

Using Oracle Application Express to Extend the Functionality of Siebel On Demand

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Introduction

Adding new pages or customizing existing pages in Siebel CRM On Demand is not only discouraged, but it is time consuming and expensive. This paper introduces the concept of extending Siebel On Demand using Oracle Application Express. This approach allows rapid development and deployment of robust applications that can easily be called from a standard Siebel On Demand page. In addition, because Siebel On Demand offers Web Services, interacting back with the Siebel application from Application Express is very simple. This presentation will illustrate these concepts, allowing the users of Siebel On Demand to take advantage of added pages and functionality without having to write any custom code in Siebel CRM.

Challenges of Customizing Siebel CRM On Demand

As with any hosted application, customizations and modifications to standard functionality are discouraged and often not allowed at all. In addition, adding custom features is often time-consuming and expensive. For this reason, finding an alternative to customizing Siebel On Demand pages is of great value. Features such as user-defined links that can be displayed from standard Siebel pages as well as standard web services that can be called from external systems open the door to integrating with other applications to achieve custom functionality.

Overview of Oracle Application Express

Oracle Application Express is a Web-based application development tool that is based on an Oracle database. It has built-in features such as user interface themes, navigational controls, form handlers, and flexible reports which accelerate the application development process. All Web pages are built using point-and-click wizards, so coding is only needed for very advanced requirements. In addition, Application Express has standard support for calling Web Services and even supports Single Sign On capability.

Oracle Application Express - Architecture

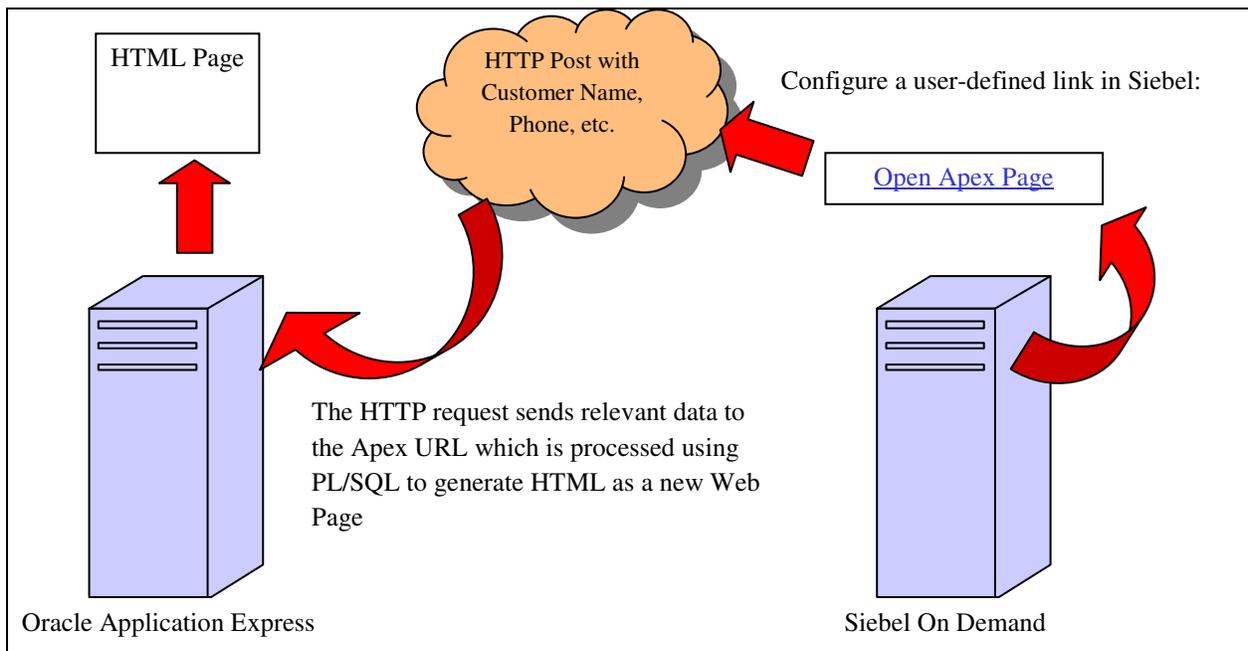
The Application Express engine resides within an Oracle Database and is a set of PL/SQL (Oracle's database programming language) procedures and functions that dynamically generate HTML pages. With the help of an HTTP Server, these HTML pages are displayed on the Web. In Oracle's 11G release of Application Express, the HTTP Server component will be part of the database itself, so no additional HTTP Server is required to display the pages.

