

Issue Key	Module	Release Note
NCCB-69426		If the 'default' certificate has expired, it will no longer be included in the count of expired certificates in the User Key Store reported on the Cert Management Service's Security Dashboard, and if it is the only expired certificate in the User Key Store, an alert item will no longer be presented.
NCCB-67399	bacnet	A UdpServerPort property has been added to the BACnet IP link layer. This serves the same purpose as the now hidden UdpPort property and also adds the UDP port to the station's firewall rules when the link layer is enabled. The value of UdpPort property will be transferred to the UdpServerPort.PublicServerPort property when the station is started in Niagara 4.15.
NCCB-67660	bacnet, baja	The BACnet driver will use a modifiable copy of bacnetObjectTypes.xml in the niagara user home on a platform where niagara home is read-only.
NCCB-68590	bacnet	Allows writing of reliability property when point is out of service. A successful write to the Reliability property shall cause the event state to be evaluated and block the object from updating the Reliability property. Writing the Out_Of_Service property to FALSE shall remove the block allowing the object to update the Reliability property.
NCCB-66074	baja	Previously, it was not possible to modify the contents on units.xml, unitConversion.xml, and unitDifferentialConversion.xml when Niagara home is readonly. Now, whenever Niagara home is readonly, these files will be loaded from the ~etc directory allowing for modification as needed.
NCCB-67225	brick	When updating the contents of an existing tag dictionary using Import from the Tag Dictionary Manager view, the resulting tag group list will be ordered based on the contents of the updating configuration JSON or CSV file.
NCCB-51623	hx, uxBuilder	In previous releases, there was no way to remove the undesirable whitespace on UxMedia PxViews where the save command would take up about 20 pixels of space across the top of the page. This has been corrected by providing a "Show Command Bar on UxMedia Px Pages" option on the DefaultHxProfile and a Show Command Bar on UxMedia Popups for the Html5HxProfile. These options default to false, but can be set to true.
NCCB-62959	hx, uxBuilder	Starting in Niagara 4.10U10, 4.14U1 and 4.15, UxMedia and HxPx will require that a user has permissions to both the component they are viewing and the PxFile that is referenced. Workbench Px already enforces these additional permissions checks on the PxFile and now the other Px Medias have been modified to match that behavior.

NCCB-67709	jxBrowser	Niagara has upgraded JxBrowser to 7.39.2. Although RHEL 7 is supported by Niagara in 4.10U10 and 4.14U1, JxBrowser 7.39.2 is in those releases and is only supported on RHEL 8.9. When using RHEL 7, the Workbench WebBrowser will fallback to JavaFx browser which can have non-ideal behavior and does not support pdf generation of Web Widgets. For more information on the system requirements for JxBrowser see this link: https://teamdev.com/jxbrowser/docs/guides/introduction/requirements.html#linux
NCCB-70568	jxBrowser	A recent update to Windows Defender makes existing versions of JxBrowser start up slower. (7.41.7 or lower). This has mostly been improved for a newer version of JxBrowser (7.42.0) so that version is now included. For older Niagara releases, the additional startup delay from JxBrowser can be avoided by either switching to a different anti-virus provider than Windows Defender or users can switch to JavaFx with this system property "niagara.jxbrowser.disable=true". There are certain features of Niagara like report service pdf generation of web widgets which do not work in this mode.
NCCB-66807	kitControl	The ArcTangent2 Niagara component is designed to map to CDL.Reals.Atan2, aiding the conversion of CDL control logic into Niagara control logic as part of the expansion of kitControl objects. This component is one of several new additions to support mapping to CDL. ArcTangent2 accepts two inputs, x and y, and returns the angle (theta) as the output of atan2(y, x).
NCCB-66812	kitControl	The Nand Niagara component is designed to map to CDL.Logical.Nand, aiding the conversion of CDL control logic into Niagara control logic as part of the expansion of kitControl objects. This component is one of several new additions to support mapping to CDL. Nand can take 2-4 Boolean inputs (inclusive) and only returns False when all of its inputs are True
NCCB-66813	kitControl	The Nor Niagara component is designed to map to CDL.Logical.Nor, aiding the conversion of CDL control logic into Niagara control logic as part of the expansion of kitControl objects. This component is one of several new additions to support mapping to CDL. Nor can take 2-4 Boolean inputs (inclusive) and only returns True when all of its inputs are False
NCCB-69030	kitControl	A StringSwitch component is now available in the Util folder of the kitControl palette. This behaves like the existing BooleanSwitch, EnumSwitch, and NumericSwitch by taking a boolean input and outputting a string based on the input value.
NCCB-53776	opcUaClient	OpcUa arrays can now be added by selecting their containing node. Previously, the add button would have been disabled.
NCCB-67845	opcUaClient	A new discovery preference for the max array size has been added to the OpcUa client point discovery preferences in order to make this previously static item configurable.

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HAREMB-1408		The DHCP server on the secondary adapter and Wi-Fi adapter will now consider the number of usable hosts in the provided subnet mask when generating the DHCP server pool range. This means that we now support managing a DHCP server pool with corresponding adapter subnet masks of 255.255.255.252 and 255.255.255.248.
HAREMB-1571		The Niagara TCP/IP Configuration View failed to properly handle the automatic creation of DHCP server settings for the secondary adapter when it used any netmask larger than 0.0.0.0/24 bits. This has been corrected.
HAREMB-3560		Improved behavior on creating new passwords and system passphrase on the JACE-9000 in the system shell. Menu will not prompt user to confirm new password if invalid current value is provided, or if new value does not meet password requirements.
HAREMB-3658		Corrected an issue in which a user could not set the system time on a JACE-9000 from the system shell when the RTC capacitor was fully discharged.
HAREMB-3961		Previously, when processing received mstp frames, the serial port stack on the Jace-9000 could break the packet up into multiple transactions. This would have resulted in dropped mstp frames when receiving large packets. Because of underlying stack considerations, expansion ports COM3 and above were more susceptible to dropping packets than baseboard ports COM1 and COM2. For all ports, a hard limit of above around 1270 bytes for npdu size were dropped. This behavior has been fixed, and arbitrary frame sizes up to the max extended frame size should work correctly.
NCCB-68062		The entitlement checks for subscription licensing are designed to stop after continuous predefined set of attempts. Previously, the counter to track the failure checks was not reset on a successful check in. This makes the counter retain the last failure attempt count in spite of the current check in success. This resulted in not retrying after a failure once the counter reaches its limit. This issue has been fixed.
NCCB-68142		User sessions should follow the auto log off time now and should not be logged out in 2mint.
NCCB-69713		Widget copy/paste across px pages will apply the link values when none available at the paste context.

