Bocada Database Schema

Select Views & Tables for Custom Reporting

Contents

Database Schema

This document describes the Bocada database virtual table views and some additional database tables that may be useful for end user custom reports.

The key view used for custom SQL reports is v_backuplogall. So an excellent initial starting place for anyone writing reports, or mining data from bocada is to run the following SQL:

```
SELECT TOP 1000 * FROM v_backuplogall
```

Before writing any custom reports, we suggest that you contact Bocada Support for suggestions and tips. The report that you want, or a related one, may have been written and Support will be able to offer important information about what you are trying to achieve.

Most custom reports will select data only from database table views. Some custom reporting will select data from regular database tables. Tables whose names begin with the letter “z”, such as <zparams>, are system tables used for the correct function of the Bocada® application. Tables whose names do not begin with the letter “z” contain historical records of backup activity and related data. Very rarely will any of the the “z” tables be required.

Please contact Bocada Support with any questions about the database schema that are not answered in this document.

Views

Summary

Views (also known as virtual tables) are the preferred structures for accessing the Bocada reporting database. Querying against views rather than the permanent base tables has the following advantages:

- Greater stability: From one product version to the next, permanent base tables are subject to change. By comparison, the views are designed to remain relatively static.
- Simplified queries: For efficiency, the permanent base tables have been normalized. Queries against the permanent base tables must typically contain joins to a number of tables. By comparison, the views are designed to eliminate the need for joins for most queries.

Each view is defined below with the column names and source data for the column shown. The source tables making up the view has more detail descriptions of the data elements.

Note: Not all columns in all views and tables are documented, only those that are considered useful for end user custom reporting are described. Some elements, even in views, may exist only for legacy reasons.

v_backupclientlog

This view is designed to return a row for every client or target included in a query regardless of content. Unlike other views, queries against v_backupclientlog can return empty rows. This view can be used to show when a given client or target has been inactive.

Column	Source Table	Column	Source Table
server_id	servers	server_id	backuplog
serverfqname	servers	client_id	backuplog
product_id	servers	clientignore_id	backuplog
timezone_id	servers	product_id	backupproducts
servergroup	servers	productname	backupproducts
lastupdateddatetime	servers	target_id	backuptargets
foundmaxspeed	servers	server_id	backuptargets
definedmaxspeed	servers	client_id	backuptargets
serverstatus	servers	owner_id	backuptargets
backupgroup_id	backupgroups	targetname	backuptargets
groupname	backupgroups	asset_id	backuptargets
backup_id	backuplog	preferredassetname	backuptargets
jobdatetime	backuplog	lastactivitydatetime	backuptargets
JobDatetimeLocal	backuplog	firstactivitydatetime	backuptargets
description	backuplog	ignoreuntildatetime	backuptargets
groupdatetime	backuplog	client_id	clients
GroupDatetimeLocal	backuplog	clientfqname	clients
target_id	backuplog	nickname	clients
level_id	backuplog	server_id	clients
expirationdatetime	backuplog	owner_id	clients
bytecount	backuplog	product_id	clients
filecount	backuplog	lastreferencedatetime	clients
jobdurationseconds	backuplog	firstreferencedatetime	clients
groupdurationseconds	backuplog	lastjobdatetime	clients
errorcount	backuplog	level_id	levels
errorset	backuplog	proprietarylevelcode	levels
propertyset	backuplog	proprietarylevelname	levels
backupgroup_id	backuplog	canonicallevelname	levels
groupsessionname	backuplog	owner_id	owners
		ownername	owners

v_backuplogall

This view shows a "flattened" look at the backuplog, backuptarget, clients, and servers tables. It also contains additional calculated columns

Column	Source Table	Column	Source Table
backup_day	1 (see below)	statusfull	2
statuscode	2	collection_type	
backup_id	backuplog	firstactivitydatetime	backuptargets
jobdatetime	backuplog	lastactivitydatetime	backuptargets
jobdatetimelocal	backuplog	target_id	backuptargets
description	backuplog	ignoreuntildatetime	backuptargets
groupdatetime	backuplog	asset_id	backuptargets
groupdatetimelocal	backuplog	preferredassetname	backuptargets
expirationdatetime	backuplog	lastjobdatetime	clients
bytecount	backuplog	client_id	clients
filecount	backuplog	clientfqname	clients
jobdurationseconds	backuplog	nickname	clients
groupdurationseconds	backuplog	firstreferencedatetime	clients
errorcount	backuplog	lastreferencedatetime	clients
errorset	backuplog	level_id	levels
propertyset	backuplog	propietarylevelcode	levels
groupsessionname	backuplog	proprietarylevelname	levels
groupname	backupgroups	canonicallevelname	levels
backupgroup_id	backupgroups	*Servergroup*	*obsolete*
server_id	servers	*foundmaxspeed*	*obsolete*
lastupdateddatetime	servers	*definedmaxspeed*	*obsolete*
serverfqname	servers	*owner_id*	*obsolete*
product_id	backupproducts	*ownername*	*obsolete*
productname	backupproducts	*clientignore_id*	*obsolete*
		uncertainbytecount	*obsolete*

1: These fields are calculated in the View; 'backupdaytime' and the derived 'backupday_datetime' and 'backupday' are based upon 'jobdatetime'.
2: These fields are calculated in the View.

v_clients_all

v_clients_all shows a "flattened" look at the clients table that includes backup product, and server data. Although this view has similiatrities with v_backuplogall, this view is independent of job data, so will contain entries for all clients, including clients with no targets or jobs.

