# IBM i Access Client Solutions 5733-XJ1 (ACS) 12/4/2015 update Version 1.1.1.5 Build 5492

# Speaker



Ray Johnson

iSolutions Consulting, Inc.

Phone: 541-684-8371

Email: ray@iscllc.biz

Website: www.iscllc.biz

Thank you for the opportunity to present to your group

iSolutions Consulting, Inc 2 1/27/2016

## Disclaimer



All examples are provided as is. No warranty claims are expressed or implied. Before using the product, verify that you are using the most current version. All opinions express are those of the presenter.

iSolutions Consulting, Inc 3

## Disclaimer 2

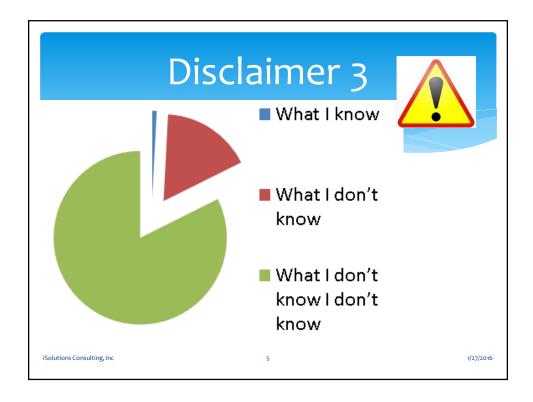


1/27/2016

Most examples shown require administrative authority on the PC and/or the IBM i. You've been warned ☺

**ASK QUESTIONS** – This is presentation is for you. I don't know what you don't know!

ISolutions Consulting, Inc 4 1/27/2016



- 1. Find the streamlined process for downloading IBM i ACS.
- 2. Review deployment options.
- 3. Limit powerful functions like Data Transfer, Console functions, and Management functions
- 4. Identify new features that are in the December 2015 release of ACS.

iSolutions Consulting, Inc 6 1/27/2016



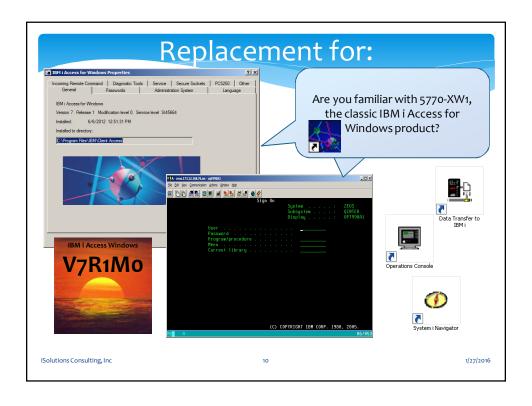


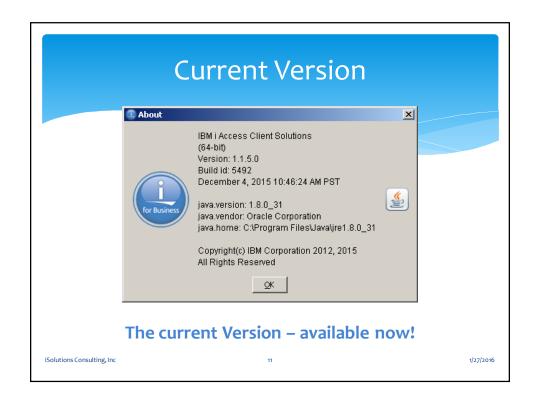
# Introduction (The run anywhere client)

# IBM i Access Client Solutions product (ACS) replaces the IBM i Access for Windows client.

- The product is 5733-XJ1, currently at version 1.1.5.0.
- IBM's emphasis it runs anywhere (that Java runs)
- The will run from a thumb drive!
- The product is not "installed" but runs from jar file.
- The product can be launched from a remote drive.

iSolutions Consulting, Inc 9 1/27/2016





- 1. Find the streamlined process for downloading IBM i ACS.
- 2. Review deployment options.
- 3. Limit powerful functions like Data Transfer, Console functions, and Management functions
- 4. Identify new features that are in the December 2015 release of ACS.

iSolutions Consulting, Inc 12 1/27/2016

## How do I get the product?

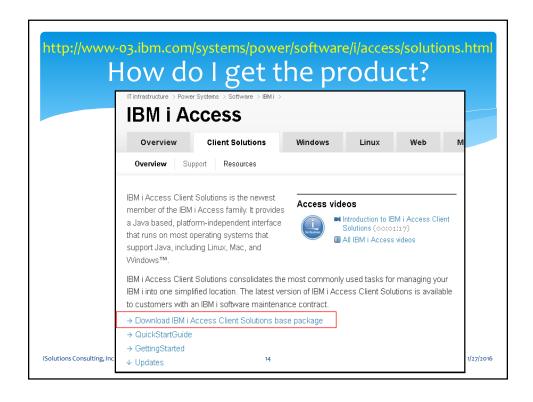
#### Last year:

- Fully licensed code must be downloaded from IBM's Entitled Software Support (ESS) web site. This WAS a one time requirement.
- Finding the product on the ESS website required a SIX Page Treasure Map. IBM hid the product very well. ☺

