be added to core-default.
- KMSCP: typo, "then he value is read from" s/he value/the value/g
- KMSCP: There are some extra line breaks after createKMSAuthenticatedURL.
- KMSCP: containsKmsDt's existing log isn't accurate. Suggest to move that to after the getTokenFromCredentials call, and log out what token it actually got.
- TestLoadBalancingKMSClientProvider.java: I think we don't need to set the injector during @BeforeClass
- TestKMS: some unused variables can be removed: line 2606 renewed, line 2653 kp1.

My 'key operations' comments meant to say we actually use the token to do something. You happen to add the same in the new tests. 😊 So overall I'm +1 pending the above.

  Daryn Sharp added a comment - 29/Jan/18 18:16

This fell off my radar. Quick recap since conversation has been fragmented across multiple jiras:

The LB provider requests 1 token, like it should, but it's used only for that specific kms. Ironic the load balancer increased load since it only works by retries cycling back to that kms, doesn't tolerate if that kms goes down, and it went unnoticed. This Jira proposed originally proposed obtaining n-many tokens from each subordinate kms, even though a token from 1 will work for all. The RM would have to unnecessarily renew n-many tokens and if one renew fails, job submission fails. Not good.

Rushabh's original goal addresses a huge kms token renewal issue: it always uses the conf. A server like the RM cannot support a multi-kms environment. The fix is to use the kms provider's uri as the token service so the same provider can later be instantiated for renewal. This also elegantly allows the LB provider to use a single token for all subordinate providers by using its own uri. But it poses compatibility issues for job submitted by a new client that runs old tasks.

--

The semantics for getDelegationTokenService are oddly cyclical. I'd expect it, like other hadoop clients, to premeditate the service name. The latest patch is looking at the creds to decide the service based on whether a token exists so it can attempt to look up a token for that service – which it already looked up.

I'd prefer for the compatibility to be cleaner, and easier to revoke in the future. The patch falls back to conf by assuming URISyntaxException means old service, however a malformed new service should fail to avoid surprises. If it looks like a uri, it must be a valid uri. Simplest approach is check if it contains ://.

I'm also uneasy about a client-side config to control compatibility since clients are notoriously hard to upgrade.

An alternative could remove the service guesswork, client conf, and be a bit more compatible by using a new token kind. The current one is "kms-dt" whereas the standard naming convention should be "KMS\_DELEGATION\_TOKEN". The old token kind could continue using the conf, as today, while the new kind requires a service uri. Effectively the current/old code remains unchanged.

There are tradeoffs to support old clients that must use the host:port. I know I objected to duplicating tokens, but I'll acquiesce if it provides a cleaner approach. Duplicating a new KMS\_DELEGATION\_TOKEN/uri token into a single kms-dt/host:port is "no worse than today":

- Pro: Old client finds kms-dt from old client.
- Pro: Old client finds kms-dt from new client.
- Pro: New client finds kms-dt from old client.
- Pro: New client finds KMS\_DELEGATION\_TOKEN from new client.
- Pro: Old RM renews the kms-dt for both old/new clients.
- **Con:** New RM renews KMS\_DELEGATION\_TOKEN from new clients, effectively a double renew for the same token as kms-dt.

If we are willing to sacrifice a bit for new client + old RM: Abuse fact that old kms clients look for a host:port service regardless of kind. We can trick the RM into not renewing the unknown kind, ex. "kms-dt-deprecated", to avoid the double renew.

- Pro: Old client finds kms-dt from old client.
- Pro: Old client finds kms-dt-deprecated from new client (remember, doesn't care about kind)
- Pro: New client finds kms-dt from old client.
- Pro: New client finds KMS\_DELEGATION\_TOKEN from new client.
- Pro: Old RM renews the kms-dt for old clients (all it knows about)
- **Con:** Old RM renews nothing for new clients (doesn't know KMS\_DELEGATION\_TOKEN or kms-dt-deprecated)
- Pro: New RM renews kms-dt for old clients.
- Pro: New RM renews KMS\_DELEGATION\_TOKEN for new clients (not kms-dt-deprecated)

Thoughts?

  Xiao Chen added a comment - 29/Jan/18 22:12

Thanks [daryn](#) for circling back with the new idea. Mixed feeling (and head scratching)! 😊

I think a new and standardized token kind should work, and conveniently eliminate the need for changing client configs, so SGTM. We may also check in the RM, when its `DelegationTokenRenewer` received a set of tokens, and there are both kms-dt and KMS\_D\_T with the same sequence number, only renew the KMS\_D\_T.

For that to work, we'd need a new `KMSDelegationTokenIdentifier` class and a new `DelegationTokenAuthenticationHandler` too.

Curious: with the current approach (patch 3) we need just an additional config deployment after the upgrade, right? What changed your mind from [earlier](#) (assuming the implementation comments are addressed) ?

I'd rather prefer not to sacrifice old RM + new client. True for RU should still work, but there is still support burden for a new client connecting to an existing cluster. Token issues are not the easiest to figure out, and IMO we should avoid this case when we can.

  Xiao Chen added a comment - 02/Mar/18 17:17

Hi [shahrs87](#) [daryn](#),

What's the progress for this one? Let me know if you want me to continue this patch. Thanks.

  Rushabh Shah added a comment - 02/Mar/18 18:26

Thanks [xiaochen](#) for offering the help.

I have backlog of atleast 4-5 items which will take atleast few weeks to complete.

Assigning to you.

I will offer reviews to move it forward.

Again thanks !

▼ [Xiao Chen](#) added a comment - 05/Mar/18 23:13

Hi [daryn](#) and [shahrs87](#),

I tried the new-token-kind approach, and it doesn't seem to work because it appears the token kind - secret manager is a 1-1 mapping. [code](#)

In other words, we cannot 'Duplicating a new KMS\_DELEGATION\_TOKEN/uri token into a single kms-dt/host:port'. The Service field is not part of the token identifier, and can be changed as we want. But the Kind **is** part of the identifier, so although the renewer can pick it up a token with a changed kind, the server won't accept it. Am I missing anything here?

Will address all other comments soon

▼ [Xiao Chen](#) added a comment - 06/Mar/18 05:35

Hm, actually the token auth was successful, just that the identifier failed to decode properly so log looks odd. Let me play with it a bit...

▼ [Xiao Chen](#) added a comment - 07/Mar/18 08:00

Attached a preliminary [HADOOP-14445.004.patch](#) that handles this via token kind. Code needs cleaning up but it should show the general idea. [shahrs87](#) and [daryn](#), would you mind to take a quick look to see if this converges with what you had in mind?

- Added a new token kind `KMS_DELEGATION_TOKEN`, and made the old `kms-dt` deprecated.
- New client will dup a legacy token if the newly created token is the new kind. This duplication is on by default but can be turned off by config.
- On authentication, the token selection logic will first favor the new kind, and fall back to the old way if not found.
- Added a dedicated Renewer to handle the new token kind. Old renewer behavior unchanged.

Tested this works via some cross-cluster bidirectional distcp runs, where one cluster was upgraded and one was not. Will go through the patch on Wednesday to polish things up, and add more unit tests.

▼ [Xiao Chen](#) added a comment - 08/Mar/18 07:51

Patch 5 ready for review.

All previous comments addressed, except for this one from [daryn](#) that I want some discussions:

The semantics for `getDelegationTokenService` are oddly cyclical. I'd expect it, like other hadoop clients, to premeditate the service name. ...

If I understand correctly, in this patch it would be `KMSCP#getKMSToken`. It currently uses token selector, so should be inline with other services. The other part is in `DelegationTokenAuthenticatedURL#selectDelegationToken` - it's a general class so it does not aware of the token kind of the service that's using it. So I think we should be good to just do it in KMSCP.

▼ [genericqa](#) added a comment - 08/Mar/18 09:58

**-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 17s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 2 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 10s	Maven dependency ordering for branch

+1	mvninstall	17m 56s	trunk passed
+1	compile	17m 6s	trunk passed
+1	checkstyle	1m 6s	trunk passed
+1	mvnsite	1m 50s	trunk passed
+1	shadedclient	13m 51s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 21s	trunk passed
+1	javadoc	1m 27s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 9s	Maven dependency ordering for patch
+1	mvninstall	1m 20s	the patch passed
+1	compile	16m 2s	the patch passed
+1	javac	16m 2s	the patch passed
-0	checkstyle	1m 10s	hadoop-common-project: The patch generated 12 new + 288 unchanged - 7 fixed = 300 total (was 295)
+1	mvnsite	1m 55s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 2s	The patch has no ill-formed XML file.
+1	shadedclient	11m 3s	patch has no errors when building and testing our client artifacts.
+1	findbugs	3m 3s	the patch passed
+1	javadoc	1m 40s	the patch passed
<b>Other Tests</b>			
-1	unit	9m 13s	hadoop-common in the patch failed.
-1	unit	4m 33s	hadoop-kms in the patch failed.
-1	asflicense	0m 39s	The patch generated 2 ASF License warnings.
		106m 11s	

Reason	Tests
Failed junit tests	hadoop.crypto.key.kms.TestLoadBalancingKMSClientProvider
	hadoop.crypto.key.kms.server.TestKMS

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:d4cc50f
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12913556/HADOOP-14445.05.patch">https://issues.apache.org/jira/secure/attachment/12913556/HADOOP-14445.05.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux e8eba6ba1c08 3.13.0-139-generic #188-Ubuntu SMP Tue Jan 9 14:43:09 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 4cc9a6d
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_151
findbugs	v3.1.0-RC1

checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14281/artifact/out/diff-checkstyle-hadoop-common-project.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14281/artifact/out/diff-checkstyle-hadoop-common-project.txt</a>
unit	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14281/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14281/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt</a>
unit	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14281/artifact/out/patch-unit-hadoop-common-project_hadoop-kms.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14281/artifact/out/patch-unit-hadoop-common-project_hadoop-kms.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14281/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14281/testReport/</a>
asflicense	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14281/artifact/out/patch-asflicense-problems.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14281/artifact/out/patch-asflicense-problems.txt</a>
Max. process+thread count	1594 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14281/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14281/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼  Xiao Chen added a comment - 08/Mar/18 18:39

Failed tests in TestKMS are not related. TestLBKMSCP test case should be removed, now that we do not have the URL format configuration - will do that in next rev.

▼  Xiao Chen added a comment - 09/Mar/18 07:03

Patch 6 to fix pre-commit errors.

▼  genericqa added a comment - 09/Mar/18 08:46

 **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 21s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 2 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 19s	Maven dependency ordering for branch
+1	mvninstall	17m 43s	trunk passed
+1	compile	14m 34s	trunk passed
+1	checkstyle	0m 58s	trunk passed
+1	mvnsite	1m 40s	trunk passed
+1	shadedclient	12m 59s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 12s	trunk passed
+1	javadoc	1m 18s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 8s	Maven dependency ordering for patch
+1	mvninstall	1m 8s	the patch passed
+1	compile	12m 58s	the patch passed
+1	javac	12m 58s	the patch passed
-0	checkstyle	1m 3s	hadoop-common-project: The patch generated 1 new + 285 unchanged - 7 fixed = 286 total (was 292)

+1	mvnsite	1m 37s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 1s	The patch has no ill-formed XML file.
+1	shadedclient	9m 55s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 16s	the patch passed
+1	javadoc	1m 17s	the patch passed
			<b>Other Tests</b>
+1	unit	8m 51s	hadoop-common in the patch passed.
+1	unit	4m 16s	hadoop-kms in the patch passed.
-1	asflicense	0m 35s	The patch generated 2 ASF License warnings.
		95m 15s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:d4cc50f
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12913730/HADOOP-14445.06.patch">https://issues.apache.org/jira/secure/attachment/12913730/HADOOP-14445.06.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 794dac7f974b 3.13.0-135-generic #184-Ubuntu SMP Wed Oct 18 11:55:51 UTC 2017 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 113f401
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_151
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14288/artifact/out/diff-checkstyle-hadoop-common-project.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14288/artifact/out/diff-checkstyle-hadoop-common-project.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14288/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14288/testReport/</a>
asflicense	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14288/artifact/out/patch-asflicense-problems.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14288/artifact/out/patch-asflicense-problems.txt</a>
Max. process+thread count	1362 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14288/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14288/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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Wei-Chiu Chuang added a comment - 13/Mar/18 14:58 - edited

Thanks a lot [xiaochen shahrs87](#), [daryn](#), [yzhangal](#) and [asuresh](#)'s valuable comments and patch coding. This is a tricky case and it impacts a number of our customers (as well as partner software). I haven't pay attention to the development of this Jira but just synced up with [xiaochen](#) on the latest patch. The approach totally makes sense to me.

I am reviewing the latest patch and will post review comments later today(-ish).

Daryn Sharp added a comment - 13/Mar/18 16:08

I'll take a look.

Wei-Chiu Chuang added a comment - 13/Mar/18 19:56

Half way through the patch ...

1. The handling of old/new KMS DT needs a little refactor. (`KMSClientProvider#getKMSToken()`, `KMSClientProvider#addDelegationTokens()`) One year from now I won't be able to remember why we did these tricks. I'll be easier to maintain in the future as well.
2. Having a configuration `hadoop.security.kms.client.copy.legacy.token` to flip the switch is fine. It'll need a better documentation, in the release note for example. I looked at the description in `core-default.xml` and honestly I wouldn't understand the caveats. It'll be hard to debug RM scalability problems with this key is on, and I doubt people will understand that once this is turned off, old clients will not be supported any more.
3. There will be cases where clients are on different versions. There will be cases where a client accesses multiple clusters (`distcp`). There will be cases where an application relies on multiple versions of Hadoop libs. It's going to difficult to control client version.
4. Would it make sense to mark `KMSDelegationToken` deprecated?

Wei-Chiu Chuang added a comment - 13/Mar/18 22:24

1. Why was KerberosConfiguration removed in the patch?
2. Looks like

```
private void testDelegationTokenAccess(File testDir, String keyName,
    boolean submitterConfValue, boolean taskConfValue) throws Exception
```

in `TestKMS` is not used. (There are two `testDelegationTokenAccess()`, one is public, the other is private)

Wei-Chiu Chuang added a comment - 13/Mar/18 23:21

And I just found two undocumented configuration keys: `hadoop.security.key.default.bitlength` and `hadoop.security.key.default.cipher`. Filed [HADOOP-15312](#) for that.

Also, you probably want to close the KeyProviders in `TestKMS` test cases. Use `try .. with` clauses should do it. (My bad. I didn't close those KPs in the initial test code which you inherited)

Xiao Chen added a comment - 13/Mar/18 23:45 - edited

Thanks for the review [weichiu](#), good comments! Also looking forward to [daryn](#)'s review. Appreciate the review cycles.

Why was KerberosConfiguration removed in the patch?

I was confused when adding tests and found that it's not used anywhere. Added it back, can have the removal done in a separate jira for cleanliness.

close the KeyProviders in `TestKMS`... in the initial test code ...

Good catch. I think this was missed in day 0 tests. Handled in this patch for review convenience, but created [HADOOP-15313](#) for cleanliness..

All other comments are addressed in patch 7, and good catch on the duplicate test method. Indeed client versions are hard to manage - the config is only a way to not duplicate tokens once we're sure everything is upgraded. I added more text into `core-default.xml` to explain, and will add similar lines to release notes once this is in. Didn't add to documentation because I fear this would confuse average users when they see that from documentation...

