



The Niagara 4 E-Signature Application

October 20th 2022

Kyle Sardinia, Tridium

Niagara 4 E-Signature

What's New?

What is it?

Who is it for?

How do I get started?

Application

Update E-Signature v2.3!

Software Server | NiagaraCentral x +

niagara-central.com/service/esd/software/download/view

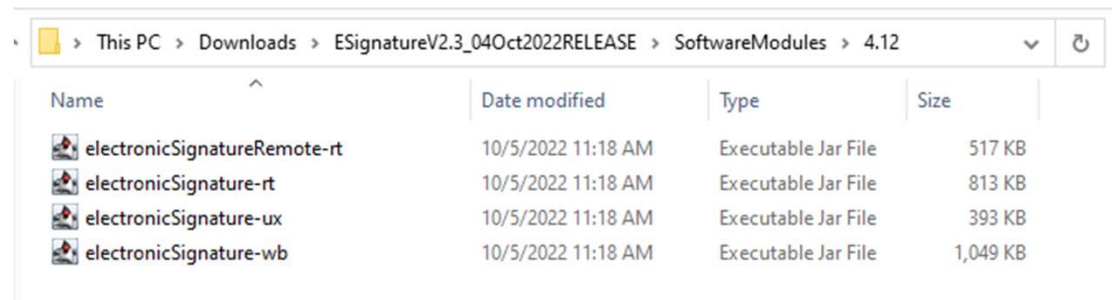
Modules

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Software	Released	Size	Availability	Download	File Hash
NCHSD for N4.10U1 Niagara_Cloud_Driver-2020.2.1.20.zip	Jan 12, 2022	2 MB	Released	↓	sha
Niagara 4 Cloud Gateway Connector to Google Cloud Platform v4.11.1.16.6 Niagara 4 Cloud Gateway Connector to Google Cloud Platform v4.11.1.16.6.zip	Oct 11, 2022	1 MB	Released	↓	sha
NCHSD modules for N4.9 nCloud_Honeywell_Sentience_Driver-4.9.0.2.zip	Jun 29, 2020	4 MB	Released	↓	sha
NCCB-55568 web-rt patches, SB 2022-Tridium-1 NCCB-55568 web-rt patches.zip	Jan 25, 2022	1 MB	Released	↓	sha
JNLP Web Start Vulnerability Patches JNLP Web Start Vulnerability Patches.zip	Mar 31, 2021	8 MB	Released	↓	sha
E-Signature V2.3 Release ESignatureV2.3_04Oct2022RELEASE.zip	Oct 03, 2022	13 MB	Released	↓	sha

Version Update for E-Signature v2.3

- 4.10.0.150.6
- 4.11.0.142.6
- 4.12.0.104.6



The screenshot shows a Windows File Explorer window with the address bar path: This PC > Downloads > ESignatureV2.3_04Oct2022RELEASE > SoftwareModules > 4.12. The window displays a table of files in the '4.12' folder.

Name	Date modified	Type	Size
 electronicSignatureRemote-rt	10/5/2022 11:18 AM	Executable Jar File	517 KB
 electronicSignature-rt	10/5/2022 11:18 AM	Executable Jar File	813 KB
 electronicSignature-ux	10/5/2022 11:18 AM	Executable Jar File	393 KB
 electronicSignature-wb	10/5/2022 11:18 AM	Executable Jar File	1,049 KB

