

SAP ANALYTICS CLOUD REPORT BROADCASTING: POWERBURST PUBLISHER

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INTRODUCTION

SAP Analytics Cloud report broadcasting has become a topic of growing interest among organizations running SAP solutions. Many such organizations need to expand report broadcasting (also referred to as report bursting) capabilities to replace functionality previously available to them in SAP BusinessObjects and SAP BW BEx Broadcaster. Others are finding new needs for communicating their SAP Analytics Cloud insights as they transform business processes. Still others are looking beyond SAP BusinessObjects for their SAP Analysis for Office report scheduling and broadcasting.

"PULL" VS. "PUSH"

The default approach for consuming SAP Analytics Cloud reports and analytics is to log in and view the stories. This is known as a **"Pull"** strategy, because information consumers are pulled into the SAP Analytics Cloud system where they request or pull the stories and dashboards for viewing. For many organizations, this strategy is insufficient, because some stakeholders may not receive information in a timely manner due to their usage patterns, and because some other stakeholders do not log in to SAP Analytics Cloud at all (e.g., external stakeholders such as suppliers and customers).



These organizations require a **"Push"** strategy, which is what report broadcasting provides. In this strategy, information is pushed out directly to information consumers via email, or to a network file share, or to FTP or secure FTP. A Push strategy places information into the path of those who need it, when they need it, and in the format most useful to them.





POWERBURST PUBLISHER BROADCASTING

PowerBurst is a report broadcasting solution for SAP Analytics Cloud. It provides greater flexibility, availability, scalability and higher volume than the native SAP Analytics Cloud Publications function.

Its automation provides personalized reports to the right people at the right time in the right format, and lowers the burden on IT teams.

PowerBurst's core report broadcasting functionality includes:

- **Dynamic rules –** drive bursting definitions dynamically from a data source
- **Filters and variables –** create multiple versions of a story with ease
- **Destinations –** select from a variety of destinations to meet recipient needs
- **Formats –** generate and send in PDF, PowerPoint, Excel, Word, CSV, RTF or image formats; use Excel and PowerPoint templates for professional look and feel
- **Consolidation of multiple reports –** consolidate stories or pages into a single email or document
- **Multiple export options –** multiple formats created from a single bursting definition; high-volume; support for large data set export to Excel or CSV
- **Widget-level broadcasting –** selective bursting of report components to focus on most critical information
- **Integrated enterprise scheduling –** built into the bursting definition creation process
- **Conditional broadcasting –** monitor KPI thresholds to trigger the bursting process and email alerts; SAP Datasphere integration
- **Analysis for Office Report Scheduling and Broadcasting –** allowing customers to schedule and broadcast AfO reports from the SAP Analytics Cloud Repository
- **BW/4HANA / Datasphere User-Based Broadcasting –** replicating processes formerly available in BEx Broadcaster
- **Enterprise Scalability –** distributed and targeted processing for high availability, high performance, and failover capabilities
- **Enterprise Security and Administration –** secure team collaboration and enhanced administrative capabilities



CORE BROADCASTING FUNCTIONS

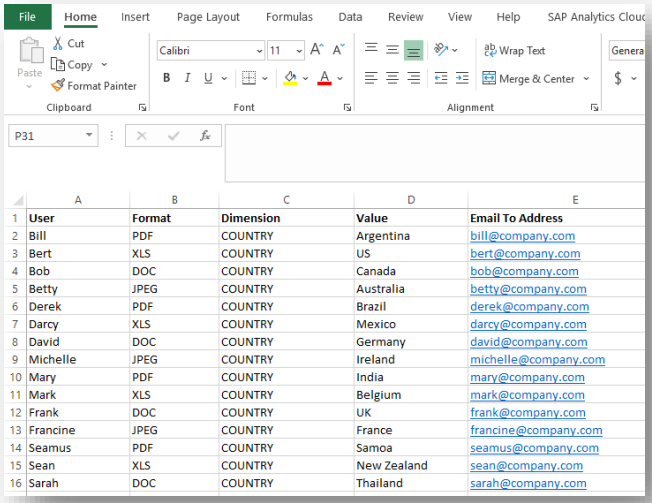
These are the features that make PowerBurst a highly flexible report broadcasting solution for SAP Analytics Cloud.

DYNAMIC RULES

When you create a report bursting definition, you specify the story you wish to burst, who will be the recipients, and the format in which it will be delivered. All of this information is stored in a data source that you specify. That data source could be a simple Excel spreadsheet, or a relational database of your choosing. PowerBurst accesses this information when it broadcasts a schedule that specifies a report bursting definition associated with the data source.

PowerBurst uses the data source as a means to drive the properties in your bursting definitions dynamically, allowing you to scale your broadcasts quickly and easily by simply updating the data source.

The information within your SAP Analytics Cloud deployment can expand and contract continuously, so report bursting needs to adapt to the content. If your SAP Analytics Cloud story contains grids or tables that expand beyond what can fit into a window, scrolling is added dynamically and ensures that the entire data set is sent and visible.



	A	B	C	D	E
1	**User**	**Format**	**Dimension**	**Value**	**Email To Address**
2	Bill	PDF	COUNTRY	Argentina	bill@company.com
3	Bert	XLS	COUNTRY	US	bert@company.com
4	Bob	DOC	COUNTRY	Canada	bob@company.com
5	Betty	JPEG	COUNTRY	Australia	betty@company.com
6	Derek	PDF	COUNTRY	Brazil	derek@company.com
7	Darcy	XLS	COUNTRY	Mexico	darcy@company.com
8	David	DOC	COUNTRY	Germany	david@company.com
9	Michelle	JPEG	COUNTRY	Ireland	michelle@company.com
10	Mary	PDF	COUNTRY	India	mary@company.com
11	Mark	XLS	COUNTRY	Belgium	mark@company.com
12	Frank	DOC	COUNTRY	UK	frank@company.com
13	Francine	JPEG	COUNTRY	France	francine@company.com
14	Seamus	PDF	COUNTRY	Samoa	seamus@company.com
15	Sean	XLS	COUNTRY	New Zealand	sean@company.com
16	Sarah	DOC	COUNTRY	Thailand	sarah@company.com

In another use case, suppose your story contains no data at a particular point in time. You should be able to specify that a story not be distributed if it is empty.

Data-driven broadcasting allows you to connect the bursting definition to a data source that dynamically drives all the properties within the definition.



