

Quarantine

The Quarantine function is used to review and resolve any billing issues encountered by the Billing and Rating engine during the Rating, Billing and Invoicing process. Issues may arise for many reasons, such as missing service information, incorrect rating data, or issues with the service usage file received from your upstream service provider. The Billing and Rating engine places these records into Quarantine for manual intervention. Once the issue is resolved, the records can be re-processed through the billing and rating engine to place the associated charges on to the required account's invoice.

Throughout the billing cycle, and particularly around the bill run, you should regularly review Quarantine to resolve billing issues placed into Quarantine to ensure your account's invoices contain all the appropriate charges. Records in quarantine may result in missing or incorrect charges on your invoices, and lead to missing revenue.

Note that this section outlines the system actions performed to resolve billing issues identified by the Billing and Rating engine. It does not describe the business processes involved in determining the required action to resolve each issue.

The quarantine issues are categorised into two types: BMS and Rating.

BMS Quarantine

BMS quarantine lists issues identified during the supplier file mediation process. These issues will only appear if you receive service files (e.g. CDRs etc) directly from your supplier. If you are reselling services through an Emersion Wholesale Service Provider, you may not see any BMS quarantine issues

BMS Quarantine Reasons

The following table lists all BMS Quarantine reasons and the recommended action for each:

Quarantine Reason	Description	Recommended Action
Bucketer Called on Records With Rated Records	A duplicate usage fault	Submit an Emersion Support Ticket to rectify
Could not process all Accounts	An account was not able to be processed.	Submit an Emersion Support Ticket to rectify
Duplicate Usage Fault	The record received from the supplier satisfies the criteria for a duplicate record	Write Off
Fatal Exception Thrown	Internal Error	Emersion to rectify the cause and cleanse the CDR
Incorrect Duration Fault	Incorrect usage duration found in the record Emersion maintains an internal exception list that determines which usage items can have 0 duration (e.g. SMS) - usage items not in the exception list are put into quarantine	If you believe the usage should be charged, the internal exception list may need to be updated Submit an Emersion Support Ticket or Write Off
Mismatched Service Account Fault	Service is in the system but is not owned by you	Write Off and make a claim with your service supplier

Quarantine Reason	Description	Recommended Action
No Accounts to Bill	Service is in the system but is not owned by you	Write Off and make a claim with your service supplier
No Package Available	The service is assigned to a Package ID that does not exist in the system.	Submit an Emersion Support Ticket to rectify
No Tariff Found	The billing system is unable to allocate a tariff to apply the charge	Submit an Emersion Support Ticket to add the missing tariff and then cleanse
No Valid Package Period	The service exists in the system but the Package Period is outside the usage date	Submit an Emersion Support Ticket to change the package periods and then cleanse
No Valid Service Sub Period	The service exists in the system but the Service Period is outside the usage date	Submit an Emersion Support Ticket to change the service periods and then cleanse.
No Valid Service Subscription Period	The service exists in the system but the Service Period is outside the usage date	Submit an Emersion Support Ticket to change the service periods and then cleanse.
Non Existent Service Fault	Service usage data has been received from the supplier that contains charges but the Service could not be located in the system	Add the Service to the appropriate account and then cleanse
Non Existent Tariff Key Fault	The billing system is unable to allocate a tariff to the usage to apply a charge	Submit an Emersion Support Ticket to add the missing tariff and then cleanse
Obsolete Usage Fault	The usage is in excess of the service supplier's back billing threshold (usually 180 days)	Write Off and make a claim with your service supplier
Product Does Not Exist	Product is not found for the miscellaneous charge received from the supplier	Add the Product in the system and then cleanse
Unmatched Withdrawal Fault	A Withdrawal record cannot be matched to the original CDR	Investigate with supplier then Cleanse or Write Off

To View BMS Quarantine Records

1. Select **Billing > Quarantine** from the **Menu**. The *Quarantine* page will appear.
2. The *BMS Quarantine* page should appear by default. If not, click the **BMS** tab on the *Quarantine* page.

