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IBM Global Name Recognition Version 3.1

Approach to z/OS Support

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Accessing GNR from z/OS

Existing z/OS-based business logic can benefit from the best of breed name processing of IBM Global Name Recognition. With GNR 3.1, this functionality has been made available to the entire enterprise via web services through the web services interface to GNR NameWorks.

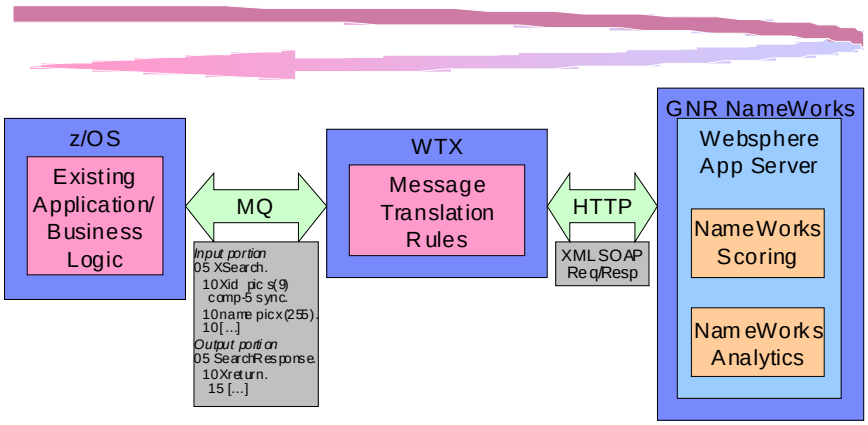
However, the wide array of implementation choices and tradeoffs for integrating web services into existing z/OS-based workloads can be daunting. For accessing GNR NameWorks from z/OS, we recommend using Websphere Transaction Extender to mediate the web services communication.

This product can offer a great deal of control over the data transformation, with solid scalability and manageability characteristics. It can also effectively offload the conversion of data to and from XML for invoking web services, leaving the mainframe's capacity for business logic.

Background

GNR 3.1 provides access to the NameWorks unified programming interfaces via web services. As service oriented architectures and web services have become increasingly prevalent in enterprises, many z/OS middleware offerings have begun incorporating facilities to promote interoperation with them. For example, PARSE XML in Enterprise COBOL and INVOKE WEBSERVICE in CICS TS 3.*x*. These generally provide conversion between a fixed structure data format (such as one might see in a COBOL copybook) and self-structured XML messages conforming to a web service's WSDL description (or rather, subsets thereof). They can make client programs simpler to write and maintain, as the programs interact directly with a more idiomatic representation of the data than the raw SOAP messages. The main limitation (and a generally acceptable one) is that these data structures tend to be tied closely to the structure of the SOAP messages. Also, these facilities have to perform fairly complex XML processing, which can consume significant processor resources unless the product is capable of offloading the work somehow, such as using Java for XML processing, offloading to a Datapower appliance or other system, etc.

These facilities provide important and useful – even essential – functionality, and if they suffice to satisfy your requirements, you can absolutely use them to access GNR functionality via NameWorks. However, if your environment requires greater control over the mapping to and from XML, or over where in the enterprise the transformation occurs, they may not be ideal. If that is the case, we recommend using Websphere Transaction Extender (WTX) to manage the communication.



Websphere Transaction Extender gives you control over the data binding.

WTX is a universal data transformation engine. It offers easy-to-use yet powerful control of the transformation to and from SOAP/XML. This can make it easier to use non-XML representations that correspond to existing workloads' structures, or conform to data format requirements of your organization. Because the transformation to and from XML is handled by WTX, it can remain decoupled from the business logic that relies on it.

Websphere Transaction Extender fits into your work flows.

WTX supports a wide range of communication mechanisms and triggers, from MQ queues to database updates to web services. This flexibility makes it able to participate in a wide range of communication models and enterprise architectures. We recommend using WTX in conjunction with Websphere MQ.

Websphere Transaction Extender offloads XML processing.

The overhead of the web services invocation and particularly the format conversion is borne by the system running WTX, leaving your z/OS systems free to run your business logic. This may also be compelling from a TCO perspective because, while exploitation of specialty engines for XML processing is increasing, many middleware components are not yet take able to advantage of them.