IBM z13 Software Pricing Announcements

Jim Elliott, Consulting Sales Specialist, IBM Systems
IBM z13 Software Pricing Announcements

Extending software price/performance for the z13 …
- IBM continues its strategy to enhance software price/performance for the latest hardware
  - Announcing “Technology Update Pricing for z13” called TU3
  - Published exhibit of AWLC price reductions for z13, delivers 5% price/performance on average

Major new structural enhancements …
- z Systems Collocated Application Pricing (zCAP) – Run your systems the way you want to run them
  - For new applications, workloads priced as if in a dedicated environment while technically integrated with other workloads
  - Applicable to new applications on all zEnterprise and later machines, z196 to z13
  - zCAP eligible applications will have no effect on the reported MSUs for other subcapacity middleware, and reduced impact on z/OS (adjusts MSUs like an offload engine, similar to Mobile Workload Pricing)
  - zCAP enhancement to MWRT subcapacity tool coming

- Country Multiplex Pricing – Evolution from Sysplex pricing, a shift to greater flexibility and simplicity
  - A Multiplex is the collection of all zEnterprise and later machines in a country, measured like one machine for software subcapacity reporting (new multiplex sub-capacity reporting tool coming)
  - Flexibility to move and run work anywhere with the elimination of Sysplex pricing rules
  - A new way of measuring and pricing MSUs, as opposed to aggregating under current rules
  - For anyone selecting Multiplex Pricing there will be a pricing transition, shifting to this model is about growth and flexibility going forward (baseline + growth)
Technology Transition Offerings for the IBM z13
Technology Transition Offering Updates

- **Additional MLC price/performance for z13 via enhanced AWLC pricing**
  - Announcing “Technology Update Pricing for z13” called TU3
  - Maintain existing AWLC software metric, list prices and existing AWLC contract
  - Publish a new exhibit of AWLC price reductions applicable to z13
  - Continues zEC12 price/performance delivery strategy

- **Deliver 5% MLC price/performance on average (with flat capacity)**
  - Price/performance compared to Technology Update Pricing for AWLC on zEC12 (TU1)
  - Price/performance scales with increased capacity (0% to 7%) vs. zEC12

- **Offer Transition Charges for Sysplex pricing for migration to z13**
  - Charges for Sysplexes (TC1) unchanged – z13 will not be supported in a sysplex with z10
  - Transition Charges for Sysplexes (TC2) – z13 added to existing zEC12 transition program and will deliver partial MLC savings from AWLC for N-2 upgrades and mixed technology sysplexes (z196, zEC12 and z13)
  - New Transition Charges for Sysplexes (TC3) – Delivers partial MLC savings from Technology Update Pricing for AWLC (TU1) as customers migrate zEC12 plexes to z13 machines
    - Updated transition offering with simplified approach
    - Provides one “Step” interim price point regardless of the percent of the sysplex migrated
    - Savings available as soon as migration begins, continues until sysplex is fully migrated to z13 machines
Technology Update Pricing for z13

Price performance delivered to market

- VWLC (metric)
- VWLC + Tech Dividend 1
- VWLC + Tech Dividend 2
- VWLC + Tech Dividend 3
- AWLC (new metric)
- AWLC + Technology Update Pricing (TU1)
- AWLC + Technology Update Pricing for z13 (TU3)

Technology Update Pricing for z13
Exhibit 3 (TU3) - z13 Pricing

<table>
<thead>
<tr>
<th>Machine rated MSUs</th>
<th>Reduction to AWLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3</td>
<td>0.0%</td>
</tr>
<tr>
<td>4-45</td>
<td>4.0%</td>
</tr>
<tr>
<td>46-315</td>
<td>8.0%</td>
</tr>
<tr>
<td>316-1315</td>
<td>9.0%</td>
</tr>
<tr>
<td>1316-2676</td>
<td>10.0%</td>
</tr>
<tr>
<td>2677-5476</td>
<td>12.0%</td>
</tr>
<tr>
<td>5477+</td>
<td>14.0%</td>
</tr>
</tbody>
</table>

- Visible price savings
- Targeted price performance
- No impact to OTC price points
- No new contract (other than AWLC) required
- Continues zEC12 delivery strategy
Transition Charges for Sysplexes

- Introduce Transition Charges 3 (TC3) for sysplexes of z13 mixed with zEC12
- Add z13 to Transition Charges 2 (TC2) – “Reduced” metric remains the same
- Your IBM or BP rep can use WLPricer to estimate charges
z Systems Collocated Application Pricing (zCAP)
z Systems Collocated Application Pricing (zCAP)

- Run your systems the way you want to run them
  - For new applications workloads priced as if in a dedicated environment while technically integrated with other workloads
  - Applicable to new applications on all zEnterprise and later machines:
    - z13, zEC12, zBC12, z196, and z114
  - zCAP eligible applications will have no effect on the reported MSUs for other sub-capacity middleware, and reduced impact on z/OS (adjusts MSUs similar to Mobile Workload Pricing)
  - zCAP enhancement to MWRT sub-capacity tool available on 28 April 2015 with MWRT V3.3.0