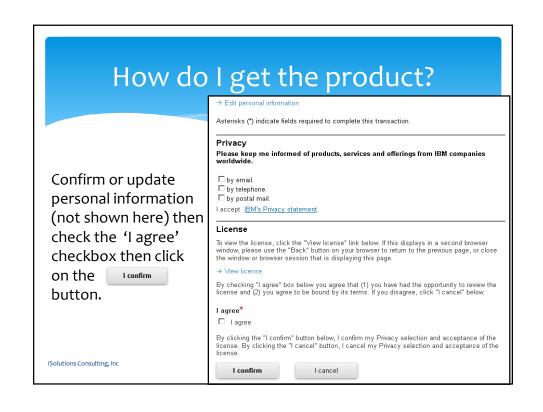
#### This year

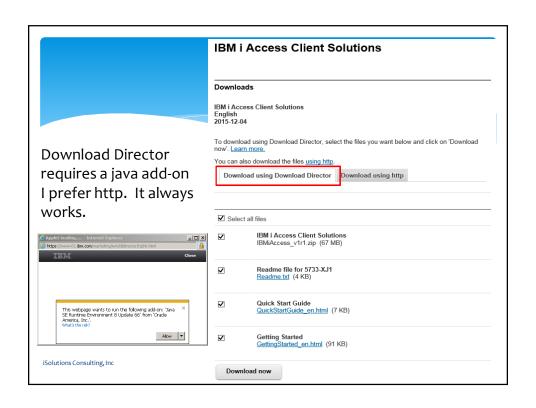
- The fully licensed product can be now be downloaded directly from IBM i Access Client Solutions web site.
- http://www.ibm.com/systems/power/software/i/access/solutions.html

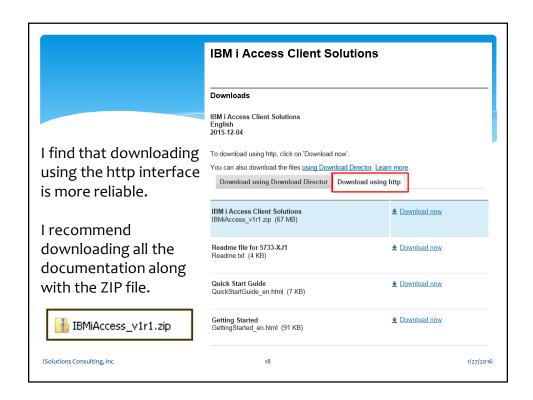
iSolutions Consulting, Inc 13 1/27/2016

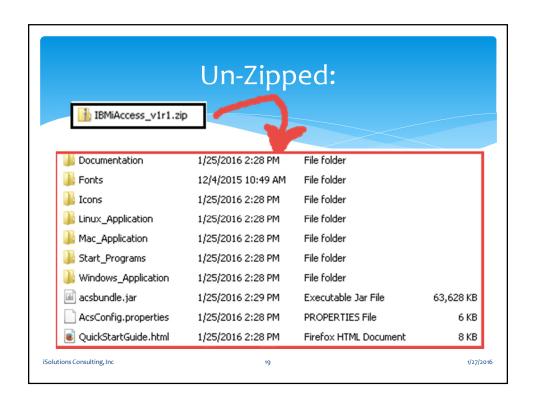


http://www-03.ibm.com/systems/power/software/i/access/solutions.htm How do I get the product?		
IBM Software	IBM i Access Client S	
Products		
Services	Returning visitors	Not registered?
Downloads Library	IBM ID: (usually e-mail address)*	If you do not have a universal IBM user ID, please register here, then return to sign in for this offering.
News	→ Forgot your IBM ID?	To find out more about the benefits of having
Training and certification	→ Forgot your IBM ID?  → Get an IBM ID	an IBM Registration ID, visit the <u>IBM ID Help</u> and FAQ.
Events	Password*	4
Support	Password	IBM ID required
	→ Forgot your password?	IBM ID
Communities: IBM Business Partners ISVs Developers	Sign in	
iSolutions Consulting, Inc	15	1/27/201







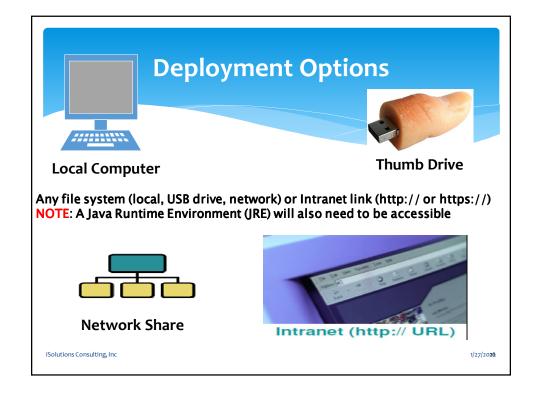


- 1. Find the streamlined process for downloading IBM i ACS.
- 2. Review deployment options.
- 3. Limit powerful functions like Data Transfer, Console functions, and Management functions
- 4. Identify new features that are in the December 2015 release of ACS.

iSolutions Consulting, Inc 20 1/27/2016

- 1. Find the streamlined process for downloading IBM i ACS.
- 2. Review deployment options.
- 3. Limit powerful functions like Data Transfer, Console functions, and Management functions
- 4. Identify new features that are in the December 2015 release of ACS.

