Tridium has identified and fixed numerous issues after the AX 3.7 Update 1 release. The fixes have previously been made available through patched modules. To facilitate a simple install of updated modules Tridium has incorporated all patched modules into a new 3.7 Update 1 Image. Below are descriptions of the updated modules included in the new 3.7 Update 1 Image.

## Contents

| Module | Patch Version | | Module | Patch Version |
|---|---|---|---|---|
| alarm | 3.7.106.4 | | alarmOrion | 3.7.106.2 |
| bacnet | 3.7.106.6 | | baja | 3.7.106.4 |
| bajaui | 3.7.106.2 | | fox | 3.7.106.3 |
| gx | 3.7.106.1 | | history | 3.7.106.1 |
| lonworks | 3.7.106.1 | | niagaraDriver | 3.7.106.4 |
| niagaraLexiconZhcn | 3.7.106.6 | | ndedicatedMicros | 3.7.106.1 |
| obix | 3.7.106.2 | | obixDriver | 3.7.106.3 |
| orion | 3.7.106.2 | | pdf | 3.7.106.1 |
| platWifi | 3.7.106.1 | | provisioningNiagara | 3.7.106.2 |
| report | 3.7.106.1 | | schedule | 3.7.106.1 |
| seriesTransform | 3.7.106.7 | | web | 3.7.106.11 |
| workbench | 3.7.106.3 | | | |

## Release Notes

| Issue Key | Module | Description | Release Note |
|---|---|---|---|
| NCCB-4797 | | niagaraLexiconZhcn.jar does not contain required font properties | In AX version 3.7.106, niagaraLexiconZhcn.jar does not contain required font properties. In AX version 3.7.106.6 and beyond this lexicon module includes the required font properties. |
| NCCB-2313 | alarm, niagaraDriver | Acknowledge large number of alarms leaves alarms ack-pending | When large numbers of alarm acknowledgements are sent to a remote station, alarms often get stuck in an AckPending state. In AX 3.8, a number of improvements were made so that large numbers of alarms are now able to be acknowledged at the same time and the alarms will not get stuck in an AckPending state. |
| NCCB-2642 | alarm | Deadband wrong in OutOfRangeAlarmExt after UNITS changed in Workbench | In AX 3.7 versions 3.7.200 and earlier, and AX 3.6 versions 3.6.500 and earlier, the "deadband" property of |

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| | | | the OutOfRangeAlarmExt displays the wrong value for temparatures when Tools > Options > General > Unit Conversion is changed.<br><br>In versions 3.7.201 and later, and 3.6.501 and later, the deadband property's unit has been changed to be the differential of the parent point's unit, and now displays correctly after changing the Unit Conversion in Workbench.<br><br>For affected 3.7 versions, this can be corrected by dynamically assigning the "deadband" property's unit facet to the correct differential unit. |
| NCCB-5989 | alarm | 3.7 alarm text messages get truncated in the popup window | In NiagaraAX 3.7 update 1 and NiagaraAX 3.6 update 4, the alarm message (e.g. "To Offnormal Text") can sometimes be truncated in the Alarm Portal's popup alarm window.<br><br>In NiagaraAX 3.8, 3.7 update 2 and 3.6 update 5, this has been fixed so that the popup window will automatically expand to accomodate all the content. |
| NCCB-5525 | alarmOrion | AlarmOrion needs to minimize connection pool usage | In AX 3.7 Update 1 build 3.7.106 and earlier, alarmOrion uses an unneeded amount of concurrent connections which causes performance problems and reaches the default max pool size sooner than it needs to. This is fixed in alarmOrion 3.7.106.1 or higher, AX 3.7 Update 2 and AX 3.8 Release.<br>To workaround this problem in affected versions, consider changing the Rdbms's |