Xiao Chen added a comment - 14/Mar/18 23:00

Hi [daryn](#),

Would you be able to find cycles to review this soon (e.g. on Thursday)?

genericcqa added a comment - 15/Mar/18 00:28

X -1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	1m 16s	<a href="#">Docker mode activated.</a>
<b>Prechecks</b>			

+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 2 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 24s	Maven dependency ordering for branch
+1	mvninstall	17m 31s	trunk passed
+1	compile	12m 36s	trunk passed
+1	checkstyle	0m 46s	trunk passed
+1	mvnsite	1m 34s	trunk passed
+1	shadedclient	11m 18s	branch has no errors when building and testing our client artifacts.
+1	findbugs	1m 56s	trunk passed
+1	javadoc	1m 10s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 8s	Maven dependency ordering for patch
+1	mvninstall	0m 58s	the patch passed
+1	compile	11m 28s	the patch passed
+1	javac	11m 28s	the patch passed
-0	checkstyle	0m 55s	hadoop-common-project: The patch generated 1 new + 292 unchanged - 5 fixed = 293 total (was 297)
+1	mvnsite	1m 29s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 2s	The patch has no ill-formed XML file.
+1	shadedclient	8m 44s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 7s	the patch passed
+1	javadoc	1m 18s	the patch passed
<b>Other Tests</b>			
-1	unit	7m 29s	hadoop-common in the patch failed.
+1	unit	3m 50s	hadoop-kms in the patch passed.
-1	asflicense	0m 26s	The patch generated 2 ASF License warnings.
		86m 48s	

Reason	Tests
Failed junit tests	hadoop.util.TestDiskChecker
	hadoop.util.TestReadWriteDiskValidator

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:d4cc50f
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12914598/HADOOP-14445.07.patch">https://issues.apache.org/jira/secure/attachment/12914598/HADOOP-14445.07.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 14cdb2b1b783 4.4.0-89-generic #112-Ubuntu SMP Mon Jul 31 19:38:41 UTC 2017 x86_64 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / e840b4a

maven	version: Apache Maven 3.3.9
Default Java	1.8.0_151
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14314/artifact/out/diff-checkstyle-hadoop-common-project.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14314/artifact/out/diff-checkstyle-hadoop-common-project.txt</a>
unit	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14314/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14314/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14314/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14314/testReport/</a>
asflicense	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14314/artifact/out/patch-asflicense-problems.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14314/artifact/out/patch-asflicense-problems.txt</a>
Max. process+thread count	1380 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14314/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14314/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼  Daryn Sharp added a comment - 15/Mar/18 14:16

I'll make an effort to review today but schedule is very hectic. My last proposal was centered around *not* having another conf option so I'm not pleased that one was added. Initially I'm inclined to do something similar to Rushabh's last patch but I need to do a brain reload.

▼  Xiao Chen added a comment - 15/Mar/18 16:47

Thanks for the scheduling [daryn](#). The config is not a must-set for clients - as your last proposal, we now duplicate tokens into KMS\_D\_T and kms-dt, by default. So everything works except the token is double-renewed by RM.

I added the config as an optimization, to have a way to not duplicate the token (so KMS\_D\_T only) if everything has been upgraded post-[HADOOP-14445](#).

▼  Xiao Chen added a comment - 20/Mar/18 06:57

Hi [daryn](#) / [shahrs87](#),

Any comments?

▼  Rushabh Shah added a comment - 20/Mar/18 22:19

Made a pass through the production code and not test code. Will go through test code tomorrow.

Overall the patch looks very good.

Below are my review comments.

#### KMSClientProvider.java

1. `token.setService(dtService)` should be done in `addDelegationTokens` and not `addTokenToCredentials`

2. final Collection<Token<? extends TokenIdentifier>> tokens = ugi.getTokens();

`Ugi#getTokens` internally creates a new ArrayList of all tokens. Why there is a need to create a new ArrayList for every call to kms ?

#### KMSUtil.java

1. In `createKeyProviderFromTokenService` why do we want to fall back to conf ?

This method is getting called from `KMSTokenRenewer#createKeyProvider` which has delegation token kind as `KMS_DELEGATION_TOKEN`. So we are absolutely sure that the service in the token will be `URI`.

▼  Rushabh Shah added a comment - 21/Mar/18 22:37

One more high level comment.

Lets say we are running in an environment where the job submitter and task client are running with the new code but RM is not upgraded yet.

Job submitter will have `KMS_DELEGATION_TOKEN` and `kms-dt` tokens in its credentials bag.

Lets say the job ran for more than 24 hours so that RM has to renew the token.

Since the RM is old, it will only renew `kms-dt` token and *will fail to renew KMS\_DELEGATION\_TOKEN*.

Now when the new task tries to select the token via `getKMSToken`, it will always select the token with kind

**KMS\_DELEGATION\_TOKEN.**

If I understand the DelegationToken correctly, even if it fails to renew token specific to **KMS\_DELEGATION\_TOKEN**, that token will be valid since **kms-dt** is a copy of **KMS\_D\_T**.

Lets just write a test case to verify.

▼ Xiao Chen added a comment - 23/Mar/18 06:01

Thanks for the review Rushabh, comments addressed in patch 8. Yes the duplicate tokens works as the way you described, the new `testTokenCompatibilityOldRenewer` verifies that. I also verified this in a cluster around patch 4 (replace the jars everywhere except the RM host), if my memory is correct... I'd be happy to verify the final patch again once all comments are settled.

▼ genericqa added a comment - 23/Mar/18 08:15

+1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 31s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 3 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 17s	Maven dependency ordering for branch
+1	mvninstall	23m 14s	trunk passed
+1	compile	26m 33s	trunk passed
+1	checkstyle	0m 43s	trunk passed
+1	mvnsite	1m 26s	trunk passed
+1	shadedclient	10m 36s	branch has no errors when building and testing our client artifacts.
+1	findbugs	1m 51s	trunk passed
+1	javadoc	1m 7s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 8s	Maven dependency ordering for patch
+1	mvninstall	0m 57s	the patch passed
+1	compile	25m 43s	the patch passed
+1	javac	25m 43s	the patch passed
-0	checkstyle	0m 44s	hadoop-common-project: The patch generated 3 new + 292 unchanged - 6 fixed = 295 total (was 298)
+1	mvnsite	1m 23s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 1s	The patch has no ill-formed XML file.
+1	shadedclient	8m 18s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 1s	the patch passed
+1	javadoc	1m 5s	the patch passed
<b>Other Tests</b>			
+1	unit	8m 5s	hadoop-common in the patch passed.
+1	unit	4m 35s	hadoop-kms in the patch passed.
+1	asflicense	0m 40s	The patch does not generate ASF License warnings.
		119m 20s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:8620d2b
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12915822/HADOOP-14445.08.patch">https://issues.apache.org/jira/secure/attachment/12915822/HADOOP-14445.08.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 29ed9e71fdः 4.4.0-64-generic #85-Ubuntu SMP Mon Feb 20 11:50:30 UTC 2017 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 22c5ddb
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_151
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14374/artifact/out/diff-checkstyle-hadoop-common-project.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14374/artifact/out/diff-checkstyle-hadoop-common-project.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14374/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14374/testReport/</a>
Max. process+thread count	1440 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14374/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14374/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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✓  Rushabh Shah added a comment - 25/Mar/18 06:43

Thanks [xiaochen](#) for the revision.

[daryn](#) shared his concerns offline that this patch is dependent on config key and we will live with the baggage of 2 tokens forever.

I will request him to review asap.

But below are my review comments Mostly all are minor.

[KMSClientProvider.java](#)

1. [KMSCP#addTokenToCredentials](#)

I don't agree with the method name. The method name suggests that we are just adding token to credentials object.

But we are doing much more in this method.

I would add `credentials.addToken` line to calling method `addDelegationTokens` and rename method

`addTokenToCredentials` to something like `createLegacyKmsToken`

and add some javadoc to it saying that creating this token is dependent on conf key `KMS_CLIENT_COPY_LEGACY_TOKEN_KEY`.

[DelegationTokenAuthenticatedURL.java](#)

1. Lets change the `selectDelegationToken` to `getDelegationToken`.

In the base implementation, we are not implementing any Selector.

We are just getting the token based on the service field.

In `KMSCP` we can change the method name `getKMSToken` to `selectKMSToken` because there we are implementing

`TokenSelector`.

[core-default.xml](#)

With the default value set to true, the client will locally duplicate the `KMS_DELEGATION_TOKEN` token and create a `kms-dt` token, all other parts of the token remain the same.

Technically this is not true. The service is also changed.

I am sorry I *should have* mentioned all the above comments in the previous review.

TestKMS.java

1. This is unrelated to patch.

Do we really want to stop kdc after every test ?

2. providersCreated: Should this be a list or just KeyProvider ?

It will always create LoadBalancingKeyProivder which internally is a set of KeyProvider.

LoadBalancingKMSCP never throws IOException back. It just swallows all the IOException and just logs it.

Maybe we might want to return MultipleIOException from LoadBalancingKMSCP#close. Totally fine if we want to do it as a separate jira.

But as far as this jira is concerned, we can get rid of MultipleIOException related changes and can just change it to IOException.

3. testKMSHAZKDelegationTokenRenewCancel(final Text tokenKind)

Unable to understand why were are calling setupConfForToken multiple times.

If we filter out all tokens other than passed tokenKind, then we can just call setupConfForToken once at the start.

That way the code will be more clean and *will only* work on token == tokenKind.

In short just one for loop, filter out the token at the start and test renew, cancel and again renew(which should fail) in sequence.

4. testTokenCompatibilityOldRenewer

This test ran for 34.887 on my local machine.

I am sure majority of time was spent in sleeping for token to expire.

Can we decrease the renewInterval period to less than 30 seconds (maybe 5 seconds or so).

Also the test renewed the token 30 times. Is that expected ?

Did you mean to renew after while the code came out of while loop ?

```
LOG.info("Rolling key {} via provider {} with tokenUGI.",keyName);
kp.createKey("newkey", new KeyProvider.Options(conf));
```

The log line should be creating a new key instead of Rolling key.

Let me know if any part is unclear.

 Xiao Chen added a comment - 26/Mar/18 03:51

Thanks shahrs87, will work on the review comments this week.

Daryn Sharp shared his concerns offline that this patch is dependent on config key and we will live with the baggage of 2 tokens forever. ... I will request him to review asap.

It feels to me the config is unavoidable if we want it to be both compatible and new format (be it changing existing uri of kms-dt, aka. patch 3, or adding new token kind, aka. patch 8).

I also thought about further complicate code but ease deployment, by adding yet another config to yarn's DelegationTokenRenewer#handleAppSubmitEvent to *not* renew old tokens. This means once you're sure everyone has upgraded, you don't have to deploy all configs, but just the RM configs. Hesitant to go this direction though due to the added complexity, on top of an already messy area.

Better approach welcome of course.

 Xiao Chen added a comment - 26/Mar/18 22:57 - edited

HADOOP-14445.09.patch should address all comments from Rushabh, exceptions below.

Regarding TestKMS,

2. providersCreated:

I disagree because even in tests we should code against interface. It's implementation detail that createProvider only returns the KMSCP subclass of KeyProvider, and the Test code should just handle KeyProvider for cleanliness. This has been split out to HADOOP-15313 to limit the scope, let's move further discussions there or feel free to file follow-ons.

Agreed LoadBalancingKMSCP#close should throw instead of swallow - feels like a bug. Created HADOOP-15344 for that.

4. testTokenCompatibilityOldRenewer

The reason for not choosing a shorter amount of time is after the renewal, we want to authenticate using that token to all KMS instances. While a small renew interval would mean less wait, it also poses higher risks of flaky test failures if the authentication did not run within that time. Jenkins slaves are usually unreliable. Ideally one should find a way to haul into the secret manager, and change intervals from the test - but that seems pretty messy to do so left as-is. Let me know what you think.  
Also updated the test to verify it actually works with every KMCSP inside LBKMSCP.

genericqa added a comment - 27/Mar/18 01:23

✖ -1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	10m 7s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 3 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 25s	Maven dependency ordering for branch
+1	mvninstall	25m 54s	trunk passed
+1	compile	27m 16s	trunk passed
+1	checkstyle	1m 8s	trunk passed
+1	mvnsite	1m 50s	trunk passed
+1	shadedclient	13m 18s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 7s	trunk passed
+1	javadoc	1m 22s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 9s	Maven dependency ordering for patch
-1	mvninstall	0m 20s	hadoop-kms in the patch failed.
+1	compile	26m 7s	the patch passed
+1	javac	26m 7s	the patch passed
-0	checkstyle	0m 59s	hadoop-common-project: The patch generated 6 new + 286 unchanged - 5 fixed = 292 total (was 291)
+1	mvnsite	1m 36s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 1s	The patch has no ill-formed XML file.
+1	shadedclient	10m 13s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 20s	the patch passed
+1	javadoc	1m 21s	the patch passed
<b>Other Tests</b>			
+1	unit	8m 11s	hadoop-common in the patch passed.
+1	unit	4m 10s	hadoop-kms in the patch passed.
+1	asflicense	0m 39s	The patch does not generate ASF License warnings.
		140m 9s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:8620d2b
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12916295/HADOOP-14445.09.patch">https://issues.apache.org/jira/secure/attachment/12916295/HADOOP-14445.09.patch</a>

Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 87f1938c0cbe 3.13.0-139-generic #188-Ubuntu SMP Tue Jan 9 14:43:09 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / c22d62b
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_151
findbugs	v3.1.0-RC1
mvninstall	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14390/artifact/out/patch-mvninstall-hadoop-common-project_hadoop-kms.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14390/artifact/out/patch-mvninstall-hadoop-common-project_hadoop-kms.txt</a>
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14390/artifact/out/diff-checkstyle-hadoop-common-project.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14390/artifact/out/diff-checkstyle-hadoop-common-project.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14390/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14390/testReport/</a>
Max. process+thread count	1480 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14390/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14390/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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genericqa added a comment - 27/Mar/18 08:04

+1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 12s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 3 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 9s	Maven dependency ordering for branch
+1	mvninstall	25m 30s	trunk passed
+1	compile	28m 30s	trunk passed
+1	checkstyle	0m 57s	trunk passed
+1	mvnsite	1m 46s	trunk passed
+1	shadedclient	12m 44s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 15s	trunk passed
+1	javadoc	1m 22s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 10s	Maven dependency ordering for patch
+1	mvninstall	1m 17s	the patch passed
+1	compile	29m 27s	the patch passed
+1	javac	29m 27s	the patch passed
-0	checkstyle	0m 56s	hadoop-common-project: The patch generated 1 new + 286 unchanged - 5 fixed = 287 total (was 291)
+1	mvnsite	1m 40s	the patch passed

+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 1s	The patch has no ill-formed XML file.
+1	shadedclient	10m 27s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 23s	the patch passed
+1	javadoc	1m 20s	the patch passed
			<b>Other Tests</b>
+1	unit	8m 21s	hadoop-common in the patch passed.
+1	unit	4m 6s	hadoop-kms in the patch passed.
+1	asflicense	0m 45s	The patch does not generate ASF License warnings.
		133m 32s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:8620d2b
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12916337/HADOOP-14445.09.patch">https://issues.apache.org/jira/secure/attachment/12916337/HADOOP-14445.09.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 0cf88fe4dbe1 3.13.0-139-generic #188-Ubuntu SMP Tue Jan 9 14:43:09 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / c22d62b
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_151
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14392/artifact/out/diff-checkstyle-hadoop-common-project.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14392/artifact/out/diff-checkstyle-hadoop-common-project.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14392/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14392/testReport/</a>
Max. process+thread count	1498 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14392/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14392/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼  Rushabh Shah added a comment - 27/Mar/18 13:53 - edited

2. providersCreated: Should this be a list or just KeyProvider ?

I disagree because even in tests we should code against interface.

I think I was not clear earlier.

What I meant was should it be a list of KeyProvider `List<KeyProvider>` or just single element `KeyProvider` ?

I agree with you completely that we should code against interface. Thats why I feel it should be just a `KeyProvider`.

```
KeyProvider keyProvider = KeyProviderFactory.get(providerUri, conf);
```

But I think its late now since the other jira is already committed.

testTokenCompatibilityOldRenewer

Your comment does makes sense.

If we can test that new RM is able to renew both tokens (which is already present in your test suite in last patch) and the identifier bits are the same in both tokens then we can remove this test case.

Hope it makes sense.

