

关于X10000/ONEStor集群对象存储ntp server配置要求的说明

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组网及说明

X10000 配置对象存储的所有版本

ONEStor 配置对象存储的所有版本

问题描述

对象存储的s3-developer-guide指导规定 (<http://s3.amazonaws.com/doc/s3-developer-guide/RESTAuthentication.html>)，S3的客户端 需要和服务端的时钟一致，时钟不能偏差超过15分钟。如果S3的客户端和服务端的时钟偏差超过15分钟，那么S3的客户端提示错误，拒绝连接对象存储。

Some important points:

- The string to sign (verb, headers, resource) must be UTF-8 encoded.
- The content-type and content-md5 values are optional, but if you do not include them you must still insert a newline at the point where these values would normally be inserted.
- Some toolkits may insert headers that you do not know about beforehand, such as adding the header 'Content-Type' during a PUT. In most of these cases, the value of the inserted header remains constant, allowing you to discover the missing headers using tools such as Ethereal or tcpmon.
- Some toolkits make it difficult to manually set the date. If you have trouble including the value of the 'Date' header in the canonicalized headers, you can include an 'x-amz-date' header prior to canonicalization. The value of the x-amz-date header must be in one of the RFC 2616 formats (<http://www.ietf.org/rfc/rfc2616.txt>). If S3 sees an x-amz-date header in the request, it will ignore the Date header when validating the request signature. If you include the x-amz-date header, you must still include a newline character in the canonicalized string at the point where the Date value would normally be inserted.
- The value of the Date or, if applicable, x-amz-date header must specify a time no more than 15 minutes away from the S3 webserver's clock.
- The hash function to compute the signature is HMAC-SHA1 defined in RFC 2104 (<http://www.ietf.org/rfc/rfc2104.txt>), using your Secret Access Key as the key.

过程分析

X10000/ONEStor集群中如果开局使用的内部时钟同步，由于服务器的CPU晶振不同，时间长了之后，集群内的各个服务器的时钟是一致的，但是和北京时间存在偏差。如果客户端使用的北京时间，对象存储集群时间和北京时间偏差超过15分钟，客户端连接对象存储就会报错。

解决方法

解决方案：

非版本问题，需要部署对象存储的局点和客户端使用相同的ntp server；