



Welcome to the Waitless World

# IBM i Update

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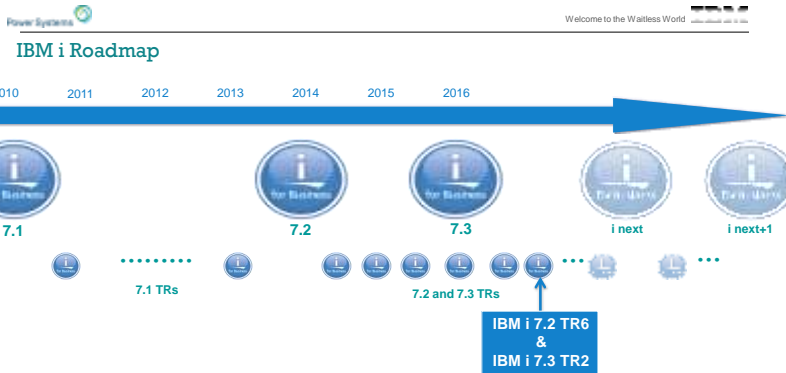


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# IBM i – Roadmap



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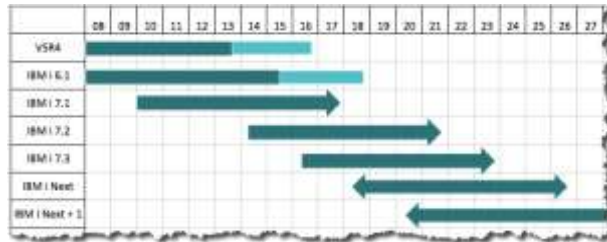
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Power Systems **Dates**

Announcement: February 14, 2017  
 GA: Staged through March 31, 2017

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### IBM i Support and Extended Support Roadmap



- 3 Releases currently available and under normal support and service

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### What does the Market look like?

Model	Cores	Average Memory	Share of total CAs
S814	4	40GB	47%
S814	6	125GB	40%
S814	8	256GB	13%
S822	20	477GB	37%
S822	6	90GB	22%
S822	10	158GB	17%
S824	24	750GB	44%
S824	16	486GB	26%
S824	8	248GB	11%

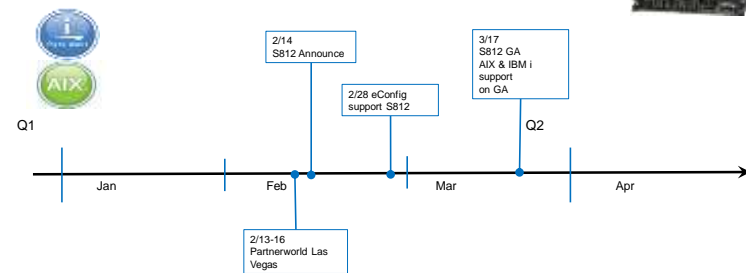
There is a market segment for small AIX and IBM i servers where the current offerings don't match the price customers expect to make the move to a new platform. Especially customers that have no workload growth do not benefit from enhanced capabilities of new Power platforms.

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## Design & Offering criteria for the S812

- Target:
  - Develop an offering for non-compute intense / non-memory intense workloads for small businesses or larger scale out deployments for AIX and IBM i customers.
  - Create an attractive offering for back-level customers.
- Offering:
  - AIX & IBM i only
  - based on the existing S812L model
  - no virtualization
  - user limit for IBM i
  - restrictions on memory, cores and I/O options
- Pricing:
  - Meet an attractive price point at a 20% lower price compared to S814/S822 entry models

## GA Plan S812





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## 24 Jan Announce -- Longer EXP24SX Cables

- EXP24SX Announced Oct 2016 with copper cables and SOD for longer
- Optical cables of 4.5m and 10m length = more flexible rack placement.
- Optical cables are more costly
- Optical and copper have same performance

	New cables HD Narrow both ends	Feat Code	List price on S824
	X12 3 m copper	#ECDJ	\$ 350
NEW	X12 4.5 m optical	#ECDK	
NEW	X12 10 m optical	#ECDL	
	YO12 1.5 m copper	#ECDT	\$ 160
	YO12 3 m copper	#ECDU	\$ 200
NEW	YO12 4.5 m optical	#ECDV	
NEW	YO12 10 m optical	#ECDW	

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## 24 Jan Announce -- "New" PCIe1 Tape Adapter Feature

