Verifying

Design → Install → **Verify**

Summary

Basic verification tests that cover a single-server installation of Tachyon Server. These tests only cover Tachyon and do not verify the configuration of 1E client modules with other 1E products. These tests should be run in series. They start with basic server checks, then testing 1E Clients, and finally using the verification instructions from the **1E Tachyon Platform** Product Pack to do end-to-end tests that confirm all components are working. Depending on the decisions you have made during the design phase of your implementation you may need additional tests to verify your Tachyon implementation.

> ⓘ Please ensure you complete all verification tests. They not only confirm your system is operational, but they also introduce you to concepts and tasks that you will use later when using Tachyon.

To run these tests you need:

1. Tachyon Server installed
2. Remote workstation with a supported browser
3. The name and password for the **server installation account**
   a. the AD account must be enabled
   b. the account may already be assigned to other Tachyon roles either directly or via membership of an AD group role.
4. Two AD User accounts, **Test User 1** and **2**
   a. must not be existing Tachyon users because they will be assigned specific roles for the purpose of these tests
   b. must have email addresses and be able to read emails.
5. The **1E Tachyon Platform** instruction set with two Verification instructions
   a. the verification steps describe how to create this instruction set by uploading the 1E Tachyon Platform Product Pack
   b. you may have already uploaded this Product Pack using the Product Pack Deployment Tool, either during Setup or after
   c. the 1E Tachyon Platform Product Pack is included in the **TachyonPlatform zip** file that you can download from the 1E Support Portal (1eportal.force.com/s/tachyontopicdetail).
6. At least one test device on which the 1E Client will be installed
7. 1E Client installation source files and configuration details required by your Tachyon implementation.

Verify Tachyon Server installation

To run the following tests you need:

1. Tachyon Server installed
2. The name and password for the **server installation account**, the account must also be enabled

Ref	Test	Expected	Remediation
TCN I01	- Logon to the Tachyon Server using the **server installation account** - Confirm 1E Tachyon Server is listed in Apps /Programs and Features - Confirm Tachyon's Windows services are running.	Programs and Features (appwiz.cpl) displays **1E Tachyon Server** with correct version number. If an MSP update has been installed, the Installed Updates displays **1E Tachyon Server Update (Qnnnnn)**. The following Windows services exist and are running. **1E ActiveEfficiency** (Automatic) (Network Service) - if selected during setup **1E Catalog Update Service** (Automatic) (Network Service) **1E SLA Platform Engine** (Automatic Delayed start) (Network Service) **1E SLA Platform Integrate Agent** (Automatic Delayed start) (Network Service) **1E SLA Platform Integrate Manager** (Automatic Delayed start) (Network Service) **1E Tachyon Coordinator** (Automatic Delayed start) (Network Service) **1E Tachyon Switch Host** (Automatic Delayed start) (Local System)	If any of the services are not running, then check the corresponding log(s). The **Switch Host** service will stop after several seconds if it is unable to start any Switches. The **ConsumerAPI** log is not created until a user (the **server installation account**) successfully connects to the Tachyon Portal. The **BackgroundAPI** log is not created until a 1E Client attempts to download content. The **1E Tachyon Platform** Product Pack can be used to trigger this. The **Coordinator** service will stop after several seconds if it unable to activate the license.

TCN I02	• Check the Tachyon Server logs.	The default location for all Tachyon logs is the folder `%ALLUSERSPROFILE%\1E`	

Subsystem	Component		
Tachyon Master	Tachyon Portal UI and applications (Tachyon)	1E\Tachyon\	`Tachyon.Portal.log`
	Consumer API	1E\Tachyon\	`Tachyon.ConsumerAPI.log`

	Coordinator service	1E\Tachyon\	`Tachyon.Coordinator.log`
			
			`Tachyon.Instrumentation.log`

	Experience application	1E\Tachyon\	`Tachyon.Experience.log`
Catalog	Catalog UI (CatalogWeb - Admin sync)	1E\Catalog\	`Catalog.Integration.UI.log`
	Catalog API		
	Catalog Update Service	1E\Catalog\	`Catalog.UpdateService.log`
SLA	SLA/Platform APIs (Admin, Core External)	1E\Tachyon\	`Tachyon.AdminAPI.log`
	SLA Platform UI (Platform)	1E\SLA Platform\	`Web.log`
	SLA Engine	1E\SLA Platform\	`Engine.log`

