Deployment Guide

Create a Custom Billing Adapter

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The License Reporting Manager (LRM) plug-in for GAX provides a report interface to display license usage information that is collected by LRM. However, you might want to use your own custom reporting solution to display licensing information that is collected by the LRM Server.

You can use the Web Services API that is exposed by the LRM Server to obtain the information that is collected by LRM.

GET data from LRM

GET data from LRM

When the LRM Application is running, it can accept HTTP GET requests and return an LRM report.

The URL that is exposed by the LRM server has the following format:

`http://<server>:<port>/lrm/seats?name1=value1&name2=value2...`

Where `<server>` is where the LRM application is running and `<port>` is the socket that is being opened by the LRM application to listen for HTTP requests. All the request parameters that control which records are returned in an LRM report can be presented as HTTP Request URI parameters (for example, `name1=value1` in the URL above). The following HTTP Request-URI parameters are supported:

Name	Description	Valid Values
`type`	Specifies the type of report. If `type` is `system`, then `tenant`, `agentgroup`, and `placegroup` are ignored. If `type` is one of `tenant`, `agentgroup`, or `placegroup`, then unmatched parameters within the set are ignored. This parameter is required.	• `system` • `tenant` • `agentgroup` • `placegroup`

Name	Description	Valid Values
`start`	Specifies the starting timestamp. This parameter is required.	Specifies the timestamp in the format of: `yyyy-mm-ddThh:mm:ss.mmmZ` For example: `2010-09-01T00:00:00.000Z`
`end`	Specifies the ending timestamp. This parameter is required.	Timestamp in the format of: `yyyy-mm-ddThh:mm:ss.mmmZ` For example: `2010-09-01T00:00:00.000Z`
`granularity`	Specifies the granularity for each record; that is the duration represented by each record: `10minute`, `hour`, `day`, `week`, or `month`. This parameter is required.	• `10minute` • `hour` • `day` • `weekly` • `month`
`firstDayOfWeek`	Specifies how a week is is calculated for reports where `granularity=week`. This parameter is required if `granularity=week`.	• `sunday` • `monday`
`pageSize`	Specifies the maximum number of records in a single page of a report. Reports are paginated based on the `pageSize` parameter, and the page that is returned in a report is specified by using the `pageNumber` parameter. This parameter is required.	integer
`pageNumber`	Works with `pageSize` to control which records are returned.	integer

Name	Description	Valid Values
	This parameter is required.	
`tenant`	Specifies which tenant's license usage data are in the report. If this value is not specified and the type parameter is set to `tenant`, then data for all the tenants is returned.	comma-separated list of tenant IDs
`sellableitem`	Specifies which sellable items are in the report.	comma-separated list of sellable item IDs
`agentgroup`	Specifies which agent groups are in the report.	comma-separated list of agent group IDs.
`placegroup`	Specifies which place groups are in the report.	comma-separated list of place group IDs
`bundle`	Specifies which bundles are in the report.	comma-separated list of bundle IDs
At least, one sellable item or bundle can be specified. If neither a sellable item nor a bundle is specified, then data for all the sellable items and bundles is returned.		

LRM reports

LRM reports

The report is returned in the HTTP response body in JSON format (see RFC 4627). The report is a single JSON object that has the following properties:

Name	Description
total	The total number of records in the report.
start	The start timestamp of the report. Note that the start and end timestamps might be different from the parameter that is specified by the HTTP Request URI parameter in the case of weekly or monthly reports, so that the start and end timestamps line up with the week and month boundaries.
end	The end timestamp of the report.
pageNumber	The page number from the set of records.
tenants	The set of tenants known in the LRM system.
records	An array of records that contains the data for this report. The logical meaning for each entry of the

Name	Description
	array is described above.

Note: Within each record of the records array:

- If the request type is `tenant`, then only `tenantid` and `tenantname` attributes are included in the report.
- If the request type is `agentgroup` then only `agentgroupid` and `agentgroupname` attributes are included in the report.
- If the request type is `placegroup` then only `placegroupid` and `placegroupname` attributes are included in the report.
- If the request type is `system` then none of these attributes are included in the report.