The screenshot shows the BMS Quarantine interface. It includes search filters for Quarantine ID, Batch File Number, Carrier Name, Date Filtering, From, To, Service Identifier, Batch File Name, Carrier File Type, and Tariff Key. There are dropdown menus for Status (All Statuses, Quarantined, Cleansed, Completed) and Quarantine Reason (All Reasons, Bucketier Called On Record With Rated Records, Could Not Process All Accounts, Duplicate Usage Fault). A Search and Clear button is present. Below the filters is a table with the following data:

Quarantined ID	Batch File Number	Batch File Name	Status	Service Identifier	Carrier Name	Carrier File Type	Record Type	Record Value	Tariff Key	Date Updated	Date Released	Quarantine Reason
1625614	35792	dfh_loaded_20101016_77.xml	Completed	0351740406	Datafast	datafast-data	Data	0.00	traffic	2011-02-23 11:40:00	2011-02-23 11:40:00	NonExistentServiceFault
1625208	35450	dfh_loaded_20101015_76.xml	Completed	0351740406	Datafast	datafast-data	Data	0.00	freezone	2011-02-23 11:40:00	2011-02-23 11:40:00	NonExistentServiceFault
1625207	35450	dfh_loaded_20101015_76.xml	Completed	0351740406	Datafast	datafast-data	Data	0.00	traffic off peak	2011-02-23 11:40:00	2011-02-23 11:40:00	NonExistentServiceFault
1625206	35450	dfh_loaded_20101015_76.xml	Completed	0351740406	Datafast	datafast-data	Data	0.00	traffic	2011-02-23 11:40:00	2011-02-23 11:40:00	NonExistentServiceFault
1623899	35090	dfh_loaded_20101014_75.xml	Completed	0351740406	Datafast	datafast-data	Data	0.00	freezone	2011-02-23 11:40:00	2011-02-23 11:40:00	NonExistentServiceFault
1623898	35090	dfh_loaded_20101014_75.xml	Completed	0351740406	Datafast	datafast-data	Data	0.00	traffic	2011-02-23 11:40:00	2011-02-23 11:40:00	NonExistentServiceFault
1585067	20235	dfh_loaded_20100831_31.xml	Completed	0351924942	Datafast	datafast-data	Data	0.00	traffic	2011-03-10 09:10:03	2011-03-10 09:10:03	NonExistentServiceFault

At the bottom, there is an 'Update To' dropdown set to 'Cleansed' and a 'Submit' button.

Figure 1. The *BMS Quarantine* page

Note that the Quarantine page may take a few moments to appear.

Search

You can locate BMS quarantine records by using the *Search* function. The following fields can be used to search for records:

- Quarantine ID the system generated quarantine record ID
- Batch number the system generated batch file number
- Carrier Name the service supplier
- Date Filtering No Date Filtering, Date Updated, or Date Released
- From allows date selection per the *Date Filtering* option selected, via a Calendar tool
- To allows date selection per the *Date Filtering* option selected via a Calendar tool
- Service Identifier
- Batch File name as received from the supplier
- Carrier File Type dependant on the *Carrier Name* option selected
- Tariff Key the tariff key of the usage record
- Status All, Quarantine, Cleansed, Completed, Withdrawn, Write off, or Pending
- Quarantine Reason see the *BMS Quarantine Reasons* table above

To Process records in BMS Quarantine

1. After reviewing the quarantine records and determining the required action, locate the required records in the list on the *BMS Quarantine* page. Use the search fields as required.
2. Tick the check box beside each required record in the list.

To select all records on the current page of the list, tick the check box in the column heading row. All recorded will be ticked.

