

## SAP Business Warehouse/Business Intelligence Reporting

# BW/BI Architecture

Washington State HRMS Business  
Warehouse/Business Intelligence (BW/BI)  
Self-Paced Learning Materials  
General Topics - BW/BI End Users/Power Users

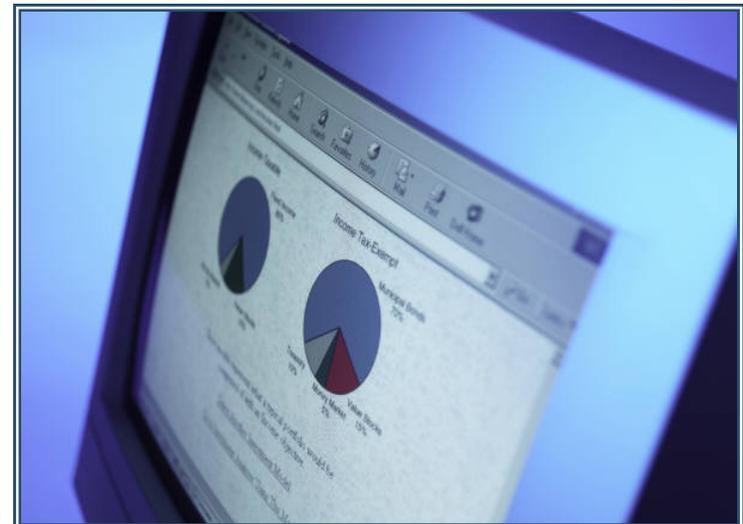
# BW/BI Architecture - Overview

The BW/BI Architecture section provides an overview of the basic structure of the Business Intelligence (BW/BI).

**i** Some topics cover advanced concepts and provide information for understanding data as it relates to the underlying BW/BI structures.

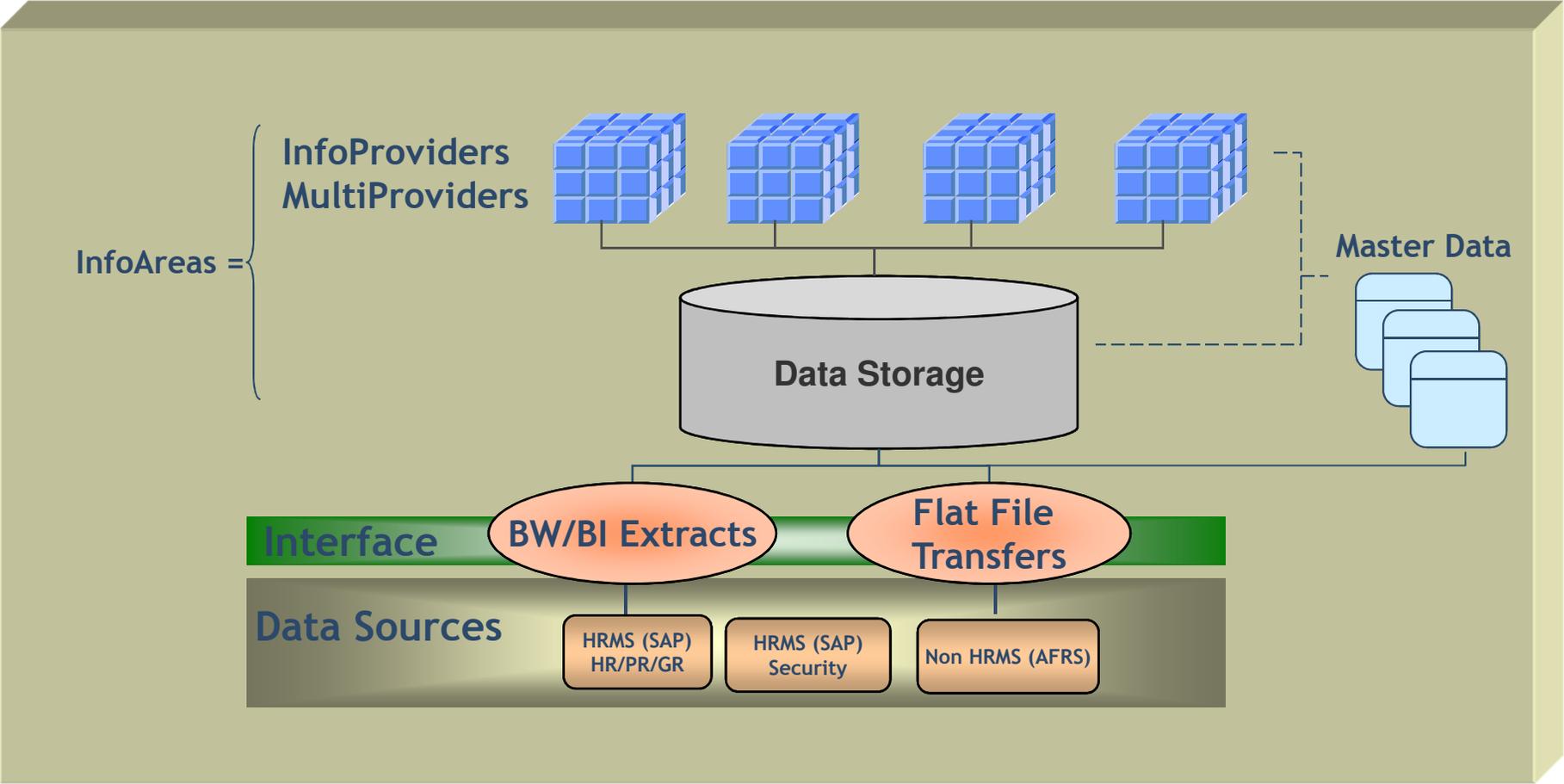
Topics covered in this section include:

