# **CHANGELOG**

### v14.2.0

• Added package comment to make github.com/Azure/go-autorest importable.

#### v14.1.1

### **Bug Fixes**

• Change x-ms-authorization-auxiliary header value separator to comma.

#### v14.1.0

#### **New Features**

Added azure.SetEnvironment() that will update the global environments map with the specified values.

## v14.0.1

### **Bug Fixes**

- Fix race condition when refreshing token.
- Fixed some tests to work with Go 1.14.

### v14.0.0

# **Breaking Changes**

• By default, the <code>DORETTYFOrStatusCodes</code> functions will no longer infinitely retry a request when the response returns an HTTP status code of 429 (StatusTooManyRequests). To opt in to the old behavior set <code>autorest.Count429AsRetry to false</code>.

## **New Features**

• Variable autorest.Max429Delay can be used to control the maximum delay between retries when a 429 is received with no Retry-After header. The default is zero which means there is no cap.

## v13.4.0

# **New Features**

- Added field SendDecorators to the Client type. This can be used to specify a custom chain of SendDecorators per client.
- Added method Client.Send() which includes logic for selecting the preferred chain of SendDecorators.

## v13.3.3

### **Bug Fixes**

· Fixed connection leak when retrying requests.

- Enabled exponential back-off with a 2-minute cap when retrying on 429.
- Fixed some cases where errors were inadvertently dropped.

### v13.3.2

#### **Bug Fixes**

• Updated autorest.AsStringSlice() to convert slice elements to their string representation.

## v13.3.1

• Updated external dependencies.

### **Bug Fixes**

### v13.3.0

#### **New Features**

- Added support for shared key and shared access signature token authorization.
  - autorest.NewSharedKeyAuthorizer() and dependent types.
  - autorest.NewSASTokenAuthorizer() and dependent types.
- Added ServicePrincipalToken.SetCustomRefresh() so a custom refresh function can be invoked when a token has expired.

### **Bug Fixes**

- Fixed cli.AccessTokensPath() to respect AZURE\_CONFIG\_DIR when set.
- Support parsing error messages in XML responses.

### v13.2.0

#### **New Features**

- Added the following functions to replace their versions that don't take a context.
  - o adal.InitiateDeviceAuthWithContext()
  - adal.CheckForUserCompletionWithContext()
  - o adal.WaitForUserCompletionWithContext()

# v13.1.0

#### **New Features**

Added support for MSI authentication on Azure App Service and Azure Functions.

## v13.0.2

## **Bug Fixes**

• Always retry a request even if the sender returns a non-nil error.

## v13.0.1

• Fixed autorest.WithQueryParameters() so that it properly encodes multi-value query parameters.

#### v13.0.0

# **Breaking Changes**

The tracing package has been rewritten to provide a common interface for consumers to wire in the tracing package of their choice. What this means is that by default no tracing provider will be compiled into your program and setting the AZURE\_SDK\_TRACING\_ENABLED environment variable will have no effect. To enable this previous behavior you must now add the following import to your source file.

```
import "github.com/Azure/go-autorest/tracing/opencensus"
```

The APIs required by autorest-generated code have remained but some APIs have been removed and new ones added. The following APIs and variables have been removed (the majority of them were moved to the opencensus package).

- · tracing.Transport
- tracing.Enable()
- tracing.EnableWithAlForwarding()
- tracing.Disable()

The following APIs and types have been added

- · tracing.Tracer
- tracing.Register()

To hook up a tracer simply call tracing.Register() passing in a type that satisfies the tracing.Tracer interface.

### v12.4.3

#### **Bug Fixes**

 autorest.MultiTenantServicePrincipalTokenAuthorizer will now properly add its auxiliary bearer tokens.

### v12.4.2

## **Bug Fixes**

- Improvements to the fixes made in v12.4.1.
  - Remove override stanza from Gopkg.toml and replace directive from go.mod as they don't apply when being consumed as a dependency.
  - Switched to latest version of ocagent that still depends on protobuf v1.2.
  - Add indirect dependencies to the required clause with matching constraint stanzas so that dep dependencies match go.sum.

