



ExpressSuite High Level Technical Overview

Greg you have 8 shopping carts awaiting approval.

Shopping Cart Approval Queue export to excel »						
My Queue Delegated Queues Complete List						
Cart No.	Created By	Created On	Status	Priority	Currency	Total Value
6500005734	PMANAGER_NW	Monday, September 27, 2010	NEW	NORMAL	USD	51,120.00
6500005733	PMANAGER_NW	Monday, September 27, 2010	NEW	NORMAL	USD	12,840.00
6500005732	PMANAGER_NW	Monday, September 27, 2010	NEW	NORMAL	USD	13,485.00
6500005717	PMANAGER_NW	Tuesday, September 14, 2010	NEW	NORMAL	USD	32,125.00
6500005716	PMANAGER_NW	Tuesday, September 14, 2010	NEW	NORMAL	USD	373,650.00

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PURPOSE

The purpose of this document is to provide a high level technical overview of 10seconds Software's ExpressSuite approval solutions.

ExpressSuite includes the following solutions:

- ExpressPO – SAP purchase order approval.
- ExpressPR – SAP purchase requisition approval.
- ExpressRelease – SAP logistics invoice release.
- ExpressSC – SAP SRM shopping cart approval.

The intended audience for this document is the 10 Seconds team, partners, stakeholders and potential clients.

SOLUTION OVERVIEW

ExpressSuite solutions deliver key SAP approval functionality to users via the desktop browser and mobile devices. Each solution has a deep knowledge of the underlying SAP process and provides rich detailed content to managers so they can make a quick and informed decision.

Key Functional Points:

#	Item	Details
1	Simple Approval Process	Two mouse clicks to complete the approval via your mobile phone or desktop browser.
2	Notify users via email of items that require their approval	Monitor each user's approval queue and send notifications when new items are added.
3	Send periodic email of approval queue.	Periodic summary email (daily, weekly, monthly) sent to each user highlighting their approval queue.
4	Simple user setup	Straight forward setup process for each user to register. Alternatively, this can be performed centrally by an administrator.
5	Enhanced user experience	Rich user experience - quicker, easier and more intuitive.
6	Details item information.	Displays key information to assist a user's approval decision.

Key Non Functional Points:

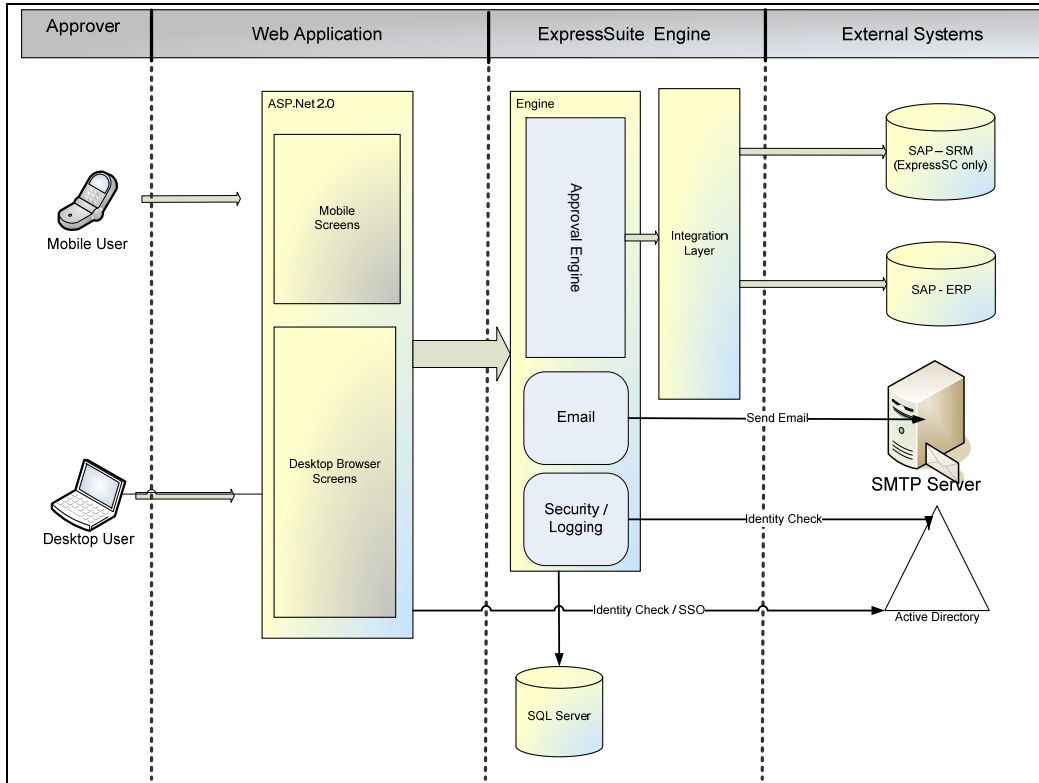
#	Item	Details
1	Support modern browser types.	Firefox, Safari, Internet Explorer 6.0 or greater.



