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CHAPTER 5. SPECIAL ITEM 511210: SOFTWARE LICENSE TERMS

TERMS AND CONDITIONS
Note: These terms and conditions are applicable to the licensing of IBM licensed programs, and are in addition to the terms of the Client Relationship Agreement for Programs – Federal Government

During the contract period, International Business Machines Corporation (IBM) and the Government agree that the following terms and conditions will apply to any order for IBM licensed programs that is placed by the Government under this Special Item. The term "Government" shall mean all Federal agencies (as defined in Paragraph (b) of 40 USC 472), the Senate, the House of Representatives, the Architect of the Capitol, and the Government of the District of Columbia, all of which are hereinafter referred to as the Government. The offerings under this Special Item 511210 will be available to the Government within the United States, the District of Columbia and Puerto Rico. IBM will deliver products and perform services to overseas U.S. Government locations which are in support of national or mutual defense operations (including U.S. Embassies), and to locations which support the national interest of the United States.

SOFTWARE MAINTENANCE

a. Software maintenance as it is defined: (select software maintenance type) :

_____X_____   1. Software Maintenance as a Product (SIN 511210)

> Software maintenance as a product includes the publishing of bug/defect fixes via patches and updates/upgrades in function and technology to maintain the operability and usability of the software product. It may also include other no charge support that are included in the purchase price of the product in the commercial marketplace. No charge support includes items such as user blogs, discussion forums, on-line help libraries and FAQs (Frequently Asked Questions), hosted chat rooms, and limited telephone, email and/or web-based general technical support for user's self diagnostics.

Software maintenance as a product does <u>NOT</u> include the creation, design, implementation, integration, etc. of a software package. These examples are considered software maintenance as a service.

Software Maintenance as a product is billed at the time of purchase

_N/A_____   2. Software Maintenance as a Service

> Software maintenance as a service creates, designs, implements, and/or integrates customized changes to software that solve one or more problems and is not included with the price of the software. Software maintenance as a service includes person-to-person communications regardless of the medium used to communicate: telephone support, on-line technical support, customized support,

and/or technical expertise which are charged commercially. Software maintenance as a service is billed arrears in accordance with 31 U.S.C. 3324.

b. Invoices for maintenance as a service shall be submitted by the Contractor on a quarterly or monthly basis, after the completion of such period. Maintenance charges must be paid in arrears (31 U.S.C. 3324). PROMPT PAYMENT DISCOUNT, IF APPLICABLE, SHALL BE SHOWN ON THE INVOICE

DEFINITIONS:
   a. **Client Enterprise**: US Government Agency for which IBM products and/or services are being acquired and exclusively for the use of that Agency .

5.1 UTILIZATION LIMITATIONS

a) Software acquisition is limited to commercial computer software defined in FAR Part 2.101.

b) When acquired by the ordering activity, commercial computer software and related documentation shall be subject to the following:

i.) Title to and ownership of the software and documentation shall remain with the Contractor, unless otherwise specified.

ii.) Software licenses are by site and by ordering activity. An ordering activity is defined as a cabinet level or independent ordering activity. The software may be used by any subdivision of the ordering activity (service, bureau, division, command, etc.) that has access to the site the software is placed at, even if the subdivision did not participate in the acquisition of the software. Further, the software may be used on a sharing basis where multiple agencies have joint projects that can be satisfied by the use of the software placed at one ordering activity's site. This would allow other agencies access to one ordering activity's database. For ordering activity public domain databases, user agencies and third parties may use the computer program to enter, retrieve, analyze and present data. The user ordering activity will take appropriate action by instruction, agreement, or otherwise, to protect the Contractor's proprietary property with any third parties that are permitted access to the computer programs and documentation in connection with the user ordering activity's permitted use of the computer programs and documentation. For purposes of this section, all such permitted third parties shall be deemed agents of the user ordering activity.

iii.) Except as provided above, the ordering activity shall not provide or otherwise make available the software or documentation, or any portion thereof, in any form, to any third party without the prior written approval of the Contractor. Third parties do not include prime Contractors, subcontractors and agents of the ordering activity who have the ordering activity's permission to use the licensed software and documentation at the facility, and who have agreed to use the licensed software and documentation only in accordance with these restrictions. This provision does not limit the right of the ordering activity to use software, documentation, or information therein, which the ordering activity may already have or obtains without restrictions.

iv.) Subject to the Program's restriction and with IBM's written consent, the ordering activity shall have the right to use the software and documentation with the run-time computing environment (e.g. operating system, virtual machine, mobile operating system, processor etc.) to

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be specifically identified for which it is acquired at any other facility/user device to which that time computing environment may be transferred, or in cases of Disaster Recovery, the ordering activity has the right to transfer the software to another site/user device if the ordering activity site for which it is acquired is deemed to be unsafe for ordering activity personnel; to use the software and documentation with a backup time computing environment when the primary is inoperative; to copy computer programs for safekeeping (archives) or backup purposes; with IBM's written consent and subject to additional software charges as applicable, to transfer a copy of the software to another site/user for purposes of benchmarking new hardware and/or software; and to modify the software and documentation or combine it with other software, provided that the unmodified portions shall remain subject to these restrictions.

v.) "Commercial Computer Software" may be marked with the Contractor's standard commercial restricted rights legend, but the schedule contract and schedule pricelist, including this clause, "Utilization Limitations" are the only governing terms and conditions, and shall take precedence and supersede any different or additional terms and conditions included in the standard commercial legend.

vi.) Licensee Data belongs exclusively to Licensee, regardless of where the Data may reside at any moment in time including, but not limited to Licensor hardware, networks or other infrastructure and facilities where Data may reside, transit through or be stored from time to time. Licensor makes no claim to a right of ownership in Licensee Data. Licensor agrees to keep the Licensee Data Confidential as that term is defined in the relevant FAR and DFARS provisions pertaining to Confidential Information and Confidentiality. Licensor is not permitted to use Licensee's data for a purpose that is not explicitly granted in writing by Licensee. Upon Licensee request, for any reason whatsoever, Licensor must promptly return all Licensee Data in Licensor's possession in a format as may be designated at the time of request by Licensee.

vii.) With IBM's prior written consent and in accordance with IBM's License terms, Licensee may create or hire others (including Licensor) to create modifications, customizations or other enhancements to the Software which might be classified as "Derivative Works" of the software. Unless otherwise negotiated and mutually agreed upon at the order level, the intellectual property (IP) rights to the Derivative Works shall be owned by the owner of the underlying intellectual property. The Derivative Work[s] shall be made available to the Licensee through a royalty free, perpetual worldwide, no charge license to the Licensee.

SIN 511210 Software Licenses

SIN 511210 Includes both System z monthly and One-Time charge software and System software licenses and maintenance. Includes operating system software, application software, database management applications, and other software.

5.2 SOFTWARE CONVERSIONS - (511210)
As a general rule, IBM does not offer full monetary credit to the Government when conversion from one version of the software to another which is made as the result of a change in operating

system, or from one computer system to another; however, IBM offering for the Acquisition of Software Maintenance or Passport Advantage includes terms on version updates for IPLA Licensed Programs.

5.3 ORDERS

Software Acquisition is limited to commercial computer software defined in FAR Part 2.101.

Each order shall list the licensed program(s), feature(s), and/or material(s), and shall show the type and serial of the designated machine(s) on which each program and/or material are to be used, and the location of such machines. The Customer Requested Arrival Date shall be written into the order and the order shall be forwarded to IBM. In the event that IBM can't meet the Customer Requested Arrival Date, IBM shall notify the Government within 30 calendar days from the date of the certified mail receipt or the order receipt date of the Calculated Arrival Date which it can meet. Otherwise, the Customer Requested Arrival Date automatically becomes the Calculated Arrival Date.

5.4 RISK OF LOSS

If a licensed program in a tangible form is lost or damaged during shipment from IBM, IBM will replace such licensed programs and program storage media at no additional charge to the Government.

If licensed programs are lost or damaged while in the possession of the Government, IBM will replace such licensed programs at the then current commercial charges, if any, for processing, distribution, and/or program storage media. Such charges will be outside the scope of this Contract.

5.5 AGREEMENT FOR THE ACQUISITION OF SOFTWARE MAINTENANCE

The terms and conditions below govern the acquisition of software maintenance (SWM), which may also be referred to as subscription and support (S&S) in connection with IBM System z Programs. Software Maintenance is available when purchasing IPLA Software licenses outside of the Passport Advantage Offering. The terms of the IPLA are provided above.

The Acquisition of Software Maintenance in quantities greater than the number for which the Government is licensed does not create or imply any greater license authorization.

IBM will provide software maintenance support, as described below, for those Eligible Programs for which you are licensed and for which you acquire this Service.

Eligible Programs to which this Agreement applies are licensed under the International Program License Agreement ("IPLA") unless otherwise specified by IBM. . Sections of the IPLA entitled "Licensee Data and Databases," "Limitation of Liability," "Compliance Verification," "General,"

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and "Geographic Scope and Governing Law," including any associated Country-unique Terms applicable to those sections are also part of this Agreement.

1) Software Maintenance for Programs running in the System z environment or equivalent

1. **Eligible Programs:** Programs for which S&S is available are listed at **www-1.ibm.com/servers/eserver/zseries/library/swpriceinfo**. Click on IPLA Subscription and Support Addenda

2. S&S Period: One year. When the Government orders S&S with a Program, the initial Support Period begins on the date that IBM makes the Program available to you.

3. Early Termination of an S&S Period for a Program: While the Government may terminate an S&S period, IBM does not issue credit for the unused portion of a Support Period.

4. S&S Period Adjustment: When Government acquires S&S initially or resumes it, or prior to the end of the then current S&S Period for renewals, you may request that the Support Period duration be adjusted to end at a month of Government's choice. If Government does not choose a date, IBM will inform Government of the end date. The S&S Charge will be pro-rated accordingly.

5. S&S : During the S&S Period, for the unmodified portion of a Program, and to the extent problems can be recreated in the specified operating environment, IBM will provide the following:

   a. Defect correction information, a restriction, or a bypass;

   b. Program Updates: periodic releases of collections of code corrections, fixes, functional enhancements and new versions and releases to the Program and documentation; and

   c. Technical Assistance: a reasonable amount of remote assistance via telephone or electronically to address suspected Program defects. Technical assistance is available from the IBM support center. Additional details regarding Technical Assistance, including IBM contact information (see Appendix C: Contact Information) are provided in the Software Support Handbook at http://www14.software.ibm.com/webapp/set2/sas/f/handbook/home.htmlS&S does not include assistance for 1) design and development of applications, 2) Customer's use of Programs in other than their specified operating environment, or 3) failures caused by products for which IBM is not responsible for under these terms.

   S&S is provided only if the Program is within its support timeframe as specified in the Software Lifecycle policy for the Program.

   d. Resumption Fee: A one time charge fee to resume S&S after the Government either (a) declined S&S at the time the Government acquired the license for a Program or (b) terminated S&S. The S&S Period in such an instance begins on the date that IBM accepts the Government's order.

e. S&S Upgrade: If the Government upgrades S&S due to an increase in the level of use of an Eligible Program, any increase to the S&S Charge will be pro-rated to the end of the current S&S Period.

Renewal: IBM will renew expiring software maintenance provided a funded delivery order is received by the end of the S&S Period. Subsequent S&S Period begins on the day following the end of the preceding S&S Period.

2) Programs running on IBM distributed platforms (e.g. IBM Power Systems, IBM System i, IBM System p, IBM System Storage or equivalent)

IBM will provide software maintenance support, as described below, for those Eligible Programs for which Government is licensed and for which you acquire this Service.

1. Eligible Programs: Unless otherwise provided by IBM, Eligible Programs for which Software Subscription and Support is available at:
   www.ibm.com/servers/eserver/iseries/sftsol/subscript2.htm.

2. Initial Software Maintenance Period: The initial Software Maintenance Period begins on the date that IBM makes the Program available to the Government. If the Eligible Program is part of an IBM Software Maintenance for OS/400, i5/OS or IBM i, and selected Programs, then the Initial Software Maintenance Period duration will be adjusted so that the expiration coincides with that of the other Eligible Programs in the group. In such event, the Initial Software Maintenance Period may be less than one year.

3. Early Termination of an S&S Period for a Program: While the Government may terminate an S&S period, IBM does not issue credit for the unused portion of a Support Period.

4. Renewal: It is the Government's responsibility to renew Software Maintenance at the end of each Software Maintenance Period. IBM will renew expiring software maintenance provided a funded delivery order purchase order or contractis received by the end of the Software Maintenance Period . Subsequent Support Periods begin on the day following the end of the preceding Support Period. If the Government does not renew Software Maintenance by the expiration date of the Software Maintenance Period but subsequently wishes to acquire Software Maintenance, a Software Maintenance After License Fee, as set forth below (Item 6), will apply.

5. Software Maintenance: During the initial Software Maintenance Period:

   a. IBM makes available to the Government the most current commercially available version, release, or update to all of the Eligible Programs for which the Government acquires Software Maintenance, in the specified operation environment as make available. For Power Systems, System i, and System p Programs, the Government may obtain upgrades to any more recent commercially available version, release or update. The Government's right to upgrade to a new version, release or update under this subsection may only be exercised during the Software Maintenance Period and expires at the end of the Period if Software Maintenance is not renewed.

b. For IBM Software Maintenance for OS/400, i5/OS and selected Programs, Customer is entitled to upgrade an Eligible Program to a specific version or release only one time per machine, notwithstanding the above.

c. IBM provides Government with technical assistance for Government's a) routine, short duration installation and usage (how-to) questions and b) code defect related questions.

d. IBM provides assistance via telephone and, if available, electronic access, only to your information systems (IS) technical support personnel during normal business hours (normal business hours are 8 a.m. to 5 p.m. in the local time zone where you receive this Service, Monday through Friday, excluding national holidays). This assistance is not available to Government's end users. IBM provides Severity 1 assistance 24 hours a day, every day of the year. Additional details regarding assistance including the definition of severity 1 are provided in the Software Support Handbook at www.14.software.ibm.com/webapp/set2/sas/f/handbook/home.html.

e. Software Maintenance does not include assistance for a) the design and development of applications, b) Government's use of Eligible Programs in other than their specified operating environment, or c) failures caused by products for which IBM is not responsible under this Service.

f. Software Maintenance is only available if the Program is within its support timeframe as specified in the Software Support Lifecycle policy for the Program found at http://www-01.ibm.com/software/support/lifecycle/

6. Software Maintenance After License Fee: which may be referred to as "Maintenance After License" or "MAL" in connection with System i platforms and as "After License Charge" or "ALC" in connection with System p platforms):

The Software Maintenance After License fee is a one time charge to resume Software Maintenance if Governmnet a) did not renew this Service prior to the end of the then current support period or b) terminated this Service. The new Software Maintenance Period for a resumption of Software Maintenance begins on the date that IBM accepts Government's order.

The Software Maintenance After License Fee applies when Customer acquires a used Power Systems, System i, or System p machine and wishes to acquire Software Maintenance for OS/400, i5/OS, and selected Programs, unless

(i) the machine has the most current version and release of the appropriate operating system installed; and

(ii) Customer acquires Software Maintenance within 30 days of Customer's acquisition of the machine.

The Software Maintenance After License Fee applies when Customer acquires a used Power Systems, System i, or System p machine and wishes to acquire Software Maintenance for the AIX operating system or AIX selected Programs unless

(iii) the machine has a current version and release of the AIX operating system or AIX selected Programs installed and

(iv) Customer acquires Software Maintenance within 30 days of Customer's acquisition of the machine.

For Software Maintenance for other Eligible Programs not otherwise covered by this subsection (6) , a Software Maintenance After License Fee may apply to Customers acquiring used Power System, System i, or System p machines.

7. Software Maintenance Transferability: The Government may transfer Software Maintenance only to a location that is within its agency or department and within the country in which Software Maintenance is acquired, provided that 1) the applicable Program is transferable and is transferred in accordance with its license terms and 2) the entity receiving the Program agrees to the terms herein. Transferring between agencies or military departments requires prior written consent from IBM.

Transfer of IBM Software Maintenance for Power System i and System p machines: in addition to the above the following also applies:

a. applies to a designated machine (type, model and serial number);

b. may be transferred only to another machine that is licensed for the same operating system at the same or a more recent release level; and

c. may incur an increase in the Software Maintenance Charge if the "transferred to" machine is of a larger capacity.

3) Charges

If the Government returns an Eligible Program for refund as allowed under its license terms, IBM will terminate, and refund any charges paid for, Software Maintenance ordered with the Program. IBM does not give refunds for Software Maintenance without the return of the associated Eligible Program.

a. Charges are billed as a one-time charge at time of purchase.

b. The Software Maintenance Charge may vary, depending on, for example, the machine (type/model), the Eligible Program or group of Eligible Programs, or level of use of the Eligible Program.

4) Government Responsibilities

The Government agrees that when the Government acquires Software Maintenance for an Eligible Program:

a. To acquire Software Maintenance at the same level of use as that at which the Eligible Program is authorized, as well as all copies of the Program at the same location. This includes Programs that the Government already acquired and those that you may require subsequently. Partial coverage for a particular Eligible Program is not offered;

b. To be responsible for the results obtained from the use of the Software Maintenance;

c. To remain responsible for adequately protecting the Government's system and all data contained in it whenever IBM remotely accesses it with your permission to assist you in isolating the software problem cause;

d. To provide sufficient, free, and safe access to the Government's facility for the fulfillment of IBM's obligations.

e. To have specified equipment or programs installed at your location if Software Maintenance is provided through a telecommunications link.

5) Warranty for Software Maintenance

IBM warrants that Software Maintenance will be provided using reasonable care and skill and according to its current description in the IBM Software Support Handbook at http://www14.software.ibm.com/webapp/set2/sas/f/handbook/home.html. The Government agrees to provide timely written notice of any failure to comply with this warranty so that IBM can take corrective action.

The warranties will be voided by misuse, accident, modification, unsuitable physical or operating environment, operation in other than the specified operating environment, or failure caused by a product for which we are not responsible.

THESE WARRANTIES ARE YOUR EXCLUSIVE WARRANTIES AND REPLACE ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IBM does not warrant uninterrupted or error-free provision of Software Maintenance or that IBM will correct all defects.

6) Termination and Withdrawal

Termination: The Government may terminate the Support by providing IBM one month written notice. Such notice should be provided to IBM for termination at the end of the Government's fiscal year/anniversary date for the renewal, but failure to give notice shall not be deemed as obligating the succeeding fiscal year's funds.

If not terminated, a delivery order must be issued effective the first day of the succeeding fiscal year or contract year to ensure there is no lapse in time subjecting the Government to Software Maintenance After License Charge.

Any violation of the terms of this Passport Advantage Agreement shall be handled in accordance with the Contract's Disputes Act and the rights provided to the vendor under the Act.

Any terms of this Agreement which by nature extend beyond the termination remain in effect until fulfilled.

Withdrawal: IBM may withdraw Software Maintenance for an Eligible Program by publishing a notice of withdrawal not less than 12 months prior to its effective date. If IBM withdraws Software Maintenance for which the Government has paid and IBM has not fully provided it to the Government, at its discretion IBM will either continue to provide Software Maintenance to the Government until the end of the current Software Maintenance Period or give the Government a prorated refund. Acquisition of Software Maintenance does not extend the period for which an Eligible Program is supported.

7) Additional Terms

a. To assist the Government in isolating the cause of a software problem, IBM may ask the Government to, 1) allow IBM to remotely access the Government's system or 2) send customer information or system data to IBM. IBM uses information about errors and problems only to improve its products and services and assist with its provision of Software Maintenance. IBM may use subcontractors and IBM entities in other countries for these purposes.

b. The Government remains responsible for 1) any data and the content of any database the Government makes available to IBM, 2) the selection and implementation of procedures and controls regarding access, security, encryption, use, transmission of data (including any personally-identifiable data), and 3) backup and recovery of the database and any stored data. The Government will not send or provide to IBM access to personal information.

c. All information exchanged is non confidential.