- BW/BI Architecture
- BW/BI InfoProviders
- BW/BI InfoCube Conceptual Model
- BW/BI Key Figures and Characteristics
- BW/BI Master Data and InfoProviders
- BW/BI InfoProvider List
- BW/BI InfoProvider / Master Data Updates
- Schedule of BW/BI InfoProvider Updates
- Schedule of BW/BI Master Data Updates



# BW/BI Architecture

The following diagram provides a high level view of the architecture of the Business Intelligence and how data is retrieved and stored:

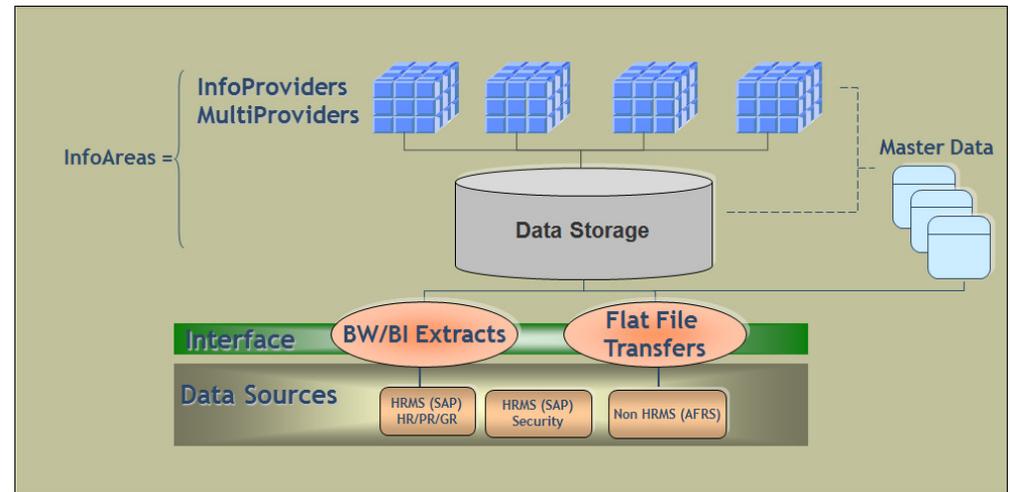


# BW/BI InfoProviders

An InfoProvider is a data object used to create queries and reports. InfoCubes and MultiProviders are types of InfoProviders.

 ➤ **InfoProvider** - data object containing multi-dimensional data. InfoProviders contain InfoObjects (data fields) such as Key Figures and Characteristics that can be used to build BW/BI reports.

 ➤ **MultiProvider** - connects data from two or more InfoProviders. The MultiProvider is a view of the InfoProviders on which it is based.

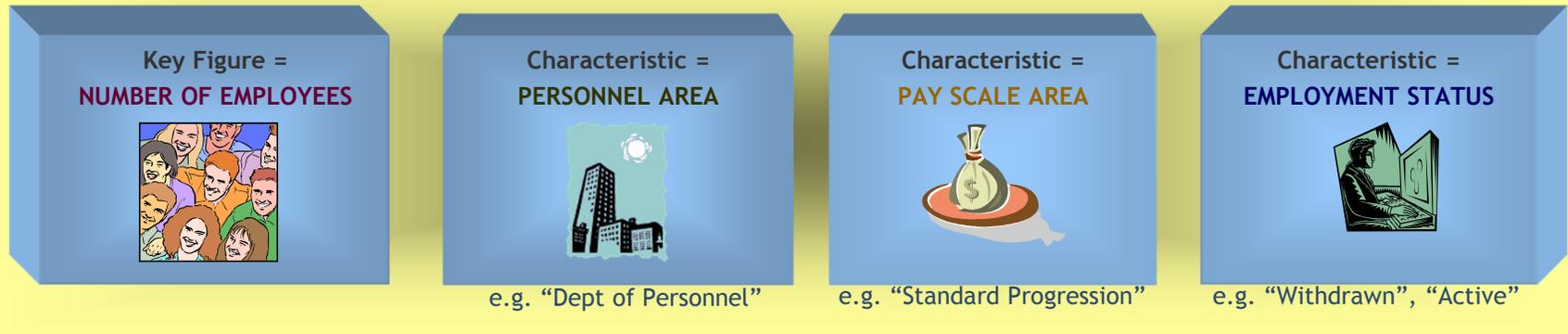


# BW/BI Key Figures and Characteristics

BW/BI Reports are developed using data within InfoProviders that are comprised of:

- **Key Figures** - Numeric fields that are the object of analysis in BW/BI reports, such as number of employees, number of positions, annual salary, etc.
- **Characteristics** - Descriptive fields that provide context for the key figures in BW/BI reports. Characteristics describe the Key Figures.

