XML Gateway

Factsheet

J System Solutions

http://www.javasystemsolutions.com

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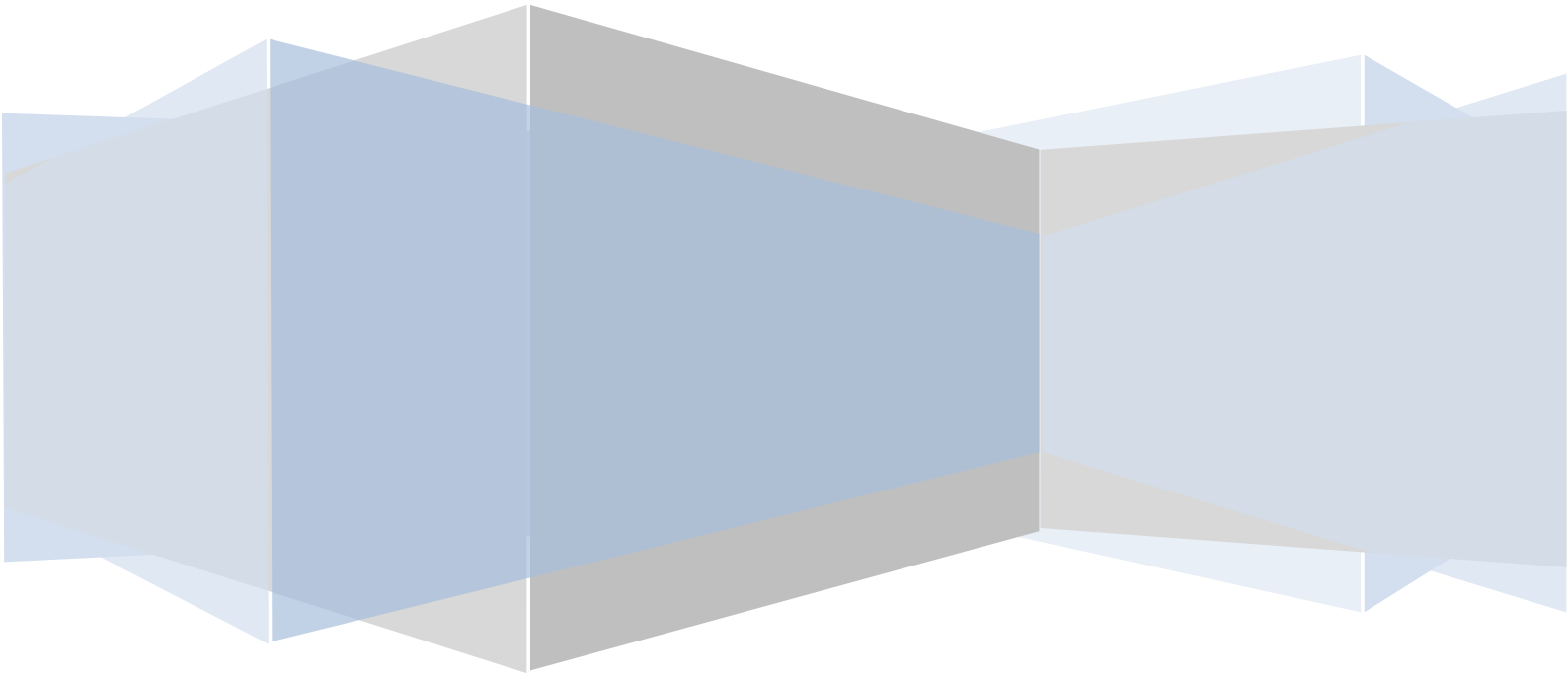

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Introduction

The XML Gateway is a lightweight middleware component written to provide a solution to the ever-expanding integration requirements of the BMC AR System platform (supporting BMC ITSM, CMDB and other BMC applications).

The gateway is typically use to submit and retrieve data from the AR System, but as a fully-flexible tool it is able to adapt to any integration requirement through its modern Java EE design.

The XML Gateway is used by many enterprises around the world, typically as part of a long-term integration solution or a short term mechanism of migrating from a legacy system to the BMC AR System.