NCCB-66474	abstractMqttDriver, mqtt	Similar to single point subscribe failure on Subscribe All points will skip the duplicate topic and mark the point write fail with proper message. Subscribe all points with valid topic
NCCB-36158	alarm	Prior to this fix, when an alarm not requiring acknowledgement was routed to an alarm recipient, and the alarms source point had returned to a normal state, the alarm was not being removed from the console once cleared. This fix makes the behavior of the Alarm Console view consistent with the Ax Alarm Console view.
NCCB-52232	alarm	When trying to subclass alarm:RecoverableRecipient, you would encounter AccessControlExceptions due to file access in the file:^^alarm directory and would be unable to request the required permissions. This has been resolved and subclasses of alarm:RecoverableRecipient no longer require additional permissions to make use of the base functionality.
NCCB-56805	alarm	Fixes a defect that prevented an Alarm Console from updating it's sound file when modified from the Alarm Console's OptionsEditor. This fix also provides the ability to select a sound file using an OrdChooser dialog.
NCCB-64799	alarm	The display names for the Valid Values slot on an alarm extension's Fault Algorithm will now correctly come from the lexicon configured on the Enum point itself.
NCCB-68678	alarm, bacnet	Updated the OUT_OF_RANGE Event Algorithm and FAULT_OUT_OF_RANGE Event Algorithm to behave in the same way as the BACnet OUT_OF_RANGE Event Algorithm and BACnet FAULT_OUT_OF_RANGE Event Algorithms. OUT_OF_RANGE Event Algorithm: When in high limit state, and presentValue >= (highLimit - deadband), we are still in alarm. Once in the alarm state, the presentValue must go below that difference. If equal to that difference, stay in the alarm state. This matches the behavior of the OUT_OF_RANGE Event Algorithm in BACnet. When in low limit state, and presentValue <= (lowLimit + deadband), we are still in alarm. Once in the alarm state, the presentValue must go above that sum. If equal to that sum, stay in the alarm state. This matches the behavior of the OUT_OF_RANGE Event Algorithm in BACnet. FAULT_OUT_OF_RANGE Event Algorithm: When in high alarm state, if presentValue <= (highLimit - deadband), enter the normal state. This matches the behavior of the FAULT_OUT_OF_RANGE Fault Algorithm in BACnet. When in low alarm state, if presentValue >= (LowLimit + deadband), enter the normal state. This matches the behavior of the FAULT_OUT_OF_RANGE Fault Algorithm in BACnet.

NCCB-59603	analytics	Fixed a defect where count aggregation and rollup were not working with tags having units associated.
NCCB-65843	analytics	When editing an analytic value binding, the node property can be set to a relative ORD now. This has been added to use the same view for multiple components without changing the node property for each of them.
NCCB-67030	analytics	Analytics charts now provide an option to set precision while exporting the charts in csv format.
NCCB-67665	analytics	Fixed the issue where charts in station version below 4.13 cannot be resolved from newer workbench versions.
NCCB-56530	backup, provisioningNiagara	Backup job disposed from Job bar or job monitor will prompted the user with list of actions as part the job (s) disposal. For back job disposal user will prompted with dialog that list the back files that are getting deleted on Job(s) disposal. User can take go ahead and dispose a Job(s) or cancel the Job(s) disposal
NCCB-55230	bacnet	The BBacnetReliability enumeration is updated to include latest enumeration defined in the ASHRAE 135-2020 specification.
NCCB-56952	bacnet	Previously, regardless of the trend log extension, the BACnet Logging Type property would always return "TRIGGERED". Now, for COV trend log extensions, it correctly returns "COV", and for interval-only trend log extensions, it returns "POLLED". When the trend log extension can be configured as either, if the BACnet Log Interval property is zero, Logging Type will return "COV". Otherwise, it will return "POLLED".
NCCB-64156	bacnet	When the point's out of service extension is either enabled or disabled, it correctly updates the associated descriptor BacnetStatusFlags slot.
NCCB-64167	bacnet	Previously, when the BACnet driver became very busy, application message timeouts could be lost and prevent the re-use of transaction invoke IDs. This has been fixed so the full range of invoke IDs should remain available to client requests.
NCCB-64629	bacnet	TrendLog descriptor supports writing an unsigned value to BUFFER_SIZE property, provided BACnet user have permission for writing to trend log extension's history config component. Writing a value of $2^{32} - 1$ (a symbol to indicate that the buffer size is unknown, rather than to support that number of records) sets history capacity to unlimited Writing a value greater than $2^{31} - 1$ return a VALUE_OUT_OF_RANGE property error.

