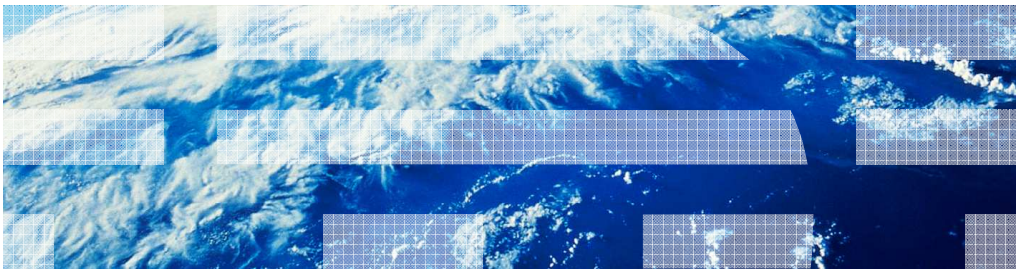
IBM WebSphere Application Server V8.0.0.3

Additional capabilities in Domain Resolver API



This presentation describes support for additional capabilities to the Domain Resolver API included in IBM WebSphere® Application Server V8.0.0.3

Additional capabilities in Domain Resolver API

- Domain Resolver API is used for doing a NPTR/SRV/A record lookup against a DNS server
  - takes as an input a SIP URI
  - returns a list of resolved SIP URIs
- Additional capabilities to V8.0.0.3
  - Calculates TTL and adds its value to the externally accessible SipURI as a custom parameter called “ibmttl”
  - The application code now can:
    - access TTL by using URI.getParameter(“ibmttl”)
    - remove TTL using URI.removeParameter(“ibmttl”)
- The following custom property is added to enable the new capability:
  - *sip_rfc3262_add_ttl = true*

WebSphere Application Server V7 and V8 contain a SIP Domain Resolver API that is used for doing a NPTR/SRV/A record lookup against a DNS server.

The Domain Resolver API takes as an input a SIP URI and returns a list of resolved SIP URIs.

There is an additional capability added to version 8.0.0.3. to return the DNS result TTL.

The Domain resolver calculates the time difference between the time of the result and the time the TTL is accessed and adds this value to the externally accessible SipURI as a custom parameter called “ibmttl”.

The application code can access this value by using the standard URI API.URI.getParameter with the ibmttl value.

The application will need to remove this parameter using URI.removeParameter with the ibmttl value if the parameter is not to be used later in the flow.

The new functionality is enabled only if the sip_rfc3262_add_ttl property is set and the value is true. A default value of the custom property is false.

Usage scenario for call session control function (CSCF)

- Access to the TTL information returned in a DNS lookup
  - know when to clear its cache of a lookup and send another NAPTR request

The main usage scenario for this new feature is for applications or devices which need access to TTL information. For example Call Session Control Function (CSCF) devices sit in the middle of an IMS™ network and must route to many different types of devices and to many different regions. These type of devices need access to the TTL information returned in a DNS lookup to know when to clear its cache of a lookup and send another NAPTR request.

This section contains a summary.

Summary

- You can access the DNS result TTL parameter when using the Domain Resolver API
- Strict control over DNS lookups
- DNS server should be defined in the SIP container configuration

You can access the DNS result TTL parameter when using the Domain Resolver API. This allows for strict control over how the DNS lookups are performed and cached. The DNS server should be defined in the SIP container configuration.

References

- Information on the Domain Resolver API

http://publib.boulder.ibm.com/infocenter/wasinfo/v8r0/index.jsp?topic=/com.ibm.websphere.nd.doc/info/ae/ae/ccea_domain_resolver_api.html

See these references for additional information about the Domain Resolver API.

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