	SLA Integrate Services (Connector Manager)	1E\SLA Platform\	`1E.SLAPlatformIntegrateAgent.log`
			
			`1E.SLAPlatformIntegrateManager.log`
			
			`1E.SLAConnector.<type>_sync.log`

	SLA Inventory	n/a	n/a
	SLA Operations Provider (not currently used)	1E\Platform Consumer\	n/a
	SLA databases (Data, Integrate, Shared)	n/a	n/a
BI	MDX API	SQL database	[SLA-BI].[BI].[Event Log]
Tachyon Response	Core (Core and Core Internal)	1E\Tachyon\	`Tachyon.CoreAPI.log`
	Background Channel (Background)	1E\Tachyon\	`Tachyon.BackgroundAPI.log`

	Switch(es) (also includes a single Switch Host service)	1E\Tachyon\	`Tachyon.Switch_A.log`
			
			`Tachyon.Switch.Host.log`

Please refer to Services and NTFS Security if changing the location of log files.

In this version of Tachyon Server, some installers do not support the LOGPATH property and the logs folder is not configurable during installation.

Each component has a configuration file in the Tachyon Server installation folder structure, which contains log configuration details. Defaults are:

- Filepath `%ALLUSERSPROFILE%\1E\<product>\` where product is Tachyon, SLA Platform, and Catalog
- Filename as shown in the table above.
- Maximum size 10MB (2MB for Switch logs).
- 2 rollover files numbered 1 to 2 with the rollover number included as n. log (5 rollover files for Switch logs).
- Date and timestamps are UTC to help troubleshooters synchronize logs on systems in different timezones.

Switch logs have the following names:

- The first Switch installed will typically have a log filename **Tachyon. Switch_A.log**
- Other Switches on the same server will have different letters appended. The letter is derived from the ID in the SwitchConfiguration table, where the letter is modulo 26 of the ID minus 1, for example ID=2 is A and ID=6 is E.
- The log filename will be unique on a server, but there may be the same named log on a different server.
- A Switch will continue to use the same log, unless the SwitchConfiguration table is modified so that a different ID is used.
- If you see a Tachyon.Switch.log without a letter appended, this is a special case where a Switch cannot find its correct configuration, and has fallen back to using the template * row which has ID=1. In which case you will need to troubleshoot how that happened.
- Rollover logs have numbers appended, for example Tachyon.Switch_A. 1.log, up to a default maximum of 5.

Tachyon server components use the **log4net RollingFileAppender** class. Details can be found in http://logging.apache.org/log4net.

Verify IIS security of the Tachyon web site

To run the following tests you need:

1. Tachyon Server installed
2. The name and password for the **server installation account**, the account must also be enabled
3. Remote workstation with a supported browser - using a remote workstation is important because you will get different results if using a local browser,

Ref	Test	Expected	Remediation
TCNI 03	- Start a supported web browser on a workstation (not the Tachyon Server) - Connect to the Tachyon Portal using: **server installation account** - URL for example https://tachyon.acme.local /Tachyon	Successful connection to the **Tachyon Portal** showing the following applications: **Experience** (if licensed) **Explorer** **Guaranteed State** **Inventory** **Patch Success** (if licensed) **Settings** The ability to open Tachyon applications and navigate around them will depend on which Tachyon roles have been assigned to the logged-on account. For a new installation, the **server installation account** is only able to open the **Settings** application and view the following pages: - Instruction sets - Permissions - Consumers - Infrastructure log - Audit information log - License info	Ensure the **server installation account** is enabled to do this test. It has the necessary rights to access Tachyon as well as NTFS rights on the Tachyon Server. ⓘ **401 'Unauthorized'** Typically, the website also prompts you to provide an account and password. This may occur if you are using invalid credentials or an account in a domain that is not trusted by the Tachyon Server. ⓘ **403 'Access denied'** When you use a browser to open an application in the Tachyon Portal, you will see **Server Error 403 - Forbidden: 'Access denied'** if the internal account used by the Application Pool does not have read access to the Tachyon web application folders. This can happen if Tachyon is installed in a non-default location and the NTFS permissions on the installation folder are not correct. To remedy the issue, you should review and correct NTFS permissions as described in Services and NTFS Security. ⓘ **404 'File or directory not found'** Is the URL you entered correct, and have the correct spelling? Is the corresponding web application installed? For example, the Consumer application may not be installed.