Column	Source Table	Column	Source Table
client_id	clients	chargepermegabyte	pricelist
targetcount	clients	chargeperbackup	pricelist
ignorecount	clients	server_id	servers
clientfqname	clients	serverfqname	servers
Nickname	clients	lastupdatedatetime	servers
firstreferencedatetime	clients	*servergroup*	*obsolete*
lastreferencedatetime	clients	*owner_id*	*obsolete in Current versions of Bocada*
lastjobdatetime	clients	*ownername*	*obsolete in Current versions of Bocada*
product_id	backupproducts	*foundmaxspeed*	*obsolete in Current versions of Bocada*
productname	backupproducts	*definedmaxspeed*	*obsolete in Current versions of Bocada*

v_clients_zones_all

This view provides a list of zones that each client is in. If a client is not assigned to any zone, then this view will still have an entry, but the zonename and relatef zone fields will be blank.

Column	Source Table	Column	Source Table
client_id	clients	pricelist_id	pricelist
clientfqname	clients	pricelistname	pricelist
nickname	clients	server_id	servers
firstreferencedatetime	clients	serverfqname	servers
lastreferencedatetime	clients	lastupdatedatetime	servers
timezone	clients	fqzonename	zones
lastjobdatetime	clients	zonetypename	backupclientzone
product_id	backupproducts	zonetype_id	backupclientzone
productname	backupproducts	*servergroup*	*obsolete*
slaprofile_id	slaprofile	*isignored*	*obsolete in Current versions of Bocada*
slaprofile_id	slaprofile	*owner_id*	*obsolete in Current versions of Bocada*
slaprofilename	slaprofile	*ownername*	*obsolete in Current versions of Bocada*

v_installedplugins

Displays the Bocada plug-ins installed, with version information.

Column	Source Table
hostnode_id	zinstallations
hostname	zinstallations
hostnode_id	zinstalledplugins
product_id	zinstalledplugins
build	zinstalledplugins
revision_min	zinstalledplugins
revision_max	zinstalledplugins
revision_enum	zinstalledplugins
product_id	backupproducts
productname	backupproducts
vendorname	backupproducts
reportdisplayname	backupproducts

v_metrics_rules_run

View v_metrics_rules_run displays data on when Rules have assigned clients to Zones

Column	Source Table
server_id	servers
product_id	servers
client_id	backupclientzone
zone_id	backupclientzone
primaryzone	backupclientzone
run_id	backupclientzone
rule_id	backupclientzone
zone_id	zone
fqzonename	zone
clientzonerun_id	zclientzonerun
createddatetime	zclientzonerun
request_id	zclientzonerun
client_id	clients
clientfqname	clients
server_id	clients
rule_id	zrule
rulename	zrule

v_networker_policy

View v_networker_policy contains data on Networker Policies.

Column	Source Table	Column	Source Table
server_id	servers	policy_type_id	policy_type
serverfqname	servers	policy_type	policy_type
product_id	servers	policy_id	policy_info
product_id	backupproducts	snapshot_id	policy_info
productname	backupproducts	policy_name	policy_info
client_id	clients	policy_type_id	policy_info
clientfqname	clients	policy_description	policy_info
snapshot_id	policy_snapshots	policy_id	policy_client
server_id	policy_snapshots	client_id	policy_client
product_id	policy_snapshots	policy_id	policy_client_options
snapshot_date	policy_snapshots	client_id	policy_client_options
snapshot_valid	policy_snapshots	option_id	policy_client_options
option_id	policy_options	option_value	policy_client_options
option_name	policy_options		

v_occupancy_client

Displays Occupancy Data per Client server.

COLUMN NAME	SOURCE TABLE	DATA_TYPE	IS_NULLABLE
Product	BackupProducts	varchar	YES
Client	Clients	varchar	NO
Server	Servers	varchar	NO
Last_successful_update	Servers	datetime	YES
Media_library	MediaLibrary	varchar	YES
Media_group	MediaGroup	varchar	YES
Media_pool	MediaPool	varchar	YES
Status	MediaVolumeInventory	varchar	NO
Total_volumes	MediaVolumeInventory	int	YES
Percent_full	MediaVolumeInventory	float	YES
Percent_frozen	MediaVolumeInventory	float	YES
Percent_scratch	MediaVolumeInventory	float	YES
Percent_active	MediaVolumeInventory	float	YES
Full	MediaVolumeStatus	int	YES
Frozen	MediaVolumeStatus	int	YES
Scratch	MediaVolumeStatus	int	YES
Active	MediaVolumeStatus	int	YES
Average_volume_age	MediaVolume	int	YES
Percent_total_volume_usage	MediaVolumeInventory	float	YES
Percent_total_volume_free	MediaVolumeInventory	float	YES
Total_volume_files	GroupClientPoolInventory	numeric	YES
Global-compression_ratio	GroupClientPoolInventory	float	YES
Local-compression_ratio	GroupClientPoolInventory	float	YES
Total-compression_ratio	GroupClientPoolInventory	float	YES
Pre-compression	GroupClientPoolInventory	bigint	YES
Post-De-dupe	GroupClientPoolInventory	bigint	YES
Post-compression_usage	GroupClientPoolInventory	numeric	YES
Total_volume_free	MediaVolumeInventory	numeric	YES
Total_volume capacity	MediaVolumeInventory	bigint	YES
Average_mounts_per_volume	MediaVolume	int	YES
Average_media_errors_per_volume	MediaVolume	int	YES
Average_times_frozen_per_volume	MediaVolume	int	YES