▼ Xiao Chen added a comment - 29/Mar/18 18:15

Thanks for clarifying Rushabh. [HADOOP-14445.10.patch](#)<sup>up</sup>

should it be a list of KeyProvider List<KeyProvider> or just single element KeyProvider ?

IMO a collection of KP is better, because it does not have the assumption that each test case will only create 1 KP. I meant no offense in committing [HADOOP-15313](#), can do follow-ons as I mentioned above. It is separate to this Jira.

testTokenCompatibilityOldRenewer

Removed that one and added assertTokenIdentifierEquals.

▼ Rushabh Shah added a comment - 30/Mar/18 18:01 - edited

Thanks [xiaochen](#) for revising the patch.

The patch looks really good and almost close.

Just few minor comments.

[TestKMS.java](#)

```
public void doKMSHAZKWithDelegationTokenAccess() throws Exception {
    ...
    ...
    ...
    doAs("client",
        new PrivilegedExceptionAction<Void>() {
            @Override
            public Void run() throws Exception {
                // verify both tokens can be used to authenticate
                for (Token t : credentials.getAllTokens()) {
                    assertTokenAccess(lbkp1, keyName, t);
                }
                return null;
            }
        });
}

private void assertTokenAccess(final LoadBalancingKMSClientProvider lbkp,
    final String keyName, final Token token) throws Exception {
    UserGroupInformation tokenUgi =
        UserGroupInformation.createUserForTesting("test", new String[] {});
    // Verify the tokens can authenticate to any KMS
```

I don't understand much of UGI so I apologize in advance if this question doesn't make sense.

Why are we doing doAs ("client") when we are again going to do doAs ("test") user in assertTokenAccess ?

[KMSClientProvider.java](#)

```
assert KMSDelegationToken.TOKEN_KIND.equals(token.getKind());
if (!copyLegacyToken || !KMSDelegationToken.TOKEN_KIND
    .equals(token.getKind())) {
    LOG.debug("Not creating legacy token because copyLegacyToken={}, "
        + "token={}", copyLegacyToken, token);
    return null;
}
```

Is it ever possible that token.getKind != KMSDelegationToken.TOKEN\_KIND ?

I would replace assert with PreConditions and remove !KMSDelegationToken.TOKEN\_KIND.equals(token.getKind()) check from if statement.

[core-default.xml](#)

typo

confronting to kms-dt. All other parts of the token remain the same.

Instead of confronting, I think you meant confirming ?

▼ Xiao Chen added a comment - 02/Apr/18 23:12

Thanks for the review Rushabh. [HADOOP-14445.11.patch](#) up for pre-commit, I'll test this in real clusters as a double check.

Fixed TestKMS - you're right. It was initially there to prevent the fall back to login user succeeding the test, but not necessary now. KMSCP I removed the assertion to reduce confusion. If KMS server is old, you'd get an old token. The assert is there to make sure in tests the correct token kind is tested.

Instead of confronting, I think you meant confirming ?

I actually meant conforming.... 😊

▼ genericqa added a comment - 03/Apr/18 01:28

**-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 20s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 3 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 9s	Maven dependency ordering for branch
+1	mvninstall	24m 42s	trunk passed
+1	compile	27m 56s	trunk passed
+1	checkstyle	1m 0s	trunk passed
+1	mvnsite	1m 39s	trunk passed
+1	shadedclient	12m 41s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 1s	trunk passed
+1	javadoc	1m 17s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 8s	Maven dependency ordering for patch
+1	mvninstall	1m 5s	the patch passed
+1	compile	26m 39s	the patch passed
+1	javac	26m 39s	the patch passed
-0	checkstyle	0m 59s	hadoop-common-project: The patch generated 2 new + 286 unchanged - 6 fixed = 288 total (was 292)
+1	mvnsite	1m 41s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 1s	The patch has no ill-formed XML file.
+1	shadedclient	10m 0s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 15s	the patch passed
+1	javadoc	1m 17s	the patch passed
<b>Other Tests</b>			
-1	unit	8m 24s	hadoop-common in the patch failed.
+1	unit	3m 33s	hadoop-kms in the patch passed.
+1	asflicense	0m 35s	The patch does not generate ASF License warnings.

	127m 34s	
--	-------------	--

Reason	Tests
Failed junit tests	hadoop.conf.TestCommonConfigurationFields

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:8620d2b
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12917273/HADOOP-14445.11.patch">https://issues.apache.org/jira/secure/attachment/12917273/HADOOP-14445.11.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 7c0815b86642 3.13.0-137-generic #186-Ubuntu SMP Mon Dec 4 19:09:19 UTC 2017 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / c78cb18
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_151
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14425/artifact/out/diff-checkstyle-hadoop-common-project.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14425/artifact/out/diff-checkstyle-hadoop-common-project.txt</a>
unit	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14425/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14425/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14425/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14425/testReport/</a>
Max. process+thread count	1468 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14425/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14425/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼ [Rushabh Shah](#) added a comment - 03/Apr/18 15:24

Thanks [xiaochen](#) for the latest patch.

It looks good.

If KMS server is old, you'd get an old token.

Thanks for catching that. I totally missed that.

There is one test failure in the latest run.

```
org.apache.hadoop.conf.TestCommonConfigurationFields.testCompareXmlAgainstConfigurationClass
Failing for the past 1 build (Since Failed#14425 )
Took 0.2 sec.
Error Message
core-default.xml has 2 properties missing in class org.apache.hadoop.fs.CommonConfigurationKeys class org.apache.hadoop.
```

I can't think of a way that your latest patch can introduce this failure.

The hadoop-common build is fairly stable compared to hadoop-hdfs. Can you please double check whether your patch introduced

4/19/23, 11:50 PM

[HADOOP-14445] Use DelegationTokenIssuer to create KMS delegation tokens that can authenticate to all KMS instances - ASF JIRA

this failure.

If not, can you please find out which jira is responsible ?

Also there are couple of checkstyle warnings in TestKMS.java regarding unused import.

If the test failure is not related, then you can make the checkstyle changes while committing.

Also can you upload the new patch after committing and resolving the jira.

I know some people had concerns that it is difficult to co-relate the commit with the last patch if they are not the same.

+1 (non-binding) pending confirming test failure.

Thanks a lot for the good work here.

---

▼  Xiao Chen added a comment - 03/Apr/18 16:21

Thanks for the prompt review Rushabh.

test failure

I found it yesterday when looking at another jira, and it turns out to be [HADOOP-15355](#). Committed that one last night, so next run should clear off.

I'll correct the checkstyle after a final round of manual testing with real clusters. Will also provide branch-2 patches.

---

▼  Wei-Chiu Chuang added a comment - 04/Apr/18 17:37

Rushabh S Shah's +1 is effectively a binding vote.

For the record here's my +1 too (pending the checkstyle fix)

---

▼  Xiao Chen added a comment - 05/Apr/18 05:42

Thanks again for the reviews Rushabh and Wei-Chiu.

Testing this in real clusters revealed some issues in the patch. [HADOOP-14445.12.patch](#) addressed them. Namely:

- KMSCP#addDelegationTokens should only setService on KMS\_D\_T tokens, so if there is an old server returning kms-dt, it would still work
- KMSCP#selectKMSDelegationToken the fall back logic should use existing logic to getToken by service, instead of using a selector. This way we can be sure new client works with old submitter + new server. Added a detailed comment there.
- Also added a 'real' unit test `TestKMSClientProvider` to test these explicitly, as a cover up of the existing `TestKMS` cases.

I have tested the latest patch via wordcount (in an env with 3 NM, 2 KMS. RM host does not have either NM or KMS, and was used as job submitter):

- upgrade 1 NM
- upgrade 1 KMS
- upgrade both KMS
- upgrade all NM
- upgrade RM

Job ran at each step, verified from debug level yarn app logs that authentication was successful using tokens.

In the end, deployed the new config=false everywhere and verified things still work.

---

▼  genericqa added a comment - 05/Apr/18 07:54

 +1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 17s	Docker mode activated.
Prechecks			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 4 new or modified test files.
trunk Compile Tests			
0	mvndep	0m 15s	Maven dependency ordering for branch

+1	mvninstall	25m 4s	trunk passed
+1	compile	28m 7s	trunk passed
+1	checkstyle	0m 59s	trunk passed
+1	mvnsite	1m 39s	trunk passed
+1	shadedclient	12m 44s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 6s	trunk passed
+1	javadoc	1m 17s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 9s	Maven dependency ordering for patch
+1	mvninstall	1m 8s	the patch passed
+1	compile	28m 0s	the patch passed
+1	javac	28m 0s	the patch passed
-0	checkstyle	0m 57s	hadoop-common-project: The patch generated 4 new + 286 unchanged - 6 fixed = 290 total (was 292)
+1	mvnsite	1m 36s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 2s	The patch has no ill-formed XML file.
+1	shadedclient	10m 37s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 56s	the patch passed
+1	javadoc	1m 40s	the patch passed
<b>Other Tests</b>			
+1	unit	10m 31s	hadoop-common in the patch passed.
+1	unit	3m 50s	hadoop-kms in the patch passed.
+1	asflicense	0m 43s	The patch does not generate ASF License warnings.
		133m 53s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:8620d2b
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12917643/HADOOP-14445.12.patch">https://issues.apache.org/jira/secure/attachment/12917643/HADOOP-14445.12.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux b98c678845b7 3.13.0-137-generic #186-Ubuntu SMP Mon Dec 4 19:09:19 UTC 2017 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / e52539b
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_162
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14436/artifact/out/diff-checkstyle-hadoop-common-project.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14436/artifact/out/diff-checkstyle-hadoop-common-project.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14436/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14436/testReport/</a>
Max. process+thread count	1360 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project

Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14436/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14436/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

This message was automatically generated.

▼  Xiao Chen added a comment - 05/Apr/18 22:08

Fixed checkstyle. Rushabh, do you mind giving another pass? I'll provide a branch-2 patch shortly

▼  genericqa added a comment - 06/Apr/18 00:31

 +1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 20s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 4 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 17s	Maven dependency ordering for branch
+1	mvninstall	26m 39s	trunk passed
+1	compile	28m 24s	trunk passed
+1	checkstyle	0m 57s	trunk passed
+1	mvnsite	1m 37s	trunk passed
+1	shadedclient	12m 33s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 2s	trunk passed
+1	javadoc	1m 18s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 8s	Maven dependency ordering for patch
+1	mvninstall	1m 4s	the patch passed
+1	compile	26m 47s	the patch passed
+1	javac	26m 47s	the patch passed
+1	checkstyle	1m 3s	hadoop-common-project: The patch generated 0 new + 286 unchanged - 6 fixed = 286 total (was 292)
+1	mvnsite	1m 41s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 1s	The patch has no ill-formed XML file.
+1	shadedclient	9m 56s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 17s	the patch passed
+1	javadoc	1m 17s	the patch passed
<b>Other Tests</b>			
+1	unit	8m 46s	hadoop-common in the patch passed.
+1	unit	3m 34s	hadoop-kms in the patch passed.
+1	asflicense	0m 34s	The patch does not generate ASF License warnings.
		130m 27s	

Subsystem	Report/Notes
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Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:8620d2b
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12917785/HADOOP-14445.12.patch">https://issues.apache.org/jira/secure/attachment/12917785/HADOOP-14445.12.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux c1c2d7710269 3.13.0-137-generic #186-Ubuntu SMP Mon Dec 4 19:09:19 UTC 2017 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 3121e8c
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_162
findbugs	v3.1.0-RC1
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14442/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14442/testReport/</a>
Max. process+thread count	1718 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14442/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14442/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

This message was automatically generated.

 genericqa added a comment - 06/Apr/18 01:27

 **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 20s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 4 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 33s	Maven dependency ordering for branch
+1	mvninstall	43m 12s	trunk passed
+1	compile	31m 7s	trunk passed
+1	checkstyle	1m 6s	trunk passed
+1	mvnsite	1m 52s	trunk passed
+1	shadedclient	13m 16s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 8s	trunk passed
+1	javadoc	1m 22s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 9s	Maven dependency ordering for patch
-1	mvninstall	0m 21s	hadoop-kms in the patch failed.
+1	compile	26m 19s	the patch passed
+1	javac	26m 19s	the patch passed
+1	checkstyle	0m 58s	hadoop-common-project: The patch generated 0 new + 286 unchanged - 5 fixed = 286 total (was 291)
+1	mvnsite	1m 38s	the patch passed

+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 1s	The patch has no ill-formed XML file.
+1	shadedclient	10m 10s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 21s	the patch passed
+1	javadoc	1m 21s	the patch passed
			<b>Other Tests</b>
+1	unit	8m 12s	hadoop-common in the patch passed.
+1	unit	3m 34s	hadoop-kms in the patch passed.
+1	asflicense	0m 39s	The patch does not generate ASF License warnings.
		150m 27s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:8620d2b
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12917787/HADOOP-14445.12.patch">https://issues.apache.org/jira/secure/attachment/12917787/HADOOP-14445.12.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 31ed897486b5 3.13.0-139-generic #188-Ubuntu SMP Tue Jan 9 14:43:09 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 6cf023f
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_162
findbugs	v3.1.0-RC1
mvninstall	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14443/artifact/out/patch-mvninstall-hadoop-common-project_hadoop-kms.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14443/artifact/out/patch-mvninstall-hadoop-common-project_hadoop-kms.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14443/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14443/testReport/</a>
Max. process+thread count	1474 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14443/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14443/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼  Wei-Chiu Chuang added a comment - 06/Apr/18 01:55

Forgot to mention, please add a release note if possible. Thanks!

▼  Rushabh Shah added a comment - 06/Apr/18 15:49

Rushabh, do you mind giving another pass?

Sure. Will try my best to review today and if not, then surely on Monday.

▼  Rushabh Shah added a comment - 09/Apr/18 16:20

xiaochen: Thanks for the latest patch.

Testing this in real clusters revealed some issues in the patch.

Good find. The problem in creating the patch is there are 3 moving components and making sure the patch covers all the cases is pretty difficult.

Overall the patch looks good.

Just one minor comment in new added test class.

[TestKMSClientProvider.java](#)

1.

```
public void testNotCopyFromLegacyToken() throws Exception {
    ...
    assertEquals(uriString, tokens[0].getService().toString());
    ...
}
```

Instead of asserting what it is not equal to, we should assert what it should be equal to.

▼ [Xiao Chen](#) added a comment - 09/Apr/18 17:35

Thanks Rushabh, addressed the comment in [HADOOP-14445.13.patch](#)

▼ [Rushabh Shah](#) added a comment - 09/Apr/18 17:43

+1 binding for the latest trunk patch (v13) pending jenkins.

Thanks [xiaochen](#).

▼ [genericqa](#) added a comment - 09/Apr/18 18:07

**-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 0s	Docker mode activated.
-1	docker	16m 47s	Docker failed to build yetus/hadoop:dbd69cb.

Subsystem	Report/Notes
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918208/HADOOP-14445.branch-2.02.patch">https://issues.apache.org/jira/secure/attachment/12918208/HADOOP-14445.branch-2.02.patch</a>
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14456/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14456/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼ [genericqa](#) added a comment - 09/Apr/18 19:39

⚠ A patch to the testing environment has been detected.

Re-executing against the patched versions to perform further tests.

The console is at <https://builds.apache.org/job/PreCommit-HADOOP-Build/14458/console> in case of problems.

