



Digital Safe Connector

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Release Notes

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New in this Release

This section lists the enhancements to Digital Safe Connector version 11.6.0.

- The connector can pause tasks if performance indicators, such as CPU or memory use, exceed certain limits. The connector resumes the tasks when the period of high load has passed. The connector can monitor performance indicators on the local machine or a remote machine. This feature is available only on Windows.
- When you insert documents into a repository using the `insert` fetch action, you can specify a unique ID for each document. These identifiers are reported in the action response, which you can retrieve using `action=QueueInfo`. This means that if the connector does not insert all of the documents successfully, you can tell which documents were inserted and which documents failed.
- The connector supports progress reporting for the `collect`, `delete`, and `insert` fetch actions.
- Asynchronous action queues can be stored in an external database hosted on a database server, so that several installations of the component can share action queues.
- The `DeleteQueuedRequestsWhenServerStarts` and `DeleteProcessingRequestsWhenServerStarts` configuration parameters have been added. These parameters specify whether to remove queued and processing requests from asynchronous action queues when the server starts.
- The server requires less time to start when it is started for the first time and asynchronous action queues are stored in internal datastores.
- The connector includes Lua 5.3.0.
- The connector supports the `LuaDebug` action, which provides features for debugging your Lua scripts. The `LuaDebug` action can display the content of a script, and set and remove breakpoints in a script. When a script is paused at a breakpoint, it can return the values of the local variables, return the current call stack, and either step over lines of code or resume running the script. The connector also includes an example XSL template that transforms the output of the `LuaDebug` action. The template is named `LuaDebug` and can be found in the `acitemplates` folder.
- Asynchronous action queues can be stored in memory. This can improve performance in some cases.
- The response to `action=queueInfo&queueName=fetch&queueAction=getStatus` indicates whether a fetch task has been paused by performance monitoring.
- The `LogTypeCSVs` configuration parameter supports additional options for customizing logging. You can now create a separate log file for a fetch task or fetch action.
- The connector generates events to alert you when an asynchronous action queue becomes full, becomes empty, and when the queue size passes certain thresholds. You can handle these events with any of the existing event handlers.
- The connector supports the following Lua functions:
 - New functions and classes for parsing and manipulating JSON. The new functions are `parse_json`, `parse_json_array`, and `parse_json_object`. The new classes are `LuaJsonArray`, `LuaJsonObject`, and `LuaJsonValue`.

- Functions related to sending HTTP requests and processing responses. These functions are provided by the `LuaHttpRequest` and `LuaHttpResponse` classes.
- `addsection`, `getSection`, and `getSectionCount`. You can call these methods on a `LuaDocument` object to manipulate document sections. The existing Lua methods `appendContent`, `getContent`, and `setContent` now take an optional `number` argument that specifies the document section to use.
- `base64_decode`, which decodes a base64-encoded string.
- `base64_encode`, which base64-encodes a string.
- `delete_path`, which deletes an empty directory.
- `deleteFieldByPath`, which you can call on a `LuaDocument` or `LuaField` object to delete fields or sub-fields that match a specified path.
- `doc_tracking`, which raises a document tracking event for a document.
- `extract_date`, which searches a string for a date and returns the date.
- `get_log`. This function returns a `LuaLog` object that you can use to write messages to a log stream configured in the connector's configuration file. When you use a `LuaLog` object the log stream settings such as the log file name, log level, and maximum size of the log file are respected.
- `get_log_service`, and the new class `LuaLogService`. You can use these when you want to write log messages to a custom log file (instead of the standard ACI server log files).
- `get_task_config`, which returns the configuration of the fetch task that called the script.
- `get_task_name`, which returns the name of the fetch task that called the script.
- `getFieldsByRegex`, which you can call on a `LuaDocument` or `LuaField` object to get fields or sub-fields where the name or path of the field or sub-field matches a regular expression.
- `getValueByPath` and `getValuesByPath`. You can call these methods on a `LuaDocument` object or `LuaField` object. They return the value, or values, of a field or sub-field with a specified path.
- `insertJson`, which you can call on a `LuaDocument` or `LuaField` object to add metadata from a `LuaJsonArray`, `LuaJsonObject`, or a JSON string to the document.
- `LuaConfig:new`, which is the constructor that creates a new `LuaConfig` object.
- `LuaDocument:new`, which is the constructor that creates a new `LuaDocument` object.
- `removeSection`, which is available on `LuaDocument` objects and removes a specified document section.
- `parse_document_csv`, `parse_document_idx`, and `parse_document_xml`. These functions parse CSV, IDX, or XML files into documents and call a function on each document. `parse_document_idx` and `parse_document_xml` can also parse a string or file that contains a single document and return a `LuaDocument` object.
- `regex_replace_all`, which searches a string for matches to a regular expression and replaces all of the matches.
- `script_path`, which returns the path and file name of the script that is running.
- `send_and_wait_for_async_aci_action`. This function sends an action to an ACI server, polls the server until the action is complete, and then returns the response. This function is useful for sending asynchronous actions because it returns the action response instead of a token.
- `to_idx`, `to_xml`, and `to_json`. You can call these methods on a `LuaDocument` object. They return a string containing the document in IDX, XML, or JSON format.

