Aeos® Installation Guide

For Version 16.2

This document describes the process of installing Aeos onto a new environment.

For more details about the technology stack, see the Hardware Specifications (in the Old Stack/New Stack folders).

Overview

At a high level, the installation process consists of the following steps. More detail is provided in the Installation Details section below.

1. Run the Huron Installer application.
   The installation package can be found in the Releases folder in TFS.
   Run the installation on the servers below in this order:
   a. App DB server
   b. BizTalk DB server
   c. Web servers
   d. App primary server
   e. App scaleout servers
2. If you are creating a demo system, use the Configuration Installer.
3. If you are implementing Aeos Analytics:
   a. Install Spotfire
   b. Run the Spotfire Configurator
4. If you are implementing SSL security, run the SSL configurator.
5. Test the Installation.

Security Requirements

To perform the tasks in this document, you must be a server and database administrator on all the systems involved on the new stack environments.

You cannot run the installer as the Huron App User (e.g., internally sa_user) since this account is updated during the migration. The Huron App User account must have “Log on as a service” rights in its group policy.

Known Issues

Refer to Known Issues on PSWiki for common deployment issues and solutions:

http://pswiki/PSWiki/doku.php?id=pmwiki:deploy:deployknownissues

Acquiring Package from TFS

Packages are obtained from TFS under $/Phoenix/Releases/

See Amanda Davies if you are unsure which package to retrieve.

Always perform a Get-Latest function on the package or view the history to ensure no changes have been made. Once the package has been mapped to a physical location on your hard-drive, copy the contents out into another folder:

1. Create a new folder – preferably at the root of C:\ – with the shortened release name as the folder name. For example, if the release is called C:\R\15\15.3.0\15.3.0.00 Rel Aeos_Main_12.1.15235.144003, then create a folder called C:\15.3.0.00.
2. Copy the *contents* of the folder from source control into this new folder.

Removing Read-Only Flag from Files

TFS places a read-only flag on all items until they are checked out for editing. To get around this, manually remove the read-only flag.

1. Right-click the new folder in Windows Explorer, and select Properties.
2. Clear the read-only check box and apply to all folders.

Adding custom scripts and programs

If there are any custom scripts that need to be included with the package, copy them over. An example would be a PowerShell script to add NETWORK SERVICE account or service account to the “Log on as a service” role in group policy.

Creating a ZIP package

When the release is ready to be transferred to client environments, ZIP the package to reduce the file/folder size.

Pre-Install Steps

General

To prepare for any type of install:

- Transfer the package over to C:\Huron.Installer.Root\Packages on the app DB server
  - If this folder doesn't exist, you need to:
    - On the app DB server, create C:\Huron.Installer.Root
    - Create two folders inside C:\Huron.Installer.Root: Config and Packages
- Extract the package in C:\Huron.Installer.Root\Packages
- Copy the Installer.config from the package in C:\Huron.Installer.Root\Packages\<package>\Installer and paste it into C:\Huron.Installer.Root\Config
- Open the Installer.config file and check all the settings; update as needed. See Appendix D – Installer.Config.
- Copy/cut any extra scripts/programs out of the extracted package and place them in C:\Huron.Installer.Root. If you need to reference these items, always use the UNC path across servers. Do not copy to each server unless absolutely necessary. This saves time, confusion, and disk space.
- Modify all the .exe.config files in Huron.Installer.Root\Packages\<Package>\Installer to point to the UNC path (**Error! Hyperlink reference not valid.**) for the Huron.Installer.Root value instead of the local path (C:\Huron.Installer.Root)
- Verify UAC and LUA is disabled on all servers. If they're not, disable them and reboot the servers (requires permission from PIT). If you're unsure how to disable these, use this registry file or have DevOps do it:

  DisableUAC.reg

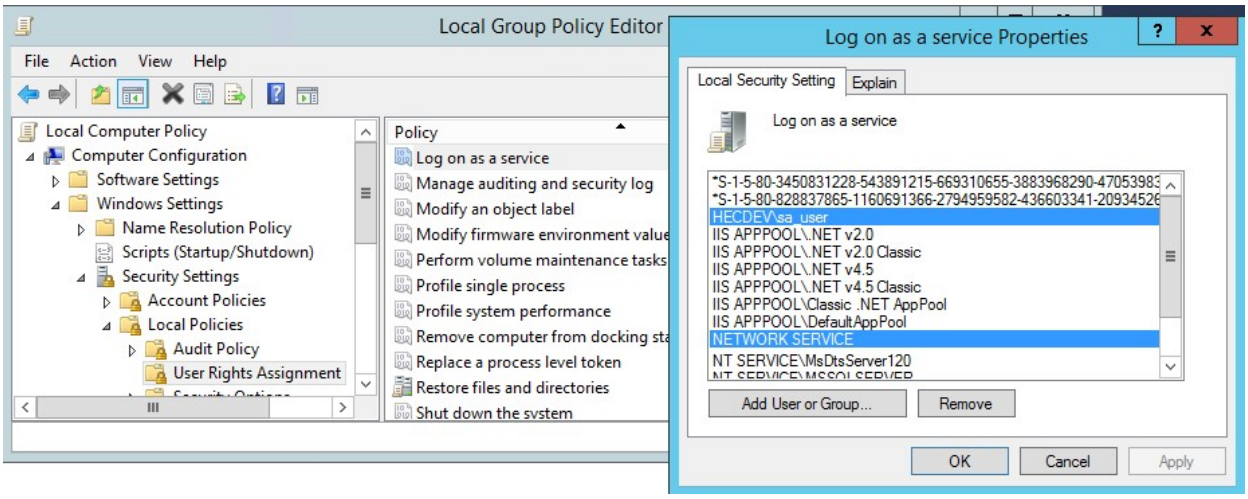
- Verify the Huron Service account AND "NETWORK SERVICE" are both members of the "Log On as a Service" group policy **on all servers**.

  The installer/upgrader errors immediately after launch if doesn't have this right granted. This is a pre-requisite for environment for installation, so if it is not setup then, you can have DevOps do that as part of normal environment configuration.