v_occupancy_server

As v_occupancy_client, but with Occupancy data per Server

COLUMN_NAME	SOURCE TABLE	DATA_TYPE	IS_NULLABLE
Product	BackupProducts	varchar	NO
Server	Servers	varchar	NO
Last_successful_update	Servers	datetime	YES
Media_library	MediaLibrary	varchar	YES
Media_pool	MediaPool	varchar	YES
Status	MediaVolumeInventory	varchar	NO
Total_volumes	MediaVolumeInventory	int	YES
Percent_full	MediaVolumeInventory	float	YES
Percent_frozen	MediaVolumeInventory	float	YES
Percent_scratch	MediaVolumeInventory	float	YES
Percent_active	MediaVolumeInventory	float	YES
Number_of_full	MediaVolumeStatus	int	YES
Number_of_frozen	MediaVolumeStatus	int	YES
Number_of_scratch	MediaVolumeStatus	int	YES
Number_of_active	MediaVolumeStatus	int	YES
Average_volume_age	MediaVolume	int	YES
Percent_total_volume_usage	MediaVolumeInventory	float	YES
Percent_total_volume_free	MediaVolumeInventory	float	YES
Total_volume_usage	MediaVolumeInventory	numeric	YES
Total_volume_free	MediaVolumeInventory	numeric	YES
Total_volume_capacity	MediaVolumeInventory	bigint	YES
Total_cleanable	MediaVolumeInventory	bigint	YES
Pre-compression	MediaVolumeInventory	bigint	YES
Total-compression_ratio	MediaVolumeInventory	float	YES
Average_mounts_per_volume	MediaVolume	int	YES
Average_media_errors_per_volume	MediaVolume	int	YES
Average_times_frozen_per_volume	MediaVolume	int	YES

Tables

This section lists tables that may be useful for custom reports. The tables also have definitions of data columns that are incorporated in to views.

alerts

This table displays Alert configuration information.

asset

This table records information for targets such as renaming if target is renamed sla profile, pricelist assignments for each target.

Column	Datatype	Null	Definition
asset_id	INTEGER	ID	A unique identifier for this asset.
client_id	INTEGER	N	This is the unique identifier for the backup client to which the asset belongs.
owner_id			*obsolete in Current versions of Bocada*
pricelist_id	INTEGER	N	This is the unique identifier for the pricelist for which the asset is charged.
slaprofile_id	INTEGER	N	This is the unique identifier for the SLA profile to which the asset is associated.
preferredassetname	VARCHAR(255)	N	A name assigned to this asset, or renamed target.
createddatetime	DATETIME	Y	The date and time this target was discovered, or when this renaming was created if renamed.
modifieddatetime	DATETIME	Y	The date and time this asset was last modified.
ignoreuntildatetime	DATETIME	Y	The date and time until which this asset will be ignored.
lastsuccess_backup_id	BIGINT	Y	Most recent successful Backup ID
lastsuccess_backup_datetime	DATETIME	Y	The date and time of the most recent successful backup.
lastsuccess_backup_datetimelocal	DATETIME	Y	The date and time of the most recent successful backup (in local time zone).

backupclientignore

The backupclientignore view is obsolete in Current versions of Bocada, but retained for migration databases that may have legacy data.

backupclientzone

This table lists associations between backup clients and their backup zones. A zone is a logical grouping of backup clients used to filter reports. Generally, each zone corresponds to groups of computers with organizational similarities. A backup client can belong to several backup zones.

Column	Datatype	Null	Definition
client_id	INTEGER	N	A unique identifier associated with this backup client.
zone_id	INTEGER	N	A unique identifier for this backup zone.
primaryzone	CHAR(1)	N	A flag ("Y"/"N") indicating whether this zone is the primary zone for the client.
zonetype_id	INTEGER	N	A unique identifier for the zone type.
run_id	INTEGER	Y	Identifies which running of the rules performed the zone assignment.
rule_id	INTEGER	Y	Identifies the rule used to assign the client to the zone.

backupgroups

This table lists the backup job groups associated with backup activity.

Column	Datatype	Null	Definition
backupgroup_id	INTEGER	ID	A unique identifier for this backup group.
groupname	VARCHAR(255)	Y	The name associated with the backup group. For example, "Job 235".

backuplog

This table lists the key metrics associated with backup activity. Each row represents a single backup job.

Column	Datatype	Null	Definition
backup_id	INTEGER	ID	A unique identifier for this backup job.
jobdatetime	DATETIME	N	The start time in UTC for this backup job.
jobdatetimelocal	DATETIME	N	The start time of this job in the backup server's local time zone.
description	VARCHAR(32)	Y	Cross rference of the backup job generated by the Bocada application to the backup job in the backup product.
groupdatetime	DATETIME	N	The start time in UTC of the Job Group associated with this record.
groupdatetimelocal	DATETIME	N	The start time in the server's local time zone of the Job Group associated with this record.
target_id	INTEGER	N	A unique identifier for this target.
level_id	INTEGER	N	A unique identifier for this backup level.
expirationdatetime	DATETIME	Y	The date the backup will expire.
bytecount	FLOAT	Y	The number of bytes associated with this backup job. A value of -1 means that no bytecount was able to be mined.
filecount	INTEGER	Y	The number of files associated with this backup job. A value of -1 means that no count was able to be mined.
jobdurationseconds	INTEGER	Y	The duration, in seconds, of this backup job.
groupdurationseconds	INTEGER	Y	The duration, in seconds, of the backup group session that ran this backup job.
errorcount	INTEGER	Y	The number of errors associated with this backup job.
errorset	INTEGER	Y	The error type bits (expressed as a decimal number), associated with this backup job. For example, "16384".
propertyset	INTEGER	Y	Contact customer support for information.
backupgroup_id	INTEGER	Y	A unique identifier for this backup group.
groupsessionname	VARCHAR(32)	Y	The group session identifier associated with this job. Most backup products do not have a value for this.
pluginerrorset	*obsolete*		
insertiontime	SMALLDATETIME	Y	When the job was mined from the source.
server_id	INTEGER	Y	The unique identifier associated with the backup server. This attribute is created and assigned at the time the server is added to the database and will never change.
client_id	INTEGER	Y	A unique identifier associated with this backup client.
clientignore_id	INTEGER	Y	The unique identifier of the ignored client.
expiredondatetime	DATETIME	Y	Applies to Microsoft DPM backup product data only. When a Recovery Point is discovered to be expired.
backuppolicy_id	INTEGER	Y	ID of the Policy associated with this Backup
bytes_protected	BIGINT	Y	Bytes protected
bytes_backed_up	BIGINT	Y	Bytes backed up
bytes_compressed	BIGINT	Y	Bytes compressed
bytes_postdedup	BIGINT	Y	Bytes post-deduplication

backupproducts

This table lists every backup product represented in the reporting database. A backup product is listed if it was ever associated with at least one record of historical backup activity.

