IBM System z
Introduction
January 2014

IBM System z On/Off Capacity on Demand (OOCoD)

Frequently Asked Questions

Worldwide

Question:

Is IBM announcing anything new associated with IBM System z® On/Off CoD charges?

Answer:

Yes. IBM is making an announcement at this time regarding On/Off CoD maintenance charges with a pricing action.

Question:

What IBM maintenance charges are currently incurred when I use On/Off CoD prior to the announcement?

Answer:

No maintenance charges will be applied for On/Off CoD usage prior to this announcement as only charges or IBM maintenance service on the base machine permanently activated capacity under IBM maintenance were in effect.

Question:

Why is IBM planning to charge maintenance fees for On/Off CoD usage now?

Answer:

Our maintenance pricing strategy for System z is to charge maintenance based on the amount of active capacity in use. Therefore, now when the user activates temporary capacity, an additional maintenance charge by IBM is planned to be incurred provided the machine is under contract with IBM for maintenance service. Charges for all capacity used is then consistent across permanent and temporary capacity.

Question:

Will there be any special warranty period associated with the On/Off CoD capacity?

Answer:

There is no plan to have a separate warranty period specific to temporary capacity activated through On/Off CoD. System z servers that use On/Off CoD will have the warranty status of the base server and any additional capacity warranty when installed as an MES to the base server. If the System z base server or MES capacity has any remaining warranty period (as a result of it being within 12 months of original installation) there will be no maintenance charges for associated On/Off CoD usage. If the warranty period has expired for the System z base server or MES and it is under contract with IBM for maintenance service, then additional maintenance charges are expected to be incurred from the associated usage of temporary capacity activated through On/Off CoD. Note that a System z server's warranty period is 12 months from the date the base server is originally installed, and should not be confused with, or equated to, any delayed maintenance billing which results from the installation of a permanent upgrade on that server.

As a reminder, no maintenance charges will be incurred from the no-charge test of On/Off CoD. The following table should help you visualize how warranty considerations are applied to On/Off CoD maintenance charges.

	Is server or MES capacity upgrade under warranty (within 12 months of original installation)?	Will On/Off CoD maintenance charges apply?
Server on which On/Off CoD is activated	Yes	No
Server on which On/Off CoD is activated	No	Yes
Test of On/Off CoD	N/A	No

Question:

What will be my maintenance charges for On/Off CoD usage?

Answer:

For a machine under contract with IBM for maintenance service, the additional maintenance charges associated with On/Off CoD usage will be based on the amount of temporary capacity used and duration of its usage. When you request On/Off CoD activation through IBM ResourceLink® you will be provided a **Not to Exceed** estimate of charges. Your actual charges will be computed after each On/Off CoD usage cycle and will only include usage where warranty is not involved.

Question:

When will current On/Off CoD customers be subject to the On/Off CoD maintenance charges?

Answer:

For a machine under contract with IBM for maintenance service, the additional maintenance charges associated with On/Off CoD usage will be based on the amount of temporary capacity used and duration of its usage. For maintenance purchased via an IBM business partner you should contact the BP from whom you purchased your maintenance contract to get pricing. For maintenance purchased from IBM, when you request On/Off CoD activation through IBM ResourceLink® you will be provided a Not to Exceed estimate of charges. Your actual charges will be computed after each On/Off CoD usage cycle and will only include usage where warranty is not involved.

Question:

When will IBM maintenance charges associated with On/Off CoD usage begin?

Answer:

IBM maintenance charges associated with On/Off CoD usage will be effective 90 days after the announcement of charges by IBM. For any given customer, the terms of their IBM service contract for the System z server where the On/Off CoD is activated will govern the exact timing and applicability of these charges.

Question:

How will these charges be incurred?

Answer:

The maintenance charges associated with On/Off CoD usage will be incurred based on the amount and duration of temporary capacity that is activated through On/Off CoD. These charges will apply to machines that are under contract with IBM for maintenance services, and that contract will govern their applicability and the timing of their effective date.

Question:

How does my IBM payment schedule affect On/Off CoD payments. E.g. annual, monthly, quarterly or prepaid?

Answer:

On/Off CoD charges will apply based on specific terms of your IBM maintenance contract. Unless specifically excluded charges will always apply and usually with a monthly invoice from IBM for prior month usage.