To verify and add the service accounts (if needed)

1. Click **Start > Run** and enter **gpedit.msc**.
2. In the console tree, open:

   >Computer Configuration
   > Windows Settings
   > Security Settings
   > Local Policies
   > User Rights Assignment
3. In the details pane, double-click **Log on as a service**.
4. If necessary add Huron Service account AND "NETWORK SERVICE" by clicking **Add User or Group**.

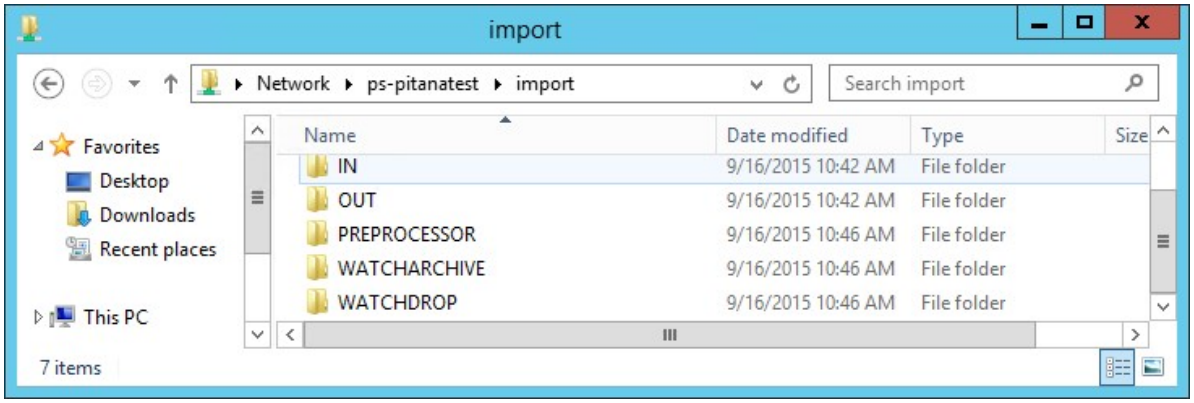


Full Install

Some pre-tasks and checks must be done prior to a full install.

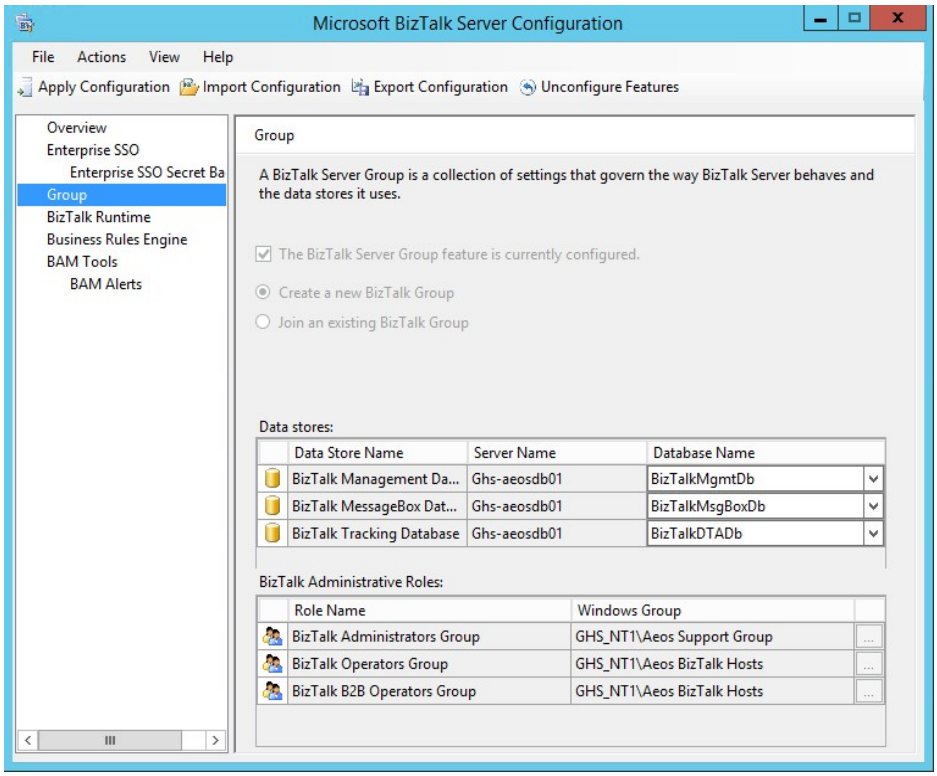
- Follow the steps in [Pre-Install Steps: General Prep](#).
- Verify SSRS is configured. If you go to **Error! Hyperlink reference not valid.**, does it fail? If so, check with DevOps.
- Verify IIS is working on the Biztalk app server(s), the analytics server, and web server(s). You can do this by going to **Error! Hyperlink reference not valid.**>. You should be greeted by the default IIS/ASP page. If you get an error, something is not configured correctly and you need to notify DevOps.
- On the DB server on the drive designated for the “import share”, make sure this directory structure exists AND is **shared with full rights to service account user**:

  +{drive:}\IMPORT
  +-- IN
  +-- OUT
  +-- PREPROCESSOR
  +-- WATCHARCHIVE
  +-- WATCHDROP



- Set the value for **HURON_BT_GROUP_NAME** in installer.config.