This Agreement is the complete agreement regarding Customer's acquisition of Software Maintenance, and replaces any prior oral or written communications between Customer and IBM concerning Software Maintenance. In entering into this Agreement, neither party is relying on any representation that is not specified in this Agreement including without limitation any representations concerning: 1) performance or function of any product or system, other than as expressly warranted in the section above; 2) the experiences or recommendations of other parties; or 3) results or savings Customer may achieve. Additional or different terms regarding this offering offering identified in a Government Delivery Order, unless provided in an IBM proposal or quote, are void.

ii. Terms for Software Subscription and Support Renewal ("Software Maintenance" or "SWMA") offered via the IBM ServiceElite Offering

See Chapter 4

5.6 PASSPORT ADVANTAGE

IBM Passport Advantage terms and conditions for Software and Subscription Support are located in Appendix S.

Pricing and Terms for IBM's U.S. Citizen Support Offering for Passport Advantage Software and Subscription and Support is located on IBM's website as an Attachment to Chapter 5.

5.7 SYSTEM Z SOFTWARE PRICING OPTIONS

Note: These pricing options generally apply to System z Monthly License Charge Programs, unless otherwise stated.

5.7.1 ATTACHMENT IBM SYSTEM Z ADVANCED WORKLOAD LICENSE CHARGES (AWLC)

The terms of this Attachment for IBM System z Advanced Workload License Charges (Attachment) are in addition to those of this Chapter. The Government accepts the terms by issuing to IBM a Purchase Order or Contract. Any Programs subject to the terms outlined herein that require z/Architecture (64-bit) hardware in order to execute properly may be licensed only to a Designated Machine that properly implements z/Architecture.

1. Definitions

AWLC - Advanced Workload License Charges available for selected IBM Programs which are used on an Eligible Machine and are running under an Eligible Operating System. AWLC charges allow for Sub-Capacity Pricing.

Eligible Machine - A Machine to which an Eligible Operating System is licensed. Eligible Machines are specified in the IBM System z Advanced Workload License Charges Exhibit Z125-8539-00) ("Exhibit").

Eligible Operating System - An operating system specified in the Exhibit which runs in z/Architecture (64-bit) mode on an Eligible Machine.

Full Capacity MSUs - The total capacity of a Machine as specified in the Exhibit.

Guest (LPAR) - z/TPF or z/OS when running under z/VM.

MSUs - Millions of Service Units per hour; the measure of workload capacity of an Eligible Machine.

Native (LPAR) - z/TPF or z/OS when not running under z/VM.

Operating System Family - An IBM operating system and the IBM middleware that runs under it. The applicable IBM operating systems are z/OS, z/TPF, and z/VSE V4 or higher.

Product LPAR Utilization Capacity - The highest number of MSUs utilized by the combined logical partitions ("LPARs") in which an AWLC IBM Program runs concurrently during a Reporting Period. The number of MSUs is based on a four-hour rolling average utilization.

Product Utilization Capacity - The highest number of MSUs utilized concurrently by all copies of an IBM Program running on the same Eligible Machine during a Reporting Period. The number of MSUs is based on a four-hour rolling average program utilization.

PSLC - Parallel Sysplex License Charges are available for selected IBM Programs that are used on an Eligible Machine and are running under an Eligible Operating System. See Appendix L or later version of IBM's Commercial Exhibit – Parallel Sysplex License Charges (Z125-5204-04 or later) for applicable terms.

Reporting Period - The period that begins on the second day of a month and ends on the first day of the following month.

Sub-Capacity Pricing – Charges for AWLC IBM Programs based on less than Full Capacity MSUs.

SCRT – The latest version of the IBM Sub-Capacity Reporting Tool made available by IBM. The SCRT analyzes System Management Facilities ("SMF") data, SCRT89 data, and other data and calculates the Product LPAR Utilization Capacity for AWLC IBM Programs.

Sub-Capacity Report - A report generated by the SCRT to enable IBM to calculate Sub-Capacity Pricing for AWLC Programs. The Government is required to submit the report to IBM only if Sub-Capacity Pricing is in effect.

VWLC - Variable Workload License Charges are available for selected IBM Programs. VWLC charges allow for Sub-Capacity Pricing. See the terms within this Chapter 5 titled, "IBM System z Workload License Charges".

2. Charges

a.   The Government has a choice of selecting either, if available, but not both, AWLC or PSLC for all IBM Programs within an Operating System Family on an Eligible Machine. But:

  1.   if the Government selects AWLC for z/OS on an Eligible Machine, Flat Workload License Charges ("FWLC") apply to all IBM Programs that are announced with FWLC charges:

    (a) FWLC charges are fixed monthly charges.

    (b)   FWLC charges are not available on an Eligible Machine unless selects AWLC or VWLC for z/OS on that Eligible Machine;

  2.   once the Government selects AWLC, the Government may not switch back to PSLC without prior IBM approval, which IBM may grant in its sole discretion;

  3.   AWLC Programs may not be aggregated for pricing purposes with either PSLC Programs or VWLC Programs; and

  4.   IBM Programs with charge types specified below, however, may be licensed to the same Eligible Machine as IBM Programs with AWLC charges:

(a)   System z New Application License Charges ("zNALC"), which are described in the terms within this Chapter titled "zNALC License Charges on IBM System z."

(b)   New Application License Charges ("NALC"), which are described in the terms within this Chapter titled "System z New Application License Charge ."

(c) Select Application License Charges ("SALC"), which are described in the terms within this Chapter titled "Select Application License Charges for IBM System z Usage Pricing Charges ."

(d)   Midrange Workload License Charges ("MWLC"), which are described in the terms within this Chapter titled "IBM System z Midrange Workload License Charges".

b.   When AWLC charges apply to IBM Programs:

1.   monthly charges are based on the number of MSUs reported for the IBM Program on the Sub-Capacity Report for the specified Eligible Machine during a Reporting Period. This value corresponds to the Product LPAR Utilization Capacity. If Sub-Capacity Pricing is not in effect, or the Government does not comply with the terms of this Attachment, monthly charges are based on Full Capacity MSUs.

NOTE: Information on IBM's billing process, including how to determine the applicable Reporting Period for a particular month's charges, can be found on the Sub-Capacity Corner Web site at http://ibm.com/systems/z/swprice/subcap/terms.html;

2.   Eligible Operating System licenses are charged at Full Capacity MSUs until IBM has processed the initial Sub-Capacity Report for that Eligible Operating System on that Eligible Machine, thereby initiating Sub-Capacity Pricing for that Operating System Family;

3.   the initial monthly charge for a non-operating system license is based upon the applicable MSUs for the Eligible Operating System for that Operating System Family;

4.   once Sub-Capacity Pricing has begun for an Eligible Operating System on an Eligible Machine, if an AWLC IBM Program does not appear in a Sub-Capacity Report subsequent to its initial monthly charge, it will be charged at the minimum AWLC MSUs;

NOTE: IBM specifies minimum AWLC MSUs in its programming announcements;

5.   if the Government elects to have Sub-Capacity Pricing for an AWLC IBM Program on an Eligible Machine, then the Government must have Sub-Capacity Pricing for all AWLC IBM Programs in that Operating System Family on that Eligible Machine;

6.   AWLC Program features have the same MSUs as the Program;

7.   increases in any AWLC charges that are due to changes the Government makes in the MSU capacity of any Eligible Machine to which the AWLC IBM Program is licensed will be in effect for a minimum period of one month;

8.   if an OS/390 or MVS operating system is licensed to the same Eligible Machine, then charges for the z/OS Operating System Family are based on Full Capacity MSUs; and

9.	when z/TPF is licensed to an Eligible Machine, the SCRT calculates the number of MSUs for z/TPF IBM Programs running on it. See Appendix P or the current Amendment for Calculation of z/TPF MSUs for further details (Z125-7283).

c.	When aggregated AWLC charges apply to IBM Programs, aggregated charges:

1.	are available only for IBM Programs used on an Eligible Machine in an actively coupled Parallel Sysplex. To be actively coupled, the following criteria must be met:

(a)	All Eligible Machines in the Parallel Sysplex must be physically attached via coupling links to a common Coupling Facility. In addition, the Government must provide time synchronization using either timer links to a common Sysplex Timer or coupling links transporting Server Time Protocol ("STP") timing information in an STP Coordinated Timing Network("CTN").

If a Coupling Facility is divided into LPARs, all Eligible Machines must be attached to the same Coupling Facility LPAR.

(b) All Eligible Operating System images that comprise the Parallel Sysplex environment must have at least one common Systems Enablement Function, specified in the Exhibit, activated to use the Coupling Facility across all images in the Parallel Sysplex.

(c) The configuration and operating modes described in this Attachment must be the normal mode of operations for this environment.

(d)	An Eligible Machine can only be in one Parallel Sysplex for pricing purposes. The Eligible Operating System images participating in the Systems Enablement Function(s) must account for at least 50 percent of the total Eligible Operating System workload on each Eligible Machine. In the event there are two LPARs, each 50 percent of the total Eligible Operating System workload, connected to two Parallel Sysplexes, The Government may select which Parallel Sysplex the Eligible Machine will be included in for billing.

2. require the Government to provide IBM with a completed IBM Sysplex Verification Package upon the occurrence of any of the following: 1) the Government implements an actively coupled Parallel Sysplex, 2) a change is made to any Eligible Machine, e.g., model upgrades or model downgrade in the Parallel Sysplex, 3) IBM requests a package for any year during which the Government has received aggregated AWLC pricing, and 4) at least once in every 12 month period.

NOTE: The IBM Sysplex Verification Package can be found at http://ibm.com/systems/z/swprice/sysplex/verify.html

Information regarding the technical aspects of Parallel Sysplex aggregation and detailed information on tools, processes and procedures may be found at the Sysplex Aggregation Web site at http://ibm.com/systems/z/swprice/sysplex.

3. are based on the sum of the MSUs on the Sub-Capacity Reports that the Government submits to IBM for each copy of an IBM Program installed on qualifying Eligible Machines in a Parallel Sysplex;

4. are based on Full Capacity MSUs if Sub-Capacity Pricing is not in effect; and

5. require two or more Eligible Machines actively coupled using the applicable coupling links and Coupling Facility specified in the Exhibit.

d. IBM may offer pricing enhancements to AWLC Sub-Capacity Pricing. Unless IBM advises otherwise, such enhancements, including function and charges applicable to such enhancements, will be subject to additional terms specified in an addendum to this Attachment ("Addendum") to which the Government must agree to be eligible to receive such enhancements. IBM's provision of Sub-Capacity Pricing enhancements is conditioned upon the Government's agreement to and compliance with the applicable Addenda and this Attachment.

e. Transition Charges for Sysplexes:

1. Transition Charges for Sysplexes provide for a reduction in monthly VWLC charges for Programs that qualify for aggregated VWLC charges per the terms in this Chapter titled "System z Workload License Charges".

2. Transition Charges for Sysplexes apply when at least one Machine but not all Machines in an actively coupled Parallel Sysplex is an AWLC Eligible Machine. Transition charging terminates when all Machines in the Parallel Sysplex are Eligible Machines.

3. The reduction in monthly VWLC charges is based on the percentage of the total Full Capacity MSUs of all Machines in an actively coupled Parallel Sysplex that are associated with a Machine eligible for AWLC charges. (See table below). The result of the calculation will be rounded to the nearest whole percent. Fractions of a percent of 0.5 or more are rounded up and fractions of a percent less than 0.5 are rounded down. This calculation excludes capacity related to specialty engines, unassigned capacity, and temporary capacity such as, but not limited to, "Capacity Back Up", "Capacity for Planned Events", and "On/Off CoD".

Percentage of AWLC Eligible Full Capacity MSUs in an Actively Coupled Parallel Sysplex	Reduction in Monthly VWLC
> 0 - 20%	0.5%
21 - 40%	1.5%
41 - 60%	3.0%

| 61 - 80% | 4.0% |
| 81 - < 100% | 4.5% |

3. IBM's Responsibilities

IBM will:

a. Specify in Appendix Q, or a later version of IBM's Commercial Exhibit (Z125-8538) a) the Eligible Machines and their Full Capacity MSUs, b) the applicable Coupling Facilities, c) Eligible Operating Systems, d) Systems Enablement Functions, and e) the date and the process for transmitting Sub-Capacity Reports to IBM;

b. provide the SCRT;

c. review and validate the Government supplied alternate values indicated in the Sub-Capacity Reports. If appropriate, in IBM's sole discretion, make adjustments to AWLC charges; and

d. register Eligible Machines when the Government submits the initial Sub-Capacity Reports.

4. Government's Responsibilities under Sub-Capacity Pricing

Sub-Capacity Pricing is conditioned upon utilization of capacity approved by IBM and accurate capacity utilization measurement data generated by the operating system and processed by SCRT.

The Government agrees to:

a. promptly install any code required by IBM for IBM Programs or IBM System z Machine Code required by IBM to accurately calculate Sub-Capacity Pricing;

b. not alter, modify, omit, or delete, by any means, directly or indirectly, the:

    1. SMF or SCRT89 records;

    2. SCRT, except for changes provided by IBM; or

    3. Sub-Capacity Reports that the Government submits to IBM, except for those SCRT report fields where the Government comments are expressly required or permitted. Instructions for completion of the required and optional the Government comment fields can be found in the most current version of the SCRT Users Guide (SG24-6522).

c. not enable or use any SCRT control statement except as expressly authorized by IBM in the SCRT User Guide or an Addendum;

d. collect and retain for a period of not less than six months the SMF and SCRT89 data records that are required by SCRT for each Reporting Period from all LPARs on the Eligible Machine. For IBM AWLC Programs that are not reported on SMF 89 records or on SCRT89 records, the Government must use NO89 control statements to identify the LPAR(s) or Guest (LPARs) in which the AWLC Programs ran during any part of the Reporting Period;

e.   run the most current version of the SCRT against the collected SMF and SCRT89 data to produce a Sub-Capacity Report from all Eligible Operating System LPARs on the Eligible Machine for which the AWLC Program is licensed. If there have been special circumstances during the Reporting Period, the Government may, in accordance with the then current SCRT Users Guide (SG24-6522), do either of the following: 1) provide alternate values for an AWLC IBM Program that is not reported on SMF 89 or SCRT89 records or 2) use the "Exclude" control statement and provide an explanation of the variance.

f. send to IBM within the time specified in the Exhibit:

1. the initial Sub-Capacity Report that is based on the data for the entire initial Reporting Period for each Eligible Machine that the Government wishes IBM to register for Sub-Capacity Pricing; and

2. subsequent Sub-Capacity Reports that are based on the data for each entire Reporting Period thereafter for each registered Eligible Machine.

Sub-Capacity Reports may not be used to discontinue licenses, report Eligible Machine model downgrades, or to disable IBM Program features.

Both IBM and Customer agree that Sub-Capacity Reports that reflect a change to Product LPAR Utilization Capacity or to the inventory of IBM Programs on an Eligible Machine (e.g. new Program, or change in Designated Machine previously identified to IBM) will be considered to be orders placed by Customer without further action on Customer's part, and Customer authorizes IBM to make any resulting billing increase or decrease. Sub-Capacity Reports not submitted by the "not later than" date specified in the Exhibit will result in IBM Programs being charged on a Full Capacity MSU basis for the Reporting Period.

The Government is responsible for monitoring funding allocated on their current Order or Contract and issuing modifications whenever the result of increases and/or decreases in charges exceed such allocated funding. A modification may also be required for line items changes, if required by the order agency. The Government is responsible for paying invoices for all monthly charges.

g. configure the Government's Eligible Machine to send Transmit System Availability Data ("TSAD") weekly to IBM via the Remote Support Facility ("RSF"). This enables IBM to verify that the Product LPAR Utilization Capacity MSUs in the Sub-Capacity Reports the Government submits to IBM are consistent with the Government's actual Eligible Machine configuration. An alternate means for the Government to collect and transmit this data is provided in the SCRT Users Guide (SG24-6522). Failure to submit TSAD may result in IBM Programs being charged on a Full Capacity MSU basis;

h. assign a person in the Government's organization with authority to discuss with IBM and promptly resolve any questions about 1) Sub-Capacity Reports, 2) inconsistencies between the Sub-Capacity Reports and current license entitlement, and 3) configuration data reported via the RSF;

i. contact IBM if the Government elects to convert from AWLC Sub-Capacity Pricing to AWLC at Full Capacity MSUs;

j. not register, directly or indirectly, IBM Programs with the z/OS IFAUSAGE service, except as directed by the documentation for the IBM Program;

k. not register, directly or indirectly, Non-IBM Programs with the z/OS IFAUSAGE service as an IBM Program with an IBM product identifier; and

l. not cause, directly or indirectly, Product Utilization Capacity to be attributed to another program, either an IBM Program or a Non-IBM Program, when the Product Utilization Capacity is unrelated to that program, except in the case of incidental Product Utilization Capacity associated with diagnosing, monitoring or measuring a program.

5. Compliance Verification

Terms are as outlined in the section titled "Compliance Verification" elsewhere in this Chapter.

Both of us agree that the complete agreement between us concerning IBM System z Advanced Workload License Charges consists of this Attachment, applicable Transaction Documents and the terms of this Chapter and replaces any prior oral or written communications between us. In entering into this Attachment, neither party is relying on any representation that is not specified in this Attachment (or the documents specified in the preceding sentence), including without limitation any representations concerning: 1) performance or function of any Product or system, other than as documented in its Specifications; 2) the experiences or recommendations of other parties; or 3) results or savings Customer may achieve.

5.7.2 ATTACHMENT IBM SYSTEM Z ADVANCED ENTRY WORKLOAD LICENSE CHARGES (AEWLC)

The terms of this Attachment for IBM System z Advanced Entry Workload License Charges ("Attachment") are in addition to those of Chapter 1 and Chapter 5 of this GSA Schedule. Any ICA Programs subject to the terms of this Attachment that require z/Architecture (64-bit) hardware in order to execute properly may be licensed only to a Designated Machine that properly implements z/Architecture.

1. Definitions

AEWLC - Advanced Entry Workload License Charges available for selected ICA Programs that are used on an Eligible Machine and are running under an Eligible Operating System. AEWLC charges allow for either Full Capacity or Sub-Capacity Pricing.

Eligible Machine - A Machine to which an Eligible Operating System is licensed. Eligible Machines, including their Full Capacity MSUs, are specified in the Mainframe Exhibits section of the System z Software Contracts Web site. (See Machines with "AEWLC" in the Group column.)

Eligible Operating System - An operating system that runs in z/Architecture (64-bit) mode on an Eligible Machine and is specified in the Eligible Operating Systems section of the System z Software Contracts Web site (http://ibm.com/systems/z/swprice/reference/exhibits/opsys.html).

Full Capacity MSUs - The total capacity of a Machine as specified in the Mainframe Exhibits section of the System z Software Contracts Web site.

Full Capacity Pricing – Charges for AEWLC ICA Programs based on Full Capacity MSUs.

Guest (LPAR) - an LPAR with an Eligible Operating System running under z/VM.

Mainframe Exhibits section of the System z Software Contracts Web site - http://ibm.com/systems/z/swprice/reference/exhibits/hardware.html

MSUs - Millions of Service Units per hour; the measure of workload capacity of an Eligible Machine.

Native (LPAR) - an LPAR with an Eligible Operating System not running under z/VM.

Operating System Family - An IBM operating system and the IBM middleware that runs under it. The applicable IBM operating systems are specified in the Eligible Operating Systems section of the System z Software Contracts Web site.

Product LPAR Utilization Capacity - The highest number of MSUs utilized by the combined logical partitions ("LPARs") in which an AEWLC ICA Program runs concurrently during a Reporting Period. The number of MSUs is based on a four-hour rolling average utilization.

Product Utilization Capacity - The highest number of MSUs utilized concurrently by all copies of an IBM Program running on the same Eligible Machine during a Reporting Period. The number of MSUs is based on four-hour rolling average program utilization.

Reporting Period - The period that begins on the second day of a month and ends on the first day of the following month.