- #EJ1P & #EJ1N are new "tape-only" features
  - Existing hardware (no change) to PCIe #5901 & #5278 adapter
  - Same CCIN
  - Same price as #5901/#5278
  - Tells e-config is tape/DVD/optical usage only (no disk)
  - Avoids confusion -- (hint) important distinction in the future
- Typically recommend newer PCIe3 SAS adapter #EJ10 & #EJ11
  - For LTO-5 or later tape ... older LTO not supported on #EJ10/EJ11
  - For DVD
  - Note use of #EJ10/EJ11 do not force 1400W power supplies in S814

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8284-21A

- Entry Price
- Single IBM i partition – no virtualization – no Linux
  - no VIOS, no IBM i virtualization (i hosting i), no VPM
- 2U rack mount
- Focus on simplicity
  - Same max memory as S814 4-core
  - Subset of S814 I/O options
- CPW TBD -- est 1/4<sup>th</sup> of 4-core S814
- IBM i P05 tier
  - max 25 IBM i users

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	Power System S812
POWER8 Processor	3 GHz
Cores	1
Maximum Memory	64 GB
System unit PCIe slots	6* PCIe Gen3 (low profile)
"Base" Ethernet PCIe adapter	4-port 1 Gbt required
SAS bays in system unit	8 SFF-3 bays
Integrated write cache	Optional (Strongly urged for HDD)
Bay for DVD in system unit	Yes
Bay for tape in system unit	No
Bay for RDX in System unit	No
VIOS or PowerVM	No
HMC	Single partition, not needed
Max number of partitions	1
PCIe Gen3 I/O Drawer	No
EXP24S or EXP24SX	No
Footprint	2U in rack
IBM i tier	P05
IBM i prerequisite	7.2 TR6 or 7.3 TR2 or later
Dual power supply	900W = 110V or 220V

\* 5 PCIe slots when SAS backplane with write cache used

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1-core S812 vs 4-core S814

	Power System S814	Power System S812
POWER8 Processor	3 GHz	3 GHz
Cores	4	1
Maximum Memory	64 GB	64 GB
System unit PCIe slots	7 PCIe Gen3 (full high)	6* PCIe Gen3 (low profile)
"Base" Ethernet PCIe adapter	1 Gbt or 10 Gbt	1 Gbt
SAS bays in system unit	10 SFF-3 bays	8 SFF-3 bays
Integrated write cache	Optional (Strongly urged for HDD)	Optional (Strongly urged for HDD)
Bay for tape in system unit	No	No
Bay for RDX in system unit	Yes in tower, No in rack	No
VIOS or PowerVM	Optional	No
HMC	Optional	Single partition, not needed
Max number of partitions	4 x 20 = 80	1
PCIe Gen3 I/O Drawer	No	No
EXP24S or EXP24SX	No	No
Footprint	Tower or 4U in rack	2U in rack
IBM i tier	P05	P05
IBM i prerequisite	7.1 TR8 or 7.2, 7.3 or later	7.2 TR6 or 7.3 TR2 or later
Dual power supply	900W = 110V or 220V, 1400W = 220V	900W = 110V or 220V

\* 5 PCIe slots when SAS backplane with write cache used

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Power S812 for IBM i -- 1-core entry server



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Power supplies  
- hot plug

- S812 IBM i Express Edition (#EU2E)
- 5 no charge IBM i user entitlements
  - Unlimited users for IBM i Access Family
  - Reduced price development tools
  - Up to four lower priced 283GB 15k disk drives

- Capacity BackUp #0444 specify
- Can transfer users from registered primary server to S812 CBU server
  - Primary server can be POWER8 or POWER7 P05 or P10 software tier server

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## Power S812 for IBM i -- 1-core entry server



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Memory –  
not hot plug

- DDR4 Memory
  - 16GB (#EM96) or 32GB features (#EM97)
  - Min 1 DIMM
  - Max 4 DIMM @ 16GB
  - Max 2 DIMM @ 32GB
- Memory plugged in identical pairs except option to have just one DIMM
- Can not mix 16GB and 32GB

## Power S812 for IBM i -- 1-core entry server



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DVD bay included in all  
three backplane options