Column	Datatype	Null	Definition
product_id	INTEGER	ID	A unique identifier for this backup product.
productname	VARCHAR(50)	N	The name of the backup product. For example "NetWorker".
vendorname	VARCHAR(100)	N	The name of the backup product company. For example "Dell EMC".
displayname	VARCHAR(100)	N	The name displayed for the backup product. For example "Spectrum Protect".
longdisplayname	VARCHAR(254)	N	The full name displayed for the backup product. For example "Microsoft Data Protection Manager".
plugindisplayname	BIT	N	-
plugin_descriptor	TEXT	N	(XML)
properties_definition	TEXT	N	(XML)
chunked_updates_enabled	BIT	N	-

backuptargets

This table lists the backup targets associated with recorded backup activities. A target is the smallest client resource for which key backup metrics such as date/time, bytes, and files are recorded. For example, "C:\ ".

Column	Datatype	Null	Definition
target_id	INTEGER	ID	A unique identifier for this target.
server_id	INTEGER	N	The unique identifier associated with the backup server.
client_id	INTEGER	N	A unique identifier associated with this backup client.
targetname	VARCHAR(255)	N	The name for this target.
lastactivitydatetime	DATETIME	Y	The most recent time this backup target was backed up.
ignoreuntildatetime	DATETIME	Y	The date this target will be ignored until.
ignore_flag	CHAR(1)	N	Not currently used.
owner_id	*obsolete*		
firstactivitydatetime	DATETIME	Y	The date of first activity for this asset.
asset_id	INTEGER	Y	A unique identifier for this asset.
preferredassetname	VARCHAR(255)	Y	A name assigned to this asset, or renamed target.

clients

This table lists the backup clients as defined by the backup servers in the reporting database. Backup clients are the computers that have their backups performed by the specified backup server.

Column	Datatype	Null	Definition
client_id	INTEGER	ID	A unique identifier associated with this backup client.
clientfqname	VARCHAR(255)	N	The fully qualified name of this backup client, i.e. computer name plus the domain name.
nickname	VARCHAR(255)	Y	The short name of this backup client, i.e., the computer name with the domain name removed.
activeflag	CHAR(1)	N	*obsolete*
server_id	INTEGER	N	The unique identifier associated with the backup server.
owner_id	*obsolete*		
product_id	DATETIME	N	A unique identifier for this backup product.
lastreferencedatetime	DATETIME	N	This indicates when the client was last updated.
firstreferencedatetime	INTEGER	Y	This indicates when the client was first updated.
timezone_id	INTEGER	N	A unique identifier for the time zone.
slaprofile_id	DATETIME	N	A unique identifier associated with a specific SLA profile.
lastjobdatetime	DATETIME	Y	This indicates when client last had a job.
vm_id	INTEGER	Y	The unique identifier of the VM (if this client is a VM)

errorcategories

This table associates the user defined error categories with the backup product(s) for which they are applicable for use by the Error Sensitivity feature.

Column	Datatype	Null	Definition
product_id	INTEGER	N	A unique identifier for this backup product.
proprietaryerrorcode	VARCHAR(12)	N	The backup product error codes associated with this user-defined error category.
errorcategory	TINYINT	N	A unique identifier for this error category.

errorcategorynames

This table lists the name configured for each user-defined error category in the reporting database. User-defined error categories are used by the Error Sensitivity feature.

Column	Datatype	Null	Definition
errorcategory	TINYINT	N	A unique identifier for this error category.
categoryname	VARCHAR(80)	N	The name associated with this error category.
categorytype	TINYINT	N	A numeric value representing the type of error. One of of User = 0, File = 1, Media = 2, Network = 3, Operation = 4, Other = 5.

groupclientpoolinventory

This table lists a daily snapshot of the stataus of a media group, client, or media pool in the reporting database.

Column	Datatype	Null	Definition
server_id	INTEGER	N	The unique identifier associated with the backup server.
client_id	INTEGER	N	A unique identifier associated with this backup client.
mediagroup_id	INTEGER	N	A unique identifier for this group.
pulleddate	DATETIME	N	The date pulled from the source system
inserteddate	DATETIME	N	The date the item was inserted in the database.
filecount	NUMERIC(19, 0)	N	The total number of files listed in backuplog.
bytecount	NUMERIC(19, 0)	N	The total number of bytes.
bytecount_dedup	BIGINT	N	-
bytecount_precompression	BIGINT	N	-
bytecount_metadata	BIGINT	N	-

jobmessagelog

This table lists the backup server messages associated with particular backup jobs.

Column	Datatype	Null	Definition
backup_id	INTEGER	N	A unique identifier for this backup job.
messageordinal	INTEGER	N	The sequence in which this message appears relative to other messages from the same job.
messagedatetime	DATETIME	N	The time stamp associated with this message
errorset	INTEGER	N	The error types (expressed in bits) associated with this job
errorcount	INTEGER	N	The error count associated with this job
proprietaryerrorcode	VARCHAR(12)	Y	-
messagetext	VARCHAR(1024)	Y	-
messagedatetimelocal	DATETIME	N	-

levels

This table lists the distinct backup levels associated with backup records in the reporting database.