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| | | | hidden ConnectionPool property to use a "max active" of 100+(2*N) where N is the number of NiagaraStation in your station. |
| NCCB-5526 | alarmOrion | AlarmOrion floods BFacets interning with too many unique values | In AX 3.7 Update 1 build 3.7.106 and earlier, alarmOrion creates an unneeded amount of unique facets which causes performance problems when BSimple interning enabled. This is fixed in alarmOrion 3.7.106.1 or higher, AX 3.7 Update 2 and AX 3.8 Release. |
| NCCB-2312 | bacnet | BACnet polls contain same object and property in same poll | In AX 3.7.106 and earlier, the poll list redistribution mechanism can add duplicate poll entries in some circumstances. The poll list redistribution process is only triggered when polling a device that does not support segmentation. The old behavior was to reduce the effective maximum APDU size of the device and redistribute the poll list.<br>In bacnet 3.7.106.2 and later the behavior is to increase the expected size of the failed entries, and redistribute the poll bucket. |
| NCCB-4222 | bacnet | Improve failure handling during BACnet Point Discovery | In bacnet modules 3.6.47.18, 3.7.46.3, 3.7.106 and earlier when polling a device and an "abort:segmentation-not-supported" message is received from the device the bacnet driver's internal maxApdu was decreased. This limits the size of all messages to the device and can severely impact performance.<br><br>In bacnet modules 3.6.47.19, 3.7.46.4, 3.7.106.1, the estimated |

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| | | | size of the failed elements in the poll list are increased and redistributed. |
| NCCB-5923 | bacnet | BTL TC50432-10: Align_Intervals not implemented correctly for time synch intervals less than 1 day | BTL Testing of Niagara AX 3.7 for the B-BC Device Profile revealed a problem with the way the Align_Intervals property was implemented. The intended behavior of the property is that if Align_Intervals is TRUE, and the Time_Synchronization_Interval property is a factor of an hour or a day, then the beginning of the period must be aligned to the hour or the day, respectively. This was not correctly implemented, and therefore time synchronization messages would be sent but not aligned to the start of an hour or a day.<br><br>This affects Niagara AX versions 3.6 and earlier, and version 3.7 when using bacnet module version 3.7.106.2 or earlier. The issue was corrected beginning with 3.7.106.3 for 3.7U1, and also for all versions of 3.7U2 and 3.8.<br><br>Note that affected versions will still send periodic time synchronization requests at the specified interval. The difference is that instead of being sent right on the hour or the beginning of the day, they would be sent based on the time when time synchronization was first enabled. If you need to have this aligned, then try to enable the time synchronization right at the start of the hour. |
| NCCB-5940 | bacnet | BTL TC50432-9: Need to handle max Unsigned for | BTL Testing of Niagara AX 3.7 for the B-BC Device |

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| | | minimum on/off times in exported binary points | Profile revealed a problem with handling Unsigned values greater than the maximum 32-bit Java signed integer value for the Minimum_Off_Time and Minimum_On_Time properties of exported Binary Output and writable Binary Value objects. Niagara would accept a value for these properties greater than the max 32-bit int value, but would not be able to correctly return the value. This has now been corrected, and values up to the maximum 32-bit Unsigned value in seconds can be accepted and returned for Minimum_Off_Time and Minimum_On_Time.<br><br>This issue exists for Niagara AX versions 3.6 and earlier, and for version 3.7 when using the bacnet module 3.7.106.2 or earlier. The issue was corrected in the bacnet module beginning with 3.7.106.3 for 3.7U1, and for 3.7U2 and later.<br><br>Note that this issue is extremely unlikely to be encountered in any normal usage. This would only occur if you needed to set and subsequently retrieve (via BACnet) a Minimum_On/Off_Time that is greater than 68 years! |
| NCCB-6252 | bacnet | Can't Write To Priority Array On Bacnet Proxy | If you are using the Niagara AX BACnet driver with any of the following versions of the bacnet module, you may see a problem with writing to certain proxy points. The affected versions are: |

