Access and Manage IBM i on the Go with IBM i Mobile Access

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Agenda

• Introduction
• Overview
• Getting Started
• BYOD Demo
• Controlling Access

There are around 7.1 billion people on the planet
6 billion of them have access to mobile phones,
only 3.5 billion of them have a toothbrush
Extending the value of Systems of Record

Externalized & Externalizing Services
Partners, Suppliers, Customers, Markets

Why not Access and Manage your system from a Mobile device?

Mobile Access

- Systems of Record
- Analytics/Data Services

BYOD

- Bring Your Own Device (BYOD)
- Do you use your own personal device for work?
- Company provide a specific device type for you to use?
  - A Logica research study from Feb 2013 found that almost 75% of users in high-growth markets use personal devices for work
  - The same study finds that in mature developed markets the number of BYOD users to be closer to 44%

"Gartner Predicts by 2017, Half of Employers will Require Employees to Supply Their Own Device for Work Purposes"

http://www.gartner.com/newsroom/id/2466615
BYOD Options

• Installed
  – Write custom for each supported mobile device
  – Write once, leverage something like Apache Cordova or PhoneGap to provide the native install

• Not Installed
  – Web Based solution
  – Write once accessible from ANY web enabled mobile device

IBM i Mobile Access Overview
• We have been hearing the need for an IBM i OS management and usage tool that is optimized for a mobile device environment.
  – The IBM Navigator for i interface is optimized for full screen desktop web browsers
  – IBM i Access for Web is also optimized for full screen desktop browsers and has lacked some key management views
  – The last reduced screen footprint solution that IBM i OS had was IBM i Access for Wireless, or Management Central Pervasive

• On April 28th, 2014, IBM announced the Technology Preview of the IBM i Mobile Access solution to begin addressing the need in this environment.

• Supported as G.A. solution in May of 2015.

• My Mobile Access home page running on an iPad Mini & iPad
IBM i Mobile Access Screens

Welcome to the Waitless World

Welcome to the Waitless World

IBM i Mobile Access

- This IBM i Mobile Access Solution is a web browser based solution that has been optimized for reduced screen footprint environments.

- Easy to deploy and get running

- Simple URL to connect to

- Robust IBM i OS system interaction
  - System Management Views
  - Printing, Database, IFS, Commands, Messages
  - 5250 Interface

- Highly Customizable
  - “What the users have access to” can be simply set based on IBM i OS User or Group Profile
IBM i Mobile Access: Getting Started

- The IBM i Mobile Access is being distributed as part of the r7.2 IBM i Access for Web (5770XH2) product
  - Customers at IBM i OS r7.3, r7.1 or r6.1 can obtain and run r7.2 IBM i Access for Web
    - For non IBM i OS r7.2 entitled Systems order refresh feature 6289 of 57xxSS1
    - Install r7.2 5770XH2 LPP
      - If already running r6.1 or r7.1 of Access for Web, need to re-run the CFGACCWEB command for those instances
  - The IBM i Mobile Access Technology Preview will be updated via PTFs to Access for Web
    - What you see today is in current PTF SI56971
Getting Started

- The IBM i Mobile Access Solution is designed to be integrated into the IBM i OS *ADMIN HTTP Server environment
  - Requires IBM i OS HTTP Server Group PTF to deploy new ADMIN5 job specifically for this solution
    - r7.3 5770DG1 *Base
    - r7.2 5770DG1 Group SF99713 Level 1
    - r7.1 5770DG1 Group SF99368 Level 27
    - r6.1 5761DG1 Group SF99115 Level 38
  - Started and stopped automatically with the *ADMIN HTTP Server
    - Can be started and stopped individually (r7.1 IBM i OS and later)
      » STRTCPSVR SERVER(*IAS) INSTANCE(ADMIN5)
      » ENDTCPsvr SERVER(*IAS) INSTANCE(ADMIN5)
    - ADMIN5 runs on port 2011

- Deployed with a simple 2 parameter CL or QShell command
  - CL command in QIWA2 Library
    - CFGACCWEB APPSVRTYPE(*INTAPPSVR) INSTANCE(*MOBILE)
  - QShell command in /QIBM/ProdData/Access/Web2/install
    - cfgaccweb --svrtype *INTAPPSVR --instance *MOBILE
  - It can be deployed on other IBM Integrated Application Server instances or other Web Application Server types like WebSphere Application Server, though additional customization is required
Getting Started