		Writing a value lesser than $2^{31} - 1$, sets history capacity to record count. For object creation of dynamic trendlog through BACnet-AWS, now supports customer provided BUFFER_SIZE value.
NCCB-65314	bacnet	Added support for the property EventAlgorithmInhibit, EventAlgorithmInhibitRef, TimeDelayToNormal support for descriptors.
NCCB-65605	bacnet	Previously, when a BACnet proxy point was configured for the Present Value property of a BACnet object that supports regular COV and both Use Cov and Use Cov Property were enabled in the point's tuning policy, COV Property would be used instead of regular COV. The COV Property Increment in the tuning policy would be used instead of the BACnet COV Increment of the object. Now, under these circumstances, regular COV will be correctly used. COV Property will be continue to be used when the proxy point is configured for properties other than the Present Value. To use COV Property and the COV Property Increment in the tuning policy for the Present Value property, Use Cov in the tuning policy must be set to false.
NCCB-67007	bacnet	When the station is started or the queryForAdapters action is invoked on a BACnet/IP link layer, if the previously selected adapter on a BACnet IP or Ethernet link layer is missing, it will be changed to an alternate or the "none" adapter ("none" adapter when there is more than one). This behavior can now be changed by setting the system property "niagara.bacnet.link.autoAdapterChange.disabled" to true. The new behavior adds and selects a placeholder adapter so the original adapter will be selected again once it reappears.
NCCB-67063	bacnet	For routed BACnet alarms involving event enrollment, the alarm record associates the source by selection of the first property point of the event enrollment object found in device's point extension. For example, added three proxy points for Event_Enrollment,1 ; firstly Object_Name property, secondly Description property, thirdly Event_State property. Since Object_Name proxy point is first in database, thus the alarm source points to Object_Name proxy point.
NCCB-67251	bacnet	When the out slot changes on a BACnet proxy point for a commandable (has a priority array) present value property, there are up to two write property requests sent. The first is sent with a BACnet priority that corresponds to the proxy point's new active level. The second is a relinquish that is sent with a BACnet priority that corresponds to the old active level. If the new or old level is fallback, which does not correspond with a BACnet priority, a request is sent without any priority, which results in a write at priority 16. To change this behavior, the new and old proxy point levels can be ignored for all BACnet proxy points by setting the

		<p>system property "niagara.bacnet.point.ignoreFallback" to true. Or, they can be ignored for individual proxy points by adding a slot set to BBoolean.TRUE named "ignoreFallback" to the ProxyExt. This will prevent sending write property requests without any priority that end up writing at priority 16. The proxy point's fallback value will not be written to priority 16 either at station start or when the point is executed but all the input slots are null. The previously used "writeOnFacetChange" slot on the BBacnetNetwork was meant to address similar issues but it did not solve it completely and introduced other defects. It has been replaced by this "ignoreFallback" functionality.</p>
NCCB-67280	bacnet	<p>For a BacnetLoopDescriptor, the OutOfService extension value sets an inverse value to corresponding LoopPoint's "LoopEnable" property. The BBacnetStatusFlags for OutOfService bit is not influenced/decided by LoopEnable value.</p>
NCCB-67465	bacnet, clientCertAuth	<p>Handled unknow exception scenario so that the CRL descriptor never stuck in InProgress state.</p>
NCCB-68018	bacnet	<p>The PresentValue property shall be writable with a value of 'NULL' or relinquished when out of service is true.</p>
NCCB-68550	bacnet	<p>A deadlock should no longer occur when watching BACnet Multi-Poll statistics while other BACnet points or objects are subscribed/unsubscribed.</p>
NCCB-68621	bacnet	<p>In Niagara, the NOTIFICATION_CLASS object don't support intrinsic reporting, thus the optional NOTIFICATION_CLASS property is not supported anymore.</p>
NCCB-68675	bacnet	<p>Previously, the Event Type and Event Parameters choice for BACnet Event Enrollment objects would always return out-of-range regardless of the referenced object/property. Now, the following types/choices will be returned instead when appropriate: double-out-of-range, signed-out-of-range, and unsigned-out-of-range.</p>
NCCB-68676	bacnet	<p>For event enrollment descriptor, when resolving object property references for local device objects, support for valid object type: TREND_LOGS, ANALOG_INPUT, ANALOG_OUTPUT, ANALOG_VALUE, MULTI_STATE_INPUT, MULTI_STATE_OUTPUT, MULTI_STATE_VALUE, LOOP, CHARACTER_STRING_VALUE, LARGE_ANALOG_VALUE, INTEGER_VALUE, POSITIVE_INTEGER_VALUE, BINARY_INPUT, BINARY_OUTPUT, BINARY_VALUE. Except that, other are invalid object types, return VALUE_OUT_OF_RANGE error. For TREND_LOGS, may only</p>

		reference the Log_Buffer property. Except that, other are invalid property, return VALUE_OUT_OF_RANGE error. For ANALOG_INPUT, ANALOG_OUTPUT, ANALOG_VALUE, MULTI_STATE_INPUT, MULTI_STATE_OUTPUT, MULTI_STATE_VALUE, LOOP, CHARACTER_STRING_VALUE, LARGE_ANALOG_VALUE, INTEGER_VALUE, POSITIVE_INTEGER_VALUE, may only reference the Present_Value property. Except that, other are invalid property, return VALUE_OUT_OF_RANGE error. For BINARY_INPUT, BINARY_OUTPUT, BINARY_VALUE, may only reference the Present_Value property and Elapsed_Active_Time property. 3) For event enrollment descriptor, for TrendLogAlarm extension, writing for EVENT_MESSAGE_TEXT_CONFIG property for offnormal or fault text return VALUE_OUT_OF_RANGE error.
NCCB-68989	bacnet	The alarmFlag of the statusFlags should be in tuned to EVENT_STATE property. The alarmFlag need to be logical FALSE (0) if the Event_State property has a value of NORMAL, otherwise logical TRUE (1).
NCCB-69007	bacnet	Implemented new validation errors when writing EVENT_PARAMETER for Change_Of_State event type. The alarm extension is configured correctly when DeviceObjectPropertyRefrence propertyInfo asnType matches with BACnetPropertyStates valueType.
NCCB-69048	bacnet	Previously, when a Niagara point transitioned from fault to offnormal, only an event for that transition would be sent to BACnet notification recipients. BACnet requires a notification for the fault-to-normal transition and then one for the normal-to-offnormal transition. These are both now provided.
NCCB-69728	bacnet	For the change of reliability event notifications, are generated correctly for both unsigned and signed values, with units and without units.
NCCB-67364	bacnetUtil	Previously, links to Workbench Help for components in the bacnetUtil module were not pointing at the correct location. Those links are now pointing at the relevant locations in docEngNotes.
NCCB-27106	baja, webEditors, workbench	In previous versions, the bajaux and bajaui Composite Editors would throw an ArrayIndexOutOfBoundsException and display non-composite links. This has been corrected as long as the user has write permissions to all the component's properties.
NCCB-66909	baja	For any code using the BAbsTime.make() factory methods containing integer parameters for specifying the second/millisecond values, it will now use those second/millisecond parameters when the generated BAbsTime falls within the first hour of the beginning of daylight saving