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| | | | • Niagara AX 3.6: bacnet version 3.6.47.8 or later, up to 3.6.406.1 or 3.6U5<br>• Niagara AX 3.7: bacnet version 3.7U1, up to 3.7.106.3<br>• Niagara AX 3.8: bacnet version 3.8R<br><br>The affected proxy points are those that map a single element of the Priority_Array property of a commandable BACnet object, such as an Analog Output, or an Analog Value with prioritization. These points should evaluate the Niagara prioritization of inputs, and write the 'out' value to the configured element of the Priority_Array in the remote BACnet object.<br>If the referenced array element has a value of NULL, then an affected proxy point will not be able to write a non-NULL value to the controller.<br>If the referenced array element has a non-NULL value, then the affected proxy point will be able to write its value with either a NULL or non-NULL value.<br><br>This has been corrected in Niagara beginning in 3.6.406.2, 3.7.106.4, and 3.8U1. Proxy points will correctly be able to write to priority array elements regardless of the current value. |
| NCCB-7037 | bacnet | BACnet devices containing "unknown" or "proprietary" objects cause point discovery to fail | In bacnet modules 3.6.47.19, 3.6.305.2, 3.6.406.1, 3.7.46.4, 3.7.106.1 and 3.8.20 a regression was introduced that prevents point discovery from completing |

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| | | | if the target device's object-list contains any unknown or proprietary objects.<br><br>In bacnet modules version 3.6.47.20, 3.6.305.3, 3.6.406.2, 3.7.106.6, and 3.8.37 this problem was corrected, and unknown or proprietary objects no longer cause point discovery to stop with an 'illegalName' exception. |
| NCCB-7388 | bacnet | ReadRange Responses return more records than requested | In bacnet modules 3.6.47.20, 3.6.305.4, 3.6.406.2, 3.7.46.5, 3.7.106.6, 3.8.37 and earlier:<br>If a BACnet trend-log contains duplicate sequence numbers some ReadRange requests could return more items than requested. This update limits the items returned to the amount requested, instead of using the sequence number. |
| NCCB-7389 | bacnet | BACnetTrendRecord sequence numbers duplicated or missing | In bacnet modules 3.6.47.20, 3.6.305.4, 3.6.406.2, 3.7.46.5, 3.7.106.6, 3.8.37 and earlier:<br>Duplicate sequence numbers could be generated if the system time is changed while a trend-log record is being recorded.<br><br>The frequency of duplicate sequence numbers has been reduced in bacnet modules 3.6.47.21, 3.6.305.5, 3.6.406.3, 3.7.46.6, 3.7.106.7, and 3.8.38.1 |
| NCCB-7466 | bacnet | Allow configuration of the bacnet driver's segmentation window size | In bacnet modules 3.6.47.20, 3.6.305.4, 3.6.406.2, 3.7.46.5, 3.7.106.6, 3.8.37 and earlier:<br>Some networks (2G/3G, etc) are predisposed to deliver segments out |

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| | | | of order. When the last segment of a response is delivered out of order, the segmentation state machine will wait a segment timeout (typically 2 seconds) before sending the unacknowledged segments.<br><br>In bacnet modules 3.6.47.21, 3.6.305.5, 3.6.406.3, 3.7.46.6, 3.7.106.7, and 3.8.38.1 there is a System Property that can control the preferred segmentation window size. Setting the property to one (e.g. "niagara.bacnet.segmentation.windov will force the segments to be delivered in order and avoid the delay waiting for the segment timeout. |
| NCCB-7467 | bacnet | SubscribeCOVProperty for a multi-state-value's state text generates continuous COVNotifications | In bacnet modules 3.6.47.20, 3.6.305.4, 3.6.406.2, 3.7.46.5, 3.7.106.6, 3.8.37 and earlier:<br>Using SubscribeCOVProperty on BComplex properties (a multi-state-value's state-text) will generate a notification every Cov Property Poll Rate (defaults to 5 seconds).<br>In bacnet modules 3.6.47.21, 3.6.305.5, 3.6.406.3, 3.7.46.6, 3.7.106.7, and 3.8.38.1, the comparison has been fixed to generate notifications only when the property has changed. |
| NCCB-5310 | baja | ThreadPoolWorker wait/ notify pattern leads to severe premature worker thread death | In AX 3.8.25 and earlier, threads in a thread pool worker may not idle the minimum idle time specified by the "niagara.threadPoolWorker.idleExpira system property.<br><br>The lack of idling workers can cause excessive |

