An Administrators Guide to IBM i Access Client Solutions
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Session ID:  170163
Agenda Key:  42AF – Grand Caribbean 10

IBM i Access Client Solutions

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<td>Caicos 2</td>
<td>How to Access &amp; Manage your IBM i today and in the future – Tim Rowe</td>
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<td>Monday</td>
<td>11:00am</td>
<td>Grand Caribbean 10</td>
<td>IBM ACS Overview (Access for Windows replacement)</td>
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<td>Grand Caribbean 8-9</td>
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<td></td>
<td>11:00am &amp; 2:00pm</td>
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<td>OPEN LAB: Hands On With IBM i Access Client Solutions</td>
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Connection Configuration
Use the System Configurations panel to store connection information on the IBM i Systems that will be used.

Create, Edit or Delete connection information for IBM i Systems that are used.

- **System Name**: What is entered by the user to connect to this host.
- **IP Address**: What the PC’s DNS environment last returned when connecting to the System Name.
- **Service Host Name**: The System’s Console host name or IP address as configured.
- **Description**
System Configurations

- OK - Saves the information entered and closes the panel
- Save/New - Saves the information entered and clears the panel
- Cancel - Closes the panel without saving anything

System Configurations - SSL

- Use SSL specifies that the connection will be secured
- If the Certificate Authority negotiated is not trusted, the user will be prompted to add to trusted list
- There still is a Key Management utility if needed
System Configurations - Authentication

- Use default user name to prompt once for each system
  - Caches credentials for duration of desktop session
- Prompt for user name and password every time
- Use Shared credentials
  - First time for desktop session that a connection is made to a System configuration using this option the user will be prompted to provide User name & Password
  - These credentials will be cached for use by all System configurations set to this option
- Use kerberos authentication; do not prompt
  - No further IBM i Access Client Solutions configuration needed

Console Configuration

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- 5250 Console – Opens a interactive console to the current System
- Virtual Control Panel – Opens a Virtual Control Panel

5250 HMC Console

- 5250 HMC Console
Virtual Control Panel

- Virtual Control Panel
  - Service Functions
    - Providing options for service commands instead of providing the up and down arrows and enter
  - Supported with LAN and HMC console types

Console Configuration

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Deployment

Product Availability

- IBM i Access Client Solutions is identified as LPP 5733-XJ1
  - Not an IBM i OS installable LPP

- The GA version of the product is available to customers with valid SWMA and IBM i OS r6.1, r7.1 or r7.2 and is downloaded from the IBM i Access Client Solutions or IBM Entitled Software Support (ESS) websites
  - Technote with example instructions

- Product distributed in zip files
  - Platform Independent Core Java product
    - From IBM i ACS website: IBMiAccess_v1r1.zip
    - On ESS: IBM_i_Access_Client_Solutions_LCD#_*_.zip
    - Contains product jar and other supporting files
**Documentation**

- Main User Interface provides an easy to use launch point for features
- Product contains Documentation folder containing "QuickStartGuide" and "GettingStarted" documents
- "GettingStarted" can also be launched from Main User Interface

**Deployment**

- IBM i Access Client Solutions is not installed to the client operating system, it is deployed.
  - There is no Windows Based Installer (setup.exe) installation program for the core of the product.

- Access Client Solutions Deployment
  - The deployment involves the client bundle being placed wherever it is desired to be executed from, and determining where the product settings are going to be stored.

- Client Bundle
  - Contains the Java executable Jar, properties file, platform specific start executables and javascript start samples, product documentation, and licensing notices.
  - All that is required to be deployed is the Java executable Jar
  - The rest is optional

- No JRE distributed
  - IBM i Access Client Solutions does not deploy a specific JRE
  - Relies on a Java 1.6 or higher (Java 1.8 recommended) JRE to be accessible on the client OS
When thinking about deployment, ask yourself where you want to put:

1. the product image? (jar file)

2. the user’s settings? (system configurations, 5250 sessions, etc.)