iSolutions Consulting, Inc 21 1/27/2016





AcsConfig.properties

- Deployment control resides primarily in the configuration file: AcsConfig.properties
- The AcsConfig.properties file contains code examples.
- Full Documentation can be found in /Documentation/GettingStarted.HTML

iSolutions Consulting, Inc 23 1/27/2016

## **AcsConfig.properties**

```
# com.ibm.iaccess.AcsBaseDirectory determines the configuration location.
     # Special keywords are provided which can be used when defining the configuration
     # path. When the keywords are used in the specified path, the keywords will be
     # substituted with the text or path they define. Only one keyword can be used
     # in the configuration path. The special keywords and their meanings are:
             {USER} - The current user id. This keyword can be anywhere in the path
     # The following keywords can only be at the beginning of the specified path:
             (PRODUCTDIR) - the path to the same directory as acsbundle.jar
              {TEMPDIR} - the path to a platform specific temporary directory
              \{{\tt ROOT}\} - the path to the root of the file system
              ( \mbox{HOME}\mbox{)} - the path to the user's home directory
 12
             \{\mathtt{DEFAULT}\}\ -\ \mathtt{the}\ \mathtt{default}\ \mathtt{path}\ \mathtt{the}\ \mathtt{product}\ \mathtt{would}\ \mathtt{normally}\ \mathtt{use}
14
     # Technical Note:
15
     # We do not recommend sharing a configuration between multiple users.
16
     # For example, if X were a shared network drive, the following setting may
18
     # cause unpredictable results:
          com.ibm.iaccess.AcsBaseDirectory=X:/Shared_Network_drive/config_directory
19 #
20 # There are several problems with multiple users sharing this configuration path:
21
   # 1. Unpredictable results will occur if multiple users simultaneously use the
          configuration.
    # 2. This example assumes each user has the X drive mapped to the same location.
24 # 3. Using a network drive in the configuration would not work from a Linux or
25 # Mac client. Using the provided keywords, as in the examples below,
26 # will work on Windows Linux and Mac
iSolutions Consulting, Inc 24
```

12

AcsConfig.properties

#### The following locations are searched for the AcsConfig.properties file:

- In the classpath (that is, inside acsbundle.jar)
- 2. In the same directory as acsbundle.jar.
- 3. By interrogating the "ibmi.acs.configuration" Java System property (the property's value is assumed to be the properties file). One would set this property on the command line.

#### Example:

acslaunch\_win-32.exe-Dibmi.acs.configuration=M:\AcsConfig.properties
\* IMPORTANT NOTE!! When the configuration file exists in multiple locations, the last one wins

iSolutions Consulting, Inc

25

1/27/2016

1/27/2016

#### com.ibm.iaccess.AcsBaseDirectory

AcsConfig.properties

#### The value of this property parameter 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 (fully-qualified is highly recommended)
- A constructed path using special keywords (next slide)

iSolutions Consulting, Inc 26

#### com.ibm.iaccess.AcsBaseDirectory:

AcsConfig.properties

#### **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)

iSolutions Consulting, Inc 27 1/27/2016

#### com.ibm.iaccess.AcsBaseDirectory AcsConfig.properties **Example:** com.ibm.iaccess.AcsBaseDirectory={PRODUCTDIR}/config directory/{USER}/ **Results:** config\_directory 🖃 뷀 Ray 🛭 Each user will have a □ IBM personal directory. iAccessClient iAccessClient\_Service 28 iSolutions Consulting, Inc. 1/27/2016

AcsConfig.properties

## Tips:

- Always use a "/" forward slash not "\";
   '/' Works with all Operating Systems.
- When the configuration file exists in multiple locations, the last one wins.

iSolutions Consulting, Inc

29

1/27/2016

## **Deployment options**

AcsConfig.properties

#### What is this "data cache"?

An optimization which improves startup time.

#### Without "data cache":

- Information is cached after first product startup.
- Second startup is, therefore, faster.
- A new version of acsbundle.jar will trigger the cache to be updated.
- The cache does not need to be "managed."

#### With "data cache":

- Much more information is cached after first product startup. Temporary disk space is used.
- Second startup is, therefore, faster.
- A new version of acsbundle.jar will trigger the cache to be updated.

iSolutions Consulting, Inc

30

AcsConfig.properties

My recommendation is to uncomment the following line in AcsConfig.properties.

com.ibm.iaccess.DataCache=true

#### Why is this not the default?

- Temporary disk space usage is not conservative. May be prohibitive.

iSolutions Consulting, Inc

31

1/27/2016

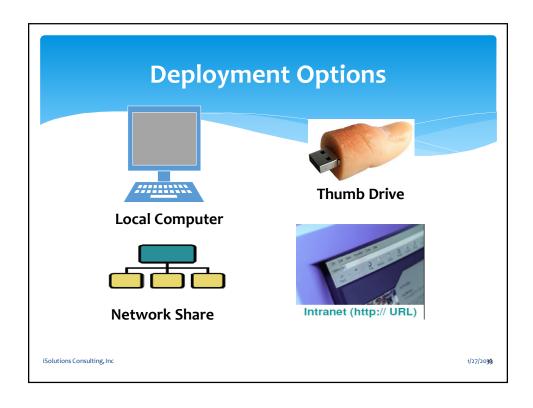
## **Deployment Questions**

AcsConfig.properties

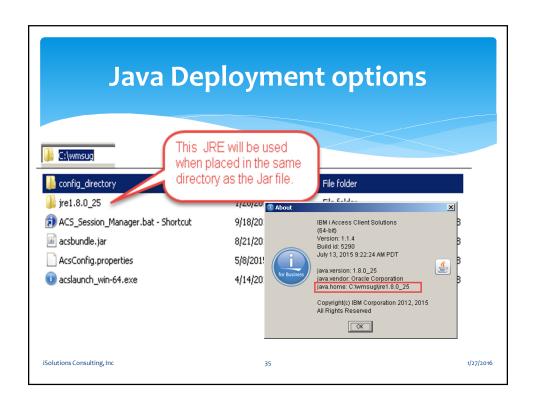
- Where do you want to store the Product Image? (The Jar File)
- Where do you want to store the users settings? (5250 sessions etc.?)
- Where is your JRE? (Java Runtime Environment)