### v12.4.1

- Updated OpenCensus and OCAgent versions to versions that don't depend on v1.3+ of protobuf as it was breaking kubernetes.
- Pinned opencensus-proto to a version that's compatible with our versions of OpenCensus and OCAgent.

#### v12.4.0

#### **New Features**

• Added autorest.WithPrepareDecorators and autorest.GetPrepareDecorators for adding and retrieving a custom chain of PrepareDecorators to the provided context.

### v12.3.0

#### **New Features**

- Support for multi-tenant via x-ms-authorization-auxiliary header has been added for client credentials with secret scenario; this basically bundles multiple OAuthConfig and ServicePrincipalToken types into corresponding MultiTenant\* types along with a new authorizer that adds the primary and auxiliary token headers to the reqest. The authenticaion helpers have been updated to support this scenario; if environment var AZURE\_AUXILIARY\_TENANT\_IDS is set with a semicolon delimited list of tenants the multitenant codepath will kick in to create the appropriate authorizer. See

  adal.NewMultiTenantOAuthConfig , adal.NewMultiTenantServicePrincipalToken and autorest.NewMultiTenantServicePrincipalTokenAuthorizer along with their supporting types
- Added autorest.WithSendDecorators and autorest.GetSendDecorators for adding and retrieving a custom chain of SendDecorators to the provided context.
- Added autorest.DoRetryForStatusCodesWithCap and autorest.DelayForBackoffWithCap to enforce an upper bound on the duration between retries.

### v12.2.0

### **New Features**

and methods.

- Added autorest.WithXML, autorest.AsMerge, autorest.WithBytes preparer decorators.
- Added autorest.ByUnmarshallingBytes response decorator.
- Added Response.IsHTTPStatus and Response.HasHTTPStatus helper methods for inspecting HTTP status code in autorest.Response types.

#### **Bug Fixes**

• autorest.DelayWithRetryAfter now supports HTTP-Dates in the Retry-After header and is not limited to just 429 status codes.

### v12.1.0

#### **New Features**

- Added to.ByteSlicePtr().
- Added blob/queue storage resource ID to azure.ResourceIdentifier.

### v12.0.0

### **Breaking Changes**

In preparation for modules the following deprecated content has been removed.

- async.NewFuture()
- async.Future.Done()
- async.Future.WaitForCompletion()
- async.DoPollForAsynchronous()
- The utils package
- validation.NewErrorWithValidationError()
- The version package

### v11.9.0

#### **New Features**

• Add ResourceIdentifiers field to azure. Environment containing resource IDs for public and sovereign clouds.

# v11.8.0

#### **New Features**

• Added autorest.NewClientWithOptions() to support endpoints that require free renegotiation.

## v11.7.1

### **Bug Fixes**

• Fix missing support for http(s) proxy when using the default sender.

### v11.7.0

### **New Features**

 Added methods to obtain a ServicePrincipalToken on the various credential configuration types in the auth package.

# v11.6.1

### **Bug Fixes**

- Fix ACR DNS endpoint for government clouds.
- Add Cosmos DB DNS endpoints.
- Update dependencies to resolve build breaks in OpenCensus.

### v11.6.0

#### **New Features**

• Added type autorest.BasicAuthorizer to support Basic authentication.

### v11.5.2

# **Bug Fixes**

• Fixed GetTokenFromCLI did not work with zsh.

## v11.5.1

# **Bug Fixes**

• In Client.sender() set the minimum TLS version on HTTP clients to 1.2.

### v11.5.0

#### **New Features**

- The auth package has been refactored so that the environment and file settings are now available.
- The methods used in auth.NewAuthorizerFromEnvironment() are now exported so that custom authorization chains can be created.
- Added support for certificate authorization for file-based config.

## v11.4.0

#### **New Features**

- Added adal.AddToUserAgent() so callers can append custom data to the user-agent header used for ADAL requests.
- Exported adal.UserAgent() for parity with autorest.Client.

### v11.3.2

### **Bug Fixes**

• In Future.WaitForCompletionRef() if the provided context has a deadline don't add the default deadline.

### v11.3.1

## **Bug Fixes**

• For an LRO PUT operation the final GET URL was incorrectly set to the Location polling header in some cases.