An easy-to-use web interface allows rapid development of XML messaging solutions independently of a third-party system. Allowing this development to take place without a third party system vastly decreases implementation time: once the data mapping has been completed, the integration becomes little more than connecting two systems together.

The gateway can provide solutions to supporting any type of XML message, both inbound and outbound, and therefore it will adhere to any message specification a client wishes to use.

Product features

Bi-directional integration between the BMC AR System and any third party system through XML:

1. receives XML messages and can perform multiple transactions against ARS;
2. creates XML messages and can send to one or more third party systems;
3. provides and interprets XML responses.

Pure Java J2EE design coupled to AR System through the ARS APIs:

- one solution, not multiple modules bolted onto ARS. If ARS fails, the product carries on running;
- runs in any modern Java Servlet container (Weblogic, Tomcat, Websphere, JBoss, etc.);
- no additional workflow needs to be installed to configure and maintain the gateway.

Connectivity through HTTP, Java Messaging Services, Webservices, e-mail and file:

- extremely modular design, keeping the transport layer separate from the payload;
- allows new transport layers to be added to meet developing enterprise needs;
- full Java Messaging Services support provided out of the box. JMS provides guaranteed message delivery and where applicable often represents the best integration mechanism between heterogeneous systems.

Attachment support:

- AR System attachments can be sent to and retrieved from the gateway with ease;

Data translation layer for non-XML messages. Systems communicating using non-XML-based formats not already supported can quickly be integrated through translation filters.

- Supports JSON, CSV and SWIFT messaging out of the box.

Integrated message-sending framework:

- allows messages to be sent to one or more third-party systems in a single transaction;
- reports back to the AR System the status of the message transmission process;
- can decode individual responses from third parties;
- scheduled resending of messages in the event of a third party being unavailable.

Any XML document or standard can be both generated and processed.

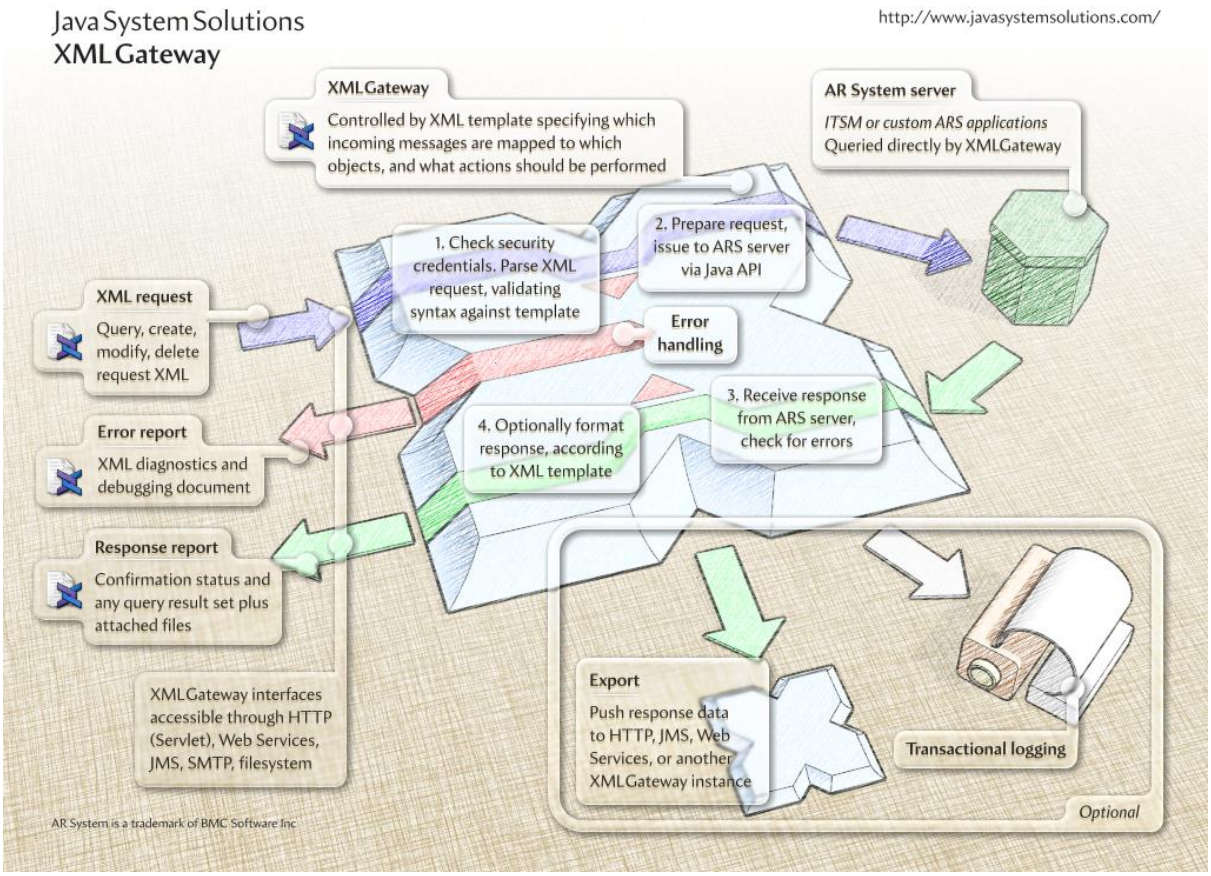
- XML Schema supported to ensure valid XML passes in and out of the gateway.