Question:

What if my machine(s) is not under contract with IBM for maintenance service and is out of its warranty period?

Answer:

In this scenario you will not incur maintenance charges from IBM associated with On/Off CoD usage since IBM is not under contract to maintain your machine. In the event a failure is incurred you may contact IBM for Time and Materials repairs.

Question:

Is this only for System z?

Answer:

This announcement only pertains to System z. However, IBM may at a later date chose to announce and implement maintenance charges associated with temporary capacity usage on other IBM products where temporary capacity is available.

Question:

Will I see any changes to my IBM maintenance service as a result of the added maintenance charges for on On/Off CoD?

Answer:

No. Customers who contract with IBM for service will receive the same excellent IBM service response and support they have always enjoyed when maintenance is required on their Systems z servers.

Question:

What impact will there be on other CoD options. E.g. Capacity Backup Upgrades (CBU)?

Answer:

IBM is not currently planning to charge maintenance on capacity added via CBU for System z servers.

Question:

Will a customer be charged for OOCoD maintenance usage if the OOCoD Resource Link record was installed prior to April 8th?

Answer:

Yes. IBM will charge OOCoD maintenance usage for activation consumed on or subsequent to April 8, 2014.

Current Capacity on Demand Offering FAQ's updated with Maintenance
Capacity on Demand offerings

Question:

Does the IBM zEnterprise® EC12 (zEC12) and IBM zEnterprise BC12 (zBC12) come with the same Capacity on Demand architecture available on the other zEnterprise System servers (the IBM zEnterprise 196 (z196) and IBM zEnterprise 114 (z114))?

Answer:

Yes. The provisioning architecture framework is available on all zEnterprise platforms. The architecture offers increased flexibility and capabilities over previous product lines, where only one temporary entitlement record (TER) could be active at a given time. With the latest Capacity on Demand architecture, up to eight different TERs may be installed and active at the same time. Only one On/Off Capacity on Demand TER can be activated at a time. Multiple Capacity Backup and Capacity for Planned Event TERs can be activated at the same time. In addition, the architecture allows concurrent permanent upgrades while temporary capacity is active.

Question:

What are the major differences from the IBM System z10® capacity on demand offerings?

Answer:

IBM Resource Link will monitor all installed On/Off CoD records. Every 90 days, Resource Link will generate a replenishment record for each installed record that will move the expiration date out 180 days. The record must be "enabled" for auto-renewal. The next time the system connects through the IBM remote support facility to the IBM Support System a replenishment record is pushed to the system and installed. Once set, no customer renewal action is required. The auto-renewal capability may be cancelled or suspended at any time.

Ordering options were added to Resource Link to allow the purchase of banked CP (high water mark) or unassigned IFL capacity and to allow users to explore capacity needs and upgrade options before purchasing a permanent engine upgrade.

On/Off CoD Administrative Test supports standard order flow, including approval steps that allow for testing of processes and procedures without any resulting hardware or IBM program charges.

With the zEnterprise, up to four Capacity on Demand records can be ordered for pre-installation, including records for CBU and CPE; these records will come pre-installed instead of being staged on the Service Element. If more than four records are ordered with the system, none will be installed and all will be staged on the service element. IBM installation service representatives will assist with the installation of any staged records.

Question:

How does On/Off CoD work?

Answer:

On/Off CoD is available for up to twice the 'purchased' capacity of a given machine based on the LSPR mixed workload multi-image ITRR (Internal Throughput Rate Ratio). On/Off CoD upgrades are allowed for any processor configuration, up to the limit, as long as the number or capacity level of the processors is increased. Upgrades that decrease the number or the capacity level of processors are not allowed. CP capacity upgrades will be ordered based on a percentage increase over the currently purchased capacity. Specialty engines will be ordered in full-engine increments and will always be full-capacity processors.

Question:

How do resource tokens work on the zEnterprise?

Answer:

Management of temporary capacity through On/Off CoD is further enhanced through the introduction of resource tokens. For CP capacity, a resource token represents an amount of processing capacity that will result in one MSU of software cost for one day – an MSU-day. For specialty engines, a resource token represents activation of one engine of that type for one day – an IFL-day, a zIIP-day or a zAAP-day. The different resource tokens are contained in separate pools within the On/Off CoD record.