## v11.3.0

## **New Features**

• Added method ServicePrincipalToken() to DeviceFlowConfig type.

## v11.2.8

### **Bug Fixes**

• Deprecate content in the version package. The functionality has been superseded by content in the autorest package.

## v11.2.7

Fix environment variable name for enabling tracing from AZURE\_SDK\_TRACING\_ENABELD to
 AZURE\_SDK\_TRACING\_ENABLED. Note that for backward compatibility reasons, both will work until the
 next major version release of the package.

## v11.2.6

#### **Bug Fixes**

• If zero bytes are read from a polling response body don't attempt to unmarshal them.

#### v11.2.5

### **Bug Fixes**

• Removed race condition in autorest.DoRetryForStatusCodes .

#### v11.2.4

### **Bug Fixes**

• Function cli.ProfilePath now respects environment AZURE CONFIG DIR if available.

#### v11.2.1

NOTE: Versions of Go prior to 1.10 have been removed from CI as they no longer work with golint.

#### **Bug Fixes**

- Method MSIConfig.Authorizer now supports user-assigned identities.
- The adal package now reports its own user-agent string.

#### v11.2.0

#### **New Features**

- Added tracing package that enables instrumentation of HTTP and API calls. Setting the env variable
   AZURE\_SDK\_TRACING\_ENABLED or calling tracing. Enable will start instrumenting the code for
   metrics and traces. Additionally, setting the env variable OCAGENT\_TRACE\_EXPORTER\_ENDPOINT or
   calling tracing. EnableWithAlForwarding will start the instrumentation and connect to an App
   Insights Local Forwarder that is needs to be running. Note that if the AI Local Forwarder is not running
   tracking will still be enabled. By default, instrumentation is disabled. Once enabled, instrumentation can also
   be programatically disabled by calling Disable.
- Added DoneWithContext call for checking LRO status. Done has been deprecated.

### **Bug Fixes**

- · Don't use the initial request's context for LRO polling.
- Don't override the refreshLock and the http.Client when unmarshalling ServicePrincipalToken if it is already set.

### v11.1.1

• When creating a future always include the polling tracker even if there's a failure; this allows the underlying response to be obtained by the caller.

### v11.1.0

#### **New Features**

- Added auth.NewAuthorizerFromCLI to create an authorizer configured from the Azure 2.0 CLI.
- Added adal.NewOAuthConfigWithAPIVersion to create an OAuthConfig with the specified API version.

## v11.0.1

#### **New Features**

• Added x5c header to client assertion for certificate Issuer+Subject Name authentication.

## v11.0.0

### **Breaking Changes**

- To handle differences between ADFS and AAD the following fields have had their types changed from string to json.Number
  - ExpiresIn
  - ExpiresOn
  - NotBefore

### **New Features**

- Added auth.NewAuthorizerFromFileWithResource to create an authorizer from the config file with the specified resource.
- Setting a client's PollingDuration to zero will use the provided context to control a LRO's polling duration.

## v10.15.5

### **Bug Fixes**

• In <code>DoRetryForStatusCodes</code> , if a request's context is cancelled return the last response.

## v10.15.4

### **Bug Fixes**

• If a polling operation returns a failure status code return the associated error.

#### v10.15.3

### **Bug Fixes**

 Initialize the polling URL and method for an LRO tracker on each iteration, favoring the Azure-AsyncOperation header.

### v10.15.2

### **Bug Fixes**

• Use fmt.Fprint when printing request/response so that any escape sequences aren't treated as format specifiers.

### v10.15.1

### **Bug Fixes**

- If an LRO API returns a Failed provisioning state in the initial response return an error at that point so the caller doesn't have to poll.
- For failed LROs without an OData v4 error include the response body in the error's AdditionalInfo field to aid in diagnosing the failure.

## v10.15.0

#### **New Features**

Add initial support for request/response logging via setting environment variables. Setting
 AZURE\_GO\_SDK\_LOG\_LEVEL to LogInfo will log request/response without their bodies. To include the
 bodies set the log level to LogDebug. By default the logger writes to strerr, however it can also write to
 stdout or a file if specified in AZURE\_GO\_SDK\_LOG\_FILE. Note that if the specified file already exists it
 will be truncated. IMPORTANT: by default the logger will redact the Authorization and Ocp-Apim-Subscription-Key headers. Any other secrets will not be redacted.