### 3 Storage backplane options (must pick one)

- #EJ0U -- 8 SAS bays with dual IOA with effectively up to 7.2GB write cache – HIGHLY recommended with disk drives. Reduces PCIe slots by one.
- #EJ0T -- 8\* supported SAS bays with single SAS controller with zero cache – not generally recommended with disk drives
- #EJ0T + EJ0V -- 8\* supported SAS bays with two SAS controllers with zero cache – “split” back plane – not generally recommended with disk drives. 4-4 or 5-3 or 6-2 split supported

\* physically 12 bays present, but only a max of 8 drives are supported



## Power S812 for IBM i -- 1-core entry server



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SFF-3 SAS bays –  
hot plug

- Disk / SSD options (like 4-core S814)
- 283GB 15k rpm 4k HDD (#ESFA or #ESFG\*)
  - 571GB 10k rpm 4k HDD (#ESF4)
  - 387GB 4k eMLC4 SSD (#ESP8)
- Strongly urge write cache SAS controller with HDD
  - Can mix HDD and SSD in separate arrays
  - Must protect drives (example mirroring or RAID-5)
  - All drives placed in system unit SFF-3 bay – max 8
  - If prefer zero internal drives, can use SAN

\* up to 4 lower price #ESFG features with express edition

## Power S812 for IBM i -- 1-core entry server



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Six PCIe Gen3 bays –  
hot plug

- PCIe Adapters - all low profile bays -- all natively attached (no VIOS)
- Ethernet: 4-port 1Gb Ethernet (#5260)  
no 10Gb Ethernet natively supported which fit low profile slot
  - SAS: PCIe1 for older tape (#EJ1N) & PCIe3 for newer tape (#EJ11)
  - Fibre Channel: 2-port 8Gb (#5273) & 2-port 16Gb (#EN0B)
  - Async: 4-port (#5277) for things like Fax/400
  - USB: 4-port (#EC45)

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### Power S812 for IBM i -- 1-core entry server



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Power supplies  
– hot plug

- 2U server – rack mount only
- Tower footprint option not offered
  - Cable management arm included
  - Two bezel options – one for 8-bay backplane (with write cache) and one for 12-bay backplane (no write cache)
  - Bezel feature includes rails

- Dual 900W power supplies
- 100-120V or 200-240V
  - Single phase

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### Power S812 for IBM i -- 1-core entry server



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Power supplies  
– hot plug

- Integrated I/O ports
- 2 USB-3.0 ports front
  - 2 USB-2.0 ports rear on service processor. Used for attaching UPS communication cable

- 2 HMC ports on service processor not used
- 1 serial RJ45 port on service processor not used

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2017 Feb Announce Hardware

<i>From an IBM i viewpoint</i>			
<b>Feb 14</b>		<b>GA</b>	
1-core entry server	Power S812	Mar 17	
HMC changes		?Mar/Apr?	
48-port 1Gb Ethernet switch		Mar 17	
External RDX Docking Station		Mar 17	
<b>Feb 28</b>			
POWER7 server "loose parts" withdrawal from marketing		Effective Aug / Oct	
EU04 RDX docking station withdrawn rest of world		Effective May 31	

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2017 Feb Announce: HMC Changes

Today one 500GB disk included in base  
 – Optional second matching capacity disk added using #3740. (almost all configs use this)



Sometime in 1H 2017 IBM will switch to using 1TB disk instead of 500GB..... Guessing ?March or April?  
 – Change required to ensure supply continuity  
 – Timing depends on inventory of 500GB drives

To handle adding a second disk to HMCs initially ordered with just one disk, two new MES-only feature codes introduced:

- #EHD0 1TB disk drive
- #EHDN 500GB disk drive

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- #EUA4 is follow-on product to #EU04 – entry save/restore option
  - Same performance, same application functionality
  - #EUA4 to be available WW .... (currently #EU04 withdrawn in multiple countries around the world)
  - Same USB-attachment --- via integrated USB ports or PCIe USB adapter
  - Essentially same external box packaging - e.g. set on top of shelf
  - Same requirement for external power supply
- USA list price of #EU04 = \$275 on Power S814.
- TBD list price of #EUA4 probably ~40% higher than #EU04
- See also #EUA3, top mount RDX docking station for tower S814

Prices shown are USA list prices and are subject to change. Reseller prices may vary.