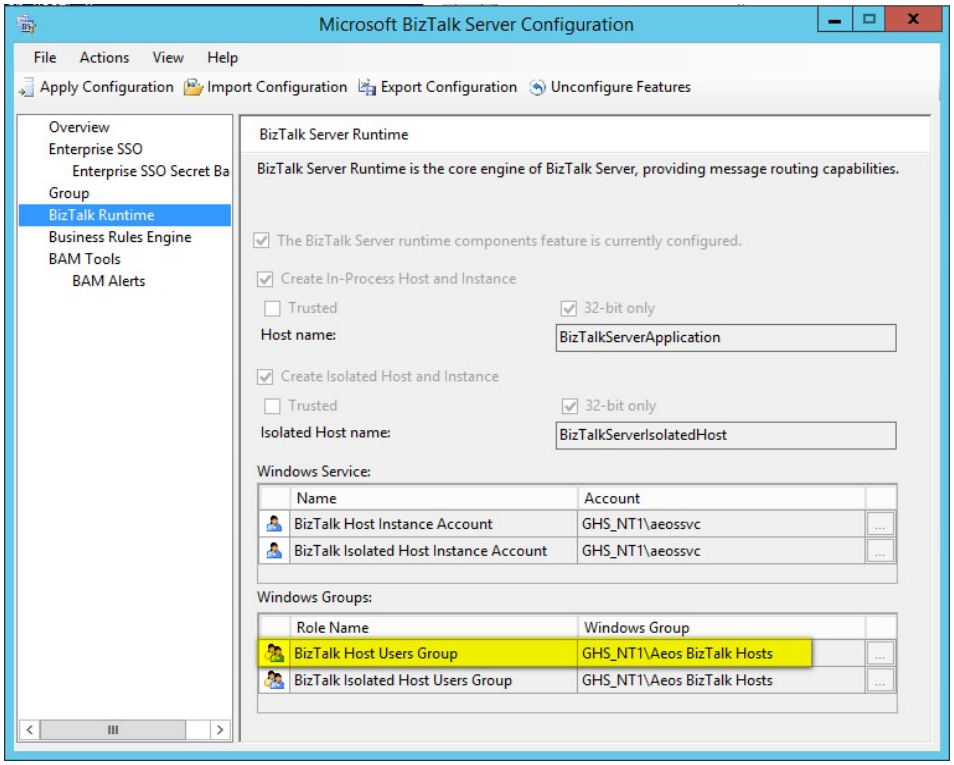
  On BizTalk **App server**, determine value for **HURON_BT_GROUP_NAME** config setting by opening the BizTalk Server Configuration and looking at the value for **BizTalk Administrators Group** .. (truncate the domain prefix). E.g. in the screen below it is **Aeos Support Group**.



Update its value in the installer.config file in C:\Huron.Installer.Root\Config.

- Determine value for **HURON_BIZTALK_APP_USERS_GROUP** config setting.

  It's under BizTalk Runtime for BizTalk Host Users Group "windows group" value (truncate the domain prefix). E.g. in the screen below it is **Aeos BizTalk Hosts**.



Update its value in the installer.config file in C:\Huron.Installer.Root\Config.

Upgrade

Some pre-tasks and checks must be done prior to an upgrade.

- Follow the steps in Pre-Install Steps: General Prep.
- Make a backup of the current Installer.config in the C:\Huron.Installer.Root\Config folder on the app DB server
- Copy the Installer.config from the package in C:\Huron.Installer.Root\Packages\<package>\Installer and paste it into C:\Huron.Installer.Root\Config
  - Modify the values to match the environment. See the Appendix D – Installer Config section for more info.
- Make sure the HuronVersion table in the various databases – especially Control – is set to the previous release and not a hotfix. For example, if it displays "R15.2HF123", change it to "R15.2.0". It should match the release values in the UpgradeManifest.xml in C:\Huron.Installer.Root\Packages\<package>\Installer\Manifests.
- Open the Business Rule Composer on the Biztalk application server. Verify all vocabularies and policies are either in a **Published** or **Deployed** state. If there are any that are in a blank (saved) state, **Publish** them. If you're unable to do so, ask a technical deployment lead to either remove or publish the policy/vocab.
- Kick out all other logged in users to all servers. Kick out = LOG OFF entirely, not just disconnect the user. The user needs to be completely logged off the machines. Disconnecting the user will only end their remote desktop session, but the files in use are still active and will collide with the installer/upgrader and may cause irreparable damage.
- Shutdown the services outlined in this wiki for your environment type: http://pswiki.huronconsultinggroup.com/PSWiki/doku.php?id=pmwiki:deploy
  - Before AND after shutting down Aeos, open Biztalk Administrator on the primary Biztalk app server and make sure there are no running service instances. If unsure how, ask PIT.

Spotfire

Some pre-tasks and checks must be done prior to installing/upgrading Spotfire.

- Make sure all Spotfire binaries and hotfixes live on the analytics server AND web server(s) in a folder called C:\tibco\binaries. The binaries can be acquired from \\PMBLADE12\Common\SpotfireDeployPackage\binaries and put on the https://securefile.huronconsultinggroup.com for transfer to client sites
  - The binaries should be extracted if they are in ZIP format and the hotfix folder names should match what's expected in the SpotfireUpgradeManifest.xml file in C:\Huron.Installer.Root\Packages\<package>\Installer\Manifests

SSL

How an environment is configured for SSL varies greatly from client to client, environment to environment (UAT vs Prod) and sometimes from server to server. If you're not familiar with SSL technology and how to manage certificates, there is a good chance of corrupting the environment. It's strongly recommend you get help from someone that has knowledge in this area.

If the client only has SSL at the load-balancer, the only thing you need to change is Healthcare.xap file:

1. Open C:\Program Files (x86)\Huron Consulting Group\Web\Healthcare\ClientBin in Windows Explorer
2. Make a new temporary folder
3. Take a backup of Healthcare.xap
4. Copy the Healthcare.xap to the new folder
5. Rename the Healthcare.xap in the new folder to Healthcare.zip

6. Extract out the ServiceReferences.ClientConfig file
7. Open the ServiceReferences.ClientConfig file in a text editor and change HTTP protocol on all the end-point URLs to HTTPS
8. Change the bindingConfiguration of all the endpoints from Basic to SSL
9. Change the bindingConfiguration of all the endpoints from BasicExtended to SSLExtended
10. Save the ServiceReferences.ClientConfig file
11. Place ServiceReferences.ClientConfig back into the Healthcare.zip and over-write the existing .clientconfig file if prompted
12. Rename the Healthcare.zip file back to Healthcare.xap
13. Copy the Healthcare.xap file back to the ../ClientBin folder and over-write the existing one.
14. Open a command window and type **iisreset**

Installation Details

This section describes in more detail the installation and configuration steps from the Overview.

The order that you do these steps is important; see the Overview section above.

Huron Installer

Run the Huron Installer on all the client's servers that are hosting the Aeos system in the order specified in the Overview.