Sub-Capacity Pricing – Charges for AEWLC ICA Programs based on less than Full Capacity MSUs.

SCRT – The latest version of the IBM Sub-Capacity Reporting Tool made available by IBM. The SCRT analyzes System Management Facilities ("SMF") data, SCRT89 data, and other data and calculates the Product LPAR Utilization Capacity for AEWLC ICA Programs.

Sub-Capacity Report - A report generated by the SCRT to enable IBM to calculate Sub-Capacity Pricing for AEWLC ICA Programs. Customer is required to submit the report to IBM only if Sub-Capacity Pricing is in effect.

2. Charges

a. If Customer selects AEWLC charges for an Eligible Operating System on an Eligible Machine, then all ICA Programs in that Operating System Family for which AEWLC charges are available must have AEWLC charges.

Exceptions:

ICA Programs with charge types that are specified below may be licensed to the same Eligible Machine as ICA Programs with AEWLC charges:

1. System z New Application License Charges ("zNALC"), which are described in section 5.16.9, the Attachment for zNALC License Charges on IBM System z (Z125-7454-04 or later).

2. Select Application License Charges ("SALC"), which are described in section 5.16.14,the Select Application License Charges Amendment to Attachment for IBM System z Usage Pricing Charges (Z125-7284-02 or later).

3. ICA Programs for which Customer has paid Graduated One-Time Charges ("GOTC") may be moved to an Eligible Machine.

(a) Upgrade charges will apply if the Eligible Machine "Default Model Group" specified in the Mainframe Exhibits section of the System z Software Contracts Web site is higher than the current GOTC entitlement. Refunds do not apply if the Eligible Machine Default Model Group is lower.

(b) Contact IBM for special pricing if the GOTC license is being moved to an Eligible Machine whose applicable default charge is based on MSUs rather than a specific Default Model Group.

b. AEWLC charges are based on Full Capacity or Sub-Capacity Pricing.

Increases in any AEWLC charges that are due to changes Customer makes in the MSU capacity of any Eligible Machine to which the AEWLC ICA Program is licensed will be in effect for a minimum period of one month;

c. When AEWLC charges apply to ICA Programs with Sub-Capacity Pricing:

1. monthly charges are based on the number of MSUs reported for the ICA Program on the Sub-Capacity Report for the specified Eligible Machine during a Reporting Period. This value corresponds to the Product LPAR Utilization Capacity. If Customer does not comply with the terms of this Attachment, monthly charges are based on Full Capacity MSUs.

NOTE: Information on IBM's billing process, including how to determine the applicable Reporting Period for a particular month's charges, can be found on the Sub-Capacity Corner Web site at http://ibm.com/systems/z/swprice/subcap/terms.html ;

2. Eligible Operating System licenses are charged at Full Capacity MSUs until IBM has processed the initial Sub-Capacity Report for that Eligible Operating System on that Eligible Machine, thereby initiating Sub-Capacity Pricing for that Operating System Family;

3. the initial monthly charge for an ICA Program (other than the Eligible Operating System) eligible for AEWLC charges is based upon the applicable MSUs for the Eligible Operating System for that Operating System Family;

4. once Sub-Capacity Pricing has begun for an Eligible Operating System on an Eligible Machine, if an AEWLC ICA Program does not appear in a Sub-Capacity Report subsequent to its initial monthly charge, it will be charged at the minimum AEWLC MSUs;

NOTE: IBM specifies minimum AEWLC MSUs in its programming announcements;

5. if Customer elects to have Sub-Capacity Pricing for an AEWLC ICA Program on an Eligible Machine, then Customer must have Sub-Capacity Pricing for all AEWLC ICA Programs in that Operating System Family on that Eligible Machine;

6. AEWLC ICA Program features have the same MSUs as the AEWLC ICA Program;

7. if an OS/390 or MVS operating system is licensed to the same Eligible Machine, then charges for the z/OS Operating System Family are based on Full Capacity MSUs;

8. when z/TPF is licensed to an Eligible Machine, the SCRT calculates the number of MSUs for z/TPF IBM Programs running on it. See the Amendment for Calculation of z/TPF MSUs (Z125-7283) for further details; and

9. if a z/VSE Version 3 or prior operating system is licensed to an Eligible machine, then charges for the z/VSE Operating System Family are based on Full Capacity MSUs.

d. IBM may offer pricing enhancements to AEWLC Sub-Capacity Pricing. Unless IBM advises otherwise, such enhancements, including function and charges applicable to such enhancements, will be subject to additional terms specified in an addendum to this Attachment ("Addendum") to which Customer must agree to be eligible to receive such enhancements. IBM's provision of Sub-Capacity Pricing enhancements is conditioned upon Customer's agreement to and compliance with the applicable Addenda and this Attachment.

e. If AEWLC Charges are not available for an ICA Program, or if Customer does not select AEWLC charges for an Eligible Operating System, then Tiered Workload License Charges ("TWLC") apply to all ICA Programs in that Operating System Family for which TWLC charges are available:

1. TWLC charges are a tiered price structure and based on the Eligible Machine model. Sub-Capacity Pricing is not available.

2. TWLC charges are available for selected ICA Programs used on non-aggregated Eligible Machines identified in the "Group" column by "TWLC" followed by the TWLC tier in the Mainframe Exhibits section of the System z Software Contracts Web site.

3. Default charges apply when TWLC charges are not available for an ICA Program and the ICA Program's charges are based on machine capacity.. Default charges are specified in the Mainframe Exhibits section of the System z Software Contracts Web site for each applicable Eligible Machine in the column called "Other."

4. Increases in any TWLC or default charges for ICA Programs, due to changes in the tier placement for any Eligible Machine to which the ICA Programs are licensed, will be in effect for a minimum period of one month;

f. Aggregated charges do not apply to AEWLC but–

1. Aggregated Parallel Sysplex License Charges ("PSLC") may apply if the Eligible Machine is coupled in a Parallel Sysplex that has aggregated PSLC charges.

2. Aggregated Advanced Workload License Charges ("AWLC") may apply if the Eligible Machine is coupled in a Parallel Sysplex that has aggregated AWLC charges.

3. Aggregated Workload License Charges ("WLC") may apply if the Eligible Machine is coupled in a Parallel Sysplex that has aggregated WLC charges under AWLC Transition Charges for Sysplexes terms.

Prerequisite Attachments, Supplements, and Exhibits for Aggregated Charges

For PSLC: see section 5.16.7,Attachment for Parallel Sysplex License Charges (Z125-5205); and Exhibit - Parallel Sysplex License Charges (Z125-5206).

For AWLC: see section 5.16.1,Attachment for IBM System z Advanced Workload License Charges (Z125-8538); and IBM System z Advanced Workload License Charges Exhibit (Z125-8539).

For WLC: see section 5.16.12,Attachment for IBM System z Workload License Charges (Z125-6516); and IBM System z Advanced Workload License Charges Exhibit (Z125-6324).

3. IBM's Responsibilities

IBM will:

a. provide the SCRT;

b. review and validate Customer supplied alternate values indicated in the Sub-Capacity Reports, and if appropriate, at its sole discretion make adjustments to AEWLC charges; and

c. register Eligible Machines when Customer submits the initial Sub-Capacity Reports.

4. Customer's Responsibilities under Sub-Capacity Pricing

Sub-Capacity Pricing is conditioned upon utilization of capacity approved by IBM and accurate capacity utilization measurement data generated by the operating system and processed by SCRT.

Customer agrees to:

a. promptly install any code required by IBM for ICA Programs or IBM System z Machine Code required by IBM to accurately calculate Sub-Capacity Pricing;

b. not alter, modify, omit, or delete, by any means, directly or indirectly, the:

1. SMF or SCRT89 records;

2. SCRT, except for changes provided by IBM; or

3. Sub-Capacity Reports that Customer submits to IBM, except for those SCRT report fields where Customer comments are expressly required or permitted. Instructions for completion

of the required and optional Customer comment fields can be found in the most current version of the SCRT Users Guide (SG24-6522).

c. not enable or use any SCRT control statement except as expressly authorized by IBM in the SCRT User Guide or an Addendum signed by Customer;

d. collect and retain for a period of not less than six months the SMF and SCRT89 data records that are required by SCRT for each Reporting Period from all LPARs on the Eligible Machine. For ICA AEWLC Programs that are not reported on SMF 89 records or on SCRT89 records, Customer must use NO89 control statements to identify the LPAR(s) or Guest (LPARs) in which the AEWLC Programs ran during any part of the Reporting Period;

e. run the most current version of the SCRT against the collected SMF and SCRT89 data to produce a Sub-Capacity Report from all Eligible Operating System LPARs on the Eligible Machine for which the AEWLC Program is licensed. If there have been special circumstances during the Reporting Period, Customer may, in accordance with the then current SCRT Users Guide (SG24-6522), do either of the following: 1) provide alternate values for an AEWLC ICA Program that is not reported on SMF 89 or SCRT89 records or 2) use the "Exclude" control statement and provide an explanation of the variance.

f. send to IBM, not earlier than the second, but not later than the ninth, calendar day of the month:

1. the initial Sub-Capacity Report that is based on the data for the entire initial Reporting Period for each Eligible Machine that Customer wishes IBM to register for Sub-Capacity Pricing; and

2. subsequent Sub-Capacity Reports that are based on the data for each entire Reporting Period thereafter for each registered Eligible Machine.

Sub-Capacity Reports may not be used to discontinue licenses, report Eligible Machine model downgrades, or to disable ICA Program features.

Both IBM and Customer agree that Sub-Capacity Reports that reflect a change to Product LPAR Utilization Capacity or to the inventory of ICA Programs on an Eligible Machine (e.g. new ICA Program, or change in Designated Machine previously identified to IBM) will be considered to be orders placed by Customer without further action on Customer's part, and Customer authorizes IBM to make any resulting billing increase or decrease. Sub-Capacity Reports not submitted by the ninth calendar day of the month will result in ICA Programs being charged on a Full Capacity MSU basis for the Reporting Period;

g. configure Customer's Eligible Machine to send Transmit System Availability Data ("TSAD") weekly to IBM via the Remote Support Facility ("RSF"). This enables IBM to verify that the Product LPAR Utilization Capacity MSUs in the Sub-Capacity Reports Customer submits to IBM are consistent with Customer's actual Eligible Machine configuration. An alternate means for Customer to collect and transmit this data is provided in the SCRT Users Guide (SG24-

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6522). Failure to submit TSAD may result in ICA Programs being charged on a Full Capacity MSU basis;

h. assign a person in Customer's organization with authority to discuss with IBM and promptly resolve any questions about 1) Sub-Capacity Reports, 2) inconsistencies between the Sub-Capacity Reports and current license entitlement, and 3) configuration data reported via the RSF;

i. contact IBM if Customer elects to convert from AEWLC Sub-Capacity Pricing to AEWLC at Full Capacity MSUs;

j. not register, directly or indirectly, ICA Programs with the z/OS IFAUSAGE service, except as directed by the documentation for the ICA Program;

k. not register, directly or indirectly, Non-IBM Programs with the z/OS IFAUSAGE service as an ICA Program with an IBM product identifier; and

l. not cause, directly or indirectly, Product Utilization Capacity to be attributed to another program, either an ICA Program or a Non-IBM Program, when the Product Utilization Capacity is unrelated to that program, except in the case of incidental Product Utilization Capacity associated with diagnosing, monitoring, or measuring a program.

5. Compliance Verification

For purposes of this section, "ICA Program Terms" means terms applicable to ICA Programs herein and applicable Transaction Documents and Attachments (including this one).

IBM's compliance terms are as stated elsewhere in this Chapter.

This Attachment the terms of this Chapter 5 and Chapter 1, including applicable Attachments and Transaction Documents, is the complete agreement regarding IBM System z Advanced Entry Workload License Charges and replaces all prior oral or written communications, representations, undertakings, warranties, promises, covenants, and commitments between Government and IBM regarding IBM System z Advanced Entry Workload License Charges. In entering into this Attachment, including any applicable Transaction Document, neither party is relying on any representation that is not specified in this GSA Schedule terms, Attachment, the Transaction Document. Additional or different terms regarding this offering identified in a Government Delivery Order, unless provided in an IBM proposal or quote, are void.

5.7.3   COUNTRY MULTIPLEX PRICING (CMP)

5.7.3.1 IBM ATTACHMENT FOR IBM COUNTRY MULTIPLEX PRICING

The terms of this Attachment for IBM Country Multiplex Pricing (**Attachment**) are in addition to those of Chapter 5, ICA terms and govern Client's entitlement to the special Program pricing specified in this Attachment (**Country Multiplex Pricing or CMP**). Client accepts the terms of this Attachment by issuing to IBM an order or contract document which incorporates this Attachment. Any Programs subject to the terms of this Attachment that require z/Architecture

(64-bit) hardware in order to execute properly may be licensed only to a Designated Machine that properly implements z/Architecture.

DEFINITIONS

CBU Machine – an IBM z Systems Machine that has any configured feature that includes "CBU" in such feature's description.

Country Multiplex License Charges (CMLC) – CMP charges applicable to selected IBM Programs which Client executes on an Eligible Machine under an Eligible Operating System.

Currently Eligible Machine – a Machine specified in the Mainframe Exhibits Section of the System z Software Contracts Web Site with "C" designation in the "CMP" column.

Eligible Machine – subject to the exclusions specified in Section 2.3 below, a Currently Eligible Machine or qualifying Previously Eligible Machine (as specified in Section 2.2 below) for which Client (i) either licenses, uses or has installed an Eligible Operating System, including a Qualifying DR Machine, and (ii) is the licensee of all Programs.

Eligible Operating System – an operating system that is specified in the CMLC subsection of the Eligible Operating Systems of the System z Software Contracts Web Site.

Eligible Operating Systems Section of the System z Software Contracts Web Site – http://ibm.com/systems/z/swprice/reference/exhibits/opsys.html.

Enterprise US Government Agency for which IBM products and/or services are being acquired and exclusively for the use of that Agency .

Full Capacity MSUs - the total MSU capacity of a Machine as specified in the Mainframe Exhibits Section of the System z Software Contracts Web Site.

Guest (LPAR) – an instance of an Eligible Operating System when running under the z/VM operating system.

Mainframe Exhibits Section of the System z Software Contracts Web Site - http://ibm.com/systems/z/swprice/reference/exhibits/hardware.html

Millions of Service Units (MSUs) - the measure of workload capacity of an Eligible Machine.

MLC – monthly license charge.

MLC Base – the MLC value established by IBM for each sub-capacity-eligible Program in the Multiplex at the onset of CMP and specified in a Supplement.

MLC Base Factor – a factor value established by IBM for each sub-capacity-eligible Program in the Multiplex at the time of Multiplex creation and specified in a Supplement.

MSU Base – the MSU figure established by IBM for each sub-capacity-eligible Program in the Multiplex at the onset of CMP and specified in a Supplement.

Multiplex – all of Client's Eligible Machines within a single country. Qualifying Multiplex terms are specified in Section 2.1 below.

Multiplex Report - a report generated by SCRT to enable IBM to calculate Sub-Capacity Pricing for Programs in a Multiplex.

Operating System Family - an Eligible Operating System and the other IBM Programs that run under it.

Previously Eligible Machine – a Machine specified in the Mainframe Exhibits Section of the System z Software Contracts Web Site with "P" designation in the "CMP" column, provided such Machine was a Currently Eligible Machine when originally installed in Client's Multiplex.

Product LPAR Utilization Capacity - the highest quantity of MSUs utilized by the combined logical partitions (LPARs) in which an IBM Program runs concurrently during a Reporting Period. Such quantity of MSUs is based on a four-hour rolling average utilization.

Product Utilization Capacity - the highest quantity of MSUs utilized concurrently by all copies of an IBM Program running on the same Eligible Machine during a Reporting Period. Such quantity of MSUs is based on a four-hour rolling average utilization.

Program Family – all of the sub-capacity-eligible versions of a Program. The versions included in each Program Family are specified in the Sub-Capacity Eligible Programs Section of the System z Software Contracts Web Site.

Qualifying DR Machine – a z Systems Machine that Client uses, or will use, for disaster recovery purposes. A Qualifying DR Machine may be a CBU Machine or may be another z Systems Machine which only runs an Eligible Operating System as result of a disaster-type event or testing for a disaster-type event.

Reporting Period - the period that begins on the second calendar day of a calendar month and ends on the first calendar day of the following calendar month.

Sub-Capacity Eligible Programs Section of the System z Software Contracts Web Site – http://ibm.com/systems/z/swprice/reference/exhibits/mlc.html.

Sub-Capacity Pricing – charges for IBM Programs based on less than Full Capacity MSUs.

SCRT – the latest version of the IBM Sub-Capacity Reporting Tool made available by IBM. SCRT analyzes IBM System Management Facilities (**SMF**), SCRT89, and other data, and calculates the Product LPAR Utilization Capacity for IBM Programs.

Supplement – an IBM Supplement for Country Multiplex Pricing in effect between Client and IBM.

Requirements, Restrictions, and Exclusions for Country Multiplex Pricing:

QUALIFICATION FOR CMP OFFERING

To initially qualify for CMP in a country, each of the following must be a Currently Eligible Machine: (i) Client's installed z Systems Machine(s) in the country running an Eligible Operating System license, (ii) Client's installed CBU Machine(s), (iii) any other z Systems Machine(s) to which Client licenses an Eligible Operating System. Once initially qualified for CMP in a country, in order to remain qualified in the country, each of the following must be either a Currently Eligible Machine or qualifying (as specified in Section 2.2 below) Previously Eligible Machine: (i) Client's installed z Systems Machine(s) in the country running an Eligible Operating System license, (ii) Client's installed CBU Machine(s), (iii) any other z Systems Machine(s) to which Client licenses an Eligible Operating System.

In addition, if Client licenses an Eligible Operating System to a z Systems Machine(s) for purpose of hosting another End User Agency's applications or other software workload, the terms "Currently Eligible Machine" and "Previously Eligible Machine", only apply to the z Systems Machines dedicated to a single End User Agency. If Client implements CMP on behalf of multiple End User Agencies , Client must have one Multiplex per dedicated End User Agency environment . Under no circumstance can a Machine running applications or other software workload for multiple End User Agencies be included in any Multiplex.

1.2 Qualification for Previously Eligible Machines

To qualify for CMP and inclusion in Client's Multiplex, a Previously Eligible Machine must either:

a.   have been installed in Client's Enterprise prior to the date specified in the "CMP" column of the Mainframe Exhibits Section of the System z Software Contracts Web Site; or

b.   be upgraded to a Currently Eligible Machine within six months of its Date of Installation in Client's Enterprise.

1.3 Exclusions from CMP Offering Eligibility

The following workloads do not qualify for CMP:

a.   all workload executing on a Machine that is not designated by IBM as a Currently Eligible Machine when such Machine is acquired by Client unless and until such Machine is upgraded to be a Currently Eligible Machine;

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b.	all workload executing on a Machine qualifying for a "Developer Discount" (as such term is defined in a separate agreement between Client and IBM);

c.	all "Solution Edition Offering Workload" executing on a "Solution Edition Offering Machine" (as such terms are defined in a separate agreement between Client and IBM); and

d.	all workload executing on a Machine that is not running an Eligible Operating System.

1.4 Cancellation of CMP Terms

Client may cancel CMP and terminate this Attachment for any reason by sending written notice to IBM. Following such cancellation Client may not resume CMP for at least 12 months.

## 2.	Charges

2.1 CMLC Eligible Programs

Subject to the exclusions specified in Section 2.3 above and other terms of this Attachment, CMLC will apply to the following IBM Programs executing in a Multiplex:

a.	IBM Programs qualifying for Sub-Capacity Pricing within an Operating System Family;

b.	When CMLC charges apply to an IBM Program, the following terms apply:

1.	MLC is based on the quantity of MSUs reported for the IBM Program on the Multiplex Report across the Multiplex during a Reporting Period. This value corresponds to the Product LPAR Utilization Capacity. If Client does not submit a Multiplex Report, MLC for the Multiplex are based on Full Capacity MSUs. If Client submits a Multiplex Report which omits an Eligible Machine (other than an Eligible Machine that only ran workload during the Reporting Period which IBM allows to be excluded from Multiplex Reporting, as specified in Section 6.c below), MLC for the Multiplex allocated for such omitted Eligible Machine is based on Full Capacity MSUs.