Using the Resource Link ordering process, the customer determines how many tokens to put into each pool. Once On/Off CoD resources are activated, tokens are removed from their pools every 24 hours. The number removed is based on the highest activation level for that engine type during the previous 24 hours.

Resource tokens are intended to help bound the hardware costs associated with using On/Off CoD. The use of resource tokens is optional and they are available on either a prepaid or post-paid basis. Prepaid resource tokens are priced based on the total number of resource tokens contained in the On/Off CoD record. When post-paid, the total billing against the On/Off CoD record is limited by the number of resource tokens contained in the record.

For more information, refer to the Capacity on Demand Users Guide, SC28-2605.

Question:

What is the change that allows me to alter my On/Off CoD capacity without having to order and download a new On/Off CoD record?

Answer:

With the Capacity on Demand record structure, instead of ordering a separate On/Off CoD record for each possible configuration, a single reusable record that identifies the maximum possible activated configuration can be ordered. CP capacity is ordered based on a percentage increase over the currently purchased capacity. Other engines are ordered in full-engine increments. When temporary capacity is needed, the desired target configuration is identified by the customer. Need more processing capacity? Select a new larger target configuration without a new activation. The amount of active temporary capacity can also be decreased by selecting a lower target. When temporary capacity is no longer required, the customer simply returns the machine to its base configuration. The On/Off CoD record is still available and can be used for additional capacity at any time. The maximum temporary upgrade is still restricted to a maximum of two times the machine's purchased capacity configuration. Customers will be charged for the additional activated capacity on a 24-hour basis, and if capacity is increased multiple times during a 24 hour period, the charge will be based on the greatest amount of capacity activated.

Question:

What is the API that is available for On/Off CoD?

Answer:

There is an API provided within the existing HMC SNMP interface that is designed to enable customers to use other automation code (which conforms to the API) to enable activation of On/Off CoD on the HMC without human intervention. This will allows flexibility of operation of the On/Off CoD function. A specification for API is available on the IBM Resource Link page. This API is exclusive to the zBC12, zEC12, z196 and z114.

Question:

What is banked or unassigned capacity?

Answer:

Banked or unassigned capacity can be either general-purpose or IFL capacity that has been purchased by the end user, but for business reasons has been unassigned (turned off) by the end user such that no workload can be executed on the unassigned capacity.

Question:

What is the hardware price of On/Off CoD when using unassigned capacity compared to capacity that has not been previously purchased?

Answer:

At this time there are no additional hardware charge for activating banked CP or unassigned IFL capacity with an On/Off CoD record. The customer is responsible for any additional maintenance or software charges that may result from activating unassigned capacity.

Question:

Can On/Off CoD use unassigned IFL or CP capacity for any purpose other than its original intended one?

Answer:

Yes. An unassigned processor may be activated as any temporary engine type. An unassigned CP may be activated as a CP, IFL, zIIP, zAAP, ICF, or SAP. Likewise, an unassigned IFL may be temporarily activated as a CP, IFL, zIIP, zAAP, ICF, or SAP. However, if you activate unassigned capacity for any purpose other than its original purchased purpose, that activation will be priced as if the capacity were unowned. So temporarily activating an unassigned CP as a CP engine results in no daily hardware charges. However, activating that same unassigned CP as an IFL, zIIP, zAAP, ICF, or SAP results in the same daily hardware charge as an unpurchased engine.

Question:

Do I need to follow a different process to use unassigned capacity with On/Off CoD?

Answer:

No. The order process is the same.

Question:

Will temporary capacity be available for specialty processors (IFLs, ICFs, zAAPs, zIIPs, SAPs) on the zEnterprise?

Answer:

Yes. All engine types are available for temporary upgrades.

Question:

Can I order On/Off CoD if I have subcapacity CP processors?

Answer:

Yes. On/Off CoD is available for up to twice the ‘purchased’ capacity for a given machine but the number or capacity setting of CPs cannot be decreased. With the full ‘matrix’ upgradeability of the subcapacity processors, a machine’s capacity can be temporarily changed with processors of equal or greater capacity depending on the capacity requirements. When subcapacity settings are used for On/Off CoD upgrades, the number of general purpose processors cannot exceed 20 on the zEC12. (NOTE – when using On/Off CoD to increase the speed of subcapacity processors on the zEC12 to full capacity, it is possible to have more than 20 processors active at one time.)