- `url_escape`, which percent-encodes a string.
- The Lua function `get_config` no longer requires a filename. If you do not specify the file to load, the function returns the configuration file with the same name as the ACI server executable file.
- The Windows service installation (`-install`) now accepts a `-depend` command line parameter, which allows you to specify a comma-separated list of services that the service depends on. Windows services starts these dependencies before your service. For more information about installing Windows services, refer to the *IDOL Getting Started Guide*.
- The `SystemLimits` action has been added. This action returns information about system limits, such as the maximum number of open file handles, and the maximum map count (on Linux), which can affect the server.
- The server now logs the `ActionID` that it generates for an action that was sent without the `ActionID` parameter.
- You can now merge an external configuration file into the Digital Safe Connector configuration file. You can merge in a whole external file, a section, or a single parameter.
- The `ShowPermissions` action now shows the rules that define whether a particular origin IP has a particular type of permission. This information is returned only if you send the `ShowPermissions` action from a client that belongs to the admin authorization role.
- The `SSLMethod` configuration parameter now supports `TLSv1.2`.
- The `SSLCipherSuite` configuration parameter has been added. You can use this parameter to set an explicit list of ciphers to allow, or to disallow specific ciphers.
- The `SSLMethod` configuration parameter option `SSLV23` has been renamed to `Negotiate`. This option means that the server uses the highest available protocol in its SSL/TLS connections. The `SSLV23` name is still available, but might be deprecated in future.
- You can now configure action authorization more flexibly. The `[AuthorizationRoles]` configuration section has been added. You can add subsections to create roles, which can use a combination of existing roles (equivalent to the existing `AdminClients`, `QueryClients`, and so on), or a specific set of actions. For each role, you can specify the client IPs and hosts, SSL identities, and GSS principals to use to identify users that have particular permissions to run actions.

If you want to use only SSL and GSS authorization, you can disable the client settings by setting the appropriate client configuration parameters to `""`. For example, `AdminClients=""` disables client authorization for administrative actions, and ensures that users must meet the SSL or GSS requirements.
- You can now set `SSLCertificate` to be a chain certificate in PEM format (consisting of the end-entity certificate, any intermediate certificates, and ending with the root CA certificate). This option allows a complete certificate to be returned to the connected peer.
- You can now set `SSLCheckCertificate` to `False` even when `SSLCACertificate` or `SSLCACertificatePath` are set. This allows the component to fill in any chain required for the `SSLCertificate` by using the certificates that you specify in `SSLCACertificate` and `SSLCACertificatePath`, without requiring a certificate from the connected peer.
- The `GSSAPILibrary` configuration parameter has been added to the `[Paths]` section. You can set this parameter to the path to the GSSAPI shared library or DLL that the application uses. Depending on your system configuration, Digital Safe Connector attempts to detect the appropriate library to use. However, if you use Kerberos or GSSAPI security in your setup, Micro Focus recommends that you set an explicit value for this parameter.

- All ACI server ports now support the `Expect: 100-continue` HTTP header. Previously, third-party client applications that used this header (for example, using the cURL utility with the -F option to POST form data) could experience increased latency when communicating with Digital Safe Connector.
- You can now configure your authorization role `SSLIdentities` to identify clients by using an email address in the certificate `subjectAltName`. You can use an optional tag for each SSL identity to specify whether it is a **dns** or **email** type identity. If there is no tag, the server treats it as **dns** type. For example:

```
SSLIdentities=email:user@example.com,dns:admin.example.com,webapp.example.com
```

- When using GSS security, you can now configure the service to allow clients to authenticate to any service principal in the service's keytab, rather than requiring a single principal. You use this option by setting the `GSSServiceName` configuration parameter to an asterisk (*).

Resolved Issues

This section lists the resolved issues in Digital Safe Connector version 11.6.0.

- The connector could terminate unexpectedly if a `LuaField` was assigned to a global variable.
- Asynchronous tokens were not always unique after a large number of requests, which could prevent scheduled tasks from starting.
- The Lua method `renameField` deleted the field when the old and new names were the same and the `case` argument was `true`, or the old and new names were the same (except for case) and the `case` argument was `false`.
- The service port configuration did not correctly convert host names to IPv6 addresses.
- The `ShowPermissions` action did not return details for `ProxyClients`, `ServiceStatusClients`, and `ServiceControlClients` if these values were not explicitly set in the configuration file.
- The connector would not retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.
- The `GetVersion` action could incorrectly report the operating system on Microsoft Windows 10 and Microsoft Windows Server 2016.
- License related messages in the event log would appear from a different source to other messages.
- The `LogSysLog` logging configuration option did not output event logs.

Supported Operating System Platforms

The following operating system platforms are supported by Digital Safe Connector 11.6.0.

- Windows x86 64
- Linux x86 64
- Solaris x86 64
- Solaris SPARC 64

The most fully tested versions of these platforms are:

Windows

- Windows Server 2012 x86 64
- Windows 7 SP1 x86 64
- Windows Server 2008 R2 x86 64
- Windows Server 2008 SP2 x86 64

Linux

For Linux, the minimum recommended versions of particular distributions are:

- Red Hat Enterprise Linux (RHEL) 6
- CentOS 6
- SuSE Linux Enterprise Server (SLES) 10
- Ubuntu 14.04
- Debian 7

Solaris

- Solaris 10
- Solaris 11

Notes

- The following configuration parameters, for action authorization by client IP address, have been deprecated:
 - [Server] AdminClients
 - [Server] QueryClients
 - [Service] ServiceControlClients
 - [Service] ServiceStatusClients

You can now use the [AuthorizationRoles] configuration section to set up authorization for your servers more flexibly. These configuration parameters are still available for existing implementations, but they might be incompatible with new functionality. The parameters might be deleted in future.

Documentation

The following documentation was updated for this release.

- *Digital Safe Connector Administration Guide*
- *Digital Safe Connector Reference*