NOTE: Information on IBM's billing process, including how to determine the applicable Reporting Period for a particular month's charges, can be found on the Sub-Capacity Corner Web site at http://ibm.com/systems/z/swprice/subcap/terms.html;

2.	IBM Program features have the same MSUs as the IBM Program for each Eligible Machine where the Program feature is licensed;

3.	When multiple versions of an IBM Program qualifying for Sub-Capacity Pricing are licensed within a Multiplex, SCRT will report concurrent peaks for all Programs in the same Program Family. SCRT will calculate the four-hour

rolling average for the concurrent peak (the "(All)" line in the report) by adding the LPAR values where any version of the Program is running.

There is no time limit to migrate to newer versions of an IBM Program under CMP; "Single Version Charging" (SVC) is not applicable under CMP;

4.   if an OS/390 or MVS operating system is licensed to the same Eligible Machine, then charges for the z/OS Operating System Family on that machine are based on Full Capacity MSUs; and

5.   if the z/TPF operating system is licensed to an Eligible Machine, SCRT calculates the quantity of MSUs for IBM Programs running under z/TPF, in accordance with the separate IBM Amendment for Calculation of z/TPF MSUs (Z125-7283) in effect between Client and IBM.

2.2 Other Workloads and Programs

a.   Charges for IBM Programs qualifying for "System z New Application License Charges" (**zNALC**) (as specified in a separate agreement between Client and IBM) will be calculated in accordance with the IBM Amendment to the Attachment for zNALC License Charges on System z (Z126-6967) in effect between Client and IBM.

b.   Charges for IBM Programs not qualifying for Sub-Capacity Pricing will be calculated according to the announced pricing metric and terms for each such Program. For each such Program installed on an Eligible Machine with a "TWLC Tier" specified in the "Group" column of the Mainframe Exhibits Section of the System z Software Contracts Web Site, the "Tiered Workload License Charge" (**TWLC**) metric (if specified in such Mainframe Exhibits Section) will apply; otherwise the "Flat Workload License Charge" (**FWLC**) metric will apply.

3.   Other Related Terms

a.   If IBM offers a pricing enhancement to CMP, unless IBM advises otherwise, such enhancement, including function and charges applicable to such enhancement, will be subject to additional terms specified in an addendum to this Attachment (**Addendum**). Client must accept such an Addendum to be eligible to receive such enhancements. IBM's provision of CMP enhancements is conditioned upon Client's agreement to and compliance with the applicable Addenda and this Attachment.

b.   **Adding a new Program Family to the Multiplex:** Any new IBM Program qualifying for Sub-Capacity Pricing that is a member of a Program Family not previously licensed to any of the Eligible Machines in the Multiplex will have an MLC Base Factor of zero (0) and an MSU Base of three (3). Once such IBM Program is licensed to the Eligible Machine, CMLC for such Program will be based on the minimum three (3) MSU price until such Program is included in the Multiplex Report.

c. **Removing a Program Family from the Multiplex:** If the last licensed version of an IBM Program in a Program Family is permanently removed from the Multiplex, the MLC Base, MSU Base and MLC Base Factor for such Program will no longer apply upon license discontinuance.

d. **Adding a new IBM Program Version to an Existing Program Family in the Multiplex:** When a new version of an IBM Program within an existing Program Family is first licensed, the MLC Base Factor and MSU Base of the old version will be transferred to the new version, and CMLC will be based on the new version.

e. **Adding an Eligible Machine to the Multiplex:** If Client intends to make copies of existing IBM Programs for a new or replacement Eligible Machine, Client must notify IBM in advance when Client intends to either (i) add an Eligible Machine to the Multiplex (and Client must specify in such notice if the Eligible Machine is a Qualifying DR Machine), or (ii) replace an Eligible Machine in the Multiplex with another Eligible Machine. In such case, no adjustment is made to the MLC Bases or MSU Bases. Client is responsible for IBM Program charges for the additional or replacement Eligible Machine when such Eligible Machine is included in the Multiplex Report.

f. **Removing an Eligible Machine from the Multiplex:** Client must notify IBM in advance if Client intends to de-install an Eligible Machine or otherwise intends to have no IBM Programs licensed to an Eligible Machine. In such case, no adjustment is made to the MLC Bases, MLC Base Factor or MSU Bases. In cases where an Eligible Machine is being replaced by another Eligible Machine, Client is responsible for IBM Program charges for the replaced Eligible Machine until MSUs for the replaced Eligible Machine are not included in the Multiplex Report, even if Client has previously requested IBM Program licenses to be discontinued on such replaced Eligible Machine.

g. **Adding an IBM Program to an Eligible Machine:** When a new copy of an IBM Program within an existing Program Family is licensed to an Eligible Machine, Client becomes responsible for additional charges when such IBM Program copy is included in the Multiplex Report.

h. **Removing an IBM Program from an Eligible Machine:** Client must notify IBM in advance if Client intends to remove an IBM Program licensed to an Eligible Machine. In such case, no adjustment is made to the MLC Bases, MLC Base Factor or MSU Bases. Client is responsible for charges associated with the removed IBM Program until MSUs for such IBM Program are not included in the Multiplex Report.

4. **IBM's Responsibilities**

IBM will:

a. determine and specify in the Supplement the MLC Bases, MLC Base Factors, and MSU Bases for all applicable IBM Programs qualifying for Sub-Capacity Pricing;

b. provide SCRT and make available to Client instructions for its use; and

c. review and validate Client-supplied alternate values indicated when submitting the Multiplex Report, and if appropriate, at its sole discretion, make adjustments to CMP based upon such alternate values.

5. Client's Responsibilities

CMP is conditioned upon (i) Client's utilization of only capacity authorized by IBM for Client's use, and (ii) accurate capacity utilization measurement data generated by operating systems and processed by SCRT.

Client agrees to:

a. promptly install any code required by IBM for IBM Programs or Machine Code required by IBM to accurately calculate CMP pricing;

b. not alter, modify, omit, or delete, by any means, directly or indirectly, the:

  1. SMF or SCRT89 records;

  2. SCRT, except for changes provided by IBM; or

  3. Multiplex Reports that Client submits to IBM, except for those SCRT report fields where Client comments are expressly required or permitted. Instructions for completion of the required and optional Client comment fields are published in the SCRT Users Guide (SG24-6522), which is available from IBM upon request.

c. not enable or use any SCRT control statement except as expressly authorized by IBM in the SCRT User Guide or an Addendum in effect between Client and IBM;

d. collect and retain for a period of not less than six months the SMF and SCRT89 data records that are required by SCRT for each Reporting Period from all LPARs that were used at any time by an Eligible Operating System on all Eligible Machines in the Multiplex during that Reporting Period. Client must supply an explanation when any of the following missing data error conditions are reported:

  1. LPARs have unmatched SMF 70 and SMF 89 records,

  2. Active LPARs have no SMF nor SCRT89 records, or

  3. An Eligible Machine has no SMF or SCRT89 data from any LPAR for an interval;

e.   identify, using SCRT NO89 control statements, the LPAR(s) or Guest (LPARs) in which IBM Programs that are not reported on SMF 89 records or on SCRT89 records ran during any part of the Reporting Period;

f.   identify in writing to IBM each Qualifying DR Machine that is included in the initial Multiplex;

g.   run the most current version of SCRT against the collected SMF and SCRT89 data to produce a single Multiplex Report from all Eligible Operating System LPARs across all Eligible Machines in the Multiplex for which each IBM Program is licensed. If there have been special circumstances during the Reporting Period, Client may, in accordance with the then current SCRT Users Guide (SG24-6522), do either of the following: (i) provide alternate values for an IBM Program that is not reported on SMF 89 or SCRT89 records or (ii) use the "Exclude" control statement and provide an explanation of the variance. Applicable only to each Eligible Machine which is, or includes, a "Solution Edition Offering Machine", Client must exclude "Solution Edition Offering Workload" (as such terms are defined in a separate agreement between Client and IBM) from the Multiplex Report.

h.   send to IBM, not earlier than the second, but not later than the ninth, calendar day of the month:

   1.   the initial Multiplex Report that is based on the data for the entire initial Reporting Period for each Eligible Machine that Client wishes IBM to register for Sub-Capacity Pricing; and

   2.   subsequent Multiplex Reports that are based on the data for each entire Reporting Period thereafter for each registered Eligible Machine.

Both IBM and Client agree that Multiplex Reports that reflect a change to Product LPAR Utilization Capacity or to the inventory of IBM Programs on an Eligible Machine (e.g. new Program, or change in Designated Machine previously identified to IBM) without further action on Client's part, will be considered changes to the contract and may entitle IBM to file a request for additional compensation. Multiplex Reports not submitted by the ninth calendar day of the month will result in IBM Programs being charged on a Full Capacity MSU basis for the Reporting Period;

i.   Multiplex Reports may not be used to discontinue IBM Program licenses, report Eligible Machine model downgrades, identify Qualifying DR Machines, or to disable IBM Program features; Client must notify IBM of such items in separate writings;

j.   configure Client's Eligible Machines to send Transmit System Availability Data (TSAD) weekly to IBM via the Remote Support Facility (RSF). This enables IBM to verify that the Product LPAR Utilization Capacity MSUs in the Multiplex

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Reports Client submits to IBM are consistent with Client's actual Eligible Machine configuration. An alternate means for Client to collect and transmit TSAD is provided in the SCRT Users Guide (SG24-6522). Failure to submit TSAD may result in IBM Programs being charged on a Full Capacity MSU basis;

k. configure Client's Eligible Machines with Global Performance Data Control Authority as documented in the PR/SM Planning Guide for that machine. Failure to configure machines with Global Performance Data Control Authority may result in Programs being charged on a Full Capacity MSU basis;

l. assign a person in Client's organization with authority to discuss with IBM and promptly resolve any questions about (i) Multiplex Reports, (ii) inconsistencies between the Multiplex Reports and current license entitlement, and (iii) configuration data reported via the RSF;

m. not register, directly or indirectly, IBM Programs with the z/OS IFAUSAGE service, except as directed by the documentation for the IBM Program;

n. not register, directly or indirectly, Non-IBM Programs with the z/OS IFAUSAGE service as an IBM Program with an IBM product identifier; and

o. not cause, directly or indirectly, Product Utilization Capacity to be attributed to another program, either an IBM Program or a Non-IBM Program, when the Product Utilization Capacity is unrelated to that program, except in the case of incidental Product Utilization Capacity associated with diagnosing, monitoring, or measuring a program.

6. CMP Terms for One-Time Charge IBM Programs

a. If Client is licensed for one or more one-time charge IBM Programs on an Eligible Machine and purchases (or has purchased) IBM's "Subscription & Support" offering for such IBM Program(s), such Program(s) is not subject to the license term stating "If the Program is replaced by a trade-up Program, the replaced Program's license is promptly terminated." Client is authorized to execute multiple versions of any such IBM Program concurrently within the Multiplex without additional charge provided such aggregate use does not exceed the IBM Program's license entitlement.

b. For IBM Programs designated by IBM as an "IPLA Reference-Based Program" the requirement scope of the billing MSUs will be based upon the Eligible Machines in an "**Establishment**", defined as a single physical site, including the surrounding campus and satellite offices located within 50 kilometers of Client's site address.

7.   Compliance Verification

For purposes of this section, "**IBM Program Terms**" is defined as the terms applicable to IBM Programs in the Agreement and all applicable IBM Program license agreements, applicable transaction documents (**TDs**), and Attachments (including this one).

Upon reasonable notice, IBM may verify Client's compliance with IBM Program Terms at all site(s) and for all environments in which Client uses or installs an IBM Program (whether for testing, productive use or otherwise). Such verification will be conducted during Client's normal business hours and in a manner that minimizes disruption to Client's business. IBM may use an independent auditor to assist with such verification, provided IBM has a written confidentiality agreement in place with such auditor.

As reasonably necessary to verify Client's use and installation of IBM Programs and Client's compliance with the IBM Program Terms, Client agrees to: (i) create, retain, and provide to IBM and its auditors written and other records, system tools outputs, and other electronic or hard copy system information, including information regarding the system configurations on which the IBM Programs operate; and (ii) permit IBM and its auditors to be present and observe while Client accesses machines to provide such records, outputs and other system information.

IBM will notify Client in writing if any such verification indicates that Client is not in compliance with the IBM Program Terms. IBM will invoice the Client for any additional charges and other liabilities. Client's obligation to pay is based on its use and deployment of IBM Programs or its failure to comply with the IBM Program Terms at any time during the period such IBM Programs are licensed to Client.

The rights and obligations in this section remain in effect during the period such IBM Programs are licensed to Client and for two years thereafter. This section applies to all IBM Programs licensed within Client's Enterprise, including any licensed under separate Attachments and Transaction Documents, notwithstanding any contrary audit provisions that may be contained in them.

This Attachment, including its Supplement(s), and the Agreement are the complete agreement regarding IBM's provision of CMP. Additional or different terms in any written communication from Client are void.

5.7.3.2 SUB-CAPACITY FOR ONE-TIME CHARGE PROGRAMS WITH COUNTRY MULTIPLEX PRICING

These terms modify or are in addition to the IBM International Program License Agreement (IPLA) within this GSA Chapter 5.

Subject to the terms of this Amendment for Sub-Capacity for One-Time Charge Programs with Country Multiplex Pricing (Amendment), IBM enables Client to obtain Sub-Capacity Pricing for

certain z Systems Programs with one-time charge pricing (Eligible Programs). Eligible Programs are as generally announced by IBM, and each is specified at http://ibm.com/systems/z/swprice/reference/exhibits/ (click on "IPLA Execution-Based", "IPLA Reference-Based", or "IPLA z/OS-Based"). This Amendment supersedes any sub-capacity terms offered for Eligible Programs in their License Information or other agreements. If there is a conflict between the terms of this Amendment and those of the Agreement or IPLA, those of this Amendment prevail. Client accepts the terms of this Amendment by signing below or by making any payment for Eligible Programs subject to the Amendment.

1.   **Incorporated Terms for Eligible Programs Running in a CMP Environment**

The following sections of the Attachment for IBM Country Multiplex Pricing, Z126-6965 (CMP Attachment within this Chapter 5), apply to the Eligible Programs as if they were Country Multiplex License Charge (CMLC) Programs with Sub-Capacity Pricing, and are incorporated by reference into this Amendment with modifications as indicated:

Section **1** – **Definitions**

2.   **Additional Definitions**

Execution-Based Terms - Execution-Based licensing terms apply to Eligible Programs whose value is based on the Product LPAR Utilization Capacity of the execution (run-time) Environment. The capacity of an Eligible Program with Execution-Based terms must equal the Product LPAR Utilization Capacity of the LPAR(s) where it executes.

Reference-Based Terms -

a.   Reference-Based licensing terms apply to Eligible Programs that add value to particular monthly license charge (MLC) Programs or, in selected cases, to particular one time charge (OTC) Programs. The capacity of an Eligible Program with Reference-Based terms must equal the Product LPAR Utilization Capacity of the applicable MLC or OTC Program. This MLC or OTC Program is called the "Parent Program."

b.   When an Eligible Program with Reference-Based terms is used in an Establishment with more than one Machine, the capacity of the Eligible Program must be equal to the Product LPAR Utilization Capacity of the Parent Program(s) across all the Machines in the Establishment. For each Parent Program, the Multiplex Report will specify the contribution of each Machine's MSUs to the overall utilization peak measured for the Multiplex. IBM will use the sum of such MSU values from each Machine in an Establishment to determine billing.

z/OS-Based Terms - z/OS-Based licensing terms apply to Eligible Programs that provide value to the particular Machine where the Program is used. The capacity of an Eligible Program with z/OS-Based Terms must equal the Product LPAR Utilization Capacity of z/OS on that Machine. The Multiplex report will specify the contribution of each Machine's z/OS MSUs to the overall utilization peak measured for the Multiplex. IBM

will use the sum of such z/OS MSU values from each Machine where the Eligible Program is used to determine billing. In the case where SCRT reports both z/OS traditional MSU values and z/OS zNALC MSU values for a Multiplex, IBM will use the sum of such MSU values when calculating total MSUs for billing a z/OS-Based Program for a Multiplex.

3. **Qualifications**

   a. Client must have executed the CMP Attachment.

   b. Client must notify IBM of the type, capacity setting, and serial number of each Machine on which each Eligible Program is executing, including any changes to such type, capacity setting or serial number. The scope of Client's tracking extends to all Machines in Client's Multiplex, whether the Eligible Programs have Sub-Capacity or Full Capacity charges. If Client is unwilling or unable to fulfill Client's tracking responsibilities IBM may apply the Full Capacity terms with 30 days notice. If Client has Eligible Programs with Execution-Based or z/OS-Based terms, Client must have selected Sub-Capacity Pricing on the machine where the Eligible Program is being used, otherwise Full Capacity MSUs will apply.

   c. If Client has Eligible Programs with Reference-Based terms, Client must have selected Sub-Capacity Pricing for the Parent Program(s). Full Capacity MSUs will apply for any Machine(s) where the Parent Program is not in Sub-Capacity mode.

   d. z/OS must run in z/Architecture (64-bit) mode.

   e. OS/390 and MVS may not be licensed to a Machine with Sub-Capacity Pricing.

   f. Monthly Multiplex reports, generated by the Sub-Capacity Reporting Tool (SCRT), must be submitted to remain eligible for Sub-Capacity pricing.

   g. Sub-Capacity Pricing terms may not be transferred to a third party.

   h. If any Sub-Capacity Pricing terms or conditions are not met, the Eligible Program no longer qualifies for Sub-Capacity Pricing. Client agrees to issue an amendment to their delivery order or purchase contract if necessary for IBM to make any resulting billing increase, including Subscription and Support (S&S), if applicable.

4. **IBM Business Partners**

   IBM Business Partners are independent from IBM and unilaterally determine their prices and terms. IBM is not responsible for their actions, omissions, statements, or offerings. IBM, however, sets the charges and payment terms for increases in charges resulting from Client's Multiplex Report submissions.

   Client Responsibility

5. **Charges**

   a. One-time charges are based on the quantity of MSUs reported in the Multiplex Report during a Reporting Period. This value corresponds to the Product LPAR Utilization Capacity of the Eligible Programs with Execution-Based or z/OS-Based terms or the Parent Program, as applicable. If Sub-Capacity Pricing is not in effect, one-time charges are based on Full Capacity MSUs.

   NOTE: Information on IBM's billing process, including how to determine the applicable Reporting Period for a particular month's charges, can be found on the Sub-Capacity Corner website at http://ibm.com/systems/z/swprice/subcap/terms.html.

   NOTE: If Client is required to order additional capacity for an Eligible Program, the S&S capacity for that Eligible Program will also be increased.

   b. When multiple versions of an IBM Program qualifying for Sub-Capacity Pricing are licensed within a Multiplex, SCRT will report concurrent peaks for all Programs in the same Program Family. SCRT will calculate the four-hour rolling average for the concurrent peak (the "(All)" line in the Multiplex Report) by adding the LPAR values where any version of the Program is running.

   c. If Sub-Capacity Pricing is not in effect, aggregated charges are based on Full Capacity MSUs.

   IBM does not give credits or refunds for charges already due or paid if the applicable Product LPAR Utilization Capacity falls below the then current authorized entitlement.

6. **IBM's Responsibilities**

   a. IBM will provide the following on the SCRT website (http://ibm.com/systems/z/swprice/subcap/scrt/):

      1. SCRT, at no charge (**NOTE**: written notification of updates will be sent by email), and

      2. the process for transmitting Multiplex Reports and notification of changes (as specified in Section 3.b above) to IBM.

   b. IBM will calculate the applicable MSUs for Eligible Programs with Reference-Based or z/OS-Based terms by using the MSUs of the Parent Program(s) or z/OS, as applicable, from the Multiplex Report(s).