- Connected to via a simple URL from HTTP *ADMIN port 2001
- ADMIN5 runs on port 2011
  - 2001/iamobile redirects
  - Can also use

IBM i Mobile Access

More Information:
http://www.ibm.com/systems/power/software/i/access/mobile.html

Latest Information available at this location
IBM i Mobile Access Demo

Demonstration Systems Provided By:

iDevCloud.com
IBM i Personal development in the cloud.

iInTheCloud.com
IBM i, AIX, Linux on Power commercial hosting in the cloud.

“What applications have you brought to IBM i today?”

Larry Bolhuis
lbolhuis@iInTheCloud.com
Pete Massiello
pmassiello@iInTheCloud.com

Frankeni Technology Consulting, LLC
www.frankeni.com
The demo system is publicly available.

Point your mobile device web browser to:


Authenticate with the following credentials

- User: MOBILE
- Password: ibm6mobile

Follow along during the demo!

- Please observe and don’t make any changes to the demo system.
Controlling Access: Setting Policies

• Customize policies for users and groups to
  – Allow/Deny functions users can access
  – Limit the information users can see

• Use group profiles to simplify policy management
  – Manage policies for group profiles
  – Add/remove users from groups

• When a function is restricted, access to the servlet is restricted

• You need *SECADM authority to customize profiles
• IBM i Mobile Access ships with default policy settings
• Default allows most functions to be available to all users
• Use *PUBLIC to set policies for all users
• Strategy:
  – Grant an administrator profile access to all functions
  – Deny access to all functions to *PUBLIC
  – Then allow specific users/groups access to specific functions

Setting Policies
Setting Policies (continued)

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edit</td>
<td>This action is always available. Use this option to create or modify policy settings for the specified user or group profile.</td>
</tr>
<tr>
<td>View all policies</td>
<td>Select this action to view all of the policy settings currently being used for the profile.</td>
</tr>
<tr>
<td>View group membership</td>
<td>Select this action to display the Group Membership page that lists the group and supplemental group profiles (by name) the user profile has been assigned membership.</td>
</tr>
<tr>
<td>View group members</td>
<td>Select this action to display the Group Membership page that lists the user profiles (by name) that are currently members of the group profile.</td>
</tr>
<tr>
<td>Copy</td>
<td>This action is only available when the user or group profile currently has specific policy settings. It allows you to copy all of the policy settings from this profile to one or more other profiles.</td>
</tr>
<tr>
<td>Reset</td>
<td>This action is only available when the user or group profile currently has policy settings. It allows you to remove all of the policy settings specific to this profile.</td>
</tr>
</tbody>
</table>
The "Derived From" column (displayed when editing policy and preference settings) indicates where the policy setting that will be used for this user profile was found.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile setting</td>
<td>Indicates the setting is currently specific to the profile being customized. The setting had previously been applied to this profile.</td>
</tr>
<tr>
<td>Group – (groupName)</td>
<td>Indicates the setting is not specific to the profile being customized, but is being derived from the specified IBM i group profile and the user is a member of this group.</td>
</tr>
<tr>
<td>*PUBLIC setting</td>
<td>Indicates the setting is not specific to the profile being customized. No setting was found in any IBM i group profile memberships. The setting is being derived from the 'PUBLIC group settings. This is a special group profile available to Access for Web administrators. All user profiles are automatically members of this special group profile. Administrators can modify this group profile to easily apply settings to all Access for Web users.</td>
</tr>
<tr>
<td>Shipped default</td>
<td>Indicates the setting is not specific to the profile being customized, no setting was found in any IBM i group profile memberships, or the special *PUBLIC group profile. The setting is being derived from a shipped default value.</td>
</tr>
<tr>
<td>Parent policy</td>
<td>Indicates the function is a sub-function of a higher level category, and its policy setting is being controlled by a top level policy setting. For example, Tables is a sub-function of Database. If Database is restricted, Tables will be restricted as well and would show its being controlled by a parent policy.</td>
</tr>
</tbody>
</table>
Policies Example: 5250 Access

- The following screen shots step through setting up the items necessary to allow a group of users to use a single pre-configured 5250 session.