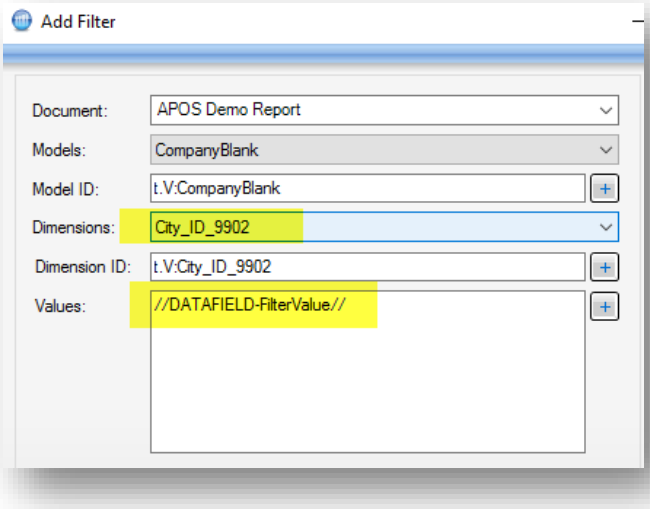
FILTERS/VARIABLES

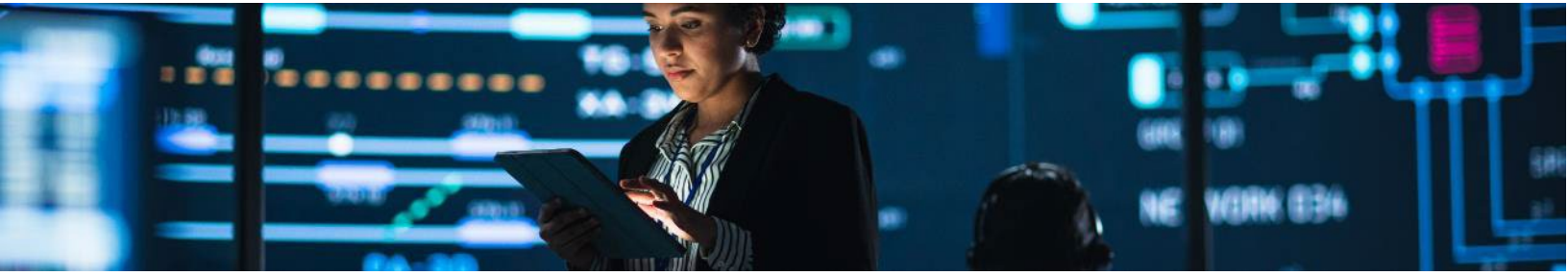
Filters let you send different sets of data to different recipients within a single broadcast. Rather than set up individual broadcasts for multiple recipients or groups of recipients using different dimensions and measures, you create a filter that draws on dimensions within your bursting data source.

The result of pushing the right information to your information consumers is that they will receive only the information they need. Based on this requirement, you need to be able to personalize the analytics you push out to those information consumers.

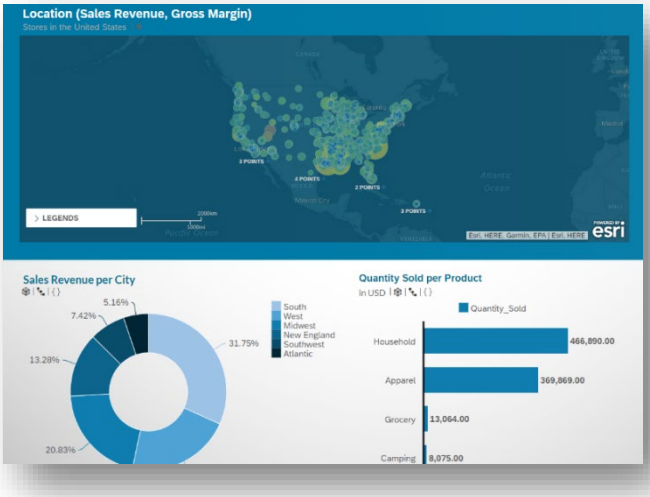
Broadcasting is a data-driven process that allows you to “set and forget” your personalized messaging in a bursting definition. Conversely, you can make global revisions to personalized bursting by simply changing the data used in the process. Such data-driven bursting removes significant IT burden and technical debt from your Analytics distribution workflows.

In the example below, we use the City ID in the data source to filter the results for each recipient.

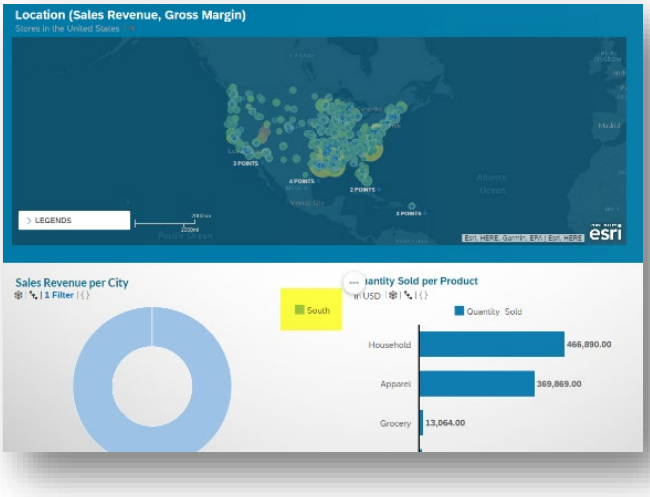




Without this filter, all recipients would see data for all cities, as in this screenshot:



With the filter applied, each recipient sees data for only the City ID associated with their record in the data source, as in this screenshot:



Each recipient gets a tailored slice of data.

DESTINATIONS

As much as we need to ensure that information consumers get the right information, we need to ensure that the data is received using the right method for them. The right method is the one that makes the information most available and timely.

That's why PowerBurst includes multiple destinations to choose from when broadcasting SAP Analytics Cloud reports, including

- Email (embedded or attached)
- Network file share
- Secure FTP (FTPS, SFTP)



In the example below, content is delivered via email, but also in attachments as PDF, Excel and PowerPoint files.



FORMATS

Just as destinations should reflect what is most useful for recipients, formats should reflect what is most usable by recipients. Some only need to see data. Others need to work with the data. Still others need to present the data. Some need content delivered in multiple formats.

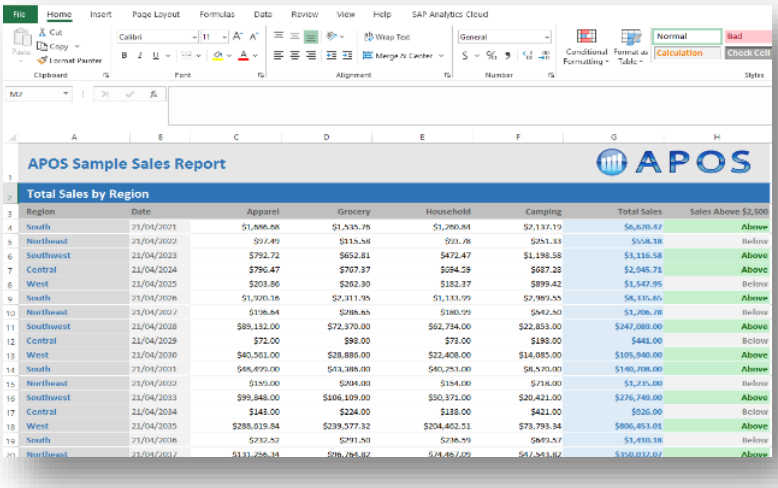
Formats available:

- PDF
- Excel with Data
- CSV
- PowerPoint
- JPEG, TIFF, GIF, PNG, BMP
- Microsoft Word
- RTF





Excel with Raw Data



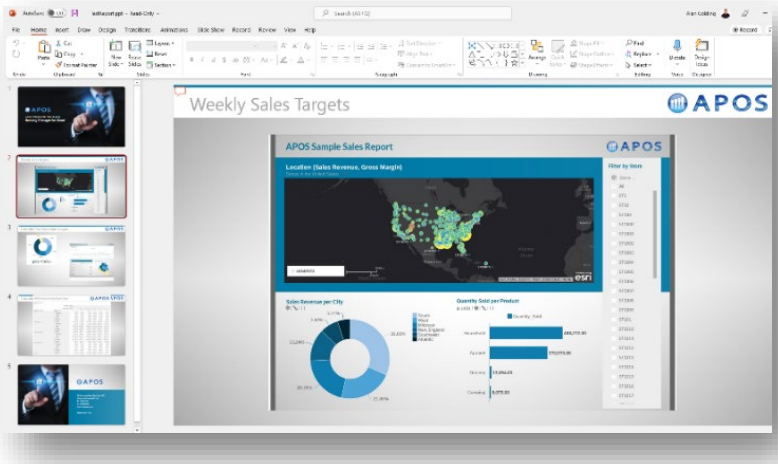


PDF





PowerPoint



PowerBurst



TEMPLATES – XLS AND PPT

In PowerBurst, formats such as Excel and PowerPoint can make use of templates to support corporate communications standards and provide a custom and polished finish to content. Templates allow you to preformat data.