2	Support popular mobile devices web browsers	Currently targeting Blackberry, iPhone and Windows smart phone. Other devices can be targeted if required.
3	Support main SAP authentication methods	SAP Logon Ticket, X.509 Certificate, User name and password and dedicated service account.
4	Simple installation process	A straight forward installation process that takes minutes.
5	SAP Integration	Integrates to SAP with SAP's standard integration tool - SAP .Net Connector.
6	Security	Securely integrates with SAP and other external systems.
7	Future-proofed	The technology, communication channels, security etc is future proofed and upgradeable.



CONCEPTUAL ARCHITECTURE



Key Components

#	Screen	Details
1	Web Application	Standard Microsoft ASP.Net 2.0 web application which serves up content to either desktop browsers or mobile devices. SSO Authentication is via Active Directory.
2	Approval Engine	Core engine which has deep knowledge of SAP. Key responsibilities are: <ul style="list-style-type: none"> Managing each user's approval queues Approval or rejection functionality Orchestrating email notifications and summaries
3	Email	Communicates with SMTP server and submits emails.
4	Security / Logging	<ul style="list-style-type: none"> Authentication to SAP – user name and password/Kerberos/SAP Logon ticket/ X.509 Certificate.



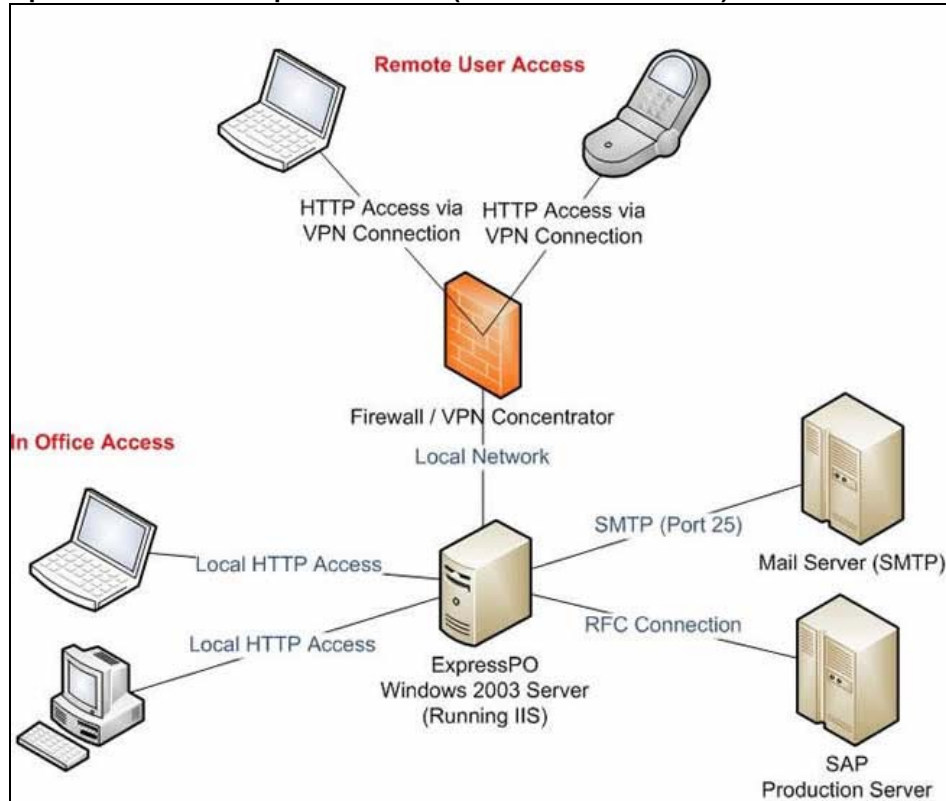
		<ul style="list-style-type: none">• System Logging• Approval & Rejection Log
5	SQL Server	Used to store the following: <ul style="list-style-type: none">• User settings• System Logging• SAP Connection Settings• Email/SMTP Settings• Approval Log
6	Integration Layer	SAP .Net Connector provided from SAP . Transport is via RFC or web services.
7	SAP	Integrates to SAP ERP system and SAP SRM System (ExpressSC).
8	SMTP Server	Integrates to SMTP Server
9	Active Directory	Integrates to Active Directory