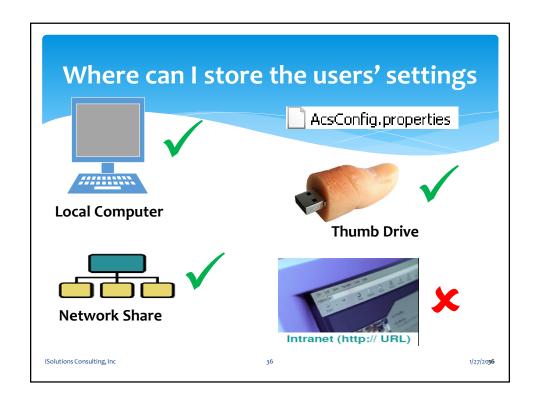
iSolutions Consulting, Inc

32



# Java Deployment options AcsConfig.properties JRE – Java Runtime Environment The JRE that is used can affect what functions work or don't work. A specific JRE can be deployed with product. Does your shop have unique requirements? Do you keep it on a thumb drive?



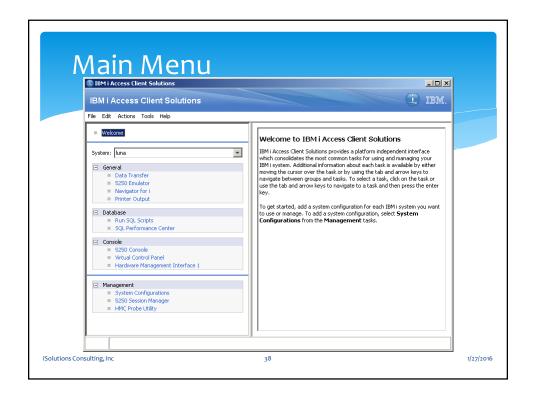


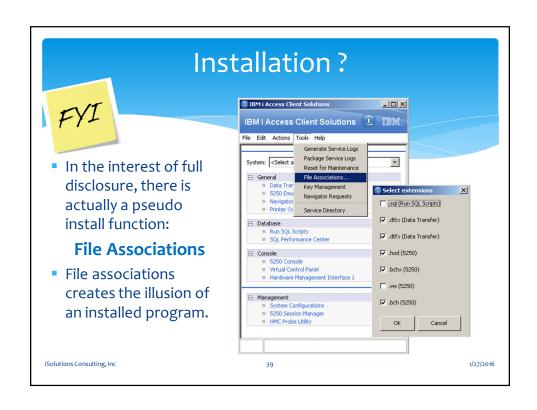


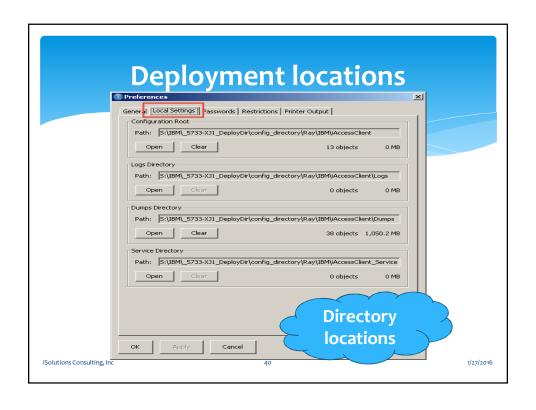
#### How to start the product:

- 1. Binary launcher program (Preferred)
  - 📵 acslaunch\_win-64.exe
- 2. "java –jar acsbundle. jar" (command line)
- 3. Double click on Jar file 🔳 acsbundle. jar

iSolutions Consulting, Inc 37 1/27/2016







## **Deployment on a Terminal Server**



#### **Deploy local workstation install on Terminal Server**

- Launch Start Program calling 5250 Specific .hod file: acslaunch\_win-32.exe SystemA.hod
- Dynamic 5250 session:

acslaunch\_win-32.exe /plugin=5250
/system=<system> [/id=<short session id>]
[/<options>

iSolutions Consulting, Inc 41 1/27/2016

## **Deployment on a Terminal Server**



#### • 5250 Plugin Options

/plugin=5250/system=IBMiSystem[/<options>]
/name=<name>
/wide=<1/0/true/false>
Session name
Use a wide screen size (27x132)

/fullscreen=<1/0/true/false> Use the entire screen
/nosave=<1/0/true/false> Do not save settings on exit

/prompt=<1/0/true/false> Force the configuration dialog to appear /port=/port=/port=/port number

/ssl=<1/0/true/false> Connect using secure sockets

/sso=<1/0/true/false> Use kerberos

/width=<width> Initial width of the emulator window /height=<height> Initial height of the emulator window /xpos=<xpos> Initial x-coordinate of the top-left corner /ypot=<ypos> Initial y-coordinate of the top-left corner

iSolutions Consulting, Inc 42 1/27/2016

## **Deployment on a Terminal Server**



1/27/2016

- Biggest concern with local workstation deployment on Terminal Server is that each client connection will start a unique Java JVM
- This can have significant performance considerations for the scalability of the Terminal Server Environment
- Can set Java JVM memory via parameters to the acslaunch Start Program