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- "Loose parts" POWER7 withdrawals for B & C models (except not 795)
  - Withdrawal from marketing, not withdrawal from service
  - POWER7+ (and 795) not included in this 2017 action
  - Cleaning up ordering structure of older servers ... POWER7 and earlier.
  - Multiple announcement letters planned to be released over the next 3-5 months to handle quantity of feature codes. (New tools allow more efficient house cleaning.)
- Of interest for POWER7 (model B&C) servers (except 795)
  - Processor & memory activations -- effective end Oct 2017
  - Memory cards – effective end Aug 2017
  - PCIe I/O drawers – effective end Aug 2017
  - FYI -- expect PCIe adapters, Disk/SSD features in next announcement letters
- Of interest for POWER6 servers
  - Same list, but effective end May 2017

Prices shown are USA list prices and are subject to change. Reseller prices may vary.

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## Serviceability Improvements

IBM i 7.3 TR 2  
IBM i 7.2 TR 6  
GA 3/17/2017

Focused on improving the rare error scenarios that typically required a Mainstore Dump

1. If the LPAR is still running, but in degraded mode
  - Past: Debug info could be collected if console or workstation display was usable
  - Now: New Operator Panel sequence can be used instead
    - Function 21 followed by Function 21
    - Captures same debug info, and puts it into a series of LIC Logs
  - Partition may still need to be restarted to correct the error situation
    - However, saves the time spent creating, saving, sending a Mainstore Dump
2. For error situations that do still require a Mainstore Dump, some times have been greatly reduced
  - Time to copy the dump to IFS or to tape
  - Time to format a Mainstore Dump for analysis

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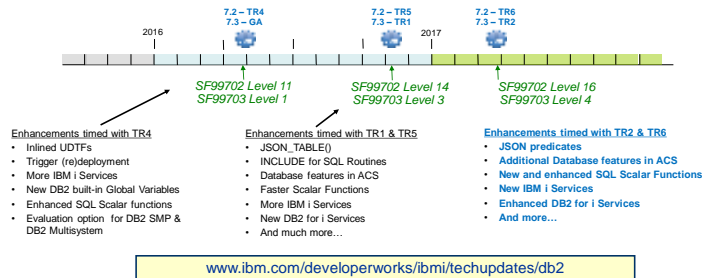
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## What's New in DB2 for i



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### DB2 for i – Enhancements delivered via DB2 PTF Groups



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### IBM i 7.3 and 7.2 TR-next details

**Announce:** February 14, 2017  
**Database PTF Group GA:** March 31, 2017

IBM Knowledge Center Updates and IBM i developerWorks landing pages go live on Announce date.

- <http://www.ibm.com/developerworks/ibmi/techupdates/i72-TR6>
- and
- <http://www.ibm.com/developerworks/ibmi/techupdates/i73-TR2>

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# Redbooks

## New and Improved DB2 Web Query Redbooks



DB2 Web Query for i -  
Tutorials  
SG24-8378

DB2 Web Query for i - The  
Nuts and Bolts  
SG24-8379

**Drafts being released very soon**

Based upon DB2 Web Query Version 2.2



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## DB2 for i

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### It's About Time

#### Who should care about these database enhancements?

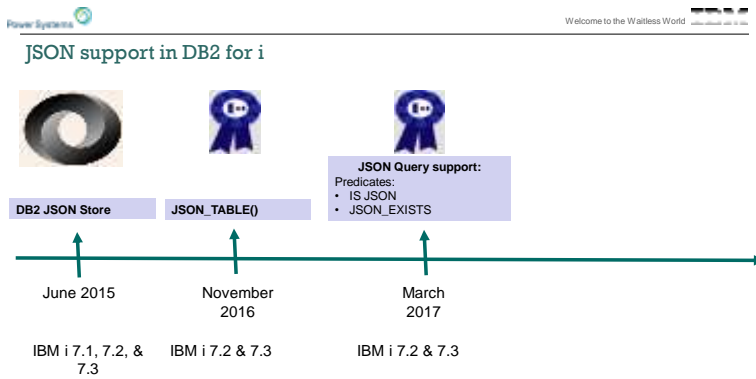
1. Database Application Developers
  - New SQL capabilities enable modern solutions and improved programmer productivity
2. System Administrators and Security Officers
  - New IBM i Services enable advanced Systems and Security Management on IBM i
3. Database Engineers
  - New ACS capabilities provide a productivity boost to the DBE



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**JSON\_TABLE**

- Allows queries to process JSON as relational data
- Leverage HTTP functions to tap external JSON data sources
- Conceptually similar to XML\_TABLE

**"The powerful JSON\_TABLE function"**

<http://www.ibm.com/developerworks/ibmi/library/i-json-table-trs/index.html>

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## JSON – IS JSON query predicate