ⓘ

T C N I 04	• Change the web browser URL from /Tachyon to **/Consumer**	The web browser will respond with the version number of the **Tachyon Platform** (IE will download as a JSON file, other browsers will display a response in XML format). Confirm the Version number is as expected.	ⓘ **Contact system administrator to get access** When you use a browser to open an application in the Tachyon Portal and you see a message **Unauthorized access**, it means your AD account is not a Tachyon user. Try using an AD account that you know is a Tachyon user that is assigned to a Tachyon system role or custom role. For example, use the **server installation account** which is automatically installed as a Tachyon user. For a new installation, the **server installation account** must be used to add other Tachyon users before their AD accounts can be used to access Tachyon applications. This process is described in the Users page and the Roles page. It is used in the following TCNU verification tests.
T C N I 05	• Change the web browser URL from /Tachyon to **/Admin**	The web browser will respond with the version number of the **SLA Platform** (IE will download as a JSON file, other browsers will display a response in XML format). Confirm the Version number is as expected.	
T C N I 06	• Change the web browser URL from /Tachyon to **/Background**	The web browser will respond with **You have reached Tachyon background API.** (IE will download as a JSON file, other browsers will display a response in XML format).	
T C N I 07	• Change the web browser URL from /Tachyon to **/Core**	The expected response is **Server Error 403 - Forbidden: Access is denied**. For security reasons, access to the these web applications are allowed for local users and services only, and denied to remote devices. If the response is **You have reached Tachyon Core API** then there is an issue with IIS configuration. Or, you are using a browser on the actual Tachyon Server, and should do the test on a remote workstation.	ⓘ **Access Allowed** It should not be possible for a remote web browser to have access to the following web applications: • /Core • /CoreInternal If access is possible then it is probable that the IIS role feature **IP Address and Domain Restrictions** is not installed on the Tachyon Server. You must ensure this IIS feature is installed, as described in the troubleshooting IIS Issues page. The Tachyon Setup installer verifies this prerequisite and optionally deploys the feature if it is missing.
T C N I 08	• Change the web browser URL from /Tachyon to **/CoreInternal**		
T C N I 09	• Change the web browser URL from /Tachyon to **/Platform**	The web browser will take you to the SLA Inventory web application.	
T C N I 10	• Change the web browser URL from /Tachyon to **/CatalogWeb** • Change the web browser URL from **https** to **http** and also change the server name so that it matches the value that you specified during installation for the *HTTP host header*. For example: http://ACME-TCN01.acme.local/CatalogWeb	In both cases, the web browser will take you to the **1E Catalog** website. If you use using **http** while leaving the same server address used for **https**, the expected response is **HTTP Error 404 - Not Found**. The 1E Catalog can use both **http** and **https** provided that you specify the correct server name for each protocol. For interactive use it is recommended that you use https. Http is provided for internal compatibility with existing consumers.	To access the **Admins** tab in the CatalogWeb, you must manually add one or more administrator accounts or groups to the website configuration. Please refer to 1E Catalog 1.2 - Rebuilding the 1E Catalog: Granting administrative privileges.

Verify user rights assignment

To run the following tests you need:

1. Tachyon Server installed and above TCNI verification tests passed
2. The name and password for the **server installation account**, the account must also be enabled
3. Two AD User accounts, **Test User 1** and **2**
    a. must not be existing Tachyon users because they will be assigned specific roles for the purpose of these tests.
    b. must have email addresses and be able to read emails.
4. The **1E Tachyon Platform** Product Pack, if not already installed

ⓘ 1E is often asked why the **1E Tachyon Platform** Product Pack is not built into the product. The reason is that uploading a known Product Pack is part of the verification process and ensures the user is able to upload at least one pack and carry out all the other necessary tasks at least once before exploring other aspects of Tachyon.