Benefits of using templates:

Customized and polished finish to your content

For Excel, utilize:

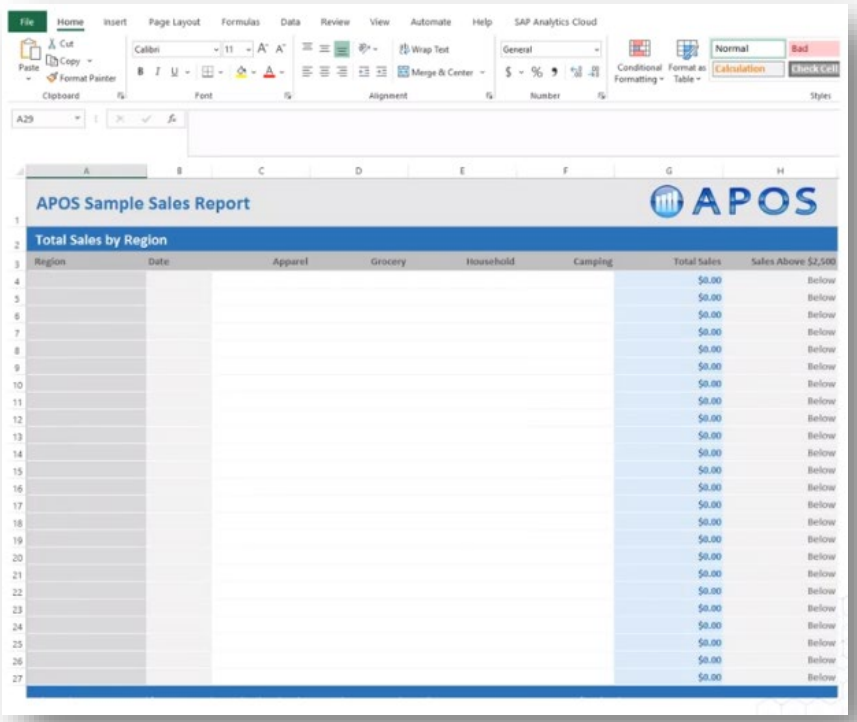
- Conditionally formatted columns
- Excel formulas
- Custom formatting
- Macros

For PowerPoint, utilize:

- Targeted slide placement
- Custom formatting
- Collaboration
- Streaming of Excel table into a slide deck

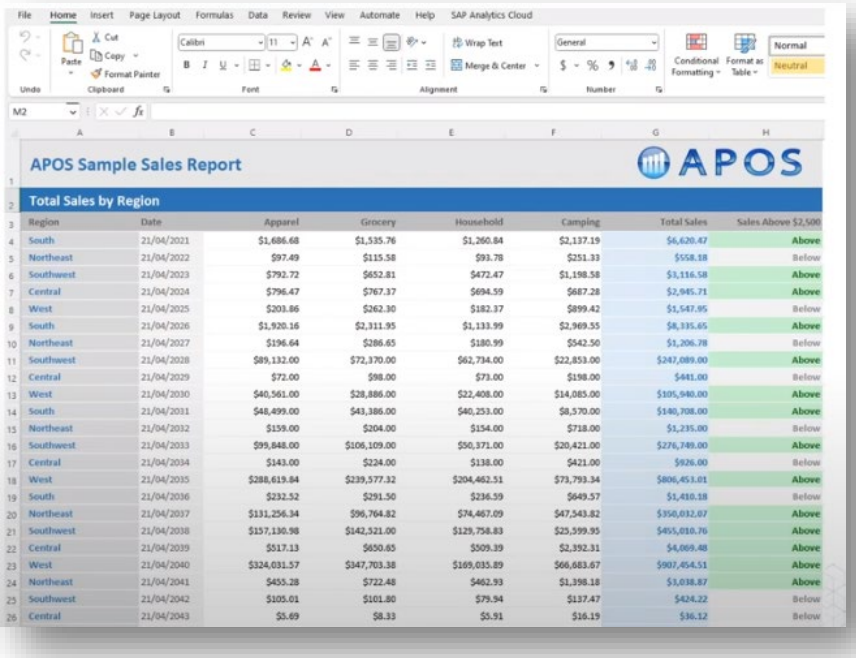


Here is a blank Excel template with color schemes and a conditionally formatted column:



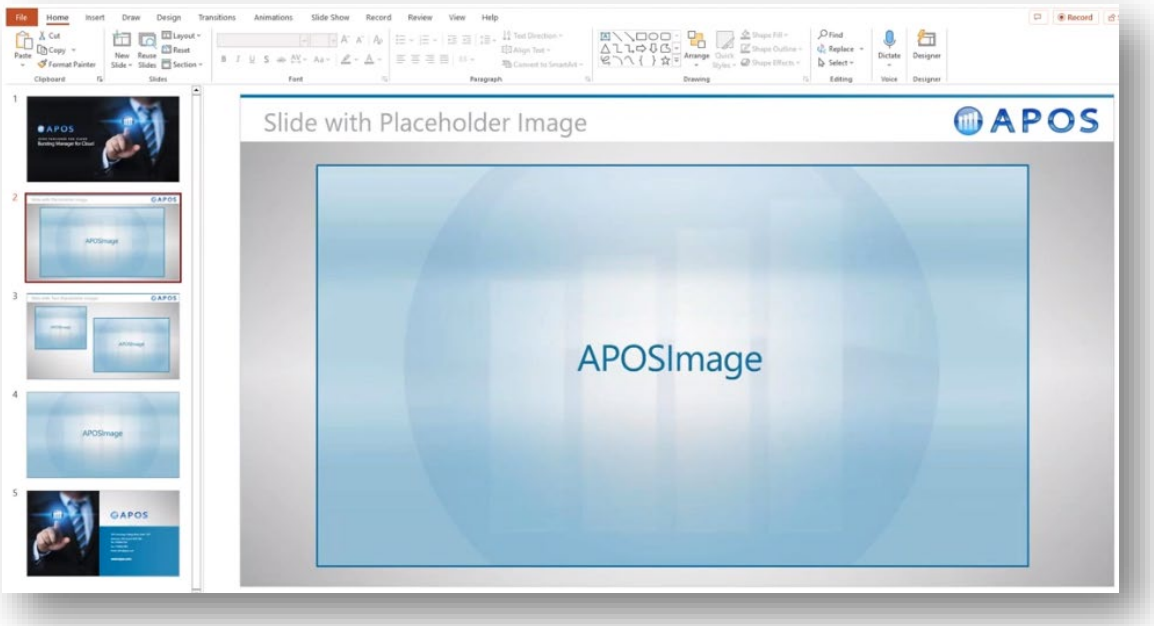
Here is the result of flowing information from SAP Analytics Cloud into the template:

The data in the spreadsheet is raw and allows the recipient to interact and analyze.



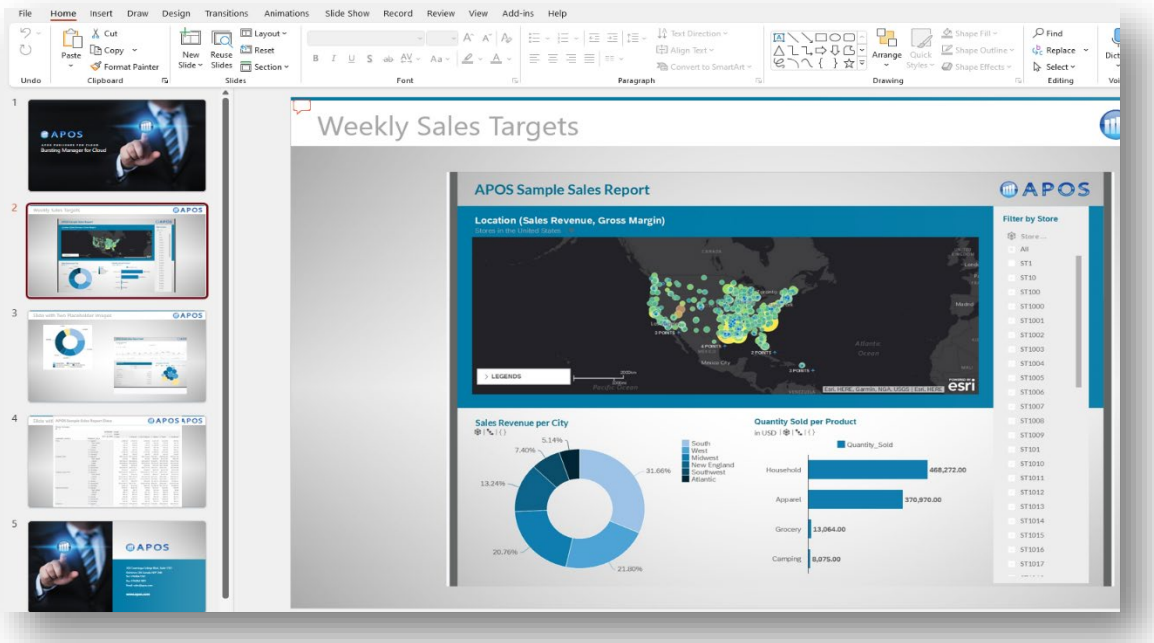


Here is a blank PowerPoint template that gives complete control over where images and other content are placed:



Note the cover and end slides that bookend the content slides in this example. Templates are fully customizable to fit the use case needs.

Here is the result of flowing information from SAP Analytics Cloud story pages into the template:

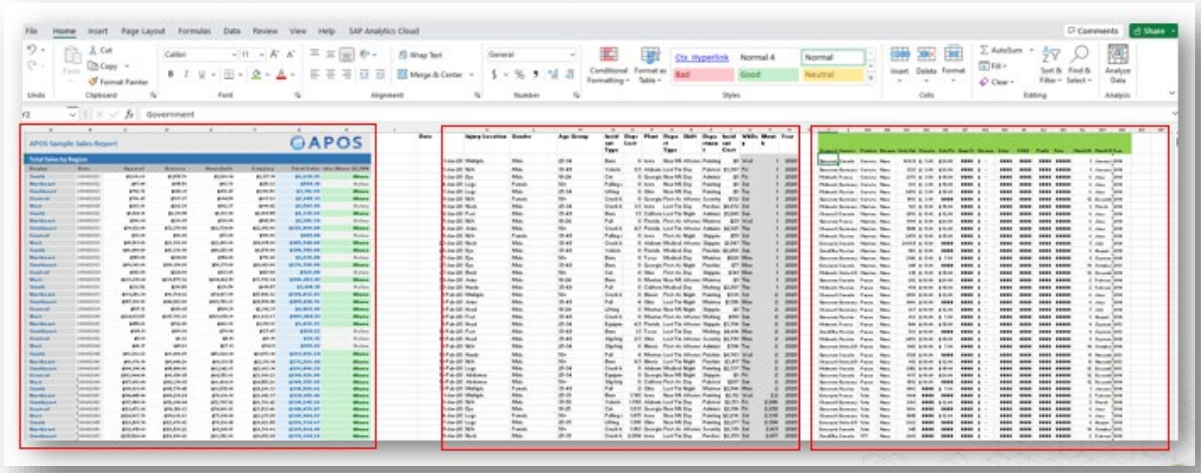




GRID/TABLE EXCEL CONSOLIDATION

You may have multiple worksheets in an Excel workbook. PowerBurst also lets you consolidate the tables or grids on multiple worksheets into a single worksheet, summarizing raw data content, and eliminating the need for multiple worksheets in the delivered report.

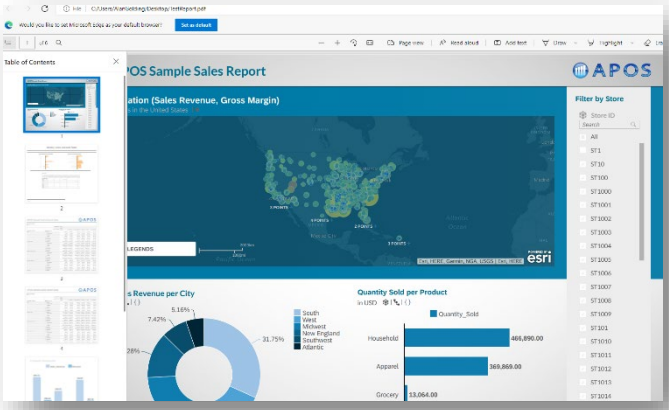
Here are three worksheets from three separate pages in SAP Analytics Cloud consolidated into a single worksheet by PowerBurst:

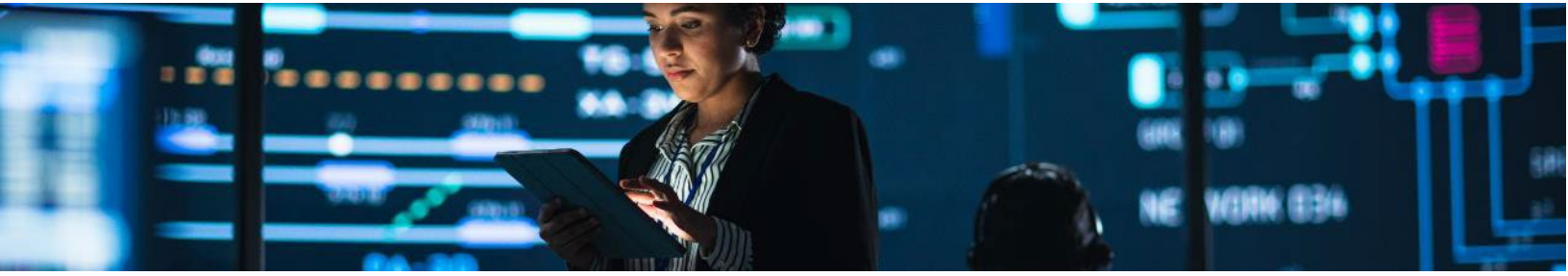


CONSOLIDATION OF MULTIPLE REPORTS

Report consolidation within a broadcast is a very useful feature, especially for executives who wish their information consolidated in a single email rather than dispersed via separate emails through the course of the day or week.

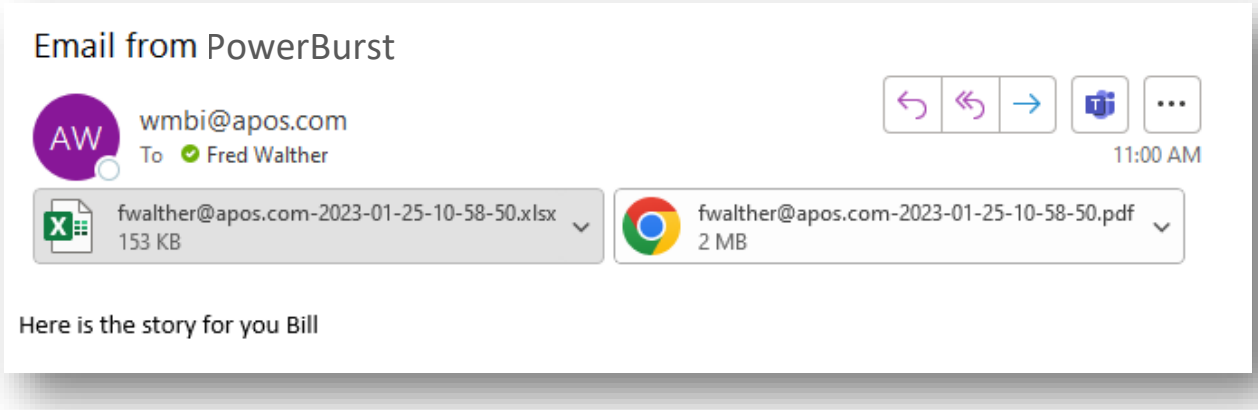
PowerBurst can consolidate summary pages from one or more SAP Analytics Cloud stories in a single email or attachment. This screenshot shows such a consolidation within a single PowerPoint presentation:





MULTIPLE EXPORT OPTIONS

PowerBurst allows you to create multiple formats for a report in a single bursting definition and attach them to a single email. For example, your broadcast can generate an Excel spreadsheet and a PDF file simultaneously and attach them, as in the screenshot below:

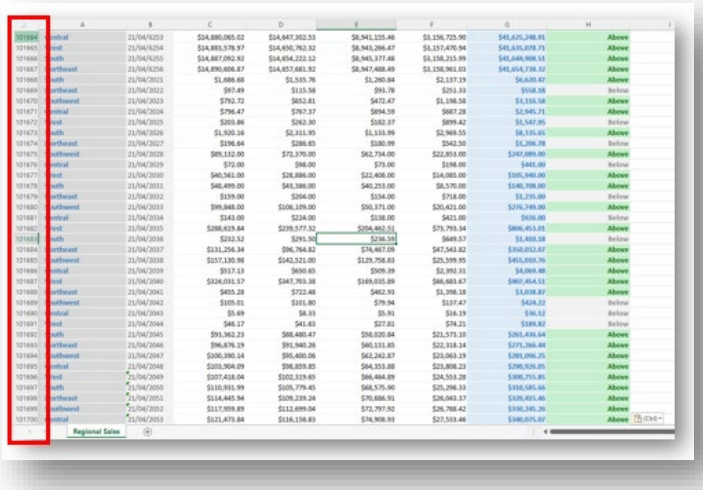


All popular output formats are available: Excel, PowerPoint, Word, RTF, and image formats such as GIF, TIFF, BMP and PNG.

HIGH VOLUME EXPORT

When you have tables or grids on your SAP Analytics Cloud story pages, the data in those grids may vary according to recipients, and can contain large data sets. PowerBurst lets you export that raw data to Excel or CSV, allowing recipients to scroll through them with excellent performance.

This screenshot shows such a large data set in Excel. The highlighted column indicates just how large this data set is:

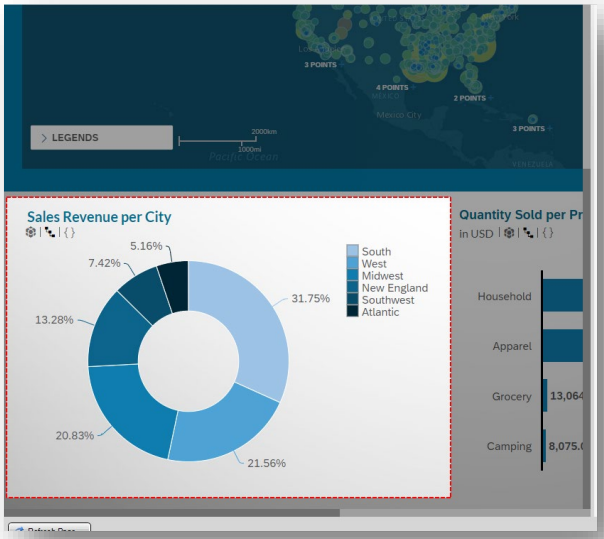




WIDGET-LEVEL BROADCASTING

Some pages in your SAP Analytics Cloud stories may be quite busy, containing more information than you need to broadcast for use by recipients with very specific needs. PowerBurst lets you select and broadcast specific components of these pages. When set up your broadcast, you define which widgets from which report pages you want to send, and only those widgets are sent to the recipients, allowing them to focus on the most critical information.

This tailored distribution of targeted information simplifies consumption by users.



ENTERPRISE SCHEDULING

PowerBurst simplifies and broadens your broadcasting capabilities with:

- Integrated schedule creation
- Integrated conditional broadcasting
- BW/Datasphere user-based broadcasting

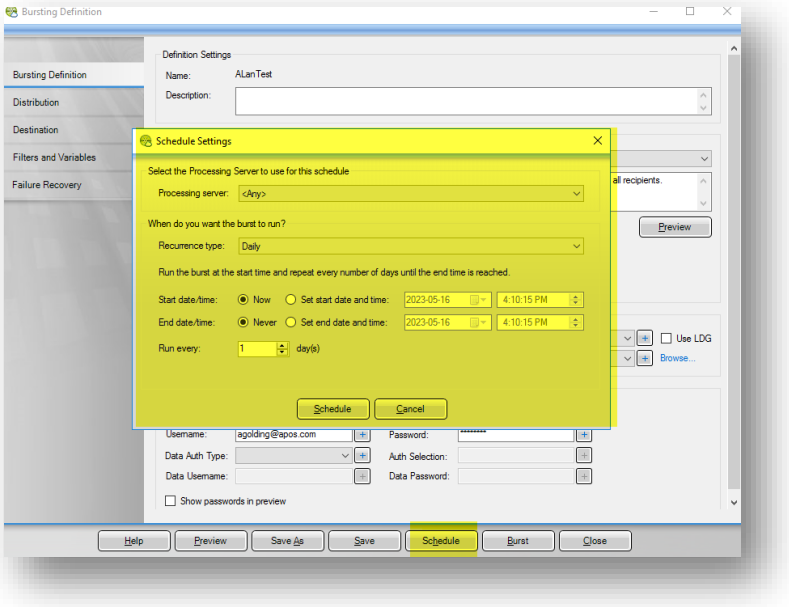


INTEGRATED SCHEDULE CREATION

PowerBurst simplifies schedule creation by integrating it with bursting definition creation. The bursting definition contains the information needed for your broadcast. You simply specify schedule settings on the Bursting Definition screen and PowerBurst creates the schedule and runs it automatically.

You can schedule broadcasts:

- Hourly
- Daily
- Weekly
- Monthly

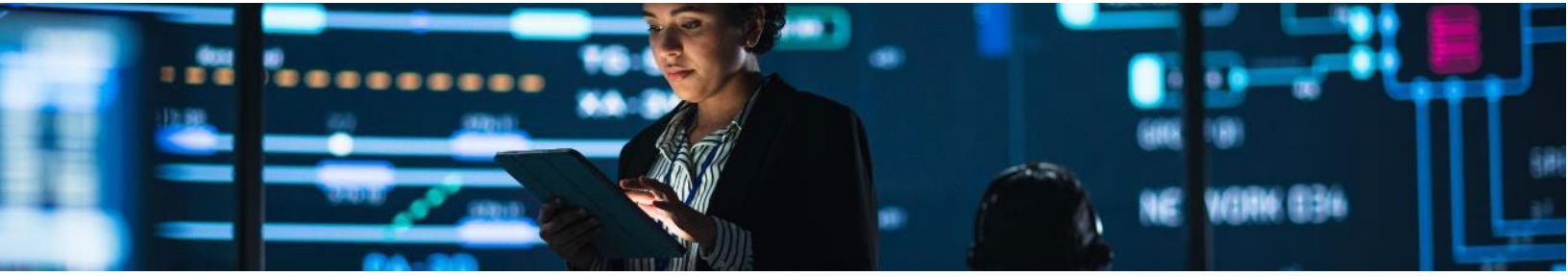


INTEGRATED CONDITIONAL BROADCASTING

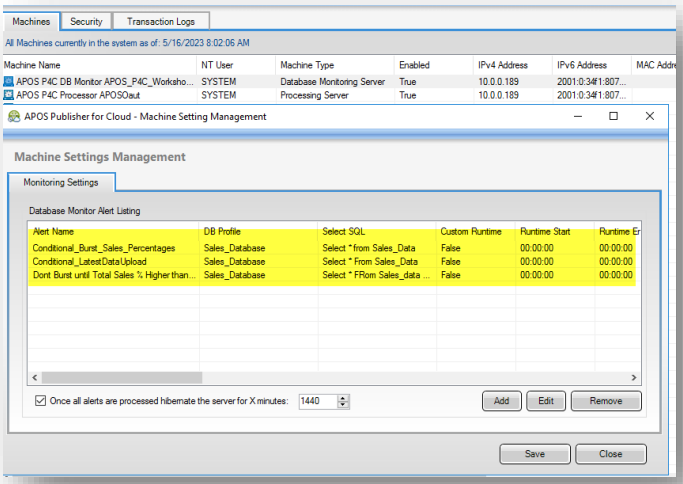
With integrated conditional broadcasting, you can monitor key data values in your system and automatically trigger broadcasts when thresholds have been exceeded.