Column	Datatype	Null	Definition
level_id	INTEGER	ID	A unique identifier for this backup level.
product_id	INTEGER	N	A unique identifier for this backup product.
proprietarylevelcode	INTEGER	N	The numerical backup level (as recorded by the backup server) associated with this level. For example, level "0" often corresponds to a full backup.
proprietarylevelname	VARCHAR(30)	N	The name of the backup level (as recorded by the backup server) associated with this level.
canonicallevelname	VARCHAR(30)	N	The name of this backup level represented in a cross- vendor consistent format. For example, "Full".

mediadevice

This table lists the media devices (for example, tape drives) used by the backup servers in the reporting database.

Column	Datatype	Null	Definition
mediadevice_id	INTEGER	ID	A unique identifier for this media device.
medialibrary_id	INTEGER	N	A unique identifier for this media library.
medialibraryname	VARCHAR(64)	N	The name of this media library as recorded by the backup server.
mediadevicename	VARCHAR(64)	N	The name of this media device as recorded by the backup server.
server_id	INTEGER	N	The unique identifier associated with the backup server. This attribute is created and assigned at the time the server is added to the database and will never change.
mediatypename	VARCHAR(64)	N	The name of the media type.
mediadevicegroup_id	INTEGER	N	A unique identifier for this device group.
mediadevicegroupname	VARCHAR(64)	N	The name of this device group.

mediadevicegroup

This table lists the media device groups, i.e., a logical grouping of media drives within a media library. Media drive groups are managed from the Drives Dialog. Backup administrators generally categorize their drives for different purposes. Drive grouping allows administrators to integrate their existing drive categorization methods with Bocada® reports.

Column	Datatype	Null	Definition
mediadevicegroup_id	INTEGER	ID	A unique identifier for this device group.
medialibrary_id	INTEGER	N	A unique identifier for the media library to which this group belongs.
mediadevicegroupname	VARCHAR(64)	N	The name of this device group.

mediadeviceinventory

This table lists a daily snapshot of the media devices

Column	Datatype	Null	Definition
server_id	INTEGER	N	The unique identifier associated with the backup server. This attribute is created and assigned at the time the server is added to the database and will never change.
mediadevice_id	INTEGER	N	A unique identifier for this media device.
medialibrary_id	INTEGER	N	A unique identifier for this media library.
mediaserver_id	INTEGER	N	A unique identifier for the backup server associated with this backup client.
pulleddate	DATETIME	N	The date pulled from the source system, that is, the snapshot date and time: 0000-00-00 00:00:00.000.
inserteddate	DATETIME	N	The date the item was inserted into the Bocada® database.
devicestatus_id	TINYINT	N	A unique identifier for the device status.

mediadevicestatus

This table lists the media device status used by the backup servers in the reporting database. These can be either "Online" or "Offline".

Column	Datatype	Null	Definition
devicestatus_id	TINYINT	N	A unique identifier for the device status
devicestatustype	VARCHAR(64)	N	A unique name for the device status type, either "online" or “offline”

mediaerror

This table lists the media errors identified when writing to media volumes.

Column	Datatype	Null	Definition
server_id	INTEGER	N	The unique identifier associated with the backup server.
mediadevice_id	INTEGER	N	A unique identifier for this media device.
mediavolume_id	INTEGER	N	A unique identifier for this media volume.
errordate	DATETIME	N	The date time stamp associated with the media error.
inserteddate	DATETIME	N	The date the media error was inserted in the database.
mediaerrortype_id	TINYINT	N	The unique identifier for the type of media error.
errorcount	INTEGER	N	The number of errors associated with this message.
proprietaryerrorcode	VARCHAR(12)	Y	The vendor error code associated with this message.
errortext	VARCHAR(4000)	Y	The text of the error message.

mediaerrortype

This table lists the variations of media errors issued by the backup servers in the reporting database. The two types of errors are either "IO" or "Frozen".

Column	Datatype	Null	Definition
mediaerrortype_id	TINYINT	N	The unique identifier for the type of media error.
mediaerrortypename	VARCHAR(64)	N	The name of the type of media error.

MediaGroup

This table allows for the logical grouping of media devices.

Column	Datatype	Null	Definition
MediaGroup_id	INTEGER	N	A unique identifier for this group.
GroupName	VARCHAR(255)	N	A textual name for the group.

medialibrary

This table lists the media libraries used by the backup servers in the reporting database. Media libraries are physical resources that contain media drives, media volumes, slots for storing media volumes, robotic arms which move media volumes between slots and drives and doors for inserting and ejecting media volumes. Media volumes can move in and out of a media library, but a media drive is hardware that remains in place for extended periods of time. Media libraries can be shared by multiple servers.

Column	Datatype	Null	Definition
medialibrary_id	INTEGER	ID	A unique identifier for this media library.
medialibraryname	VARCHAR(64)	N	The name of this media library as mined from the backup server.
server_id	INTEGER	N	The unique identifier associated with the backup server.
foundmaxspeed			*obsolete*
definedmaxspeed			*obsolete*
medialibrarypreferred_id	INTEGER	N	A unique identifier for the preferred name for a shared media library.
medialibrarypreferredname	INTEGER	N	The aliased display name given to a shared media library.

medialibrarypreferred

This table is used to alias a media library for when a media library is shared between two or more servers. This is maintained via the "Media Libraries" dialog.

Column	Datatype	Null	Definition
medialibrarypreferred_id	INTEGER	ID	A unique identifier for the preferred name for a shared media library.
medialibrarypreferredname	VARCHAR(322)	N	The display name alias given to a shared media library.

medialog

This table lists the backup media log associated with a backup job.