- zCAP Announcement Letter A15-0357 – 2015-04-07
Next evolution of z Systems sub-capacity software pricing

- Approval process validates the workload is a new application on the z/OS platform
- zCAP Defining Programs include key sub-capacity-eligible IBM programs
  - CICS, DB2, IMS, MQ, WAS
- Customer reports CPU time for zCAP Defining Programs, similar to Mobile but less complex
- Software pricing for other programs in the same LPAR:
  - No effect on the reported MSUs for other unrelated sub-capacity middleware programs (adjusts MSUs like an offload engine, similar to Mobile Workload Pricing for z/OS)
  - For z/OS, only 50% of the zCAP-defining program MSUs will be applied … provides a price benefit similar to zNALC for z/OS, without the requirement for a separate LPAR
  - New IPLA Reference-Based programs with a zCAP Defining Program as their Parent, purchased in support of an approved zCAP application and not running elsewhere in the machine or Sysplex, will be referenced only to the MSUs for the zCAP Defining Program
- Software pricing for zCAP Defining Programs:
  - Net-new zCAP program measured based on program usage MSUs (SMF89 records)
  - Incremental growth for pre-existing Defining Programs priced the standard way
zCAP Illustration – Net New MQ Application

Net New MQ Example = 100 MSUs of new MQ workload *

1. Existing LPAR

<table>
<thead>
<tr>
<th>MSUs used for subcap billing:</th>
<th>z/OS</th>
<th>1,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB2 and CICS</td>
<td>1,000</td>
<td></td>
</tr>
</tbody>
</table>

2. New MQ, standard rules

<table>
<thead>
<tr>
<th>MSUs used for subcap billing:</th>
<th>z/OS</th>
<th>1,100</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB2 and CICS</td>
<td>1,100</td>
<td></td>
</tr>
<tr>
<td>MQ (LPAR value)</td>
<td>1,100</td>
<td></td>
</tr>
</tbody>
</table>

3. New MQ with zCAP pricing

<table>
<thead>
<tr>
<th>MSUs used for subcap billing:</th>
<th>z/OS</th>
<th>1,050</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB2 and CICS</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>MQ (usage value)</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

* Assumes workloads peak at same time
zCAP Illustration – Incremental MQ Growth

Incremental MQ Example = 100 MSUs of MQ growth *

1. Existing LPAR
   MSUs used for subcap billing:
   - z/OS 1,000
   - DB2 and CICS 1,000
   - MQ 1,000

2. MQ growth, standard rules
   MSUs used for subcap billing:
   - z/OS 1,100
   - DB2 and CICS 1,100
   - MQ w/growth 1,100

3. MQ growth with zCAP pricing
   MSUs used for subcap billing:
   - z/OS 1,050
   - DB2 and CICS 1,000
   - MQ w/growth 1,100

Standard LPAR Value = 1,100

* Assumes workloads peak at same time
zCAP Defining Programs

- zCAP Defining Programs on announcement date:
  
<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5655-S97</td>
<td>CICS TS for z/OS V4</td>
</tr>
<tr>
<td>5655-Y04</td>
<td>CICS TS for z/OS V5</td>
</tr>
<tr>
<td>5722-DFJ</td>
<td>CICS VUE V5</td>
</tr>
<tr>
<td>5635-DB2</td>
<td>DB2 V9 for z/OS</td>
</tr>
<tr>
<td>5605-DB2</td>
<td>DB2 10 for z/OS</td>
</tr>
<tr>
<td>5615-DB2</td>
<td>DB2 11 for z/OS</td>
</tr>
<tr>
<td>5697-P12</td>
<td>DB2 VUE V9</td>
</tr>
<tr>
<td>5697-P31</td>
<td>DB2 10 VUE</td>
</tr>
<tr>
<td>5697-P43</td>
<td>DB2 11 VUE</td>
</tr>
<tr>
<td>5635-A02</td>
<td>IMS V11</td>
</tr>
<tr>
<td>5635-A03</td>
<td>IMS V12</td>
</tr>
<tr>
<td>5635-A04</td>
<td>IMS V13</td>
</tr>
<tr>
<td>5635-A05</td>
<td>IMS V14</td>
</tr>
<tr>
<td>5655-DSQ</td>
<td>IMS DB VUE V12</td>
</tr>
<tr>
<td>5655-DSM</td>
<td>IMS DB VUE V13</td>
</tr>
<tr>
<td>5655-TM1</td>
<td>IMS TM VUE V12</td>
</tr>
<tr>
<td>5655-TM2</td>
<td>IMS TM VUE V13</td>
</tr>
<tr>
<td>5655-L82</td>
<td>WS MQ for z/OS V6</td>
</tr>
<tr>
<td>5655-R36</td>
<td>WS MQ for z/OS V7</td>
</tr>
<tr>
<td>5655-W97</td>
<td>IBM MQ for z/OS V8</td>
</tr>
<tr>
<td>5655-VUE</td>
<td>WS MQ VUE V7</td>
</tr>
<tr>
<td>5655-VU8</td>
<td>IBM MQ VUE V8</td>
</tr>
<tr>
<td>5655-N02</td>
<td>WebSphere App Server for z/OS V7</td>
</tr>
<tr>
<td>5655-W65</td>
<td>WebSphere App Server for z/OS V8</td>
</tr>
</tbody>
</table>