Question:

When can I begin placing On/Off CoD orders against my zEnterprise?

Answer:

On/Off CoD can be initiated as soon as the profile for the zEnterprise is established. The prerequisite of establishing a profile is the signing of the necessary contract supplements associated with ordering features 9900 and 9896.

Question:

Will I be able to do Capacity Backup Upgrade (CBU) capability on any engine type?

Answer:

Yes. The zEnterprise is able to activate all processor types as part of CBU upgrades: IFLs, zAAPs, zIIPs, ICFs, CPs and SAPs.

Question:

Can I order CBU processors if I have subcapacity processors?

Answer:

Yes. CBU is available for machines configured with subcapacity processors but a CBU Upgrade cannot decrease the number or the capacity level of installed CP processors.

Note that the configuration cannot exceed 20 subcapacity processors (CP or CBU) on the zEC12. A customer no longer has to increase the quantity of CPs for CBU, but can just increase the capacity of the existing CPs count by ordering CBU CP features with greater capacity. When the quantity of CBU processors on the zEC12 exceeds 20, all CBU processors will be full capacity.

Question:

Can I add CBU capacity by selecting CBU engines that have more CP capacity than my permanent configurations and have fewer actual CPs than the CBU machine's base configuration?

Answer:

No, a CBU Upgrade cannot reduce the number of CPs configured for the machine.

Question:

Can I convert an active permanent engine to another engine type during CBU?

Answer:

No. All active permanent engines must remain as part of the CBU environment (although they may change in capacity) and cannot be converted to another type while the CBU Upgrade is active. Unassigned engines may be used as other engine types within a CBU upgrade's configuration.

Question:

What can I do during a CBU test?

Answer:

Customers may now execute productive workload on the capacity of a CBU upgrade during a CBU test provided that a) an amount of System z productive workload capacity equivalent to the CBU Upgrade is shut down or otherwise made unusable by the customer for the duration of the test, and b) the appropriate contracts are in place. All new CBU contract documents contain these new CBU Test terms. Existing CBU customers will need to execute IBM Customer Agreement Amendment for IBM System z Capacity Backup Upgrade Tests, form number Z125-8145.

Question:

What Capacity on Demand features can I order on IBM Resource Link?

Answer:

Permanent processor and memory upgrades, On/Off CoD, CPE, and CBU records can be ordered from Resource Link.

Question:

Is FC 9898, the permanent upgrade via CIU feature, still a prerequisite to On/Off CoD?

Answer:

No. A machine may be enabled for On/Off CoD upgrades without having to enable the machine for permanent upgrades via CIU.

Question:

If I have Capacity on Demand features on my system now will they be lost if I upgrade to a zEnterprise?

Answer:

The CBU,CPE, Permanent Upgrades via CIU, On/Off Capacity on Demand, and On-Line CoD Buying enablement features can be brought forward to the zEC12 including any CBU, CPE and On/Off Capacity on Demand records installed or staged.

Question:

Has the way I order Capacity on Demand features changed?

Answer:

Permanent processor and memory upgrades, CBU and the Capacity for Planned Event may be ordered either through your IBM or BP sales representative, or Resource Link. On/Off Capacity on Demand orders must still be placed through Resource Link only.

Question:

Tell me about the Capacity Provisioning capabilities of the zEnterprise?

Answer:

A Capacity Provisioning Manager was introduced on z/OS® V1.10, also available on z/OS V1.9 with a PTF. The Capacity Provisioning Manager can monitor z/OS systems on zEC12, z196, z114 and System z10 servers. Activation and deactivation of temporary capacity can be suggested or performed automatically based on user-defined schedules and workload criteria.

The Capacity Provisioning Control Center is a tool for managing capacity provisioning for zEC12, z196, z114 and System z10 servers. It is designed to manage provisioning policies and domain configurations. Provisioning policies specify the criteria for capacity increases and decreases, while domain configurations specify systems to be observed and servers to be managed. In z/OS V1.10, support was provided for a policy definition application which requires a workstation running Microsoft® Windows® XP. z/OS V1.12 added support for averaged rolling performance intervals, CICS® and IMS™ transaction monitoring, and Microsoft Windows Vista.