An Example of Using Oracle Application Express to Extend Siebel On Demand

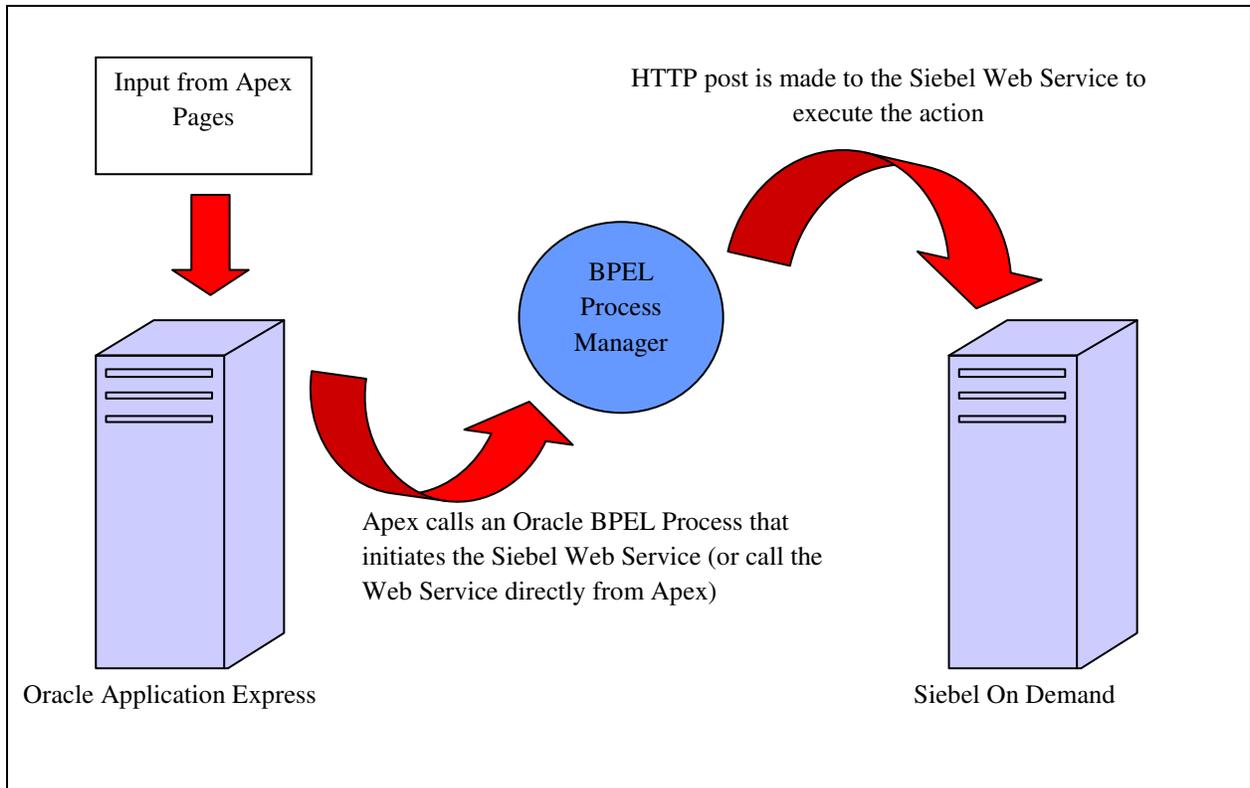
Suppose a business wants to add a Q&A feature to its existing Siebel CRM On Demand implementation in order to step through questions and answers and log the responses from a customer on the phone. The end goal is to capture these responses and add them as part of the Account record in Siebel (as an activity). Further, there is a need to allow basic data capture of customer and contact information during the weekly maintenance downtime associated with the On Demand service.

