

Zebra OTA API



ZEBRA

Integration and Troubleshooting Guide

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About This Document

Introduction

This guide provides information about troubleshooting Zebra Over the Air (OTA) Application Programming Interface (API). For more information about Zebra OTA API, refer to developer.zebra.com.



IMPORTANT: If you have a problem with your equipment, contact Zebra Global Customer Support for your region. Contact information is available at: zebra.com/support.

Notational Conventions

The following conventions are used in this document:

- Bullets (•) indicate:
 - Action items
 - Lists of alternatives
 - Lists of required steps that are not necessarily sequential.
- Sequential lists (e.g., those that describe step-by-step procedures) appear as numbered lists.

Icon Conventions

The documentation set is designed to give the reader more visual clues. The following graphic icons are used throughout the documentation set. These icons and their associated meanings are described below.



NOTE: The text here indicates information that is supplemental for the user to know and that is not required to complete a task.



IMPORTANT: The text here indicates information that is important for the user to know.



CAUTION: If the precaution is not heeded, the user could receive minor or moderate injury.



WARNING: If danger is not avoided, the user CAN be seriously injured or killed.



DANGER! If danger is not avoided, the user **WILL** be seriously injured or killed.

Troubleshooting

This section covers common OTA issues and solutions. For a complete list of API response codes, go to [Response Codes](#).

Settings Checklist

Ensure the following are set up correctly.

Firewall Settings

- For HTTPS requests, use port 443.
- For endpoints, use the firewall settings in [Table 1](#).

Table 1 Endpoints for Firewall Settings

Service interface	Endpoint	Port
Device Internet access	*.gstatic.com, www.google.com	443
OAuth	pi.zebra.com	443
Enrollment API, Deployment API, Artifacts API	api.zebra.com	443
FOTA, Enrollment	fts.zebra.com	443
ZDS, self-updates	analytics.zebra.com	443
CTL	device-https.savannacore.zebra.com	443
FCM	Choose one of the following: <ul style="list-style-type: none">• No Internet Protocol (IP) restrictions (recommended)• All IP addresses for default domains To retrieve an updated list of these addresses, follow the instructions described in IP addresses for default domains at cloud.google.com/vpc/docs/configure-private-google-access#ip-addr-defaults .	5228, 5229, 5230, 443 For more information, go to: firebase.google.com/docs/cloud-messaging/concept-options#messaging-ports-and-your-firewall
Artifact download	downloads.zebra.com, zbr-entitled-downloads-prod.s3.amazonaws.com	443

Device Settings

- Ensure the target device is running an operating system (OS) of Android Nougat or later. The OS is indicated in the BuildID of the device. For example, in the BuildID 01-18-02.00-OG-U02-STD, the letters OG indicate that the OS is Oreo GMS.
- Enable Firmware Over the Air (FOTA) on the target device. Refer to developer.zebra.com.
- Enable Zebra Data Service (ZDS) on the device. Required for Enrollment and Deployment function. Refer to developer.zebra.com.
- Set the correct date and time on the target device. Refer to the Product Reference Guide for your device.
- The authorizing user on the contract must be the same person who authorizes the EMM tool into Zebra data services.

Platform and Service

- Ensure monitoring is enabled to assist in diagnosing outages.
- Ensure dashboard is enabled to assist in diagnosing issues.

Development Troubleshooting

Table 2 Account Troubleshooting

Issue	Solution
My login to the developer portal is not working.	Check account access to the developer portal.
I cannot see the OTA tile.	Ensure you are logged into the developer portal at: developer.zebra.com . If you are still having trouble, please contact Zebra support.
My application is not approved.	Contact Zebra support.
I would like to develop against Zebra data services.	Create an account on developer.zebra.com and follow the instructions for development.

Table 3 API Development Troubleshooting

Issue	Solution
I am having trouble with OTA Authorization.	Verify the authorizing user is using the account that is registered with Zebra Sign-On. Verify the application has been approved. If you are still having trouble, please contact Zebra support.
I am having trouble with the Artifacts OTA API.	Verify the authorizing user is using the account that is registered with Zebra Sign-On. Verify the application has been approved.
I am having trouble with the Enrollment OTA API.	Verify the authorizing user is using the account that is registered with Zebra Sign-On. Verify the application has been approved.