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| | | | thread creation and deletion.<br>In AX versions 3.5.407, 3.6.407, 3.7.107, and 3.8.26 and later ThreadPoolWorkers will wait the specified idle time for new work. |
| NCCB-5465 | baja | Busy ThreadPoolWorker has too many locks which leads to poor performance | In AX 3.8.29 and earlier, ThreadPoolWorkers could experience performance problems due to mutual exclusion locks in the code that could lead to multiple threads competing for resources. ThreadPoolWorkers are used in numerous places, most notably by the NiagaraNetwork to handle asynchronous work.<br><br>In AX versions 3.5.407, 3.6.407, 3.7.107, and 3.8.31 and later, the ThreadPoolWorker has been reworked to reduce synchronized sections of code and eliminate some unnecessary locks that would cause threads to block and wait. This should improve performance, especially under stressful conditions (ie. lots of simultaneous asynchronous work). As part of this fix, a max queue size was added to the NiagaraNetwork's thread pool worker. The default max queue size is now 150000 (down from unlimited), but it can be changed with the System property "niagara.network.workerPool.queueSi This max queue size can help prevent heap overuse on a Supervisor if the queue feeding the NiagaraNetwork thread pool worker gets backed up for some reason. On a JACE, if the queue starts backing up, you |

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| | | | may hit heap limits prior to reaching the max queue size, so even this lower default max queue size is high for a JACE, so this max queue size is intended more for Supervisors. In all cases, under normal circumstances, the queue should not get backed up as long as the work posted to the queue is immediately being pulled off by an available worker thread. A "MaxWorkWaitingInQueue" spy diagnostic was also added to the NiagaraNetwork's thread pool worker to tell you the maximum amount of work that has waited simultaneously in the queue at any point in time since the station last started.<br><br>To change the NiagaraNetwork's thread pool worker max queue size, add the following to the system.properties file (150000 used here as an example): niagara.network.workerPool.queueSiz |
| NCCB-5483 | baja | Heavy use of BSimple interning can block engine thread | In AX 3.8.29 and earlier, the interning of BSimple instances was sometimes unnecessary and could lead to performance problems (ie. blocked threads, including the control engine). It was found that some BSimple values, such as specific instances of BFacets, BTime, and BRelTime, were being interned even though it wasn't necessary. Removing these unnecessary intern calls could significantly improve performance.<br><br>Starting in AX versions 3.5.407, 3.6.407, 3.7.107, |

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| | | | and 3.8.30 and later, the following changes are in effect which improve interning performance:<br><br>1. BSimple instances can exclude themselves from interning. BFacets, BTime, and BRelTime now skip interning in the following cases:<br><br>a. BFacets will skip interning when the BFacets instance contains a key called "sourceName". This targets Niagara alarms that were being interned unnecessarily. Other facet keys that will cause interning to be skipped include: "historyId", "lastTimestamp", "firstTimestamp", "startTime", "endTime", "foxSessionId", "historyCursorPreRec", and "historyCursorPostRec". You can optionally add more keys that will exclude BFacets instances from interning by adding a "niagara.intern.excludedFacetKeys" System property (each key you declare in the list should be separated by a semicolon).<br><br>b. BTime will skip interning if the milliseconds part is not zero (indicates a more specific time which is not likely a good candidate for interning).<br><br>c. BRelTime will skip interning if the milliseconds part is not zero and there is a non-zero seconds, hours, minutes, etc. part. This also attempts to detect more specific BRelTimes which are not good candidates for interning. |