The first part of this problem would be very difficult and expensive to build as custom Siebel features, and most likely would violate some of the hosting regulations. The second requirement would just not be possible to address with a Siebel customization since the entire Siebel system must go down at specified times for maintenance.

Oracle Application Express can be used to quickly accomplish both of these goals. The diagram below shows how configurable user-defined fields within Siebel On Demand pages can provide a link to open a custom Application Express page in the user's browser. With the advanced style options in Application Express, the pages could even be built to blend seamlessly with the Siebel On Demand pages. The Q&A functionality can be quickly built as an Application Express application and therefore opened directly from the Siebel On Demand standard pages using one of these links. Please also note that the user-defined links in Siebel can include variables such as Account Name, Phone Number, etc. which can be passed in the URL and used by Application Express!



The next part of the solution is adding the results of the Q&A Application Express pages back to the Account record in Siebel On Demand. Since Siebel On Demand provides Web Services to outside applications, this solution is fairly simple. Within Application Express, a Web Service can be initiated based on data entered into a page or stored within the Application Express database. This allows the Application Express pages to easily interact with other systems.



Because there is a need to handle the “downtime” situation, this solution will use the Oracle BPEL Process Manager to manage the integration and Web Service call from Application Express to the Siebel On Demand system. The BPEL Process can be built to check and see if the Siebel On Demand system is up and running or not, and therefore only call the Web Service when the system is ready. From Application Express, the Web Service being called is actually that of the BPEL process, which then initiates the Siebel On Demand Web Service.

Additional Application Express pages can then be built to handle capturing the Account and Contact information during the downtime. When Siebel On Demand is not available, users can log directly into the Application Express application and perform similar functions to those they perform in Siebel On Demand. Once Siebel On Demand is available again, the captured data can be integrated back into Siebel using the BPEL process. The diagram below illustrates the procedure users could follow based on whether the Siebel On Demand system is available or not.