Table 3 API Development Troubleshooting

Issue	Solution
I am having trouble with the devices or assets OTA API. I do not see some or any devices.	<p>Verify the device has been properly enrolled with Zebra. Refer to the Zebra OTA Developer Guide.</p> <p>Verify the device has not been reset.</p> <p>After de-enrollment of a device, enrolling the same device again, even by the same customer, requires a device reset.</p>
I am having trouble with the Deployment OTA API.	<p>Verify the device has been properly enrolled with Zebra. Refer to the Zebra OTA Developer Guide.</p> <p>Verify the device has Internet access.</p> <p>Verify the deployment schedule is valid.</p>
I would like to request API enhancements.	Contact Zebra support.

Customer Issues Troubleshooting

Table 4 EMM Customer Issues Troubleshooting

Issue	Solution	Notes
Customer is not getting entitlement for product(s).	<p>Verify the user can retrieve a download from zebra.com for the product of interest.</p> <p>Verify that the authorizing user on the contract is the same person who authorizes the EMM tool into Zebra data services.</p> <p>Check that the artifact API response for the customer account is returning a download URL.</p> <p>If the account is not entitled, have the customer contact Zebra support.</p>	A download URL is only present if the customer account is entitled.
Customer not able to connect to Zebra services.	Verify the user is using an account that is fully registered with Zebra.	The authorizing user must have a Zebra account.
Customer not seeing device(s).	<p>Verify the device is enrolled with the correct account.</p> <p>Verify the same user performed enrollment of the devices.</p> <p>Verify if the customer has ever seen the devices.</p> <p>Verify the device has been enrolled.</p> <p>Verify the device client(s) were deployed.</p> <p>Verify the device client(s) were granted appropriate permissions.</p>	<p>EnrollmentManager CSP needs android.permission.READ_PHONE_STATE</p> <p>This permission is required only for device running A10 or lower.</p> <p>Devices running A11 and above do not require these permissions.</p>
During customer deployment some devices are failing to upgrade.	<p>Confirm the deployment is attempting an upgrade.</p> <p>Verify the deployment schedule is valid.</p> <p>Verify there is enough storage space on the device(s) to support the download file size.</p> <p>Verify that the device has Internet access.</p> <p>Verify deployment was sent to the correct device.</p>	<p>The deployment API cannot downgrade a device.</p> <p>Downgrade can only be performed by side-loading or using StageNow.</p>

Table 4 EMM Customer Issues Troubleshooting

Issue	Solution	Notes
Customer deployment remain in CREATED state.	<p>Verify that enough time has elapsed since deployment creation.</p> <p>Verify the device Internet connectivity by ensuring that firewall adjustments are done.</p> <p>Verify ZDS is still enabled on the device.</p> <p>Check if the device was reset during the download.</p> <p>Verify the devices API returns the device serial number and the status is FOTA_READY</p>	<p>Deployment creation times:</p> <ul style="list-style-type: none"> • Ideally, the state change takes 30 seconds or less. • Typically, the state change takes 30 -180 seconds. <p>For a successful deployment, the device must report via the devices API and its status must be FOTA_READY.</p>
Customer device displays upgrade failure message up to 48 hours after deployment.	<p>Confirm the deployment is attempting an upgrade.</p> <p>Verify the deployment schedule is valid.</p> <p>Verify there is enough storage space on the device(s) to support the download file size.</p> <p>Verify that the device has Internet access.</p>	<p>The deployment API cannot downgrade a device.</p> <p>The status may be very delayed when the device is not woken from suspend state after update. The OTA API waits for the device to report the result of the update, but times out after 48 hours.</p>

Table 4 EMM Customer Issues Troubleshooting

Issue	Solution	Notes
Customer device state remains in DOWNLOAD_INPROGRESS state	Verify that the device can reach the Internet.	<p>If the device is unable to contact the FOTA server, the status changes to UNKNOWN.</p> <p>If the device reaches the FOTA server within 24 hours of the deployment end date, the job status is updated accordingly.</p>
Customer device state remains in INSTALL_INPROGRESS state	Verify that the device can reach the Internet.	<p>If the device is unable to contact the FOTA server, the status changes to UNKNOWN.</p> <p>If the device reaches the FOTA server within 24 hours of the deployment end date, the job status is updated accordingly.</p>
Customer deployment remain in UNKNOWN state	Verify that the device can reach the Internet.	<p>If the download resumes within 24 hours after the deployment end time, the status is updated.</p> <p>If the download does not resume within 24 hours after the deployment end time, the update times out, the job status remains UNKNOWN, and the deployment status changes to COMPLETE.</p> <p>If the server does not receive updates from the device before the job end time, the status changes to UNKNOWN.</p> <p>If the device reaches the FOTA server within 24 hours of the deployment end date, the job status is updated accordingly.</p>

Zebra Products and Services Troubleshooting

Table 5 Zebra Products and Services Troubleshooting

Issue	Solution
My contract expired.	Contact Zebra support.

