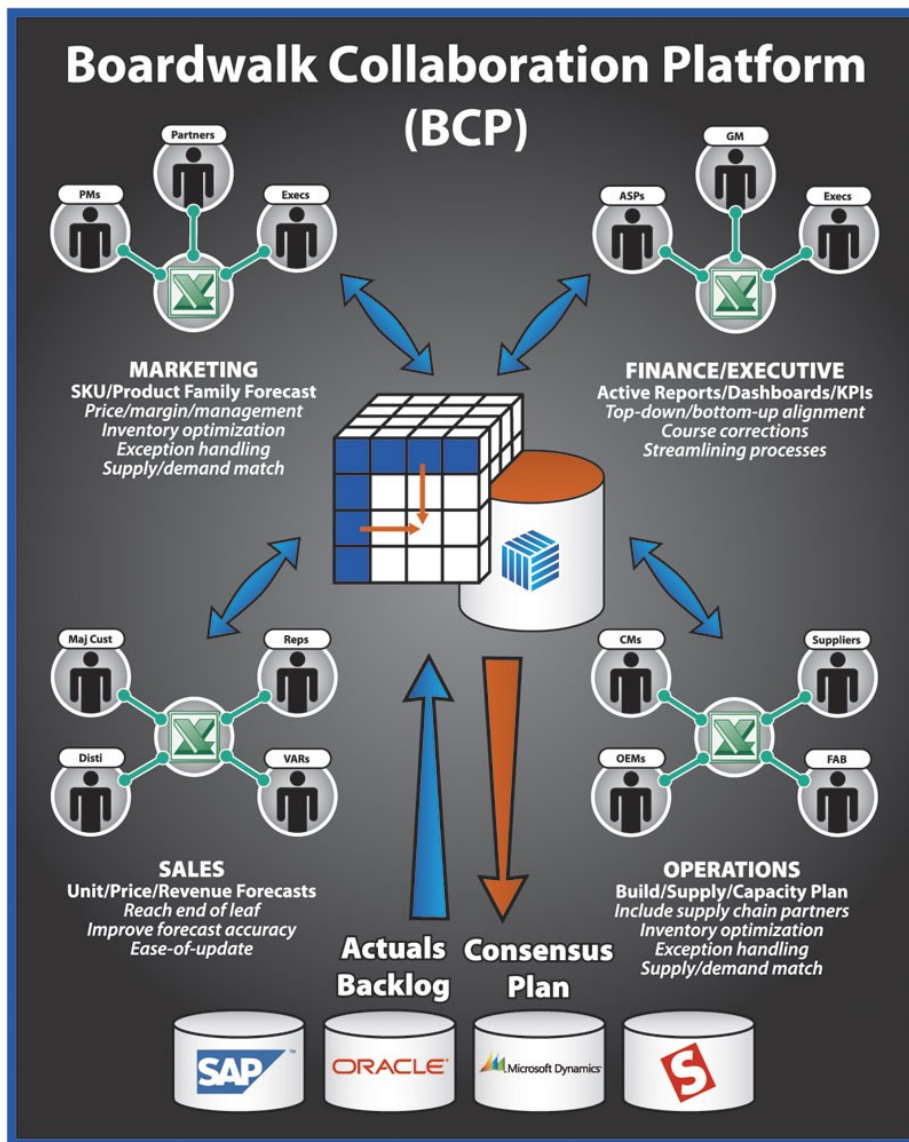


Enterprise.Desktop.Collaboration Boardwalk Collaboration Platform (BCP)



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Spreadsheets are a core part of any enterprise and will continue to be so for a very long time and yet, for the past twenty years, there has been little progress made to effectively extend their reach beyond the desktop. Even today, 70% of companies surveyed report that spreadsheets continue to play a critical role in their business.

Of course, spreadsheets were created and continue to be used as a desktop application empowering an information worker to create business “applications” within a tabular data environment where the position of the cells matter to the process. For example, a column for Q1-Sum would be after Jan, Feb, and Mar and contain a formula summing the three months. There is often other “dimensional” data which defines that data the process is managing, like a customer name and opportunity name for a forecast, and other information which indicates who should be providing the input to the process. There can also be reports run from backend systems which provide the process “structure” and serve as the starting point for a process and then you run a report every time you cycle the process (which overwrites all the spreadsheet data) and basically start over with your process. So, now you have your process defined and you want to collaborate with other users for your “process,” how do you collaborate with other users in the enterprise? It’s at this point where spreadsheets don’t scale. Everyone is familiar with the problems associated with emailing spreadsheets, cutting and pasting updates from different users, losing all your local data when you refresh the backend data, and manual “save-as versioning” which then needs to be painfully re-constructed for any change reports.