Column	Datatype	Null	Definition
backup_id	INTEGER	N	A unique identifier for this backup job.
mediavolume_id	INTEGER	N	A unique identifier for this media volume.
mediadevice_id	INTEGER	N	A unique identifier for this media device.
mediaserver_id	INTEGER	N	A unique identifier for this media server.
client_id	INTEGER	N	A unique identifier associated with this backup client.
server_id	INTEGER	N	The unique identifier associated with the backup server. This attribute is created and assigned at the time the server is added to the database and will never change.
bytecount	NUMERIC(19, 0)	N	The bytes on media associated with this record.
durationseconds	INTEGER	Y	The media duration, in seconds, associated with this record.
createddate	DATETIME	N	The date and time the media creation occurred in source system.
inserteddate	DATETIME	N	The date the media item was inserted in the Bocada database.

mediamount

This table lists the mount and dismount events for a given media volume.

Column	Datatype	Null	Definition
server_id	INTEGER	N	The unique identifier associated with the backup server. This attribute is created and assigned at the time the server is added to the database and will never change.
mediavolume_id	INTEGER	N	A unique identifier for this media volume.
mediadevice_id	INTEGER	N	A unique identifier for this media device.
mediaserver_id	INTEGER	N	A unique identifier for this media server.
mountdate	DATETIME	N	The date the media volume was mounted.
dismountdate	DATETIME	N	The date the media volume was dismounted.
inserteddate	DATETIME	N	The date the media volume was inserted in the Bocada® database.

mediapool

This table lists the media pools associated with the media servers in the reporting database.

Column	Datatype	Null	Definition
mediapool_id	INTEGER	ID	A unique identifier for this media pool.
mediapoolname	VARCHAR(64)	N	The name associated with this media pool.
server_id	INTEGER	Y	The unique identifier associated with the backup server.
mediapooltypename	VARCHAR(64)	N	Description associated with this media pool.

mediapoolinventory

This table lists a daily snapshot of the state of the media pool.

Column	Datatype	Null	Definition
mediapool_id	INTEGER	N	A unique identifier for this media pool.
pulleddate	DATETIME	N	The date pulled from the source system, that is, the snapshot date and time: 0000-00-00 00:00:00.000.
inserteddate	DATETIME	N	The date the item was inserted in the Bocada® database.
capacity	NUMERIC(19, 0)	Y	The numeric value used to track the byte capacity of the pool.
utilization	NUMERIC(19, 0)	N	The number of bytes used by the pool.
server_id	INTEGER	N	The unique identifier associated with the backup server. This attribute is created and assigned at the time the server is added to the database and will never change.

mediaserver

This table lists the media servers in the reporting database.

Column	Datatype	Null	Definition
mediaserver_id	INTEGER	ID	A unique identifier for this media server.
server_id	INTEGER	N	The unique identifier associated with the backup server. This attribute is created and assigned at the time the server is added to the database and will never change.
mediaservername	VARCHAR(255)	Y	The name of this media server as recorded by the backup server.

mediavolume

This table lists the media volumes used by the backup servers in the reporting database. Media volumes are storage medium. In the physical world, this can be a magnetic tape, hard disk, or virtual tape library.

Column	Datatype	Null	Definition
mediavolume_id	INTEGER	ID	A unique identifier for this media volume.
mediapool_id	INTEGER	N	A unique identifier for the media pool to which this volume is associated.
mediapoolname	VARCHAR(64)	N	The name for the media pool to which this volume is associated.
server_id	INTEGER	N	The unique identifier associated with the backup server. This attribute is created and assigned at the time the server is added to the database and will never change.
mediavolumename	VARCHAR(64)	N	A unique name for this media volume.
ignored_flag	CHAR(1)	N	A "Y" or "N" flag indicating whether this volume should be ignored in reports.
ioerrors	INTEGER	Y	The total number of IO errors for a volume.
frozencount	INTEGER	Y	The total number of Frozen events for the volume.
mounts	INTEGER	Y	The total number of mounts for the volume.
createddate	DATETIME	Y	The date the volume first went into use.
firstbackuppostallocdate	DATETIME	Y	The date of the first backup since the volume's most recent allocation.
firstfullbackuppostallocdate	DATETIME	Y	The date of the first full backup since the volume's most recect allocation.
tapefullpostallocdate	DATETIME	Y	The date the media volume was marked full.

mediavolumeinventory

This table lists a snapshot of the media volume inventory in the reporting database.

Column	Datatype	Null	Definition
server_id	INTEGER	N	The unique identifier associated with the backup server. This attribute is created and assigned at the time the server is added to the database and will never change.
mediavolume_id	INTEGER	N	A unique identifier for this media volume.
mediapool_id	INTEGER	N	A unique identifier for this media pool.
medialibrary_id	INTEGER	N	A unique identifier for this media library.
pulleddate	DATETIME	N	The date pulled from the source system, that is, the snapshot date and time: 0000-00-00 00:00:00.000.
inserteddate	DATETIME	N	The date the media volume was inserted in the Bocada® database.
bytecount	NUMERIC(19, 0)	N	The current number of bytes of the volume.
allocationdate	DATETIME	Y	The date of the most recent allocation (i.e., formatting of the volume).
slot	INTEGER	Y	The identifier of the slot the volume was in at the time of the inventory.
expirationdate	DATETIME	Y	The date the volume will expire.
volumestatus_id	TINYINT	N	A unique identifier for this volume status.
infiniteretention	VARCHAR(1)	N	A "Y" or "N" indicator specifying whether infinite retention is enabled.
online	VARCHAR(1)	N	A "Y" or "N" indicator specifying whether the volume is currently online.