		time. Prior to this fix, those parameters were being ignored, only for the first hour of the beginning of daylight saving time.
NCCB-68836	baja	Starting in 4.10u8, 4.13u3, and 4.14, if any 'max' facet value was defined on a NumericWritable point, attempting to manually set the value of the point to "nan" (Not a Number) would be incorrectly prevented due to the 'max' facet check. This defect has now been fixed so that setting a value of "nan" regardless of the 'max' facet value is allowed again. This is important for certain point types (e.g. Lonworks).
NCCB-37359	bajaScript	If you are implementing a function that will call getAgents() on an arbitrary BajaScript value, it can now support calling getAgents() on primitive values (strings, booleans, and numbers).
NCCB-68611	bajaScript, box	In previous releases, it would take an extra long time to load a bunch of Niagara Virtual points all at once. Improvements have been made to how these points are encoded to box so its faster.
NCCB-69014	bajaScript	When calling toString() on a BajaScript DynamicEnum, if no "range" is passed in the context, the DynamicEnum's own range will now be used when formatting the resolved string.
NCCB-63784	bajau, dashboard	In previous releases, the UxMedia dashboard data would not be shared with HxPx and Wb. Also if there were multiple DashboardPanels on the same UxMedia page, they would incorrectly share the same data. This has been corrected.
NCCB-65974	bajau	The JRE that comes with Niagara Supervisors and Workbench has changed from Oracle to Azul and as a result, certain font renderings like "bold Arial" and "bold Source Sans Pro" have changed slightly in how they are rendered. This may cause some Px pages to shift their layout and it may require you to review your Px pages to make sure they do not need adjustments.
NCCB-67704	bajau, workbench	The calendar picker in the Workbench field editor for BAbsTimes was advancing the calendar twice instead of once when clicking the buttons with the mouse. Now, it will correctly advance only once per mouse click. Please see UI Changelog for more information.
NCCB-69165	bajau	In previous releases the UxMedia SetPointToggleButton did not toggle with spacebar. This has been corrected.

NCCB-69385	bajai, uxBuilder	In previous versions, if there was a TabbedPane with a LabelPane and the LabelPane was lacking a content widget, the entire UxMedia page would not display. This has been corrected.
NCCB-65969	bajaux	In previous versions, spandrel attributes would need to be the specific case that they are mentioned in the docDeveloper help. Now, the non-eventing spandrel attributes can be any case so they can work closer like regular HTML.
NCCB-66081	bajaux	Previously, if you had a validation error on the bajaux PropertySheet in workbench and you fixed it, for example correcting a value that was out of the min and max facets, it would save, but it would incorrectly show you the error dialog again. In order to make the error dialog go away you could Ctrl click the refresh button. This has been fixed and the workaround is no longer necessary.
NCCB-66158	bajaux	When changing a password, there were problems displaying the proper message when there was a problem setting a password. This has been corrected.
NCCB-68194	bajaux	In previous releases, modified widgets that did not have the "lax" keyword would not get updated even if the developer requested those widget get modified. Now, as long as the widget is not the owner of a focused and textual input, they should get updated with a state(), load(), or setReadOnly() call.
NCCB-69588	bajaux	In UxMedia, when the text of a Label is animated to different values, and some of them include a newline character and some don't, the animation will again work correctly. This was an underlying spandrel fix. when the text contents of an element add or remove newlines, the rerender will now handle the change correctly.
NCCB-69122	bouncycastle, nre	This fix addresses a performance issue when establishing a TLS connection between a 4.15 or later Workbench and 4.10 and lower platform daemon.
NCCB-65829	box	A potential deadlock, caused when a browser BajaScript session expires at the same time the user logs off, has been corrected.
NCCB-68004	box	It was possible to get the BoxService into an unrecoverable state, preventing new BajaScript sessions from being opened via the browser. It happened when these two things occurred at the same time: - A long-running query was being executed to populate the Alarm Console in the

		browser, due to a very large alarm database, and - A BajaScript session reached its timeout period (defaulting to 90 seconds) of no activity at the same time. This scenario should no longer occur.
NCCB-61437	bql	BQL queries with an "or" clause will now continue to evaluate the right hand side of the "or" statement if the left hand side returns an empty or null result. For example, this could occur if the left hand side references a non-existent slot name. An example of this query would be: bql:select displayName from control:NumericWritable where notASlot or out.value = 30 Since "notASlot" is not a slot name of a NumericWritable component, this statement would not return any results, even if there were NumericWritable points with an out value of 30. Now the BQL query engine will continue to evaluate the right hand side of the "or" clause.
NCCB-67189	bql	In previous versions, the Bajaux Bql Builder would not show abstract and interface types. This has been corrected so that all types can be selected.
NCCB-67199	bql, query	BQL queries that include an aggregate function like 'count' that are run against the alarm or history spaces will no longer automatically return NULL values.
NCCB-67208	container	Starting in 4.15, the FDA container will now run strictly as the niagara user. Due to this, there will be problems faced when trying to upgrade an existing FDA container to 4.15. In order to fix this, the ownership of the /home/niagara/etc/nre.properties should be transferred from "root" to "niagara" prior to upgrade.
NCCB-69527	dashboard	In previous versions, the Workbench WebChart Clear Dashboard command would show the wrong state so it would not let you clear the dashboard data after a change. This could be corrected by Ctrl + Click on the refresh button. This has been corrected, Ctrl+Clicking the refresh button is no longer required to get the correct dashboard status on the command.
NCCB-67652	docDeveloper	docDeveloper's Building JavaScript Applications for Niagara section has been updated to make note of a Gradle property that needs to be set in order to build ux modules.
NCCB-67796	docDeveloper	The example module-ux.gradle.kts in docDeveloper's Build section has been updated to include new syntax for including JavaScript and other resource files.