Boardwalktech – Desktop. Enterprise. Connected.

Boardwalktech provides a next-generation collaboration platform, called the Boardwalk Collaboration Platform (BCP), which enables companies to automate existing and build new processes using spreadsheets as the user interface and a patented tabular database as the backend.

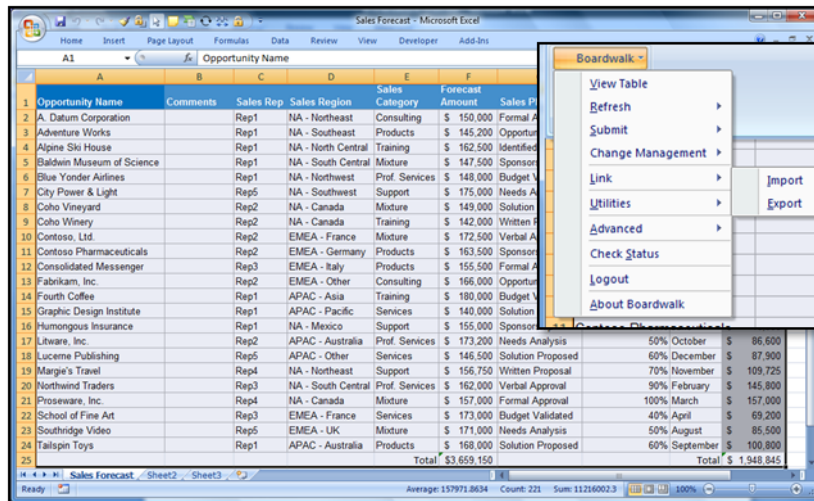
BCP enables a secure, two-way exchange of data between desktops and between the desktop and backend systems which is as easy to use as email-- cell-level changes are shared with the click of a button. Multiple users can work on the same data at the same time and share changes without check-in or check-out. BCP maintains an audit trail of all changes and an automatic, multi-level roll up of data-- all of this from within the spreadsheet on the desktop.

“With most systems I’ve seen deployed, all of the initial focus is on getting the system to work. With BCP, we were able to focus on getting the business value right away....it is amazing. “

Director S&OP, \$20B+ Networking Company

How does BCP work?

Whether it be a sales forecast, project plan, inventory listing, or budget, business users have no problems defining the layout and using Excel's powerful logic capabilities to connect cell-level data into a meaningful data model. The issue has always been how do users share Excel-based process data with multiple users to support a collaborative application environment? BCP leverages the tabular row and column paradigm that business users understand so well and adds a user/time and business rules dimension to it.



The screenshot shows a Microsoft Excel spreadsheet titled 'Sales Forecast - Microsoft Excel'. The spreadsheet contains a table with columns: Opportunity Name, Comments, Sales Rep, Sales Region, Category, Forecast Amount, and Sales Pt. The data includes various sales opportunities from different regions and categories, with a total forecast amount of \$3,659,150. A 'Boardwalk' menu is overlaid on the spreadsheet, showing options: View Table, Refresh, Submit, Change Management, Link, Utilities, Advanced, Check Status, Logout, and About Boardwalk. The 'Submit' and 'Export' buttons are highlighted.