Quarantined ID	Batch File Number	Batch File Name	Status	Service Identifier	Carrier Name	Carrier File Type	Record Type	Record Value	Tariff Key	Date Updated	Date Released	Quarantine Reason	
14793232	275528	EBILLDAY120223	Cleansed	6100000000	TelstraRetail	telstra-ebill	Telephony	0.09	217030M0_USAGE_NL	2012-03-15 11:16:00		NoValidPackagePeriod	<input type="checkbox"/>
14793224	275528	EBILLDAY120223	Cleansed	6100000000	TelstraRetail	telstra-ebill	Telephony	0.27	608384M0_USAGE_V2	2012-03-15 11:16:00		NoValidPackagePeriod	<input type="checkbox"/>
14790968	275148	EBILLDAY120222	Cleansed	6100000000	TelstraRetail	telstra-ebill	Telephony	0.27	608384M0_USAGE_V2	2012-03-15 11:16:00		NoValidPackagePeriod	<input type="checkbox"/>
14748464	274072	EBILLDAY120219	Cleansed	6100000000	TelstraRetail	telstra-ebill	Telephony	0.09	217030M0_USAGE_NL	2012-03-15 11:16:00		NoValidPackagePeriod	<input type="checkbox"/>
14748454	274071	EBILLDAY120219	Cleansed	6100000000	TelstraRetail	telstra-ebill	Telephony	0.09	217030M0_USAGE_NL	2012-03-15 11:16:00		NoValidPackagePeriod	<input type="checkbox"/>
14725296	272608	EBILLDAY120215	Quarantined	6100000000	TelstraRetail	telstra-ebill	Misc	2.72	68264000_RENTAL	2012-02-16 10:46:06		FatalExceptionThrown	<input type="checkbox"/>
14690577	271528	EBILLDAY120212	Cleansed	6100000000	TelstraRetail	telstra-ebill	Telephony	0.27	608384M0_USAGE_V2	2012-03-15 11:16:00		NoValidPackagePeriod	<input type="checkbox"/>
14668734	269598	EBILLDAY120207	Cleansed	6100000000	TelstraRetail	telstra-ebill	Telephony	0.09	217030M0_USAGE_NL	2012-03-15 11:16:00		NoValidPackagePeriod	<input type="checkbox"/>
14664900	264609	EBILLDAY120124	Completed	6100000000	TelstraRetail	telstra-ebill	Telephony	0.16	132020M0_USAGE_VA	2012-03-01 12:10:04	2012-03-01 12:10:04	NonExistentTariffKeyFault	<input type="checkbox"/>
14664899	259708	EBILLDAY120110	Completed	6100000000	TelstraRetail	telstra-ebill	Telephony	0.08	307094M0_USAGE_VR	2012-03-01 12:10:04	2012-03-01 12:10:04	NonExistentTariffKeyFault	<input type="checkbox"/>
14664898	252328	EBILLDAY112120	Completed	6100000000	TelstraRetail	telstra-ebill	Telephony	0.07	962330M0_USAGE_VO	2012-03-01 12:10:04	2012-03-01 12:10:04	NonExistentTariffKeyFault	<input type="checkbox"/>
14664897	252328	EBILLDAY112120	Completed	6100000000	TelstraRetail	telstra-ebill	Telephony	0.02	962330M0_USAGE_VO	2012-03-01 12:10:04	2012-03-01 12:10:04	NonExistentTariffKeyFault	<input type="checkbox"/>
14664896	251988	EBILLDAY112119	Completed	6100000000	TelstraRetail	telstra-ebill	Telephony	0.26	962330M0_USAGE_VO	2012-03-01 12:10:04	2012-03-01 12:10:04	NonExistentTariffKeyFault	<input type="checkbox"/>
14657464	267376	EBILLDAY120201	Cleansed	6100000000	TelstraRetail	telstra-ebill	Telephony	0.09	217030M0_USAGE_NL	2012-02-06 13:45:21		NoValidPackagePeriod	<input checked="" type="checkbox"/>
14648297	252328	EBILLDAY112120	Quarantined	6100000000	TelstraRetail	telstra-ebill	Telephony	0.09	217030M0_USAGE_NL	2012-01-31 16:58:33		MismatchedServiceAccountFault	<input checked="" type="checkbox"/>
14648296	249909	EBILLDAY112113	Quarantined	6100000000	TelstraRetail	telstra-ebill	Telephony	0.09	217030M0_USAGE_NL	2012-01-31 16:58:33		MismatchedServiceAccountFault	<input checked="" type="checkbox"/>
14648295	245908	EBILLDAY112102	Quarantined	6100000000	TelstraRetail	telstra-ebill	Telephony	0.27	058384M0_USAGE_V1	2012-01-31 16:58:33		MismatchedServiceAccountFault	<input checked="" type="checkbox"/>
14648294	255248	EBILLDAY112128	Quarantined	6100000000	TelstraRetail	telstra-ebill	Telephony	0.09	317030M0_USAGE_NL	2012-01-31 16:58:31		MismatchedServiceAccountFault	<input checked="" type="checkbox"/>
14648293	255908	EBILLDAY112130	Quarantined	6100000000	TelstraRetail	telstra-ebill	Telephony	0.09	317030M0_USAGE_NL	2012-01-31 16:58:31		MismatchedServiceAccountFault	<input checked="" type="checkbox"/>
14648292	252688	EBILLDAY112121	Quarantined	6100000000	TelstraRetail	telstra-ebill	Telephony	0.09	317030M0_USAGE_NL	2012-01-31 16:58:31		MismatchedServiceAccountFault	<input checked="" type="checkbox"/>

Update To: Cleansed Pending Write Off Quarantined

Figure 2. The *BMS Quarantine* page showing records selected for processing

3. Select the required action to update the selected records in the *Update To* drop list, which is located below the list of records.