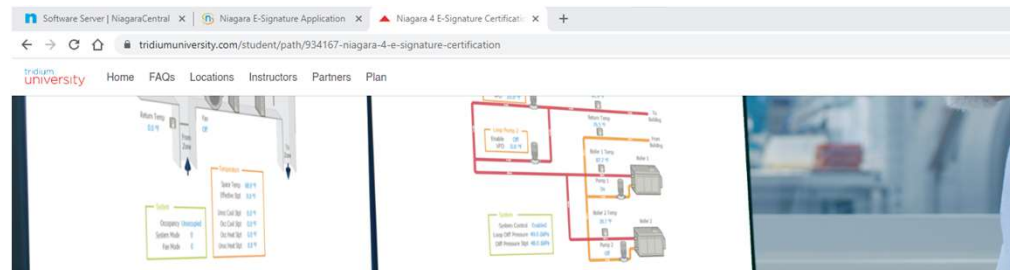
Now available on Niagara Marketplace

The screenshot shows a web browser with two tabs: "Software Server | NiagaraCentral" and "Niagara E-Signature Application". The address bar shows "niagaramarketplace.com/e-signature.html". The website header is dark blue with the "niagara marketplace" logo on the left. On the right, there are links for "Tridium", "Community", "Resource Center", and "Tridium University", along with a currency selector "USD - US Dollar". Below the header, a user is logged in as "Hi, Kyle Sardinia" with a profile icon and a shopping cart icon. A banner area contains the text "LINK UP TO LEVEL UP" and a search bar with "All Products" and "Search products...". Below the banner, a link says "Interested in being a seller? Visit [Become A Seller](#) page."

The main content area shows the product page for "Niagara E-Signature Application". It includes a breadcrumb "Home > Niagara E-Signature Application". The product is represented by an icon of a document with a pencil. The text "by Tridium Professional Services" is shown with a heart icon and a "SHARE" button. A description states: "Tridium Professional Services offers an e-signature application (ESIGN) that helps Niagara 4 users mitigate risk of failed regulatory audits. The e-signature application allows Niagara 4 users to create and manage controlled audit logs of accurate, time and date stamped, and unalterable data." Below the description is a "Contact Seller" button.

On the right side, there is a product configuration panel. It includes a "Points" dropdown menu, a "Platform" dropdown menu, and an "Order type" section with "Host-ID" and "Stock" buttons. Below these is a "Host ID*" field with a "Check" button and a red error message: "Please check host-id for this configuration." At the bottom of the panel is a "Price" field and an "Add to Cart" button.

Tridium University Update for v2.3



♥ Favorites

🔒 Niagara 4 E-Signature Certification

By Charles Zoffuto Published: Oct 30, 2021 1.3h Advanced ● ☆☆☆☆☆ (0) 📄 Report

Paid Self-Paced Elearning Certification Programs



Activity requires administrator approval.

Request

The E-Signature Product (ESIGN) is built on the Niagara 4 Framework. Learn typical use cases for ESIGN, best practices for use case configurations supported by ESIGN, how to prepare a Niagara installation for ESIGN, how to setup/configure ESIGN, how to use/operate ESIGN, how to self-audit the configured use case for your site & how to maintain your ESIGN installation.

- Prerequisites: **Niagara 4 Certification**



Feature Update for E-Signature v2.3

- **LDAP Authentication support**
- Multi-zone support
- Niagara 4.12 support
- **Allow non-login user to authenticate**
- Persist remote authentication requests during station reboot
- Enhancement for securing/un-securing the points.
 - Multiple points can be secured and un-secured at once.
 - Points can now be directly secured at a dual signature level.
 - Clear the non-secured points section.
- Remote request enhancements-
 - Sorting the remote request by freshness and auto-refresh the remote requests.-
 - Configure the JACEs that needs to be looked up for remote request from supervisor.-
 - **Send Email notification for remote request to second level users.**
- Ability to change the legal statement.
- **Slot for showing the pending remote requests.**
- Alarm Acknowledgement enhancements
 - Ability to toggle between single and dual-authentication for alarm acknowledgement.
 - Allow user to select reason for alarm acknowledgement.
 - History of alarm acknowledgement.

What is it?