Deployment: Options

- Computer (local)
- USB Thumb Drive
- Network Share
- Intranet (http:// URL)
What you get in the package

Start Programs – Operating System specific launch executables
Deployment

Start Programs – Operating System specific launch executables

Provided Deployment/Install Scripts

- IBM i Access Client Solutions provides Operating System specific Application deployment scripts to make deployment easier for an user
- Javascript will copy the IBM i Access Client Solutions deployment to a specific location that makes sense for the Operating System being used.
Provided Windows Deployment/Install Script

- Provided install_acs script on Windows will copy the IBM i Access Client Solutions deployment to C:\Users\<WindowsUser>\IBM\ClientSolutions.
- Provided install_acs_*_allusers script will copy the IBM i Access Client Solutions deployment to C:\Users\Public\IBM\ClientSolutions
- Deployment will ask the user which functions they want to use, if it should create shortcuts on the Desktop for the Main User Interface and 5250 Session Manager. It will also create file associations for the .hod, .bchx, .dttx & .dtfx if they haven’t already been created.

![Screenshot of file associations and shortcut creation](image)

Provided Windows Deployment/Install Script

- Deployment Prompts

![Deployment Prompt Screenshot](image)
• Deployment Prompts

Do you want to make ACS the default program for your existing 5250 session profiles?

Details:
5250 session profiles created by IBM i Access for Windows or IBM Personal Communications can also be used by IBM i Access Client Solutions (ACS). These files have a file extension of .wsp. ACS will not update .wsp files, but is able to use them to start a 5250 session.

Yes  No

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• Deployment Prompts

Do you want to view printer output?

Yes  No

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• Deployment Prompts

Do you want to transfer data to/from spreadsheets?

Yes  No

Do you want to use Navigator for i?

Yes  No
• Deployment Prompts

Do you need to manage SSL/TLS certificates?

Yes  No

Do you need to use Database tools?

Yes  No
• Deployment Prompts

Do you need to use an HMC or LAN console?

Yes  No

• Deployment Prompts

Do you need to issue remote commands?

Yes  No
• Deployment Prompts

Do you need to use the System Debugger?

- Yes
- No

• Deployment Prompts

Do you want product shortcuts on the Desktop?

- Yes
- No
• Deployment Prompts

Windows Script Host

IBM i Access Client Solutions installation has finished.

OK
Provided Deployment Scripts

- IBM i Access Client Solutions v1r1m4 Update 3 (October 2015) provided an update to these deployment scripts for Windows to allow an Administrator to control some of the deployment behavior and how the client behaves for the user.
  - An Administrator runs the script passing a parameter of /AdminConfig
    - The Administrator is then presented with a series of questions about the deployment, like if ACS should be ran locally or remotely, what functions will the user have, and if desktop icons should be created.
  - The IBM i Access Client Solutions product files are placed in a central location
  - Users run the deployment script and IBM i Access Client Solutions is deployed to their Windows workstation.

- More Details

- Administrator Preparing Deployment

```bash
C:\>cd c:\ACSLab\IBMiAccess_v1r1\Windows_Application
C:\ACSLab\IBMiAccess_v1r1\Windows_Application>dir
Volume in drive C has no label.
Volume Serial Number is 3031-6CBE
Directory of c:\ACSLab\IBMiAccess_v1r1\Windows_Application
04/24/2016 04:48 PM <DIR>     installace_32.js
02/01/2016 04:12 PM  51.256 installace_64.js
01/22/2016 03:08 PM  8.185 QuickStartGuide.html
03/15/2016 09:30 AM  5.920 uninstall_acs.js
4 File(s)     98,780 bytes
2 Dir(s) 2,019,266,560 bytes free
C:\ACSLab\IBMiAccess_v1r1\Windows_Application>install_acs_32.js /AdminConfig
```
Provided Deployment Scripts

- Administrator Preparing Deployment

![Image of Administrator Command Prompt with options to change current configuration or not]

- Provided Deployment Scripts

![Image of Administrator Command Prompt with options to begin with default configuration or not]

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Provided Deployment Scripts

- Administrator Preparing Deployment

Where should the product be ran from?

- No => Copy the IBM i ACS deployment to Windows User’s Home Directory
  - To update the product, update the central location and re-run install script

- Yes => Run the product from the location the install script is being ran from
  - May be a Network or Local location
  - To update the product just update the deployment location via file copy

Do you want multiple users to share a common location of the product files?