#### Recommended:

• acslaunch\_win-32.exe SystemA.hod-Xmx1024m

#### Lower for small PC5250 JVM

• acslaunch win-32.exe SystemA.hod-Xmx512m

iSolutions Consulting, Inc 43

## Learning Objectives

- 1. Find the streamlined process for downloading IBM i ACS.
- 2. Review deployment options.
- 3. Limit powerful functions like Data Transfer, Console functions, and Management functions
- 4. Identify new features that are in the December 2015 release of ACS.

iSolutions Consulting, Inc 44 1/27/2016

- 1. Find the streamlined process for downloading IBM i ACS.
- 2. Review deployment options.
- 3. Limit powerful functions like Data Transfer, Console functions, and Management functions
- 4. Identify new features that are in the December 2015 release of ACS.

iSolutions Consulting, Inc

45

1/27/2016

## **Limiting Access**

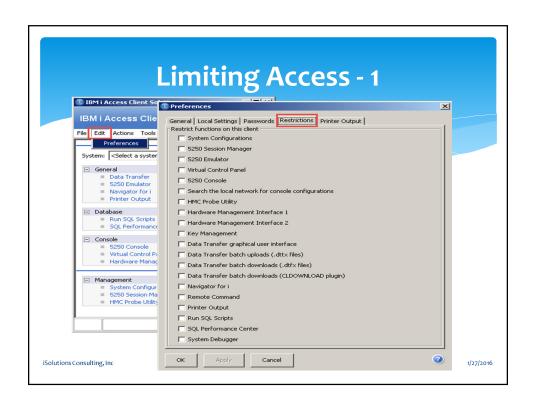


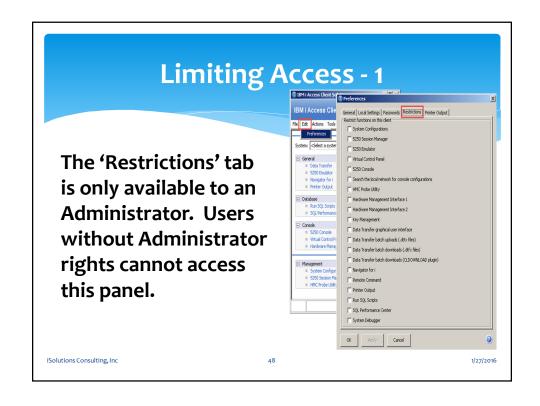
#### How controlling do you need to be:

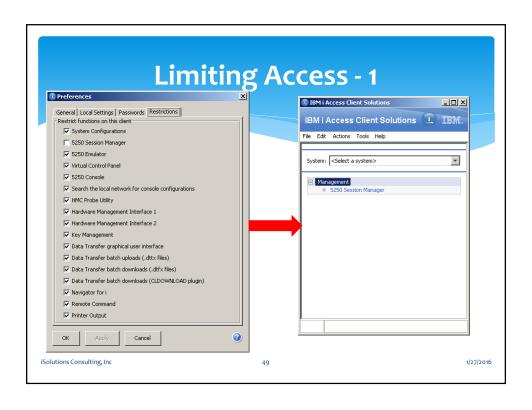
- Edit -> Preferences -> Restrictions tab is the first line of defense.
- 2. Exclude keyword in AcsConfig.properties.
- 3. Restrict Plugin when initiating ACS from batch file.
- 4. Edit the AcsConfig.properties inside Jar file.

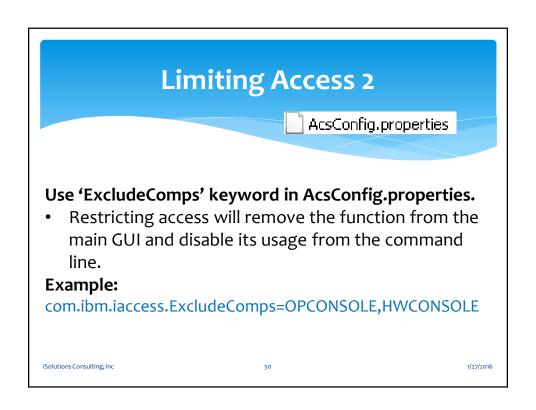
iSolutions Consulting, Inc

46









## **Limiting Access 2**

Exclude keyword

**Function Description** System Configurations AcsConfig.properties

cfg 5250 vcp

5250 Session Manager 5250 Emulator Virtual Control Panel

console 5250 Console

consoleprobe Search the local network for console configurations

hmcprobe Search an HMC for partitions Hardware Management Interface 1 hmi1 Hardware Management Interface 2 hmi2 keyman SSL/TLS certificate management dtgui Data Transfer graphical user interface

upload Data Transfer batch uploads download Data Transfer batch downloads Data Transfer batch downloads cldownload

IBM Navigator for i (Level 1 Console) 11c rmtcmd

Remote command (available from the command-line)

splf Printer Output (spool files)

rss Run SQL Scripts db2tools SQL Performance Center IBM i System Debugger sysdbg

iSolutions Consulting, Inc

1/27/2016

#### **Limiting Access 3**



📵 acslaunch\_win-64.exe

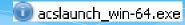
Use the 'Restrict' Plugin when initiating ACS from batch file.

Note: This plugin is only available to users with root or administrator authority. /PLUGIN=restrict /<options>

## /PLUGIN=restrict /<options>

iSolutions Consulting, Inc.