Written with a variety of uses in mind. While integrating systems is of course a major use of the gateway, it can easily be used for other solutions, such as:

- adding value to the CMDB release management process through Class & Attribute management between multiple AR System instances;
- providing the ability to re-use existing development resource to create attractive web interfaces around the AR System (without being forced to use the BMC Mid Tier).
- multiple interfaces allowing clients/consultants to develop bespoke plugins to enhance the gateway's functionality.

Overall architecture

The following diagram illustrates the flow of data in to and out of the AR System platform:



How is the product different from others?

There are a number of companies claiming to provide integration solutions, and while they probably can in time, the quality of a solution is just as important as delivering a solution.

Installation

The XML Gateway can be installed in a few minutes with minimum fuss (and no AR System server restart). No AR System modification, reconfiguration or application redesign is needed; there are no plugins or additional workflow.

Can a competitive product be installed so easily? If not, why not?

Compatibility

Unlike solutions relying on extra in-system forms and workflow, the XML Gateway is completely independent of AR System application design and works with all applications (not just the standard ITSM suite).

Scalability

XML Gateway is a contained application written completely in Java, without the extra points of failure that plugins and supplemental processes in other languages can bring. There are no dependencies to impair the ability to upgrade your AR System instance.

Performance

The gateway is a pure Java Enterprise application and operates within industry standard Java Enterprise Environment containers (such as Weblogic). These engines power the world's financial institutions and are tried and tested. Not being constrained by workflow-and-plugin performance, it scales as far as your AR System can scale.

Failover

The gateway is independent of the AR System and can continue to queue requests for, and respond to third-party systems in the event of an AR System failure.

Usability

Comes with an easy-to-use web interface allowing XML integrations to be tested and developed without the need for third party interaction with the gateway. This allows rapid development and testing of various XML messages before the gateway has even connected to a third party system.

Use cases

Integration with Siebel (Avaya)

Avaya (http://www.avaya.com) is changing its ticketing system for assets and service requests to a new vendor. The change involves a whole new set of element name and format changes. Some critical Avaya legacy service/support tools, designed to work specifically with the old system, would no longer function in the new environment.

The XML Gateway has become the chief translator for these tools, interfacing with the AR System to allow conversion of fields between formats so the tools can effectively communicate and continue to function with the new ticketing system. Using local JMS destinations, the Gateway receives requests and provides status to the legacy tools. Ticket requests are picked up off the local JMS queue, sent to the AR System for processing and ticket creation in the new system, and resulting status messages are pulled from the AR System by the Gateway and sent to the local ticket response topics.

The Gateway is also set up to listen to asset and service request updates published by the new ticketing system to its JMS topics. The Gateway takes those messages, sends them into the AR System for translation, and then pushes out the translated messages to the local JMS topics for consumption by our legacy tools.