mediavolumestatus

This table lists the domain of values for the status associated with the media volume. The statuses are "Full", "Frozen", "Scratch" and "Active".

servermessagelog

Column	Datatype	Null	Definition
server_id	INTEGER	N	The unique identifier associated with the backup server. This attribute is created and assigned at the time the server is added to the database and will never change.
messageordinal	INTEGER	N	The sequence in which this message will appear relative to other messages from the same job.
messagedatetime	DATETIME	N	The time stamp associated with this message.
errorset	INTEGER	N	The error types (expressed in bits) associated with this message. For example, "8192" (Backup timeout error).
errorcount	INTEGER	N	The number of errors associated with this message.
proprietaryerrorcode	VARCHAR(12)	Y	The vendor error code associated with this message. For example, NetBackup result code "42".
uniquefier	CHAR(32)	Y	A unique identifier for this message.
messagetext	VARCHAR(1024)	Y	The text of the message.

servers

The list of backup servers added to the reporting database.

Column	Datatype	Null	Definition
server_id	INTEGER	ID	The unique identifier associated with the backup server. This attribute is created and assigned at the time the server is added to the database and will never change.
serverfqname	VARCHAR(255)	N	The fully qualified name of this backup server. For example, "hygelac.ringdane.com".
product_id	INTEGER	N	The unique identifier (foreign key) for the backup product associated with this backup server. This is the product_id in the backupproducts table.
hostnode_id	INTEGER	Y	The identifier (foreign key) of the Database Update Service (DUS) responsible for extracting backup information from this server. This is the hostnode_id in the zInstallations table.
servergroup	VARCHAR(50)	Y	This attribute will allow you to logically associate a set of backup servers.
pluginproperties	VARCHAR(4096)	Y	A string denoting the backup server properties used by the Bocada® application to communicate with this backup server. For example, "administrator domain or group = "applet", administrator name = "java", inetd = "5555"".
lastupdateddatetime	DATETIME	Y	The date and time the server was last updated.
foundmaxspeed	FLOAT	Y	Obsolete
definedmaxspeed	FLOAT	Y	Obsolete
updatedays	INTEGER	N	The "Maximum update days" setting associated with this backup server. This is the number of ays of backup/media data that will be gathered on initial update.
summaryrecomputefromdatetime	DATETIME	Y	A summary computed from the date and time specified.
maxjobdurationhours	INTEGER	Y	The maximum number of hours allowed for a job to run. If not specified, job is permitted to run until completion.
timezone_id	INTEGER	Y	The identifier (foreign key) of the time zone associated with this backup server. This is the timezone_id in the zTimeZone table.
expectedmemoryusekb	INTEGER	Y	The expected memory use in KB.
serverstatus	VARCHAR(20)	N	The current status of the server.
lastsuccessfulmediaupdate	DATETIME	Y	The date and time associated with the last successful media update.
lcdbackupdatetime	DATETIME	Y	The date and time of the backup.

lcdmedialibdatetime	DATETIME	Y	The date and time of the media library.
insertiondatetime	DATETIME	N	The date and time the server was defined in Bocada®.
lastsuccessfuloccupancyupdate	DATETIME	Y	The date and time associated with the last successful occupancy update.
debuglevel	TINYINT	N	A numeric value representing the value specified for "Logging" on the "Settings" tab on the "Server" dialog.
serverversion	VARCHAR(50)	Y	The version of the backup product (if available)
backup_collect_chunksize_hours	INT	Y	Numeric value representing the Chunk Size in hours to be collected & committed to the database before moving on to the next chunk.
converted_from_bex_legacy	BIT	Y	Bit, entered when the Server is a Backup Exec server that was previously collected using the Backup Exec Legacy plug-in
serverplatform	VARCHAR(30)	Y	The OS of the backup server (if available)

serverversions

This table lists the current and historical versions of the backup product each backup server. When Bocada collects from a backup server and mines the backup product version, it updates the servers table. The code also checks the serverversion table and updates it with a new row each time a new backup product version is seen for the backup server.
Note: Not all backup products have a version number that is collectable.

Column	Datatype	Null	Definition
serverversion_id	INTEGER	ID	Unique ID for this server_id + serverversion
server_id	INTEGER	N	(PK, FK) The unique identifier associated with the backup server. This attribute is created and assigned at the time the server is added to the database and will never change
serverversion	VARCHAR	N	(PK) Backup Product Version, includes version number and platform (if available)
insertiondatetime	DATETIME	N	
lastupdatedatetime	DATETIME	N	

tsm_filespaces

Table tsm_filespaces lists the results of occupancy collections against TSM filespaces.

Column	Data Type	Nullable	Definition
server_id	int	NO	(FK) Unique ID of the Server from table *Servers*
client_id	int	NO	(FK) Unique ID of the Client from table *Clients*
pulleddate	datetime	NO	Date that the media subsystem pulled the data
inserteddate	datetime	NO	Date the row was inserted into the database
node_name	varchar	NO	These rows taken from querying TSM filespace
filespace_name	varchar	NO	
filespace_id	int	NO	
filespace_type	varchar	NO	
capacity	bigint	NO	
pct_util	float	NO	
backup_start	datetime	YES	UTC
backup_end	datetime	YES	UTC
last_repl_start	datetime	YES	UTC
last_repl_comp	datetime	YES	UTC
stgpool_name	varchar	YES	
num_files	int	YES	
physical_bytes	bigint	YES	
logical_bytes	bigint	YES	
reporting_bytes	bigint	YES	

Note: Filespace query details may be found at:
https://www.ibm.com/support/knowledgecenter/en/SSGSG7_7.1.3/srv.reference/r_cmd_filespace_query.html

zactivitylog

This table lists the events logged in the Bocada application. Most records in this table relate to the Database Update Service.