NCCB-66111	email	This fix addresses an issue that caused incorrect BPassword values within BEmailAuthenticatorTypeConfig instances to be persisted for any non-modified BPassword properties after opening an edit dialog for BEmailAccount instances within the AX Email Account Manager.
NCCB-61783	fox	Prior to this fix, Niagara Virtual ORDs (especially those configured as bindings in Px graphics) could lead to slow performance if the corresponding NiagaraStation(s) in the NiagaraNetwork had gone down (e.g. lost connection). This possible performance issue has now been resolved.
NCCB-66247	httpClient	Added WriteOk() to clear the status of WritePending() for writable points.
NCCB-67982	hx	javax.baja.HxOp had some cookie convenience methods to help with cookie usage. These convenience methods were removed since they were lacking all the available options for cookie creation. Cookies can continue to be created with existing methods like <code>`HxOp.getRequest().addCookie(Cookie)`</code> . When creating your own cookies, make sure to consider which options to use like setting <code>`httpOnly=true`</code> . Methods removed from HxOp.java: <code>addCookie(String, String)</code> <code>getCookie(String)</code> <code>removeCookie(String)</code>
NCCB-69617	hx, webEditors	In previous versions, the Html5HxProfile would incorrectly restart the iframe loads of HxViews and would take extra time to load those HxViews when it didn't need to. This has been corrected.
NCCB-69144	jetty, web	Previously, when a client such as nhaystack sent a "hello" authenticate message for a user with the HTTP Basic scheme, they would not receive a WWW-Authenticate header back identifying the "BASIC" scheme. This has been fixed and nhaystack clients can once again use the Basic scheme for authentication.
NCCB-65261	jxBrowser, workbench	Workbench should now be able to properly approve certificates view bajaux views using IPv6
NCCB-47427	kitControl	The Operator flag is now set by default on the 'Out' property of the kitControl Constants (BooleanConst, EnumConst, NumericConst, and StringConst). This allows the 'Out' property to be viewed by operator-level users.
NCCB-70447	kitPx, workbench	In previous releases, when in Browser preview mode in workbench and using UxMedia, the popups would not work (unless the website hyperlink

		was whitelisted. Now, when the mediaType is set to UxMedia and you are using the Browser Preview Mode, the popup should work fine. Also, when previewing a UxMedia PxFile directly, the page has been optimized to load faster.
NCCB-58635	ldap	Fixed an issue where users configured to use a non-existent authentication scheme could cause the web server to fail to restart when the station is configured with a Client Cert Auth Scheme.
NCCB-66760	ldap, saml	Users with remote authentication schemes (e.g. LDAP or SAML) can now use any valid remote authentication scheme each time they log in. This behavior can be disabled by setting the "niagara.authentication.allowRemoteAuthnSchemeChange" system property to false - this will cause the first authentication scheme used by a user to be required for subsequent logins.
NCCB-69710	lexicon	Inside the alarm record, the German translation for toState and fromState is corrected so toState is Zum Zustand and fromState is Von Zustand.
NCCB-68008	license, nre	Okhttp3 client connection is leading to connection leaks in exception scenarios. This is now fixed by explicitly closing the response body in case of the unsuccessful response received.
NCCB-64605	lonlp	Previously, Lon Link manager would fail silently if the number of connections were above the number of connections allowed which is 12287 connections. Now, if the max number of connections is exceeded it will display a proper error message.
NCCB-66075	mbus	Previously, it was not possible to send commands using the Mbus TCP/IP driver (only the serial based driver). This issue has been fixed.
NCCB-68612	mbus	In 4.14, a regression was introduced that could incidentally cause spam logs that were irrelevant for m-bus serial devices. This has been corrected.
NCCB-64313	modbus	For 4.14 beta, the bajaux Modbus New Point Command didn't match the bajau version for the allowable addresses on some writable points. This has been corrected.
NCCB-65790	niagaraDriver, niagaraVirtual	When using Niagara Virtual Px graphics, if you had a remote Px graphic against a NiagaraStation in a remote NiagaraNetwork on a subordinate station (or against a non-virtual descendant of that NiagaraStation),

		<p>when navigating to the virtual Px representation of that graphic on a supervisor station, it would fail to load in 4.13. This has now been fixed so that those virtual Px views will load correctly, regardless of where they are located in the remote station.</p>
NCCB-69129	niagaraVirtual	<p>Prior to this fix, on rare occasions with multiple concurrent clients navigating and/or opening views containing Niagara Virtual Components, a deadlock could occur. The thread dump might indicate a thread stuck on the following line: com.tridium.nv.BNiagaraVirtualComponent.getNiagaraVirtualGateway This defect has now been resolved in order to prevent such a deadlock.</p>
NCCB-61197	niagarad, nre, platCrypto	<p>A bug was discovered that could cause niagarad to crash if an excessively large key store or exemption store was created. A limit of 500 has been set to prevent an excessively large store. The following properties have been added that allow for increasing the size limits of the various key store types from the default value of 500. Care should be taken to ensure that a much larger value doesn't overload the niagara daemon or station.</p> <ul style="list-style-type: none"> - niagara.crypto.maxKeyStoreEntries=500 - niagara.crypto.maxUserTrustStoreEntries=500 - niagara.crypto.maxExemptionStoreEntries=500
NCCB-67717	niagarad	<p>With the migration to Azul, Supervisor stations were failing to start upon initial upgrade with the error "Feature stationAzul not licensed" even though the attribute was accurately in the license viewed through the License Manager. In 4.14 and 4.10u9 this has been resolved so that Supervisor stations are able to continue the starting process as expected.</p>
NCCB-68272	nre	<p>Prior to this fix, any code that attempted to write to the user key store (e.g. a certificate) would require a "write" KeyStorePermission on both the "userKeyStore" and the "userTrustStore". Only the "userKeyStore" permission should have been required; the check against the "userTrustStore" was incorrect since the write attempt was going to the user key store and not the user trust store. This incorrect exception would have been thrown if the calling code didn't declare a "write" KeyStorePermission to the "userTrustStore": java.lang.RuntimeException: java.security.AccessControlException: access denied ("com.tridium.nre.security.KeyStorePermission" "userTrustStore" "write") This defect has now been resolved so that code writing to the user key store will only require the "write" KeyStorePermission to the "userKeyStore".</p>