We have found the Gateway to be both dynamic and reliable; it has become an invaluable part of our ticketing solution. Its flexibility and performance have been excellent in the production environment.

eBay – a common development platform

eBay approached Java System Solutions with a requirement to build a high-quality fraud management website for eBay, using the XML Gateway as a mechanism for an internal development team to communicate with the AR System.

Without the XML Gateway, eBay would have been forced to write a bespoke and expensive solution to communicate with the AR System. By utilising the XML Gateway, the interfaces to create, update and query the AR System were built in a matter of hours. The internal development team did not have to know anything about the AR System, and just adhered to an XML Schema developed by the AR System administrators.

The result was a high quality "Midtier free" portal, written in .NET, integrated with the AR System at a fraction of the cost when compared to bringing in AR System developers with AR API programming knowledge to build a bespoke integration tool.

Buoyant Solutions – ESS Xtreme

We deal with AR System integration tools daily and have a great appreciation for efficiency and ease of use, both certainly are trademarks of XML Gateway.

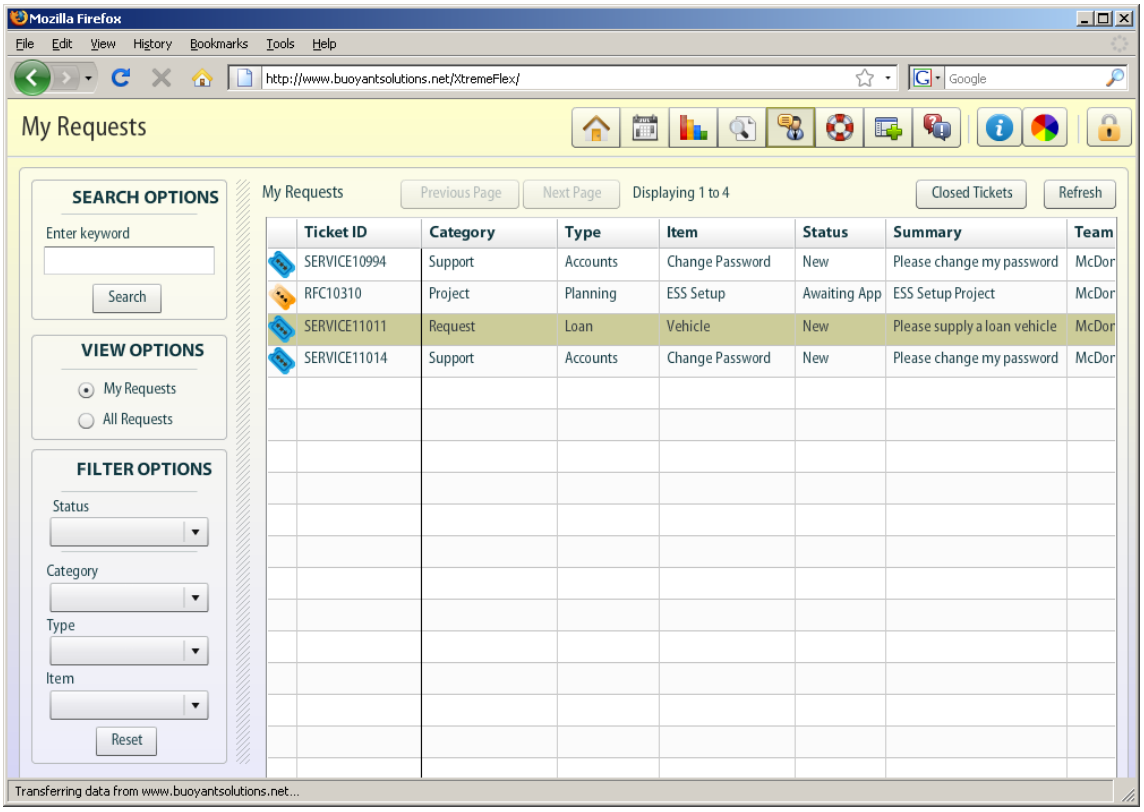
The XML Gateway has given us the ability to rapidly respond, prototype, develop and bring to market solutions our customers have demanded as integral to their business operations.