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| | | | 2. Added a 'maxInternTicks' to the spy to indicate the maximum time it has taken to perform interning.<br><br>3. Added an optional max intern cache size that can cap the size of a BSimple's intern cache. This can be set using a System property ("niagara.intern.maxCacheSize"). |
| NCCB-5485 | baja | BSimple intern debugging causes heap memory leak | In AX 3.8.29 and earlier, if you had enabled debugging of Simple Type interning using the "niagara.intern.debug=true" System property, the debugging itself could lead to a heap memory leak. This debugging is not enabled by default, so the leak would only occur if you explicitly enabled debugging using the System property.<br><br>In AX versions 3.5.407, 3.6.407, 3.7.107, and 3.8.30 and later, this memory leak has been fixed even when debugging is enabled. |
| NCCB-2078 | bajaui | TreeTableController does not expand child nodes when expander icon is underneath second column | In AX 3.7U2 and AX 3.8U1, TreeTableController will now allow expansion of group tree nodes that have their expand/collapse icons beneath any column instead of just the first column.<br><br>In effected releases, you can workaround this problem by manually resizing the first column to the right until all exapand/collapse icons are underneath the first column. |
| NCCB-1226 | driver | Lon Driver Update | Support for new SNVT/ SCPT from LonMark version 13.20 standard resource files are included |

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| | | | in R3.8.27 and patch builds 3.7.106.1, 3.6.406.1, & 3.5.406.2 |
| NCCB-4633 | fox, web | Unable to connect using Browser when Foxs only set to true | In NiagaraAX 3.7 and later, users can set up SSL for both HTTP and FOX connections. The intention is that, when using the applet, SSL settings for HTTP and FOX must match (i.e. HTTPS/FOX or HTTP/FOXS are not allowed).<br><br>In NiagaraAX 3.7 update1 and earlier, users can connect to the applet using the invalid HTTPS/FOX combination. In addition, when loading the applet while using HTTP/FOXS, users are redirected back to the login screen with no error message.<br><br>In NiagaraAX 3.7 update2 and later, users attempting to use the applet with an invalid HTTPS/FOX or HTTP/FOXS connection will be redirected to the login screen. An error message will appear indicating what went wrong.<br><br>Users with NiagaraAX 3.7 update 1 can get patches to resolve this issue:<br>fox 3.7.106.2<br>web 3.7.106.5<br>workbench 3.7.106.1 |
| NCCB-6037 | fox | Fox deadlocks can inhibit all fox connections | With Java 1.7, a bug was found in the Oracle VM that allows for deadlocks to occur periodically when using SSL. This can cause unpredictable behave if the number of deadlocked threads gets too high. By default, the deadlocks may slowly accumulate. However, an optional property can be added to the system.properties file: |

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| | | | `niagara.fox.maxDeadlocke`<br><br>If the value is set to a number greater than 0, when that number of deadlocks has been reached, the station will save, then shutdown. If the station has been configured for "restart on failure" then the station will start back up.<br><br>The bug is scheduled to be fixed in Java 1.7.0_u60. |
| NCCB-3549 | gx | BFontFE selecting Sans Serif saved as Tahoma | In 3.7 Update 2, 3.8, and later, a bug has been fixed where selecting the "SansSerif" font family in the BFont field editor would pre-resolve to the rendered font (Tahoma, DejaVu, etc.) before being saved. Font families will now correctly save with the selected font family name rather than the concrete font name.<br><br>Please note that font families (Serif, SansSerif, MonoSpaced, Dialog, and DialogInput) will have the displayed concrete font selected at runtime and may change depending on Workbench theme and your selected locale. |
| NCCB-5367 | history | Appends to a history during a station save can cause a deadlock | Starting in Niagara 3.7, it was possible that a history deadlock could occur if history appends were occurring at the exact same moment that a station save job was attempting to save the history. In this rare race condition, you would have to kill your station and restart. Starting in 3.7U2 and 3.8, this potential deadlock scenario has been resolved. The fix is also included in the |