NCCB-67421	obixServer, saml	SAML scheme unused xsd s are removed.
NCCB-67422	obixServer, saml	SAML scheme unused xsd s are removed
NCCB-67423	obixServer, saml	SAML scheme unused xsd s are removed
NCCB-54850	opcUaClient	Units in Niagara Unit Database are now supported by OpcUaServer and OpcUaClient as per OPCUA Unit ID and UNECE specifications.
NCCB-66010	opcUaClient	Previously, it was possible for the OPCUA client to discover multiple instances of the same node in the same level of a device leading to duplicates in what is discovered. This has been fixed to remove duplicate nodes.
NCCB-67762	opcUaServer	Previously, a point manager view was available for the OPCUA server view. This view was not completely functional as it has not been implemented yet. This view has been turned off to avoid confusion.
NCCB-70137	opcUaServer	The alternate server URI field value required by OPC UA certificates is no longer case-sensitive.
NCCB-67955	opcua	Previously it was possible for points with special characters to be displayed multiple times in the client OPCUA discovery. This has now been fixed to ensure each point is discovered only once.
NCCB-66116	platCrypto	Resolves an issue in the Certificate Wizard that caused certificate signing and installation failures when generating a certificate signing request/installation into a remote platform's UserKeyStore when the server certificate's Private Key was password protected.
NCCB-67334	platCrypto	In previous versions, if you signed a server certificate and attempted to import it into the Local Cert Store of the bajaux Certificate Manager, it would not show the "global" password checkbox as an option. Also, the bajaux pem viewer would incorrectly show the ca if the pem file was manually re-ordered so the ca was the first cert in the pem file. These issues have been corrected so the order is correct and the checkbox is now available. The only time you do not get a "global" password for the local Cert Store is when the certificate you are importing has been set to a CA or a Code Signing certificate.

NCCB-66502	platform	Previously Workbench clients operating in the Turkish (tr) locale could previously fail to make a Niagara Daemon platform connection to a Linux Supervisor or embedded device with "Unknown SCRAM type" message.
NCCB-67867	platform	A new diagnostic command has been added to the JACE 8000 Diagnostic Spy page for listing local server sockets without performing DNS name resolution.
NCCB-68291	platform	Previously, platform commands required the workbench feature to be present in the license to check for permissions to execute commands. These have been updated to check for workbenchAzul and no longer require the workbench feature.
NCCB-68648	platform	Both the station limit to allow more than one station to run and the guest account are working as expected on Supervisors with the stationAzul feature.
NCCB-66903	platform - Install API	The plat fileput command line tool incorrectly prompted the user to "Apply OS Update (y/n)" even when the remote device did not support OS part management. This has been corrected.
NCCB-20540	program	For the tag names unescaped while adding into the dropdown list and escaped while editing the tag name.
NCCB-69294	program	Unescaped the tag name while adding into the slots dropdown in Edit Slot Flags dialog in batch editor.
NCCB-39781	provisioningNiagara	When the not admin user set the password of other user will provide the error that, user do not have privilege to set the password of other user
NCCB-65740	provisioningNiagara	From Niagar 4.15 Supervisor can provision certificate jobs for host running 4.12 and older
NCCB-65968	provisioningNiagara	Fixed an issue with the provisioning set certificate alias job step which was failing to set the FoxCert alias and password properties. The fix includes updating the web, fox and platform services with the configured alias and passwords.
NCCB-66114	provisioningNiagara, saml	From Niagara 4.14.1 the Provisioning Configure IdP and SAML Scheme job step will, 1. Generated Saml Signing Certificate and Saml Encryption Certificate and set user configured cert alias and password. 2. SAML authentication schema set with user configured cert alias and password.

NCCB-45934	pxEditor, tagDictionary	Fixed an issue where the suggested neqlized ord may not resolve to the correct target, when tags have the same value but different types.
NCCB-65806	rdbSqlServer	Prior to this fix, the 'Ping' action of Rdbms devices (for developers, the javax.baja.rdb.BRdbms type and any sub-types where the postPing() method was not overridden) was not being executed asynchronously, which could result in an Engine Watchdog timeout if the Ping action was invoked on the Engine thread. As a result of this change, any call sites of the Ping action should be reviewed to ensure an asynchronous operation is expected. An additional side effect of this change is that Ping operations will now be queued up on the worker thread(s) used by the Rdbms (the Rdbms Worker). Due to the default 'Max Threads' property value being 1, if there are any DB operations in progress when the Ping action is invoked, the worker thread may not be able to immediately perform the asynchronous Ping until outstanding work completes. To prevent longer than expected delays in this scenario, adjust the 'Max Threads' property of the Rdbms Worker to a value greater than 1.
NCCB-70135	rdbSqlServer	Prior to this fix, each invocation of a history export to a relation database would attempt to detect whether database schema modifications were necessary, even if there was nothing new to be exported. Such operations (including querying the database for metadata about schema objects such as tables/columns/indexes) during each export when there is nothing to be exported is needlessly expensive and in some cases taxing on the remote database server, so this has now been optimized for better efficiency.
NCCB-66115	saml, samlEncryption	In prior versions, SAML authentication schemes configured with samlDecrypter only supported certificates encrypted with the global certificate password. Certificates encrypted with individual passwords are now supported.
NCCB-70029	saml	Added an option to the SAML Authentication Scheme to omit the RequestedAuthnContext, to indicate to the IdP that any authentication type used is acceptable.
NCCB-62472	schedule	In previous versions, the Html5 Schedule could sometimes incorrectly complain about an event time which could have been deselected or deleted. This has been corrected.
NCCB-65793	synthetic	It is possible for Workbench to detect exceptions when connecting to a station where a new module was installed and components from that new module have been added to the station. If the workbench does not have this module installed, exceptions could occur if the station was not