- Yes - install requests (on Windows) will set shortcuts and file associations to the current location of the product files
- No - install requests will copy the product files to a user home location for each user

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• Administrator Preparing Deployment

Windows Script Host

The next set of questions will determine what functions you make available to your users.

OK

• Administrator Preparing Deployment

Windows Script Host

You have finished setting up the configuration.

OK
**Provided Deployment Scripts**

- Administrator Preparing Deployment
  - User running the Deployment

  ![Windows Script Host](image)

  IBM i Access Client Solutions installation has finished.

  ![OK Button](image)

- Deployment scripts supports a `/Q` option to be passed to the script to silently deploy the client. Automatically accepting the End User License Agreement and not showing this completion message.

**Provided Mac Deployment/Install Script**

- Provided install_acs Javascript on Mac will copy the IBM i Access Client Solutions deployment to the Mac OS Applications folder.
Provided Linux Deployment/Install Script

- Provided install_acs Javascript on Linux will copy the IBM i Access Client Solutions deployment to the locations of
  - /usr/share/applications/
  - /opt/ibm/iAccessClientSolutions/

User Settings Location
These properties may also be specified on the command line
-D<property>=<value>

One such property is
com.ibm.iaccess.AcsBaseDirectory

The value of this property determines:
  – The location of user settings
  – The location of service logs/dumps/etc
  – The default directory used by the 5250 session manager (this can be configured separately if desired)

The value is expected, therefore, to be a directory name on a filesystem. It can be
  – Left blank (which leaves behavior at the default location)
  – The path of a hardcoded directory name (fully-qualified is highly recommended)
  – A constructed path using special keywords (next slide)

Tip: use forward slashes (/), not backslashes (\)
**AcsBaseDirectory: Special Keywords**

- **{USER}**: would be the current username (valid anywhere in the path)
- **{PRODUCTDIR}**: would mean the product’s location in the file system (valid only at the beginning)
- **{TEMPDIR}**: would be the temporary directory (valid only at the beginning)
- **{ROOT}**: the root of the file system where the product is located (valid only at the beginning)
- **{CWD}**: the current working directory (valid only at the beginning)
- **{HOME}**: the user's home directory (valid only at the beginning)
- **{DEFAULT}**: the default place the product normally puts its settings (valid only at the beginning)

---

**Verifying Location**

[Image of a user interface showing the location settings in IBM Access Client Solutions.]
Cliff's Notes: Common Configurations

**Default** ("My Documents" on Windows, home dir otherwise)

```
com.ibm.iaccess.AcsBaseDirectory=
```

**Network share**

```
com.ibm.iaccess.AcsBaseDirectory=
com.ibm.iaccess.AcsBaseDirectory={PRODUCTDIR}/config_directory/{USER}
```

**Thumb drive!**

```
com.ibm.iaccess.AcsBaseDirectory={PRODUCTDIR}/config_directory
```

---

Manual Settings
Limiting Functions

- There are two approaches to limiting the functions that the user has access to when running IBM i Access Client Solutions
  - List of Excluded Components tied to the product deployment
  - Runtime restrictions stored on the client workstation

Excluding Components

- Deployed via AcsConfig.properties file next to or within acsbundle.jar
  - Property must be set:
    - com.ibm.iaccess.ExcludeComps
  - Set this property to a comma-separated list of function keywords

- The function keywords which may be specified are:
  - DATAFEX - Data Transfer to/from IBM i
  - EMULATOR - 5250 Display/Print emulation and 5250 Session Manager
  - KEYMAN - SSL certificate management
  - OPCONSOLE - Operations console and Virtual Control Panel
  - RMTCMD - Remote Command (available from the command line)
  - SPLF - Printer Output
  - HWCONSOLE - Hardware management interface
  - L1PLUGIN - Navigator for i
Runtime Restrictions

- Can be set via the IBM i Access Client Solutions application when ran with Administrator or Root level authority.
- GUI interface from Edit -> Preferences

![GUI interface](image)