#### v10.14.0

#### **New Features**

• Added package version that contains version constants and user-agent data.

### **Bug Fixes**

• Add the user-agent to token requests.

#### v10.13.0

• Added support for additionalInfo in ServiceError type.

#### v10.12.0

## **New Features**

 Added field ServicePrincipalToken.MaxMSIRefreshAttempts to configure the maximun number of attempts to refresh an MSI token.

### v10.11.4

### **Bug Fixes**

- If an LRO returns http.StatusOK on the initial response with no async headers return the response body from Future.GetResult().
- If there is no "final GET URL" return an error from Future.GetResult().

## v10.11.3

### **Bug Fixes**

- In IMDS retry logic, if we don't receive a response don't retry.
  - Renamed the retry function so it's clear it's meant for IMDS only.
- For error response bodies that aren't OData-v4 compliant stick the raw JSON in the ServiceError.Details field so the information isn't lost.
  - Also add the raw HTTP response to the DetailedResponse.
- Removed superfluous wrapping of response error in azure.DoRetryWithRegistration().

### v10.11.2

### **Bug Fixes**

• Validation for integers handles int and int64 types.

## v10.11.1

### **Bug Fixes**

• Adding User information to authorization config as parsed from CLI cache.

### v10.11.0

## **New Features**

- Added NewServicePrincipalTokenFromManualTokenSecret for creating a new SPT using a manual token and secret
- Added method ServicePrincipalToken.MarshalTokenJSON() to marshall the inner Token

## v10.10.0

#### **New Features**

- Most ServicePrincipalTokens can now be marshalled/unmarshall to/from JSON (ServicePrincipalCertificateSecret and ServicePrincipalMSISecret are not supported).
- Added method ServicePrincipalToken.SetRefreshCallbacks().

### v10.9.2

#### **Bug Fixes**

• Refreshing a refresh token obtained from a web app authorization code now works.

## v10.9.1

## **Bug Fixes**

- The retry logic for MSI token requests now uses exponential backoff per the guidelines.
- IsTemporaryNetworkError() will return true for errors that don't implement the net.Error interface.

#### v10.9.0

#### **Deprecated Methods**

Old Method	New Method

azure.NewFuture()	azure.NewFutureFromResponse()
Future.WaitForCompletion()	Future.WaitForCompletionRef()

#### **New Features**

- Added azure.NewFutureFromResponse() for creating a Future from the initial response from an async operation.
- Added Future.GetResult() for making the final GET call to retrieve the result from an async operation.

### **Bug Fixes**

• Some futures failed to return their results, this should now be fixed.

### v10.8.2

### **Bug Fixes**

• Add nil-gaurd to token retry logic.

# v10.8.1

#### **Bug Fixes**

- Return a TokenRefreshError if the sender fails on the initial request.
- Don't retry on non-temporary network errors.

### v10.8.0

• Added NewAuthorizerFromEnvironmentWithResource() helper function.

# v10.7.0

### **New Features**

• Added \*WithContext() methods to ADAL token refresh operations.

## v10.6.2

• Fixed a bug on device authentication.

### v10.6.1

• Added retries to MSI token get request.

## v10.6.0

• Changed MSI token implementation. Now, the token endpoint is the IMDS endpoint.

### v10.5.1

#### **Bug Fixes**

DeviceFlowConfig.Authorizer() now prints the device code message when running go test. v flag is required.

## v10.5.0

#### **New Features**

• Added NewPollingRequestWithContext() for use with polling asynchronous operations.

### **Bug Fixes**

• Make retry logic use the request's context instead of the deprecated Cancel object.

### v10.4.0

#### **New Features**

- Added helper for parsing Azure Resource ID's.
- Added deprecation message to utils.GetEnvVarOrExit()

## v10.3.0

#### **New Features**

- Added EnvironmentFromURL method to load an Environment from a given URL. This function is particularly useful in the private and hybrid Cloud model, where one may define their own endpoints
- Added TokenAudience endpoint to Environment structure. This is useful in private and hybrid cloud models where TokenAudience endpoint can be different from ResourceManagerEndpoint

## v10.2.0

### **New Features**

• Added endpoints for batch management.