Contacting Tech Support

For troubleshooting assistance, contact Zebra Technical Support.

Before Contacting Support

Before contacting support for troubleshooting and case escalation, please have the following information ready:

- When you experienced the issue.
- Which operation caused the issue. For example, enrollment, authorization, API, etc.

API Issues

- API(s) that caused the issue.
 - Errors you received.
- API(s) that were successful.
- Account used for development.
- Account used to represent a customer.

Device Issues

- Model and serial number of the target devices.
- If the devices are under contract:
 - OS version the device(s) were running. For example, BuildID and patch level.
 - Type of network to which the device(s) were connected.

Software Issues

- Software updates you were using.

Deployment Issues

- The deployment ID.

Opening a Case by Phone

1. Dial local in-region Zebra Contact Center phone number by selecting appropriate country at: zebra.com/us/en/about-zebra/contact-zebra/contact-tech-support.html.
2. Select phone menu option for new case.
3. Select phone menu option for technical support.
4. Select the device type about which you are calling. For example, printer or mobile computer.
Once selected, you are transferred to the appropriate Technical Support agent.

Checking a Case by Phone

1. Dial local in-region Zebra Contact Center phone number by selecting appropriate country at zebra.com/us/en/about-zebra/contact-zebra/contact-tech-support.html.
2. Select phone menu option for an already existing case.
3. Enter your case number.
You are transferred to the Technical Support Agent who is assigned to your case.

Escalating a Case

If you would like to escalate a case, inform the Technical Support Agent that you would like to escalate to the on-duty manager.

Opening or Checking a Case Online

Create, review, and manage cases through the **My Cases** section of the Zebra Support Community Portal. For additional information, go to supportcommunity.zebra.com.

Response Codes

This section provides a list of OTA API response codes with descriptions and suggested solutions.

Code	Description	Category	Solution
4000	Device is not enrolled.	DEVICE	User has not performed OTA Enrollment or has created a deployment within 10 minutes of enrollment. Refer to the Zebra OTA Developer Guide for Automated Customer Authorization.
4001	BSP Version not found for this device.	Artifact API	Verify if the BSP running on the device is available at: zebra.com/us/en/support-downloads/mobile-computers.html . If the BSP was recently released, it may take few days for the record to be available in Zebra OTA API. Note: This error may happen if the device is running a custom or hotfix BSP.
4002	Patch details not found for this device.	Artifact API	Verify if the BSP running on the device is available at: zebra.com/us/en/support-downloads/mobile-computers.html . If the BSP was recently released, it may take few days for the record to be available in Zebra OTA API. Note: this error may happen if the device is running a custom or hot-fix BSP.
4003	Device Information not found.	DEVICE	<ol style="list-style-type: none"> 1. Make sure device is connected to internet. 2. Verify that device is listed in FOTA devices API. 3. Reboot the device, wait 10 minutes, and call devices API to make sure the devices info is available.
4004	More than one record for deriving base Artifact.	OTA API Artifact API	Contact Zebra support.
4005	Device is already updated.	DEVICE	Device is already running the same version or newer of the BSP or patch.

Response Codes

Code	Description	Category	Solution
4006	Artifact data not found for this device. Arguments are in following format [baseline,patch, deviceModel, artifactSubType,ArtifactId]	OTA API Artifact API	This happens when the request would install an incorrect or mismatched BSP (artifact) on the device, Verify if the BSP running on the device is available at: zebra.com/us/en/support-downloads/mobile-computers.html . If the BSP was recently released, it may take few days for the record to be available in Zebra OTA API.
4007	Artifact data not found for target BSP. Arguments are in following format [ArtifactId]	OTA API Artifact API	Verify if the BSP running on the device is available at: zebra.com/us/en/support-downloads/mobile-computers.html .
4008	Artifact data not found for targeted OS,patch,bsp version. . Arguments are in following format [deviceModel,TargetBsp,TargetPatch, TargetArtifactSubType,TargetOS]	OTA API Artifact API	Verify if the BSP running on the device is available at: zebra.com/us/en/support-downloads/mobile-computers.html .
4009	This Device does not support OTA API.	OTA API Artifact API	<ol style="list-style-type: none"> 1. Verify if the device BSP is Nougat with patch 19 or earlier, which does not support OTA API. 2. The BSP or patch the device is running does not support OTA API. 3. System update slider disabled from the device. 4. If the device is on a non-standard build. 5. If the device fails to upload the device information back to the server post enrollment. 6. If dependent applications - CTL/EnrollmentMgr/ZDS are not installed
4010	OTA API is not supported in this BSP or Patch version to which you are trying to upgrade.	OTA API Artifact API	<ol style="list-style-type: none"> 1. Verify if the device BSP is Nougat with patch 19 or earlier, which does not support OTA API. 2. The BSP or patch the device is running does not support OTA API.
4011	This Device does not support OTA API.	OTA API Artifact API	<ol style="list-style-type: none"> 1. Verify if the device BSP is Nougat with patch 19 or earlier, which does not support OTA API. 2. The BSP or patch the device is running does not support OTA API.
4012	Artifact data support Issue.	OTA API Artifact API	<ol style="list-style-type: none"> 1. Verify if the device BSP is Nougat with patch 19 or earlier, which does not support OTA API. 2. The BSP or patch the device is running does not support OTA API.