ARCHITECTURE OPTIONS

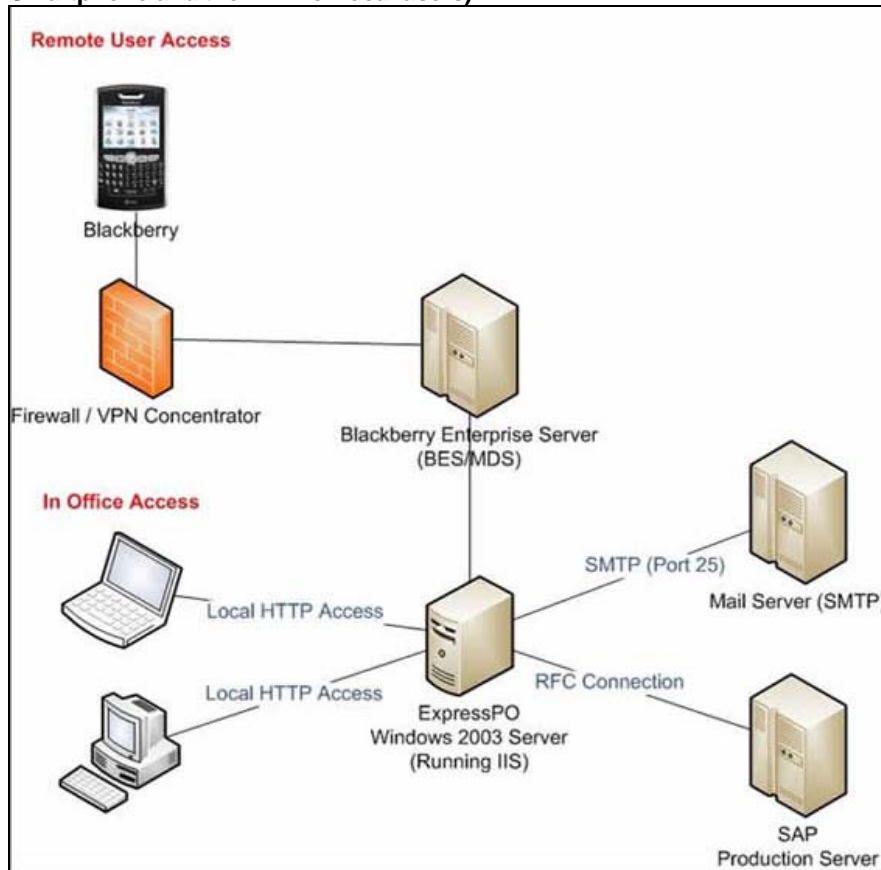
Several options are available in regards to where to deploy the ExpressSuite solutions in your organization. Below we have highlighted three options that may be considered.