Ref	Test	Expected Response	Remediation
TCNU01	- Download the **TachyonPlatform.v5.x.x.x.zip** file from the 1E Support Portal . - Extract the **1E-Tachyon-Platform.zip** from the ProductPacks\Classic folder - Start a supported browser on a workstation - Connect to the Tachyon Portal as the **server installation account** - Open the **Settings** application and go to the **SettingsInstructionsInstruction sets** page - Click on the **Upload** button - In the Open dialog navigate to the location of the **1E-Tachyon-Platform.zip** file - Select the **1E-Tachyon-Platform.zip** file and click **Open** All the instructions contained in the zip file will initially be added to the default **Unassigned** instruction set. Instructions in the **Unassigned** instruction set cannot be used, so you will need to add the instructions to a new instruction set: - Select the 2 verification instructions to the new set, by clicking the checkbox at the start of each instruction row in the list. - Click the **Add new set** button in the button panel to the right of the page - In the **Add new instruction set** popup subsequently displayed, and type **1E Tachyon Platform** as the name - Ensure that the **Include 2 selected instructions** checkbox is checked - Click the **Add** button to add the new instruction set, with the selected instructions	You will upload the **1E Tachyon Platform** Product Pack and assign them to a new instruction set called **1E Tachyon Platform**. For a new Tachyon installation, the **Instruction sets** page will not contain any instruction definitions. After uploading the **1E Tachyon Platform** Product Pack, the two instructions contained in the Product Pack will be displayed on the **Product packs** page. After creating the **1E Tachyon Platform** instruction set this will appear in the Instruction sets list. After moving the verification instructions from **Unassigned** to the **1E Tachyon Platform** instruction set, the instruction count for the **1E Tachyon Platform** instruction set will go up by **2**. ⓘ Unlike some earlier versions of Tachyon, this version does not support the drag+drop method of uploading Product Packs. ✅ You can use the Tachyon Product Pack Deployment tool instead.	If the **server installation account** is not able to add instructions from a Product Pack, then the installation account is not assigned to the **Instruction Set Administrators** role. You can confirm if this is the case by viewing the rights of the **server installation account** in the **SettingsPermissionsUsers** page. You may have upgraded Tachyon from a previous version where the **server installation account** was not automatically assigned to this role. Contact 1E for advice on how to fix this.
TCNU02	- Connect to the Tachyon Portal as the **server installation account** - Open the **Settings** application and go to the **SettingsPermissionsUsers** page - Click **Add** and search for an AD Universal security group - Select one of the AD security groups and click **Add** - Click on the name of the AD group just added - In the **Group:** details page, click on the **Group members** tab to view the group members - Navigate back to the **Users** page - Check the checkbox for the group just added and click **Remove** and then click **Yes, remove group**	Entering one or more characters and clicking the search icon returns a list of matching user accounts and security groups. Selecting a group and viewing its members shows the Name and Email of each member.	The purpose of this step is to confirm the system is capable of searching Active Directory. You do not need to add the group; you will add users in the next step. The ability to search and find different types of AD security group depends on the search method selected during installation of the Tachyon Server, as described in Design considerations: Active Directory Security Groups.

TCNU03	- Connect to the Tachyon Portal as the **server installation account** - Open the **Settings** application and go to **PermissionsUsers** page. - In the **Users** page click on **Add**. - In the **Add User** prompt under **Select AD user or security group** type in the search box **Test User 1** and click on the search icon. - Select **Test User 1** from the search results and click on **Add**. - Repeat the same steps to add **Test User 2**. - Go to the **PermissionsRoles** page - Go to the **Roles** tab and add a custom role named **1E Tachyon Platform**. - Click on the name of the role that you just added. This will take you to the Permissions tab. Add a permission with the following properties: - Type: **Instruction Set** - Name (of the Instruction Set): **1ETachyonPlatform** - Permissions: **Actioner, Approver, Questioner, Viewer** - Click on Add. - Assign Management Group: **All Devices** - Go to the **Members** tab and add **Test User 1** - Role: **1E Tachyon Platform** - Repeat for **Test User 2**	The following custom role exists: **1E Tachyon Platform** The following users are included in the list of Users. **Server installation account** - assigned to roles: - Instruction Set Administrators - Permissions Administrators - Consumer Administrators - Applications Administrators **Test User 1** - assigned to roles: 1E Tachyon Platform **Test User 2** - assigned to roles: 1E Tachyon Platform ⓘ You will also see some system and machine accounts in the list of users. These are used internally for interaction with other Tachyon components and should not concern you at this time.	
TCNU04	- Connect to the Tachyon Portal as **Test User 1** and confirm access to **Explorer** pages - Repeat for **Test User 2**	Each Test User is able to view the following menu pages in the **Explorer** application: - Home - Instructions - History - Tasks - Scheduled - Devices - Table - Dashboard - Notifications	ⓘ **Contact system administrator to get access** When you use a browser to open an application in the Tachyon Portal and you see a message **Unauthorized access**, it means your AD account is not a Tachyon user. Try using an AD account that you know is a Tachyon user that is assigned to a Tachyon system role or custom role. For example, use the **server installation account** which is automatically installed as a Tachyon user. For a new installation, the **server installation account** must be used to add other Tachyon users before their AD accounts can be used to access the Tachyon Explorer. This process is described in the Users page and the Roles page. ⓘ **403 'Access denied'** When you use a browser to open an application in the Tachyon Portal, you will see **Server Error 403 - Forbidden: 'Access denied'** if the internal account used by the Application Pool does not have read access to the Tachyon web application folders. This can happen if Tachyon is installed in a non-default location and the NTFS permissions on the installation folder are not correct. To remedy the issue, you should review and correct NTFS permissions as described in Services and NTFS Security.