The Actions and their results are as follows:

Action	Result
Cleansed	You or the Emersion Billing Operations team have made the necessary changes in the system to resolve the issue. The record will be marked as ready to be re-processed by the billing and rating engine, which will place the charge on the appropriate account's invoice.
Action Pending	Places the item into a <i>pending</i> status. This can be used to mark the record as being actioned where it may take a few days for you to resolve the issue.
Write off	The record will be flagged in the system as not billed and ignored by the billing and rating engine. These records will appear in the write off report.
Quarantined	Leaves the record in the list for further investigation.

4. Click the **Submit** button. The system will update the selected records and display a message at the top of the page showing the records have been updated.

Rating Quarantine

Rating quarantine lists all rating, billing and invoicing issues identified by the Billing and Rating engine other than those identified during the supplier file mediation process by the BMS process.

Rating Quarantine Reasons and Error Codes

The following table lists all Rating Quarantine reasons and the recommended action for each:

Quarantine Reason	Description	Recommended Action
Invalid Service Type	The Service Type is not set correctly for the usage data received from the supplier	Submit an Emersion Support Ticket to rectify
Missing Service Subscription	Service exists in the system but the Service Subscription is missing	Submit an Emersion Support Ticket to rectify
Invalid Package Period	The service exists in the system but the Package Period is outside the usage date	Submit an Emersion Support Ticket to change the package periods and then cleanse
Invalid Rounding Type	The underlying Service Plan setup is incorrect	Submit an Emersion Support Ticket to rectify
Rating Failed – Unknown Reason	Internal Issue	Emersion to rectify the cause and cleanse
Invalid Carrier Cost	A missing or invalid carrier cost is found in the record where one should exist	Submit an Emersion Support Ticket to rectify
Invalid Usage Hierarchy	Internal Issue	Emersion to rectify the cause and cleanse
Missing Rate Card	A Rate card has not been allocated to Service Plan	Add a Rate Card to the required service plan and then cleanse If you need to backdate the usage, submit an Emersion Support Ticket to assist
Missing Rate	Although the Rate Card exists in the system, no rate is found for this tariff	Add a Rate Card to the appropriate Service Plan and then cleanse
Invalid Rate	An error has been detected in the rate configuration.	Review the rate card configuration If required, submit an Emersion Support Ticket to assist
Bolting Failed – Unknown Reason	Internal Issue	Emersion to rectify the cause and cleanse
Invalid Bolt On	Bolt on type is not valid for the Service Plan	Submit an Emersion Support Ticket to rectify
Invalid Bolt On Subscription	Bolt on subscription exists in the system but the bolt on has been removed	Submit an Emersion Support Ticket to rectify

Quarantine Reason	Description	Recommended Action
Invalid Bolt On – Markup Set On Underlying Rate	Internal Issue	Submit an Emersion Support Ticket to rectify
Charging Failed – Unknown Reason	Internal Issue	Emersion to rectify the cause and cleanse
Invalid Charging Attribute	An invalid charging attribute was detected	Submit an Emersion Support Ticket to rectify
Invalid Charging Attribute – Mark-up Set on Underlying Rate	Internal Issue	Submit an Emersion Support Ticket to rectify
Invoicing Failed – Unknown Reason	Internal Issue	Emersion to rectify the cause and cleanse
Invalid Cap Attribute	The Plan Cap has not been set however the Rate Card has capped tariffs	Add the required Cap amount to the Plan and then cleanse
Invalid MaxType Cap Attribute – Mark-up Set on Underlying Rate	Internal Issue	Submit an Emersion Support Ticket to rectify
Invalid MaxType Cap Attribute	Mismatched cap type was detected (e.g. tariff is in seconds but the Cap type is KB)	Correctly set the Cap Max type attribute and then cleanse

To View Rating Quarantine Records

1. Select **Billing > Quarantine** from the **Menu**. The *Quarantine* page will appear.
2. Click the **Rating** tab on the *Quarantine* page. The *Rating Quarantine* page will appear.