Opportunity Name	Comments	Sales Rep	Sales Region	Category	Forecast Amount	Sales Pt
A. Datum Corporation		Rep1	NA - Northeast	Consulting	\$ 150,000	Formal A
Adventure Works		Rep1	NA - Southeast	Products	\$ 145,200	Opportun
Alpine Ski House		Rep1	NA - North Central	Training	\$ 162,500	Identified
Baldwin Museum of Science		Rep1	NA - South Central	Mixture	\$ 147,500	Sponsor
Blue Yonder Airlines		Rep1	NA - Northwest	Prof. Services	\$ 148,000	Budget V
City Power & Light		Rep5	NA - Southwest	Support	\$ 175,000	Needs A
Coho Vineyard		Rep2	NA - Canada	Mixture	\$ 149,000	Solution
Coho Winery		Rep2	NA - Canada	Training	\$ 142,000	Written P
Contoso, Ltd.		Rep2	EMEA - France	Mixture	\$ 172,500	Verbal A
Contoso Pharmaceuticals		Rep2	EMEA - Germany	Products	\$ 163,500	Sponsor
Consolidated Messenger		Rep3	EMEA - Italy	Products	\$ 155,500	Formal A
Fabrikam, Inc.		Rep2	EMEA - Other	Consulting	\$ 166,000	Opportun
Fourth Coffee		Rep1	APAC - Asia	Training	\$ 180,000	Budget V
Graphic Design Institute		Rep1	APAC - Pacific	Services	\$ 140,000	Solution
Humongous Insurance		Rep1	NA - Mexico	Support	\$ 155,000	Sponsor
Litware, Inc.		Rep2	APAC - Australia	Prof. Services	\$ 173,200	Needs Analysis
Lucerne Publishing		Rep5	APAC - Other	Services	\$ 146,500	Solution Proposed
Margie's Travel		Rep4	NA - Northeast	Support	\$ 156,750	Written Proposal
Northwind Traders		Rep3	NA - South Central	Prof. Services	\$ 162,000	Verbal Approval
Proseware, Inc.		Rep4	NA - Canada	Mixture	\$ 157,000	Formal Approval
School of Fine Art		Rep3	EMEA - France	Services	\$ 173,000	Budget Validated
Southridge Video		Rep5	EMEA - UK	Mixture	\$ 171,000	Needs Analysis
Tailspin Toys		Rep1	EMEA - Australia	Products	\$ 168,000	Solution Proposed
Total					\$3,659,150	Total \$ 1,948,845

We looked at several vendors from Microsoft to Oracle, but nothing offered the design flexibility that we needed for our application. We provided Boardwalktech with a copy of our application. We provided Boardwalktech with a copy of our consolidated forecast file, along with a PowerPoint presentation showing a mock-up. In about a week Boardwalktech was able to present a functional example. The concept was there, quickly, and it was flexible enough to replicate exactly what we wanted."

Manager, Demand Planning, \$1.8B Electronics Mfg

Take for example a standard sales forecast—in fact one downloaded from the Microsoft website 1000s of times. The process owner would start with this data and select it as a range much like you use the Print Area command to print. Using the BCP Client application, they would “export” the initial version of this data “as-is” to the BCP Server. It’s important to note there’s no programming or data definition work required for the BCP Server – it’s entirely driven by the range of “tabular” data defined in the Excel data file. This initial export creates the first version of the data which can now be shared by other users.

Other users would then “import” the same range of data from the BCP Server into their local copy of Excel—in all cases users need to login to the server to gain access to the shared data (yes, this can be handled through LDAP/AD). Once the initial collaboration link is established, users can make changes independently and concurrently on their desktop working inside Excel. When they are ready to share their changes, they click on “submit” changes and a new version of the shared range of data is created in the database with only the changes cells stored. Other users can then “refresh” in their desktop Excel and BCP manages the exchange of net-change data between the BCP Server and the user desktop.

Rep 1 Changes (\$145,200 to \$147,000) and clicks on Submit Selected:

The first screenshot shows an Excel spreadsheet with columns C-F: Sales Rep, Sales Region, Sales Category, and Forecast Amount. The second screenshot shows the same spreadsheet after a change, with a tooltip indicating the cell value changed from \$145,200 to \$147,200. Below the spreadsheets is a screenshot of the Boardwalk menu with 'Submit Selected' highlighted.

C	D	E	F
Sales Rep	Sales Region	Sales Category	Forecast Amount
Rep1	NA - Northeast	Consulting	\$ 150,000
Rep1	NA - Southeast	Products	\$ 145,200
Rep1	NA - North Central	Training	\$ 162,500
Rep1	NA - South Central	Mixture	\$ 147,500
Rep1	NA - Northwest	Prof. Services	\$ 148,000
Rep5	NA - Southwest	Support	\$ 175,000
Rep2	NA - Canada	Mixture	\$ 149,000