▼ [genericqa](#) added a comment - 09/Apr/18 19:53

**-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 0s	Docker mode activated.

-1	docker	13m 10s	Docker failed to build yetus/hadoop:dbd69cb.
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Subsystem	Report/Notes
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918237/HADOOP-14445.branch-2.0.00.precommit.patch">https://issues.apache.org/jira/secure/attachment/12918237/HADOOP-14445.branch-2.0.00.precommit.patch</a>
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14458/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14458/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼  genericqa added a comment - 09/Apr/18 19:55

 +1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 23s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 4 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 8s	Maven dependency ordering for branch
+1	mvninstall	25m 35s	trunk passed
+1	compile	29m 26s	trunk passed
+1	checkstyle	0m 56s	trunk passed
+1	mvnsite	1m 38s	trunk passed
+1	shadedclient	12m 36s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 6s	trunk passed
+1	javadoc	1m 18s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 9s	Maven dependency ordering for patch
+1	mvninstall	1m 9s	the patch passed
+1	compile	29m 3s	the patch passed
+1	javac	29m 3s	the patch passed
-0	checkstyle	0m 58s	hadoop-common-project: The patch generated 1 new + 286 unchanged - 6 fixed = 287 total (was 292)
+1	mvnsite	1m 39s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 1s	The patch has no ill-formed XML file.
+1	shadedclient	10m 1s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 26s	the patch passed
+1	javadoc	1m 18s	the patch passed
<b>Other Tests</b>			
+1	unit	9m 51s	hadoop-common in the patch passed.
+1	unit	4m 1s	hadoop-kms in the patch passed.
+1	asflicense	0m 44s	The patch does not generate ASF License warnings.

		134m 34s	
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Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:8620d2b
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918204/HADOOP-14445.13.patch">https://issues.apache.org/jira/secure/attachment/12918204/HADOOP-14445.13.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 087bb588a648 3.13.0-137-generic #186-Ubuntu SMP Mon Dec 4 19:09:19 UTC 2017 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / e9b9f48
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_162
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14455/artifact/out/diff-checkstyle-hadoop-common-project.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14455/artifact/out/diff-checkstyle-hadoop-common-project.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14455/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14455/testReport/</a>
Max. process+thread count	1380 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14455/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14455/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

This message was automatically generated.

▼  genericqa added a comment - 09/Apr/18 19:59

⚠ A patch to the testing environment has been detected.

Re-executing against the patched versions to perform further tests.

The console is at <https://builds.apache.org/job/PreCommit-HADOOP-Build/14459/console> in case of problems.

▼  genericqa added a comment - 09/Apr/18 20:02

✖ -1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 0s	Docker mode activated.
-1	docker	2m 38s	Docker failed to build yetus/hadoop:dbd69cb.

Subsystem	Report/Notes
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918240/HADOOP-14445.branch-2.000.precommit.patch">https://issues.apache.org/jira/secure/attachment/12918240/HADOOP-14445.branch-2.000.precommit.patch</a>
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14459/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14459/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

This message was automatically generated.

genericqa added a comment - 09/Apr/18 20:07

⚠ A patch to the testing environment has been detected.

Re-executing against the patched versions to perform further tests.

The console is at <https://builds.apache.org/job/PreCommit-HADOOP-Build/14460/console> in case of problems.

genericqa added a comment - 09/Apr/18 20:25

✖ -1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 0s	Docker mode activated.
-1	docker	17m 39s	Docker failed to build yetus/hadoop:dbd69cb.

Subsystem	Report/Notes
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918240/HADOOP-14445.branch-2.000.precommit.patch">https://issues.apache.org/jira/secure/attachment/12918240/HADOOP-14445.branch-2.000.precommit.patch</a>
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14460/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14460/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

This message was automatically generated.

genericqa added a comment - 09/Apr/18 21:01

⚠ A patch to the testing environment has been detected.

Re-executing against the patched versions to perform further tests.

The console is at <https://builds.apache.org/job/PreCommit-HADOOP-Build/14461/console> in case of problems.

genericqa added a comment - 09/Apr/18 21:21

✓ +1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	18m 48s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
<b>branch-2 Compile Tests</b>			
<b>Patch Compile Tests</b>			
+1	shellcheck	0m 0s	There were no new shellcheck issues.
+1	shelldocs	0m 9s	There were no new shelldocs issues.
+1	whitespace	0m 0s	The patch has no whitespace issues.
<b>Other Tests</b>			
+1	asflicense	0m 32s	The patch does not generate ASF License warnings.
		20m 5s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:dbd69cb

JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918260/HADOOP-14445.branch-2.001.precommit.patch">https://issues.apache.org/jira/secure/attachment/12918260/HADOOP-14445.branch-2.001.precommit.patch</a>
Optional Tests	asflicense shellcheck shelldocs
uname	Linux 2c15308664e3 3.13.0-139-generic #188-Ubuntu SMP Tue Jan 9 14:43:09 UTC 2018 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	branch-2 / 78ec001
maven	version: Apache Maven 3.3.9 (bb52d8502b132ec0a5a3f4c09453c07478323dc5; 2015-11-10T16:41:47+00:00)
shellcheck	v0.4.7
Max. process+thread count	34 (vs. ulimit of 10000)
modules	C: . U: .
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14461/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14461/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

This message was automatically generated.

▼  [Xiao Chen](#) added a comment - 09/Apr/18 21:57

Patch 3 should pass docker build on branch-2 at least... Fixed the checkstyle there, will apply the same fix on the trunk commit for the unused import.

▼  [genericqqa](#) added a comment - 09/Apr/18 22:00

 A patch to the testing environment has been detected.

Re-executing against the patched versions to perform further tests.

The console is at <https://builds.apache.org/job/PreCommit-HADOOP-Build/14464/console> in case of problems.

▼  [Xiao Chen](#) added a comment - 09/Apr/18 22:10

Filled in a release note, please let me know if any suggestions.

▼  [genericqqa](#) added a comment - 09/Apr/18 22:51

 **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 0s	Docker mode activated.
-1	docker	0m 41s	Docker failed to build yetus/hadoop:749e106.

Subsystem	Report/Notes
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918282/HADOOP-14445.branch-2.8.003.patch">https://issues.apache.org/jira/secure/attachment/12918282/HADOOP-14445.branch-2.8.003.patch</a>
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14466/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14466/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

This message was automatically generated.

▼  [Xiao Chen](#) added a comment - 09/Apr/18 22:57

Sorry for the spam storms everyone. <https://builds.apache.org/job/PreCommit-HADOOP-Build/14465> is running for branch-2.8 and <https://builds.apache.org/job/PreCommit-HADOOP-Build/14464/> for branch-2, there should be no more jenkins messages besides these 2.

 genericqa added a comment - 09/Apr/18 23:39

 **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	9m 52s	Docker mode activated.
<b>Prechecks</b>			
0	findbugs	0m 0s	Findbugs executables are not available.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 4 new or modified test files.
<b>branch-2.8 Compile Tests</b>			
0	mvndep	1m 44s	Maven dependency ordering for branch
+1	mvninstall	8m 29s	branch-2.8 passed
+1	compile	7m 14s	branch-2.8 passed
+1	checkstyle	0m 30s	branch-2.8 passed
+1	mvnsite	1m 28s	branch-2.8 passed
+1	javadoc	1m 12s	branch-2.8 passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 9s	Maven dependency ordering for patch
+1	mvninstall	1m 4s	the patch passed
+1	compile	7m 8s	the patch passed
-1	javac	7m 8s	root generated 2 new + 963 unchanged - 1 fixed = 965 total (was 964)
-0	checkstyle	0m 27s	hadoop-common-project: The patch generated 1 new + 199 unchanged - 2 fixed = 200 total (was 201)
+1	mvnsite	1m 28s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 0s	The patch has no ill-formed XML file.
+1	javadoc	1m 9s	the patch passed
<b>Other Tests</b>			
+1	unit	8m 24s	hadoop-common in the patch passed.
+1	unit	2m 22s	hadoop-kms in the patch passed.
+1	asflicense	0m 25s	The patch does not generate ASF License warnings.
		54m 6s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:749e106
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918282/HADOOP-14445.branch-2.8.003.patch">https://issues.apache.org/jira/secure/attachment/12918282/HADOOP-14445.branch-2.8.003.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 4919dce5724b 3.13.0-139-generic #188-Ubuntu SMP Tue Jan 9 14:43:09 UTC 2018 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh

git revision	branch-2.8 / 5f8ab3a
maven	version: Apache Maven 3.0.5
Default Java	1.7.0_171
javac	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14465/artifact/out/diff-compile-javac-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14465/artifact/out/diff-compile-javac-root.txt</a>
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14465/artifact/out/diff-checkstyle-hadoop-common-project.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14465/artifact/out/diff-checkstyle-hadoop-common-project.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14465/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14465/testReport/</a>
Max. process+thread count	1564 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14465/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14465/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼  genericcqa added a comment - 10/Apr/18 01:00

 **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 18s	Docker mode activated.
<b>Prechecks</b>			
0	findbugs	0m 1s	Findbugs executables are not available.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 4 new or modified test files.
<b>branch-2 Compile Tests</b>			
0	mvndep	1m 51s	Maven dependency ordering for branch
+1	mvninstall	12m 37s	branch-2 passed
+1	compile	12m 32s	branch-2 passed
+1	checkstyle	1m 52s	branch-2 passed
+1	mvnsite	11m 37s	branch-2 passed
+1	javadoc	6m 29s	branch-2 passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 22s	Maven dependency ordering for patch
+1	mvninstall	11m 28s	the patch passed
+1	compile	11m 32s	the patch passed
-1	javac	11m 32s	root generated 3 new + 1438 unchanged - 1 fixed = 1441 total (was 1439)
-0	checkstyle	1m 52s	root: The patch generated 1 new + 313 unchanged - 6 fixed = 314 total (was 319)
+1	mvnsite	11m 45s	the patch passed
+1	shellcheck	0m 0s	There were no new shellcheck issues.
+1	shelldocs	0m 10s	There were no new shelldocs issues.
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 0s	The patch has no ill-formed XML file.
+1	javadoc	6m 46s	the patch passed
<b>Other Tests</b>			
-1	unit	85m 51s	root in the patch failed.
-1	asflicense	0m 45s	The patch generated 1 ASF License warnings.

		179m 20s	
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Reason	Tests
Failed junit tests	hadoop.ipc.TestRPC

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:dbd69cb
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918271/HADOOP-14445.branch-2.03.patch">https://issues.apache.org/jira/secure/attachment/12918271/HADOOP-14445.branch-2.03.patch</a>
Optional Tests	asflicense shellcheck shelldocs compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 8030286430a4 3.13.0-139-generic #188-Ubuntu SMP Tue Jan 9 14:43:09 UTC 2018 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	branch-2 / 78ec001
maven	version: Apache Maven 3.3.9 (bb52d8502b132ec0a5a3f4c09453c07478323dc5; 2015-11-10T16:41:47+00:00)
Default Java	1.7.0_171
shellcheck	v0.4.7
javac	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14464/artifact/out/diff-compile-javac-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14464/artifact/out/diff-compile-javac-root.txt</a>
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14464/artifact/out/diff-checkstyle-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14464/artifact/out/diff-checkstyle-root.txt</a>
unit	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14464/artifact/out/patch-unit-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14464/artifact/out/patch-unit-root.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14464/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14464/testReport/</a>
asflicense	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14464/artifact/out/patch-asflicense-problems.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14464/artifact/out/patch-asflicense-problems.txt</a>
Max. process+thread count	1460 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms . U: .
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14464/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14464/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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genericqa added a comment - 10/Apr/18 04:39

-1 overall

Vote	Subsystem	Runtime	Comment		
0	reexec	0m 18s	Docker mode activated.		
			<b>Prechecks</b>		
0	findbugs	0m 1s	Findbugs executables are not available.		
+1	@author	0m 0s	The patch does not contain any @author tags.		
+1	test4tests	0m 0s	The patch appears to include 4 new or modified test files.		
			<b>branch-2 Compile Tests</b>		
0	mvndep	0m 12s	Maven dependency ordering for branch		

+1	mvninstall	10m 24s	branch-2 passed
+1	compile	12m 46s	branch-2 passed
+1	checkstyle	0m 40s	branch-2 passed
+1	mvnsite	1m 47s	branch-2 passed
+1	javadoc	1m 26s	branch-2 passed
			<b>Patch Compile Tests</b>
0	mvndep	0m 10s	Maven dependency ordering for patch
+1	mvninstall	1m 16s	the patch passed
+1	compile	11m 42s	the patch passed
-1	javac	11m 42s	root generated 2 new + 1438 unchanged - 1 fixed = 1440 total (was 1439)
+1	checkstyle	0m 39s	hadoop-common-project: The patch generated 0 new + 313 unchanged - 6 fixed = 313 total (was 319)
+1	mvnsite	1m 46s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 1s	The patch has no ill-formed XML file.
+1	javadoc	1m 26s	the patch passed
			<b>Other Tests</b>
+1	unit	9m 9s	hadoop-common in the patch passed.
+1	unit	2m 33s	hadoop-kms in the patch passed.
+1	asflicense	0m 39s	The patch does not generate ASF License warnings.
		58m 36s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:f667ef1
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918305/HADOOP-14445.branch-2.04.patch">https://issues.apache.org/jira/secure/attachment/12918305/HADOOP-14445.branch-2.04.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux d9eaad18aba3 3.13.0-139-generic #188-Ubuntu SMP Tue Jan 9 14:43:09 UTC 2018 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	branch-2 / f667ef1
maven	version: Apache Maven 3.3.9 (bb52d8502b132ec0a5a3f4c09453c07478323dc5; 2015-11-10T16:41:47+00:00)
Default Java	1.7.0_171
javac	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14469/artifact/out/diff-compile-javac-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14469/artifact/out/diff-compile-javac-root.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14469/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14469/testReport/</a>
Max. process+thread count	1521 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14469/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14469/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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  Xiao Chen added a comment - 10/Apr/18 04:52

HADOOP-14445.branch-2.05.patch should fix all branch-2 pre-commit failures, except for the setLogLevel one to be left as-is, because branch-2 can't import the slf4j event class.

genericqa added a comment - 10/Apr/18 04:59

X **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	21m 1s	Docker mode activated.
<b>Prechecks</b>			
0	findbugs	0m 0s	Findbugs executables are not available.
+1	@author	0m 1s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 4 new or modified test files.
<b>branch-2.8 Compile Tests</b>			
0	mvndep	1m 47s	Maven dependency ordering for branch
+1	mvninstall	8m 50s	branch-2.8 passed
+1	compile	7m 50s	branch-2.8 passed
+1	checkstyle	0m 30s	branch-2.8 passed
+1	mvnsite	1m 32s	branch-2.8 passed
+1	javadoc	1m 16s	branch-2.8 passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 10s	Maven dependency ordering for patch
+1	mvninstall	1m 13s	the patch passed
+1	compile	7m 58s	the patch passed
-1	javac	7m 58s	root generated 1 new + 963 unchanged - 1 fixed = 964 total (was 964)
+1	checkstyle	0m 30s	hadoop-common-project: The patch generated 0 new + 199 unchanged - 2 fixed = 199 total (was 201)
+1	mvnsite	1m 30s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 0s	The patch has no ill-formed XML file.
+1	javadoc	1m 12s	the patch passed
<b>Other Tests</b>			
-1	unit	8m 9s	hadoop-common in the patch failed.
+1	unit	2m 59s	hadoop-kms in the patch passed.
+1	asflicense	0m 31s	The patch does not generate ASF License warnings.
		68m 12s	

Reason	Tests
Failed junit tests	hadoop.fs.sftp.TestSFTPFileSystem

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:749e106
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918306/HADOOP-14445.branch-2.8.004.patch">https://issues.apache.org/jira/secure/attachment/12918306/HADOOP-14445.branch-2.8.004.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml

uname	Linux d42a7d22c6dc 3.13.0-143-generic #192-Ubuntu SMP Tue Feb 27 10:45:36 UTC 2018 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	branch-2.8 / 5f8ab3a
maven	version: Apache Maven 3.0.5
Default Java	1.7.0_171
javac	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14470/artifact/out/diff-compile-javac-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14470/artifact/out/diff-compile-javac-root.txt</a>
unit	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14470/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14470/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14470/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14470/testReport/</a>
Max. process+thread count	1296 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14470/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14470/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

This message was automatically generated.