- **IS or IS NOT JSON**

- The IS JSON predicate determines whether a value is in a JSON format with the specified attributes
- VALUE, ARRAY, OBJECT, or SCALAR checking

```
-- Use a trigger to validate JSON
CREATE TRIGGER VALIDATE_JSON
BEFORE INSERT OR UPDATE OF JSON_DATA ON MYTABLE
REFERENCING NEW AS N
FOR EACH ROW MODE DB2ROW
IF N.JSON_DATA IS NOT JSON OBJECT THEN
  IF INSERTING THEN
    SIGNAL SQLSTATE '75007'
      ('INSERT failed due to invalid JSON');
  ELSE
    SIGNAL SQLSTATE '75007'
      ('UPDATE failed due to invalid JSON');
  END IF;
END IF;
```

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## JSON – JSON\_EXISTS query predicate

- **JSON\_EXISTS**

- JSON\_EXISTS predicate is true if at least one value can be located
- COALESCE or IFNULL can be used to identify/process NULL values
- FALSE ON ERROR, TRUE ON ERROR, UNKNOWN ON ERROR, or ERROR ON ERROR processing options

```
-- Identify the employees who do not have
-- at least one emergency contact.
```

```
SELECT empno, lastname FROM employee
WHERE NOT JSON_EXISTS(COALESCE(json_data, ''),
'strict $.emergency' FALSE ON ERROR);
```

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## New SQL Built-in Function



- **LISTAGG** – Aggregates a set of string values for the group into one string by appending the string-expression

```
-- Produce a list of comma-separated names
SELECT workdept,
       LISTAGG(lastname, ',')
       WITHIN GROUP(ORDER BY lastname) AS employees FROM employee
GROUP BY workdept
```

- **LTRIM & RTRIM** – Add optional 2<sup>nd</sup> parameter (*trim-expression*)

```
-- Left Trim more than blanks
values LTRIM(' $ 10.40', '$ ') → '10.40'
```

## New IBM i Services

- **QSYS2.MESSAGE\_QUEUE\_INFO** – Extract detail from message queues

```
-- Examine all inquiry messages with responses
SELECT a.message_text AS "INQUIRY",
       b.message_text AS "REPLY"
FROM   qsys2.message_queue_info a INNER JOIN
       qsys2.message_queue_info b
ON     a.message_key = b.associated_message_key
ORDER BY b.message_timestamp DESC;
```

INQUIRY	REPLY
Does anyone care if I IPL?	Go for it
Does everyone love MN Winters?	Of course
What does SQL stand for?	Scott's Query Language



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## New IBM i Services

- **QSYS2.AUTHORIZATION\_LIST\_INFO** – Similar to the Display Authorization List Objects (DSPAUTLOBJ) CL command
- **QSYS2.AUTHORIZATION\_LIST\_USER\_INFO** – Similar to the Display Authorization List (DSPAUTL) CL command
- **QSYS2.OBJECT\_PRIVILEGES** – Similar to the Display Object Authority (DSPOBJAUT) CL command
- **QSYS2.USER\_INFO** – Add Supplement Group detail
- **And more...**

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## IBM Access Client Solutions for i (ACS)

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### ACS Version 1.1.7.0 (planned for March, 2017)

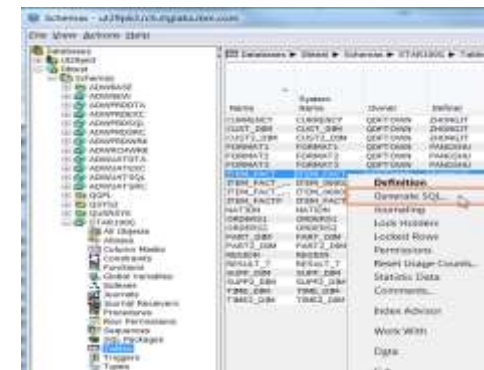
- **Run SQL Scripts**
  - CL Prompting
  - Enhanced SQL Highlighting
  - Show Object References
  - Upload Results
  - More "Insert from Examples"
- **Printer Output**
  - Multiple User Filter
- **IFS**
  - Filter

- **Schemas**



### Schemas in ACS

- **Supported Actions:**
  - Definition
  - Description
  - Generate SQL
  - Properties
  - Rename
  - New Database Object
  - Explain
  - Data
    - o View
    - o Clear
    - o Copy
    - o Initialize
  - More to come...
- Actions also enabled in Visual Explain

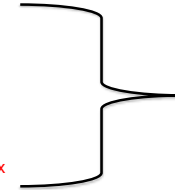


## Open Source and IBM i



## 2016 options added to 5733OPS

- Option 1 – Node.JS 2.x
- Option 2 - Python 3.4
- Option 3 – GCC / chroot
- Option 4 – Python 2.7
- Option 5 – Node.JS 4.x
- Option 6 – Git
- Option 7 – Tools
- Option 8 – Orion
- Option 9 – cloud-init
- Option 10 – Node.JS 6.x



New



.... and into 2017....