To install the Aeos system

1. Log on to the App DB server and set up the install package.
   a. Open the Huron.Installer.exe.config file in the Huron.Installer.Root\Packages\<full install package >\Installer folder and make sure the Huron_Installer_Root path uses a UNC path to the App DB server rather than a local path. It should look something like:
   `\\<server_name>\c$\Huron.Installer.Root`
   b. Check Appendix B: Manual Steps and do all steps applicable.
2. Log on to each server and run the Full Installer located in the \Huron.Installer.Root\Packages\<full install package>\Installer folder in the order specified in the Overview:
   a. On the App DB server where the full install package exists locally, open a command prompt and run it like any other program.
   `Huron.Installer.exe –sp <Huron User Account Password> -so`
   that's "dash,sp" with the Huron user account password then "dash,so".
   Note: the password should not contain quotes (“), apostrophes (‘), back slashes (\), or angle brackets (<>).
   b. On remote systems, run the program using the UNC path to the App DB server:
   `"\\<server_name>\c$\Huron.Installer.Root\Packages\<full install package>\Installer\Huron.Installer.exe" –sp <Huron User Account Password> -so`
3. After the Installer finishes, replace the Huron import maps assembly with the PIT Custom Huron.ImportMaps.dll and GAC the assembly.

If there are problems with the installation, errors are logged in the C:\Huron.Installer.Root\Logs folder. There is a log file for each version and server. When you open a log file, search for "ERROR "(that's ERROR with a space added) to find specific errors.

Configuration Installer: Demo System

If you are installing a demo system, you can pre-load the demo configuration by running the Configuration Installer after you finish running the installer. It is found in the same folder as the Huron Installer:

`\\<server_name>\c$\Huron.Installer.Root\Packages\<full install package>\Installer\Huron.ConfigurationInstaller.exe`

Run the Configuration Installer after the Huron Installer and before the Spotfire Installer.

The demo configuration is found in the full install package/Configuration folder:

`\\<server_name>\c$\Huron.Installer.Root\Packages\<full install package>\Configuration\Demo`

To pre-load the configuration to make a demo environment.

1. On the App DB server where the full install package exists locally, open a command prompt and run it like any other program.
   `Huron.ConfigurationInstaller.exe –sp <Huron User Account Password> -c demo`
   Where demo is the name of the folder containing the configuration to load.
2. On remote systems, run the program using the UNC path to the App DB server:

```
"\\<server_name>\c$\Huron.Installer.Root\Packages\<full install package>\Installer\
Huron.ConfigurationInstaller.exe" –sp <Huron User Account Password> -c demo
```

Aeos Analytics: Spotfire Installation and Configuration

Use the Huron Spotfire Installer and Spotfire Configurator applications to install and configure the TIBCO Spotfire analytics platform.

To install Spotfire

1. Log on to the App DB server and set up the Spotfire install package.
   a. Locate the Huron.SpotfireInstaller.exe.config file in Huron.Installer.Root\Packages\<full install package>\Installer
   b. Open the Huron.SpotfireInstaller.exe.config file and make sure all values are correct; update them as needed.
2. Log on to the Aeos App DB server and each Spotfire server and run the Spotfire Installer located in the \Huron.Installer.Root\Packages\<full install package>\Installer folder **in this order**: Aeos App DB Server, Spotfire Application Server, Spotfire Web Server(s).
   a. On the App DB server where the full install package exists locally, open a command prompt and run it like any other program.
      `Huron. SpotfireInstaller.exe –sp <Huron User Account Password>`
      that's "dash,sp".
   b. On remote servers, run the program using the UNC path to the App DB server:
      `"\\<server_name>\c$\Huron.Installer.Root\Packages\<full install package>\Installer\Huron. SpotfireInstaller.exe" –sp <Huron User Account Password>`

If there are problems with the installation, errors are logged in the C:\Huron.Installer.Root\Logs folder. There is a log file for each version and server. When you open a log file, search for "ERROR "(that's ERROR with a space added) to find specific errors.

To use the Configurator

Use the Spotfire Configurator after the Spotfire Installer completes.

1. Log on to the App DB server and set up the Spotfire Configurator package.
   a. Open the Huron.SpotfireConfigurator.exe.config file in Huron.Installer.Root\Packages\<full install package>\Installer
   b. Confirm that all values are correct; update them as needed.
2. Log on to the Aeos App DB server and each Spotfire server and run the Spotfire Configurator located in the same folder. The Spotfire servers include the Spotfire Application Server, and one or more Spotfire Web Servers.
   a. On the App DB server where the full install package exists locally, open a command prompt and run it like any other program.
      `Huron.SpotfireConfigurator.exe –sp <Huron User Account Password>`
      that's "dash,sp".
   b. On remote systems, run the program using the UNC path to the App DB server:
      `"\\<server_name>\c$\Huron.Installer.Root\Packages\<full install package>\Installer\Huron.SpotfireConfigurator.exe" –sp <Huron User Account Password>`

If there are problems with the installation, errors are logged in the C:\Huron.Installer.Root\Logs folder. There is a log file for each version and server. When you open a log file, search for "ERROR "(that's ERROR with a space added) to find specific errors.

SSL Configurator

To set up Aeos to use SSL for encrypted communications between the components of the system, use the SSL Configurator. Before you can run it, make sure that there is a valid SSL certificate and root certificate issued by a public certificate authority or an organization.

Run the `\\<server_name>\c$\Huron.Installer.Root\Packages\<full install package>\Installer\Huron.SSLConfigurator.exe –sp <Huron User Account Password>`

1. On the App DB server where the full install package exists locally, open a command prompt and run it like any other program.

   ```
   Huron.SSLConfigurator.exe –sp <Huron User Account Password>
   ```

2. On remote systems, run the program using the UNC path to the App DB server:

   ```
   "\\<server_name>\c$\Huron.Installer.Root\Packages\<full install package>\Installer\
   Huron.SSLConfigurator.exe" –sp <Huron User Account Password>
   ```

Automated Backups

During the installation process, backups of critical configuration objects are saved to the folder:

C:\Huron.Installer.Root\Backups\<*buildname*>

Only the previous backup for the major service pack or release is retained in this folder. When you perform a major service pack or release, the previous backup is deleted.