Option one – within corporate network (remote access via VPN)



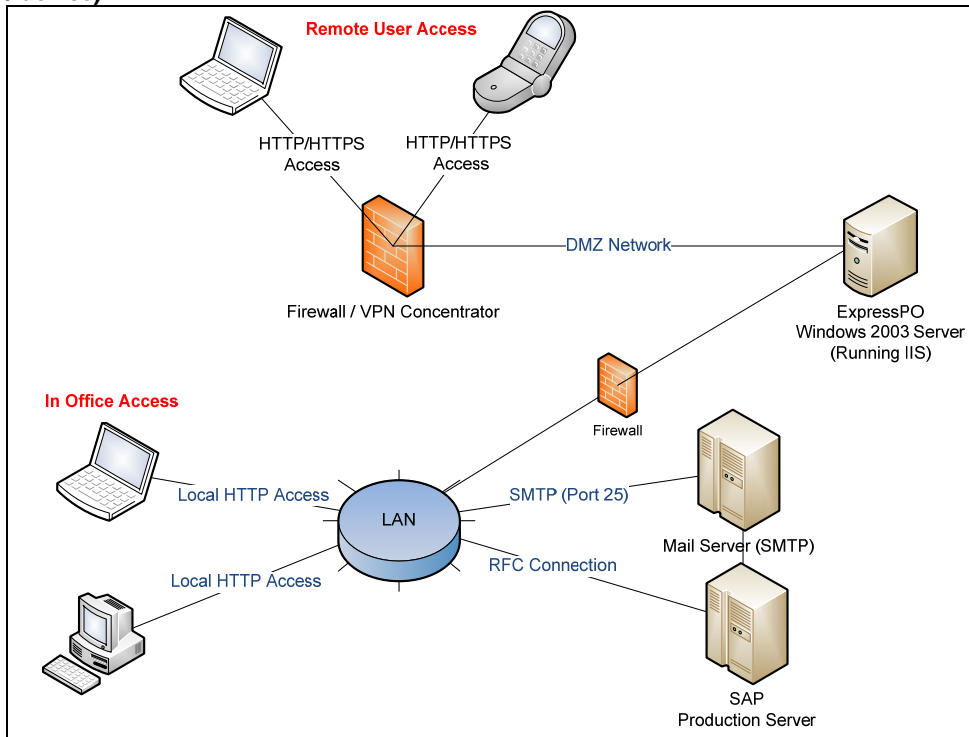


Option Two - via MDS for BlackBerry (uses MDS via BES to connect BlackBerry Smartphone and the LAN for local users)





Option Three - server in DMZ with Port 80/443 (no VPN required, access from any computer / device)