genericqa added a comment - 10/Apr/18 05:55

X -1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 21s	Docker mode activated.
<b>Prechecks</b>			
0	findbugs	0m 0s	Findbugs executables are not available.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 4 new or modified test files.
<b>branch-2.8 Compile Tests</b>			
0	mvndep	0m 10s	Maven dependency ordering for branch
+1	mvninstall	7m 18s	branch-2.8 passed
+1	compile	8m 4s	branch-2.8 passed
+1	checkstyle	0m 31s	branch-2.8 passed
+1	mvnsite	1m 33s	branch-2.8 passed
+1	javadoc	1m 11s	branch-2.8 passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 9s	Maven dependency ordering for patch
+1	mvninstall	1m 4s	the patch passed
+1	compile	7m 56s	the patch passed
-1	javac	7m 56s	root generated 1 new + 963 unchanged - 1 fixed = 964 total (was 964)
+1	checkstyle	0m 33s	hadoop-common-project: The patch generated 0 new + 199 unchanged - 2 fixed = 199 total (was 201)
+1	mvnsite	1m 41s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 0s	The patch has no ill-formed XML file.
+1	javadoc	1m 13s	the patch passed

Other Tests			
+1	unit	8m 29s	hadoop-common in the patch passed.
+1	unit	2m 50s	hadoop-kms in the patch passed.
+1	asflicense	0m 30s	The patch does not generate ASF License warnings.
		44m 43s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:749e106
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918313/HADOOP-14445.branch-2.8.005.patch">https://issues.apache.org/jira/secure/attachment/12918313/HADOOP-14445.branch-2.8.005.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 305a2541ebec 3.13.0-143-generic #192-Ubuntu SMP Tue Feb 27 10:45:36 UTC 2018 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	branch-2.8 / 5f8ab3a
maven	version: Apache Maven 3.0.5
Default Java	1.7.0_171
javac	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14472/artifact/out/diff-compile-javac-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14472/artifact/out/diff-compile-javac-root.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14472/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14472/testReport/</a>
Max. process+thread count	1297 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14472/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14472/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

This message was automatically generated.

 genericqa added a comment - 10/Apr/18 06:11

 **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 20s	Docker mode activated.
<b>Prechecks</b>			
0	findbugs	0m 0s	Findbugs executables are not available.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 4 new or modified test files.
<b>branch-2 Compile Tests</b>			
0	mvndep	0m 10s	Maven dependency ordering for branch
+1	mvninstall	12m 3s	branch-2 passed
+1	compile	14m 11s	branch-2 passed
+1	checkstyle	0m 48s	branch-2 passed
+1	mvnsite	1m 56s	branch-2 passed
+1	javadoc	1m 31s	branch-2 passed
<b>Patch Compile Tests</b>			

0	mvndep	0m 10s	Maven dependency ordering for patch
+1	mvninstall	1m 25s	the patch passed
+1	compile	13m 20s	the patch passed
-1	javac	13m 20s	root generated 2 new + 1438 unchanged - 1 fixed = 1440 total (was 1439)
+1	checkstyle	0m 51s	hadoop-common-project: The patch generated 0 new + 313 unchanged - 6 fixed = 313 total (was 319)
+1	mvnsite	1m 53s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 0s	The patch has no ill-formed XML file.
+1	javadoc	1m 37s	the patch passed
			<b>Other Tests</b>
+1	unit	15m 20s	hadoop-common in the patch passed.
+1	unit	2m 45s	hadoop-kms in the patch passed.
+1	asflicense	0m 52s	The patch does not generate ASF License warnings.
		71m 1s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:f667ef1
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918312/HADOOP-14445.branch-2.05.patch">https://issues.apache.org/jira/secure/attachment/12918312/HADOOP-14445.branch-2.05.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 93594b545daa 3.13.0-139-generic #188-Ubuntu SMP Tue Jan 9 14:43:09 UTC 2018 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	branch-2 / f667ef1
maven	version: Apache Maven 3.3.9 (bb52d8502b132ec0a5a3f4c09453c07478323dc5; 2015-11-10T16:41:47+00:00)
Default Java	1.7.0_171
javac	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14471/artifact/out/diff-compile-javac-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14471/artifact/out/diff-compile-javac-root.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14471/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14471/testReport/</a>
Max. process+thread count	1450 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14471/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14471/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼  Xiao Chen added a comment - 10/Apr/18 06:33

I'm not sure how to build locally to get a dry run of the javac from pre-commit, but I think this should fix them all...

▼  genericqqa added a comment - 10/Apr/18 07:37

 +1 overall

Vote	Subsystem	Runtime	Comment
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0	reexec	10m 25s	Docker mode activated.
<b>Prechecks</b>			
0	findbugs	0m 0s	Findbugs executables are not available.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 4 new or modified test files.
<b>branch-2.8 Compile Tests</b>			
0	mvndep	1m 45s	Maven dependency ordering for branch
+1	mvninstall	8m 34s	branch-2.8 passed
+1	compile	7m 53s	branch-2.8 passed
+1	checkstyle	0m 29s	branch-2.8 passed
+1	mvnsite	1m 32s	branch-2.8 passed
+1	javadoc	1m 12s	branch-2.8 passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 9s	Maven dependency ordering for patch
+1	mvninstall	1m 6s	the patch passed
+1	compile	7m 11s	the patch passed
+1	javac	7m 11s	the patch passed
+1	checkstyle	0m 27s	hadoop-common-project: The patch generated 0 new + 199 unchanged - 3 fixed = 199 total (was 202)
+1	mvnsite	1m 27s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 0s	The patch has no ill-formed XML file.
+1	javadoc	1m 8s	the patch passed
<b>Other Tests</b>			
+1	unit	9m 9s	hadoop-common in the patch passed.
+1	unit	2m 51s	hadoop-kms in the patch passed.
+1	asflicense	0m 24s	The patch does not generate ASF License warnings.
		56m 43s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:749e106
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918323/HADOOP-14445.branch-2.8.006.patch">https://issues.apache.org/jira/secure/attachment/12918323/HADOOP-14445.branch-2.8.006.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 6f3621e14833 3.13.0-137-generic #186-Ubuntu SMP Mon Dec 4 19:09:19 UTC 2017 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	branch-2.8 / 5f8ab3a
maven	version: Apache Maven 3.0.5
Default Java	1.7.0_171
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14473/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14473/testReport/</a>
Max. process+thread count	1405 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project

Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14473/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14473/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

This message was automatically generated.

▼  genericqa added a comment - 10/Apr/18 18:39

 **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 33s	Docker mode activated.
<b>Prechecks</b>			
0	findbugs	0m 0s	Findbugs executables are not available.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 4 new or modified test files.
<b>branch-2 Compile Tests</b>			
0	mvndep	0m 11s	Maven dependency ordering for branch
+1	mvninstall	10m 15s	branch-2 passed
+1	compile	12m 50s	branch-2 passed
+1	checkstyle	0m 40s	branch-2 passed
+1	mvnsite	1m 44s	branch-2 passed
+1	javadoc	1m 22s	branch-2 passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 9s	Maven dependency ordering for patch
+1	mvninstall	1m 11s	the patch passed
+1	compile	11m 26s	the patch passed
-1	javac	11m 26s	root generated 1 new + 1439 unchanged - 0 fixed = 1440 total (was 1439)
+1	checkstyle	0m 39s	hadoop-common-project: The patch generated 0 new + 313 unchanged - 7 fixed = 313 total (was 320)
+1	mvnsite	1m 42s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 1s	The patch has no ill-formed XML file.
+1	javadoc	1m 26s	the patch passed
<b>Other Tests</b>			
-1	unit	54m 43s	hadoop-common in the patch failed.
+1	unit	3m 3s	hadoop-kms in the patch passed.
-1	asflicense	0m 39s	The patch generated 1 ASF License warnings.
		104m 10s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:f667ef1
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12918409/HADOOP-14445.branch-2.06.patch">https://issues.apache.org/jira/secure/attachment/12918409/HADOOP-14445.branch-2.06.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 404f0ab5a32e 3.13.0-137-generic #186-Ubuntu SMP Mon Dec 4 19:09:19 UTC 2017 x86_64 x86_64 GNU/Linux

Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	branch-2 / ea51ef4
maven	version: Apache Maven 3.3.9 (bb52d8502b132ec0a5a3f4c09453c07478323dc5; 2015-11-10T16:41:47+00:00)
Default Java	1.7.0_171
javac	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14477/artifact/out/diff-compile-javac-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14477/artifact/out/diff-compile-javac-root.txt</a>
unit	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14477/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14477/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14477/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14477/testReport/</a>
asflicense	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14477/artifact/out/patch-asflicense-problems.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14477/artifact/out/patch-asflicense-problems.txt</a>
Max. process+thread count	1694 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14477/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14477/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼  Xiao Chen added a comment - 10/Apr/18 18:43

The branch-2 and branch-2.8 conflicts are minor. [shahrs87](#) do you want to give a final pass on them?

I plan to commit this 4PM PST today. Thanks!

▼  Rushabh Shah added a comment - 10/Apr/18 20:14

The branch-2 and branch-2.8 conflicts are minor. Rushabh S Shah do you want to give a final pass on them?

+1 binding on branch-2 and branch-2.8 patches.

▼  Xiao Chen added a comment - 10/Apr/18 22:49

Committed to trunk, branch-3.[0-1], branch-2, branch-2.[8-9].

Thanks Rushabh for the initial work and consistent reviews, and all others for comments / thoughts!

▼  Hudson added a comment - 10/Apr/18 22:57

SUCCESS: Integrated in Jenkins build Hadoop-trunk-Commit #13961 (See <https://builds.apache.org/job/Hadoop-trunk-Commit/13961/>)

[HADOOP-14445](#). Delegation tokens are not shared between KMS instances. (xiao: rev 583fa6ed48ad3df40bc当地9c591d5cc07ce3ea81)

- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/fs/CommonConfigurationKeysPublic.java
- (add) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/kms/KMSTokenRenewer.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/security/token/delegation/web/DelegationTokenAuthenticator.java
- (add) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/util/KMSUtilFaultInjector.java
- (edit) hadoop-common-project/hadoop-kms/src/test/java/org/apache/hadoop/crypto/key/kms/server/TestKMS.java
- (add) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/kms/KMSLegacyTokenRenewer.java
- (edit) hadoop-common-project/hadoop-common/src/main/resources/META-INF/services/org.apache.hadoop.security.token.TokenIdentifier
- (edit) hadoop-common-project/hadoop-common/src/main/resources/core-default.xml
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/security/token/delegation/web/DelegationTokenAuthenticatedURL.java
- (add) hadoop-common-project/hadoop-common/src/test/java/org/apache/hadoop/util/TestKMSUtil.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/util/KMSUtil.java

- (edit) hadoop-common-project/hadoop-common/src/main/resources/META-INF/services/org.apache.hadoop.security.token.TokenRenewer
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/kms/KMSDelegationToken.java
- (add) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/kms/package-info.java
- (add) hadoop-common-project/hadoop-common/src/test/java/org/apache/hadoop/crypto/key/kms/TestKMSClientProvider.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/security/token/delegation/web/DelegationTokenAuthenticationHandler.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/kms/KMSClientProvider.java
- (edit) hadoop-common-project/hadoop-common/src/test/java/org/apache/hadoop/crypto/key/kms/TestLoadBalancingKMSClientProvider.java

▼  Hudson added a comment - 13/Apr/18 16:26

SUCCESS: Integrated in Jenkins build Hadoop-trunk-Commit #13993 (See <https://builds.apache.org/job/Hadoop-trunk-Commit/13993/>)

[HDFS-13430](#). Fix TestEncryptionZonesWithKMS failure due to [HADOOP-14445](#). (xiao: rev 650359371175fba416331e73aa03d2a96ccb90e5)

- (edit) hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/TestEncryptionZones.java

▼  Xiao Chen added a comment - 05/May/18 03:30 - edited

Had an offline discussion with [daryn](#), [shahrs87](#), [weichiu](#) and [templedf](#).

Given the linked broken jiras and the difficulty for Daryn's future token issuer work, we decided to revert this and resort to the single kms-dt with config path. Will do the revert on Monday and work on the older single kms-dt patch.

▼  Xiao Chen added a comment - 07/May/18 17:24 - edited

Reopening Jira as I'm reverting those changes.

Will remove fix versions as I proceed. Some minor conflicts due to [HADOOP-14188](#), [HADOOP-15390](#) and [HADOOP-15313](#). Ran mvn clean test -DskipShade -Dmaven.javadoc.skip=true -Dtest=TestKMS\*,TestDelegationTokenRenewer before pushing. Attached a trunk and a branch-2.8 version for reference - 3.x lines are similar to trunk, and 2.x lines similar to 2.8.

([HDFS-13430](#) will also be reverted to accommodate this)

▼  Hudson added a comment - 07/May/18 20:57

SUCCESS: Integrated in Jenkins build Hadoop-trunk-Commit #14133 (See <https://builds.apache.org/job/Hadoop-trunk-Commit/14133/>)

Revert "[HADOOP-14445](#). Delegation tokens are not shared between KMS (xiao: rev a3a1552c33d5650fb0a702369fccd21b8c9d3e2)"

- (delete) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/kms/KMSTokenRenewer.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/kms/KMSDelegationToken.java
- (edit) hadoop-common-project/hadoop-common/src/main/resources/core-default.xml
- (delete) hadoop-common-project/hadoop-common/src/test/java/org/apache/hadoop/util/TestKMSUtil.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/fs/CommonConfigurationKeysPublic.java
- (delete) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/kms/package-info.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/security/token/delegation/web/DelegationTokenAuthenticatedURL.java
- (edit) hadoop-common-project/hadoop-common/src/main/resources/META-INF/services/org.apache.hadoop.security.token.TokenIdentifier
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/security/token/delegation/web/DelegationTokenAuthenticationHandler.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/util/KMSUtil.java
- (delete) hadoop-common-project/hadoop-common/src/test/java/org/apache/hadoop/crypto/key/kms/TestKMSClientProvider.java
- (edit) hadoop-common-project/hadoop-common/src/test/java/org/apache/hadoop/crypto/key/kms/TestLoadBalancingKMSClientProvider.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/kms/KMSClientProvider.java
- (edit) hadoop-common-project/hadoop-kms/src/test/java/org/apache/hadoop/crypto/key/kms/server/TestKMS.java
- (delete) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/kms/KMSLegacyTokenRenewer.java

- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/security/token/delegation/web/DelegationTokenAuthenticator.java
- (edit) hadoop-common-project/hadoop-common/src/main/resources/META-INF/services/org.apache.hadoop.security.token.TokenRenewer
- (delete) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/util/KMSUtilFaultInjector.java

▼  Xiao Chen added a comment - 08/Jun/18 06:41

Continuing on [this comment](#), revived and modified patch 003. Attaching patch 14 ready for review.

Besides unit tests, also manually tested this in a real cluster and covered the following matrix, all passed. Additionally blacklisted yarn user from access KMS, to prevent the kerberos fall back to work. Verified in job's log aggregation that token was indeed used for auth. (renewer and worker nodes are separate, so didn't make specific combination for them. This simplifies the test matrix)

Submitter	Yarn NM(worker)
O	N
N	O
N	N
N,conf	N

and

Submitter	Yarn RM(renewer)
O	N
N	O
N	N
N,conf	N

O=without the patch, N= with the patch, N,conf = with the patch as well configuration (aka - Dadoop.security.kms.client.token.use.uri.format=true)

[shahrs87](#), would you have cycles to review this? Thanks much

▼  Rushabh Shah added a comment - 11/Jun/18 18:21

Thanks [xiaochen](#) for revised patch. I will review this week.