Verify 1E Client installation

To run the following tests you need:

1. Tachyon Server installed and above TCNI verification tests passed
2. Two AD User accounts, **Test User 1** and **2** and above TCNU verification tests passed
3. At least one test device on which the 1E Client will be installed
4. 1E Client installation source files and configuration details required by your Tachyon implementation

Ref	Test	Expected Response	Remediation
TCNA 01	- Install the 1E Client on the test device using the configuration settings required for your implementation - DNS Alias of Tachyon Server - Port used by the Tachyon Switch - Port used by the Tachyon Background Channel - Include optional MSP update - Confirm Programs and Features	1E Client installed. Programs and Features displays **1E Client**. - correct platform x86 or x64 - correct version number If an MSP update has been installed, the Installed Updates displays **1E Client Update (Qnnnnn)**.	The first 1E Clients can be installed manually or using a script. You should repeat this set of tests when you have deployed a few 1E Clients using your organization's preferred deployment method. You may need to edit the 1E Client configuration file after installation, to suit the requirements of your implementation, and restart the 1E Client service.
TCNA 02	Confirm Windows services are running.	The following Windows services exist and are running. **1E Client** **1E Nomad Branch** - only if Module.Nomad.Enabled=true	If the **1E Client** service is not running, then check the Client log.
TCNA 03	Check the 1E Client log.	No errors. ### 1E Client logs on Windows %ALLUSERSPROFILE%\1E\Client\1E.Client.log (used by 1E Client and Tachyon features, and Shopping client) %ALLUSERSPROFILE%\1E\Client\NomadBranchUninstall-YYYY_MM_HHTMM_HH_SS_000Z.log ### 1E Client logs on macOS /Library/Logs/1E.Client.Daemon.log (shows any service start errors) /Library/Logs/1E.Client.log (shows the current operation of the 1E Client) ### 1E Client logs on other non-Windows platforms /var/log/1E/Client/1E.Client.log	Check the **Switch** setting in the Client configuration file is using the correct DNS Alias for the Tachyon Server, and correct port for the Switch. If errors in the Client log relate to certificates then see Client issues: Tachyon client certificate issues.

Ref			
T C N A 04	- Start a supported browser on a workstation - Connect to the Tachyon Portal as **Test User 1** - Open the **Explorer** aplication and go to the **DevicesTable** page - For each **Test Device** that has had the 1E Client installed, confirm the device is listed in the **Table** page. - Click on each device and view the device properties.	Each **Test Device** is listed in the Tachyon **Devices Table** page. The device details shows information about the device's system, activity, certificate and configuration settings.	If you cannot use the **Test User 1** or **2** accounts then use another Tachyon user account. All Tachyon users are able to view the Tachyon **Devices Table** page. Check the configuration of the Tachyon client and review the Switch setting in the 1E Client configuration file. The 1E Client is controlled via the 1E Client configuration file **1E.Client.conf** which resides in the installation folder along with the 1E Client executable. The default installation location used for the different OS supported by the 1E Client are given in the following table: **OS** / **Default install location** Windows / **%ProgramFiles%\1E\Client** Linux and Solaris / **/etc/1E/Client** Mac / **'/Library/Application Support/1E/Client'** ⚠ The configuration file uses ASCII encoding. A comment line starts with the # symbol.