Data Description

This section describes the logical meaning of the data that is presented by LRM.

A unit of record in the LRM data contains information about the usage of a single sellable item at a single unit of time. Each record contains the following information:

Name	Description
`report_period`	The starting time of the License Usage information for this record.
`sellableitemid`	The Sellable Item ID of the Sellable Item for which this record applies. If the `sellableitemid` is 10000 or greater, then this is a record for a bundle.
`sellableitemname`	The name of the sellable item for this record.
`tenantid`	The Genesys Management Framework DBID for the tenant that this record is for. If this is a record for system-wide data, then the `tenantid` is set to `0`.
`tenantname`	The name of the tenant. If this is a record for system-wide data, then the `tenantname` is set to the value `null`.
`agentgroupid`	The Genesys Management Framework DBID for the agent group for this record.
`agentgroupname`	The name of the agent group.
`placegroupid`	The Genesys Management Framework DBID for the place group for this record.
`placegroupname`	The name of the tenant.
`si_amount`	Records the concurrent peak usage for this time period, for this sellable item, for this tenant.
`timestamp`	The timestamp at which the concurrent peak usage has occurred.
`enabled_seat_count`	Contains the enabled seat count that is calculated for this time period, for this sellable item, for this

Name	Description
	tenant.
provlimit	The provision limit, as configured by customer, applicable to the day in which the record occurred. For system-wide reports, this comes from the Entitlement File that is uploaded by the System Administrator. For tenant reports, this comes from the Provisioned Count screen as entered by the System Administrator. This not available for agentgroup and placegroup reports.
provdatetimestamp	The day when the provision limit first came into effect. This not available for agentgroup and placegroup reports.
gap	Indicates whether a data source gap (from the T-Server and Interaction Server to the ICON) has been detected while calculating the concurrent peak usage

An LRM report contains a sequence of these records that are retrieved from the LRM Server based on some query criteria that is provided by the request.

Examples

HTTP Request Example

An example of an HTTP request is as follows:

```
http://135.17.176.48:8801/lrm/
seats?type=tenant☆t=2008-05-07T00:00:00.000Z&end=2012-05-17T00:00:00.000Z&granularity=day&pageSi
id=1&sellableitem=1
```

Report Example

An example of the report is as follows:

```
{
    "total": 14,
    "end": "2012-05-17T00:00:00.000Z",
    "start": "2008-05-07T00:00:00.000Z",
    "pageNumber": 1,
    "tenants": {
        "550": "Tenant_sg04_03_INBD",
        "1": "Environment",
        "551": "Tenant_sg04_04_OTBD",
        "548": "547"
    }
```

```
    "records": [{
        "timestamp": "2009-01-01T14:56:51.000Z",
        "tenantid": 1,
        "tenantname": "Environment",
        "agentgroupid": 12,
        "agentgroupname": "kathyteam"
        "placegroupid": 24,
        "placegroupname": "newplace"
        "report_period": 200901010000,
        "si_amount": 1,
        "gap": false,
        "enabled_seat_count": 3,
        "provdatetimestamp": "2009-01-01T00:00:00.000Z",
        "sellableitemid": 1,
        "provlimit": 100,
        "sellableitemname": "Genesys Inbound Voice",
    }, {
        "timestamp": "2009-01-02T14:56:51.000Z",
        "tenantid": 1,
        "tenantname": "Environment",
        "agentgroupid": 12,
        "agentgroupname": "kathyteam"
        "placegroupid": 24,
        "placegroupname": "newplace"
        "report_period": 200901020000,
        "si_amount": 2,
        "gap": false,
        "enabled_seat_count": 3,
        "provdatetimestamp": "2009-01-01T00:00:00.000Z",
        "sellableitemid": 1,
        "provlimit": 100,
        "sellableitemname": "Genesys Inbound Voice",
    }],
}
```