SYSTEM REQUIREMENTS

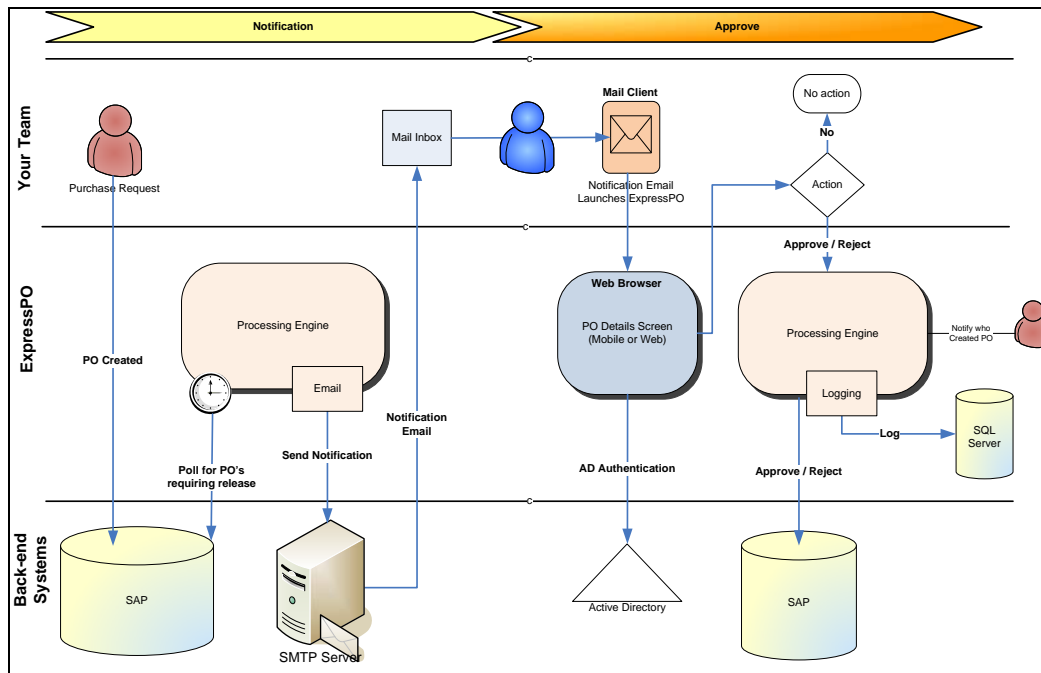
#	Area	Requirements
1	ExpressSuite	<ul style="list-style-type: none">• IIS 6.0 or greater• Microsoft .Net Framework 2.0 or greater• SQL Server 2000 or greater (the free version of SQL Server - SQL Server Express is also supported)• Minimum 50mb file space• Minimum 500mb database size• Recommend Windows 2003 Server or higher.
2	Minimum SAP ERP Version	Compatible with all SAP versions from 4.0B
3	Minimum SAP SRM Version	SAP SRM 4.0 or higher. (only applicable for ExpressSC)
4	Mail Server	Any modern email server that supports SMTP. Port is configurable.

Performance testing has been undertaken on a virtual Windows 2003 server with 512mb of RAM running all four solutions simultaneously with approx 100 users per system. Under these tests both CPU and memory remained low.



INTERACTION DIAGRAM

The following is a high level interaction diagram example for ExpressPO. Other products have a similar interaction process.



1. Periodically the approval/processing engine will interrogate SAP to check whether a user's approval queue has any new items. If so, an email notification is generated.
2. An email request will be routed to the SMTP server to send to the user.
3. A user will receive the email notification containing high level information of the purchase order requiring approval.
4. From the email notification a link will launch the ExpressPO approval screen (mobile or browser depending on where it was launched from). This approval screen will contain all the key detailed information required to make a decision.
5. The user will be able to approve or reject the purchase order.
6. On approval or rejection, ExpressPO will request the appropriate action directly within SAP. Authorisations checks will be evaluated internally within SAP to ensure the user have the appropriate rights to complete the action.
7. If successful, an approval/rejection log entry will be created within ExpressPO.



SECURITY

SAP Authentication

ExpressSuite solutions support SAP's standard authentication methods.

#	Method	Details
1	User name and password	SAP standard user name and password authentication.
2	SAP Logon Ticket	SAP Logon Tickets are the flexible central authentication token used in the SAP world and can be used for SSO to all SAP products in the back end. Wikipedia on SAP Logon Tickets - http://en.wikipedia.org/wiki/SAP_Logon_Ticket
3	X509 Certificate	Certificate based authentication.
4	Service Account	ExpressSuite solutions can be run against a dedicated SAP account.

SAP Authorisation

Authorisation or the rules on who can approve or reject each item remains in SAP. Authorisation is checked real-time in SAP and no SAP authorisation logic resides in our solutions.

Database

The database is used to store the following:

#	Area	Requirements
1	User Profile	<ul style="list-style-type: none">• Name• Email Address• Applicable Release strategies/Filters.
2	SAP Connection	<ul style="list-style-type: none">• SAP connection setting• Dedicated SAP account credentials.<ul style="list-style-type: none">◦ Note: password is encrypted.
3	SMTP Server	<ul style="list-style-type: none">• SMTP settings.
4	Logging	<ul style="list-style-type: none">• System Logging• Approval/Rejection logging.

Note: No sensitive SAP information is ever stored in the database. It is all maintained real-time in memory on the web server.



ADDITIONAL INFORMATION

For any additional information please contact –
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