Verify Tachyon client-server communications (stage 1 and 2 instructions)

To run the following tests you need:

- Tachyon Server installed and above TCNI verification tests passed
- At least one test device has 1E Client installed and above TCNA verification tests passed
- Two AD user accounts configured as Tachyon users and above TCNU verification tests passed

To run the following tests you need to logon to a workstation with a user account that is assigned to at least one of the Tachyon administration roles. 1E Tachyon Platform Product Pack below describes the purpose of each of its verification instructions.

Ref	Test	Expected Response	Remediation
T C N A 01	See TCNA01 above.	Each **Test Device** is listed in the Tachyon Explorer Devices page.	

TCNA 05	• Connect to the Tachyon Portal as **Test User 1** • Open the **Explorer** application and go to the **Home** page • Type **verification** • Select **Tachyon Platform verification stage 1** • Click **Ask this question**	When the **Tachyon Platform verification stage 1** question is asked, the Explorer view changes to the **Instruction History Responses** page. The **Instruction History Responses** page lists the software products installed on each Test Device. Contents are shown for online Devices that have the 1E Client installed and running. If you view other Explorer pages and want to get back to the **Instruction History Responses** page, then you should select **Instruction History** from the navigation menu on the left side, and you should see a list of the instructions that have been run. You may then click on the name of the instruction to view its responses. The Client log indicates: • Running instruction • Successfully processed instruction	You may need to refresh the **Instruction History Responses** page. Verification stage 1 tests communication between the 1E Client and Switch. Any issues will appear in the Client log. Check each test device has the 1E Client running and is online.
TCNA 06	• Connect to the Tachyon Portal as **Test User 1** • Open the **Explorer** application and go to the **InstructionsHistory** page • Click on the **Tachyon Platform verification stage 1** instruction to view the response details • Click on the **Actions** tab • Type **verification** • Select **Tachyon Platform verification stage 2 (all platforms)** • Click **Perform this action** • Enter the password for the **Test User 1** account • If 2FA is enabled, enter the **authentication code**	If Two-Factor authentication (2FA) is enabled then Explorer will prompt for an authentication code, and **Test User 1** should receive an authentication code by email. The Explorer view changes to **Instruction pending approval**. **Test User 2** should receive an email asking for approval.	This stage of the Verification tests communication between the Tachyon Server and the SMTP relay/gateway. If 2FA is enabled and **Test User 1** does not receive an email with the authentication code, then: • check the Coordinator log and confirm it is using the correct configuration for the SMTP server If **Test User 2** does not receive an email, then: • check the user is assigned to the **1E Tachyon Platform** role • the **1E Tachyon Platform** role has access rights which include **Approver** • check the Coordinator log and confirm it is using the correct configuration for the SMTP server

Ref		Test	Expected Response	Remediation

TCNA07	• Either connect to the Tachyon Portal as **Test User 2** and click on the **notification icon** • Or click on the link in email received in the previous step and wait for a browser to connect you to the Tachyon Portal • View the **Request for action approval** for the **Tachyon Platform verification stage 2 (all platforms)** action • Tick the box **I understand approving my request impacts my IT environment** • Click **Approve**	When clicking on the link in the request for approval email, a browser should open automatically and take you to the Notifications page. You can view notifications and approval request at any time by clicking on the notification icon. The icon will show the number of actions pending approval by the logged on user. When the request is approved by **Test User 2**: • the Tachyon Explorer view changes to **Approval has been processed successfully** • **Test User 1** should receive an email saying the action has been approved	If **Test User 2** is unable to approve the request, then: • check the user is assigned to the **1E Tachyon Platform** role • the **1E Tachyon Platform** role has access rights which include **Approver**

TCNA08	• Connect to the Tachyon Portal as either **Test User 1** or **2**
	• Open the **Explorer** application and go to the **InstructionsHistory** page
	• Click on the **Tachyon Platform verification stage 2** instruction to view the response details
		Response details show a list of devices and their Client configuration details. You may need to refresh the Details page.
		