Specifically, the Capacity Provisioning Control Center provides the following functions:

- Create and edit Capacity Provisioning policies
- Create and edit Capacity Provisioning domain configurations
- Connect to the Provisioning Manager; Display the status of the Provisioning Managers
- Install Capacity Provisioning policies and domain configurations into the Provisioning Manager

- With z/OS V1.11 the z/OS Capacity Provisioning exploits the new BCPii capability to remove the requirement for a TCP/IP connection for communication between the Capacity Provisioning Manager and the Support Element (SE) or Hardware Management Console (HMC). In addition, Capacity Provisioning provides improved logical processor management support. This support allows you to specify that Capacity Provisioning Manager should prompt the operator to configure logical processors online or offline as needed for capacity changes. Capacity Provisioning support for BCPii and logical processor management is also available on z/OS V1.10 with PTF UA47421.
- With z/OS V1.12 the z/OS Capacity Provisioning uses the delay data for transaction service classes provided by RMF™ to help determine whether a provisioning action is required for servers on which CICS and IMS are running. Monitoring delay data for CICS and IMS transaction classes is intended to help improve capacity provisioning decisions for servers with LPARs running CICS and IMS. This function is also available now for z/OS V1.10 and z/OS V1.11 with the PTF for APAR OA29641.
- For z/OSV1.13, Capacity Provisioning Manager now allows you to specify different quantities for obtaining the first capacity increment and subsequent increments, to help you add the right amount of capacity quickly. This is available for z/OS V1.11 and z/OS V1.12 with the PTF for APAR OA35284. In addition, support is provided for recurring time conditions, which can simplify defining the Capacity Provisioning policy for events that repeat and is also available for z/OS V1.11 and z/OS V1.12 with the PTF for APAR OA35284. Also in z/OS Capacity Provisioning Control Center support is added for the 32-bit and 64-bit versions of Microsoft Windows 7 Professional Edition.
- In z/OSMF V1.13, the Capacity Provisioning task is designed to support easier monitoring of z/OS Capacity Provisioning Manager status, which can reduce the time it takes to get capacity provisioning status. The Windows-based CPCC is still required for managing the z/OS Capacity Provisioning Manager
- IBM intends for z/OS V1R13 to be the final release for which SNMP as supported protocol for the communication to the HMC or Support Element is available. Customers currently using SNMP for communication, should migrate to BCPii. The migration includes enabling the communication through BCPii for the provisioning manager user and adding a new key to the Capacity Provisioning Manager parameter file.

Question:

What is Capacity for Planned Event (CPE)?

Answer:

CPE is temporary access to capacity intended to replace capacity lost within the enterprise due to a planned event such as a facility upgrade or system relocation. CPE is similar to CBU in that it is intended to replace lost capacity; however, it differs in its scope and intent. Where CBU addresses disaster recovery scenarios that can take up to three months to remedy, CPE is intended for short-duration events lasting up to three days, maximum. Each CPE record is ordered with the capacity needed to meet business needs.

Question:

How will CPE be priced?

Answer:

There is a fixed price for each CPE record (which is for a three day event). The price depends on the amount of capacity ordered. There are no additional IBM programs or IBM maintenance service charges for capacity activated by CPE. IBM, at its discretion, reserves the right to add maintenance charges at a later time.

Question:

How is CPE ordered?

Answer:

CPE records can be ordered by Resource Link or via your IBM or BP sales representative as an MES order. The system must be enabled for Capacity for Planned Event, Feature code #9912. The enablement process for each Capacity on Demand offering begins when you order the associated enablement feature code and sign the associated IBM contract.

- The following contracts must be signed one time within a given country before IBM will accept an order for the first instance of the CPE Enablement feature code (feature #9912):
    1. IBM Customer Agreement Attachment for IBM System z Capacity on Demand Offerings (US form #Z125-7879)
    2. IBM Customer Agreement Attachment for IBM System z Replacement Capacity Offerings (US form #Z125-7880)
    3. IBM Customer Agreement Attachment for IBM System z Capacity for Planned Events (US form #Z125-7882).

IBM Systems and Technology Group
Route 100
Somers, New York 10589
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