## v10.1.3

### **Bug Fixes**

- In Client.Do() invoke WithInspection() last so that it will inspect WithAuthorization().
- Fixed authorization methods to invoke p.Prepare() first, aligning them with the other preparers.

## v10.1.2

• Corrected comment for auth.NewAuthorizerFromFile() function.

#### v10.1.1

• Updated version number to match current release.

### v10.1.0

## **New Features**

• Expose the polling URL for futures.

#### **Bug Fixes**

Add validation.NewErrorWithValidationError back to prevent breaking changes (it is deprecated).

## v10.0.0

#### **New Features**

- Added target and innererror fields to ServiceError to comply with OData v4 spec.
- The Done() method on futures will now return a ServiceError object when available (it used to return a partial value of such errors).
- Added helper methods for obtaining authorizers.
- Expose the polling URL for futures.

### **Bug Fixes**

- Switched from glide to dep for dependency management.
- Fixed unmarshaling of ServiceError for JSON bodies that don't conform to the OData spec.
- Fixed a race condition in token refresh.

## **Breaking Changes**

- The ServiceError.Details field type has been changed to match the OData v4 spec.
- Go v1.7 has been dropped from Cl.
- API parameter validation failures will now return a unique error type validation. Error.
- The adal.Token type has been decomposed from adal.ServicePrincipalToken (this was necessary in order to
  fix the token refresh race).

### v9.10.0

- Fix the Service Bus suffix in Azure public env
- Add Service Bus Endpoint (AAD ResourceURI) for use in Azure Service Bus RBAC Preview

### v9.9.0

#### **New Features**

• Added EventGridKeyAuthorizer for key authorization with event grid topics.

### **Bug Fixes**

• Fixed race condition when auto-refreshing service principal tokens.

## v9.8.1

## **Bug Fixes**

- Added http.StatusNoContent (204) to the list of expected status codes for long-running operations.
- Updated runtime version info so it's current.

## v9.8.0

#### **New Features**

Added type azure.AsyncOpIncompleteError to be returned from a future's Result() method when the
operation has not completed.

## v9.7.1

#### **Bug Fixes**

• Use correct AAD and Graph endpoints for US Gov environment.

### v9.7.0

### **New Features**

• Added support for application/octet-stream MIME types.

## v9.6.1

## **Bug Fixes**

• Ensure Authorization header is added to request when polling for registration status.

### v9.6.0

#### **New Features**

• Added support for acquiring tokens via MSI with a user assigned identity.

### v9.5.3

### **Bug Fixes**

- Don't remove encoding of existing URL Query parameters when calling autorest. With Query Parameters.
- Set correct Content Type when using autorest. With Form Data.

## v9.5.2

## **Bug Fixes**

• Check for nil \*http.Response before dereferencing it.

## v9.5.1

## **Bug Fixes**

- Don't count http.StatusTooManyRequests (429) against the retry cap.
- Use retry logic when SkipResourceProviderRegistration is set to true.

### v9.5.0

#### **New Features**

- Added support for username + password, API key, authoriazation code and cognitive services authentication
- Added field SkipResourceProviderRegistration to clients to provide a way to skip auto-registration of RPs.
- Added utility function AsStringSlice() to convert its parameters to a string slice.

### **Bug Fixes**

• When checking for authentication failures look at the error type not the status code as it could vary.

### v9.4.2

- Validate parameters when creating credentials.
- Don't retry requests if the returned status is a 401 (http.StatusUnauthorized) as it will never succeed.

### v9.4.1

## **Bug Fixes**

- Update the AccessTokensPath() to read access tokens path through AZURE\_ACCESS\_TOKEN\_FILE. If this environment variable is not set, it will fall back to use default path set by Azure CLI.
- Use case-insensitive string comparison for polling states.

#### v9.4.0

#### **New Features**

• Added WaitForCompletion() to Future as a default polling implementation.

### **Bug Fixes**

• Method Future.Done() shouldn't update polling status for unexpected HTTP status codes.