## rsync

- Synchronize files and directories between systems
- Cross-platform
- Various techniques for determining if file needs update



## wget

- utility that lets you download files from the Internet or intranet locations.
- Supports:
  - HTTP, HTTPS, and FTP protocols
  - proxies
  - non-interactive use



## curl

- Both a command and a shared library
- Robust interaction with HTTP or FTP URL's
- Supports
  - HTTP, HTTPS, and FTP protocols
  - proxies
  - non-interactive use
  - advanced HTTP operations like HTTP POST and GET requests
  - FTP upload
  - user authentication
  - much more!







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## SQLite

- Zero-configuration SQL database engine
- Easy to use
- Useful for open source software that uses this technology.



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## Major git enhancement

- Ability to perform a 'git clone' of an HTTP/HTTPS repository
- Makes interacting with GitHub or BitBucket much easier!

```
bash-4.3$ git -c http.sslverify=false clone http://github.com/OSGILE/OSGILE
Cloning into 'OSGILE'...
remote: Counting objects: 1608, done.
remote: Compressing objects: 100% (41/41), done.
remote: Total 1608 (delta 15), reused 0 (delta 0), pack-reused 1567
Receiving objects: 100% (1608/1608), 4.01 MB | 1.57 MB/s, done.
Resolving deltas: 100% (868/868), done.
Checking out files: 100% (253/253), done.
```

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"go licpgm" option 10

```
57330PS *BASE IBM i Open Source Solutions
57330PS 1 IBM i Open Source Solutions Option 1
57330PS 2 IBM i Open Source Solutions Option 2
57330PS 3 IBM i Open Source Solutions Option 3
57330PS 4 IBM i Open Source Solutions Option 4
57330PS 5 IBM i Open Source Solutions Option 5
57330PS 6 IBM i Open Source Solutions Option 6
57330PS 7 IBM i Open Source Solutions Option 7
57330PS 8 IBM i Open Source Solutions Option 8
57330PS 9 IBM i Open Source Solutions Option 9
57330PS 10 IBM i Open Source Solutions Option 10
```

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"go licpgm" option 10

```
57330PS *BASE IBM i Open Source Solutions
57330PS 1 Node.JS v0.x
57330PS 2 Python 3.x
57330PS 3 Chroot with gcc
57330PS 4 Python 2.x
57330PS 5 Node.JS v4.x
57330PS 6 Git
57330PS 7 Tools
57330PS 8 Eclipse Orion
57330PS 9 Cloud-Init for i
57330PS 10 Node.JS v6.x
```

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## DB2 Web Query E'Z-Install Package



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## Use Cases

- You're a prospective customer that wants to evaluate DB2 Web Query – how do I get an environment set up quickly to help me do that
- You're a Business Partner or IBMer and you want to spin up a DB2 Web Query installation to demo using a full set of pre-built reports
- You're an existing customer wanting to spin up an instance of the latest version of DB2 Web Query for testing purposes
- You heard about a Query/400 Discovery tool or Graphical System Administration reports available with DB2 Web Query

**You Want the EASY BUTTON**

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## Introducing the DB2 Web Query EZ-Install Package – The EASY Button

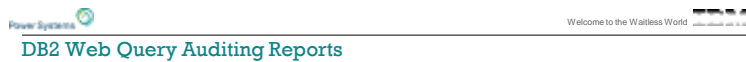
- An EASILY acquired, EASILY installed package of trial code...and more
  - A single downloadable image that you can request that includes:
    - DB2 Web Query Version 2.2 (LATEST Group PTF Already Installed)
      - Express and Standard Editions (job scheduling, Non DB2 database access)
      - Optionally install Data Migrator ETL and/or Developer Workbench
    - Sample Reports for the System Administrator
    - DB2 Web Query Auditing/Monitoring Reports
    - Query/400 Discovery Tool
    - Everything set up ready to run 14 chapters of self guided report writing tutorials
      - (we also include all the completed tutorial reports)
  - Requirements
    - 7.1 and up (7.2 or 7.3 preferred for the System Administrator reports)
    - 70 Day Trial Period. Apply License Keys to get permanent usage

2.2 in less  
Than 2 hours!