Response Codes

Code	Description	Category	Solution
4013	Device is not entitled.	OTA API Artifact API	Verify the user can retrieve a download from Zebra.com for the product of interest. Verify that the authorizing user on the contract is the same person who authorizes the EMM tool into Zebra data services. Check the artifact API response for the customer account is returning a download URL. Have the customer contact Zebra support if the account is not entitled.
4014	Device does not report any status.		Check if ZDS is enabled. Check is the device has internet access.
4015	Target security patch level is older than source.	FOTA	Select an update with a higher security patch level date. If this issue is seen when profile.updateType is set to LATEST, wait until Zebra releases a newer update with a higher SPL.
4016	More than one package found for given target.	OTA API Artifact API	Contact Zebra support.
4017	Provided device artifact sub type does not match with target artifact sub type.	LGE Smartrepo	OS updates can be done only GMS-GMS/AOSP-AOSP builds.
4018	Upgrade has been suspended temporarily for the given source and target.	LGE Smartrepo	Dessert level upgrade not supported. The device can be upgraded to any latest build within the OS.
4019	The device is not on the latest FOTA client to support the special upgrade.	FOTA	SDM660 A13 Upgrade Specific Code.
4020	Special package is not available for this upgrade. Please check with the Zebra Administrator.	LGE Smartrepo	SDM660 A13 Upgrade Specific Code.
4021	Necessary pre-setup is not available on the device. Please take action and re-trigger the deployment.	FOTA	SDM660 A13 Upgrade Specific Code.
5000	NO_DEPLOYMENT_ID_TO_CANCEL	FOTA	Cancel API called for a Deployment that does not exist.
5001	CANCEL_NOT_FOR_CURRENT_DEPLOYMENT_ID	FOTA	Cancel API called for a Deployment that is not in progress or completed.
5002	CANCEL_NOT_POSSIBLE	FOTA	Deployment is at a state where it cannot be canceled. Cancellation is only possible if the download process has not started.
5003	CONCURRENT_REACH_APPLY_CANCEL	FOTA	Internal error. Ignore and retry the cancel.
5004	SOME_DEPLOYMENT_IS_INPROGRESS	FOTA	A Deployment was sent while previous deployment is in progress.
5005	INCOMING_CONFIG_IS_NULL	FOTA	Contact Zebra support.
5006	PROFILE_IS_NULL	FOTA	Contact Zebra support.

Response Codes

Code	Description	Category	Solution
5007	MODE_NOT_SUPPORTING	FOTA	Install mode is not recognized. Please refer to the API documentation.
5008	BSP_RESTRICTION_FOR_SPACE	DEVICE	Device does not have enough space to download the selected BSP. Free up disk space on device.
5009	ZERO_FILE_SIZE	DEVICE	Contact Zebra support.
5010	REQUIRED_SPACE_NOT_AVAILABLE	DEVICE	Device does not have enough space to download the selected BSP. Free up disk space on device.
5011	REQUIRED_SPACE_CANNOT_BE_ZERO	FOTA	Contact Zebra support.
5012	MEDIA_SERVER_NULL	FOTA	Re-configure the deployment used to call Deployment API and remove all references to MEDIA-SERVER.
5013	TOKEN_NULL	FOTA Artifact API	Contact Zebra support.
5014	TOKEN_KEY_NULL	FOTA	Contact Zebra support.
5015	TOKEN_VALUE_NULL	FOTA Artifact API	Contact Zebra support.
5016	CREDENTIALS_NULL	FOTA	Contact Zebra support.
5017	USERNAME_NULL	FOTA	Re-configure the deployment used to call Deployment API and remove all references to MEDIA-SERVER.
5018	PASSWORD_NULL	FOTA	Re-configure the deployment used to call Deployment API and remove all references to MEDIA-SERVER.
5019	ARTIFACT_NULL	FOTA Artifact API	The device cannot find the artifact. This may occur when the artifact has been removed, but the URL to the artifact has not been removed. Contact Zebra support.
5020	ARTIFACT_ZIP_EXTENSION	SR	Contact Artifact API team.
5021	UPL_ARTIFACT	NA	Deprecated Error code. Not expected. Contact Zebra support.
5022	CAN_NOT_BE_DUPLICATE	FOTA Artifact API	Contact Zebra support.
5023	ARTIFACT_URL_NULL	FOTA Artifact API	Contact Zebra support.
5024	ARTIFACT_URL_INCORRECT	FOTA Artifact API	Contact Zebra support.
5025	SCHEDULE_NULL_EMPTY	FOTA	Contact Zebra support.
5026	MODE_NULL_EMPTY	FOTA	Contact Zebra support.
5027	CURRENTDATE_IS_AFTER_ENDDATE	FOTA	Re-configure the deployment and make sure that the deployment end date is not less than current date. This can also occur if the device was off-line but came on-line after the deployment end date.
5028	STARTDATE_CANNOT_COME_AFTER_ENDDATE	FOTA	Re-configure the deployment and make sure that the deployment end date is greater than current date.