▼  genericqa added a comment - 11/Jun/18 20:42

 -1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 36s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 3 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 12s	Maven dependency ordering for branch
+1	mvninstall	32m 5s	trunk passed
+1	compile	30m 39s	trunk passed
+1	checkstyle	0m 19s	trunk passed
+1	mvnsite	1m 40s	trunk passed
+1	shadedclient	13m 10s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 4s	trunk passed
+1	javadoc	1m 21s	trunk passed
<b>Patch Compile Tests</b>			

0	mvndep	0m 10s	Maven dependency ordering for patch
+1	mvninstall	1m 7s	the patch passed
+1	compile	27m 36s	the patch passed
-1	javac	27m 36s	root generated 1 new + 1487 unchanged - 0 fixed = 1488 total (was 1487)
+1	checkstyle	0m 20s	the patch passed
+1	mvnsite	1m 38s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 1s	The patch has no ill-formed XML file.
+1	shadedclient	11m 0s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 35s	the patch passed
+1	javadoc	1m 20s	the patch passed
			<b>Other Tests</b>
-1	unit	8m 24s	hadoop-common in the patch failed.
+1	unit	4m 8s	hadoop-kms in the patch passed.
+1	asflicense	0m 36s	The patch does not generate ASF License warnings.
		140m 46s	

Reason	Tests
Failed junit tests	hadoop.conf.TestCommonConfigurationFields

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:abb62dd
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12927022/HADOOP-14445.14.patch">https://issues.apache.org/jira/secure/attachment/12927022/HADOOP-14445.14.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux f5f6b3a23c85 3.13.0-137-generic #186-Ubuntu SMP Mon Dec 4 19:09:19 UTC 2017 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 2e5cf6
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_171
findbugs	v3.1.0-RC1
javac	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14753/artifact/out/diff-compile-javac-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14753/artifact/out/diff-compile-javac-root.txt</a>
unit	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14753/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14753/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14753/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14753/testReport/</a>
Max. process+thread count	1718 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14753/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14753/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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✓  Xiao Chen added a comment - 19/Jun/18 17:34

Reattached patch 14 with deprecation warning and unit test failure fixed.

✓  genericqa added a comment - 19/Jun/18 20:18

 +1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 18s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 3 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 11s	Maven dependency ordering for branch
+1	mvninstall	27m 26s	trunk passed
+1	compile	29m 27s	trunk passed
+1	checkstyle	0m 21s	trunk passed
+1	mvnsite	1m 47s	trunk passed
+1	shadedclient	13m 15s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 15s	trunk passed
+1	javadoc	1m 22s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 10s	Maven dependency ordering for patch
+1	mvninstall	1m 11s	the patch passed
+1	compile	28m 39s	the patch passed
+1	javac	28m 39s	the patch passed
+1	checkstyle	0m 20s	the patch passed
+1	mvnsite	1m 42s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 1s	The patch has no ill-formed XML file.
+1	shadedclient	11m 5s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 24s	the patch passed
+1	javadoc	1m 22s	the patch passed
<b>Other Tests</b>			
+1	unit	8m 18s	hadoop-common in the patch passed.
+1	unit	4m 4s	hadoop-kms in the patch passed.
+1	asflicense	0m 37s	The patch does not generate ASF License warnings.
		135m 59s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:abb62dd
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12928386/HADOOP-14445.14.patch">https://issues.apache.org/jira/secure/attachment/12928386/HADOOP-14445.14.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml

uname	Linux a1011f5c9533 3.13.0-139-generic #188-Ubuntu SMP Tue Jan 9 14:43:09 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 2d87592
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_171
findbugs	v3.1.0-RC1
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14794/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14794/testReport/</a>
Max. process+thread count	1498 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14794/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14794/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼  Xiao Chen added a comment - 11/Jul/18 21:58 - edited

Ping shahrs87 yzhangal weichiu daryn, anyone has cycle for a review?

▼  Wei-Chiu Chuang added a comment - 25/Jul/18 20:40 - edited

Had another look at the latest patch (rev14), thanks [xiaochen](#) for continuing the work.

Mostly LGTM but the patch won't apply cleanly now due to [HADOOP-15591](#):

```
LOG.debug("New token received: {}", token);
```

Nit:

1. why is the setKind() repeated for token?

```
TestKMSClientProvider:setup
    token.setKind(TOKEN_KIND);
    token.setService(new Text(providerUriString));
    token.setKind(TOKEN_KIND);
```

Do you meant to set oldToken instead?

2. Question: why is it called "KMSUtilFaultInjector"? It doesn't emit an exception or introduce a fault.

```
TestLoadBalancingKMSClientProvider#setup()
    KMSUtilFaultInjector.set(new KMSUtilFaultInjector());
```

3. it doesn't look like this line is needed.

4. Finally, how about marking this jira an Incompatible Change? Clearly, this is only an incompatible change when you flip the switch, however I want to raise a little more awareness of the potential problem once this switched on.

▼  Xiao Chen added a comment - 25/Jul/18 22:51 - edited

Thanks for the review [weichiu](#). Will rebase on the next patch.

1. Good catch, you're right, will update in next rev.
2. Would `KMSUtiltestInjector` suffice? Or any other suggestions?
3. Could you clarify which line?

I feel that's the goal of release notes. The last sentence of the release note seems clear to me that the flag should not be set arbitrarily. If we raise the incompatible flag, we theoretically cannot backport this to 2.x and 3.x...  
Open to any recommendations though.

Wei-Chiu Chuang added a comment - 25/Jul/18 23:15

This line in **TestLoadBalancingKMSClientProvider#setup()**

```
KMSUtilFaultInjector.set(new KMSUtilFaultInjector());
```

Isn't it already set when KMSUtilFaultInjector is initialized? Or maybe I misread? This is a tiny nit anyway.

Xiao Chen added a comment - 26/Jul/18 03:35

Thanks for the clarification, didn't realize it was referring to #2.... You're absolutely right. [HADOOP-14445.15.patch](#) rebases on latest trunk and addressed the comments.

genericqa added a comment - 26/Jul/18 06:01

X -1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 17s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 3 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 19s	Maven dependency ordering for branch
+1	mvninstall	31m 0s	trunk passed
+1	compile	31m 7s	trunk passed
+1	checkstyle	0m 22s	trunk passed
+1	mvnsite	1m 54s	trunk passed
+1	shadedclient	13m 56s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 16s	trunk passed
+1	javadoc	1m 24s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 10s	Maven dependency ordering for patch
+1	mvninstall	1m 7s	the patch passed
+1	compile	27m 1s	the patch passed
+1	javac	27m 1s	the patch passed
+1	checkstyle	0m 22s	the patch passed
+1	mvnsite	1m 40s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 1s	The patch has no ill-formed XML file.
+1	shadedclient	11m 17s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 26s	the patch passed
+1	javadoc	1m 25s	the patch passed
<b>Other Tests</b>			
+1	unit	8m 23s	hadoop-common in the patch passed.
-1	unit	4m 4s	hadoop-kms in the patch failed.
+1	asflicense	0m 40s	The patch does not generate ASF License warnings.
		141m 0s	

Reason	Tests
Failed junit tests	hadoop.crypto.key.kms.server.TestKMS

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:ba1ab08
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12933133/HADOOP-14445.15.patch">https://issues.apache.org/jira/secure/attachment/12933133/HADOOP-14445.15.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 2ee3be79a48c 3.13.0-153-generic #203-Ubuntu SMP Thu Jun 14 08:52:28 UTC 2018 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / f93ecf5
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_171
findbugs	v3.1.0-RC1
unit	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14947/artifact/out/patch-unit-hadoop-common-project_hadoop-kms.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/14947/artifact/out/patch-unit-hadoop-common-project_hadoop-kms.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14947/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14947/testReport/</a>
Max. process+thread count	1508 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14947/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14947/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼ [Wei-Chiu Chuang](#) added a comment - 26/Jul/18 18:40

There are TestKMS NPEs in the latest patch test. Could you double check?

▼ [Ajay Kumar](#) added a comment - 26/Jul/18 20:31 - edited

[xiaochen](#) thanks for working on this important missing functionality for KMS. Patch v15 LGTM. Few minor comments:

1. KMSClientProvider#renew Shall we consolidate keyProvider retrieval in single function? We can call `createKeyProviderFromTokenService` from `KMSUtil.createKeyProvider`. Corresponding debug statement may be moved there as well.
2. KMSClientProvider#cancel: same as above
3. TestLoadBalancingKMSClientProvider: To test failure in KMS HA with uri enabled setting shall we add another test case to call `testLoadBalancingWithFailure` with `KMS_CLIENT_TOKEN_USE_URI_FORMAT_KEY` set to true?

▼ [Xiao Chen](#) added a comment - 31/Jul/18 05:47 - edited

Thanks [weichiu](#) and [ajayydv](#).

New patch fixed pre-commit (which was a conflict resolution error I made when rebasing) and Ajay's comments 1&2. For #3, the test case is testing KMSP's loadbalancing on failures. This patch does not change that code path and is unrelated to client retry behavior, but on the delegation token side. So I don't think adding the config would add reasonable value here.

▼ [genericqqa](#) added a comment - 31/Jul/18 08:15

+1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 21s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 3 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	0m 18s	Maven dependency ordering for branch
+1	mvninstall	26m 29s	trunk passed
+1	compile	29m 13s	trunk passed
+1	checkstyle	0m 22s	trunk passed
+1	mvnsite	1m 48s	trunk passed
+1	shadedclient	13m 21s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 21s	trunk passed
+1	javadoc	1m 27s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 10s	Maven dependency ordering for patch
+1	mvninstall	1m 12s	the patch passed
+1	compile	32m 16s	the patch passed
+1	javac	32m 16s	the patch passed
+1	checkstyle	0m 24s	the patch passed
+1	mvnsite	2m 10s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	xml	0m 2s	The patch has no ill-formed XML file.
+1	shadedclient	12m 26s	patch has no errors when building and testing our client artifacts.
+1	findbugs	3m 6s	the patch passed
+1	javadoc	1m 41s	the patch passed
<b>Other Tests</b>			
+1	unit	10m 22s	hadoop-common in the patch passed.
+1	unit	4m 46s	hadoop-kms in the patch passed.
+1	asflicense	0m 54s	The patch does not generate ASF License warnings.
		145m 14s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:ba1ab08
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12933703/HADOOP-14445.16.patch">https://issues.apache.org/jira/secure/attachment/12933703/HADOOP-14445.16.patch</a>
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux acd9d3ae8bec 3.13.0-144-generic #193-Ubuntu SMP Thu Mar 15 17:03:53 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 3e06a5d
maven	version: Apache Maven 3.3.9

Default Java	1.8.0_171
findbugs	v3.1.0-RC1
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14967/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/14967/testReport/</a>
Max. process+thread count	1361 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms U: hadoop-common-project
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/14967/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/14967/console</a>
Powered by	Apache Yetus 0.8.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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Wei-Chiu Chuang added a comment - 01/Aug/18 00:37

+1 from me. let's wait a day so others have an opportunity to review it.

Daryn Sharp added a comment - 01/Aug/18 00:43

I'll review tomorrow.

Ajay Kumar added a comment - 01/Aug/18 22:22 - edited

xiaochen thanks for updating the patch. LGTM.

This patch does not change that code path and is unrelated to client retry behavior, but on the delegation token side. So I don't think adding the config would add reasonable value here.

Although this patch is mostly about KMS DT i was thinking of failover testing for KMS HA when auth method will be DT. But i don't feel too strongly about it, feel free to commit it as this is important improvement over current state.

Xiao Chen added a comment - 02/Aug/18 20:27

Thanks again Wei-Chiu and Ajay.

I agree more testing is a good thing in general. For this case though, the KMS HA behavior is orthogonal to the authentication method used. Specifically, LBKMSCP#doOp (the HA behavior) does not depend on the config. So I didn't add the test for now, because it wouldn't add more coverage. But feel free to elaborate and convince me otherwise.

It seems daryn isn't around for the rest of the week, I'll wait for a few more days, and commit on next Wednesday (8/8) if no more comments. 😊

Xiaoyu Yao added a comment - 09/Aug/18 03:01 - edited

Thanks xiaochen and weichiu for working on this. The patch looks good to me overall.

I just have few minor comments.

#### KMSClientProvider.java

Line 35/37: NIT: unused imports

Line 368: can we add javadoc to elaborate the difference between uri and providerUri.

Line 1072: NIT: should we change the order of the parameters to be consistent with TokenSelector#selectToken?

Line 1093: should we attempt to parse the providerUriText and match the individual instances with kmsUrl as a fallback in case the order mismatch?

#### core-default.xml

Line 2663: hadoop.security.kms.client.token.use.uri.format is introduced as the switch to use the new dtService format. Can you give an example of the dtService field when this is true? E.g., kms://http@localhost:port1/kms,kms://http@localhost:port2/kms

If the order of the kms instances change between renew for the long running process? Will the token selector still be able to find the matching token (AbstractDelegationTokenSelector#selectToken())

to renew? Should we define a logical kms uri to represent KMS HA instances to avoid this?

#### KMSUtil.java

Line 28: NIT: unused imports

▼ Daryn Sharp added a comment - 14/Aug/18 18:01

Sorry, ironically it was kms issues that caused me to disappear... I'm actively reviewing.

▼ Ajay Kumar added a comment - 14/Aug/18 22:59 - edited

xiaochen thanks for taking this forward. I might be missing something here but wanted to put this question in open. L347 in DelegationTokenAuthenticatedURL#selectDelegationToken will return a service in ip:port or host:port format (not uri). So creds.getToken(service) in next line may not return the HA KMS DT as service name will be in URI format. Could you please share if this is not the case.

▼ Xiao Chen added a comment - 16/Aug/18 03:34

Thanks all for reviewing this. Look forward to Daryn's active reviews, will address comments together..

Clarifications on the questions:

If the order of the kms instances change between renew for the long running process? Will the token selector still be able to find the matching token (AbstractDelegationTokenSelector#selectToken()) to renew? Should we define a logical kms uri to represent KMS HA instances to avoid this?

Good question. You're right that when the url changes, the selection wouldn't work. My collection from the earlier discussion was that this was deemed an acceptable behavior. See discussions above, until [this comment](#).

L347 in DelegationTokenAuthenticatedURL#selectDelegationToken will return a service in ip:port or host:port format (not uri). So creds.getToken(service) in next line may not return the HA KMS DT as service name will be in URI format.

The goal of this jira is to add this new format, while maintaining backwards compatibility. This means if the new software runs with old software (when the config `hadoop.security.kms.client.token.use.uri.format` isn't changed), it would behave the same. Hence the DelegationTokenAuthenticatedURL#selectDelegationToken is simply a code refactor.

The reason for that refactor is that, we can override this behavior in KMSCP and work our way for the new format. The reason it falls back to DTAURL to select token is for compat.

▼ Daryn Sharp added a comment - 20/Aug/18 16:24

Will the token selector still be able to find the matching token (AbstractDelegationTokenSelector#selectToken()) to renew? Should we define a logical kms uri to represent KMS HA instances to avoid this?

No, we discussed early on that there must be no special configs. It doesn't scale. A token must be sufficient to determine how/where to renew. I'm not sure why a token selector is being mentioned? If you have a token to renew, you don't search for it, right?

I've been tinkering with a simpler patch that conforms to token acquisition that was discussed in a phone conference call quite awhile back. Getting ready to work through tests and validate it's compatible with our internal implementation that's been in production. We can then reconcile.

▼ Xiao Chen added a comment - 21/Aug/18 04:25

Thanks for the update [daryn](#). Happy to know you have a version too. Open to simpler solutions. 😊

Please let me know how I can help to move us forward.

▼ Daryn Sharp added a comment - 23/Aug/18 18:08

Close to having a magic bullet patch done, writing tests.

1. It's backwards compatible
2. Requires no config changes
3. Possibly "logical" name support w/o being config-based. Maybe

The trick to compatibility is non-standard behavior of the kms/authenticated url token lookup. Instead of selecting a token based on its contained service, the lookup is via the credentials alias – it assumes it's the service. The token's actual service is meaningless. We can exploit that behavior by setting the token service to a uri to allow renew/cancel to instantiate the issuing provider, but leave the credentials alias as the host:port of one of the providers so current client can find it.

▼  Xiao Chen added a comment - 23/Aug/18 18:37

Good to know, thanks for the update [daryn](#).