I can only praise the solution and recommend that serious AR Systems professionals ought to give this a first and second look.

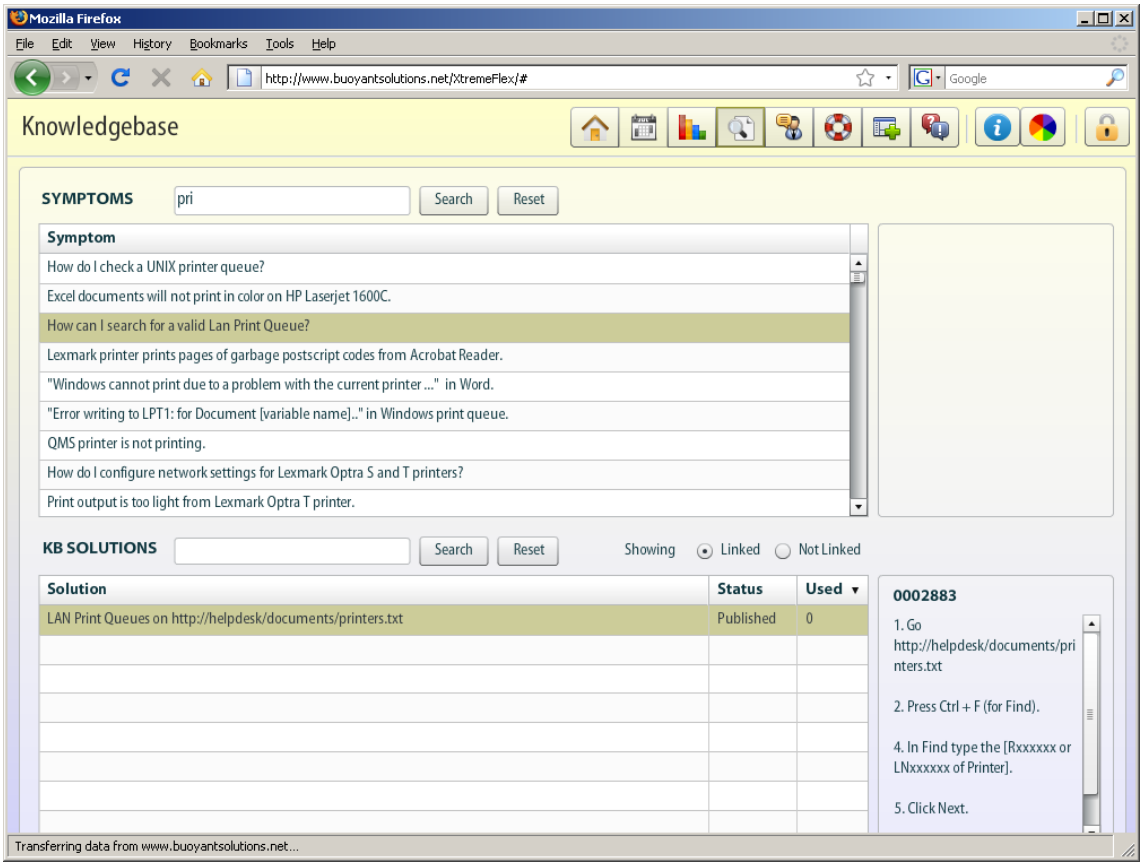
Gidd Calden (gidd@buoyantsolutions.net), President, Buoyant Solutions, Inc.

Screenshots of Xtreme

The following screenshot demonstrates how slick and attractive interfaces can rapidly be built around the AR System using the XML Gateway as the integration tool.



The Xtreme knowledge base:



What next?

We work with a number of BMC partners to provide the AR System integration consulting skills and would be more than happy to demonstrate the benefits the product can bring to your business.

The use cases demonstrate that whether your requirement is to integrate third party tools with the AR System, or build bespoke applications around the AR System, the XML Gateway provides the foundation for quick and successful developments.

The expense of writing bespoke AR System integration code becomes a thing of the past and you can jump into what really matters – solving problems.

We are happy to provide advice and support at no cost to help establish whether the XML Gateway meets your requirements.

For further assistance, contact the JSS support team.