## **Limiting Access 3**



#### Valid options are:

/restrict=<func1,func2,func3> /unrestrict=<func1,func2,func3>

Restricts the given functions on this workstation. Allows the given functions on this workstation. Lists whether functions are a restricted or allowed

on this workstation.

/export=<file> Export restrictions to the named file with

a .acsr file extension.

/import=<file>.acsr Import restrictions from a file with

a .acsr file extension.

/exportreg=<file> Export a Windows registry file (.reg file).

iSolutions Consulting, Inc. 53 1/27/2016

## **Limiting Access 3**

#### Functions:

#### Description



**Function** System Configurations cfg 5250 Session Manager Sm 5250 Emulator 5250 Virtual Control Panel vcp

console 5250 Console

consoleprobe

Search the local network for console configurations Search an HMC for partitions hmcprobe hmi1

Hardware Management Interface 1 hmi2 Hardware Management Interface 2 keyman SSL/TLS certificate management dtgui Data Transfer graphical user interface

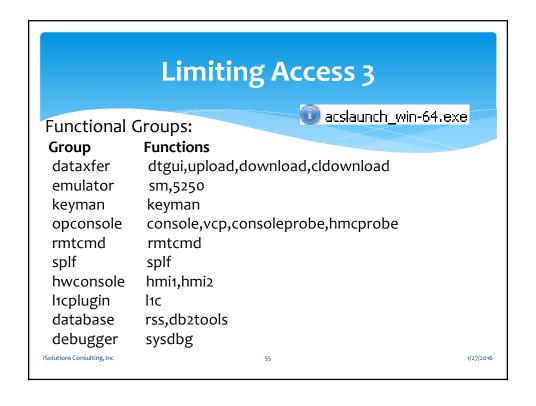
Data Transfer batch uploads upload download Data Transfer batch downloads cldownload Data Transfer batch downloads 11c IBM Navigator for i (Level 1 Console)

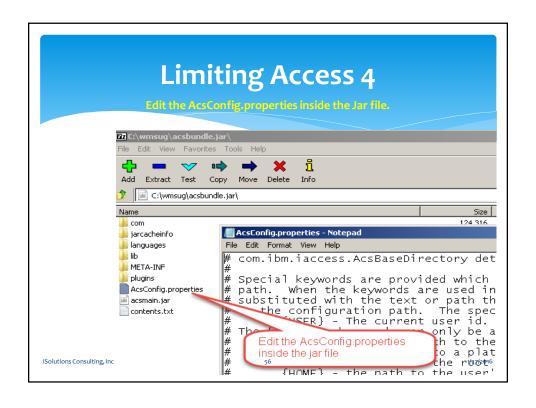
rmtcmd Remote command (available from the command-line)

Printer Output (spool files) splf

Run SQL Scripts rss db2tools SQL Performance Center sysdbg IBM i System Debugger

iSolutions Consulting, Inc.





- 1. Find the streamlined process for downloading IBM i ACS.
- 2. Review deployment options.
- 3. Limit powerful functions like Data Transfer, Console functions, and Management functions
- 4. Identify new features that are in the December 2015 release of ACS.

iSolutions Consulting, Inc

5/

1/27/2016

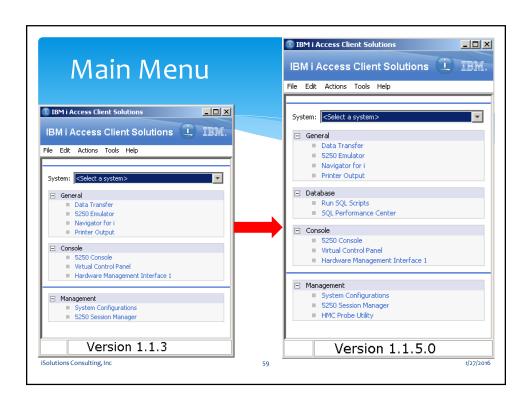
## Learning Objectives

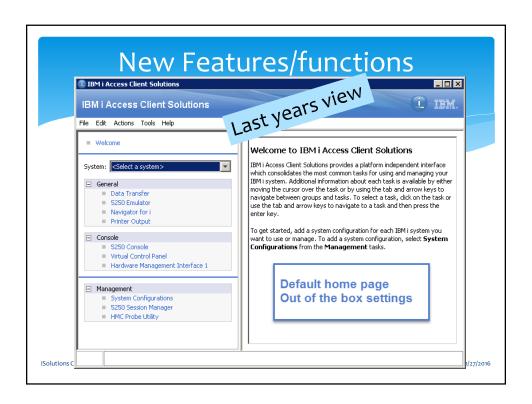
- 1. Find the streamlined process for downloading IBM i ACS.
- 2. Review deployment options.
- 3. Limit powerful functions like Data Transfer, Console functions, and Management functions
- 4. Identify new features that are in the December 2015 release of ACS.