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Niagara 4 E-Signature: *What is it?*

- Tridium Professional Services application offered to help Niagara 4 users build systems that meet **regulations** on electronic **records** and **signatures**
- Allows users to create and manage **controlled audit logs** to ensure accurate, time/date stamped **data linked** to signatures
- Offers procedural and technical controls for a **compliant** method of procedure (MOP) and standard operating procedure (SOP)
 - (e.g. *FDA's 21 CFR Part 11*)



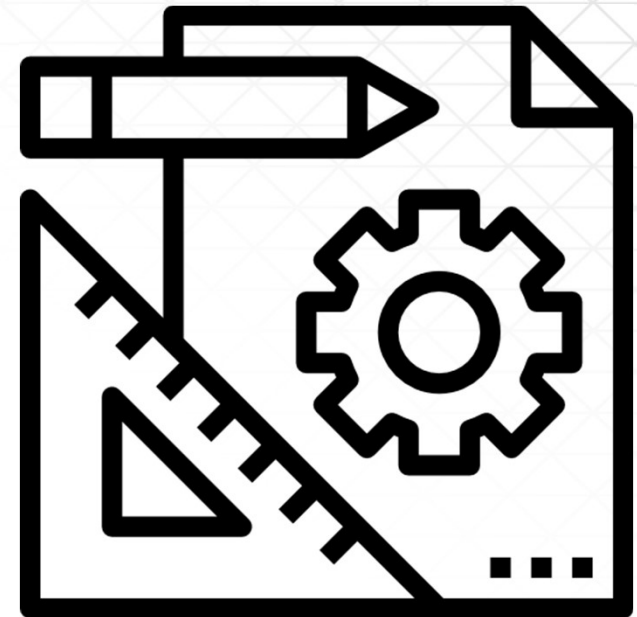
Niagara 4 E-Signature: *What is it?*

- When **manual** changes are required, e-Sign ensures the changes and overrides are:
 - Carried out by **authorized** personnel
 - **Documented** in audit files
 - **Approved** by managers (*optional*)
 - Included Reason for Change
- Points can be designated as **e-Sign Secured** or remain as standard Niagara Points
- e-Sign Secured Points can only perform action with eSignature **authentication**



Niagara 4 E-Sign: *What is it?*

- The e-Signature configuration is an add-on module to the existing Niagara 4 Framework
- Graphical Environment to program application
- **User** is configured to execute E-signatures for **authenticating** the secured points.
- Customer Information linked to users