C	D	E	F
Sales Rep	Sales Region	Sales Category	Forecast Amount
Rep1	NA - Northeast	Consulting	\$ 150,000
Rep1	NA - Southeast	Products	\$ 147,200
Rep1	NA - North Central	Training	\$ 162,500
Rep1	NA - South Central	Mixture	\$ 147,500
Rep1	NA - Northwest	Prof. Services	\$ 148,000
Rep5	NA - Southwest	Support	\$ 175,000
Rep2	NA - Canada	Mixture	\$ 149,000

“We used to manually collect updates from our team and consolidate the data, now the entire process is done automatically in BCP. We’re able to use Excel for updating lots of unit forecast data and working offline and BCP’s database for securely consolidating the updates from all participants. We’re also able to generate all the needed reports using BCP.”

Rep 2 clicks on Refresh to see changes:

The first screenshot shows the Boardwalk menu with 'Refresh Selected' highlighted. The second screenshot shows the Excel spreadsheet with the updated forecast amount for Rep 1, and a tooltip indicating the cell value changed from \$145,200 to \$147,200.

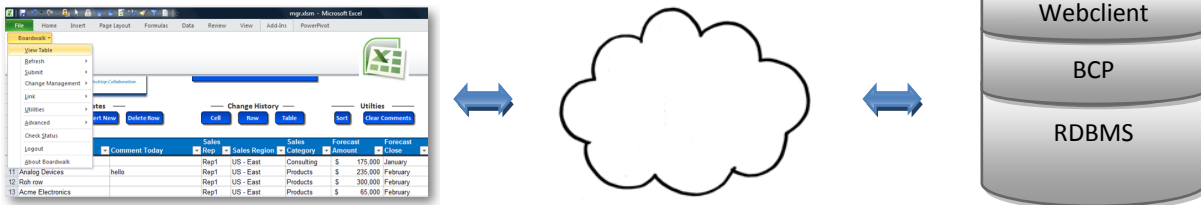
D	E	F	G
Sales Region	Sales Category	Forecast Amount	Sales Phase
NA - Northeast	Consulting	\$ 150,000	Forecast
NA - Southeast	Products	\$ 147,200	Budget Validated
NA - North Central	Training	\$ 162,500	Needs Analysis
NA - South Central	Mixture	\$ 147,500	Solution Proposed
NA - Northwest	Prof. Services	\$ 148,000	Budget Validated
NA - Southwest	Support	\$ 175,000	Needs Analysis
NA - Canada	Mixture	\$ 149,000	Solution Proposed

Principle,
Electronics
Distribution

There are many more aspects to the BCP technology besides these core “submit/refresh” and “versioning” concepts, but the notion of sharing cell-level data with a complete version history of all changes done by all users is central to the IP of BCP. Additional capabilities include row and column access control such that users can only see specific data based on their role. This capability is also managed dynamically every time a user logs into the BCP Server which means you can easily modify what data a user is working with at any time. BCP also manages the structure of the shared data dynamically such that users with appropriate permissions can add/delete rows and columns to the shared data and these changes are automatically propagated to all users meaning data consolidation happens automatically. Finally, BCP also supports integration with all external data sources at a cell-level in much the same way as shown above.

BCP Components

The Boardwalk Collaboration Platform includes a VBA Excel add-in which handles data management and communication between the local Excel desktop and BCP Server on the backend. The BCP Server runs on any Wintel PC and is installed in conjunction with SQL Server (or any RDBMS). The BCP Server also uses Tomcat or another Web server to support the exchange of data over a web (HTTP/HTTPS) protocol.