The follwing items are backed up:

File	Path	Backup Path
ADLDS: Data Files folder	C:\Program Files (x86)\Huron Consulting Group\ADAM\Data Files	C:\Huron.Installer.Root\Backups\<*buildname*>\<*Server*>\ADLDS
Analytics Report Templates	Inside Spotfire, no physical path	C:\tibco\tss\6.5.2\tomcat\application-data\library\<report_date>)
Analytics ScheduledUpdates.xml	C:\Program Files\TIBCO\Spotfire Web Player\6.5.2\webroot	C:\Huron.Installer.Root\Backups\<*buildname*>\<*Server*>\SpotfireWebPlayer\6.5.2\webroot\app_data
Analytics web.config	C:\Program Files\TIBCO\Spotfire Web Player\6.5.2\webroot	C:\Huron.Installer.Root\Backups\<*buildname*>\<*Server*>\SpotfireWebPlayer\6.5.2\webroot
BizTalk bindings	Inside Biztalk, obtained programmatically	C:\Huron.Installer.Root\Backups\<*buildname*>\<*Server*>\BizTalk\Bindings
BizTalk configuration files: BTSNTSvc.exe.config, BTSNTSvc64.exe.config	C:\Program Files (x86)\Microsoft BizTalk Server 2013 R2	C:\Huron.Installer.Root\Backups\<*buildname*>\<*Server*>\BizTalk\Config
BizTalk Rules	Inside Biztalk, obtained programmatically	C:\Huron.Installer.Root\Backups\<*buildname*>\<*Server*>\BizTalk\Rules
BizTalk Vocab	Inside Biztalk, obtained programmatically	C:\Huron.Installer.Root\Backups\<*buildname*>\<*Server*>\BizTalk\Vocab
Services Internal Config: web.config and Config folder files	C:\Program Files (x86)\Huron Consulting Group\Web\Huron.Services.Internal	C:\Huron.Installer.Root\Backups\<*buildname*>\<*Server*>\Web\Huron.Services.Internal
Healthcare: web.config and Config folder files	C:\Program Files (x86)\Huron Consulting Group\Web\Healthcare	C:\Huron.Installer.Root\Backups\<*buildname*>\<*Server*>\Web\Healthcare
ClientBin: Healthcare.xap	C:\Program Files (x86)\Huron Consulting Group\Web\Healthcare\ClientBin	C:\Huron.Installer.Root\Backups\<*buildname*>\<*Server*>\Web\Healthcare\ClientBin

Post-Install

In addition to starting or restarting any services, there is some quick validation that should be done once Aeos install/upgrade is completed.

General

- Make sure you can get to the Aeos login screen without error
- If you do not have an account to log into Aeos, either create one or have one created for you
- You can create an account using the Huron.UserImport.exe tool in C:\Program Files (x86)\Huron Consulting Group\Tools\Huron.UserImport.
- Verify you can get to the Main Shell without error
- Verify you can get to the Reports portal without error
- Verify you can get to Analytics without error

Full Install

After a full-install, consult PIT to find out if Biztalk Host Instances need to be started and report to DevOps once all tasks have been completed.

Upgrade

After an upgrade:

- Restart any services that were shut-down in Pre-Install Steps: Upgrade. Restart in reverse order of shutting down.
- Make sure the Message Queueing Triggers service is started on the app and web servers (if it exists on the servers).
- Let PIT know you're done with the upgrade tasks.

SSL

If SSL is enabled, open Aeos in IE and verify that these areas all show HTTPS in the address bar and do not throw errors:

- Aeos Main Shell
- Reports portal
- Analytics

Appendix A – Command Line Arguments

Running the Huron Installer without arguments displays a list of common arguments that can be used.

Full Install Command:

`Huron.Installer.exe –sp <app user password>`

Verbally that's "dash,sp"

The following is the complete set of arguments:

--S	Silent mode. Halts execution upon exception without prompting the user to Retry, Continue, or Exit.
--T	Test Mode. Prompt the user for Retry, Continue or Exit after the execution of each step.
--I	Integration Mode. Does not prompt the user to Retry, Continue or Exit when an exception occurs; automatically continues execution with the next task.
--SP	must be followed immediately by the password for the Huron app user account (--SP <password>) **Note:** the password should not contain quotes (“), apostrophes (‘), back slashes (\), or angle brackets (<>).
--appdb	run the App DB role related tasks if they are appropriate for the server where the program is being run.
--app	run the App Server role related tasks if they are appropriate for the server where the program is being run.
--btdb	run the BizTalk DB role related tasks if they are appropriate for the server where the program is being run.
--web	run the Web server role related tasks if they are appropriate for the server where the program is being run.
--disableDBBackup	run the other designated tasks but skip taking a backup of the databases.
-SO	Skip Optional. Does not prompt the user whether to run or skip optional tasks; instead it skips them without prompting.

Appendix B – Manual Steps

Check Recoverable Messaging Settings

Check the settings on the Recoverable Messaging Update OneNote page and update as necessary:

https://healthcare.huronconsultinggroup.com/pssps/DevOps/Deployments/Shared Documents/Current_Release_Deploy_Notes/Standardization Tasks.one#Recoverable Messaging Update

Appendix C – SSL Token Replacements

Located in the `\\<server_name>\c$\Huron.Installer.Root\Packages\<full install package>\Installer` folder, the SSL.Config file uses “XML Fragments” to toggle SSL token values in the Installer.config. There is no expectation to change this file by the user.

Example fragment:

```
<fragment parentXPath="/AeosDeployment/Tokens"
targetXPath="/AeosDeployment/Tokens/HURON_ADLDS_CONNECTION_PROTECTION">

      <SSLEnabledValue><![CDATA[<HURON_ADLDS_CONNECTION_PROTECTION>Secure</HURON_ADLDS_C
      ONNECTION_PROTECTION>]]></SSLEnabledValue>

      <SSLDisabledValue><![CDATA[<HURON_ADLDS_CONNECTION_PROTECTION>None</HURON_ADLDS_CO
      NNECTION_PROTECTION>]]></SSLDisabledValue>
</fragment>
```

In the fragment above, the parentXPath is the root XPath of the XML Element to modify, the targetXPath is the XML Element itself. When the SSLConfigurator runs, it will toggle the SSLEnabledValue or SSLDisabledValue XML based on the “UseSSL” flag in the Installer.config.