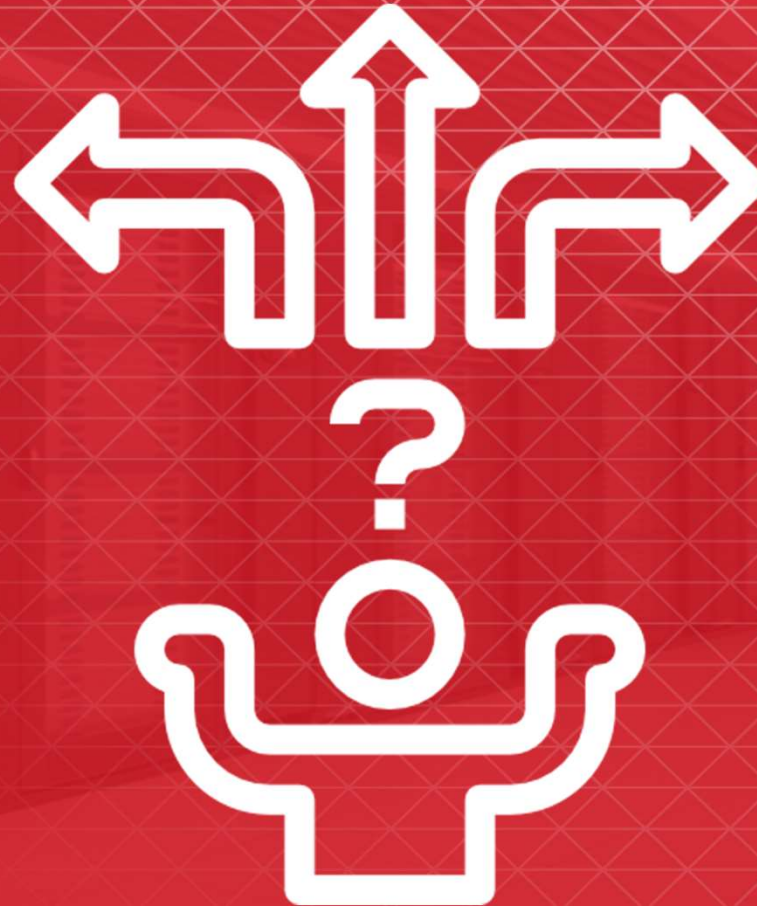


Subpart A – General Provisions

Sec. 11.3 Definitions

- (6) ***Electronic record*** means any combination of text, graphics, data, audio, pictorial, or other information representation in digital form that is created, modified, maintained, archived, retrieved, or distributed by a computer system.
- (7) ***Electronic signature*** means a computer data compilation of any symbol or series of symbols executed, adopted, or authorized by an individual to be the legally binding equivalent of the individual's handwritten signature.

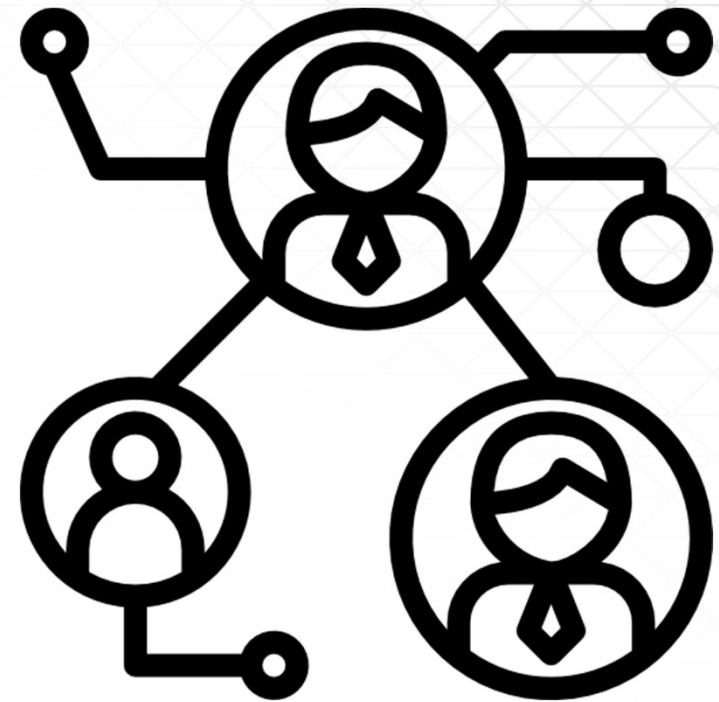
Who is it for?



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Niagara 4 E-Sign: *Who is it for?*

- Authorization Checks
 - Level 1 and Level 2 **authentication** to change a point value
- Linking
 - Electronic **signatures** executed are **linked** to their respective electronic **records**
- Audit Trails
 - Name of **signer**; date and time when signature was executed; meaning or **reason for change**



Niagara 4 E-Sign: *Who is it for?*

- GxP organizations that require Validated Systems
 - GxP – Good X (*anything*) Practice
 - Ex: Good Manufacturing Practice (GMP) applications that require traceability and accountability
- Users who need to build systems to be **compliant** with sections of The Food and Drug Administrations part 11 of Title 21 of the Code of Federal Regulations (**FDA's 21 CFR Part 11**)



Niagara 4 E-Sign: *Who is it for?*

Some of the major requirements for CFR21

- Secured system
- Authorized users
- Audit trails
- Historical data
- Data security
- User deactivation process
- Standard operating procedure
- Data validation
- SOP enforcement
- **Electronic signature**

How do I get started?