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| | | | 3.7.106.1 history patch for 3.7U1. |
| NCCB-5516 | lonworks | File transfer failure | An initial file transfer timeout would cause a lon file to report a timeout exception on successive attempts to access the file. This was fixed in lonworks 3.8.30, 3.7.106.1, 3.6.406.1 & 3.5.406.2 |
| NCCB-5861 | lonworks | LonXml creation - error parsing resource file | Attempting to create a lonXml file could get a ArrayIndexOutOfBoundsException when parsing the resource files. This was fixed in 3.8.30, 3.7.106.1, 3.6.406.1 & 3.5.406.2 |
| NCCB-3951 | ndedicatedMicros | ndedicated dvr doPing() fails if credentials are required when issuing the ping request | Prior to AX verions 3.6.306, 3.6.407, 3.6.501, 3.7.201, 3.7.107 and 3.8.20, ndedicatedMicros driver was not using the DVR credentials for HTTP requests and fails to communicate with DVRs having firmware version 04.5(069) and later. This is resolved in later verions by including credentails for all HTTP requests. |
| NCCB-6744 | niagaraDriver | NiagaraNetwork's worker thread pool is not coalescing cyclic work leading to the queue filling up | In AX 3.8.35 and earlier, it was discovered that the cyclic work registered to the NiagaraNetwork's thread pool worker did not properly coalesce cyclic work, which could sometimes lead to the queue filling up and performance degradation issues (and possibly QueueFullExceptions in the station output). In AX versions 3.5.407, 3.6.407, 3.7.107, and 3.8.36 and later, this defect has been resolved such that duplicate work does not fill up the queue and lead to performance problems. |
| NCCB-5933 | obix, obixDriver | oBIX requests may not timeout, leading to thread pool filling up and oBIX driver hangup | When using the Niagara AX oBIX driver using the obix module version 3.6.405, 3.7.106, or earlier, especially when |

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| | | | using a Java VM version 1.5 or newer, you may experience problems with the oBIX driver when communications are intermittent to the server devices. Because of a problem with determining the availability of timeout settings, the 'sessionTimeout' configured on the BObixClient may not be correctly applied, and any requests to a nonresponsive device will wait forever for a response. This consumes a thread from the ObixThreadPool each time it occurs, until all worker threads are stuck waiting and no further oBIX communications can occur. The primary symptom of this condition is that things like ObixHistoryImports will be stuck "In Progress" or "Pending", and proxy point subscriptions will no longer occur. Already subscribed points *may* continue to update if the device remains responsive.<br><br>Due to an improved method of configuring the timeout for the HTTP request, this problem has been fixed beginning with the 3.7.106.1 obix module. Niagara AX 3.7U2 and later builds are also fixed and will not display the problem.<br><br>Please note that the correction is applied in the obix module, not the obixDriver module. |
| NCCB-3340 | obixDriver | oBIX watch re-created when device disabled | The inappropriate re-creation of an oBIX Points Watch upon disabling a device has been corrected. This problem existed in Niagara AX installations using obixDriver module |

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| | | | versions beginning with 3.6.48, 3.6.301, and 3.7.103. When an ObixClient representing an oBIX server in a Niagara Station was disabled, the Points watch would be killed, but then immediately re-created. The effect was that the points would continue to be updated if the server was actually accessible.<br>Beginning in 3.6.501, 3.7.201, and 3.8.20, this behavior has been corrected. When the ObixClient is disabled, the Points watch is killed and does not get recreated until the device is re-enabled. |
| NCCB-3414 | obixDriver | Obix alarm ack not working for NiagaraNetwork imported alarms | The presentation and management to oBIX of alarms received by the station through the NiagaraNetwork has been corrected. Previously an alarm received by the station from the NiagaraNetwork could not be acknowledged by an oBIX client through the station's ObixNetwork server. The alarm would stay unacked but the client would receive a success response.<br>Unfortunately there is no workaround for affected versions that will allow the alarm to be successfully acknowledged. It must simply be acknowledged from the supervisor console.<br>This correction has been applied for 3.6U5, 3.7U2, and 3.8. It is also available in a 3.7.106.1 patch and for 3.7U1 versions 3.7.107 and greater. |
| NCCB-4503 | obixDriver | oBIX history imports don't re-archive after missing due to comms failure | Beginning with 3.7.106.3, oBIX HistoryImports will now go into |