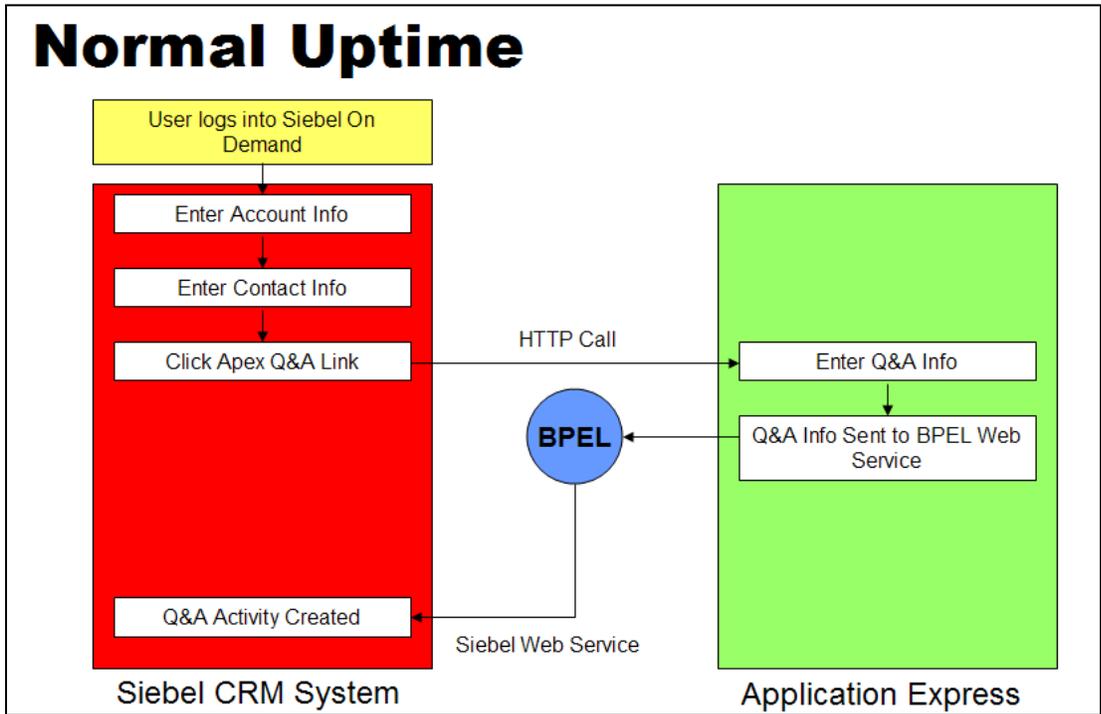


Figure 1: Activities as they would be performed during normal working hours.

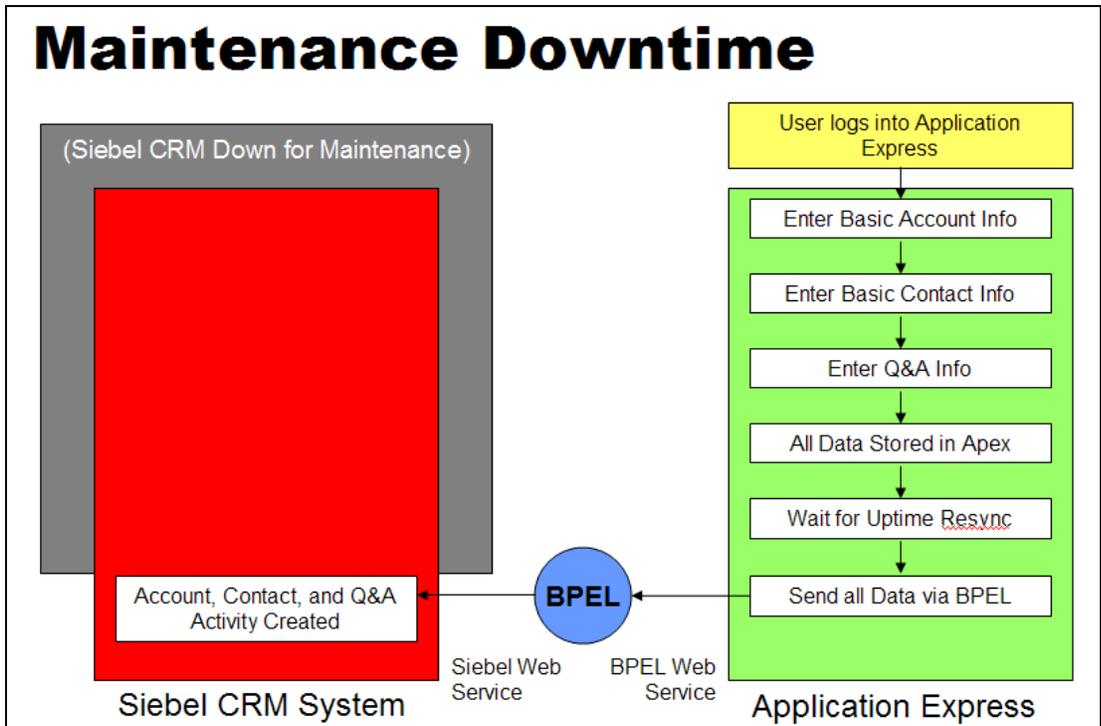


Figure 2: Activities as they would be performed during Siebel On Demand Maintenance periods.

Conclusion

There are many ways to extend the functionality of any application, but when it comes to a Web-based application such as Siebel CRM On Demand that has several restrictions in terms of customizations, Oracle Application Express provides an excellent alternative to the traditional approach. This less-intrusive option takes advantage of standard functionality that is available in both Siebel On Demand as well as Oracle Application Express.