- In this example, ONEMANAGER is one of the user profiles in the MANAGERS group.

- This example shows
  - Creating a 5250 session and 5250 session shortcut to be used by the management team
  - Making the 5250 session shortcut the session used by the MANAGERS group profile.
  - Restricting access to other functions in System i Access for Web.

- When the policy is set, it takes effect immediately.
5250 Access - Before

- Access the 5250 tab IBM i Access for Web Main page as user ONEMANAGER.

5250 Access - Policies

- Policies - the starting point for customization of a specific user or group.
- This is a new browser session, where we signed on as an administrator.
### 5250 Access - Categories

#### Change Category Access

<table>
<thead>
<tr>
<th>Profile</th>
<th>Category</th>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5250</td>
<td>Allowed</td>
<td>SNA user interface custom settings.</td>
<td></td>
</tr>
<tr>
<td>Command</td>
<td>Allowed</td>
<td>Must login command custom settings.</td>
<td></td>
</tr>
<tr>
<td>Custance</td>
<td>Allowed</td>
<td>Preferences and policy administration custom settings.</td>
<td></td>
</tr>
<tr>
<td>Database</td>
<td>Allowed</td>
<td>Database filters, requests, and run SQL custom settings.</td>
<td></td>
</tr>
<tr>
<td>Deleted</td>
<td>Allowed</td>
<td>Delete and roll database connection definitions.</td>
<td></td>
</tr>
<tr>
<td>Delete</td>
<td>Allowed</td>
<td>Delete database custom settings.</td>
<td></td>
</tr>
<tr>
<td>Down</td>
<td>Allowed</td>
<td>Download database custom settings.</td>
<td></td>
</tr>
<tr>
<td>Files</td>
<td>Allowed</td>
<td>Integrated file system and file share custom settings.</td>
<td></td>
</tr>
<tr>
<td>Login</td>
<td>Allowed</td>
<td>Page layout, language and character set custom settings.</td>
<td></td>
</tr>
<tr>
<td>Print</td>
<td>Allowed</td>
<td>Work with file custom settings.</td>
<td></td>
</tr>
<tr>
<td>Vars</td>
<td>Allowed</td>
<td>Send and receive custom settings.</td>
<td></td>
</tr>
<tr>
<td>Messages</td>
<td>Allowed</td>
<td>Display messages, send messages, and message queue custom settings.</td>
<td></td>
</tr>
<tr>
<td>MyFolder</td>
<td>Allowed</td>
<td>Use folder custom settings.</td>
<td></td>
</tr>
<tr>
<td>Print</td>
<td>Allowed</td>
<td>Print output settings, printer drivers and output device custom settings.</td>
<td></td>
</tr>
<tr>
<td>Shares</td>
<td>Allowed</td>
<td>Lotus Sametime custom settings.</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Allowed</td>
<td>Change password and other miscellaneous custom settings.</td>
<td></td>
</tr>
</tbody>
</table>

*Change category access to allow or deny.*

#### Turn off all non-5250 functions by Applying setting of Deny to Profile

- Leave 5250 to Allow
• The administrator goes to the Configured Sessions link on the 5250 tab. Select the “Configure new session” link.

• The administrator configures the 5250 session settings to be used by the managers.
  • Settings include the server to connect to, color schemes, and many other options.
• The saved session is only available to the administrator that is currently signed on.
• The session must be shared to the managers. Use the “Create Shortcut” action.

• Name the shortcut whatever you wish.
• Session can be shared with MANAGERS group, “PUBLIC”, or individual profiles.
- Go back to 5250 in Customize – Policies for the MANAGERS group profile.
- Select settings to lock MANAGERS out of starting/configuring new sessions.

- Set all 5250 policies to Deny, except Configured Sessions and Start Configured Sessions.
- You may also want to allow them to access My Keypads and My Macros.
Example: 5250 Access – Results

- The managers can now only start a pre-configured 5250 session, or reconnect to an active session.