iSolutions Consulting, Inc

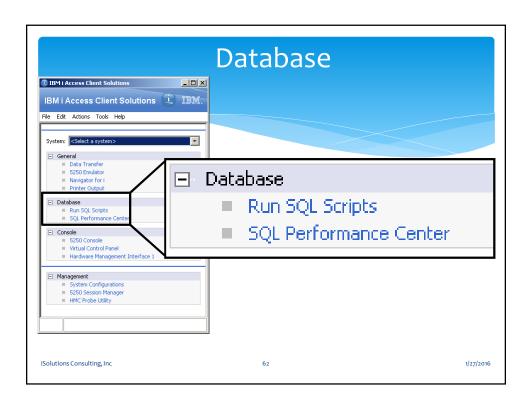
58

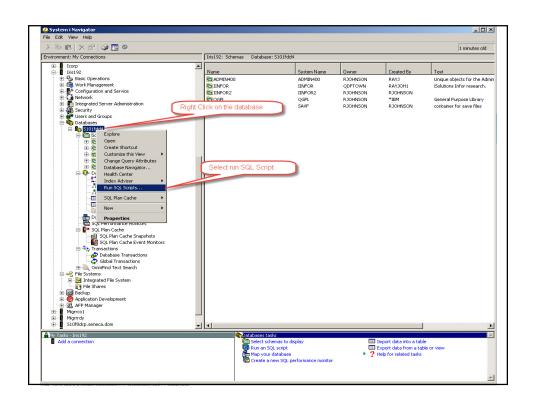
27/2016

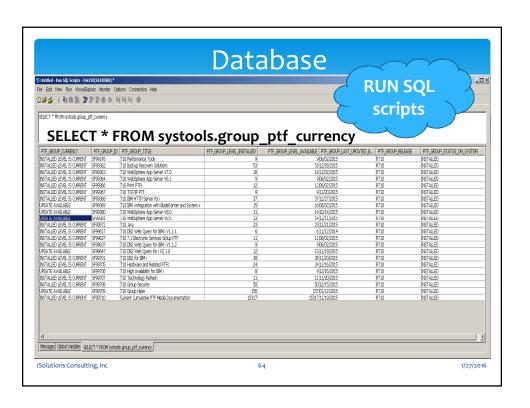


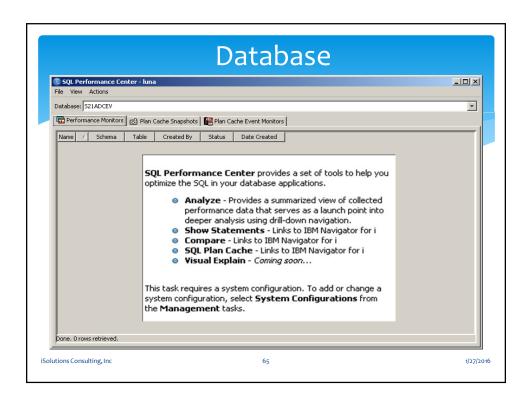


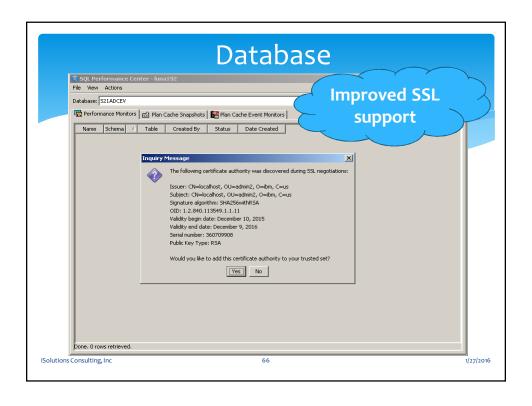




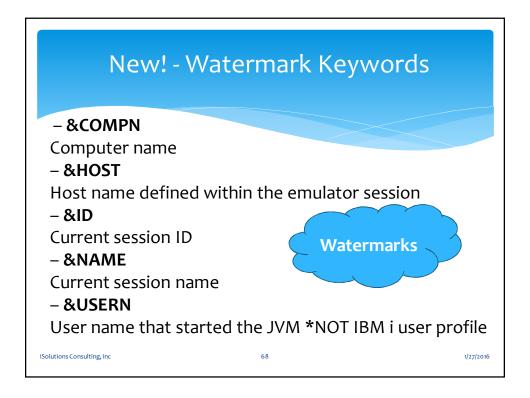


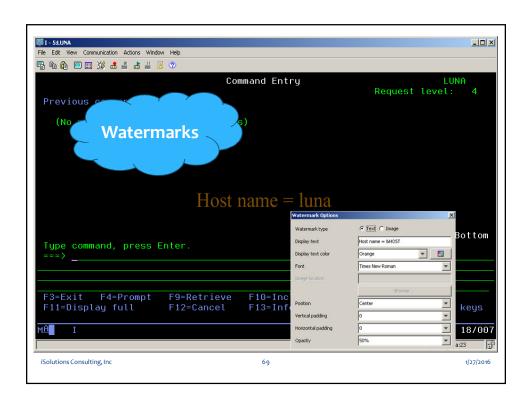


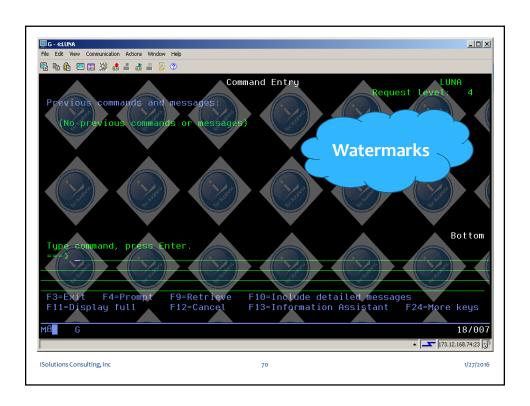


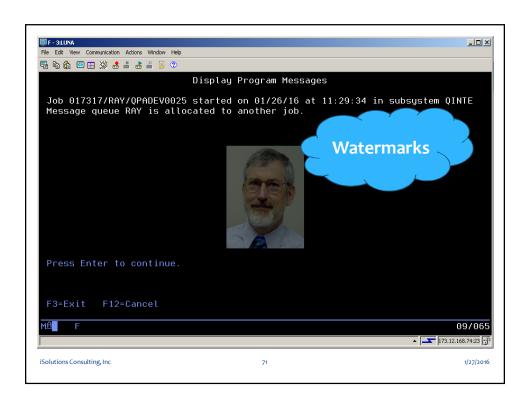


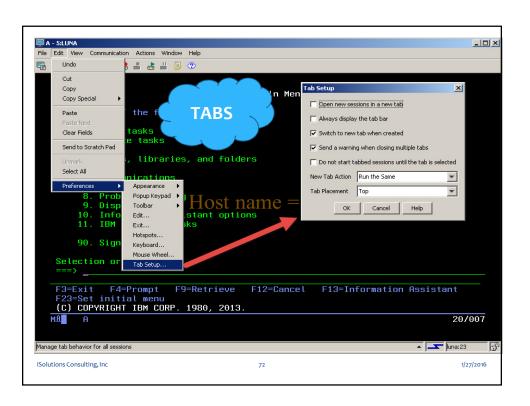




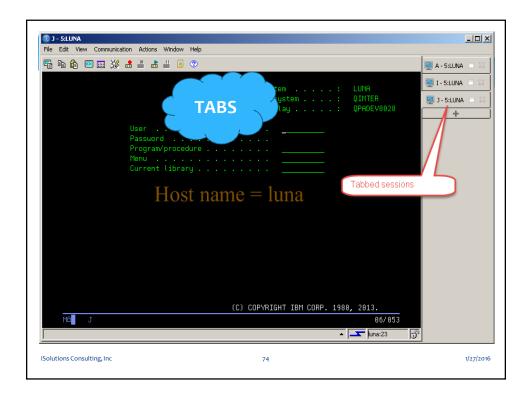


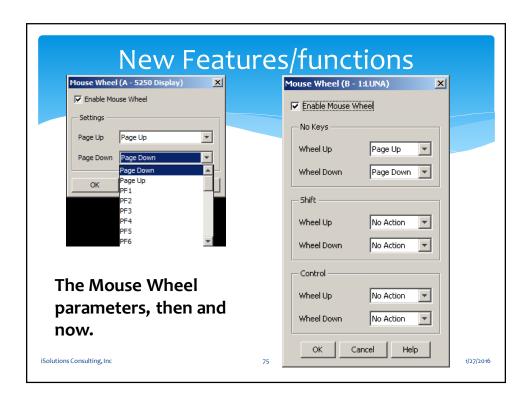


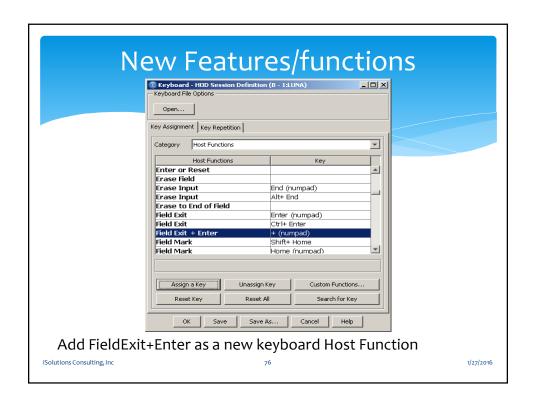


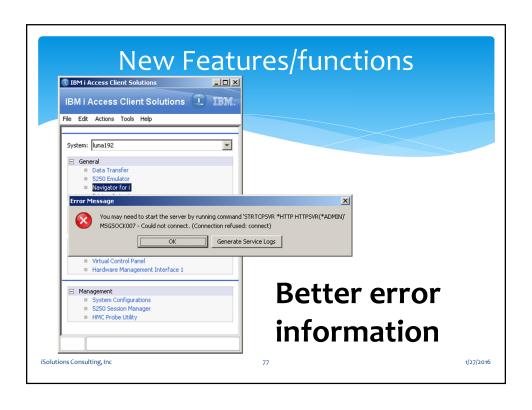