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Niagara 4 E-Sign: *How do I get started?*

SUPPORTED DEPLOYMENTS

1

Niagara Supervisor with
Ethernet IP connectivity;
ESIGN license at the
Supervisor level

2

Niagara Supervisor with
network of JACE® 8000
controllers; ESIGN license
at the JACE level

3

Standalone JACE;
ESIGN license at the
JACE level

Niagara 4 E-Sign: *How do I get started?*

- **JACE 8000** or **Niagara 4 Supervisor**:
 - Niagara 4 e-Signature Secured Point packs or Unlimited
- Training:
 - www.tridiumuniversity.com [Niagara 4 E-Signature Certification \(Virtual\)](#)
- e-Signature application **Technical Support**



Niagara 4 E-Sign: *How do I get started?*

1. **Recommended** E-Signature Certification Training.
2. **Recommended** E-SIGN-SVCS part
3. E-Signature parts are extended to your organization and can be **ordered**.
4. **Contact** your Niagara Sales Account Representative and order through them.
5. Check out the Niagara Marketplace!



Niagara 4 E-Sign: *How do I get started?*

ORDERING INFORMATION

Part number	Description
ESIGN-S-N4-1000	N4 Supervisor E-Signature Application with 1000 ESIGN secured points. Niagara Station Proxy Points for Jace ESIGN secured points are not covered & do not count against this limit.
ESIGN-S-N4-UNL	N4 Supervisor E-Signature Application with unlimited ESIGN secured points. Niagara Station Proxy Points for Jace ESIGN secured points are not covered & do not count against this limit.
ESIGN-S-N4-UP-1000	N4 Supervisor E-Signature Application upgrade to add 1000 additional ESIGN secured points. Niagara Station Proxy Points for Jace ESIGN secured points are not covered & do not count against this limit.
ESIGN-EC-N4-250	E-Signature Application for Jace 8000 with 250 ESIGN secured points.
ESIGN-EC-N4-UNL	E-Signature Application for Jace 8000 with unlimited ESIGN secured points
ESIGN-EC-N4-UP-250	E-Signature Application upgrade to add 250 additional ESIGN secured points
TRN-CRS-N4-ESIGN	E-Signature Application E-Cert Training Module (2.5 hour virtual or e-learning session) & Certification
ESIGN-SVCS	E-Signature Application Technical Support (up to 8 hours in 90 day period following order placement)

Application

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Niagara Resources & Materials

Updated Resources

tridium
university



Getting to know the Edge 10 (FREE)

STATUS: In Progress | TYPE: Course | DURATION: 42m

The Edge 10 was designed as a small unitary controller capable of powering applications such as fan coil units, small AHUs, heat pumps, zone control, etc...

20%



Niagara 4.8 Feature Update Tutorials (FREE)

STATUS: In Progress | TYPE: Course | DURATION: 27m

This course will take you through how to use the Security Dashboard, Client Certification Authentication, and Application Control Engine features new with the Niagara 4.8 release.

0%



Niagara 4.9 Feature Update Tutorials (FREE)

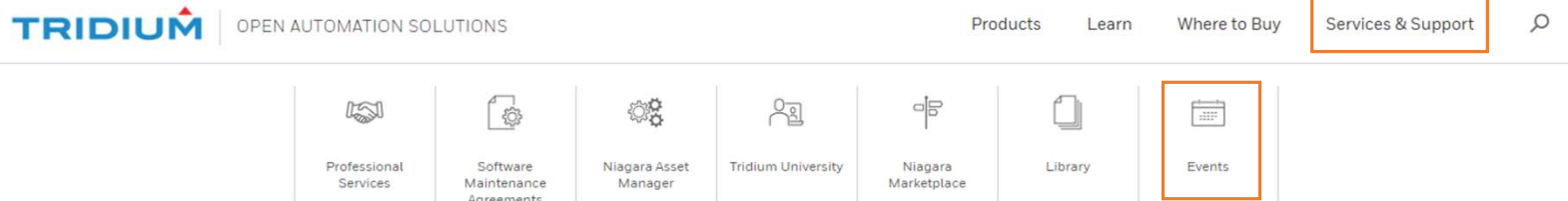
STATUS: Not Started | TYPE: Course | DURATION: 37m

This course will demonstrate the new features included in the 4.9 release of Niagara.

0%

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Where Can I Find More TridiumTalks?