Questions?
Next Time

13th Jul - PowerVC now with user self provisioning
(10am UK time)

Previous Sessions:
Application Runtime Expert Hands-On with AIX7.2
Accessing IBM i Now/Future PowerVC New Features
Boost IBM i perfim with Flash Simplified Remote Restart
Linux on POWER Field Exp POWER8 E850 from exper
PowerSC Tools for IBM i HMC 8.20 Tech Preview
The "Key" to IBM i Licensing POWER8 E870 from exper
And more.....

Future Sessions ➔
- More being planned....
- Suggestions welcome

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Welcome to the Waitless World
Start by creating a mobile bookmark

Creating a mobile bookmark

Name can be what desired
Now add mobile bookmark to Home
• Every table has a quick filter box
• Text search; all rows; all columns
• List auto updated with data that applies
### PTFs - PTF Status

<table>
<thead>
<tr>
<th>PTF ID</th>
<th>Status</th>
<th>IPL Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>S95752</td>
<td>Temporarily applied</td>
<td>None</td>
</tr>
<tr>
<td>S94087</td>
<td>Permanently applied</td>
<td>None</td>
</tr>
</tbody>
</table>

### PTF Details

- **General information**
- **Symptom string**
- **APARs fixed**
- **Cover letter**

#### General Information

- **PTF ID:** S95752
- **Product:** 5720004
- **Release:** V7R2M0
- **On order:** No
- **PTF save fix:** Yes
- **Status:** Temporarily applied
- **Last updated PTF:** 21/6/15 2:10 PM
- **Type:** Immediate
- **IPL action:** None
- **Option:** 0012
- **Feature:** 5050
- **Cover letter:** Yes
- **Action pending:** No
- **Action required:** No
- **Target release:** V7R2M0
- **Maximum level:**
Welcome to the Waitless World
System Values - System Control

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBMNSTRN</td>
<td>0</td>
<td>Previous end of system indicator</td>
</tr>
<tr>
<td>VAILXJOBTP</td>
<td>0</td>
<td>Allow jobs to be interrupted</td>
</tr>
<tr>
<td>GASTLYL</td>
<td>*INTERMED</td>
<td>User assistance level</td>
</tr>
<tr>
<td>QATNPROM</td>
<td>GEZMAN QSYS</td>
<td>Attention program</td>
</tr>
<tr>
<td>QAUTHCPS</td>
<td>1</td>
<td>Autoconfigure devices</td>
</tr>
<tr>
<td>QTAUTCRTX</td>
<td>1</td>
<td>Autoconfigure of remote terminals</td>
</tr>
<tr>
<td>QAUTHDPRFT</td>
<td>0</td>
<td>Automatic system disabled spooling</td>
</tr>
<tr>
<td>QAUTHVRT</td>
<td>700</td>
<td>Autoconfigure virtual devices</td>
</tr>
<tr>
<td>QBOOKPATH</td>
<td>XDSLIB</td>
<td>Bookshelf search path</td>
</tr>
<tr>
<td>QCCSID</td>
<td>ASCII</td>
<td>Coded character set identifier</td>
</tr>
<tr>
<td>QCCHRD</td>
<td>00000000007</td>
<td>Graphic character set and code page</td>
</tr>
<tr>
<td>QCCHARCTL</td>
<td>0000000000000001</td>
<td>Character identifier</td>
</tr>
<tr>
<td>QCICNTRV</td>
<td>US</td>
<td>Country or Region identifier</td>
</tr>
</tbody>
</table>

System Values - All

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFFRADJ</td>
<td>0</td>
<td>Performance adjustment</td>
</tr>
</tbody>
</table>

System Value Categories (garage.roland.ibm.com)
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IBM i Mobile Access

Run Command

Command: "Chgsysval(sysval(DAUTOVRT) VALUE(1200))", completed successfully.

Specify the IBM i CL command you want to run.

Command: 
Output: 

Search for a command

Search for a command by command name or by its brief description.

Previous commands:

Command Output Action
Chgsysval(sysval(DAUTOVRT) VALUE(1200)) Browser

Command help

View help for running CL commands.