## Sample System Administration Reports

- Built over IBM i SQL Services
  - Best to be at 7.2 or up
- Utilization and/or Top xx in nature
- Can use out of the box or edit/add using these as samples
- System Utilization across multiple LPARs
  - Auto Refresh
- Top Jobs by CPU or I/O or Temp Storage
- PTF Currency Report





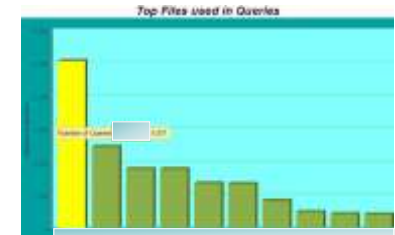
- Pre-built reports that answer these kinds of questions about DB2 Web Query Reporting Environment
  - Who is running the most reports?
  - Which reports are being run the most?
  - Which reports are taking the longest time to run?
  - How many reports are in each folder?
  - When was a report last used?
  - When was a report last modified?
- Initial summary dashboard with additional detailed reports behind it



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- IBM Built Discovery tool generates information from your Query/400 definitions
  - Which files are accessed the most in Query/400 definitions?
  - Which fields are used the most in selection criteria or result sets?
  - Which queries are "chained"?
  - Which queries were last used over a year ago?
- With this information in hand, you can:
  - Determine which queries are obsolete or redundant
  - Do Impact Analysis
  - Build a strategy to MODERNIZE into DB2 Web Query



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## Try It and Buy It

- Point customers to [db2webqueryi.blogspot.com](http://db2webqueryi.blogspot.com) for more information
- To request the package, send email to [QU2@us.ibm.com](mailto:QU2@us.ibm.com)
  - Include:
    - Name
    - Company Name
    - Serial Number of system where this will be installed

THERE \*IS\*  
A BETTER WAY!



## NEW Redbook(s)

- Due out Next Week in DRAFT MODE
- Updated 14 Chapters of Tutorials – With EZ-Install you can start immediately
  - <http://www.redbooks.ibm.com/abstracts/sg248378.html?Open>
- Nuts and Bolts of DB2 Web Query
  - Covers Topics such as
    - Accessing non DB2 Data Sources
    - Building Data Warehouses with DataMigrator
    - Geographical Mapping
    - .....and more
  - <http://www.redbooks.ibm.com/abstracts/sg248379.html?Open>



## DB2 Web Query Workshops

- 2017 Program to Bring limited number of DB2 Web Query Hands on Lab Workshops to you
- Business Partner Sponsored, IBM provides speaker and content
- Could do 1 full day with hands on labs, or ½ day presentation/demo seminar
- All we ask is BP provide facility and customers!
- Contact me: mackd@us.ibm.com



**DB2 Web Query for IBM i Workshop**

**Your login**

**Workshop**

**Registration**

**Purchase Now**

## Geographically Dispersed Resiliency (GDR) for Power Systems

*The VM restart HADR solution for Power Systems*

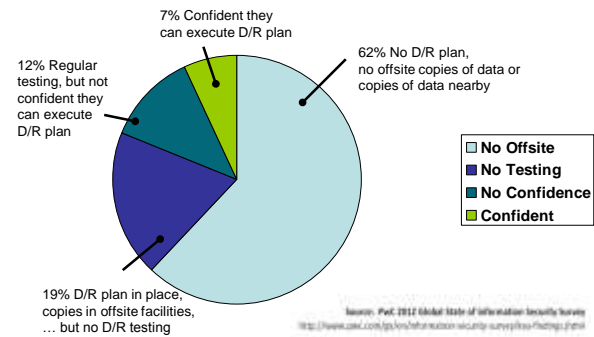


### Executive Summary

- *Many shops are using manual and/or complex middleware replication DR implementations*  
Many shops do not test their DR operations due to complexity , best of breed shops test DR biannually  
RPO capabilities of many contemporary DR implementations are unacceptable
- *IBM Geographically Dispersed Resiliency (GDR) provides an easy to deploy and easy to use DR solution*  
Significantly less expensive than contemporary options from both a CAPX and OPX perspective  
Scales from very small shops to large enterprise shops
- *GDR provides total automation through integration with the PowerVM platform*  
Highly automated, consistent, reliable disaster recovery, easy to conduct compliance testing
- *IBM services offers customization of GDR solution and deployment assistance*  
Save costs by customizing use of Enterprise pools and systems in DR site  
DR testing without disruption to main site
- *GDR along with customized services will provide a complete Power System data center DR solution*  
Recovery Time Objective (RTO), Recovery Point Objective (RPO)  
Repeatable, reliable, simple to use DR testing

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### Where is your disaster recovery profile ?