Say, for example, you want to:

- Know when sales for a certain region exceed 33% or dip below 30%.
- Schedule story broadcasts to run after intermittent updates from the BW, DWC or Datasphere database have occurred, ensuring that you are not broadcasting outdated data.

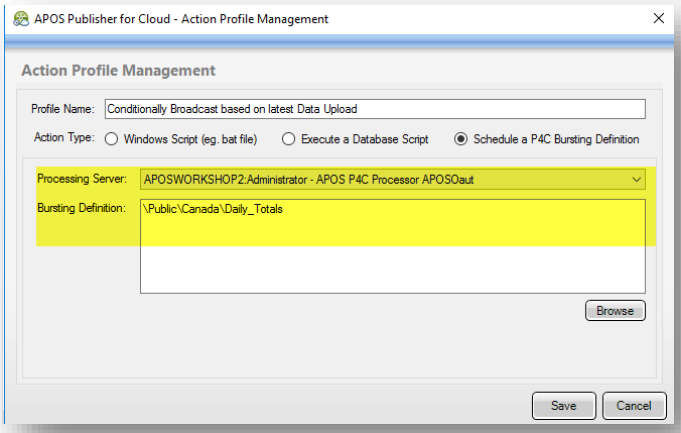


You can set PowerBurst's Database Monitoring service to monitor for these conditions and trigger automatic broadcasts. This screenshot shows such a scenario.



Another use case for this functionality is scheduling story broadcasts to run after intermittent data updates occur for the BW or Datasphere database. In this way, you can ensure that you are not broadcasting outdated data. With integrated conditional broadcasting, you can also monitor BW and conditionally broadcast based on pre-defined events.

This screenshot shows an action profile scheduling a conditional broadcast when notification of a data upload has been received.



In this way, users receive the uploaded data only once, as shown here:





SAP ANALYSIS FOR OFFICE REPORT SCHEDULING & BROADCASTING

The SAP Analytics Cloud Repository allows you to store your SAP Analysis for Microsoft Office (AfO) workbooks for use with the SAP Analytics Cloud platform. The Repository itself has no scheduling capabilities in SAP Analytics Cloud, but PowerBurst can schedule reports from it.

PowerBurst support for AfO report broadcasting lets you replace AfO report scheduling in SAP BusinessObjects, as well as BEx Broadcaster workflows, providing:

- **Automated broadcasting:** Data driven reporting filtering and distribution processes
- **Expanded formats:** Excel, CSV, PDF, Text, MHTML, ODS (open document for office), XML, OXML (office open XML), XPS (print format)
- **Expanded destinations:** Email (attachment or body), network file location, FTP/FTPS
- **Expanded features:** Multi-format support, encryption and password protection

There are a number of scenarios in which these capabilities remove some serious roadblocks.

MOVING BEYOND SAP BUSINESSOBJECTS

A common scenario for customers in the process of moving from SAP BusinessObjects to SAP Analytics Cloud and the SAP AfO Edition for SAP Analytics Cloud, is that they cannot move beyond SAP BusinessObjects without AfO broadcasting capabilities in SAC.

MOVING FROM BEX TO SAP ANALYTICS CLOUD

Customers undergoing digital modernization by moving from BW to BW/4HANA seek to replace BEx Analyzer and BEx Broadcaster with AfO, but do not want to deploy SAP BusinessObjects solely to broadcast AfO reports. Scheduling and broadcasting AfO reports in SAP Analytics Cloud with PowerBurst solves this problem.

For more information on deploying PowerBurst to meet your AfO report scheduling and broadcasting needs, see our whitepaper:

Beyond BusinessObjects: *Advanced Scheduling & Broadcasting of Analysis for Office Reports*



BW/4HANA / DATASPHERE USER-BASED BROADCASTING

PowerBurst can replicate important BEx Broadcaster functionality in SAP Analytics Cloud for BW/4HANA and Datasphere users. This functionality uses BW or Datasphere authentication integration to allow SAC reports to be sent on behalf of the BW recipient using their authorizations within the data source. This allows BW deployments that are moving processes to Datasphere to be able to fulfill the ongoing report broadcasting expectations of their user community.

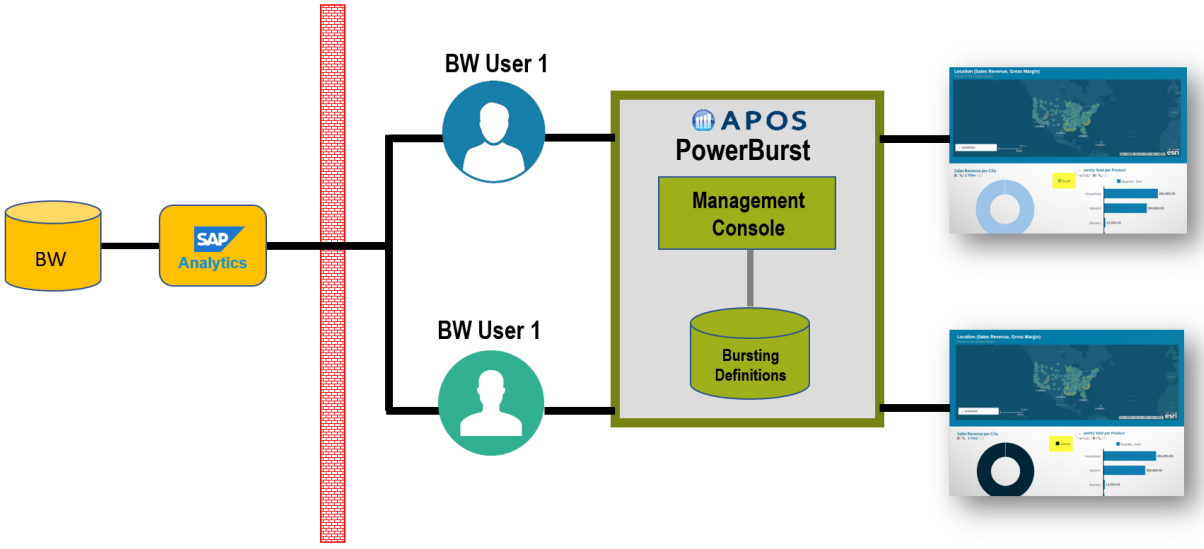
Users who wish to receive BW reports from SAC give consent in a Web-based UI for PowerBurst to broadcast reports on their behalf, using their data source access rights. This consent ensures that they receive only the data to which they are entitled according to the security structure of the data source.



CLICK TO READ THIS SUCCESS STORY

Using row-level authorizations in BW or Datasphere lets you filter the information a recipient receives. PowerBurst renders the SAP Analytics Cloud story on behalf of the recipient, using their row-level authorizations in the database.