#### v9.3.1

#### **Bug Fixes**

• DoRetryForStatusCodes will retry if sender.Do returns a non-nil error.

### v9.3.0

#### **New Features**

- Added PollingMethod() to Future so callers know what kind of polling mechanism is used.
- Added azure.ChangeToGet() which transforms an http.Request into a GET (to be used with LROs).

### v9.2.0

#### **New Features**

- Added support for custom Azure Stack endpoints.
- Added type azure. Future used to track the status of long-running operations.

#### Bug Fixes

• Preserve the original error in DoRetryWithRegistration when registration fails.

#### v9.1.1

• Fixes a bug regarding the cookie jar on autorest.Client.Sender.

## v9.1.0

#### **New Features**

- In cases where there is a non-empty error from the service, attempt to unmarshal it instead of uniformly calling it an "Unknown" error.
- Support for loading Azure CLI Authentication files.
- · Automatically register your subscription with the Azure Resource Provider if it hadn't been previously.

### **Bug Fixes**

• RetriableRequest can now tolerate a ReadSeekable body being read but not reset.

• Adding missing Apache Headers

## v9.0.0

**IMPORTANT:** This release was intially labeled incorrectly as v8.4.0. From the time it was released, it should have been marked v9.0.0 because it contains breaking changes to the MSI packages. We appologize for any inconvenience this causes.

Adding MSI Endpoint Support and CLI token rehydration.

## v8.3.1

Pick up bug fix in adal for MSI support.

## v8.3.0

Updates to Error string formats for clarity. Also, adding a copy of the http.Response to errors for an improved debugging experience.

### v8.2.0

#### **New Features**

- Add support for bearer authentication callbacks
- Support 429 response codes that include "Retry-After" header
- Support validation constraint "Pattern" for map keys

## **Bug Fixes**

• Make RetriableRequest work with multiple versions of Go

### v8.1.1

Updates the RetriableRequest to take advantage of GetBody() added in Go 1.8.

### v8.1.0

Adds RetriableRequest type for more efficient handling of retrying HTTP requests.

#### v8.0.0

ADAL refactored into its own package. Support for UNIX time.

## v7.3.1

• Version Testing now removed from production bits that are shipped with the library.

## v7.3.0

- Exposing new RespondDecorator, ByDiscardingBody. This allows operations to acknowledge that they do not need either the entire or a trailing portion of accepts response body. In doing so, Go's http library can reuse HTTP connections more readily.
- Adding PrepareDecorator to target custom BaseURLs.

- Adding ACR suffix to public cloud environment.
- Updating Glide dependencies.

# v7.2.5

- Fixed the Active Directory endpoint for the China cloud.
- Removes UTF-8 BOM if present in response payload.
- · Added telemetry.

#### v7.2.3

• Fixing bug in calls to DelayForBackoff that caused doubling of delay duration.

### v7.2.2

• autorest/azure: added ASM and ARM VM DNS suffixes.

### v7.2.1

• fixed parsing of UTC times that are not RFC3339 conformant.

### v7.2.0

• autorest/validation: Reformat validation error for better error message.

## v7.1.0

- preparer: Added support for multipart formdata WithMultiPartFormdata()
- preparer: Added support for sending file in request body WithFile
- client: Added RetryDuration parameter.
- autorest/validation: new package for validation code for Azure Go SDK.

## v7.0.7

- Add trailing / to endpoint
- azure: add EnvironmentFromName

## v7.0.6

- Add retry logic for 408, 500, 502, 503 and 504 status codes.
- Change url path and query encoding logic.
- Fix DelayForBackoff for proper exponential delay.
- Add CookieJar in Client.

### v7.0.5

- Add check to start polling only when status is in [200,201,202].
- Refactoring for unchecked errors.
- azure/persist changes.
- Fix 'file in use' issue in renewing token in deviceflow.
- Store header RetryAfter for subsequent requests in polling.
- Add attribute details in service error.