Response Codes

Code	Description	Category	Solution
5029	INVALID_DATE	FOTA	Re-configure the deployment and make sure that the date is in the prescribed ISO format. Refer to the Zebra OTA API Developer Guide.
5030	ENDDATE_CAN_NOT_BE_EMPTY	FOTA	Re-configure the deployment.
5031	INSTALL_NULL	FOTA	Re-configure the deployment and make sure that INSTALL section of the deployment is correct. Refer to the Zebra OTA API Developer Guide.
5032	NOT_SUPPORTED	FOTA	Contact Zebra support.
5033	SCHEDULE_STARTDATE_CANNOT_EMPTY	FOTA	Contact Zebra support.
5034	SCHEDULE_ENDDATE_CANNOT_EMPTY	FOTA	Contact Zebra support.
5035	DOWNLOAD_STARTDATE_CANNOT_EMPTY	FOTA	Contact Zebra support.
5036	LASTPOSTPONE_DATE_CANNOT_EMPTY	FOTA	Re-configure the deployment used to call Deployment API and remove all references to postponement.
5037	INSTALL_STARTDATE_CANNOT_EMPTY	FOTA	Contact Zebra support.
5038	SCHEDULE_STARTDATE_CANNOT_COME_AFTER_STARTINSTALL_DATE	FOTA	Contact Zebra support.
5039	STARTINSTALLDATE_CANNOT_COME_AFTER_ENDSCHEDULEDDATE	FOTA	Contact Zebra support.
5040	SCHEDULED_START_DATE_CANNOT_COME_AFTERLASTPOSTPONEMENTDATE	FOTA	Contact Zebra support.
5041	STARTDOWNLOADDATE_CANNOT_COME_AFTER_STARTINSTALLDATE	FOTA	Contact Zebra support.
5042	LASTPOSTPONEMENTDATE_CANNOT_COME_AFTER_ENDSCHEDULEDDATE	FOTA	Re-configure the deployment used to call the deployment API and make sure the postpone end date is before the deployment end date.
5043	STARTDOWNLOADDATE_CANNOT_COME_AFTER_LASTPOSTPONEMENTDATE	FOTA	Contact Zebra support.
5044	INVALID_LEAD_TIME	FOTA	Contact Zebra support.
5045	INVALID_INSTALL_TIMEWINDOW_START	FOTA	Re-configure the deployment used to call the deployment API and make sure the INSTALL WINDOW is valid and falls between the deployment start and end dates.
5046	INVALID_INSTALL_TIMEWINDOW_END	FOTA	Re-configure the deployment used to call the deployment API and make sure the INSTALL WINDOW is valid and falls between the deployment start and end dates.