ID	Service Identifier	Call Date	Tariff	Record Value (\$)	Quarantine Reason	Service ID	Batch File Number	Batch File Name	Rate Card
93962426	61031000332	9 May 2012 12:44:34	Call To Mobile	0.19	Missing Rate	288954	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card
93962535	61031000753	9 May 2012 13:41:30	National	0.01	Missing Rate	337652	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card
93962551	61031000753	9 May 2012 13:49:22	Call To Mobile	0.01	Missing Rate	337652	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card
93962764	61031000332	9 May 2012 15:24:19	Call To Mobile	0.01	Missing Rate	288954	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card
93962802	61031000445	9 May 2012 15:33:58	Call To Mobile	0.00	Missing Rate	289051	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card
93962855	61031000332	9 May 2012 15:53:36	Call To Mobile	0.00	Missing Rate	288954	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card
93962861	61031000332	9 May 2012 15:57:33	Call To Mobile	0.01	Missing Rate	288954	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card
93962877	61031000332	9 May 2012 16:01:20	Call To Mobile	0.09	Missing Rate	288954	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card

Figure 3. The *Rating Quarantine* page

Note that the page may take a few moments to appear.

Search

You can locate Rating quarantine records by using the *Search* function. The following fields can be used to search for records:

- Quarantine ID the system generated quarantine record ID
- Service Identifier
- Call Date From allows date selection via a Calendar tool
- Call Date To allows date selection via a Calendar tool
- Batch File Number the system generated batch file number
- Batch File name as received from the supplier
- Tariff Key the tariff key of the usage record
- Status see the *Rating Quarantine Reasons* table above

To Cleanse Records in Rating Quarantine

Once you, or the Emersion Billing Operations team, have made the necessary changes in the system to resolve the issue, the *Rating Quarantine* record must be updated as cleansed so it is marked as ready to be re-processed by the billing and rating engine, which will place the charge on the appropriate account's invoice.

1. After reviewing the quarantine records and correcting the issues, locate the required records in the list on the *Rating Quarantine* page. Use the search fields as required.
2. Tick the check box beside each required quarantine record in the list.

To select all records on the current page of the list, tick the check box in the column heading row. All recorded will be ticked.

ID	Service Identifier	Call Date	Tariff	Tariff	Record Value (\$)	Quarantine Reason	Service ID	Batch File Number	Batch File Name	Rate Card	<input type="checkbox"/>
93962426	6123456789.32	9 May 2012 12:44:34	Call To Mobile		0.19	Missing Rate	288954	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card	<input type="checkbox"/>
93962535	6123456789.753	9 May 2012 13:41:30	National		0.01	Missing Rate	337652	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card	<input checked="" type="checkbox"/>
93962551	6123456789.53	9 May 2012 13:49:22	Call To Mobile		0.01	Missing Rate	337652	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card	<input type="checkbox"/>
93962764	6123456789.12	9 May 2012 15:24:19	Call To Mobile		0.01	Missing Rate	288954	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card	<input type="checkbox"/>
93962802	6123456789.345	9 May 2012 15:33:58	Call To Mobile		0.00	Missing Rate	288951	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card	<input type="checkbox"/>
93962855	6123456789.32	9 May 2012 15:53:36	Call To Mobile		0.00	Missing Rate	288954	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card	<input checked="" type="checkbox"/>
93962861	6123456789.32	9 May 2012 15:57:33	Call To Mobile		0.01	Missing Rate	288954	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card	<input type="checkbox"/>
93962877	6123456789.32	9 May 2012 16:01:20	Call To Mobile		0.09	Missing Rate	288954	309848	40028487_00000149_20120509_6853.cdr	Telstra PSTN Rate Card	<input type="checkbox"/>

< 1 ... 257 258 259 260 261 262
50 | 100 | 150 | 200
Cleanse

Figure 4. The *Rating Quarantine* page showing records selected for cleansing

3. Click the **Cleanse** button. The system will update the selected records and display a message at the top of the page showing the records have been cleansed.

The records will now be ready to be re-processed by the billing and rating engine.