7. **Changes to Terms**

   In order to maintain flexibility in our business relationship, IBM may change the terms of this Amendment via a modification to the GSA Schedule Such changes are not retroactive; they apply, as of the effective date of the modification , only to new Eligible Program orders or S&S renewals. Additional or different terms in any written communication from Client (such as an order) are void.

This Amendment, the Agreement or IPLA, and any applicable transaction documents are the complete agreement regarding Sub-Capacity Pricing for IBM Programs with one-time charge pricing in the CMP environment. Additional or different terms in any written communication from Client are void.

Client accepts the terms of this Amendment by issuing IBM a delivery order (or another contract document) that incorporates it by reference.

5.7.3.3 IBM AMENDMENT TO THE ATTACHMENT FOR ZNALC LICENSE CHARGES

The terms of this Amendment to the Attachment for zNALC License Charges on IBM System z (Amendment) are in addition to and modify the terms of the IBM Attachment for zNALC License Charges (Attachment). Client accepts the terms of this Amendment by issuing a delivery order or contract document for IBM Programs utilizing the charging structure described below. If there is a conflict among the various documents, (i) the terms of this Amendment prevail over those of the Attachment, and (ii) the terms of a Transaction Document prevail over both of these documents.

8.   Additional Definitions

Multiplex – all of Client's Eligible Machines within a single country as defined in the Attachment for Country Multiplex Pricing (Z126-6965).

Multiplex Report – a report generated by SCRT to enable IBM to calculate Sub-Capacity Pricing for Programs in a Multiplex.

Multiplex System z New Application License Charges (MzNALC) – the price metric used to implement zNALC charges for z/OS running on an MzNALC Eligible Machine within a Multiplex.

MzNALC Eligible Machine – A Machine to which an Eligible Operating System is licensed and that is specified in the Mainframe Exhibits section of the System z Software Contracts Web site with "zN" in the zNALC column and with "C" or "P" designation in the "CMP" column. An MzNALC Eligible Machine is a Designated Machine that is eligible to receive zNALC charges implemented using the MzNALC price metric as described in Section 2 below.

9.   Charges

When MzNALC charges apply to z/OS, monthly charges are based on the number of MSUs reported for z/OS (with zNALC charges) on the Multiplex Report during a Reporting Period. This value corresponds to the Product LPAR Utilization Capacity.

This Amendment and the Attachment, are the complete agreement regarding zNALC License Charges on MzNALC Eligible Machines. Additional or different terms in any written communication from Client are void.

Client accepts the terms of this Amendment by issuing IBM a delivery order (or another contract document) that incorporates it by reference.

5.7.4 GROWTH OPPORTUNITY LICENSE CHARGE (GOLC)

Any Programs licensed in accordance with the terms herein that require 64-bit z/Architecture hardware in order to execute properly may be licensed only to a Designated Machine that properly implements z/Architecture.

Growth Opportunity License Charges ("GOLC") are available only for Programs which are used on a Machine listed in "System z Machines " table below. However, GOLC may not be available for all Programs used on a listed Machine. If Graduated Monthly License Charges are available for Programs for which GOLC are not available, then a default charge applies which is equal to the Basic Graduated Monthly License Charge for the Machine Group indicated.

GOLC Category	Default Charge Equal to Basic Charges for:
H30	Group 40
H50	Group 50
H70	Group 70

Increases in any System z Program GOLC or default charges, due to changes in the Category placement for any Machine that they are licensed to, will be in effect for a minimum period of one month. For System z and Amdahl/non-IBM Product Information, see http://www.ibm.com/zseries/library/swpriceinfo/ (See Machines with GOLC in the Group column).

5.7.5 ATTACHMENT PARALLEL SYSPLEX LICENSE CHARGE (PSLC)

The terms of this Attachment are in addition to those of Chapter 1 and this Chapter 5. Any Programs licensed in accordance with the terms of this Attachment that require 64-bit z/Architecture hardware in order to execute properly may be licensed only to a Designated Machine that properly implements z/Architecture.

Parallel Sysplex license charges (called "PSLC") available under this Attachment are provided for selected IBM System z Programs when these Programs are designated to a machine or machines operating in an actively coupled Parallel Sysplex environment.

IBM Responsibilities

IBM will:

1. make selected System z Programs available to you at PSLC; and

2. specify, in an exhibit, the Parallel Sysplex environment (machine requirements, coupling criteria, and software requirements) and the basis for PSLC (the service unit capacity of participating machines). We will inform you of any changes.

Government Responsibilities

Promptly notify IBM :

1. when you have an actively coupled Parallel Sysplex environment;

2. if the Parallel Sysplex environment ceases to be actively coupled. In such case, charges will revert to our generally available recurring charges; and

3. if you add or remove machines from the environment. In such cases, the PSLC will be adjusted.

5.7.6 ATTACHMENT SYSTEM Z NEW APPLICATION LICENSE CHARGE
The terms of this Attachment for zNALC License Charges on IBM System z ("Attachment") are in addition to those of this GSA Schedule, Chapter 1 and Chapter 5.

1. Definitions

Eligible Machine – A Machine to which an Eligible Operating System is licensed and that is specified in the Mainframe Exhibits section of the System z Software Contracts Web site with "zN" in the zNALC column.

An Eligible Machine is a Designated Machine that is eligible to receive zNALC pricing as described herein.

Eligible Operating System – An operating system specified in the zNALC Eligible Operating Systems subsection of the System z Software Contracts Web site (http://ibm.com/systems/z/swprice/reference/exhibits/opsys.html).

Full Capacity MSUs – The total capacity of a Machine as specified in the Mainframe Exhibits section of the System z Software Contracts Web site.

Mainframe Exhibits section of the System z Software Contracts Web site – http://ibm.com/systems/z/swprice/reference/exhibits/hardware.html

MSUs – Millions of Service Units per hour. Units of Workload capacity of an Eligible Machine.

Product LPAR Utilization Capacity – The highest number of MSUs utilized by the combined logical partitions ("LPARs") in which z/OS (with zNALC charges) runs concurrently during a Reporting Period. The number of MSUs is based on a 4-hour rolling average utilization.

Reporting Period – The period that begins on the second day of a month and ends on the first day of the following month.

Sub-Capacity Pricing – Charges for z/OS (with zNALC charges) based on less than Full Capacity MSUs.

Sub-Capacity Report – A report generated by the IBM Sub-Capacity Reporting Tool. The tool analyzes System Management Facilities ("SMF") data and calculates the Product LPAR Utilization Capacity for z/OS (with zNALC charges). The Sub-Capacity Report includes this calculation. Customer is required to submit the report to IBM only if Sub-Capacity Pricing is in effect.

zNALC – System z New Application License Charges ("zNALC") charges are available only for z/OS running on an Eligible Machine. zNALC charges allow for Sub-Capacity Pricing and Parallel Sysplex aggregation.

zNALC LPAR(s) – One or more LPARs where z/OS (with zNALC charges) is running.

2. Qualified Applications

a. An "Application" is a computer program that is used to accomplish specific business tasks (such as Customer Relationship Management ("CRM"), Enterprise Resource Planning ("ERP"), Supply Chain Management ("SCM"), business information warehouse, accounting and inventory control programs), including the database server used for that task. In this definition, an Application is not a standalone database management system or systems management tool (i.e., related to the management or operation of the computer itself or of other computer programs). Examples of software that are not considered Applications are operating system software, database products (except as qualifying in the section below), transaction managers, tools, utilities and games.

b. An Application may be considered a "Qualified Application" if it is:

  1. Currently generally commercially available, supported by its manufacturer and enabled to run under z/OS, and that same Application (with substantially the same functionality) is simultaneously generally commercially available, supported by its manufacturer on, and enabled to run under a UNIX operating system (e.g., AIX, HP-UX, Linux or Solaris), or Microsoft Windows (collectively "Distributed Platforms"); or

  2. A database server running under z/OS and it is operating solely in support of a software program that is currently generally commercially available, supported by its manufacturer and running in a client/server environment where the business logic (e.g., application server) is running on a Distributed Platform; or

  3. Java language business applications running under WebSphere Application Server (or equivalent). These do not include systems management tools.

c. IBM will determine whether a particular software program is a Qualified Application.

NOTE: For additional information and a few examples of approved zNALC Qualified Applications, see: http://ibm.com/systems/z/resources/swprice/mlc/znalc.html

3. Requirements for z/OS with zNALC Charges

a. z/OS (with zNALC charges) must be licensed to an Eligible Machine.

b. z/OS IBM middleware running on a zNALC LPAR must be priced with either Advanced Workload License Charges ("AWLC"), Advanced Entry Workload License Charges ("AEWLC"), Workload License Charges ("WLC"), Entry Workload Charges ("EWLC"), or Select Application License Charges ("SALC"), if such charge, as applicable is available.

c. zNALC LPARs must be used exclusively for the Qualified Application and for programs that support the Qualified Application and for no other purpose.

d. z/OS (with zNALC charges) may not be licensed to the same Eligible Machine as either z/OS.e or as z/OS with New Application License Charges ("NALC").

e. z/OS (with zNALC charges) may not be licensed to the same Eligible Machine as OS/390 or MVS.

f. z/OS (with Sub-Capacity zNALC charges) may not run as a guest of any version of VM or z/VM unless:

> 1. z/OS APAR OA20314 was applied to the z/OS guest system before it was IPLd, and

> 2. SCRT Version 14.2.0 or higher is used to create the SCRT report.

g. The first four letters of each zNALC LPAR must be "ZNAL". Alternatively, if Customer prefers not to change LPAR names to qualify for zNALC, and is running z/OS V1.6 or higher, Customer may set the "LICENSE=ZNALC" IPL parameter to indicate a zNALC LPAR,

NOTE: The zNALC IPL Parameter is available via APAR OA20314.

h. Any copies of Eligible Operating Systems that run on an Eligible Machine must run in z/Architecture (64-bit) mode.

i. Customer agrees to certify to IBM:

> 1. initially that Customer is eligible for zNALC under the terms of this Attachment, and

> 2. annually that Customer is and has been continuously eligible for zNALC under the terms of this Attachment.

See Z125-7465, zNALC Annual Eligibility Certification Form.

Failure to submit a zNALC Annual Eligibility Certification Form will result in termination of zNALC charges. The z/OS license will revert to then-available charges.

4. Charges

a. When zNALC charges apply to z/OS:

> 1. monthly charges are based on the number of MSUs reported for z/OS (with zNALC charges) in the Sub-Capacity Report for the specified Eligible Machine during a Reporting Period. This value corresponds to the Product LPAR Utilization Capacity or, on a non-partitioned Eligible Machine, must equal the Full Capacity MSUs. If Sub-Capacity Pricing is not in effect, monthly charges are based on Full Capacity MSUs;

NOTE: Information on IBM's billing process, including how to determine the applicable Reporting Period for a particular month's charges, can be found on the Sub-Capacity Corner website at http://ibm.com/systems/z/swprice/subcap/terms.html ;

2. z/OS (with zNALC charges) licenses are initially charged at Full Capacity MSUs until IBM has processed the initial Sub-Capacity Report on that Eligible Machine, enabling Sub-Capacity Pricing;

3. once Sub-Capacity Pricing has commenced for z/OS (with zNALC charges) on an Eligible Machine, if z/OS (with zNALC charges) does not appear in a Sub-Capacity Report subsequent to its initial monthly charge, it will be charged at the minimum zNALC MSUs.

NOTE: IBM specifies minimum zNALC MSUs in its programming announcements;

4. eligible features of z/OS (with zNALC charges) have the same MSUs as z/OS (with zNALC charges);

5. the number of MSUs associated with a zNALC LPAR is equivalent to the highest observed rolling 4-hour average utilization in a Reporting Period. Customer may manage zNALC LPAR utilization by explicitly specifying the defined capacity of the zNALC LPAR(s) on the Hardware Management Console ("HMC"). However, this is not required to obtain Sub-Capacity Pricing. If Customer chooses to specify the defined capacity for a particular zNALC LPAR, the Sub-Capacity Reporting Tool will use the lower of the specified capacity or the 4-hour rolling average in order to determine the number of MSUs associated with z/OS (with zNALC charges);

6. the capping function in z/OS (with zNALC charges) is used to ensure the workload does not exceed the LPAR defined capacity Customer has specified on a 4-hour rolling average. To achieve this, the capping function may automatically reduce and limit computer resources to workloads running in that LPAR. By defining the LPAR capacity, Customer authorizes the capping function to cap the computer's resources as defined; and

7. increases in Full-Capacity MSU Charges for z/OS (with zNALC charges), due to changes Customer makes in the MSU capacity for any Eligible Machine that it is licensed to, will be in effect for a minimum period of one month.

b. Calculation of Sub-Capacity MSUs when an Eligible Machine has z/OS licensed with Sub-Capacity charges for both a) zNALC and b) AWLC/AEWLC/WLC/EWLC:

If the total MSUs for both z/OS (with zNALC charges) plus the z/OS (with AWLC or AEWLC or WLC or EWLC charges) shown on the Sub-Capacity Report exceed the highest rolling 4-hour average of the Eligible Machine ("Peak Measurement"), then IBM will reduce the z/OS (with zNALC charges) MSUs so that the total MSUs do not exceed the Peak Measurement. However, the z/OS (with zNALC charges) MSUs will not be reduced below the minimum zNALC MSUs.

NOTE: IBM specifies minimum zNALC MSUs in its programming announcements.

NOTE: If an Eligible Machine has z/OS with full-capacity AWLC or AEWLC or WLC or EWLC charges, then zNALC pricing should be avoided, However, if z/OS with AWLC or

AEWLC or WLC or EWLC charges is co-resident with z/OS (with zNALC charges), then IBM recommends Sub-Capacity pricing be implemented.

c. When aggregated zNALC charges apply to IBM Programs, aggregated charges:

1. are available only for z/OS (with zNALC charges) used on an Eligible Machine in an actively coupled Parallel Sysplex. To be actively coupled, the following criteria must be met:

(a) All Eligible Machines in the Parallel Sysplex must be physically attached via coupling links to a common Coupling Facility. In addition, Government must provide time synchronization using either timer links to a common Sysplex Timer or coupling links transporting Server Time Protocol ("STP") timing information in an STP Coordinated Timing Network("CTN").
If a Coupling Facility is divided into LPARs, all Eligible Machines must be attached to the same Coupling Facility LPAR.

(b) All Eligible Operating System images that comprise the Parallel Sysplex environment must have at least one common Systems Enablement Function, specified in the Exhibit for zNALC License Charges on IBM System z, Z125-7455, ("Exhibit"), activated to use the Coupling Facility across all images in the Parallel Sysplex.

(c) The configuration and operating modes described in this Attachment must be the normal mode of operations for this environment.

(d) An Eligible Machine can only be in one Parallel Sysplex for pricing purposes. The Eligible Operating System images participating in the Systems Enablement Function(s) must account for at least 50 percent of the total Eligible Operating System workload on each Eligible Machine. In the event there are two LPARs, each 50 percent of the total Eligible Operating System workload, connected to two Parallel Sysplexes, Customer may select which Parallel Sysplex the Eligible Machine will be included in for billing.

2. require Customer to provide IBM with a completed IBM Sysplex Verification Package upon the occurrence of any of the following: 1) Customer implements an actively coupled Parallel Sysplex, 2) a change is made to any Eligible Machine, e.g., model upgrades or model downgrade in the Parallel Sysplex, 3) IBM requests a package for any year during which Customer has received aggregated zNALC pricing, and 4) at least once in every 12 month period.

NOTE: The IBM Sysplex Verification Package can be found at http://ibm.com/systems/z/swprice/sysplex/verify.html .

Information regarding the technical aspects of Parallel Sysplex aggregation and detailed information on tools, processes and procedures may be found at the Sysplex Aggregation Web site at http://ibm.com/systems/z/swprice/sysplex .

3. are based on the sum of the MSUs on the Sub-Capacity Reports that Customer submits to IBM for each copy of z/OS (with zNALC charges) installed on qualifying Eligible Machines in a Parallel Sysplex;

4. are based on Full Capacity MSUs if Sub-Capacity Pricing is not in effect; and

5. require two or more Eligible Machines actively coupled using the applicable coupling links and Coupling Facility specified in the Exhibit.

5. IBM's Responsibilities

IBM will:

a. specify in Appendix M, or a later the current commercial version of Exhibit Z125-7455 the 1) Applicable Coupling Facilities, 2) Systems Enablement Functions, and 3) the date and the process for transmitting Sub-Capacity Reports to IBM;

b. make available the Sub-Capacity Reporting Tool;

c. review and validate Customer supplied alternate values indicated in the Sub-Capacity Reports, and if appropriate, at its sole discretion make adjustments to zNALC charges; and

d. register Eligible Machines when Customer submits the initial Sub-Capacity Reports.

6. Government Responsibilities under Sub-Capacity Pricing

Sub-Capacity Pricing is conditioned upon utilization of capacity approved by IBM and accurate capacity utilization measurement data generated by the operating system and processed by SCRT.

Customer agrees to:

a. promptly install any code required by IBM for IBM Programs or IBM System z Machine Code required by IBM to accurately calculate Sub-Capacity Pricing;

b. not alter, modify, omit, or delete, by any means, directly or indirectly, the:

1. SMF or SCRT89 records;

2. SCRT, except for changes provided by IBM; or

3. Sub-Capacity Reports that Customer submits to IBM, except for those SCRT report fields where Customer comments are expressly required or permitted. Instructions for completion of the required and optional Customer comment fields can be found in the most current version of the SCRT Users Guide (SG24-6522).

c. not enable or use any SCRT control statement except as expressly authorized by IBM in the SCRT User Guide or an Addendum signed by Customer;

d. collect and retain for a period of not less than six months the SMF and SCRT89 data records that are required by SCRT for each Reporting Period from all LPARs on the Eligible Machine. For IBM AWLC Programs that are not reported on SMF 89 records or on SCRT89 records, Customer must use NO89 control statements to identify the LPAR(s) or Guest (LPARs) in which the AWLC Programs ran during any part of the Reporting Period;

e. run the most current version of the SCRT against the collected SMF and SCRT89 data to produce a Sub-Capacity Report from all Eligible Operating System LPARs on the Eligible

Machine for which z/OS (with zNALC charges) is licensed. If there have been special circumstances during the Reporting Period, Customer may, in accordance with the then current SCRT Users Guide (SG24-6522), use the "Exclude" control statement and provide an explanation of the variance.

f. send to IBM within the time specified in the Exhibit:

1. the initial Sub-Capacity Report that is based on the data for the entire initial Reporting Period for each Eligible Machine that Customer wishes IBM to register for Sub-Capacity Pricing; and

2. subsequent Sub-Capacity Reports that are based on the data for each entire Reporting Period thereafter for each registered Eligible Machine.

Sub-Capacity Reports may not be used to discontinue licenses, report Eligible Machine model downgrades, or to disable z/OS (with zNALC charges) features.

Both IBM and Government agree that Sub-Capacity Reports that reflect a change to Product LPAR Utilization Capacity or to the inventory of IBM Programs on an Eligible Machine (e.g. new Program, or change in Designated Machine previously identified to IBM) will be considered to be orders placed by Customer without further action on Customer's part, and Customer authorizes IBM to make any resulting billing increase or decrease. Sub-Capacity Reports not submitted by the "not later than" date specified in the Exhibit will result in z/OS (with zNALC charges) being charged on a Full Capacity MSU basis for the Reporting Period;

g. configure Customer's Eligible Machine to send Transmit System Availability Data ("TSAD") weekly to IBM via the Remote Support Facility ("RSF"). This enables IBM to verify that the Product LPAR Utilization Capacity MSUs in the Sub-Capacity Reports Customer submits to IBM are consistent with Customer's actual Eligible Machine configuration. An alternate means for Customer to collect and transmit this data is provided in the SCRT Users Guide (SG24-6522). Failure to submit TSAD may result in IBM Programs being charged on a Full Capacity MSU basis;

h. assign a person in Customer's organization with authority to discuss with IBM and promptly resolve any questions about 1) Sub-Capacity Reports, 2) inconsistencies between the Sub-Capacity Reports and current license entitlement, and 3) configuration data reported via the RSF;

i. contact IBM if Customer elects to convert from zNALC Sub-Capacity Pricing to zNALC at Full Capacity MSUs;

j. not register, directly or indirectly, IBM Programs with the z/OS IFAUSAGE service, except as directed by the documentation for the IBM Program;

k. not register, directly or indirectly, Non-IBM Programs with the z/OS IFAUSAGE service as an IBM Program with an IBM product identifier; and

l. not cause, directly or indirectly, Product Utilization Capacity to be attributed to another program, either an IBM Program or a Non-IBM Program, when the Product Utilization Capacity

is unrelated to that program, except in the case of incidental Product Utilization Capacity associated with diagnosing, monitoring, or measuring a program.