Response Codes

Code	Description	Category	Solution
5047	EQUAL_INSTALL_TIMEWINDOWSTART_TIMEWINDOWEND	FOTA	Re-configure the deployment used to call the deployment API and make sure the INSTALL WINDOW is valid and falls between the deployment start and end dates.
5048	TIMEWINDOW_FINISHED_FOR_LAST_DATE	FOTA	Re-configure the deployment used to call the deployment API and make sure the INSTALL WINDOW is valid and falls between the deployment start and end dates.
5049	DOWNLOAD_CANNOT_NULL	FOTA	Contact Zebra support.
5050	INVALID_DOWNLOAD_TIMEWINDOW_START	FOTA	Deprecated field. Re-configure the deployment used to call the deployment API and make sure the INSTALL WINDOW is valid and falls between the deployment start and end dates.
5051	INVALID_DOWNLOAD_TIMEWINDOW_END	FOTA	Deprecated field. Re-configure the deployment used to call the deployment API and make sure the INSTALL WINDOW is valid and falls between the deployment start and end dates.
5052	EQUAL_DOWNLOAD_TIMEWINDOWSTART_TIMEWINDOWEND	FOTA	Deprecated field. Re-configure the deployment used to call the deployment API and make sure the INSTALL WINDOW is valid and falls between the deployment start and end dates.
5053	SCHEDULED_STARTDATE_CANNOT_COME_AFTER_STARTDOWNLOADDATE	FOTA	Contact Zebra support.
5054	STARTDOWNLOADDATE_CANNOT_COME_AFTER_ENDSCHEDULED_DATE	FOTA	Contact Zebra support.
5055	NETWORK_CANNOT_BE_EMPTY	FOTA	Deprecated field.
5056	INVALID_NETWORK_TYPE	FOTA	Make sure that the network type is valid. Refer to the Zebra OTA API Developer Guide.
5057	INVALID_BATTERY_MINIMUM_LEVEL	FOTA	Make sure that the battery level is more than the minimum allowed limit. Refer to the Zebra OTA API Developer Guide.
5058	INVALID_BATTERY_LEVEL	FOTA	Provide a valid minimum battery level. Refer to the Zebra OTA API Developer Guide.
5059	TARGET_DOWNLOADPATH_NULL_EMPTY	FOTA	Contact Zebra support.
5060	UNSUPPORTED_TARGET_DOWNLOAD_PATH	FOTA	Contact Zebra support.
5061	TARGET_BUILDID_NULL_EMPTY	FOTA	Contact Zebra support.
5062	TARGET_PATCHLEVEL_NULL_EMPTY	FOTA	Contact Zebra support.
5063	ARTIFCATID_NULL_EMPTY	FOTA	Contact Zebra support.
5064	RESET_NULL_EMPTY	FOTA	Deprecated field. Re-configure the deployment used to call the deployment API and remove all references to Reset.

Response Codes

Code	Description	Category	Solution
5065	RESET_UNSUPPORTED	FOTA	Deprecated field. Re-configure the deployment used to call the deployment API and remove all references to Reset.
5066	MODE_UNSUPPORTED	FOTA	Contact Zebra support.
5067	DEPLOYMENT_NULL_EMPTY	FOTA	Contact Zebra support.
5068	TRANSACTION_NULL_EMPTY	FOTA	Contact Zebra support.
5069	TIMESTAMP_NULL_EMPTY	FOTA	Re-configure the deployment and make sure that the date is in the prescribed ISO format. Refer to the Zebra OTA API Developer Guide.
5070	ACTION_NULL_EMPTY	FOTA	Contact Zebra support.
5071	UNSUPPORTED_ACTION_VALUE	FOTA	Contact Zebra support.
5072	SOURCE_NULL_EMPTY	FOTA	Contact Zebra support.
5073	SCHEMA_NULL_EMPTY	FOTA	Contact Zebra support.
5074	UNSUPPORTED_SCHEMA	FOTA	Contact Zebra support.
5075	INAPPROPRIATE_SCHEMA	FOTA	Contact Zebra support.
5076	CONTEXT_NULL	FOTA	Contact Zebra support.
5077	ADMIN_CANCEL_MSG	FOTA	Contact Zebra support.
5078	USER_CANCEL_DOWNLOAD	FOTA	The user canceled the download from the task bar notification while download was in progress.
5079	INSTALL_AW	FOTA	No action required. Device is awaiting install.
5080	DOWNLOAD_COMPLETE	FOTA	No action required.
5081	MANIFEST_PROGRESS	FOTA	No action required.
5082	REBOOT_DURINGOSUPDATE	DEVICE	No action required.
5083	REBOOT_DURING_DOWNLOAD_IN_PROGRESS	DEVICE	No action required.
5084	ZDS_DISABLED	DEVICE	User has disabled the ZDS. ZDS is a prerequisite for OTA API to work
5085	ZDS_ENABLED	FOTA	Internal Code: No action required. User has re-enabled the ZDS.
5086	DOWNLOAD_YET_TO_BEGIN	FOTA	No action required.
5087	DOWNLOAD_IN_PROGRESS	FOTA	No action required.
5088	DOWNLOAD_PAUSED_WAITING_TO_RETRY	FOTA	No action required.
5089	DOWNLOAD_PAUSED_WAITING_FOR_NETWORK	DEVICE	No action required.
5090	DOWNLOAD_PAUSED_QUEUED_FOR_WIFI	DEVICE	No action required.
5091	DOWNLOAD_PAUSED_UNKNOWN	FOTA	No action required.
5092	DOWNLOAD_FAILED_WITH_FILE_NOT_FOUND	FOTA	Contact Zebra support.
5093	DOWNLOAD_FAILED_WITH_ERROR_UNKNOWN	FOTA	Contact Zebra support.