I agree we can take advantage of the kind-less token lookup to build the silver bullet. Was trying to make the new behavior correctly based on token kind in the last patch, but looking forward to the magical patch before I really hold any opinion.

▼  Daryn Sharp added a comment - 24/Aug/18 19:17

This is probably pretty close to doing what I described above. If anyone can help ensure there's sufficient test coverage (I stole tests from the last patch), please help, I'm juggling too much.

▼  genericqa added a comment - 24/Aug/18 19:46

 **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 0s	Docker mode activated.
-1	patch	0m 7s	HADOOP-14445 does not apply to trunk. Rebase required? Wrong Branch? See <a href="https://wiki.apache.org/hadoop/HowToContribute">https://wiki.apache.org/hadoop/HowToContribute</a> for help.

Subsystem	Report/Notes
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12937053/HADOOP-14445.compat.patch">https://issues.apache.org/jira/secure/attachment/12937053/HADOOP-14445.compat.patch</a>
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15092/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/15092/console</a>
Powered by	Apache Yetus 0.9.0-SNAPSHOT <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼  Xiao Chen added a comment - 29/Aug/18 03:15

Thanks Daryn. I'm reviewing the patch, will improve it and do some additional testing. Should come back by end of this week.

▼  Xiao Chen added a comment - 06/Sep/18 04:57

Reviewed and tested in a test cluster, works nicely both ways. 😊 My 1-line-summary of the kms compat part would be: old client selects the token based on the credential map's key (which is the service of the token), and not the service of the token.

Attached patch 17 to kick a jenkins run. It has mostly small tweaks to make this more debuggable, and polished up test cases. Removed a few end-to-end tests that are no longer needed now that we don't use a config, and added a few tests to verify KMSPC / LBKMSPC directly.

▼  Hadoop QA added a comment - 06/Sep/18 06:50

 **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 28s	Docker mode activated.

Prechecks			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 4 new or modified test files.
trunk Compile Tests			
0	mvndep	1m 48s	Maven dependency ordering for branch
+1	mvninstall	18m 41s	trunk passed
+1	compile	16m 8s	trunk passed
+1	checkstyle	3m 50s	trunk passed
+1	mvnsite	2m 40s	trunk passed
+1	shadedclient	18m 23s	branch has no errors when building and testing our client artifacts.
+1	findbugs	3m 57s	trunk passed
+1	javadoc	2m 1s	trunk passed
Patch Compile Tests			
0	mvndep	0m 19s	Maven dependency ordering for patch
+1	mvninstall	1m 53s	the patch passed
+1	compile	14m 47s	the patch passed
+1	javac	14m 47s	the patch passed
-0	checkstyle	3m 22s	root: The patch generated 28 new + 331 unchanged - 11 fixed = 359 total (was 342)
+1	mvnsite	2m 36s	the patch passed
-1	whitespace	0m 0s	The patch has 1 line(s) that end in whitespace. Use git apply --whitespace=fix <>patch_file>>. Refer <a href="https://git-scm.com/docs/git-apply">https://git-scm.com/docs/git-apply</a>
+1	shadedclient	11m 12s	patch has no errors when building and testing our client artifacts.
-1	findbugs	1m 46s	hadoop-common-project/hadoop-common generated 1 new + 0 unchanged - 0 fixed = 1 total (was 0)
+1	javadoc	1m 59s	the patch passed
Other Tests			
-1	unit	8m 46s	hadoop-common in the patch failed.
+1	unit	4m 9s	hadoop-kms in the patch passed.
+1	unit	1m 43s	hadoop-hdfs-client in the patch passed.
-1	asflicense	0m 39s	The patch generated 1 ASF License warnings.
		120m 26s	

Reason	Tests
FindBugs	module:hadoop-common-project/hadoop-common  Redundant nullcheck of service, which is known to be non-null in new org.apache.hadoop.crypto.key.kms.LoadBalancingKMSClientProvider(URI, KMSClientProvider[], long, Configuration) Redundant null check at LoadBalancingKMSClientProvider.java:is known to be non-null in new org.apache.hadoop.crypto.key.kms.LoadBalancingKMSClientProvider(URI, KMSClientProvider[], long, Configuration) Redundant null check at LoadBalancingKMSClientProvider.java:[line 113]
Failed junit tests	hadoop.fs.TestFilterFileSystem  hadoop.fs.TestHarFileSystem

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:ba1ab08

JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12938583/HADOOP-14445.17.patch">https://issues.apache.org/jira/secure/attachment/12938583/HADOOP-14445.17.patch</a>
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux a9fd527305fd 3.13.0-144-generic #193-Ubuntu SMP Thu Mar 15 17:03:53 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 962089a
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_181
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15147/artifact/out/diff-checkstyle-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15147/artifact/out/diff-checkstyle-root.txt</a>
whitespace	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15147/artifact/out/whitespace-eol.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15147/artifact/out/whitespace-eol.txt</a>
findbugs	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15147/artifact/out/new-findbugs-hadoop-common-project_hadoop-common.html">https://builds.apache.org/job/PreCommit-HADOOP-Build/15147/artifact/out/new-findbugs-hadoop-common-project_hadoop-common.html</a>
unit	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15147/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15147/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15147/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/15147/testReport/</a>
ASFlicense	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15147/artifact/out/patch-asflicense-problems.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15147/artifact/out/patch-asflicense-problems.txt</a>
Max. process+thread count	1718 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms hadoop-hdfs-project/hadoop-hdfs-client U: .
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15147/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/15147/console</a>
Powered by	Apache Yetus 0.8.0 <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼  Xiao Chen added a comment - 06/Sep/18 21:18

[HADOOP-14445.18.patch](#) ready for review.

Fixed pre-commit complaints. Removed the server default configs which seems to be an accidental change in the patch... Made `getAdditionalTokenIssuers` in `FileSystem` to be `InterfaceAudience.Private` because I don't think it's supposed to be used called by downstream.

daryn, want to do a semi-self-review? 😊

▼  Hadoop QA added a comment - 06/Sep/18 23:43

✗ -1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 24s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 6 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	1m 58s	Maven dependency ordering for branch
+1	mvninstall	20m 56s	trunk passed
-1	compile	11m 5s	root in trunk failed.
+1	checkstyle	3m 43s	trunk passed

+1	mvnsite	2m 49s	trunk passed
+1	shadedclient	19m 25s	branch has no errors when building and testing our client artifacts.
+1	findbugs	3m 54s	trunk passed
+1	javadoc	1m 51s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 20s	Maven dependency ordering for patch
+1	mvninstall	1m 53s	the patch passed
+1	compile	15m 53s	the patch passed
-1	javac	15m 53s	root generated 178 new + 1276 unchanged - 0 fixed = 1454 total (was 1276)
-0	checkstyle	3m 29s	root: The patch generated 3 new + 519 unchanged - 10 fixed = 522 total (was 529)
+1	mvnsite	2m 33s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	shadedclient	11m 12s	patch has no errors when building and testing our client artifacts.
+1	findbugs	4m 16s	the patch passed
+1	javadoc	2m 1s	the patch passed
<b>Other Tests</b>			
+1	unit	8m 47s	hadoop-common in the patch passed.
+1	unit	4m 11s	hadoop-kms in the patch passed.
+1	unit	1m 43s	hadoop-hdfs-client in the patch passed.
+1	asflicense	0m 40s	The patch does not generate ASF License warnings.
		119m 28s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:ba1ab08
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12938716/HADOOP-14445.18.patch">https://issues.apache.org/jira/secure/attachment/12938716/HADOOP-14445.18.patch</a>
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux 83724e7af1bd 3.13.0-143-generic #192-Ubuntu SMP Tue Feb 27 10:45:36 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / b3161c4
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_181
compile	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15151/artifact/out/branch-compile-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15151/artifact/out/branch-compile-root.txt</a>
findbugs	v3.1.0-RC1
javac	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15151/artifact/out/diff-compile-javac-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15151/artifact/out/diff-compile-javac-root.txt</a>
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15151/artifact/out/diff-checkstyle-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15151/artifact/out/diff-checkstyle-root.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15151/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/15151/testReport/</a>
Max. process+thread count	1456 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms hadoop-hdfs-project/hadoop-hdfs-client U: .
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15151/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/15151/console</a>
Powered by	Apache Yetus 0.8.0 <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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✓  Xiao Chen added a comment - 07/Sep/18 03:11

Pre-commit failure seems intermittent, re-kicked.

```
[INFO] Running 'yarn install' in /testptch/hadoop/hadoop-yarn-project/hadoop-yarn/hadoop-yarn-ui/target/webapp
[INFO] yarn install v0.21.3
[INFO] [1/4] Resolving packages...
[INFO] [2/4] Fetching packages...
[ERROR] error An unexpected error occurred: "https://registry.yarnpkg.com/sri-toolbox/-/sri-toolbox-0.2.0.tgz: Request fai
```

✓  Hadoop QA added a comment - 07/Sep/18 05:13

 +1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 24s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 6 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	1m 55s	Maven dependency ordering for branch
+1	mvninstall	19m 45s	trunk passed
+1	compile	16m 58s	trunk passed
+1	checkstyle	3m 40s	trunk passed
+1	mvnsite	2m 41s	trunk passed
+1	shadedclient	18m 19s	branch has no errors when building and testing our client artifacts.
+1	findbugs	3m 54s	trunk passed
+1	javadoc	2m 3s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 18s	Maven dependency ordering for patch
+1	mvninstall	1m 50s	the patch passed
+1	compile	14m 55s	the patch passed
+1	javac	14m 55s	the patch passed
-0	checkstyle	3m 21s	root: The patch generated 3 new + 520 unchanged - 10 fixed = 523 total (was 530)
+1	mvnsite	2m 35s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	shadedclient	11m 31s	patch has no errors when building and testing our client artifacts.
+1	findbugs	4m 17s	the patch passed
+1	javadoc	2m 2s	the patch passed
<b>Other Tests</b>			
+1	unit	9m 0s	hadoop-common in the patch passed.
+1	unit	4m 11s	hadoop-kms in the patch passed.
+1	unit	1m 42s	hadoop-hdfs-client in the patch passed.
+1	asflicense	0m 41s	The patch does not generate ASF License warnings.
		122m 50s	

Subsystem	Report/Notes
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Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:ba1ab08
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12938716/HADOOP-14445.18.patch">https://issues.apache.org/jira/secure/attachment/12938716/HADOOP-14445.18.patch</a>
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux 356abf976796 3.13.0-144-generic #193-Ubuntu SMP Thu Mar 15 17:03:53 UTC 2018 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testpatch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 396ce7b
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_181
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15154/artifact/out/diff-checkstyle-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15154/artifact/out/diff-checkstyle-root.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15154/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/15154/testReport/</a>
Max. process+thread count	1718 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms hadoop-hdfs-project/hadoop-hdfs-client U: .
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15154/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/15154/console</a>
Powered by	Apache Yetus 0.8.0 <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼ Daryn Sharp added a comment - 11/Sep/18 13:36

xiaochen, thank you so much for the assistance! Catching up after being OOO will review asap. Based on your summary, no functional changes were made?

▼ Xiao Chen added a comment - 11/Sep/18 17:57

| no functional changes were made?

Nope, besides cosmetic updates and adding debug logs / test cases, the only 'functional' change was the removal of the server defaults stuff in WebHdfsFileSystem, which seems to fit better with another jira.

▼ Ajay Kumar added a comment - 06/Oct/18 01:26 - edited

xiaochen thanks for taking it forward. LGTM. Have a question about canonicalService field in LoadBalancingKMSClientProvider. Did some basic testing and i think whole thing will work without this field as well. Shall we get rid of it? Also in TestLoadBalancingKMSClientProvider#testTokenServiceCreationWithUriFormat shall we add assertion for dtService as well?

▼ Xiao Chen added a comment - 09/Oct/18 17:53

[HADOOP-14445.19.patch](#)

Thanks for the review ajayydv.

| canonicalService field in LoadBalancingKMSClientProvider

The canonicalService is used for token selection. We depend on LBKMSCP and KMSCP's canonicalService to handle all combinations of token look up, so both are needed. You can try debug this with a token with client and a new client to see how it works differently. 😊

Good idea on the additional test coverage. Updated in patch 19.

▼ Hadoop QA added a comment - 09/Oct/18 20:03

**-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 52s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 6 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	2m 1s	Maven dependency ordering for branch
+1	mvninstall	19m 32s	trunk passed
+1	compile	15m 25s	trunk passed
+1	checkstyle	3m 27s	trunk passed
+1	mvnsite	2m 35s	trunk passed
+1	shadedclient	17m 46s	branch has no errors when building and testing our client artifacts.
+1	findbugs	4m 14s	trunk passed
+1	javadoc	1m 56s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 21s	Maven dependency ordering for patch
+1	mvninstall	1m 57s	the patch passed
+1	compile	14m 30s	the patch passed
+1	javac	14m 30s	the patch passed
-0	checkstyle	3m 30s	root: The patch generated 3 new + 518 unchanged - 10 fixed = 521 total (was 528)
+1	mvnsite	2m 35s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	shadedclient	11m 47s	patch has no errors when building and testing our client artifacts.
+1	findbugs	5m 11s	the patch passed
+1	javadoc	2m 4s	the patch passed
<b>Other Tests</b>			
-1	unit	9m 41s	hadoop-common in the patch failed.
+1	unit	4m 11s	hadoop-kms in the patch passed.
+1	unit	1m 51s	hadoop-hdfs-client in the patch passed.
+1	asflicense	0m 42s	The patch does not generate ASF License warnings.
		123m 7s	

Reason	Tests
Failed junit tests	hadoop.ha.TestZKFailoverController

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:4b8c2b1
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12943078/HADOOP-14445.19.patch">https://issues.apache.org/jira/secure/attachment/12943078/HADOOP-14445.19.patch</a>
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle

uname	Linux b0afb9fa31b9 4.4.0-134-generic #160~14.04.1-Ubuntu SMP Fri Aug 17 11:07:07 UTC 2018 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / c3d22d3
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_181
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15328/artifact/out/diff-checkstyle-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15328/artifact/out/diff-checkstyle-root.txt</a>
unit	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15328/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15328/artifact/out/patch-unit-hadoop-common-project_hadoop-common.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15328/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/15328/testReport/</a>
Max. process+thread count	1506 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms hadoop-hdfs-project/hadoop-hdfs-client U: .
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15328/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/15328/console</a>
Powered by	Apache Yetus 0.8.0 <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼  Daryn Sharp added a comment - 11/Oct/18 14:45

Taking a look today since it will be great to get this in.

▼  Daryn Sharp added a comment - 11/Oct/18 15:26

xiaochen Sorry for the delay. I did a quick review of the diff of the diffs. I think it looks good, no substantive changes, nice tests! +1 pending fixing the logging changes.

1. There's a debug log that uses `creds.getAllTokens()`. Be mindful to avoid computation that in the common case is not necessary. I'd remove it but you could wrap with check for debug enabled.
2. Don't log things like token creation, setting of service, etc at the info level. The kms client shouldn't be so noisy about things normal users don't care about.

Feels a bit odd approving my own patch, but I suppose I'm giving +1 to tests and you can +1 the code.

▼  Xiao Chen added a comment - 12/Oct/18 02:07

[HADOOP-14445.20.patch](#) 

Thanks daryn for the additional review.

According to [slf4j doc](#), when the log is disabled by level, "The one and two argument variants" of the logging statement doesn't incur the object construction cost. But to make the +1 valid, I have gone ahead and wrapped it. 😊

Logging also changed, tuned down the extras to debug and left only 1 token creation at info level, to be inline with DFSClient.

Will let pre-commit kick-in and commit on tomorrow if no more comments.

▼  Hadoop QA added a comment - 12/Oct/18 05:05

 **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 35s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 6 new or modified test files.