7. Compliance Verification

For purposes of this section, "ICA Program Terms" means terms applicable to ICA Programs and applicable Transaction Documents and Attachments (including this one). IBM's Compliance Terms are provided in this Chapter.

8. Subcapacity Reporting

The Government is responsible for transmitting the Sub-Capacity Reports to IBM per the process outlined in the following website http://ibm/com/zseries/swprice/scrt/. Reports are due by the second, but not later then the ninth, calendar day of each month.

This Attachment. Chapter 1 and this Chapter 5, including applicable Attachments and Transaction Documents, are the complete agreement regarding zNALC License Charges on IBM System z and replace all prior oral or written communications, representations, undertakings, warranties, promises, covenants, and commitments between Customer and IBM regarding zNALC License Charges on IBM System z. In entering into this Attachment, including any applicable Transaction Document, neither party is relying on any representation that is not specified in this Attachment, the Transaction Document, or the Agreement. Additional or different terms regarding this offering identified in a Government Delivery Order, unless provided in an IBM proposal or quote, are void.

5.7.7 ATTACHMENT IBM SYSTEM Z USAGE PRICING CHARGES
These terms are in addition to those of Chapter 1 and this Chapter 5 . Any Programs licensed in accordance with the terms of this Attachment that require 64-bit z/Architecture hardware in order to execute properly may be licensed only to a Designated Machine that properly implements z/Architecture.

The terms of this Attachment apply to selected System z Programs that have a Usage Pricing Charge, which is a monthly recurring charge. To qualify for Usage Pricing Charges, the eligible Program must be running on a Machine or in a qualified Parallel Sysplex where OS/390 Version 2, z/OS or later is running in at least one LPAR partition on the Machine or in the Parallel Sysplex. For each selected Program (Program "Base," where multiple "Bases" of a Program are eligible) the Government may elect a Usage Pricing Charge or any other applicable recurring charge.

Machines or Parallel Sysplexes running OS/390 Auto UNIX do not qualify for Usage Pricing Charges as OS/390 Auto UNIX is a pre-configured UNIX-only system without the ability to activate the usage measurement function.

IBM specifies in the Supplement to this Attachment, billing start and end dates, eligible Programs, and the applicable measurement basis (e.g., machine service units).

Measurement Recording

Program usage will be measured as specified in the Exhibit for IBM System z Usage Pricing Charges ("Exhibit"). To measure and record measurement data, you agree to use, unmodified on all MVS/ESA, OS/390, z/OS and z/OS.e LPARs on the Machine for which the Program is licensed and on all Machines which are actively coupled to that Machine in a Parallel Sysplex, 1) the usage measurement function, which IBM provides in the operating system Program and 2) a reporting function, which IBM provides in the IBM Software Usage Report Program. You agree not to alter 1) the records collected by the usage measurement function; 2) the IBM Software Usage Report Program, except for changes provided by IBM; or 3) the Software Usage reports, generated by the Software Usage Report Program, which you will provide to IBM.

Billing Periods

The Government's billing period is the 12-months in duration. However, IBM may permit the initial billing period to be less or greater than 12 months to allow for fiscal year alignment.

To establish the usage for a billing period, using the measurement function it provides, IBM identifies your

1. highest daily usage of a Program, which is the highest of 24 hourly measurements recorded each day; and

2. monthly usage of a Program, which is the fourth highest daily measurement recorded for a month.

The Government agrees to:

1. run our usage measurement function throughout initial and subsequent billing periods on all MVS/ESA, OS/390, z/OS and z/OS.e LPARs on the Machine for which the Program is licensed and on all Machines coupled to that Machine in a Parallel Sysplex;

2. reinitialize all copies of DB2 after the usage measurement function has been activated, whenever DB2 usage is being measured for Usage Pricing Charges; and

3. provide IBM with a Software Usage Report generated by the Software Usage Report Program for (1) each Machine not in a Parallel Sysplex, (a separate report for each Machine) and (2) all Machines which are actively coupled in the same Parallel Sysplex (a separate report for all Machines within a Parallel Sysplex, i.e., a separate report for each Parallel Sysplex). You are to provide these Software Usage Reports within ten business days after the usage measurements are completed one month prior to the end of each billing period.

Initial Billing Period

To establish the measurement for the initial billing period, the Government will run the usage measurement function for two months (contiguous days) against all copies and versions of an eligible Program. These months need not be calendar months. The Government must start the measurement period on a day when the eligible Program is running on the Machine and run the usage measurement function on all MVS/ESA, OS/390, z/OS, and z/OS.e LPARs on the Machine or Parallel Sysplex.

The higher monthly usage of the initial two-months determines the Government's monthly Usage Pricing Charge for the fiscal year next 12-month billing period.

The initial billing period begins on the first day of the first full calendar month in which usage measurement is collected.

Transitioning from MULC

The highest monthly usage, derived from the preceding Measured Usage License Charge (MULC) billing period (including one month before that billing period and excluding the final month of the billing period), will be used to determine your monthly Usage Pricing Charge when transitioning a Program under MULC to Usage Pricing Charges.

Subsequent Billing Periods

The Government agrees to provide IBM with the Software Usage Report for the billing period within the first ten business days of the final month of the previous billing period.

The highest monthly usage measured for the initial billing period (excluding those recorded in the final month) will be the basis for establishing charges for the second billing period. For subsequent billing periods, the highest Monthly Usage measured for the prior 12 months, starting one month earlier than the previous billing period, will be the basis for establishing charges.

In the last month of a billing period, IBM will review your usage of a Program and calculate a new Usage Pricing Charge, if appropriate. A new Usage Pricing Charge would apply at the start of your next billing period. Client accepts the new pricing by issuing IBM a delivery order or contract, as applicable.

Determining the Usage Pricing Charge

The Government's monthly Usage Pricing Charge is determined by your monthly "Usage Level(s)." Usage Levels correspond to the Usage Range(s), specified in Appendix N, which are determined by the Government's monthly usage (as reported by the usage measurement function IBM provides).

If the Government is using multiple versions (or copies) of a Program on a Machine, IBM will 1) use the aggregated usage provided on the Software Usage Report to represent the usage consumed by all the versions (copies), and 2) apply this aggregate usage measurement to the charge applicable to the latest version of a Program installed on that Machine. At least one version of the Program must be listed on the Exhibit as a Program for which Usage Pricing Charges by service units ("SUs") are available.

If the Government is using a Program in an actively coupled Parallel Sysplex environment, IBM will 1) aggregate the usage across all of the Machines in the Parallel Sysplex and 2) apply this aggregate usage to the charge applicable to the latest version of a Program installed on those Machines.

General

In determining the Government's usage of a Program, the earlier versions of which are already subject to Usage Pricing Charges, IBM will disregard measurements recorded during an applicable testing period, if any, if you so indicate on the Software Usage Report. If you add a new version of a Program during a billing period, charges will be based on the charge for the latest version.

The charge for a Program will revert to the applicable recurring charge if the Government 1) fail to provide IBM with the Software Usage Report within the specified time period or 2) at the end of a billing period, end your participation in this offering. In either event, the Government may not resume participation for that Program for 12 months. If the Government later want to resume participation, your Usage Pricing Charge will be based on the Software Usage Report Government provided to IBM for the preceding 12-month period. If a Program was terminated from participating for either of the above reasons, a 12-month period applies before the Program is eligible for Usage Pricing Charges.

The Government may terminate this offer on one month's written notice. Upon termination, the charge for a Program will revert to another applicable recurring charge. If an alternative recurring charge is not available, your license will terminate.

Compliance Verification

For purposes of this section, "ICA Program Terms" means terms applicable to ICA Programs in this Chapter 5, Chapter 1 and applicable Transaction Documents and Attachments (including this one).

5.7.8 ATTACHMENT IBM SYSTEM Z WORKLOAD LICENSE CHARGES
Any Programs licensed in accordance with the terms herein that require z/Architecture (64-bit) hardware in order to execute properly may be licensed only to a Designated Machine that properly implements z/Architecture.

Definitions:

Eligible Machine	A Machine to which an Eligible Operating System is licensed. Any copies of Eligible Operating Systems that run on an Eligible Machine must run in z/Architecture (64-bit) mode. Eligible Machines are specified in Appendix M of this Schedule.
Eligible Operating Systems	Operating Systems specified in the Appendix.
Full Capacity MSUs	The total capacity of an Eligible Machine as specified in the Appendix.
Guest (LPAR)	z/TPF or z/OS when running under z/VM
MSUs	Millions of Service Units per hour. Units of Workload capacity of an Eligible Machine.

Native (LPAR)	z/TPF or z/OS when not running under z/VM
Operating System Family	An IBM operating system and the IBM middleware that runs under it. The applicable IBM operating systems are z/OS, z/TPF, and z/VSE V4 or higher.
Product LPAR Utilization Capacity	The highest number of MSUs utilized by the combined logical partitions (LPARs) in which a Variable Workload License Charges (VWLC) IBM Program runs concurrently during a Reporting Period. The number of MSUs is based on a 4-hour rolling average utilization.
PSLC Option	Parallel Sysplex License Charges available for selected IBM Programs which are used on an Eligible Machine and are running an Eligible Operating System. See Appendix L
Reporting Period	The period which begins on the second day of a month and ends on the first day of the following month.
Sub-Capacity Pricing	WLC for VWLC IBM Programs based on less than Full Capacity MSUs
Sub-Capacity Report	A report generated by the IBM-provided Sub-Capacity Reporting Tool. The tool analyzes System Management Facilities ("SMF") data and SCRT89 data and calculates the Product LPAR Utilization Capacity for most VWLC IBM Programs. The Sub-Capacity Report includes these calculations. The Government is required to submit the report to IBM only if Sub-Capacity Pricing is in effect.
WLC	Workload License Charges available for selected IBM Programs which are used on an Eligible Machine and are running under an Eligible Operating System. WLC allow for Sub-Capacity Pricing.

1. Charges

1.The Government has a choice of selecting either, if available, but not both. WLC or PSLC within an Operating System Family on an Eligible Machine that has an Eligible Operating System licensed to it. However,

(a) IBM Programs with charge types shown below, however, may be licensed to the same Eligible Machine as IBM Programs with WLC charges:

   i. New Application License Charges ("NALC")

   ii. System z New Application License Charges ("zNALC")

iii. Select Application License Charges ("SALC")

iv. Midrange Workload License Charges ("MWLC")

(b) once the Government selects WLC, the Government may not switch back to PSLC without prior IBM approval, which IBM may grant in its sole discretion; and

(c) WLC Programs and PSLC Programs may not be aggregated together for pricing purposes.

2. When Flat Workload License Charges ("FWLC") apply to IBM Programs, charges are a fixed monthly charge. z/OS must be licensed to the Eligible Machine, FWLC charges are not available on an Eligible Machine if any Program in the z/OS Operating System Family has PSLC charges.

3. When VWLC charges apply to IBM Programs:

a. Monthly charges are based on the number of MSUs reported in the IBM Program's Sub-Capacity Report for the specified Eligible Machine during a Reporting Period. This value corresponds to the Product LPAR Utilization Capacity or, on a non-partitioned Eligible Machine, must equal the Full Capacity MSUs. If Sub-Capacity Pricing is not in effect, monthly charges are based on Full Capacity MSUs;

NOTE: Information on IBM's billing process, including how to determine the applicable Reporting Period for a particular month's charges, can be found on the Sub-Capacity Corner website at http://www.ibm.com/zseries/swprice/subcap/

b. Eligible Operating System licenses are charged at Full Capacity MSUs until IBM has processed the initial Sub-Capacity Report for that Eligible Operating System on that Eligible Machine, enabling Sub-Capacity Pricing for that Operating System Family.

c. the initial monthly charge for a non-operating system license is based upon the applicable operating system MSUs.

d. once Sub-Capacity Pricing has commenced for an Eligible Operating System on a Eligible Machine, if a VWLC IBM Program does not appear in a Sub-Capacity Report subsequent to its initial monthly charge, it will be charged at the minimum VWLC MSUs;

NOTE: IBM specifies minimum VWLC MSUs in its programming announcements;

e. If the Government elects to have Sub-Capacity Pricing for a VWLC IBM Program on an Eligible Machine, then the Government must have Sub-Capacity for all VWLC IBM Programs in that Operating System Family on that Eligible Machine;

f. VWLC features have the same MSUs as the Program;

g. when z/TPF is licensed to an Eligible Machine, the Sub-Capacity Reporting Tool calculates the number of MSUs for z/TPF IBM Programs running on it. See the Amendment for Calculation of z/TPF MSUs (INTC-7283) for further details;

h. when z/OS is licensed to an Eligible Machine, the Sub-Capacity Reporting Tool calculates the number of MSUs used across all of the z/OS LPARs in which each z/OS VWLC IBM Program ran during the Reporting Period as follows:

If z/OS is running in Native LPAR(s) …	and z/OS is running in Guest LPAR(s), at least one of which is at V1.6 or lower …	and z/OS is running in Guest LPAR(s), at least one of which is at V1.7 or higher …	then, MSUs are calculated in LPAR(s) in which the VWLC IBM Program ran, as follows:
Yes	Yes	Yes	The highest combined:
Yes	Yes	No	1. 4-hour rolling average utilization across all z/OS Native LPARs, and 2. the maximum capacity of all z/OS Guest LPARs
Yes	No	Yes	The highest combined 4-hour rolling average utilization across all z/OS Native LPARs and z/OS Guest systems
Yes	No	No	
No	No	Yes	
No	Yes	Yes	The highest combined maximum capacity of all z/OS Guest LPARs
No	Yes	No	

The Government may manage Native z/OS LPAR utilization by specifying an LPAR defined capacity on the Hardware Management Console ("HMC"). However, this is not required to obtain Sub-Capacity Pricing. If the Government chooses to specify the defined capacity for a particular Native z/OS LPAR, the Sub-Capacity Reporting Tool will use the lower of the specified capacity or the 4-hour rolling average in order to determine the number of MSUs associated with a VWLC IBM Program.

If an OS/390 or MVS operating system is licensed to the same Eligible Machine, then charges for the z/OS Operating System Family are based on Full Capacity MSUs

i. The capping function in z/OS is used to ensure the workload does not exceed the LPAR defined capacity Government has specified on a 4-hour rolling average. To achieve this, the capping function may automatically reduce and limit computer resources to workloads running in that LPAR. By defining the LPAR capacity, the Government authorizes the capping function to cap the computer's resources as defined; and,.

ii. Increase in any IBM System z Program VWLC charges, due to changes the Government makes in the MSU capacity for any Eligible Machine it is licensed to, will be in effect for a minimum period of one month.

4. When aggregated VWLC apply to IBM Programs, aggregated charges:

   a. Are available only for IBM Programs used on an Eligible Machine in a Parallel Sysplex.

   b. Are based on the sum of the MSUs on the Sub-Capacity Reports that the Government submits to IBM for each copy of an IBM Program installed on qualifying Eligible Machines in a Parallel Sysplex. If Sub-Capacity Pricing is not in effect, aggregated charges are based on Full Capacity MSUs.

   c. Require two or more Eligible Machines actively coupled using the applicable coupling links and Coupling Facility specified in the Appendix.

   d. To be actively coupled, the following criteria must be met:

      i. All Eligible Machines in the Parallel Sysplex must be physically attached via coupling links to a common Coupling Facility. In addition, time synchronization must be provided using either timer links to a common Sysplex Timer or coupling links transporting Server Time Protocol ("STP") timing information in an STP Coordinated Timing Network ("CTN").

      ii. If a Coupling Facility is divided into LPAR's, all Eligible Machines must be attached to the same Coupling Facility LPAR.

      iii. All Eligible Operating System images that comprise the Parallel Sysplex environment must have at least one common Systems Enablement Function, specified in the Appendix, activated to use the Coupling Facility across all images in the Parallel Sysplex.

      iv. The configuration and operating modes described herein must be the normal mode of operations for this environment.

      v. An Eligible Machine can only be in one Parallel Sysplex for pricing purposes. The Eligible Operating System images participating in the Systems Enablement Function(s) must account for at least 50 percent of the total Eligible Operating System workload on each Eligible Machine.

In the event there are two LPARs, each 50 percent of the total Eligible Operating System workload, connected to two Parallel Sysplexes, the Government may select which Parallel Sysplex the Eligible Machine will be included in for billing.

On an annual basis, upon IBM's request, the Government will provide IBM with a completed IBM Sysplex Verification Package

Note: Information can be found at http://ibm.com/zseries/swprice/sysplex/

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Additional information regarding the technical aspects of Parallel Sysplex aggregation and detailed information on tools, processes, and procedures may be found at the Sysplex Aggregation website at the following URL: http://ibm.com/zseries/swprice/sysplex/

2. IBM's Responsibilities

IBM will:

1. Specify

   a. The Eligible Machines and their Full Capacity MSUs,

   b. The applicable Coupling Facilities

   c. Eligible Operating Systems

   d. Systems Enablement Functions, and

   e. The date and the process for transmitting Sub-Capacity Reports to IBM;

2. Provide the Sub-Capacity Reporting Tool;

3. Adjust VWLC in response to the changes the Government indicate on the Sub-Capacity Reports you submit; and

4. Register Eligible Machines when the Government submits the initial Sub-Capacity Reports.

3. Government's Responsibilities under Sub-Capacity Pricing

Government agrees to:

1. Promptly install any enabling code for IBM Programs or IBM System z Licensed Internal Code (LIC) required for Sub-Capacity Pricing;

2. Collect, and retain for a period of not less than six months, the SMF and SCRT89 data records for all LPARs, by Eligible Machine, required by the Sub-Capacity Reporting Tool for each Reporting Period;

3. Run the most current version of the Sub-Capacity Reporting Tool against the collected SMF and SCRT98 data to produce a Sub-Capacity Report. In addition, the Government agrees to specify the LPAR name(s) in the Sub-Capacity Report where any IBM Programs run for which SMF or SCRT89 data is not created. If there have been special circumstances during the Reporting Period, the Government may also provide alternate values, as defined in the SCRT Users Guide (SG24-6522), for each IBM Program with an explanation for the variance.

4. Send to IBM within the time specified in the Appendix,

   a. The initial Sub-Capacity Report that is based on the data for the entire initial Reporting Period for each Eligible Machine that the Government wishes IBM to register for Sub-Capacity Pricing; and

b. Subsequent Sub-Capacity Reports that are based on the data for each entire Reporting Period thereafter, for each registered Eligible Machine.

Sub-Capacity Reports may not be used to order or discontinue licenses, move licenses between Eligible Machines, report Eligible Machine model upgrades, or enable or disable IBM Program features.