Runtime Restrictions

- Can be set via the IBM i Access Client Solutions application when ran with Administrator or Root level authority.
- Command Line option to restrict, unrestrict, list, export/import

![Command Line option](image)
Creating File Associations

- Easy GUI option!
  - Only supported on Windows
  - Must launch via acslaunch*.exe Start Program or acsbundle.jar from default product file structure

- Can also be done by the command line

  acslaunch_win-32.exe /plugin=fileassoc
IBM i Access Client Solutions provide several tools to assist with migrating from the IBM i Access for Windows client environment to IBM i Access Client Solutions

- 5250 Migration Tools
  - Workstation file and keyboard map migration
  - Macro migration
  - Legacy File Associations

- Data Transfer
  - Saved Data Transfer migration

- System Connections
• 5250 Session Manager

Migration – 5250 session profiles
Migration – 5250 session profiles

- Key mappings are also converted. A converted .kmp file will be saved in the same location that the new .hod file is created and will be referenced by that .hod file.
What about my old macros?

- File->Convert Macro
- VBScript capabilities NOT converted

Create File Association for IBM i Access for Windows saved .ws or .bch file to be opened with IBM i Access Client Solutions
Data Transfer Migration

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Data Transfer Migration

- Migrates saved .dtt and .dtf files to IBM i Access Client Solutions .dttx and .dtfx files

Results of Migration
- Green check indicates success
- Red x indicates failure and there are more details
IBM i Access Client Solutions Copy Connections can be used to move System Configurations.
IBM i Access Client Solutions has a mechanism for saving (exporting) and restoring (importing) a user’s settings and preferences.

- When a configuration is exported, all information is stored in an export file.
- Stored data includes emulator session profiles.

An export file can therefore be used to:
- Back up settings
- Migrate settings from one PC to another.
- Propagate settings to multiple PC’s.
So what is “autoimport”?  
- Allows an export file to be automatically imported when the product starts up  
- Useful for an administrator to automatically roll out settings

Deployed via AcsConfig.properties  
- Two properties must be set:  
  - com.ibm.iaccess.autoimport  
  - com.ibm.iaccess.autoimport.version

- com.ibm.iaccess.autoimport  
  - Can contain special config keywords  
  - Can be a classloader path (if placed inside acsbundle.jar), a URL (http://, file://), or the path to a file.

- com.ibm.iaccess.autoimport.version  
  - Typically set to a numeric value  
  - Dictates whether the file (specified by com.ibm.iaccess.autoimport) is imported. The import happens if this value differs from the last file imported via the “autoimport” feature.
Application Administration

- Administration tool that allows an IBM i OS System Admin to set some of what functions of Navigator and IBM i Access are available based on IBM i OS User Profile
  - IBM Navigator for i -> System -> Application Administration

- Articles by Dawn May in her “i Can” Blog for IBM Systems Magazine
  - Application Administration with Navigator for i

  - Application Administration with Access Client Solutions
### Application Administration

#### Cognitive Systems

Select the functions or applications available to users.

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<th>Select</th>
<th>Function</th>
<th>Default Access</th>
<th>All Object Access</th>
<th>Customized Access</th>
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### Application Administration

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Connection Configuration
Consoles Administration
Deployment
User Settings Location
Manual Settings
Migration
Auto Import Configurations
Application Administration
Questions

Don’t Forget to Fill Out Your Session Surveys!

1. Log on to Sched and go to your schedule
2. Click on the this session

Wednesday, May 10 • 9:30am - 10:45am

42AF - An Administrators Guide to IBM i Access Client Solutions

Sign up or log in to save this to your schedule and see who’s attending!

http://sched.co/5CDu

3. Click on the feedback survey link above the session abstract
4. To fill out additional surveys go back to your schedule and click on the next session

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- Be part of the voice to IBM – help enhance the IBM i and AIX operating systems

- Submit feature requests and requirements to IBM

Submit COMMON Requirement for IBM i on IBM RFE site:
Submit online at https://ibm.co/2oLNF3v or scan this QR code

Submit COMMON Requirement for AIX on COMMON site:
Submit online at requirements.common.org or scan this QR code

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