- IBM may add new zCAP Defining Programs over time
- zCAP Defining Programs link
In Summary

**z Systems Collocated Application Pricing (zCAP) Benefits**

– Improves the cost of growth for transactions processed in z Systems environments such as CICS, IMS, DB2, MQ, and WAS

– zCAP for z/OS enhances Sub-Capacity pricing
  
  • Mitigates the impact of new applications on MLC charges while allowing them to be integrated into existing LPARs
  • Normalizes the rate of transaction growth

– No major infrastructure changes required, no separate LPARs needed
  
  • It is an enhanced way of reporting sub-capacity MSUs
  • System runs as it always has, workload execution is not altered

**Key requirements**

• Available on all z13, zEC12, zBC12, z196, and z114 servers running z/OS

• Install a new zCAP Application using a zCAP Defining Program to process transactions

• Implement sub-capacity using AWLC or AEWLC under standard pricing terms

• Meet the zCAP measuring and reporting requirements
Country Multiplex Pricing
Country Multiplex Pricing

- **Country Multiplex Pricing – Evolution from Sysplex pricing, a shift to greater flexibility and simplicity**
  - A Multiplex is the collection of all zEnterprise and later machines in a country, measured like one machine for sub-capacity reporting
  - Applicable to all z196, z114, zEC12, zBC12, and z13 machines
  - A new way of measuring and pricing MSUs, as opposed to aggregating under current rules
  - Unprecedented flexibility to move and run work anywhere
    - Elimination of Sysplex pricing rules
    - Elimination of duplicate peaks when workload moves between machines
  - Cost of growth is reduced … one price per product for growth anywhere in the country
  - Hardware and software migrations greatly simplified … Single Version Charging (SVC) and Cross Systems Waivers (CSW) will no longer be relevant
    - No time limit for version migrations, multiple versions reported with concurrent peaks
  - For each customer selecting Multiplex Pricing there will be a required pricing transition, shifting to this model is about growth and flexibility going forward (baseline + growth)
  - New Multiplex subcapacity reporting tool coming
Multiplex MSU Peak Reporting Illustration

- Each bar represents MSU measurements for a given time interval
- Assuming there were only 3 intervals in the month, then SCRT and Multiplex peak values would be:

  **Traditional Sub-Capacity Peak** = Sum of individual SCRT machine peaks for the month:
  - Machine 1: 145
  - Machine 2: 150
  - Machine 3: 140
  
  **Sum of Peaks: 435**

  **Multiplex Peak** = Peak value of the hourly simultaneous totals of all machines
  
  **Peak of Simultaneous Totals: 385**

**Reporting dynamics**

Multiplex MSUs will be *at or below SCRT values* due to the smoothing effect of measuring all machines at the same time intervals

Allows for dynamic workload movement with no duplicate MSU peaks since machine boundaries are no longer critical.
Multiplex MLC & MSU Base Illustration

- Setting the initial MLC Base and MSU Base (one-time exercise)
  - MLC and MSU bases set for each subcapacity product
    - Most recent 3-month average
  - MSU Base set with new Multiplex Report output
    - Not traditional SCRT Report output

<table>
<thead>
<tr>
<th>Month</th>
<th>MLC Base</th>
<th>MSU Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month 1</td>
<td>$97K</td>
<td>1,000</td>
</tr>
<tr>
<td>Month 2</td>
<td>$102K</td>
<td>1,110</td>
</tr>
<tr>
<td>Month 3</td>
<td>$101K</td>
<td>1,040</td>
</tr>
</tbody>
</table>

3-month avg

- Ongoing MLC Reporting and Billing Example (monthly process)
  - For each product, monthly MLC charges equal to base plus variable charge
  - Variable charge = Delta MSUs vs. MSU base (up or down), multiplied by applicable price per MSU

<table>
<thead>
<tr>
<th></th>
<th>Base</th>
<th>Variable</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100K</td>
<td>$3K</td>
<td>$103K</td>
<td></td>
</tr>
</tbody>
</table>

Example assumes $45 per MSU price point for illustrative purposes

75 MSUs x $45 / MSU = $3K
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