Both IBM and the Government agree that Sub-Capacity Reports that reflect a changed Product LPAR Utilization Capacity will be considered to be orders placed by you, and you authorize IBM to make any resulting billing increase or decrease. Sub-Capacity Reports not submitted by the "not later than" date specified in the Appendix will result in IBM Programs being charged on a full Capacity MSU basis for the Reporting Period;

5. Configure the Government's Machine to send weekly to IBM Transmit System Availability Data ("TSAD") weekly to IBM via the Remote Support Facility ("RSF"). This enables IBM to verify that the Product LPAR Utilization Capacity MSUs in the Sub-Capacity Reports submitted to IBM are consistent with the Government's actual Machine configuration. An alternate means for the Government to collect and transmit this data is provided in the "z/OS Planning for Sub-Capacity Pricing" publication. Failure to submit TSAD may result in IBM Programs being charged on a Full Capacity MSU basis;

6. Assign a person in Government's organization with authority to discuss and promptly resolve any questions on Sub-Capacity Reports or inconsistencies between Sub-Capacity Report contents or current license entitlement, and configuration data reported via the RSF; and

7. Notify IBM if the Government elects to convert from Sub-Capacity Pricing to WLC at Full Capacity MSUs.

8. The Sub-Capacity Reports must be transmitted to IBM on the second, but not later than the ninth, calendar day of the month. The e-mail address for transmitting the Reports is fednotes@us.ibm.com.

5.7.9 ATTACHMENT EWLC, TWLC, zELC AND z/OS.e LICENSE CHARGES

These terms are in addition to those of Chapter 1 and Chapter 5.

This Attachment provides additional terms for (1) Programs running on an Eligible Machine with zSeries Entry License Charges ("zELC"), Entry Workload License Charges ("EWLC"), or Tiered Workload License Charges ("TWLC"); and (2) terms for z/OS.e. When running on an Eligible Machine, z/TPF, z/OS, or z/OS.e must be running in z/Architecture (64-bit) mode.

NOTE: If z/OS.e is not running and the only charges for operating systems on an Eligible Machine are zELC, TWLC, or Full-Capacity EWLC charges, then this Attachment need not be signed. IBM System z Machines Exhibit (Z125-3901-55 or later) applies.

Definitions

Eligible Machine – A Machine to which an Eligible Operating System is licensed. Any copies of Eligible Operating Systems that run on an Eligible Machine must run in zArchitecture (64-bit) mode. Eligible Machines are specified in the Exhibit for EWLC, TWLC, zELC and z/OS.e License Charges, Z125-6588-11 or later ("Exhibit").

Eligible Operating Systems – An Operating System specified in the Exhibit

Full Capacity – EWLC pricing of Programs based on the total MSUs of the Eligible Machine.

Full Logical Model Capacity – The total MSU capacity of the Logical Model.

Guest (LPAR) – An Eligible Operating System when running on z/VM.

MSUs – Millions of Service Units per hour. Units of Workload capacity of an Eligible Machine.

Native (LPAR) – An Eligible Operating System when not running on z/VM.

Operating System Family – An IBM operating system and the IBM middleware that runs under it. The applicable IBM operating systems are z/OS, z/TPF, and z/VSE V4 or higher.

Product LPAR Utilization Capacity – The highest number of MSUs utilized by the combined logical partitions ("LPARs") in which an EWLC IBM Program runs concurrently during a Reporting Period. The number of MSUs is based on a 4-hour rolling average utilization.

Reporting Period – The period that begins on the second day of a month and ends on the first day of the following month.

Sub-Capacity – EWLC pricing of Programs based on less than the total MSUs of the Eligible Machine.

Sub-Capacity Report – A report generated by the IBM-provided Sub-Capacity Reporting Tool. The tool analyzes System Management Facilities ("SMF") data and SCRT89 data and calculates the Product LPAR Utilization Capacity for most EWLC IBM Programs. The Sub-Capacity Report includes these calculations. Customer is required to submit the report to IBM only if Sub-Capacity pricing is in effect.

Mainframe Exhibits section of the System z Software Contracts Web site – http://ibm.com/systems/z/swprice/reference/exhibits/hardware.html

LPAR Limitations

Government may not use more than 15 LPARs on a zSeries 890 Capacity Setting 110

Charges for Programs running on an Eligible Machine

Logical Models:

For determining the basis for certain software license charges, an Eligible Machine may be divided into two Logical Models, one running z/OS.e and the other running some other operating system(s). If the Eligible Machine is running only z/OS.e, or is not running z/OS.e, then there is only one Logical Model and it is equal to the physical Eligible Machine model. (**Note**: Integrated

Facility for Linux ("IFL") engines are not part of Logical Models or the physical Eligible Machine model.)

Logical Models may be calculated as follows

a. If the only charges for Programs on an Eligible Machine are zELC, a table illustrating the various Logical Model combinations may be found in the Exhibit.

b. If an Eligible Machine is running a combination of z/OS.e with EWLC charges and some other operating system, the following steps are used to calculate the Logical Model:

    1. The Government advises IBM of planned MSUs:

Within 30 days of the billing period start date for EWLC charges, the Government will advise IBM of the planned MSU usage for both the z/OS.e and the non-z/OS.e Logical Models. The total planned MSUs must equal the total MSU capacity of the Eligible Machine. To determine the total MSU capacity of each model of an Eligible Machine, see the Mainframe Exhibits section of the System z Software Contracts Web site.

    2. IBM to calculate Logical Model sizes:

        (a) IBM will calculate the Logical Model sizes for zELC Programs by selecting the Logical Model with an MSU rating that equals the Government's planned z/OS.e MSU usage or the next higher Logical Model if Government's planned z/OS.e MSU usage exceeds the MSU rating for a Logical Model. IBM will similarly calculate the non-z/OS.e Logical Model using non-z/OS.e MSUs.

        (b) IBM will calculate the appropriate tier for TWLC programs based upon the Government's planned z/OS.e MSU usage. IBM will similarly calculate the non-z/OS.e tier using the non-z/OS.e MSUs.

    3. Changing Logical Models sizes:

        (a) If an Eligible Machine is upgraded or downgraded, or if the Government changes the MSUs used for z/OS.e, the Government will advise IBM of the new planned MSUs for both z/OS.e and non-z/OS.e. IBM will adjust the Logical Model sizes accordingly.

    4. If MSU usage is greater than the total MSU capacity of the Eligible Machine:

In the event actual MSUs reported on a Sub-Capacity Report for both the z/OS.e and non-z/OS.e Logical Models exceed the total MSU capacity of the Eligible Machine, IBM will reduce the z/OS.e MSUs so that the total MSUs do not exceed the total MSU capacity of the Eligible Machine. However, the z/OS.e MSUs may not be reduced below 3 MSUs. If necessary, the non-z/OS.e MSUs will also be reduced so the total MSU capacity of the Eligible Machine is not exceeded.

This calculation will not impact zELC charges, only EWLC charges.

5. Actual MSU use exceeds planned MSUs provided to IBM:

    (a) If the Sub-Capacity Report shows that actual non-z/OS.e MSU usage exceeded the planned MSU usage that the Government provided to IBM, IBM may adjust the size of the Logical Models accordingly. Both IBM and the Government agree that this will result in a billing increase.

c. If the charges on an Eligible Machine are either aggregated Variable Workload License Charge ("VWLC") or aggregated Parallel Sysplex License Charges ("PSLC"), and a Program is running on only one of the Logical Models, the Full Logical Model Capacity for each Logical Model is defined as follows:

    1. For a Program running in the Logical Model with z/OS.e:

        (a) divide the total number of MSUs in the Eligible Machine by the number of engines in that Eligible Machine;

        (b) multiply that result by the number of engines in the Logical Model;

        (c) if the result is not a whole number, any fraction equal to or greater than one-half is rounded up to the next whole number. Otherwise, fractions are dropped.

    2. For a Program running in the Logical Model without z/OS.e, subtract the MSUs calculated above from the total MSUs in the Eligible Machine.

Aggregated Charges:

d. Aggregated PSLC may apply if the Eligible Machine is coupled in a Parallel Sysplex that has aggregated PSLC charges. Usage Pricing Charges may apply.

e. Aggregated Workload License Charges ("WLC") may apply if the Eligible Machine is coupled in a Parallel Sysplex that has aggregated WLC charges.

f. Prerequisite Attachments, Supplements and Exhibits for Aggregated Charges (as applicable)

    1. For PSLC:

        (a) Attachment for Parallel Sysplex License Charges; and

        (b) Exhibit - Parallel Sysplex License Charges (Z125-5206).

    2. For WLC:

        (a) Attachment for IBM System z Workload License Charges; and

        (b) IBM System z Workload License Charges Exhibit (Z125-6324).

zELC Charges:

g. zELC charges are based on the category of the Logical Model.

h. zELC charges are available for selected Programs used on Eligible Machines that are identified in the "Group" column by "zELC," followed by the zELC category, on the Mainframe Exhibits section of the System z Software Contracts Web site.

i. When zELC charges are not available for certain Programs, a default charge applies. It is specified on the Mainframe Exhibits section of the System z Software Contracts Web site for each applicable Eligible Machine in the column called "Other."

    1. If the Government selects zELC charges for any Program on an Eligible Machine, then all Programs for which zELC charges are available must have zELC charges, unless EWLC charges are available for selected Programs. In this case those Programs may have EWLC charges.

j. Increases in any zELC or default charges for Programs, due to changes in the category or model placement for any Eligible Machine to which the Programs are licensed, will be in effect for a minimum period of one month.

TWLC Charges

k. TWLC charges are a tiered price structure and based on Full Logical Model Capacity. Sub-Capacity pricing is not available.

l. TWLC charges are available for selected Programs used on non-aggregated Eligible Machines identified in the "Group" column by "TWLC" followed by the TWLC tier on the Mainframe Exhibits section of the System z Software Contracts Web site.

m. When TWLC charges are not available for certain programs, a default charge applies. It is specified on the Mainframe Exhibits section of the System z Software Contracts Web site for each applicable Eligible Machine in the column called "Other."

    1. If the Government selects TWLC charges for any Program on an Eligible Machine, then all Programs for which TWLC charges are available must have TWLC charges, unless EWLC charges are available for selected Programs. In this case those Programs must have EWLC charges. However, if the Government elects Midrange Workload License Charges ("MWLC") on z/VSE V4 or higher then all Programs with MWLC available must have MWLC charges.

n. Increases in any TWLC or default charges for Programs, due to changes in the tier placement for any Eligible Machine to which the Programs are licensed, will be in effect for a minimum period of one month.

EWLC Charges:

o. EWLC charges are based on Full Capacity or Sub-Capacity pricing.

p. EWLC charges are available only for selected Programs used on non-aggregated Eligible Machines that are identified in the "Group" column by "EWLC" on the Mainframe Exhibits section of the System z Software Contracts Web site.

q. If the Government selects EWLC charges for a Program on an Eligible Machine, then all Programs for which EWLC charges are available must have EWLC charges. All other Programs on that Eligible Machine must have zELC charges, if zELC charges are available, or TWLC charges, if TWLC charges are available. However, if the Government elects Midrange Workload License Charges ("MWLC") on z/VSE V4 or higher then all Programs with MWLC available must have MWLC charges.

IBM Programs with Select Application License Charges ("SALC") may be licensed to the same Eligible Machine as IBM Programs with EWLC Charges. SALC is described in the Select Application License Charges Amendment to Attachment for IBM System z Usage Pricing Charges (Z125-7284-00 or later),

r. Full Capacity Pricing Terms:

Increases in EWLC charges for Programs, due to changes in the model placement for any Eligible Machine to which the Programs are licensed, will be in effect for a minimum period of one month.

s. Sub-Capacity Pricing Terms:

1. Sub-Capacity Charges:

(a) Monthly charges are based on the number of MSUs reported in the Program's Sub-Capacity Report for the specified Eligible Machine during a Reporting Period. This value corresponds to the Product LPAR Utilization Capacity or must equal Full Capacity. If Sub-Capacity pricing is not in effect, monthly charges are based on Full Capacity.

NOTE: Information on IBM's billing process, including how to determine the applicable Reporting Period for a particular month's charges, can be found on the Sub-Capacity Corner website at: http://ibm.com/systems/z/swprice/subcap/terms.html .

(b) Eligible Operating System licenses are charged at Full Capacity MSUs until IBM has processed the initial Sub-Capacity Report for that Eligible Operating System on that Eligible Machine, enabling Sub-Capacity Pricing for that Operating System Family.

(c) The initial monthly charge for a non-operating system license is based upon the applicable operating system MSUs.

(d) Once Sub-Capacity Pricing has commenced for an Eligible Operating System on an Eligible Machine, if an EWLC Program does not appear in a Sub-Capacity Report subsequent to its initial monthly charge, the Program will be charged at the minimum EWLC MSUs.

NOTE: IBM specifies minimum EWLC MSUs in its programming announcements.

If the Government elects to have Sub-Capacity Pricing for an EWLC IBM Program on an Eligible Machine, then Government must have Sub-Capacity Pricing for all EWLC IBM Programs in that Operating System Family on that Eligible Machine.

(e) EWLC features have the same MSUs as the Program.

(f) When z/TPF is licensed to an Eligible Machine, the Sub-Capacity Reporting Tool calculates the number of MSUs for z/TPF Programs running on it. See the Amendment for Calculation of z/TPF MSUs (Z125-7283) for further details.

(g) When z/OS or z/OS.e is licensed to an Eligible Machine, the Sub-Capacity Reporting Tool calculates the number of MSUs used across all the z/OS and z/OS.e LPARs in which each EWLC Program ran during the Reporting Period as follows:

If z/OS or z/OS.e is running in Native LPAR(s) …	and z/OS or z/OS.e is running in Guest LPAR(s), at least one of which is at V1.6 or lower …	and z/OS or z/OS.e is running in Guest LPAR(s), at least one of which is at V1.7 or higher …	then, MSUs are calculated in LPAR(s) in which the EWLC IBM Program ran, as follows:
Yes Yes	Yes Yes	Yes No	The highest combined 1. 4-hour rolling average utilization across all z/OS and z/OS.e Native LPARs, and 2. The maximum capacity of all z/OS and z/OS.e Guest LPARs
Yes Yes No	No No No	Yes No Yes	The highest combined 4-hour rolling average utilization across all z/OS and z/OS.e Native LPARs and z/OS and z/OS.e Guest systems
No No	Yes Yes	Yes No	The highest combined maximum capacity of all z/OS and z/OS.e Guest LPARs

The Government may manage Native z/OS or z/OS.e LPAR utilization by specifying the LPAR defined capacity on the Hardware Management Console ("HMC"). However, this is not required to obtain Sub-Capacity pricing. If Government chooses to specify the defined capacity for a particular Native z/OS or z/OS.e LPAR, the Sub-Capacity Reporting Tool will use the lower of the specified capacity or the 4-hour rolling average in order to determine the number of MSUs associated with each EWLC Program

(h)   If an OS/390 or MVS operating system is licensed to the same Eligible Machine, then charges for the z/OS Operating System Family are based on Full Capacity.

(i)   The capping function in z/OS or z/OS.e is used to ensure the workload does not exceed the LPAR defined capacity Government specified on a 4-hour rolling average. To achieve this, the capping function may automatically reduce and limit computer resources to workloads running in that LPAR. By defining the LPAR capacity, Government authorizes the capping function to cap the computer's resources as defined.

2. IBM's Responsibilities:

    IBM will:

(a)   specify in the Exhibit a) the Eligible Machines, and b) the date and the process for transmitting Sub-Capacity Reports to IBM;

(b)   provide the Sub-Capacity Reporting Tool;

(c)   adjust EWLC in response to the changes the Government indicates on the Sub-Capacity Reports that the Government submits; and

(d)   register Eligible Machines when the Government submits the initial Sub-Capacity Reports.

3. Government's Responsibilities under Sub-Capacity Pricing:

    The Government agrees to:

(a)   promptly install any enabling code for Programs or IBM System z Licensed Internal Code ("LIC") required for Sub-Capacity pricing;

(b)   collect, and retain for a period of not less than six months, the SMF and SCRT89 data records for all LPARs, by Eligible Machine, required by the Sub-Capacity Reporting Tool for each Reporting Period;

(c)   run the most current version of the Sub-Capacity Reporting Tool against the collected SMF and SCRT89 data to produce a Sub-Capacity Report. In addition, Government agrees to specify the LPAR name(s) in the Sub-Capacity Report where any IBM Programs run for which SMF or SCRT89 data is not created. If there have been special circumstances during the Reporting Period, the Government may also provide alternate values, as defined in the SCRT Users Guide (SG24-6522), for each Program, with an explanation for the variance;

(d)   send to IBM within the time specified in the Exhibit:

        (i)   the initial Sub-Capacity Report that is based on the data for the entire initial Reporting Period for each Eligible Machine that the Government wishes IBM to register for Sub-Capacity pricing; and

(ii) subsequent Sub-Capacity Reports that are based on the data for each entire Reporting Period thereafter, for each registered Eligible Machine.

Sub-Capacity Reports may not be used to order or discontinue licenses, move licenses between Eligible Machines, report Eligible Machine model upgrades, or enable or disable Program features. Both IBM and the Government agree that Sub-Capacity Reports that reflect a changed Product LPAR Utilization Capacity may result in billing increase or decrease. The Government agrees to pay such revised charges. The Government is responsible for monitoring funding allocated on their current Order or Contract and issuing Modifications whenever the result of increases and/or decreases in charges exceed such allocated funding. A Modification may also be required for line item changes, if required by the ordering agency. The Government is responsible for paying invoices for all monthly software charges. Sub-Capacity Reports not submitted by the "not later than" date specified in the Appendix will result in Programs being charged on a Full Capacity basis for the Reporting Period;

(e) configure Government's Eligible Machine to send Transmit System Availability Data ("TSAD") weekly to IBM via the Remote Support Facility ("RSF"). This enables IBM to verify that the Product LPAR Utilization Capacity MSUs in the Sub-Capacity Reports Government submits to IBM are consistent with Government's actual Eligible Machine configuration. An alternate means for Government to collect and transmit this data is provided in the "z/OS Planning for Sub-Capacity Pricing" publication. Failure to submit TSAD may result in Programs being charged on a Full Capacity basis;

(f) assign a person in Governmentr's organization with authority to discuss and promptly resolve any questions on Sub-Capacity Reports or inconsistencies between Sub-Capacity Report contents or current license entitlement, and configuration data reported via the RSF; and

(g) notify IBM if Government elects to convert from Sub-Capacity pricing to EWLC at Full Capacity.

GOTC Charges (Graduated One-Time Charges)

a.   Programs for which Customer has paid GOTC may be moved to an Eligible Machine.

b.   Upgrade charges will apply if the Eligible Machine "Default Model Group" specified in the Exhibit or the Mainframe Exhibits section of the System z Software Contracts Web site is higher than the current GOTC entitlement. Refunds do not apply if the Eligible Machine Default Model Group is lower.

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    c.   Contact IBM for special pricing if the GOTC license is being moved to an Eligible Machine whose applicable default charge is based on MSUs rather than a specific Default Model Group.

z/OS.e Charges:

z/OS.e charges are based on the number of engines in the Logical Model in which z/OS.e runs or on EWLC charges.

Additional License Terms for z/OS.e

a.   Government may run z/OS.e only on Eligible Machines.

b.   Governmetn must run z/OS.e in a Logical Partition ("LPAR") that has "ZOSE" as the first four characters of the LPAR name.

c.   Government must execute z/OS.e in z/Architecture (64-bit) mode.

d.   Government must order and license z/OS.e for the number of engines in the Logical Model in which Customer will run z/OS.e, or alternatively, z/OS.e may be ordered with EWLC charges.

e.   Government may use only the levels of Language Environment (LE), JES2 and JES3 that are delivered with z/OS.e.

f.   Government may not run any of the following z/OS.e base elements, optional features, or functions:

1. BookManager READ

2. BookManager BUILD feature

3. GDDM

4. GDDM-PGF feature

5. GDDM-REXX feature

6. DCE Application Support

7. LANRES

8. Bulk Data Transfer (BDT) File-to-File feature

9. Language Environment's use of Run-time Library Services (RTLS)

10. Language Environment Routine Retention (LRR)

11. Language Environment Compatibility Preinitialization for C and PL/I

12. Encina Toolkit Executive

13. MICR/OCR

14. Communications Server Network Print Facility (NPF) feature

g. Government may not run any of the following under z/OS.e:

1. CICS, IMS, FORTRAN, or COBOL applications. However, Government may run precompiled COBOL DB2 stored procedures and other precompiled COBOL applications using the Language Environment preinitialization interface (CEEPIPI). Government may also use DB2, CICS, and IMS Connectors to access existing z/OS or OS/390 systems or an application server on Linux for zSeries. Hipersockets may be used as long as they access LPARs or IFLs on the same Eligible Machine.