This new WebWiresheet interface features a fresh look and feel that's accessible using your browser and will dramatically streamline your overall logic programming workflow. Configuring station logic has never been easier since you can now use tags for linking and relating while using your favorite device!



This new module allows Niagara stations to easily interact with HTTP web services and APIs so that data can be exchanged both in and out of the Niagara framework.

The new HTTP Client Driver can expand the possibilities of system solutions as far as you can imagine



Looking for Niagara Pro Tips?



<https://www.youtube.com/user/TridiumInc/videos>



Questions?

Yes, the recording will be available

Yes, the slides will be available

Download available on Niagara Central

Software Server | NiagaraCentral x

niagara-central.com/service/esd/software/download/view










Modules

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Software	Released	Size	Availability	Download	File Hash
ESignatureV2 ESignatureV2.2.3.zip	2020-09-10	8 MB	Released	↓	sha
BaaS modules for N4.9 Niagara_4_Cloud_Backup_As_A_Service-4.9.0.5.zip	2020-06-30	2 MB	Released	↓	sha
NCHSD modules for N4.9 nCloud_Honeywell_Sentience_Driver-4.9.0.2.zip	2020-06-30	4 MB	Released	↓	sha

SUPPORT

Included Modules and Documentation

Name	Date modified	Type	Size
 ElectronicSignatureInstallationQualification	9/15/2020 3:58 PM	Adobe Acrobat D...	960 KB
 ElectronicSignatureOperationQualification	9/15/2020 3:58 PM	Adobe Acrobat D...	1,021 KB
 ESignatureInterpretationAgainst21CFRPart11	9/15/2020 3:58 PM	Adobe Acrobat D...	406 KB
 ESignatureUserGuideV.2.2.3	9/15/2020 3:58 PM	Adobe Acrobat D...	1,483 KB
 NiagaraESignature_21CFR_Part11_Analysis	9/15/2020 3:58 PM	Adobe Acrobat D...	483 KB
 electronicSignatureRemote-rt	9/15/2020 3:58 PM	Executable Jar File	545 KB
 electronicSignature-rt	9/15/2020 3:58 PM	Executable Jar File	808 KB
 electronicSignature-ux	9/15/2020 3:58 PM	Executable Jar File	365 KB
 electronicSignature-wb	9/15/2020 3:58 PM	Executable Jar File	1,027 KB

Choose Points to Secure

Point Selection Dialog

Point Query

Unsecured Point List

☐ SelectAll Edit Reasons

slot:/Drivers/AceEdgeNetwork/local/points/FanStatus
slot:/Drivers/AceEdgeNetwork/local/points/FanOperation
slot:/Drivers/AceEdgeNetwork/local/points/Occupancy
slot:/Drivers/AceEdgeNetwork/local/points/OccupancyProxy
slot:/Drivers/AceEdgeNetwork/local/points/OperationProxy

▼ Add Single Signature ▲ Remove Single Signature

Single-Signature Point List

slot:/Drivers/BacnetNetwork/BacnetDevice23/points/FanStatus

▼ Add Dual Signature ▲ Dual Signature to Single Signature ▲ Remove Dual Signature

Dual-Signature Point List

slot:/Drivers/Zones/Coating/Coating_AHU_1_Cmd
slot:/Drivers/Zones/Coating/Coating_AHU_1_Mode
slot:/Drivers/Zones/Coating/Coating_Env_Humidity
slot:/Drivers/Zones/Coating/Coating_Env_Pressure
slot:/Drivers/Zones/Coating/Coating_Env_Temp

OK Cancel

Configure Reason Sets

Reasons Information

Name	Reason For Change	Reason Set Name
Reason01	Belt Replaced	Plant Operation
Reason02	Power Restarted	Plant Operation
Reason03	OLR Reset	Plant Operation
Reason04	PM Completed	Plant Operation
Reason05	Filter Cleaning Completed	Plant Operation
Reason06	Restored back to normal	Plant Operation