Appendix D – Installer.Config

Deployment Properties

Some deployment properties are expected to be changed by the install user. Others (like the Biztalk directory) typically stay the same

- ClientName
  - This is the value that goes into the Control.dbo.Tenant table and is displayed in reports. It is also the value that goes into the Huron.UserImport CSV files in the Tenant Name column.
- DomainName
  - This is the alias/name of the Active Directory domain (e.g. HURONCONSULTING)
- AppUserName
  - This is the service account user name (without domain name)
- BackupLocation
  - The folder where backups go when the installers need to take backups
- EnvironmentType
  - Two supported values for this: QA or Client
- BiztalkDirectory
  - The name of the Biztalk folder in C:\Program Files (x86).
- BiztalkCommonDirectory
  - The name of the Biztalk folder in C:\Program Files (x86)\Common Files
- HuronDirectory
  - The name of the Huron Consulting Group folder in C:\Program Files (x86)
- EncryptedReportUserPassword
  - **Do NOT change this value**. This is the encrypted password for the sa_report account.
- UseSSL
  - This flag is only used in the Huron.SSLConfigurator.exe program and determines if SSL should be enabled or disabled. Set it to “true” (must be lower case) to enable.

Environment

- WebServerFriendlyName
  - This is the fully qualified, friendly DNS name given to the web server (e.g. aeos.huronconsultinggroup.com)
- AnalyticsWebServerFriendlyName
  - This is the fully qualified, friendly DNS name given to the analytics web server
- Servers
  - This is where you define your server names, their role (app server, DB, web, etc…) and their type (primary or scaleout/farm).

Database File Locations

To change the database file locations edit the following XML sttement:

```
<DatabaseFiles defaultDataPath="C:\SQL_Data" defaultLogPath="C:\SQL_Logs"
defaultAllowMoveOrRestore="false">
    <DatabaseFile dataPath="" logPath=""
    allowMoveOrRestore="true">BatchImport</DatabaseFile>
```

```
    <DatabaseFile dataPath="" logPath="" allowMoveOrRestore="true">Control</DatabaseFile>
    <DatabaseFile dataPath="" logPath=""
    allowMoveOrRestore="true">DataValidation</DatabaseFile>
    <DatabaseFile dataPath="" logPath=""
    allowMoveOrRestore="false">EsbExceptionDb</DatabaseFile>
    <DatabaseFile dataPath="" logPath=""
    allowMoveOrRestore="true">HealthcareWorkManagement</DatabaseFile>
    <DatabaseFile dataPath="" logPath="" allowMoveOrRestore="true">MessageDB</DatabaseFile>
    <DatabaseFile dataPath="" logPath="" allowMoveOrRestore="true">Phantom</DatabaseFile>
    <DatabaseFile dataPath="" logPath="" allowMoveOrRestore="true">Portal</DatabaseFile>
    <DatabaseFile dataPath="" logPath=""
    allowMoveOrRestore="true">ReportingDW</DatabaseFile>
    <DatabaseFile dataPath="" logPath=""
    allowMoveOrRestore="true">VendorAudit</DatabaseFile>
</DatabaseFiles>
```

Each database node in the above XML derives its datapath and logpath (.mdf and .ldf files) from the defaults in the root node if not specified at the individual node.

The allowMoveOrRestore attribute determines whether a database file can be moved by the installers after it is initially installed and if the database file can restore (overwrite) an existing file after a migration.

Tokens

Tokens are grouped by specific areas of the environment. These tokens are used internally in the installer and used externally in items (config files, database scripts, binding files, etc…) packaged for installs.

Some tokens are not expected to be changed by the user from their default value and some are always expected to be changed by the user. Legend:

- **Seldom Change** (typically a default value). You shouldn't need to change this value.
- **Sometimes Change** (could change based on package and install). Typically doesn't change, but has some potential to.
- **Always Change** (always needs to be changed to reflect the correct value). You need to change this from its default value.

Build and Environment

- HURON_BUILD_NUMBER - Seldom Change
  - The installer typically modifies this token to equal the *releaseBuild* value specified in the <PackageFolder>\BuildVersion.xml file.
- HURON_ENABLE_MICROSOFT_COPYRIGHT - Seldom Change
  - Sets the value of the same setting in the appConfig XML for the Control.dbo.Settings table.
- HURON_FULLY_QUALIFIED_DOMAIN_NAME - Always Change
  - This value should be the Active Directory fully qualified domain (E.g. HECDEV.COM). This is used primarily in the SpotfireConfigurator.
- HURON_TENANT_GUID - Always Change
  - A guid to distinguish this tenant (client) from other tenants. In a new install, this should be randomly generated by a GUID generator. The value is initially set in the Control.dbo.Tenant table then set across multiple places in Aeos.

ADLDS

- HURON_ADAM_DATA_FILE_PATH - Always Change
  - The location of the ADLDS database files.
- HURON_ADLDS_ADMIN_USER - Seldom Change
  - The initial ADLDS user for installing an ADLDS instance

- HURON_ADLDS_CONNECTION_PROTECTION - Seldom Change
  - This value will be changed by the SSL Configurator to use SSL connection protection
- HURON_ADLDS_DEFAULT_PORT - Seldom Change
  - The default port to install an ADLDS instance on.
- HURON_ADLDS_DOMAIN - Always Change
  - The ADLDS domain distinguished name (DN). This is usually acquired by opening ADSIEDIT.msc and connecting to the default context and server. Once you expand the nodes you should see the domain in DN format (i.e. DC=Microsoft, DC=Com)
- HURON_ADLDS_PORT - Seldom Change
  - The ADLDS port that Aeos will communicate through. If SSL is enabled via the SSL Configurator, this will inherit its value from the HURON_ADLDS_SSL_PORT token.
- HURON_ADLDS_SSL_PORT - Seldom Change
  - The ADLDS secure port for SSL communication.
- HURON_ADLDS_SSL_ROOTCERT_DN - Always Change
  - The Distiniguished Name (DN) of the root certificate for ADLDS. This value is located by opening the ADLDS certificate, and looking at the “ISSUER” line. For example, if the ISSUER is GeoTrust Global CA, the token value should be: CN=GeoTrust Global CA, O=GeoTrust Inc., C=US
- HURON_ADLDS_SECURE_CONNECTION - Seldom Change
  - Tells Aeos to connect to ADLDS through a secure connection. This is enabled by the SSL Configurator.
- HURON_ADLDS_SERVER - Always Change
  - The server hosting the ADLDS instance, typically the Biztalk application server.
- HURON_ADMIN_USER_NAME - Seldom Change
  - The administrator account used by Aeos and other helper programs (like Huron UserImport) to perform CRUD operations on ADLDS users.
- HURON_APP_USER_ADLDS_PROXY_NAME - Seldom Change
  - The ADLDS proxy user name that is usually bound to the domain service account. This is typically used by SpotfireConfigurator for connecting to ADLDS and Azman.