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| | | | {fault} status when their regularly scheduled import is skipped due to the parent device being down. This allows the retry trigger in the ObixHistoryDeviceExt to identify the skipped history imports, and they will be retried according to the retry trigger schedule. In addition, two hidden properties, retryDelay and retryGroupSize allow you to configure the amount of bandwidth that the import retries will use, by limiting them number of imports that can retry concurrently, and by the delay before retrying additional imports. Imports whose retry is skipped will simply remain in fault until the next retry trigger, so you will see the faulted imports come back to<br><br>{ok} in groups as you specified in retryGroupSize. This change is available in Niagara AX obixDriver module versions 3.7.106.3, 3.7.201, 3.8.21 and later. If you are using an earlier version, and are experiencing the problem with history imports not re-importing after returning from device down, you can either use a larger buffer size on the server's log, or use a shorter import period, and simply import the data more frequently. |
| NCCB-7413 | obixDriver | Points lost from watch upon resubscription after network failure | When using the Niagara AX OBIX driver in version 3.7.106, you may experience difficulties in maintaining and recovering point subscriptions if network communication is lost between the AX station and the OBIX server. This can appear in various |

behaviors, but points may be placed into polling mode and registered with the device's poll scheduler, or they may be stuck in an Unsubscribed subscription state, or they may even be marked as Subscribed, but not actually be part of the point watch. In this latter case, it may be difficult to identify that the condition has even occurred unless you are trending the point with a history extension and notice the lack of value changes.

The behavior of the driver has been improved beginning with versions 3.7.106.4 and 3.8.39 of the obixDriver module. This is supported by versions 3.7.106.2 and 3.8.39 of the obix module, respectively (although it is not a strict dependency). Improvements to the driver include:

- Improved diagnostic information for determining point state and transitions
- Verification of point subscriptions is performed whenever the subscription count and watch size do not match
- Points that get marked stale or subscribed for polling are resubscribed with the watch
- Point watch is no longer created when device is disabled
- Refresh period is updated and

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| | | | point subscriptions are verified upon attaching point watch<br>• Thread pool max thread count is set to at least the number of devices to improve performance<br><br>With these changes you should see improved stability and recovery of point watches during communication failures. |
| NCCB-5535 | orion | OrionSessionManager spy page should record the top10 longest orionSessions | In orion AX 3.7.106.1 and later, OrionSessionManager will now provide the top 10 longest orionSessions that have previously been closed. This will be useful in diagnosing which OrionSessions cause performance problems. |
| NCCB-2268 | pdf | Landscape doesn't work when Exporting to Pdf in Report Service | In AX version 3.6.31, updates to the Export Source Page Layout did not have an effect when the report is generated by the station.<br>In AX versions 3.6.501, 3.7.201, 3.8+, and later, this problem is fixed. |
| NCCB-7229 | pdf | Backport NCCB-2268 and create patches for 3.6.406 and 3.7.106 | In AX versions 3.6.406 and 3.7.106, updates to the Export Source Page Layout did not have an effect when the report is generated by the station. Module patches for pdf and report (patch version 3.6.406.1 and 3.7.106.1) fix this problem. |
| NCCB-5897 | platWifi | Can Not Save WPA-PSK Wifi Networks- Key and Confirmation Do Not Match | Prior to AX 3.8.30, AX 3.7.107, AX 3.7.201, AX 3.6.407 and AX 3.6.501, the WPA-PSK wireless configuration settings could falsely indicate a password mismatch. This behavior was introduced in 3.7U1 and 3.6U4 update builds. |

