

webMethods B2B

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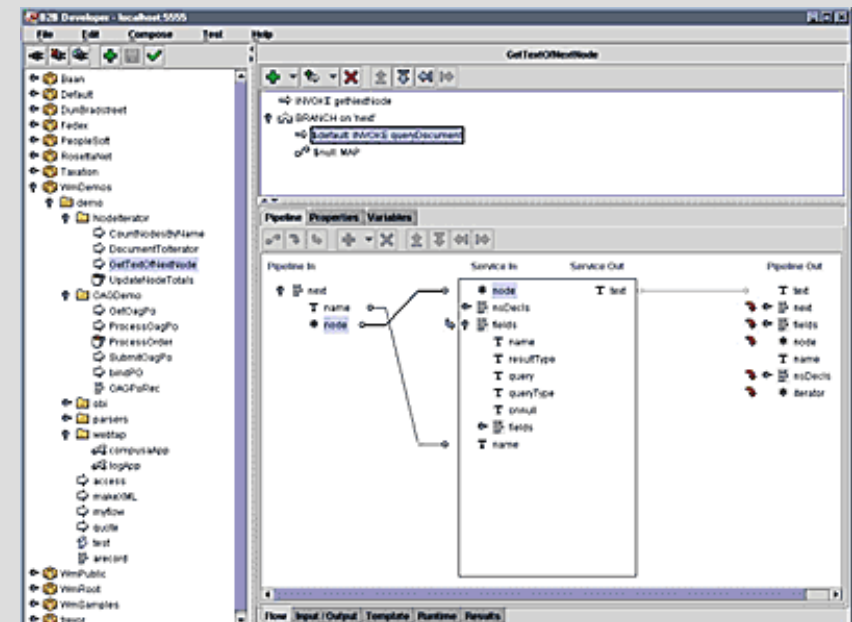
- ***“webMethods B2B is a scalable, XML-based platform for Business Community Integration that enables open, Internet-based integration of enterprise applications with those of customers, partners and suppliers”***
 - extends automated e-commerce links to trading partners
 - supports open standards, allowing companies to sidestep one of the most challenging barriers to business community integration: the politics of deploying proprietary technologies throughout partner organizations
 - integrates with, leverages and extends existing business processes and applications (including EDI, ERP, databases, e-commerce and other operational systems) beyond corporate boundaries
 - users include:
 - *mySAP.com, Grainger.com, MRO.com, Tech Trader, VerticalNet, and Dun & Bradstreet's Global Access Platform*

- **All applications and data resources are exposed as services:**
 - accepts inputs from a client application, processes them, then returns output to that client
 - reside in a common registry
 - uniquely identified; invoked by an interface name and service name
- **All B2B services and interactions that flow through webMethods B2B are represented with XML**
 - used to describe the data transformations that must occur when data is exchanged between different business applications.
 - provides a critical layer of abstraction between one business system and another, while allowing linked systems to be modified dynamically without requiring coding, code generation or modification of source systems

- **webMethods B2B supports two styles of interaction:**
 - document-based
 - *partner applications do not reference one another directly*
 - documents need to be created and sent, received and processed, in batch or near real-time
 - *asynchronous*
 - service-based
 - *real-time interactions*
 - allow tight links between partner applications and processes
 - *synchronous*
 - distributed resources interact with each other as peers

- **webMethods B2B provides:**
 - transaction support
 - failover support
 - clustering support
 - synchronous or asynchronous interactions
 - caching
 - database access
 - web automation
 - *provides remote access to an arbitrary web page's DOM*
 - *“enables automation of interactions normally performed manually via a browser”*
 - security
 - *services have ACLs; can use SSL*
 - support for different protocols
 - *RMI, IIOP, HTTP, FTP, SAP RFC, etc.*

- **An XML vocabulary for integration**
 - based on an earlier version called WIDL
 - *Web Interface Definition Language*
 - A B2B service represents a single, discrete function
 - *there are times when it is necessary to execute a set of services together*
 - With FLOW, new B2B services can be defined as a sequence of B2B services to be processed in a pipeline
 - *also includes rich semantics for sequencing, branching, looping, etc.*
 - allows webMethods to access multiple XML or HTML documents; perform transformations, database queries and updates; invoke services in ERP applications or on systems that reside behind firewalls at partner sites; and return desired result sets to the clients.



- A package tracking service for a generic Shipping company

```

<WIDL TEMPLATE="Shipping">

    <SERVICE NAME="packageTrack" ... />

    ...

</WIDL>

<WIDL NAME="genericShipping" TEMPLATE="Shipping"
    BASEURL="http://www.shipping.com" VERSION="2.0">

    <SERVICE NAME="packageTrack" METHOD="Get"
        URL="/cgi-bin/track_package"
        INPUT="TrackInput" OUTPUT="TrackOutput"
        TIMEOUT="5" RETRIES="5" />

    <BINDING NAME="TrackInput" TYPE="INPUT">
        <VARIABLE NAME="TrackingNum" TYPE="String" FORMNAME="trk_num" />
        <VARIABLE NAME="DestCountry" TYPE="String" FORMNAME="dest_cntry" />
        <VARIABLE NAME="ShipDate" TYPE="String" FORMNAME="ship_date" />
    </BINDING>

    <BINDING NAME="TrackOutput" TYPE="OUTPUT">
        <CONDITION TYPE="Failure" REFERENCE="doc.title[0].text"
            MATCH="Warning Form" REASONREF="doc.p[0].text" />
        <CONDITION TYPE="Success" REFERENCE="doc.title[0].text"
            MATCH="Foobar Airbill:*" REASONREF="doc.p[1].value" />
        <VARIABLE NAME="disposition" TYPE="String" REFERENCE="doc.h[3].value" />
        <VARIABLE NAME="deliveredOn" TYPE="String" REFERENCE="doc.h[5].value" />
        <VARIABLE NAME="deliveredTo" TYPE="String" REFERENCE="doc.h[7].value" />
    </BINDING>

</WIDL>

```

- **Mediated Access to Web Applications**
 - can act as a proxy between browser clients and Web sites or Web-based applications
 - controls an end user's browser experience while allowing B2B services to intercept and modify data that passes through webMethods B2B
 - *“triggers” can intercept Web transactions and substitute local logic and/or pages for what would otherwise be performed by the third-party site*
 - For example, shopping carts from e-commerce Web sites such as Dell or CompuCom can be intercepted as end users proceed to “check-out.” Once a shopping cart is intercepted, the contents can be transformed into a format suitable for transfer to into a procurement application, which can then process the order according to workflows defined by the purchasing organization

- **custom-developed services**

- used to extend the integration capability of webMethods B2B to other resources not supported “out of the box”
- allow legacy APIs to be exposed as B2B Services and thus accessible to browsers, B2B clients, other integration modules, and other applications
 - *uses guaranteed, secure XML messaging*
- integration modules also extend ERP packages (e.g. SAP, Baan, Peoplesoft, Oracle), EDI and traditional middleware (e.g. MQ Series, MSMQ, Oracle AQ, Active Software) beyond corporate boundaries-securely, easily and rapidly