Analytics Extracts

These might be deprecated tokens.

- HURON_ANALYTICSEXTRACTGENERATOR_ARCHIVEPATH - Seldom Change
- HURON_ANALYTICSEXTRACTGENERATOR_INSTALLPATH - Seldom Change
- HURON_ANALYTICSEXTRACTGENERATOR_OUTPUTPATH - Seldom Change

Biztalk

- HURON_BIZTALK_APP_USERS_GROUP - Always Change
  - The domain account Biztalk hosts will use. You can find this value by opening Biztalk Server Configuration > Biztalk Runtime > Biztalk Host Users Group. Do not prefix the domain name (e.g. if HECDEV\BiztalkHostsGroup, then the value should be BiztalkHostsGroup)
- HURON_BIZTALK_RULES_DB_NAME - Seldom Change
  - The Biztalk Rule engine database name
- HURON_BIZTALK_SECURITY_MODE - Seldom Change
  - The Biztalk security mode for messages

- HURON_BT_GROUP_NAME - Always Change
    - The domain account Biztalk uses to perform administrative functions. You can find this value by opening Biztalk Server Configuration > Group > BizTalk Administrators Group. Do not prefix the domain name (e.g. if HECDEV\BiztalkAdmins, then the value should be BiztalkAdmins)

Biztalk Services.Internal

- HURON_BIZTALK_HTTPS_GET_ENABLED - Seldom Change
    - A service behavior attribute typically found in Biztalk web.config or app.config files. If true, it allows service metadata to be retrieved using an HTTPS get request.
- HURON_BIZTALK_WEB_PROTOCOL - Seldom Change
    - Determines if web traffic in Biztalk applications go through HTTP or HTTPS
- HURON_BIZTALK_WS_ASYNC_CONFIG_NAME - Seldom Change
    - Determines the configuration Biztalk web services use to transmit traffic (toggles between SSL and non-SSL)
- HURON_BIZTALK_WS_ASYNC_VOID_CONFIG_NAME - Seldom Change
    - Determines the configuration Biztalk web services use to transmit traffic (toggles between SSL and non-SSL)
- HURON_BIZTALK_WS_BASIC_CONFIG_NAME - Seldom Change
    - Determines the configuration Biztalk web services use to transmit traffic (toggles between SSL and non-SSL)
- HURON_BIZTALK_WS_EXTENDED_CONFIG_NAME - Seldom Change
    - Determines the configuration Biztalk web services use to transmit traffic (toggles between SSL and non-SSL)

Imports

- HURON_IMPORT_LOG_BATCH_SIZE - Seldom Change
    - Deprecated?
- HURON_IMPORT_FILE_DRIVE - Always Change
    - The drive or share for the IMPORT folder. This is usually a share on the database server.
- HURON_IMPORT_FILE_FOLDER - Seldom Change
    - The folder and sub-folders the in directory resides in (e.g. IMPORT\IN)
- HURON_KITEDRIVEPATH - Seldom Change
    - Deprecated?
- HURON_MESSAGE_LOG_DIRECTORY - Seldom Change
    - Deprecated?
- HURON_OUTPUT_FILE_DRIVE - Always Change
    - Usually this is the same location as the HURON_IMPORT_FILE_DRIVE
- HURON_OUTPUT_FILE_FOLDER - Seldom Change
    - The folder and sub-folders the output directory resides in (e.g. IMPORT\OUT)
- HURON_PREPROCESSOR_FILE_DRIVE - Always Change
    - Usually this is the same location as the HURON_IMPORT_FILE_DRIVE
- HURON_PREPROCESSOR_FILE_FOLDER - Seldom Change
    - The folder and sub-folders the preprocessor directory resides in (e.g. IMPORT\PREPROCESSOR)
- HURON_WATCHARCHIVE_FILE_FOLDER - Seldom Change
    - The folder and sub-folders the watch archive directory resides in (e.g. IMPORT\WATCHARCHIVE)

- HURON_WATCHDROP_FILE_FOLDER - Seldom Change
    - The folder and sub-folders the watch drop directory resides in (e.g. IMPORT\WATCHDROP)

SQL

- HURON_RULE_TESTING_FOLDER – Sometimes Change
    - The UNC path to the rule testing folder. Control database derives its value for the rule testing folder from this token.
- HURON_SSRS_WS_PROTOCOL - Seldom Change
    - Web service protocol for SSRS (http or https)
- HURON_SSRS_WS_FRIENDLY_NAME - Always Change
    - Web service friendly name for SSRS (fully qualified name of the database server or load-balanced name)
- HURON_BATCHIMPORT_INSTALL_LOCATION - Seldom Change
    - The physical location for the BatchImport SSIS packages. This is typically used for internal QA environments.
- HURON_BI_WEB_IMAGE_PATH - Seldom Change
    - The physical folder location for Reporting image files
- HURON_SQL_AGENT_PROXY_NAME - Seldom Change
    - The name for the SQL credential (found in management studio under Security > Credentials) bound to the service account

Web

- HURON_HTTPS_GET_ENABLED - Seldom Change
    - A service behavior attribute typically found in web.config or app.config files. If true, it allows service metadata to be retrieved using an HTTPS get request.
- HURON_WEB_PROTOCOL - Seldom Change
    - Determines if web traffic in Aeos applications go through HTTP or HTTPS
- HURON_WS_ASYNC_CONFIG_NAME - Seldom Change
    - Determines the configuration web services use to transmit traffic (typically toggles between SSL and non-SSL)
- HURON_WS_ASYNC_VOID_CONFIG_NAME - Seldom Change
    - Determines the configuration web services use to transmit traffic (typically toggles between SSL and non-SSL)
- HURON_WS_BASIC_CONFIG_NAME - Seldom Change
    - Determines the configuration web services use to transmit traffic (typically toggles between SSL and non-SSL)
- HURON_WS_EXTENDED_CONFIG_NAME - Seldom Change
    - Determines the configuration web services use to transmit traffic (typically toggles between SSL and non-SSL)