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| | | | This behavior has been corrected. |
| NCCB-3506 | provisioningNiagara | Alarm changes classes upon acknowledgement | In all prior version of Niagara, alarms generated by the provisioningNiagara Platform Connection component were assigned the source of the Niagara Network Station instead of the Platform Connection. This caused alarm acknowledgements to be routed incorrectly to the Station instead of the Platform Connection. If the Station and Platform had different Alarm Classes set, the Alarm Class of the alarm would change after it was acknowledged. This has been resolved in AX 3.5u5, AX 3.6u5 and AX 3.7u2. |
| NCCB-2606 | schedule | Schedule import fails when remote schedule has multiple incoming links | In AX 3.7 update 1 and earlier, importing a schedule from a remote station can result in a failed status when the remote schedule has multiple incoming links. In AX 3.7 update 1 and earlier, and AX 3.6 update 4 and earlier, the resulting failed schedule export can sometimes cause a NullPointerException when the fault cause is unknown.<br><br>In AX 3.7 update 2 the schedule import has been fixed and in AX 3.7 update 2 and AX 3.6 update 5, an unknown fault cause will be displayed as "Could not determine fault cause". |
| NCCB-4090 | seriesTransform | removing pass through function from rollup node prevents automatic selection of input schemas | In AX 3.7 update 1, changes were made to correct the Rollup graph node by removing the Pass Through function from the node configuration table. This also removed the auto-configure functionality of the graph node which created a Pass Through |

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| | | | function configuration for each field of the incoming schema for the Rollup graph node.<br><br>This is addressed by modifying BFunctionMapBuilder to always provide a default transform function for every data field of the source node. The Rollup node uses the Average function as the default function for all fields. Aggregate still uses the pass through function.<br><br>The workaround for this issue in earlier versions is to manually configure each data field of the Rollup graph node by adding the each field to the Rollup output schema and setting the desired rollup function on that field. |
| NCCB-7535 | wbapplet, web | Web Jar Contains Incorrect Dependency and Wbapplet with Missing Parameters | Web.jar version 3.7.106.10 had an incorrect dependency on an older version of baja (3.7.106.3) and was missing parameters in the wbapplet manifest file that eliminates some errors when loading the applet. Version 3.7.106.11 of web.jar fixes the baja dependency and adds the missing parameters to the applet manifest. |
| NCCB-4018 | web | Wbapplet doesn't work with Guest user | In NiagaraAX 3.7 update 1 and NiagaraAX 3.6 update 4, the guest user does not work consistently when using the cookie authentication scheme for web authentication. In addition, when using the wbapplet, the guest user does not work at all.<br><br>In NiagaraAX 3.8, 3.7 update 2, and 3.6 update 5, this has been fixed so |

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| | | | that the guest user works correctly.<br><br>For affected versions, patches are available on Niagara Central:<br><br>• web 3.7.106.8<br>• web 3.6.406.3<br>• web 3.5.406.3<br><br>Alternatively, the guest user still works with cookie-digest authentication and an Hx profile. |
| NCCB-4127 | web | Browser logon fails if there is a . in username after upgrade to 3.7.106 | In Niagara AX release 3.7.106, it was not possible to have a username with a special character (like a ".") work with a browser login. In 3.7.201, this problem has been resolved, and usernames can now contain special characters. |
| NCCB-4855 | web | Web Tunneling thru stations mangles ord and fails 1st login | In NiagaraAX 3.7 update 1, 3.6 update 4, and 3.5 update 4, web tunneling can in some cases mangle the requested ord, transforming it from an ord on the target station to an ord on the proxy station. This happens when attempting to authenticate to the target station.<br><br>This has been fixed in NiagaraAX 3.8, 3.7 update 2, and 3.6 update 5.<br><br>For affected versions of NiagaraAX, patches are available on Niagara Central:<br><br>• web 3.7.106.9<br>• web 3.6.406.4<br>• web 3.5.406.4<br><br>Alternatively, users can authenticate to the target station, and then re-request the ord. |