<b>trunk Compile Tests</b>			
0	mvndep	6m 4s	Maven dependency ordering for branch
+1	mvninstall	20m 57s	trunk passed
+1	compile	17m 17s	trunk passed
+1	checkstyle	3m 0s	trunk passed
+1	mvnsite	2m 41s	trunk passed
+1	shadedclient	17m 25s	branch has no errors when building and testing our client artifacts.
+1	findbugs	3m 57s	trunk passed
+1	javadoc	1m 42s	trunk passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 19s	Maven dependency ordering for patch
+1	mvninstall	1m 48s	the patch passed
+1	compile	14m 3s	the patch passed
+1	javac	14m 3s	the patch passed
-0	checkstyle	2m 44s	root: The patch generated 3 new + 519 unchanged - 10 fixed = 522 total (was 529)
+1	mvnsite	2m 11s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	shadedclient	9m 42s	patch has no errors when building and testing our client artifacts.
+1	findbugs	4m 8s	the patch passed
+1	javadoc	1m 34s	the patch passed
<b>Other Tests</b>			
+1	unit	8m 15s	hadoop-common in the patch passed.
+1	unit	3m 58s	hadoop-kms in the patch passed.
+1	unit	1m 41s	hadoop-hdfs-client in the patch passed.
-1	asflicense	0m 38s	The patch generated 1 ASF License warnings.
		121m 45s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:4b8c2b1
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12943582/HADOOP-14445.20.patch">https://issues.apache.org/jira/secure/attachment/12943582/HADOOP-14445.20.patch</a>
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux 04fbdc28c2e 4.4.0-133-generic #159-Ubuntu SMP Fri Aug 10 07:31:43 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / fb18cc5
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_181
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15358/artifact/out/diff-checkstyle-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15358/artifact/out/diff-checkstyle-root.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15358/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/15358/testReport/</a>
asflicense	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15358/artifact/out/patch-asflicense-problems.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15358/artifact/out/patch-asflicense-problems.txt</a>
Max. process+thread count	1383 (vs. ulimit of 10000)

modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms hadoop-hdfs-project/hadoop-hdfs-client U: .
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15358/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/15358/console</a>
Powered by	Apache Yetus 0.8.0 <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼  Daryn Sharp added a comment - 12/Oct/18 14:16

The cited slf4j construction avoidance doesn't apply in this particular case. Here's what it does:

1. using {} avoids the caller explicitly constructing strings for params that won't be used
2. the 1-2 arg methods prevent construction of an implicit Object[] for the varargs

Neither avoid the unnecessary cost of creating the logging params themselves. Ie. `creds.getAllTokens()`.

+1. Looks good. Thanks!

▼  Xiao Chen added a comment - 12/Oct/18 16:39

Thanks Daryn for the elaboration, good catch.

I have committed this to trunk. Will update release notes and attach backport patches for pre-commit. Also put Rushabh's name in it since he worked on the earlier patch, and some tests were written by him. 😊

**daryn:** are you interested in having this in branch-2.8? We'd need to modify the DelegationTokenIssuer to compile with java7. I'm happy to do it, but would like to check it's what you want (and produce less conflict for Yahoo's internal version, if there's one).

▼  Hudson added a comment - 12/Oct/18 17:01

SUCCESS: Integrated in Jenkins build Hadoop-trunk-Commit #15191 (See <https://builds.apache.org/job/Hadoop-trunk-Commit/15191/>)

**HADOOP-14445.** Use DelegationTokenIssuer to create KMS delegation tokens (xiao: rev 5ec86b445cc492f52c33639efb6a09a0d2f27475)

- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/fs/FileSystem.java
- (edit) hadoop-common-project/hadoop-common/src/test/java/org/apache/hadoop/crypto/key/kms/TestLoadBalancingKMSClientProvider.java
- (edit) hadoop-common-project/hadoop-common/src/test/java/org/apache/hadoop/crypto/key/TestKeyProviderDelegationTokenExtension.java
- (edit) hadoop-common-project/hadoop-common/src/test/java/org/apache/hadoop/fs/TestHarFileSystem.java
- (add) hadoop-common-project/hadoop-common/src/test/java/org/apache/hadoop/crypto/key/kms/TestKMSClientProvider.java
- (edit) hadoop-hdfs-project/hadoop-hdfs-client/src/main/java/org/apache/hadoop/hdfs/DistributedFileSystem.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/KeyProviderTokenIssuer.java
- (edit) hadoop-hdfs-project/hadoop-hdfs-client/src/main/java/org/apache/hadoop/hdfs/DFSClient.java
- (edit) hadoop-hdfs-project/hadoop-hdfs-client/src/main/java/org/apache/hadoop/hdfs/web/WebHdfsFileSystem.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/KeyProviderDelegationTokenExtension.java
- (add) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/security/token/org/apache/hadoop/security/token/DelegationTokenIssuer.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/util/KMSUtil.java
- (edit) hadoop-hdfs-project/hadoop-hdfs-client/src/main/java/org/apache/hadoop/hdfs/HdfsKMSUtil.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/kms/KMSClientProvider.java
- (edit) hadoop-common-project/hadoop-kms/src/test/java/org/apache/hadoop/crypto/key/kms/server/TestKMS.java
- (edit) hadoop-common-project/hadoop-common/src/test/java/org/apache/hadoop/fs/TestFilterFileSystem.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/kms/LoadBalancingKMSClientProvider.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/security/token/delegation/web/DelegationTokenAuthenticatedURL.java

▼  Rushabh Shah added a comment - 12/Oct/18 18:10

I have committed this to trunk.

Great to see this Jira finally resolved. Thanks **xiaochen** for staying on top of this. 😊

Thanks daryn for throwing all ideas and then rejecting after. 😊

▼ Daryn Sharp added a comment - 12/Oct/18 18:17

A 2.8 back port would be great. I forgot branch-2 requires supporting something that has been dead for over 3 years. 😞 It would be a shame to require all clients to implement the default method... This patch is going to be a massive conflict for me no matter what. Internally, the config-based approach was a non-starter. We deployed from the start with the service as uri so we didn't have to worry about the compatibility issues here.

▼ Hadoop QA added a comment - 12/Oct/18 18:47

+1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 33s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 6 new or modified test files.
<b>branch-3.0 Compile Tests</b>			
0	mvndep	2m 36s	Maven dependency ordering for branch
+1	mvninstall	21m 44s	branch-3.0 passed
+1	compile	13m 26s	branch-3.0 passed
+1	checkstyle	3m 9s	branch-3.0 passed
+1	mvnsite	2m 34s	branch-3.0 passed
+1	shadedclient	16m 45s	branch has no errors when building and testing our client artifacts.
+1	findbugs	3m 57s	branch-3.0 passed
+1	javadoc	1m 58s	branch-3.0 passed
<b>Patch Compile Tests</b>			
0	mvndep	0m 17s	Maven dependency ordering for patch
+1	mvninstall	1m 52s	the patch passed
+1	compile	12m 39s	the patch passed
+1	javac	12m 39s	the patch passed
-0	checkstyle	3m 6s	root: The patch generated 3 new + 520 unchanged - 10 fixed = 523 total (was 530)
+1	mvnsite	2m 29s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	shadedclient	10m 40s	patch has no errors when building and testing our client artifacts.
+1	findbugs	4m 15s	the patch passed
+1	javadoc	1m 56s	the patch passed
<b>Other Tests</b>			
+1	unit	9m 10s	hadoop-common in the patch passed.
+1	unit	4m 4s	hadoop-kms in the patch passed.
+1	unit	1m 36s	hadoop-hdfs-client in the patch passed.
+1	asflicense	0m 37s	The patch does not generate ASF License warnings.
		116m 33s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:1776208

JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12943671/HADOOP-14445.branch-3.0.001.patch">https://issues.apache.org/jira/secure/attachment/12943671/HADOOP-14445.branch-3.0.001.patch</a>
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux 8fd2a5cf0a3c 3.13.0-144-generic #193-Ubuntu SMP Thu Mar 15 17:03:53 UTC 2018 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	branch-3.0 / 2abc4ab
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_181
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15361/artifact/out/diff-checkstyle-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15361/artifact/out/diff-checkstyle-root.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15361/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/15361/testReport/</a>
Max. process+thread count	1381 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-common-project/hadoop-kms hadoop-hdfs-project/hadoop-hdfs-client U: .
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15361/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/15361/console</a>
Powered by	Apache Yetus 0.8.0 <a href="http://yetus.apache.org">http://yetus.apache.org</a>

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▼ Xiao Chen added a comment - 12/Oct/18 19:09

Pushed this to branch-3.2 (clean backport), branch-3.1 (minor conflict), and branch-3.0 (patched above).

Will work on the branch-2 in the recent future...

▼ Xiao Chen added a comment - 15/Oct/18 03:45 - edited

daryn Do you mind another review? Sadly this needs an addendum for 2 things:

- `DelegationTokenIssuer` class was recursively 'org/apache/hadoop/security/token' package twice... sorry didn't catch this during review
- It caused 2 test failures in `TestEncryptionZones`. Pre-commit smartly skipped hadoop-hdfs (only ran hadoop-hdfs-client and hadoop-common), and it's caught when I try to backport to CDH where a full unit test was carried out. Out of the 2 failures, `testDelegationToken` needs to update the way it's mocked, and `addMockKmsToken` (another test method) caused Mockito to give up, refusing to call the method on interface...

(For thoroughness, internal pre-commit also complained about API compat, saying `addDelegationTokens` is removed from `FileSystem` and `DistributedFileSystem`; it also noted the same method is added to `DelegationTokenIssuer`, but not able to use the latter as a clue to cross off the former. So this part is clearly to be overruled)

▼ Hadoop QA added a comment - 15/Oct/18 07:16

-1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 23s	Docker mode activated.
<b>Prechecks</b>			
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 3 new or modified test files.
<b>trunk Compile Tests</b>			
0	mvndep	2m 0s	Maven dependency ordering for branch
+1	mvninstall	20m 25s	trunk passed

+1	compile	16m 44s	trunk passed
+1	checkstyle	3m 35s	trunk passed
+1	mvnsite	3m 32s	trunk passed
+1	shadedclient	19m 35s	branch has no errors when building and testing our client artifacts.
+1	findbugs	5m 30s	trunk passed
+1	javadoc	2m 38s	trunk passed
			<b>Patch Compile Tests</b>
0	mvninstall	0m 20s	Maven dependency ordering for patch
+1	mvninstall	2m 46s	the patch passed
+1	compile	15m 25s	the patch passed
+1	javac	15m 25s	the patch passed
-0	checkstyle	3m 26s	root: The patch generated 1 new + 391 unchanged - 2 fixed = 392 total (was 393)
+1	mvnsite	3m 11s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	shadedclient	11m 33s	patch has no errors when building and testing our client artifacts.
+1	findbugs	5m 40s	the patch passed
+1	javadoc	2m 30s	the patch passed
			<b>Other Tests</b>
+1	unit	8m 57s	hadoop-common in the patch passed.
+1	unit	1m 42s	hadoop-hdfs-client in the patch passed.
-1	unit	99m 41s	hadoop-hdfs in the patch failed.
-1	asflicense	0m 49s	The patch generated 1 ASF License warnings.
		226m 20s	

Reason	Tests
Failed junit tests	hadoop.hdfs.server.namenode.ha.TestHAAppend

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image=yetus/hadoop:4b8c2b1
JIRA Issue	<a href="#">HADOOP-14445</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/12943866/HADOOP-14445.addendum.patch">https://issues.apache.org/jira/secure/attachment/12943866/HADOOP-14445.addendum.patch</a>
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux 8c2567fb2cf0 3.13.0-144-generic #193-Ubuntu SMP Thu Mar 15 17:03:53 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 5033deb
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_181
findbugs	v3.1.0-RC1
checkstyle	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15364/artifact/out/diff-checkstyle-root.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15364/artifact/out/diff-checkstyle-root.txt</a>
unit	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15364/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15364/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt</a>
Test Results	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15364/testReport/">https://builds.apache.org/job/PreCommit-HADOOP-Build/15364/testReport/</a>
asflicense	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15364/artifact/out/patch-asflicense-problems.txt">https://builds.apache.org/job/PreCommit-HADOOP-Build/15364/artifact/out/patch-asflicense-problems.txt</a>

Max. process+thread count	2587 (vs. ulimit of 10000)
modules	C: hadoop-common-project/hadoop-common hadoop-hdfs-project/hadoop-hdfs-client hadoop-hdfs-project/hadoop-hdfs U: .
Console output	<a href="https://builds.apache.org/job/PreCommit-HADOOP-Build/15364/console">https://builds.apache.org/job/PreCommit-HADOOP-Build/15364/console</a>
Powered by	Apache Yetus 0.8.0 <a href="http://yetus.apache.org">http://yetus.apache.org</a>

This message was automatically generated.

▼  Daryn Sharp added a comment - 15/Oct/18 16:12

+1. Just take out the now unused import in TestEncryptionZones. Surprised we both missed the doubled up class...

▼  Hudson added a comment - 15/Oct/18 18:15

SUCCESS: Integrated in Jenkins build Hadoop-trunk-Commit #15218 (See <https://builds.apache.org/job/Hadoop-trunk-Commit/15218/>)

[HADOOP-14445](#). Addendum: Use DelegationTokenIssuer to create KMS (xiao: rev b6fc72a0250ac3f2341ebe8a14d19b073e6224c8)

- (edit) hadoop-hdfs-project/hadoop-hdfs-client/src/main/java/org/apache/hadoop/hdfs/web/WebHdfsFileSystem.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/KeyProviderDelegationTokenExtension.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/KeyProviderTokenIssuer.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/fs/FileSystem.java
- (edit) hadoop-hdfs-project/hadoop-hdfs-client/src/main/java/org/apache/hadoop/hdfs/DistributedFileSystem.java
- (edit) hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/TestEncryptionZones.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/security/token/org/apache/hadoop/security/token/DelegationTokenIssuer.java
- (edit) hadoop-common-project/hadoop-common/src/test/java/org/apache/hadoop/fs/TestFilterFileSystem.java
- (edit) hadoop-common-project/hadoop-common/src/test/java/org/apache/hadoop/fs/TestHarFileSystem.java

▼  Xiao Chen added a comment - 16/Oct/18 03:12

Forgot to mention: addendum patch committed to relevant branches (trunk, branch-3.[0-2]). Thanks again Daryn.

Branch-2 is still good to have, but I fear I'll be preempted at least for this week.

▼  Wei-Chiu Chuang added a comment - 17/Oct/18 04:52

Thanks [daryn](#), [xiaochen](#) for carrying this task to the finish line. I found an issue in the commits and I believe it's unintentional. Please move over to [HADOOP-15864](#) to check out.

▼  Xiao Chen added a comment - 25/Oct/18 20:27

Closing the Jira now for tracking purposes. Will reopen when doing branch-2 patches (currently buried in various ec stuff..)

▼  Hudson added a comment - 04/Jan/19 16:34

SUCCESS: Integrated in Jenkins build Hadoop-trunk-Commit #15703 (See <https://builds.apache.org/job/Hadoop-trunk-Commit/15703/>)

[HADOOP-15997](#). KMS client uses wrong UGI after [HADOOP-14445](#). Contributed (sunilg: rev 51427cbdfb39cb6f5774b7b70009d7ee4388edfc)

- (edit) hadoop-common-project/hadoop-common/src/test/java/org/apache/hadoop/crypto/key/kms/TestLoadBalancingKMSClientProvider.java
- (edit) hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/crypto/key/kms/KMSClientProvider.java

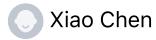
▼  Siyao Meng added a comment - 03/Oct/19 23:09 - edited

Looks like we still need to backport this to branch-2, as the previous buggy commit got reverted.

The branch 2 patches will need some revision based on the committed branch 3 patch.

## ▼ People

Assignee:



Xiao Chen

Reporter:



Wei-Chiu Chuang

Votes:

 2 Vote for this issue

Watchers:

 19 Start watching this issue

#### ▼ Dates

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Created:

22/May/17 16:24

Updated:

05/Oct/19 03:20

Resolved:

25/Oct/18 20:27