+

Add Reason

Edit

Tag/It

Add Reason

Name

Reason For Change

Reasons

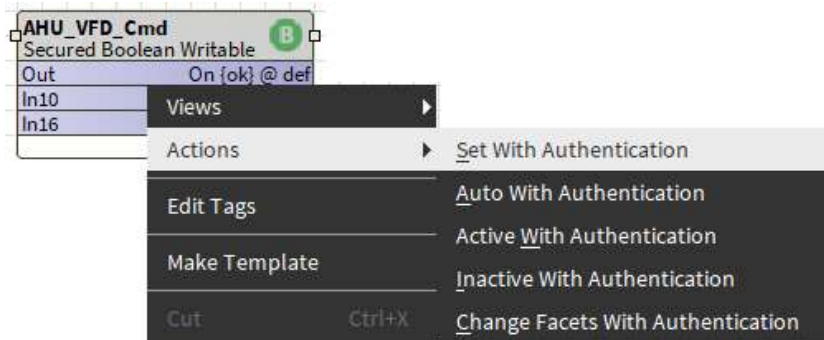
Name

Reason For Change

OK

Cancel

Set With Authentication



A screenshot of the 'Set With Authentication' dialog box. The dialog has a title bar with a close button. It contains the following fields and options:

- Point Name:** AHU_VFD_Cmd
- New Value:** On (with a green circle icon and a dropdown arrow)
- Reason:** Filter Cleaning Completed (with a dropdown arrow)
- Other Reason:** (empty text field)
- Level-1-Authorization-Signature** (selected tab) and **Level-2-Authorization-Signature** (unselected tab)
- User Name:** John_Smith
- Password:** (empty text field)
- Comment:** Safety Checked. AHU ready to start
- Sign1** (button, highlighted with a blue box)
- E-Signature Acknowledgement:**

I hereby certify that (i) I am the user [John_Smith] identified above, (ii) [Pharma Client Inc] notified me that it had assigned the above user account to me and provided me access to that account, and (iii) it is my intent that the above electronic signature be my legally binding signature just as if it were my handwritten signature.
- OK** and **Cancel** buttons at the bottom.

Level 2 Authorization

The screenshot shows a 'Set With Authentication' dialog box with the following fields and options:

- Point Name:** AHU_VFD_Cmd
- New Value:** On (indicated by a green circle)
- Reason:** Filter Cleaning Completed
- Other Reason:** (empty text box)
- Level-1-Authorization-Signature:** (empty text box)
- Level-2-Authorization-Signature:** (highlighted with a blue box)
- User Name:** Benjamin_Franklin
- Password:** (empty text box)
- Comment:** Status Verified.
- Buttons:** Sign2 and Remote (Remote is highlighted with a blue box)
- E-Signature Acknowledgement:**

I hereby certify that (i) I am the user [Benjamin_Franklin] identified above, (ii) [Pharma Client Inc] notified me that it had assigned the above user account to me and provided me access to that account, and (iii) it is my intent that the above electronic signature be my legally binding signature just as if it were my handwritten signature.
- Buttons:** OK and Cancel

Secure Points History

Training_ESign_Supervisor/SecuredPointsHistory													6 records	
Timestamp	Trend Flags	Status	Value	Old Status	Old Value	Reason For Change	Primary Signer	Full Name Primary Signer	Secondary Signer	Full Name Secondary Signer	Primary Signer Comments	Secondary Signer Comments	Point Name	
21-Dec-19 12:57:23 AM IST	{}	{overridden} @ 1	Off	{null}	null	Belt Replaced	admin	Administrator	Sam	Sam_Barrow(Manager)	Hey Sam, Can you authorize we are replacing belt	Hey good idea!	slot:/Drivers/Zones/Coating/Coating_AHU_1_Cr	
21-Dec-19 12:56:24 AM IST	{}	{overridden} @ 1	Off	{null}	null	Belt Replaced	admin	Administrator	Sam	Sam_Barrow(Manager)	Hey Sam, Can you authorize we are replacing belt		slot:/Drivers/Zones/Coating/Coating_AHU_1_Cr	



The Niagara 4 E-Signature Application

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