Response Codes

Code	Description	Category	Solution
5094	DOWNLOAD_FAILED_WITH_ERROR_FILE_ERROR	FOTA	Contact Zebra support.
5095	DOWNLOAD_FAILED_WITH_ERROR_UNHANDLED_HTTP_CODE	FOTA	Contact Zebra support.
5096	DOWNLOAD_FAILED_WITH_ERROR_HTTP_DATA_ERROR	DEVICE	Check the network bandwidth or configuration. Make sure the device has access to the Internet.
5097	DOWNLOAD_FAILED_WITH_ERROR_TOO_MANY_REDIRECTS	FOTA	Contact Zebra support.
5098	DOWNLOAD_FAILED_WITH_ERROR_INSUFFICIENT_SPACE	DEVICE	Download failed. The device had the required space when the download started, but something else occupied the required space. Free up disk space on device and retry.
5099	DOWNLOAD_FAILED_WITH_ERROR_DEVICE_NOT_FOUND	FOTA	Contact Zebra support.
5100	DOWNLOAD_FAILED_WITH_ERROR_CANNOT_RESUME	FOTA	Contact Zebra support.
5101	DOWNLOAD_FAILED_WITH_ERROR_FILE_ALREADY_EXISTS	FOTA	Contact Zebra support.
5102	DOWNLOAD_FAILED_WITH_UNKNOWN_ERROR	FOTA	Contact Zebra support.
5103	DOWNLOAD_FAILED_WITH_ERROR_DOWNLOAD_RETRY_TIMEOUT	FOTA	Contact Zebra support.
5104	DOWNLOAD_FAILED_WITH_INDEX_OUT_OF_BOUNDS_EXCEPTION	FOTA	Contact Zebra support.
5105	URL_EMPTY	FOTA	Contact Zebra support.
5106	EXCEPTION_IN_DOWNLOADING_FILE	FOTA	Contact Zebra support.
5107	OTHER_OSUPDATE_PROGRESS	FOTA	A deployment is already in progress. This deployment could have been triggered manually.
5108	MANIFEST_SUCCESS	FOTA	No action required.
5109	MANIFEST_FAILURE	FOTA	Contact Zebra support.
5110	MX_FAILED_TO_REBOOT	FOTA	Contact Zebra support.
5111	OEMINFO_DOESNOT_RETURN_ANY_VALUE	FOTA	Contact Zebra support.
5112	END_DATE_IS_OVER	FOTA	The device received the deployment after the deployment end date.
5113	INSTALL_IS_TRIGGERED	FOTA	No action required. The device has started installing the requested artifact.
5114	END_DATE_OVER_INSTALL_RULE_DOES_NOT_MET	FOTA	Contact Zebra support.
5115	MX_IS_NOT_READY_EVEN_AFTER_MAX_TIME_OUT	FOTA	Contact Zebra support.
5116	MX_SERVICE_IS_NOT_AVAILABLE	FOTA	Contact Zebra support.