		This stage of the Verification tests the Client's connection to the Background Channel. Successful execution of the action will cause the following to appear in the Client log:
		
		• Duplicate log entries showing a repeat run of the previous question
		• A series of log entries showing a connection to the Background Channel, then a script is downloaded and run:
		  • Windows - **getConfig.ps1** PowerShell file
		  • Linux and MacOS - **parseconfigStarter.sh** bash and **parseconfig.pl** perl files
		• Successfully processed instruction
		
		You may have to wait up to 5 minutes for the action to complete on each device. This is because the default 1E Client setting for DefaultStaggerRangeSeconds=300.
			Repeat test TCNI05 using a browser on the test device to confirm the Background Channel has been configured correctly.
			
			A common error is an incorrect value for the **BackgroundChannelUrl** setting in an 1E Client configuration file. If you deployed the 1E Client using a software deployment tool like Microsoft's ConfigMgr then look to see if similar devices have the same issue. Check the 1E Client's configuration file on problem devices to see if the setting has the correct URL for the Background Channel.
			
			Check to see if the Background Channel has the scripts used by the Stage 2 instruction. Review the contents of **C:\ProgramData\1E\Tachyon\Content** folder on the server hosting your Background Channel. The Content folder should contain at a folder named **1E Tachyon Platform-VerificationStage2** which contains a sub-folders with a PowerShell file, and another subfolder containing a bash and a perl files.

Verify extended features

To run the following tests you need:

• all the above tests completed
• to logon to a workstation with a user account that is assigned to at least one of the Tachyon administration roles that allows you to run some instructions, which can include a Verification instruction already used above.

Ref	Test	Expected Response	Remediation

T C N X 01	**Export All feature** • To confirm the **Export All** share is accessible, use Windows Explorer to **br owse to the share name** specified when the Export all feature was configured • Connect to the Tachyon Portal, open the **Explorer** application and **ask a question** • After at least one device has responded with content, **stop** the question and **keep** the responses • In the **Content** or **Status** tab on the **Re sponses** page, click on **Export all results** • Enter the **share name** and click **Save** • Use Windows Explorer to **browse to the share name** and observe a TSV file has been created • Use Microsoft Excel or Notepad to view the contents of the TSV file	This test verifies BCP has been installed on the Tachyon Server, and an Export share is correctly configured, as described in Tachyon Server post-installation tasks: Configure the Tachyon Server to support the Export all responses feature. When you stop the question or wait for the question to complete its gather duration, then the Export all results button will be enabled. TSV is a tab-delimited text file.	If you see a popup error initiating export operation after clicking on the Export All results button, then • ensure you specify the hostname or hostname FQDN of the Windows computer where the share has been created; do not use a DNS Alias • check the share permissions • check the share NTFS security

1E Tachyon Platform Product Pack

Instruction text (ReadablePayload)	Type	Description	Instruction file name	Version
Tachyon Platform verification stage 1	Question	Stage 1 of the Tachyon Platform verification will return all software installed on each 1E Client endpoint. Verification stage 1 is a simple question-type instruction used to verify: • authenticated user is able to access and use Tachyon Explorer • end-to-end communication between the Tachyon system, the **Switch** and Tachyon client.	1E-TachyonPlatform-VerificationStage1	9
Tachyon Platform verification stage 2 (all platforms)	Action	Stage 2 of the Tachyon Platform verification will run a PowerShell script to return a subset of the current configuration of the Tachyon client features of 1E Client. Verification Stage 2 is normally expected to be run as a follow-up action for Verification Stage 1. Verification stage 2 is a simple action-type instruction used to verify: • two-factor authentication (if enabled) and approval workflow, which tests email (if enabled) - necessary for action-type instructions • end-to-end communication between the Tachyon system, the **Background Channel** and Tachyon client • the client is able to run PowerShell scripts on Windows OS - many Tachyon instructions and Guaranteed State rules use PowerShell version 3.0 and later • the client is able to run Bash script on non-Windows OS. For details about PowerShell and Bash support please refer to Requirements: Tachyon scripting requirements. The rate at which Responses are returned to the Tachyon system via the Switch is affected by the 1E Client setting **DefaultStaggerRangeSeconds**. This setting governs a random delay before the instruction downloads the script from the Background Channel. This stagger setting is ignored on Windows OS if Nomad client is enabled - instead only one client per subnet (or site if Nomad SSD is used) will act as master and download the script from the Background Channel, and peer clients will download the script from the master.	1E-TachyonPlatform-VerificationStage2	9