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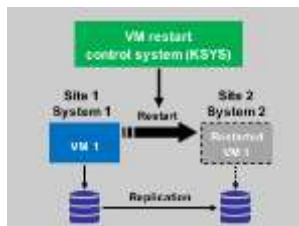


## Introducing: GDR for Power Systems

### VM Restart based DR: Simple, Reliable Disaster Recovery Solution for Power Systems

#### A disaster recovery solution for everyone

- Automated Disaster Recovery management
- Low cost to acquire and nearly no cost to manage
- Eliminates hardware and software resources at backup site
- Easier deployment compared to clustering or middleware replication technologies
- VM restart technology has no OS or middleware dependencies



- Support for IBM POWER7® and POWER8® Systems
- Support for heterogeneous guest OSs
  - AIX
  - Red Hat
  - SUSE
  - Ubuntu
  - IBM i

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## IBM i Licensing and Offering Updates



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## Entitled System Support (ESS) Enhancements – Mobile App

### Mobile app – Supports IBM Power Systems

<http://www.ibm.com/servers/eserver/ess/>

(IBM Storage planned in the near future)

#### What can the app do?

- View your software licenses
- View software maintenance for your products
- View (limited) hardware information
- View & download IBM i software keys, Capacity on Demand hardware activation codes, and Update Access Keys

and more...

#### For more information:

<http://www.ibm.com/servers/eserver/ess/> > Help > "ESS Mobile"

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## Entitled System Support (ESS) Enhancements – Interim Keys



"Interim keys" Target availability: February 28, 2017



#### What are interim keys?

- Self-serve 40-day temporary keys for LPPs and OS features
- For emergencies stemming from ordering or licensing issues in a variety of situations
  - E.g. orders are pending or transfer of entitlements are pending in IBM records
- Also retrieve currently installed IBM i OS key - no customer number registration required


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Power Systems  Welcome to the Waitless World 



## Interim Keys

Once available in February, refer to:  
<http://www.ibm.com/servers/eserver/ess/> >  
**IBM Software Keys**

Note: The 40 days begins when you activate the key at the ESS web site.



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## Entitled System Support (ESS) Enhancements – Interim Keys

**“Interim keys” Target availability: February 28, 2017**

### Interim keys...

- do not take the place of a customer purchasing temporary licensing (5733-ITL) if required for migrations, etc.
- generation is subject to business rules: e.g. 40-day temp keys cannot be acquired on a serial which had 40-day keys previously issued.
- are not issued for IBM i operating system per processor entitlements (feature 5051)

### Who can generate interim keys?

- Everyone: no customer number registration required

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Welcome to the Waitless World

## Licensing Updates

- **IBM i Relocation Offering withdrawal:**

- Announced September 13, 2016; effective March 17, 2017  
[Announcement Letter \(U.S. version\) September 13, 2016](#)

This includes both IBM i operating system and LPP relocation

By March 17, 2017...

- for IBM i per processor relocation, all e-config orders must be placed
- For both IBM i and/or LPP relocation, all agreements must be signed

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## IBM i RFE



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### RFE for IBM i

Since May 2016 clients have been able to submit requirements directly to IBM i development via RFE

- Over 300 requests since then
  - Steady 30 to 40 per month
  - Delivered or “in Plan” over 20%
  - Declined 15%
- Over 150 companies have submitted thus far
- Most voted request has 78 votes
  - Most have less than 10 votes
- **About to finish “roll out”**
  - Began with Service Technote and mentions at events
  - **Now February 2017 Technical Article & Blogs**
    - Will now encourage submissions and votes
    - **Please help spread the word**



[www.ibm.com/developerworks/ibmi/techupdates](http://www.ibm.com/developerworks/ibmi/techupdates)



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Revised September 26, 2006



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