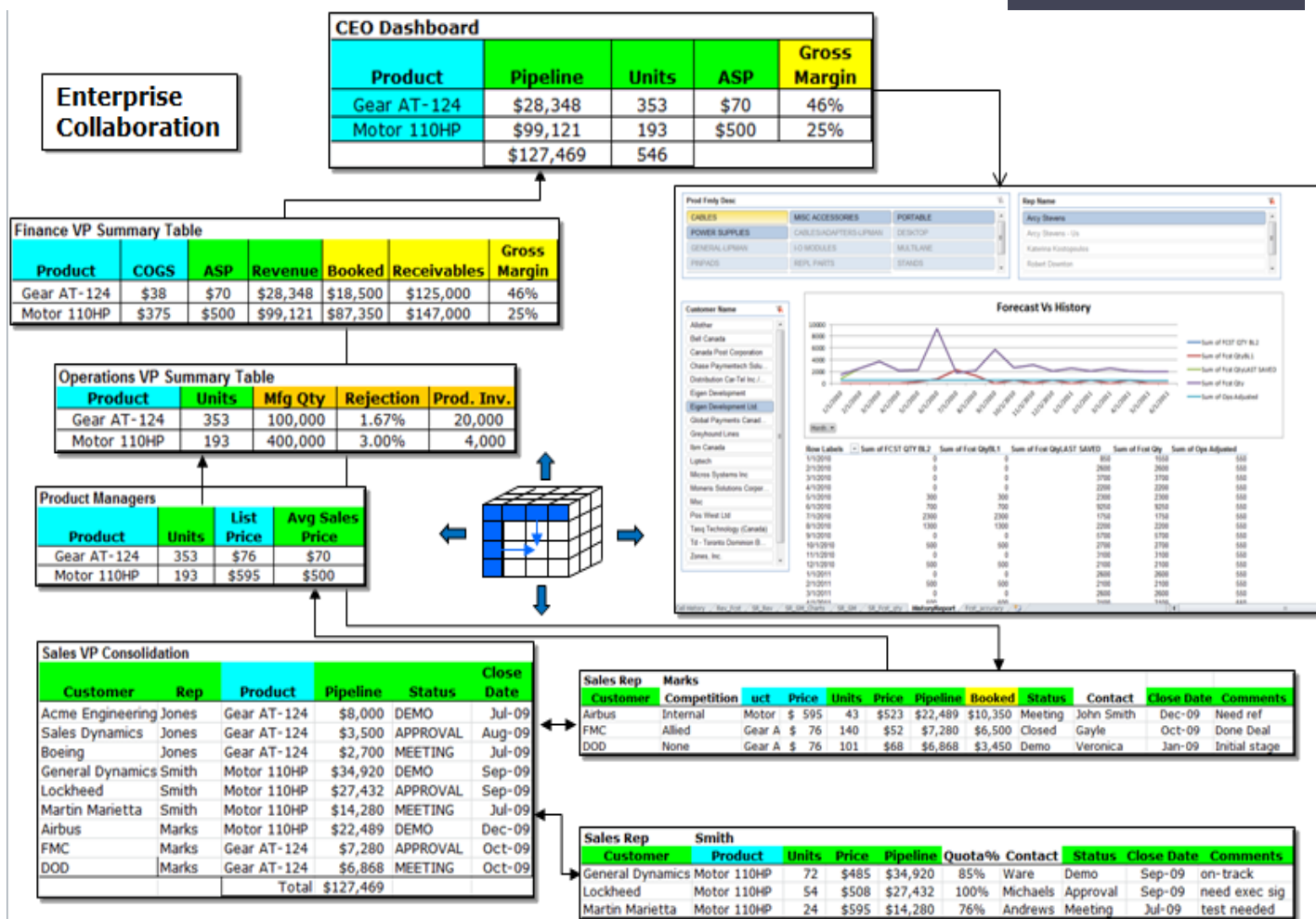


BCP also provides a powerful environment for users to deploy new or automate existing business processes using Excel as the process design and management user interface and SQL Server as the data management backend. Companies do not want to take applications that work very effectively on the desktop and move them to the “cloud” — they want an enterprise quality way to share their application data in the cloud while still leveraging the power of the desktop applications they all know and love.

Using BCP, companies are able to connect and automate business processes that are run through email exchanges of Excel data today while enjoying all the capabilities of an enterprise application including scaling, security, and data management. Consider the reach of the sales forecast application—data from that process drives decisions about revenue recognition, commissions, production plans, operating margins. With BCP, companies are able to share critical process data at the cell level between multiple operating groups with complete visibility into all updates by all users.

“Now that we have all our historical data accessible and aligned, we’re able to proactively plan our business going forward with our major retailers and we’re using Boardwalktech to do that—it’s really great.”

Director, Customer Intelligence, \$50B+ Beverage Company



Today more than ever, the desktop information worker needs to better collaborate with other users and backend systems. Unlike other spreadsheet-based enterprise applications, only Boardwalktech's patented tabular-database management system (TDBMS) mitigates the inherent limitations of the spreadsheet while preserving the flexibility which has made them such an integral part of many different enterprise processes.