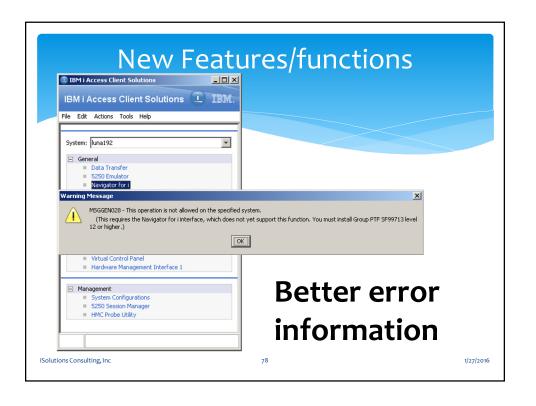












- 1. Find the streamlined process for downloading IBM i ACS.
- 2. Review deployment options.
- 3. Limit powerful functions like Data Transfer, Console functions, and Management functions
- 4. Identify new features that are in the December 2015 release of ACS.

iSolutions Consulting, Inc 79 1/27/2016

# Learning Objectives

- 1. Find the streamlined process for downloading IBM i ACS.
- 2. Review deployment options.
- 3. Limit powerful functions like Data Transfer, Console functions, and Management functions
- 4. Identify new features that are in the December 2015 release of ACS.

iSolutions Consulting, Inc 80 1/27/2016