My Mobile Access

Print
Messages
Jobs
5250
System
Installed products
PITs
PIT groups
System values
Extract IBM i data
Database
Files

IBM i Mobile Access

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IBM i Mobile Access

Welcome to the Waitless World

My Mobile Access
Print
Messages
Jobs
Active jobs
User jobs
Server jobs

5250
System
Database
Files
Command
Download
Customize
**IBM i Mobile Access**

Welcome to the Waitless World

---

### SQL Statement

```sql
SELECT "CUSTOMER", "LEADNAM", "CITY", "STATE", "CUSTDRY", "BALDUE" FROM "TPCUTMP" WHERE "CUSTDRY" = '100' ;
```

---

### SQL Output

<table>
<thead>
<tr>
<th>PAGE 1 of 1</th>
<th>JUMP TO PAGE:</th>
<th>TOTAL: 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3638569</td>
<td>Vine</td>
<td>Branson</td>
</tr>
<tr>
<td>9384885</td>
<td>Johnson</td>
<td>Helena</td>
</tr>
<tr>
<td>4785030</td>
<td>Doe</td>
<td>Sutter</td>
</tr>
<tr>
<td>1028337</td>
<td>Lee</td>
<td>Hector</td>
</tr>
<tr>
<td>5839096</td>
<td>Abraham</td>
<td>Isle</td>
</tr>
<tr>
<td>9191919</td>
<td>Gainer</td>
<td>RST</td>
</tr>
</tbody>
</table>

---
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IBM i Mobile Access

Import Query

Specify the query file you want to import. The query contained in the query file will be converted to an IBM i Access for Web database request.

Note: The converted IBM i Access for Web database request could work differently than the original query file. Verifying the converted request is strongly recommended.

Query to Import

Query file:

Query type:

Query file CCSID:

[Import query]

Database help

View help for importing queries.
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IBM i Mobile Access

IBM i NetServer File Shares

<table>
<thead>
<tr>
<th>Share Name</th>
<th>Description</th>
<th>User Count</th>
<th>Permission</th>
</tr>
</thead>
<tbody>
<tr>
<td>GARAGE1</td>
<td></td>
<td>0</td>
<td>Read/Write</td>
</tr>
<tr>
<td>QIBM</td>
<td></td>
<td>0</td>
<td>Read/Write</td>
</tr>
<tr>
<td>ROOT</td>
<td></td>
<td>0</td>
<td>Read/Write</td>
</tr>
</tbody>
</table>

Files help

View help for accessing the shares.

My Mobile Access

Print

Messages

Jobs

S250

Active sessions

Configured sessions

Start session

System

Database

Files

Command

Download

Customize
Welcome to the Waitless World

IBM i Mobile Access

Start Session

System:
- garage.GARLAND.IBM.COM
- Port:
- Code page:

Workstation ID
- User ID [ ]
- Specify workstation ID [ ]
- Avoid duplicates for this user [ ]
- Avoid duplicates with other users [ ]

General:
- Initial macros [ ]
- Bypass signon [ ]
- Display HTML data in fields [ ]

Start Session
Welcome to the Waitless World

IBM i Mobile Access

My Mobile Access
Print
Messages
Jobs

5250
Active sessions
Configured sessions
Start session

System
Database
Files
Command
Download
Customize

Configure New Session

General
Session: <required>  
Default view:  
Initial macros:  
Bypass signer  
Display HTML data in fields  
Enable advanced JavaScript functions

System
System:  
Port:  
Code page:  

Workstation ID
Like user ID
Specify workstation ID
Avoid duplicates for this user
Avoid duplicates with other users
Welcome to the Waitless World

IBM i Mobile Access

Configured Sessions (garage.C841ROHLAND.IBM.COM)

Shortcuts to sessions you configured:
Display a list of shortcuts to sessions you configured. Shortcuts can be deleted from this list.

Active sessions:
Work with your active sessions.

Start session:
Start a new session.

My macros:
Work with your macros.

My keystaps:
Work with your keystaps.

5250 user interface help:
View help for working with configured sessions.

My Mobile Access

- Print
  - Printer output
  - Printers
  - Printer shares
  - Output queues
- Messages
  - Jobs
- 5250
- System
- Database
- Files
- Command

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Revised September 26, 2006
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