2. COBOL, FORTRAN, PL/I, or VisualAge PL/I compilers. However, Customer may execute precompiled PL/I and VisualAge PL/I applications.

3. DB2 QMF Host feature, DB2 QMF HPO feature.

4. Government may not have more than eight concurrent TSO users under z/OS.e.

5. Government may not run any operating system other than z/OS.e, z/VM V4, z/VM V5 and LINUX in the z/OS.e Logical Model. Such operating systems include, for example, z/OS, OS/390, MVS, VM (prior to z/VM V4), VSE, z/VSE, TPF, z/TPF, etc.

6. Government agrees to configure Government Eligible Machine to send Transmit System Availability Data ("TSAD") to IBM weekly via the Remote Support Facility ("RSF"). This enables IBM to verify that Government z/OS.e license matches Customer's actual Eligible Machine configuration. An alternate means for Government to collect and transmit this data is provided in the "Hardware Management Console Operations Guide" publication.

Programs that run on an IFL

h. Programs that run on an IFL engine may be licensed under the terms of the agreement provided with them.

i. Charges for Programs that IBM has announced as eligible to run on IFL engines are based on the total number of IFL engines installed on the Eligible Machine.

j. If a Program runs on the IFL engine(s) and on the engine(s) of one or both of the Logical Models, the charges are based on the total of the IFL engines and the engines in the Logical Models where the Program runs.

Compliance Verification

For purposes of this section, "ICA Program Terms" means terms applicable to ICA Programs in Chapter 1 and Chapter 5 and applicable Transaction Documents and Attachments (including this one). See Compliance Terms in the Chapter.

This Attachment, Chapter 1 and Chapter 5, including applicable Attachments and Transaction Documents, are the complete agreement regarding (1) EWLC, TWLC, or zELC for Programs

running on an Eligible Machine; and (2) z/OS.e, and replace all prior oral or written communications, representations, undertakings, warranties, promises, covenants, and commitments between Customer and IBM regarding (1) EWLC, TWLC, or zELC for Programs running on an Eligible Machine; and (2) z/OS.e. In entering into this Attachment, including any applicable Transaction Document, neither party is relying on any representation that is not specified in this Attachment, the Transaction Document, or the Agreement. Additional or different terms regarding this offering identified in a Government Delivery Order, unless provided in an IBM proposal or quote, are void.

5.7.10 ATTACHMENT SELECT APPLICATION LICENSE CHARGES FOR IBM SYSTEM ZUSAGE PRICING CHARGES

The terms of Select Application License Charges for IBM System z Usage Pricing Charges ("Amendment") modifies and is made a part of the terms for IBM System z Usage Pricing Charges, and associated Appendices apply to Select Application License Charges ("SALC") terms, except in the case of a conflict, in which case the terms stated herein prevail. In addition, terms in Appendix P also apply to Select Application License Charge software. Any Programs licensed in accordance with the terms of this Amendment may be licensed only to a Designated Machine that properly implements 64-bit z/Architecture.

1. SALC Eligible Programs and Measurements

The following supersedes Appendix N for IBM System z Usage Pricing Charges Programs for which SALC is available are at listed at http://www.ibm.com/zseries/library/swpriceinfo/ Click on "Usage Pricing Charges and Select Application License Charges"

1. SALC requires z/OS. In addition, Workload License Charges ("WLC") or Entry Workload License Charges ("EWLC") must be in effect on the same machine.

2. Usage Levels and ranges for SALC Programs:

Usage Level	Usage Range in MSUs (CPU SUs in millions)
Base 1	1.00
Level A	2.00 - 11.00
Level B	12.00 - 44.00
Level C	45.00 - 78.00
Level D	79.00+

Pricing for usage less than or equal to one MSU requires the Base 1 feature, while usage above one MSU requires the Base 1 feature plus the appropriate number of Level A, B, C and D features. For charging purposes, reported usage is rounded up to the nearest whole MSU.

2. Transitioning from Usage Pricing

The highest monthly usage, derived from the preceding Usage Pricing Charge billing period (including one month before that billing period and excluding the final month of the billing period), will be used to determine your monthly SALC charge when transitioning a Program under Usage Pricing to SALC charges.

5.7.11 Amendment IBM System z Programs Sub-Capacity Pricing

These terms modify or are in addition to the IBM Program License Agreement ("IPLA").

Subject to the terms of this Amendment for IBM System z Programs Sub-Capacity Pricing ("Amendment"), IBM enables the Government to obtain Sub-Capacity Pricing for certain System z Programs with one-time charge pricing ("Eligible Programs"). Eligible Programs are as generally announced by IBM, and each is specified at http://ibm.com/systems/z/swprice/reference/exhibits/ . (click on "IPLA Execution-Based","IPLA Reference-Based", or "IPLA z/OS-Based"). This Amendment supersedes any sub-capacity terms offered for Eligible Programs in their License Information or other agreements.

If there is a conflict between the terms of this Amendment and those of the Agreement or IPLA, those of this Amendment prevail.

The Government accepts the terms of this Amendment by issuing IBM a delivery order or contract.

Incorporated Terms

1. Eligible Programs Running in a Workload License Charges ("WLC") Environment

The following sections of the Attachment for IBM System z Workload License Charge of the GSA IT Schedule, apply to the Eligible Programs as if they were Variable Workload License Charge ("VWLC") Programs with Sub-Capacity Pricing, and are incorporated by reference into this Amendment with modifications as indicated:

Section 1 - Definitions:

Section 4 – Government's (or "Your") Responsibilities under Sub-Capacity Pricing with the following modification:

Subsection 4: *The phrase* "Government authorizes (*or* "you authorize") IBM to make any resulting billing increase or decrease" *in the sentence that begins with* "Both IBM and the Government agree that Sub-Capacity Reports..." *is replaced by* "Government authorizes (*or* "you authorize") IBM, to make any resulting billing increase."

2. Eligible Programs Running in an Entry Workload License Charges ("EWLC") Environment

The following sections of the Attachment for EWLC, TWLC, zELC, and z/OS.e License Charges of the GSA IT Schedule, Z125-6587 ("EWLC Attachment"), apply to the Eligible Programs as if they were Entry Workload License Charge ("EWLC") Programs with Sub-Capacity Pricing, and are incorporated by reference into this Amendment with modifications as indicated:

Section 1 - Definitions

Subsection **3.6(e)** - **Sub-Capacity Pricing Terms** *with the following modification:*,

Item (iii)(4): *The sentence* "Both IBM and the Government agree (*or* "You authorize") IBM to make any resulting billing increase or decrease, and agree to pay such revised charges" *is replaced by* "Customer authorizes (*or* "You authorize") IBM to make any resulting billing increase, and agree to pay such revised charges."

3. Eligible Programs Running in a System z New Application License Charges ("zNALC") Environment

The following sections of the Attachment for zNALC License Charges on IBM System z of this GSA Schedule, Z125-7454 ("zNALC Attachment"), apply to the Eligible Programs as if they were zNALC Programs with Sub-Capacity Pricing, and are incorporated by reference into this Amendment with modifications as indicated:

Section 1 - Definitions

Subsection 6(f) – Government Responsibilities under Sub-Capacity Pricing *with the following modification:*

The phrase "Government authorizes IBM to make any resulting billing increase or decrease" *is replaced by* "Government authorizes IBM to make any resulting billing increase."

4. Additional Definitions

Environment - Standalone machine or a machine in a parallel sysplex

Execution-Based Terms - Execution-Based licensing terms apply to Eligible Programs whose value is based on the Product LPAR Utilization Capacity of the execution (run-time) Environment. The capacity of an Eligible Program with Execution-Based terms must equal the Product LPAR Utilization Capacity of the LPAR(s) where it executes.

In addition, if a Program is qualified for "IBM Getting Started Sub-Capacity Pricing for z/OS IPLA Software," then the MSUs reported by SCRT may be a fraction of the Product LPAR Utilization Capacity.

Reference-Based Terms -

a. Reference-Based licensing terms apply to Eligible Programs that add value to particular monthly license charge (MLC) Programs or, in selected cases, to particular one time charge (OTC) Programs. The capacity of an Eligible Program with Reference-Based terms must equal the Product LPAR Utilization Capacity of the applicable MLC or OTC Program. This MLC or OTC Program is called the "Parent Program."

b. Eligible Programs with Reference-Based terms add value to the Parent Program across the Environment, regardless of where in the Environment the Parent Program(s) execute.

c. When an Eligible Program with Reference-Based terms is used in a qualified Parallel Sysplex (described in the WLC Attachment or zNALC Attachment), the capacity of the Eligible Program

must be equal to the Product LPAR Utilization Capacity of the Parent Programs across the Parallel Sysplex.

d. Where there are multiple versions of the Parent Program licensed in the Environment, the IPLA charges will be based on the total Product LPAR Utilization Capacity of the Parent Programs, but capped at the Parent Programs' z/OS Product LPAR Utilization Capacity.

z/OS-Based Terms - z/OS-Based licensing terms apply to Eligible Programs that provide value to the particular machine where the Program is used. The capacity of an Eligible Program with z/OS-Based Terms must equal the Product LPAR Utilization Capacity of z/OS on that machine.

5. Qualifications

a. Customer must have executed the AWLC Attachment, the AEWLC Attachment, the WLC Attachment, the EWLC Attachment, or the zNALC Attachment, as applicable.

b. Government must agree to keep IBM informed of the type, model, and serial number of each machine on which each Eligible Program is executing. The scope of Governmentr's tracking extends to all machines in your Agency or Department within your Agency, whether the Eligible Programs have Sub-Capacity or Full Capacity charges. If Government is unwilling or unable to fulfill Governmentr's tracking responsibilities, IBM may terminate this contract upon 30 days written notice. In such event, Full Capacity terms would apply.

c. If Government has Eligible Programs with Execution-Based or z/OS-Based terms, Customer must have selected Sub-Capacity Pricing for AWLC, AEWLC, VWLC, EWLC, or zNALC, as appropriate, on the machine where the Eligible Program is being used, otherwise Full Capacity MSUs will apply.

d. If Government has Eligible Programs with Reference-Based terms, Government must have selected Sub-Capacity Pricing for AWLC, AEWLC, VWLC, or EWLC, as appropriate, for the Parent Program(s). Full Capacity MSUs will apply for any machine(s) where the Parent Program is not in Sub-Capacity mode.

e. z/OS or z/OS.e must run in z/Architecture (64-bit) mode.

f. OS/390 and MVS may not be licensed to a machine with Sub-Capacity Pricing.

g. For specific machine qualifications, see the Mainframe Exhibits section of the System z Software Contracts Web site (http://ibm.com/systems/z/swprice/reference/exhibits/hardware.html). See machines with "(A)" or "WLC" in the WLC column, "AEWLC" or "EWLC" in the Group column, or "zN" in the zNALC column.

h. Monthly Sub-Capacity reports, generated by the Sub-Capacity Reporting Tool ("SCRT"), must be submitted to remain eligible for Sub-Capacity pricing. SCRT terms are described in the AWLC, AEWLC, WLC, EWLC, and zNALC Attachments.

i. Sub-Capacity terms may not be transferred to third parties. Sub-capacity terms may not be transferred to other Government agencies, without the consent of IBM.

j. When any of the terms or conditions are not met, then the Eligible Program no longer qualifies for Sub-Capacity pricing. Upon notification by IBM, the Government will issue IBM an order for full capacity charges, including Subscription and Support, if applicable.

6. Resellers

When the Government orders Eligible Programs under Sub-Capacity terms from a reseller, IBM is not responsible for 1) the actions of the reseller, 2) any additional obligations the reseller may have to the Government, 3) any products or services that the reseller may supply to the Government under their agreements. When the Government obtains Eligible Programs or S&S from a reseller, the Government's reseller sets the charges. IBM, however, sets the charges and payment terms for increases in charges effected by the Government's SCRT Report submissions.

7. Charges

a. One-time charges are based on the number of MSUs reported in the SCRT Report during a Reporting Period. This value corresponds to the Product LPAR Utilization Capacity of the Eligible Programs with Execution-Based or z/OS-Based terms or the Parent Program, as applicable. If Sub-Capacity Pricing is not in effect, one-time charges are based on Full Capacity MSUs or Full Logical Model Capacity, as appropriate.

NOTE: Information on IBM's billing process, including how to determine the applicable Reporting Period for a particular month's charges, can be found on the Sub-Capacity Corner website at http://ibm.com/systems/z/swprice/subcap/terms.html .

NOTE: If Customer is required to order additional capacity for an Eligible Program, the S&S capacity for that Eligible Program will also be increased.

b. The number of MSUs associated with an LPAR is equivalent to the highest observed rolling 4-hour average utilization in a Reporting Period. Customer may manage LPAR utilization by explicitly specifying the defined capacity of the LPAR(s) on the Hardware Management Console ("HMC"). This, however, is not required to obtain Sub-Capacity Pricing benefits.

c. If Customer chooses to specify the defined capacity of the LPAR(s), the SCRT will use the lower of the defined capacity or the 4-hour rolling average utilization in order to determine the Product LPAR Utilization Capacity for each Program.

d. The capping function in the Eligible Operating System is used to ensure the workload does not exceed the LPAR defined capacity Customer has specified. To achieve this, the capping function may automatically reduce and limit computer resources to workloads running in that LPAR. By defining the LPAR capacity, Customer authorizes the capping function to cap the computer's resources as defined.

e. If Sub-Capacity Pricing is not in effect, aggregated charges are based on Full Capacity MSUs or Full Logical Model Capacity, as appropriate.

IBM does not give credits or refunds for charges already due or paid if the applicable Product LPAR Utilization Capacity falls below the then current authorized entitlement.

8. IBM's Responsibilities

a. IBM will provide the following on the SCRT website
(http://ibm.com/systems/z/swprice/subcap/scrt/):

> 1. the SCRT, which is at no charge (**NOTE**: Written notification of updates will be sent by email.)

> 2. the process for transmitting SCRT Reports and Notification of Changes to IBM

b. IBM will calculate the applicable MSUs for Eligible Programs with Reference-Based or z/OS-Based terms by using the MSUs of the Parent Program(s) or z/OS, as applicable, from the SCRT Report(s).

9. Compliance Verification

For purposes of this section, "IPLA Program Terms" means the IPLA and applicable Amendments (including this one) and transaction documents. Compliance terms are as stated elsewhere in this Chapter.

Both of us agree that the complete agreement between us concerning Sub-Capacity Pricing for System z Programs with one-time charge pricing consists of this Amendment including applicable transaction documents, and the IPLA, applicable replaces any prior oral or written communications between us. Additional or different terms regarding this offering identified in a Government Delivery Order, unless provided in an IBM proposal or quote, are void.

5.7.12 ADDENDUM FOR INTEGRATED WORKLOAD PRICING TO ATTACHMENT FOR AWLC

The terms of this Addendum for Integrated Workload Pricing for AEWLC(Addendum) is in addition to (a) each of the following that are in effect between IBM and the Government: (i) the Attachment for IBM System z Advanced Workload License Charges above or the current commercial agreement ("Z125-8538) and the terms of this Chapter 5 and Chapter 1. The terms of this Addendum in addition to those of the Attachment govern the Government's entitlement to the Integrated Workload Pricing ("IWP") adjustment to Program charges.

1. Definitions

Standard Sub-Capacity Value — the number of MSUs equivalent to the Product LPAR Utilization Capacity reported by SCRT for the Program when IWP does not apply to that Program for the specified Eligible Machine during a Reporting Period.

IWP Adjusted Program — a Program (1) eligible for a reduction to the Standard Sub-Capacity Value and (2) specified at http://ibm.com/systems/z/swprice/reference/exhibits/iwp.html

IWP Defining Program — a Program (1) whose processing time SCRT uses to reduce the Standard Sub-Capacity Value of an IWP Adjusted Program and (2) that IBM specifies at http://ibm.com/systems/z/swprice/reference/exhibits/iwp.html

Hourly LPAR Utilization Value — the number of MSUs a logical partition ("LPAR") uses in an hour, based on a four-hour rolling average utilization.

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Hourly Program Utilization Value — the number of MSUs a Program in an LPAR uses in an hour, based on a four-hour rolling average utilization.

Hourly Adjusted LPAR Value — the number of MSUs by which the Hourly Program Utilization Value for an IWP Defining Program has reduced the Hourly LPAR Utilization Value for an IWP Adjusted Program.

Hourly Adjusted Sub-Capacity Value — the sum of all the concurrent Hourly Adjusted LPAR Values for all copies of a Program running on the same Eligible Machine.

IWP Adjustment Charge— the charge for an IWP Adjusted Program determined by the number of MSUs reported by SCRT for that Program for the specified Eligible Machine during a Reporting Period. This value is equal to the highest Hourly Adjusted Sub-Capacity Value for each IWP Adjusted program for that Reporting Period.

Government Responsibilities

Government shall

a. be at SCRT version 19.2.0 or higher;

b. apply z/OS APAR OA31615;

c. promptly install any future required z/OS service or required product specific service for IWP and implement any IBM directed technical measures to maintain Integrated Workload Pricing;

d. use the SCRT control statement documented in the SCRT User Guide in order to enable support for Integrated Workload Pricing;

e. ensure that all z/OS guest systems running under z/VM are at z/OS V1.10, or higher. z/VM must be at either

    1. z/VM V5.4 with APAR VM64798 (or higher) or

    2. z/VM V6.1 with APAR VM64879 (or higher);

Note: If the z/OS system is a guest system running under z/VM, each z/OS guest system is treated as its own LPAR when applying any sub-capacity adjustments for IWP.

f. not cause directly or indirectly any software to have the attributes of an IWP Defining Program unless IBM has designated that software as a IWP Defining Program;

g. not cause directly or indirectly any IBM Program to be treated as an IWP Adjusted Program unless it has been designated by IBM as an IWP Adjusted Program;

h. not submit Sub-Capacity Reports that provide the IWP Adjustment attributable to software that has been withdrawn as an IWP Defining Program upon notice by IBM; and

i. IBM will invoice for any additional charges and other liabilities the Government becomes obligated to pay arising out of Government's submission of altered reporting of the IWP Adjustment or failure to otherwise comply with Integrated Workload Pricing Terms.

Government's liability for any such charges attaches at the moment that the Government submitted the altered report or otherwise failed to comply.

IBM Responsibilities

IBM shall

a. subject to Government's compliance with this Addendum, apply the IWP Adjustment Charge to IWP Adjusted Programs as calculated by SCRT and in accordance with this Addendum and the Attachment; and

b. maintain a listing of IWP Adjusted Programs and IWP Defining Programs on an IBM Web site.

IBM Rights

IBM may

a. remove and or modify IWP Adjusted Programs and IWP Defining Programs at its discretion and such changes become effective immediately and apply to the next billing period. IBM will notify the Government should such change occur; and

b. reject Sub-Capacity Reports that reflect data generated by or concerning ineligible or withdrawn IWP Adjusted Programs or IWP Defining Programs.

Termination

The Government may terminate this offering upon three months' written notice.

This Addendum, each Applicable Attachment and the GSA Terms are the complete agreement regarding Integrated Workload Pricing for IBM System z Advanced Entry Workload License Charges. Additional or different terms regarding this offering offering identified in a Government Delivery Order, unless provided in an IBM proposal or quote, are void. All IBM Programs utilizing Integration Workload Pricing for IBM System z Advanced Entry Workload License Charges ordered under this Addendum are subject to it.

5.7.13 IBM ADDENDUM FOR TAILORED FIT PRICING FOR IBM Z SW – ENTERPRISE CONSUMPTION
Enterprise Consumption Pricing (Document Separately Attached)

5.7.14 IBM ADDENDUM FOR TAILORED FIT PRICING FOR IBM Z - DEVELOP/TEST SOLUTION
Application Development and Test Solution (Document Separately Attached)