		restarted after module installation and workbench is attempting to generate synthetic components from the missing value types. After this fix, these exceptions should no longer occur and the workbench should successfully generate synthetic types as needed.
NCCB-67078	tagDictionary	Prior to this fix, the Tag Manager sometimes did not show the Available Tags pane when returning from the Search Service (including via Quick Search). This has been corrected.
NCCB-67233	tagDictionary	Under tag rule condition all the Boolean Filter field width is increased according to to the requirement.
NCCB-36691	template	This fix reduces the time it takes to load the Template Manager view in workbench when connected to a station that has a large number of deployed templates.
NCCB-66222	uxBuilder	In previous Niagara versions affected by this problem, when a WebWidget failed to initialize the entire page, now when a WebWidget fails, only the WebWidget itself should show an error so the other widets can be displayed properly. When viewing a WebWidget that has not been setup yet, it will remain as a blank widget until its configured (similar to how the PxEditor shows this type of WebWidget)
NCCB-68850	uxBuilder	When multiple nodes in a browser nav tree are selected, left-clicking on one will now deselect the others.
NCCB-69967	uxBuilder	In previous versions, Safari would incorrectly show a "cancel" dialog and prevent the user from using the desired action dialog for a ValueBinding when you long press a Widget and there was a parent widget also with a ValueBinding. Now the proper ValueBinding long press context menu should show up on Safari.
NCCB-70410	uxBuilder	Align and Distribute commands will be effective on Shapes like Rect and Ellipse.
NCCB-70413	uxBuilder	Widgets on the DynamicPxView will be clickable, however other actions to these widgets will be disabled, similar to Workbench.
NCCB-62035	weather	Earlier, advisories in the weather report were failing due to invalid URLs. Values for invalid URLs and paths for advisories and conditions are updated with the valid values. Below are the changes: 1. Advisories Server Old value: alerts.weather.gov New value: api.weather.gov 2. Advisories Path: Old value: /cap/ New value: /alerts.atom?zone= 3.

		Conditions Server Old value: www.weather.gov New value: forecast.weather.gov
NCCB-67676	weather	When NWS weather service deprecates the existing endpoints and migrates to new endpoints, the deprecated endpoints send back the location of new endpoints in the response. The Niagara Weather Service is now properly redirecting to the new endpoints when they are received. Also the deprecated endpoint for the conditions server is now updated from www.weather.gov to the new endpoint forecast.weather.gov to avoid the overhead of redirection.
NCCB-61608	webChart, workbench	In previous release, the Chart color choser would not show and save the proper color. This has been corrected, Note that any desired alpha setting on the color will not be saved because the html color input picker does not support alpha.
NCCB-68256	webChart	Now, when you add two WbViewBindings to a PxPage's WebChart, workbench should load both ords in the WbViewBinding (this was previously only working in bajaux). Due to some timing issues, the order of these ords loading may be swapped and the title will be chosen based on the first ord that happens to load. To workaround this problem, you can set the Title in your WebChart to something specific.
NCCB-68275	webChart	In previous versions, chart files could not be loaded from module. This has been corrected.
NCCB-53944	webEditors	In previous releases, a timeFormat facet setting could prevent other Time related slots on the same PropertySheet from being loaded or saving property. This has been corrected.
NCCB-56420	webEditors	When scrolling down a Property Sheet with child components expanded, the path to the component currently in view will again be shown to help orient you in the component tree.
NCCB-62755	webEditors	In previous releases, there was no way to rename or delete a bog file in the station file space from the Html5HxProfile. This has been corrected.
NCCB-64851	webEditors	The RelTimeEditor was setting it's state to modified when you clicked away. This was caused by the editor setting the modified flag, even when the value in the editor had not changed. This has been fixed so that the editor will only be marked as modified when the value actually changes.

NCCB-65622	webEditors	In 4.14 beta, the bajaux Ord Chooser may take up to 8 seconds to load after a station restart so it can query the station for its modules. On this first attempt, it also may not display the module space contents correctly (files inside of folders may be missing on the field editors first one). Now, the additional delay will only occur if the user expands the "My Modules" Nav Node and this delay should only happen once per station restart. When the My modules is expanded, it should no longer have problems with not displaying the proper contents.
NCCB-66087	webEditors	Prior to this fix, the Web Collection Table view opened from a BQL query was not honoring certain contextual information when displaying the results. For example, point slot facets (like 'trueText'/'falseText') were not being honored in the displayed values. Exports of the Collection Table view to CSV, Text, Html, and PDF were also not honoring the contextual information. This has now been fixed.
NCCB-67171	webEditors	In previous versions, the Http Client Device managers didn't subscribe deep enough so the manager did not make changes correctly. In 4.14 beta, bajaux manager batch edits would only show the changes for the first row, this has been corrected.
NCCB-68033	webEditors	There was an issue with the Export Fields not reflecting changes that the user made in the editor. This resulted in the wrong selections being available and the wrong settings being shown. This fix resolves that by doing the following: -Modified the code so that when you select a source ord, the list of available exports are correctly updated. -Modified the code so that the when selecting a exporter the correct settings editor will be shown -Fixed it so that when switching the source ord, the list and editor are set to the default of the new ord
NCCB-62803	wiresheet	In previous releases, the Wiresheet relation mark dialog would not save any previous choices to the msot recently used button (mru). This has been corrected.
NCCB-46822	workbench	Updated mount() and unmount() to add or remove host and update the count into cache and cachedLocalHostCount.
NCCB-65260	workbench	Workbench should now be able to view bajaux views for fox ords that are using IPv6 that contain a scope. Previously, this was only possible with non-scoped IPv6 fox ords.
NCCB-65983	workbench	Exporter Dialog exporter option will match the file type selected to export.