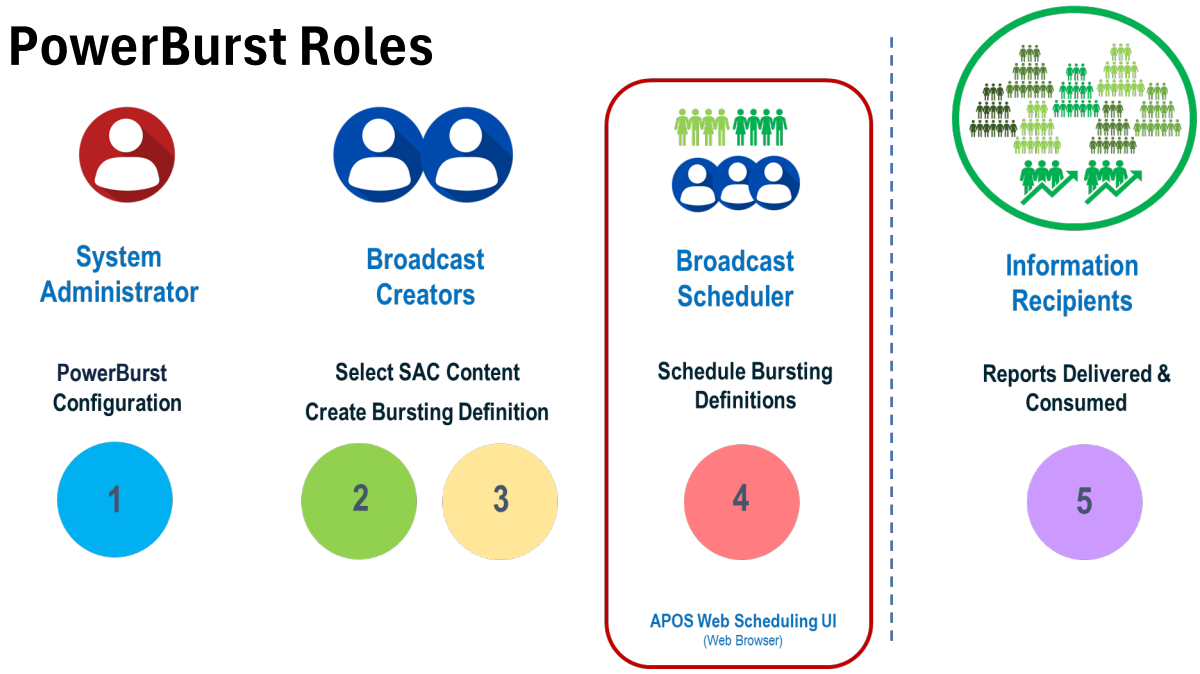
Note that this capability is available to support other live data sources also.





WEB SCHEDULING USER INTERFACE

PowerBurst provides a Web-based interface geared primarily toward the Broadcast Scheduler role. Users in this role do not require the same level of technical expertise as system administrators and broadcast creators, and the Web Scheduling UI simplifies their tasks even more.



This Web-based UI is simple to deploy, provides great self-service for schedulers, and lightens the load of your administrators.

SIMPLIFIED DEPLOYMENT

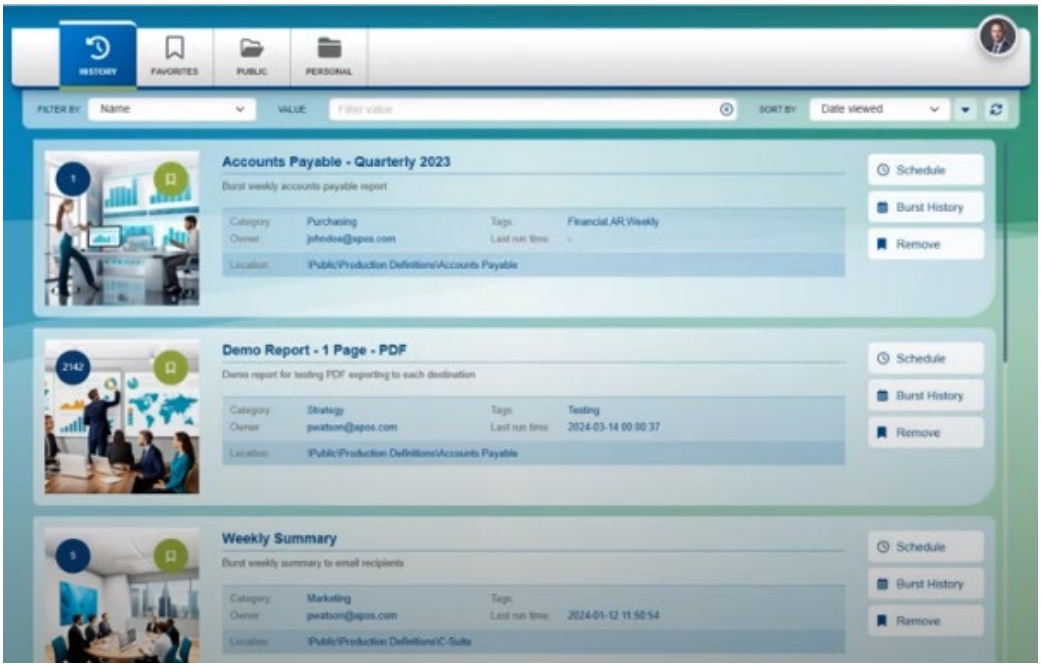
- No server access needed
- No application installation needed
- Controlled user access from a web browser with authentication

EASE OF USE

- Enriched intuitive interface
- Scheduling made easy
- Personalized interface per user



The UI consists of four tabs:



History – the bursting definitions to which you have access. The three buttons to the right of the bursting definition allow you to schedule broadcasts, view burst history, and remove the bursting definition from the list

Favorites – set up bursting definitions that you run frequently for easy access.

Public – folders containing bursting definitions available to most users, and which you can add to your favorites.

Personal – folders containing bursting definitions available only to you, and which you can add to your favorites



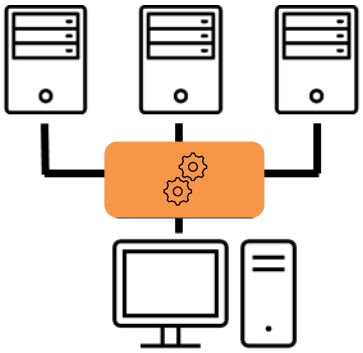
ENTERPRISE SCALABILITY

PowerBurst runs on the individual user's desktop, but the solution is highly scalable because it uses processing and scheduling servers to create high availability and failover for your broadcasting activities. Scale up the number of these servers to create distributed and targeted processing for rapid, high-volume broadcast execution.

DISTRIBUTED PROCESSING

You define and schedule your broadcasts in the PowerBurst desktop application. When the application executes the broadcast, it does so using a processing server. Because PowerBurst enables a collaborative environment, many broadcasts may be scheduled to run simultaneously, which is why many organizations will choose to set up numerous processing servers to enable distributed processing of broadcasting requests.

Setting up multiple processing and scheduling servers as processing agents allows you to scale your broadcasting operation for high performance and high volume. Processes can be multi-threaded and run on multiple processing servers, using processing servers as they become available.

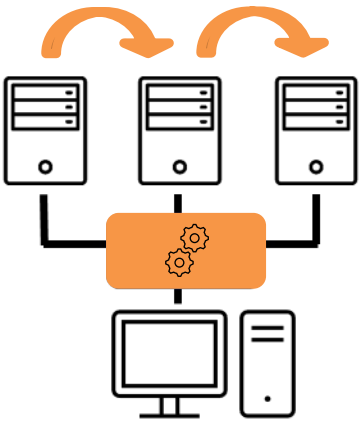


For example, if a broadcast consists of 5,000 generated documents, multiple processing servers will distribute the workload to increase efficiency and ensure timely delivery to all recipients.



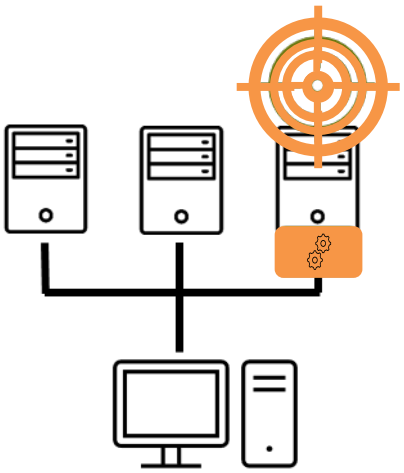
HIGH AVAILABILITY AND FAILOVER

In a distributed processing scenario, you are not dependent on any one processing server. If one machine becomes unavailable, the workload assigned to that machine will automatically be reassigned to another machine, providing you with high availability and failover on your broadcasting platform.