Column	Datatype	Null	Definition
activity_id	INTEGER	ID	A unique identifier associated with this activity log record.
activitydatetime	DATETIME	N	The date and time this record was inserted in the activity log.
request_id	INTEGER	N	A unique identifier associated with this request.
levelcode	TINYINT	N	The severity level (on a scale of 1-3) associated with this activity log record.
messagecode	VARCHAR(4)	Y	The identifier associated with this activity log message. For example, the code "M125" is associated with the message: "Requesting clients from server".
messagetext	VARCHAR(255)	Y	The description of this activity log record. For example, "24 currently registered backup clients".

zinstallations

This table lists each database update server.

Column	Datatype	Null	Definition
hostnode_id	INTEGER	ID	A unique identifier for this database update server
hostname	CHAR(255)	N	The name of a computer belonging to a given group. For example ".bocada.com".
dusstatus	VARCHAR(30)	N	Indicates the current operational mode of the Database Update Service.

zone

A zone is a logical grouping of backup clients used to filter reports. Generally, each zone corresponds to groups of computers with organizational similarities.

Column	Datatype	Null	Definition
zone_id	INTEGER	ID	A unique identifier for this backup zone.
zonename	VARCHAR(255)	N	The name associated with this backup zone.
zonedesc	VARCHAR(255)	N	The description associated with this backup zone.
fqzonename	VARCHAR(255)	N	The full zone name including the full set of parent zones.
zonetype_id	INTEGER	N	A unique identifier for the zone type.
zoneparent_id	INTEGER	Y	Parent zone identifier if zone is is a subzone in a hierarchy of zones.

zonetype

This table lists the types of backup zones used for backup target mapping.

Column	Datatype	Null	Definition
zonetype_id	INTEGER	ID	A unique identifier for the zone type.
maxdepth	INTEGER	N	The maximum number of children (sub zones) for a zone
cardinality	INTEGER	N	1: Zones with only 1 primary zone. 2: Zones with more than 1 primary zones.
zonetypename	VARCHAR(255)	N	The name of the type of zone.

zparams

This table lists the values of some optional Bocada settings. Parameter values ae stored in this value when they are changed from default installation values.

Column	Datatype	Null	Definition
paramname	VARCHAR(255)	N	The name of a parameter.
paramvalue	VARCHAR(255)	Y	The value associated with a given parameter.
hostnode_id	INTEGER	Y	NULL unless parameter is applicable to only select DUS servers.

zrequests

This table lists each current request made of the Database Update Service.

Column	Datatype	Null	Definition
servicecode	TINYINT	N	The type of service associated with this request, for example: 0 Database update 1 Media library update 2 Scheduled report 3 Database maintenance 4 Bocada® usage (licensing) 5 Server cleanup operation 6 Bocada® Database Update Service (DUS) 7 Report index creation 8 Report notification - web publishing 9 Manual report creation - web publishing 10 SLA Compliance 11 Asset naming 14 Disable scheduling 15 Client ignore update 16 Bocada® Rules 17 Media library clean up operation 18 Occupancy update
commandargs	VARCHAR(800)	N	The command arguments required for this request. For example: /BACKUP SERVER: "beowulf.ringdane.com" /ENGINENAME: "NetBackup".
displayname	VARCHAR(94)	N	The display name associated with this request.
statuscode	TINYINT	N	A code indicating the current status of this request: 0 Successful 1 In progress 2 Failed 3 Pending 4 Unscheduled
hostnode_id	INTEGER	Y	A unique identifier for this member of the Bocada® group.
requestorname	VARCHAR(255)	Y	The name of the user who initiated a given request. For scheduled updates, this will be the logon used by the Database Update Service. For example, "johndoe".
queueddatetime	DATETIME	Y	The date and time a given request was initiated.
executionendtime	DATETIME	Y	The date and time the request finished processing.

priority	TINYINT	N	The priority of this request on a scale of 1-3.
errormessagetext	VARCHAR(255)	Y	The error message associated with this request (failed requests only).
prerequisite_id	INTEGER	Y	The prerequisite event (if any) that must completed before this request is processed.
commandargsx	VARCHAR(2200)	Y	Additional command arguments required for this request. For example: "-b".
executionstarttime	DATETIME	Y	The date and time that the request begun processing.
expectedmemoryusekb	INTEGER	Y	The amount of memory (in KBs) expected to be used by the request.

Error Set Explanation

Errors extracted by the Bocada® application are assigned to cross-vendor consistent categories. The Bocada® application recognizes these categories programmatically by specific bits. Each category corresponds to a specific bit. The error set is stored in the database as a decimal number.

Error bit	Error Category
2^0	Backup aborted error
2^1	Backup configuration error
2^2	Backup file busy error
2^3	Backup file corrupt error
2^4	File I/O error
2^5	Backup file locked error
2^6	Backup file permission error
2^7	Backup file verify error
2^8	Backup group error
2^9	Backup media unavailable error
2^{10}	Backup media I/O error
2^{11}	Backup network error
2^{12}	Backup software error
2^{13}	Backup timeout error
2^{14}	Backup unknown error
2^{15}	Backup window error
2^{16}	Backup X1 error (reserved)
2^{17}	Backup X2 error (reserved)
2^{18}	Backup U1 error (User categorized “Always green”)
2^{19}	Backup U2 error (User categorized “Always red”)
2^{31}	Uncertainty bit

The error set indicates the error types associated with a given backup job. In the error set, each bit indicates a specific error category. For example, a backup job is associated with two file locked errors, and one backup window error:

100000_2	The presence of a “File locked error” turns on its error bit.
1000000000000000_2	The presence of a “Backup window error” turns on its error bit.
1000000000100000_2	All of the error bits associated with the backup job are combined into the error set. This is an integer value of 32800.