### v7.0.4

• Better error messages for long running operation failures

### v7.0.3

• Corrected DoPollForAsynchronous to properly handle the initial response

### v7.0.2

· Corrected DoPollForAsynchronous to continue using the polling method first discovered

### v7.0.1

- Fixed empty JSON input error in ByUnmarshallingJSON
- Fixed polling support for GET calls
- Changed format name from TimeRfc1123 to TimeRFC1123

## v7.0.0

- Added ByCopying responder with supporting TeeReadCloser
- Rewrote Azure asynchronous handling
- · Reverted to only unmarshalling JSON
- Corrected handling of RFC3339 time strings and added support for Rfc1123 time format

The <code>json.Decoder</code> does not catch bad data as thoroughly as <code>json.Unmarshal</code>. Since <code>encoding/json</code> successfully deserializes all core types, and extended types normally provide their custom JSON serialization handlers, the code has been reverted back to using <code>json.Unmarshal</code>. The original change to use <code>json.Decode</code> was made to reduce duplicate code; there is no loss of function, and there is a gain in accuracy, by reverting.

Additionally, Azure services indicate requests to be polled by multiple means. The existing code only checked for one of those (that is, the presence of the Azure-AsyncOperation header). The new code correctly covers all cases and aligns with the other Azure SDKs.

## v6.1.0

• Introduced date.ByUnmarshallingJSONDate and date.ByUnmarshallingJSONTime to enable JSON encoded values.

## v6.0.0

- Completely reworked the handling of polled and asynchronous requests
- Removed unnecessary routines
- Reworked mocks. Sender to replay a series of http.Response objects
- Added PrepareDecorators for primitive types (e.g., bool, int32)

Handling polled and asynchronous requests is no longer part of Client#Send . Instead new SendDecorators implement different styles of polled behavior. See autorest.DoPollForStatusCodes and azure.DoPollForAsynchronous for examples.

### v5.0.0

- Added new RespondDecorators unmarshalling primitive types
- · Corrected application of inspection and authorization PrependDecorators

### v4.0.0

- Added support for Azure long-running operations.
- · Added cancelation support to all decorators and functions that may delay.
- Breaking: DelayForBackoff now accepts a channel, which may be nil.

### v3.1.0

- Add support for OAuth Device Flow authorization.
- Add support for ServicePrincipalTokens that are backed by an existing token, rather than other secret
  material
- Add helpers for persisting and restoring Tokens.
- Increased code coverage in the github.com/Azure/autorest/azure package

#### v3.0.0

- Breaking: NewErrorWithError no longer takes statusCode int.
- Breaking: NewErrorWithStatusCode is replaced with NewErrorWithResponse.
- Breaking: Client#Send() no longer takes codes ...int argument.
- Add: XML unmarshaling support with ByUnmarshallingXML()
- Stopped vending dependencies locally and switched to <u>Glide</u>. Applications using this library should either
  use Glide or vendor dependencies locally some other way.
- Add: azure.WithErrorUnlessStatusCode() decorator to handle Azure errors.
- Fix: use net/http.DefaultClient as base client.
- Fix: Missing inspection for polling responses added.
- Add: CopyAndDecode helpers.
- Improved ./autorest/to with []string helpers.
- Removed golint suppressions in .travis.yml.

#### v2.1.0

• Added StatusCode to Error for more easily obtaining the HTTP Reponse StatusCode (if any)

### v2.0.0

- Changed to.StringMapPtr method signature to return a pointer
- Changed ServicePrincipalCertificateSecret and

 ${\tt NewServicePrincipalTokenFromCertificate} \ \ \textbf{to support generic certificate and private keys}$ 

### v1.0.0

- Added Logging inspectors to trace http.Request / Response
- Added support for User-Agent header
- Changed WithHeader PrepareDecorator to use set vs. add
- Added JSON to error when unmarshalling fails
- Added Client#Send method
- Corrected case of "Azure" in package paths
- Added "to" helpers, Azure helpers, and improved ease-of-use
- Corrected golint issues

### v1.0.1

• Added CHANGELOG.md

# v1.1.0

- Added mechanism to retrieve a ServicePrincipalToken using a certificate-signed JWT
- Added an example of creating a certificate-based ServicePrincipal and retrieving an OAuth token using the certificate

# v1.1.1

• Introduce godeps and vendor dependencies introduced in v1.1.1