NCCB-66893	workbench	The BRelTimeFE could re-paint the range facets multiple times when loaded improperly, resulting in a distorted presentation. This has been corrected.
NCCB-66910	workbench	Workbench field editors for BIntegerFE, BFloatFE and BMultiFieldFE inconsistently applied the "enabled" and "read-only" visual states to their editors. This has been corrected.
NCCB-66920	workbench	BIntegerFE and BFloatFE editors in Workbench added left padding as a place holder for "prefix" facets like "\$" when not required. This has been corrected.
NCCB-68118	workbench	In Niagara 4.14.0, if you have a WebWidget with an unset, or invalid js ord like "view:history: view:webChart:ChartWidget", or a js ord pointing to a file like "file:^MyWidget.js, the Px Page and PxEditor can fail to load in workbench so its difficult to correct if you want a different ord. This has been corrected. One workaround is to modify the px with the Text Editor to correct this js ord. Another short term workaround (which also disables the web widget caching) is to set this system property: niagara.webbrowser.updatable=false
NCCB-68255	workbench	Starting in the initial release of Niagara 4.14, when trying to establish a station or platform connection from Workbench, if the 'Cancel' button was clicked during authentication, a nuisance error popup would be displayed. Going forward, this nuisance error popup will no longer occur when a Workbench connection attempt is cancelled.

Issue Key	Module	Release Note
NCCB-60327	bacnet	For event enrollment objects referencing an external remote object, it correctly raise event notification. For event enrollment objects referencing an internal object, the object property reference don't require the value of device id.
NCCB-69582	bacnet	After writing a new value of DeviceObjectPropertyReference, the Trend Log object preserves Total Record Count, LogInterval and StopWhenFull property.
NCCB-69592	bacnet	When a forward time change event occurs, the trend log descriptor logs a time change event record, followed by correct periodic logging of records.
NCCB-69607	bacnet	ConfirmedRequestPdu messages correctly contain maxSegmentsAccepted value.
NCCB-69667	bacnet	When the schedules are imported or read from one station to another station, the old events can be preserved by setting cleanupExpiredEvents to false. The facets values are preserved too.
NCCB-69976	bacnet	Log Device Object Property Reference for an unknown object in local device returns an error of value out of range. Log Device Object Property Reference for an unknown device creates a new proxy Bacnet Device, also creates a proxy point with the attached trend log extension. This trend log extension also further log failure trend events, communication, unknown device, on the log buffer.
NCCB-69977	bacnet	ChangeOfState is set to utilize BBacnetPropertyState class instead of NBacnetPropertyState class for encoding and decoding values.
NCCB-70022	bacnet	Allow BACnet AWS also to send empty password to devices.
NCCB-70025	bacnet	Restore job now correctly supports writing file data for record access.
NCCB-70089	bacnet	When trend log object is enabled, writing buffer size return write access denied error.
NCCB-70114	bacnet	Support added for presentation of new object type: Global Group, Notification Forwarder, Alert Enrollment.

NCCB-70259	bacnet	When network number zero was used in the destination address of a notification recipient, the segmentation information in the device registry could not be found and notifications that required segmentation would not be sent. Now, the network number of the only network port will be used instead of zero both to support the device registry lookup and the necessary client transaction.
NCCB-70321	bacnet	For backup and restore of the record access file access method, it is working correctly.
NCCB-70668	bacnet	When a fault to offnormal transition occurs via transition to normal and there are 2 event notifications, the status flags for the in-alarm bit is now not set for the to-normal notification.
NCCB-70744	bacnet	A deadlock should no longer occur when watching BACnet Multi-Poll statistics while other BACnet points or objects are subscribed/unsubscribed.
NCCB-70850	bacnet	If a file read during a BACnet backup is missing when doing a BACnet restore, an attempt will now be made to create it. To support this, the file access method is now stored for each file read during the backup. The file object names are now escaped so any special characters are preserved. As per the standard, if the remote file size or record count does not match the local values, zero will be written to the appropriate property before restoring the file. Restoring empty files is also now supported.
NCCB-71546	bacnet	The Event Enrollment descriptor now has an Notify Type property that will be included in BACnet alarm or event notifications.
NCCB-71557	bacnet	Added support for the change-of-discrete-value BACnet event type so the BBacnetChangeOfDiscreteValue alarm source ext can notify BACnet recipients of value changes.
NCCB-70857	bajaScript, jetty	In previous versions. the autologoff may give your end user a 404 error when they attempt to log back in if the last view they were viewing didn't have a viewquery. This has been corrected.
NCCB-70760	email	Prior to this fix, email attachment file names containing Unicode characters were not being encoded appropriately in email message headers (which require all characters to be ASCII characters). This fix ensures all email attachment file names are properly encoded.

NCCB-71551	nrio	The Wb default view fo the NrioNetwork is now the AX NrioDeviceManager.
NCCB-70540	opcUaClient	The Byte type UA nodes were originally incorrectly treated as a signed type, while the OPCUA protocol Part 3 Section 8.9 describes Byte as an unsigned data type. The Byte OPCUA nodes are now correctly treated as an unsigned data type. Users will now be able to write to Byte type nodes just like other nodes.
NCCB-70374	opcUaServer	Sometimes when point folders are deleted or renamed, the client can no longer discover anything. This has been fixed.
NCCB-70774	opcUaServer	Points added to the OPCUA Server point database were not initialized to a value. This was fixed in NCCB-54850 where the values of a OPCUA Point are initialized to an initial value if they originally (station point) transmitted a null value.
NCCB-71733	workbench	In previous versions, workbench displays the wrong Help->About and wrong Help-> Contents. This has been corrected.

Description (cont.)