## Example: Composition of an employee count report



Output

BW/BI Report Results

Employee Count						
Display As Table						
Information Send Print Version Export to Excel Comments						
Columns	Personnel Area	Pay Scale Area		Employment Status	Number of Employees	
Key Figures	1790 Dept of Enterprise Services	10/#	10/Not assigned	Active	143	
Rows				Withdrawn	14	
Personnel Area		10/01	Standard Progression	Active	730	
Pay Scale Area				Withdrawn	68	
Employment Status		10/05	Special Range E	Active	21	
Free characteristics		10/07	Special Range G	Active	131	
				Inactive	1	
				Withdrawn	15	
Overall Result					1,123	

# BW/BI InfoProvider List

The table below lists BW/BI InfoProviders with examples of how the InfoProvider might be used:

InfoProvider	InfoProvider Type	Example of Use
➤ AFRS Payroll Accounting Data (ZPY_C51)	InfoProvider	➤ Employee and Position level Payroll and Financial information provided by AFRS
➤ Employee Specific Payroll Data (ZPY_M01)	MultiProvider	➤ Wage types by Personnel Area and/or Employee ➤ Employee count by Wage Type
➤ Employee Specific Payroll Data with PA (ZPY_M02)	MultiProvider	➤ Wage types by Personnel Area and/or Employee ➤ Personnel Action data
➤ Headcount and Education (ZPA_M50)	MultiProvider	➤ Number of records by Educational Establishment, Certificate and Education/Training ➤ Employee list by Educational Establishment, Certificate and Education/Training
➤ Headcount and Personnel Actions (ZPA_M03)	InfoProvider	➤ Summary level employee counts by demographic areas such as Gender, County Code, Employee Group, etc. ➤ Detail level employee counts by employee specific information. ➤ Employee count/list by personnel Action Type or Action Reason.
➤ Headcount PA MILSVC (ZPA_M60)	MultiProvider	➤ Military Service Dates ➤ Headcount and Personnel Action data
➤ Quota Data (ZPT_M02)	MultiProvider	➤ Quota accrual and balances by Personnel Area and/or Employee
➤ Staffing Assignments (ZPAOS_C01)	InfoProvider	➤ Position count by Organizational Unit and/or Job Class ➤ Position list by Organizational Unit and/or Job Class
➤ Time and Labor (ZPT_M01)	MultiProvider	➤ Time balances and accruals by Personnel Area and/or Employee
➤ Grievance Data (ZGR_M01)	MultiProvider	➤ Grievance data by to Master Agreement and/or Business Area

# Schedule of BW/BI InfoProvider Updates

The following table provides an overview of the data load frequency for BW/BI InfoProviders:

InfoProvider	Update Frequency	Data Load Schedule
➤ AFRS Payroll Accounting Data (ZPY_C51)	Daily (note: AFRS Payroll Accounting Transactional Data will be updated when an adjustment has been made and a new AFRS file is available.)	Daily
➤ Headcount and Personnel Actions (ZPA_M03)	Daily (current and previous year) Monthly (all other years)	Daily Monthly
➤ Headcount PA MILSVC (ZPA_M60)	Weekly	Friday
➤ Staffing Assignments (ZPAOS_C01)	Weekly	Friday
➤ Grievance (ZGR_M01)	Weekly	Friday
➤ Employee Specific Payroll Data (ZPY_M01)	Semi-Monthly	After Payroll Exit
➤ Employee Specific Payroll with PA (ZPY_M02)	Semi-Monthly	After Payroll Exit
➤ Time and Labor (ZPT_M01)	Semi-Monthly	After Payroll Exit
➤ Quota Data (ZPT_M02)	Monthly	End of month for previous month.
➤ Headcount and Education (ZPA_M50)	Monthly	1 <sup>st</sup> Friday/mo*

 Note: BW/BI data loads are on an automated schedule. Loads are scheduled to occur between 6pm and 6am.  
\*In the months that HRMS Payroll processing is scheduled to occur over the first Friday of the month, the BW/BI load will be rescheduled. Usually for the second Friday of the month.

# Schedule of BW/BI Master Data Updates

The following table provides an overview of the data load frequency for BW/BI most commonly used Master Data.

Master Data	Update Frequency	Data Load Schedule
➤ Employee	Daily	Daily
➤ Person	Daily	Daily
➤ Company Code	Weekly	Friday
➤ Contract Type	Weekly	Friday
➤ Job	Weekly	Friday
➤ Org Unit	Weekly	Friday
➤ Pay Grade Level	Weekly	Friday
➤ Pay Grade Level To	Weekly	Friday
➤ Pay Scale	Weekly	Friday
➤ Pay Scale Level	Weekly	Friday
➤ Pay Scale Level To	Weekly	Friday
➤ Position	Weekly	Friday