TARGETED PROCESSING

Targeted processing allows you to use a specified processing server to take advantage of greater RAM or CPU power on a specific machine for larger or more critical broadcasts. You may also want to use a specific server because of other applications that may reside only on that server. For example, a schedule may call for reports to be exported in Microsoft Excel, PowerPoint, or Word, which means that Microsoft Office must be installed on the machine hosting the PowerBurst processing server.



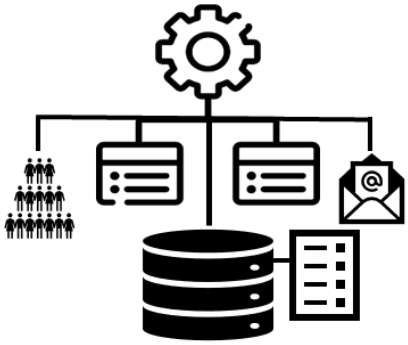


ENTERPRISE SECURITY

Administered, secure team collaboration for users and groups with shared and private folders, data sources, and bursting definitions enables separate broadcasting programs by department or line of business. Multiple broadcast designers can collaborate securely on content and safely share data sources.

SECURITY AND PERMISSIONS

PowerBurst promotes team collaboration by creating an environment in which work can be shared with team members in shared folders. It also allows private folders individuals can use to develop their broadcasting before sharing, or for projects that are not team-based.



- **Shared & Private Folders –** a shared folder is a public folder in which authorized user groups can collaborate to build bursting definitions and broadcasting content. A private folder can be used by individuals to control access to bursting definitions and broadcasting content for individual use.
- **Shared & Private Bursting Definitions –** private bursting definitions are ones that are relevant only to an individual, while shared bursting definitions allow the group to maintain a consistent means of communication with a defined audience.
- **Shared & Private Bursting Data Sources –** bursting data sources contain email addresses, filter values, destinations and format settings, SAC story IDs and model names, and dimension names.

ENHANCED SECURITY - USER GROUP ACCESS RIGHTS

PowerBurst security enables stronger controls for secure usage of the solution across multiple business units of an organization.

A PowerBurst administrator creates individual user profiles and groups, as well as shared and private folders to enable team collaboration and segregation of work across business units. The administrator defines which user groups can access which folders, and which rights users have over the content of the shared folders.



ENHANCED ADMINISTRATION

Using a dedicated administration console, an administrator can view and track:

- When users create, delete, modify
- What machines they are logging in from
- When potential issues arise

Note too that the solution includes a Recycle Bin, which allows the administrator to restore content that users may have deleted accidentally.

CONCLUSION

What should you look for in an enterprise report broadcasting solution?

- ✓ **Scalability & High Availability –** scale up processing capabilities and failover according to your broadcasting needs.
- ✓ **Security & Administration –** enable administrators to define users and groups, assign permissions, and monitor activities and processes.
- ✓ **Formats –** enable your recipients to work with analytics data using the formats that work best for them, whether PDF, Excel, Word, PowerPoint, RTF, CSV or image. Use templates to present analytics consistently and professionally.
- ✓ **Personalization –** use your bursting data source to create personalized slices of data for your recipients without having to create different versions of reports.
- ✓ **High-Volume Export –** provide the analytics data recipients need, regardless of data volume.
- ✓ **External Stakeholders –** communicate with suppliers and customers, and with internal stakeholders that do not or cannot log in to SAP Analytics Cloud.
- ✓ **Live Data Sources –** draw live broadcast data from a wide variety of data sources, including Datasphere.



RESOURCES

CUSTOMER SUCCESS

- Hunt Oil Company: Data-Driven Distribution & Reduced IT Burden
- NLMK Europe: “Push” Publishing with PowerBurst
- Precision Drilling: Automated Distribution of Personalized SAC Reports
- Bristol/Euroshoe Group: Timely, Personalized Internal & External Report Distribution
- Aerospace: Secure Visualizations & Performance Metrics Across Design & Manufacturing
- Precision Instruments: Data-Driven Personalized Broadcasting for SAC
- Agricultural Manufacturer: Replacing BEx Broadcaster in an SAP BW/HANA Environment
- Multinational Lighting: Timely, Data-Driven SAC Broadcasting to Thousands of Recipients
- Automotive Import, Distribution, Leasing and Fleet Management: Timely Report Distribution to SAC & Non-SAC Recipients

ON-DEMAND WEBINARS

- Ignite Analytics – Automated SAP Analytics Cloud Report Broadcasting
- Technical Deep Dive – PowerBurst Publisher
- Team Collaboration for Enterprise Broadcasting of SAP Analytics Cloud Stories
- Extend Analytics Content with Broadcasting and Publishing Webinar Series
- Flexible SAP Analytics Cloud Broadcasting & Publishing for Countless Business Use Cases

BLOG POSTS

- Who Needs SAP Analytics Cloud Report Broadcasting?
- The BEx Broadcasting Need and SAP Analytics Cloud
- PowerBurst Publisher – SAP Analytics Amplification – Enterprise Broadcasting
- The Other Cloud Analytics Challenge – Broadcasting
- Team Collaboration for SAP Analytics Cloud Broadcasting



APPENDIX: REPORT SCHEDULING & BROADCASTING

PowerBurst

- **Powerful Report Bursting** - Transform a single Power BI report into many personalized versions using structured, data-driven logic
- **Dynamic Report Generation** - A data-driven process that automatically shapes each report to reflect the recipient's current business context
- **Targeted Report Distribution** - Provide report outputs in the formats users rely on and deliver the reports to locations for easy access
- **Orchestrated Process Timing** - Coordinate report execution through rules, schedules, triggers, and automation to ensure reports run exactly when your business needs them.
- **Centralized Governance and Controls** - A unified environment that enforces consistent security, oversight, and operational control across all bursting activities

Available on SAP Store

APPENDIX: APOS SOLUTIONS FOR SAP BUSINESSOBJECTS

APOS Web Intelligence Migrator

- Bulk Convert from UNV to UNX
- High-Volume Web Intelligence Repointing
- Success Validation
- Controlled Workflow

APOS Administrator

- Object Management
- Schedule Management
- Instance Management
- Web Intelligence Migration

APOS Storage Center

- System Backup
- Content Archiving
- Content Versioning
- Automated System Clean Up

APOS Publisher

- Systematic Content Delivery
- Advanced Document Bursting
- Enhanced Content Distribution
- Security and Encryption

APOS Insight

- BI System Auditing
- BI System Monitoring
- BI Query Surveillance
- BI Report Testing



ABOUT APOS SYSTEMS

Since its beginning in 1992, APOS Systems has evolved from a custom business application development shop to a global provider of solutions promoting Well Managed Business Intelligence and Analytics.

APOS provides software products which deliver enhanced capabilities and strong agility in the management and administration of SAP BusinessObjects and SAP Analytics Cloud platforms, across the SAP solution landscape, and beyond. APOS well managed BI and well managed Analytics products improve return on investment and time to value for our global base of customers. APOS solutions simplify, automate, complement, enhance and extend BI practices, and focus BI and Analytics processes for greater agility in your organization's decision-making capabilities.

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APOS is a long-time SAP Partner with over 20 years of success in providing software solutions to enhance and extend SAP Analytics and Business Intelligence capabilities. APOS Data Connectivity solutions provide live, virtualized data connectivity for SAP Analytics Cloud to non-SAP data sources, including a wide range of relational and OLAP sources, and the vital cloud data platforms. APOS enables simplified analytics data processes for SAP Applications, such as SAP Ariba, SuccessFactors, Fieldglass and Concur. APOS Publishing solutions enable broadcasting and delivery of SAP Analytics Cloud and S/4HANA Analytics reports to targeted recipients. APOS BI Management solutions automate administration, testing, auditing, monitoring, and archiving for SAP BusinessObjects and SAP Analytics Cloud.

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