Response Codes

Code	Description	Category	Solution
5131	MX_SETTINGS_FAILED	Mx	This is an internal error. Launch the StageNow application and capture the version report from the menu. Contact Zebra support.
5117	FOTA_READY	FOTA	No action required. The device is reporting that it is capable of receiving FOTA Commands.
5118	FOTA_UPDATED	FOTA	No action required. Device is reporting that FOTA has been upgraded.
5119	FOTA_SETTINGS_SET_PROPERLY	FOTA	No action required.
5120	FOTA_SERVICE_DISABLED	DEVICE	Look at the System Update settings on the device and make sure FOTA is enabled.
5121	FOTA_SERVICE_ENABLED	FOTA	No action required.
5122	FOTA_CLIENT_NOT_IN_CORRECT_STATE	FOTA	Contact Zebra support.
5123	REQUEST_CANCELLED	FOTA	Contact Zebra support.
5124	DOWNLOAD_FAILED	FOTA	Make sure the device has an Internet connection with a minimum of 2 Mbps bandwidth.
5125	INSTALL_SUCCESS_MSG	FOTA	No action required.
5126	DOWNLOAD_AW	FOTA	No action required.
5127	INSTALL_IN_PROGRESS_MSG	FOTA	No action required.
5128	INSTALL_FAILURE_MSG	FOTA	Battery is Low. Charge the device battery.
5129	WAITING_FOR_REBOOT_MSG	FOTA	No action required.
5130	INVALID_SESSION_ID	FOTA	This error may occur when the device has not completed OTA API enrollment. Make sure the device is enrolled properly. If an Enterprise Reset, Uninstall, or Factory Reset is performed, then enrollment must be done again.
5131	MX_SETTINGS_FAILED	DEVICE MX	Device has MX issues. Make sure that MX is installed and ready on the device.
5132	RECV_JSON	FOTA	No action required.
5133	INVALID_JSON_DATA	FOTA	Contact Zebra support.
5134	ZDS_SERVICE_DISABLED	FOTA	The user has disabled the Zebra Data Service (ZDS). OTA API requires that ZDS is enabled on the device.
5135	ZDS_SERVICE_ENABLED	FOTA	No action required.
5136	DOWNLOAD_PENDING	FOTA	No action required.
5137	SECURITY_EXCEPTION_WHILE_DOWNLOADING	FOTA	Contact Zebra support.
5138	EXCEPTION_WHILE_DOWNLOADING	Customer	The customer may have canceled the download using the notification cancel button.
5139	Waiting for OS update confirmation	DEVICE	No action required.
5140	Device low on RAM, unable to start LGE client on device	DEVICE	Reboot the device and try again.

Response Codes

Code	Description	Category	Solution
5146	DEVICE_NOT_LICENSED	DEVICE	The device is not licensed to use the FOTA application. You must get a Zebra Mobility DNA License to use the FOTA application.
5147	GOLDEN_CONFIG_FILE_IS_NOT_P RESENT	FOTA	The Golden config file is not present in the enterprise/usr/persist folder.
5148	FILE_BACKUP_IS_NOT_FEASIBLE	FOTA	File backup is not feasible because the device does not have enough space, the output file is corrupted, or some of the preconditions are not met.
5149	FILE_UTILITY_IS_NOT_INSTALLED	FOTA	File utility app is not installed on the device.
5150	FAILED_TO_GENERATE_OUTPUT_ FILE	FOTA	Failed to generate the output file, as it has exceeded the limit.
6000	DOWNLOAD_FAILED_WITH_INVALID_ INSTALLATION_TYPE	FOTA	Contact Zebra support.
6001	DOWNLOAD_FAILED_WITH_INVALID_ PACKAGE_TYPE	FOTA	Contact Zebra support.
6002	DOWNLOAD_FAILED_WITH_INVALID_ REQ_PROP	FOTA	Contact Zebra support.
6003	INSTALL_FAILURE_AB_STREAM	FOTA	Contact Zebra support.
6004	INSTALL_FAILURE_CSP	FOTA	Contact Zebra support.
6005	NETWORK_RULES_NOT_MET_RETRYING	FOTA	Network rule not met. Retrying the download. No action required
6006	BATTERY_RULES_NOT_MET_RETRYING	FOTA	Battery rule not met. Retrying the download. No action required.
6007	POWER_RULES_NOT_MET_RETRYING	FOTA	Network rule not met. Retrying the download. No action required.
6008	CANCEL FAILURE	FOTA	The deployment was not canceled because: <ul style="list-style-type: none"> • Deployment is complete. • Installation is in progress and canceling it can be harmful to the device.
1107	OS Update has failed to install.	FOTA	Contact Zebra support.
1009	OS Update failed due to error while copying or transferring package.	FOTA	During streaming update, the Wi-Fi disconnected and streaming timed out. Connect to a stable network and retry the operation.
1113	OS update failed to install due to exception.	FOTA	Contact Zebra support.
1114	Ejected SD/USB card from settings when update is ongoing from external SD/USB card path.	FOTA	Retry the update by putting the USB or SD card back into the device.
1124	Triggered streaming OTA full upgrade with low battery.	FOTA	The OS update cannot be started due to low battery. To install the update, connect to a charger or charge the device more than the minimum threshold (default 30%) and retry the operation.

Response Codes

Code	Description	Category	Solution
1125	Downgrade attempted.	FOTA	Downgrade not allowed.
1201	OS update has canceled due to reboot.	FOTA	While the update was streaming, the device was restarted by the user. Retry the update after the device restarts.
1202	Update canceled due to battery swap.	FOTA	While the update was streaming, the user performed a battery swap. Retry operation after battery swap.