Spotfire Installer-Configurator

- HURON_ANALYTICS_AUTOMATION_SERVICES_FOLDER - Seldom Change
    - The path to the Spotfire Automation Services folder (excluding the version folder)
    - Typically is located at C:\Program Files\TIBCO\Automation Services
- HURON_ANALYTICS_BINARIES_FOLDER - Seldom Change

    - The path to the Spotfire binaries root folder where the various installers (MSI) of TIBCO software is located. This is usually in C:\TIBCO\Binaries on the servers where Spotfire products are installed.
- HURON_ANALYTICS_CLIENT_FOLDER - Seldom Change
    - The path to the Spotfire Thick Client
    - Typically located at C:\Program Files (x86)\TIBCO\Spotfire
- HURON_ANALYTICS_ENABLED - Seldom Change
    - Deprecated. This was initially used to toggle the install of Spotfire.
- HURON_ANALYTICS_ENABLE_WEBCACHE - Always Change
    - Toggles Spotfire Web caching (scheduledUpdates) in the Web Player web.config
- HURON_ANALYTICS_TIBCO_FOLDER - Seldom Change
    - The root path where Spotfire Server lives on the file system. Typically this is C:\tibco\tss
- HURON_ANALYTICS_VERSION - Seldom Change
    - The Spotfire Version number. This is used to append the version folder name to the various locations. For example, the installer appends this token to the HURON_ANALYTICS_WEB_PLAYER_FOLDER (e.g. C:\Program Files\TIBCO\Spotfire Web Player\6.5.2)
- HURON_ANALYTICS_WEB_PLAYER_FOLDER - Seldom Change
    - The path to the Spotfire Web Player folder (excluding the version)
    - Typically is located at C:\Program Files\TIBCO\Spotfire Web Player
- HURON_SPOTFIRE_LIBRARY_PATH - Seldom Change
    - The path to the Spotfire library ZIP files
    - Typically is located at C:\tibco\tss\6.5.2\tomcat\application-data\library
- HURON_SPOTFIRE_LIBRARY_TEMPLATES_FOLDER - Seldom Change
    - The Spotfire library templates folder
    - Typically prefixed by a forward slash (/) and resides at /Report Templates
- HURON_SPOTFIRE_LIBRARY_OBJECTS_FOLDER - Seldom Change
    - The Spotfire library objects folder
    - Typically prefixed by a forward slash (/) and resides at /Report Objects
- HURON_SPOTFIRE_AUTH_SERVER - Always Change
    - The server hosting the Spotfire Server (tomcat) service
- HURON_SPOTFIRE_AUTHENTICATION_URL - Always Change
    - The Spotfire Server authentication service URL
- HURON_SPOTFIRE_SERVICE_API_URL - Always Change
    - The Spotfire Server web services URL
- HURON_SPOTFIRE_AUTOMATION_URL - Always Change
    - The Spotfire Automation Services JobExecutor.asmx URL
- HURON_SPOTFIRE_PERSONAL_CERT_DN - Sometimes Change
    - Common name of the “issued to” or “subject” of the Spotfire SSL certificate
    - The installer creates a temporary certificate with a DN of CN=SPOTFIRE.TEMP.CERT. By default this will be used, but any valid “Personal” certificate can be used in its place.
- HURON_SPOTFIRE_DATASOURCE_PATH - Seldom Change
    - The Spotfire DataSource (e.g. ReportingDW)
- HURON_SPOTFIRE_DATASOURCE_SERVER - Always Change
    - The Spotfire DataSource server (e.g. the server ReportingDW lives on). This is usually the database server (fully qualified name)
- HURON_SPOTFIRE_DATASOURCE_PORT - Seldom Change
    - The SQL Server port to connect on, usually 1433

- HURON_SPOTFIRE_DATASOURCE_DB_NAME - Seldom Change
    - The SQL database the datasource is mapped to

Appendix E – Common Issues

A list of common install related issues can be found on the PS wiki:
http://pswiki.huronconsultinggroup.com/PSWiki/doku.php?id=pmwiki:deploy:deployknownissues
Here are some not-so-common issues:

- **ISSUE:** You get an error from one of the installers that the installer.config may not be setup correctly
  - Check the server values in the installer.config. Make sure they are correct and don't contain extra quotes and are not missing any quotes. If the client has weird server names, double check you have the exact server name (use compare tool if you have to)
  - Make sure you have changed the directory in the .exe.config files of the various installers to point to the UNC path of Huron.Installer.Root, not the local path.
- **ISSUE:** You're getting an HTTP 405: Method Not Allowed in the installer or you see this in the event logs
  - The HTTP Activation feature is not enabled on the app, web, or analytics machines. Enable this role/feature from the Windows Server Manager
- **ISSUE:** Unable to log into Spotfire Thick Client (sometimes presents itself as not being able to connect to Analytics from Aeos).
  - Restart the TIBCO Spotfire Service on the analytics server or restart the analytics server entirely (get permission from PIT/Client IT)
- **ISSUE:** When clicking on Analytics button, a tab/page opens and immediately closes
  - Double check the correct server name and/or friendly DNS name are in these two files on the web server(s):
    - The WebPlayerURL key in C:\Program Files (x86)\Huron Consulting Group\Web\Healthcare\Config\appSettings.config
    - The WebPlayerURL key in C:\Program Files (x86)\Huron Consulting Group\Web\AnalyticsPortal\web.config
  - Someone may have placed an IE compatibility flag at the Default Web Site level in IIS for the HTTP Response Headers
    - Open IIS on the web server(s)
    - Expand the nodes down to Default Web Site and make sure Default Web Site is selected
    - In the center pane, locate and double click on HTTP Response Headers
    - If you see something like this, delete it and add to the Healthcare application level instead: X-UA-Compatible | IE=6