



IBM eServerJ iSeriesJ

Capacity Upgrade on Demand

IBM & IBM Business Partner Use Only Until Announced

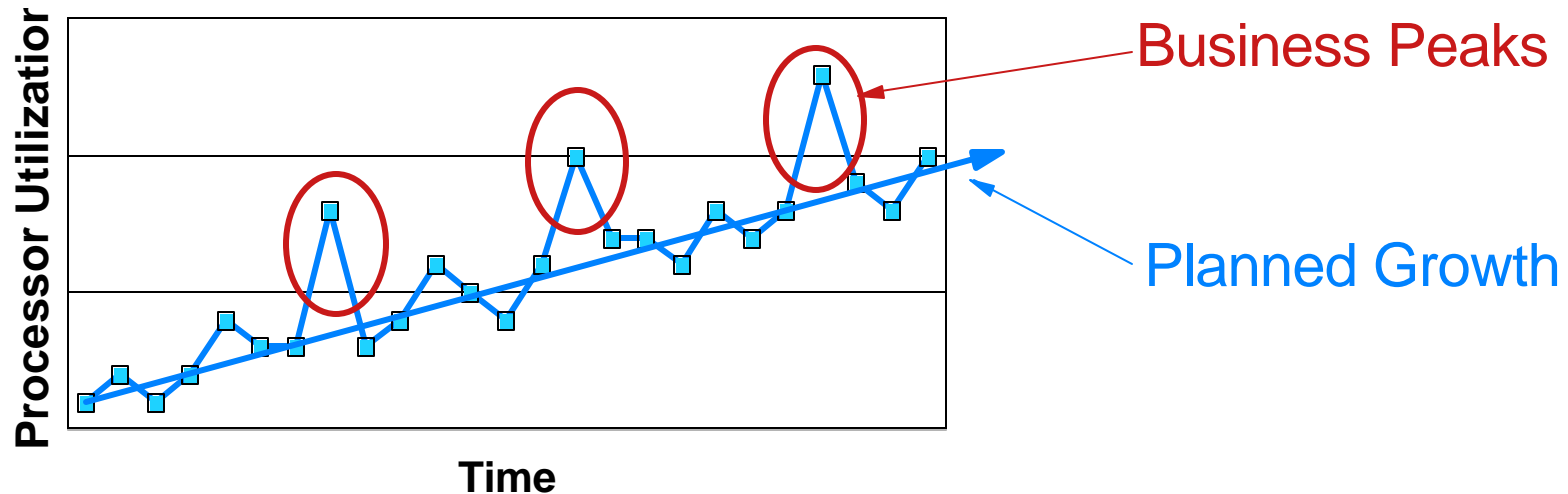
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Preliminary price examples are shown in this presentation. The prices are not final and may change prior to announcement.

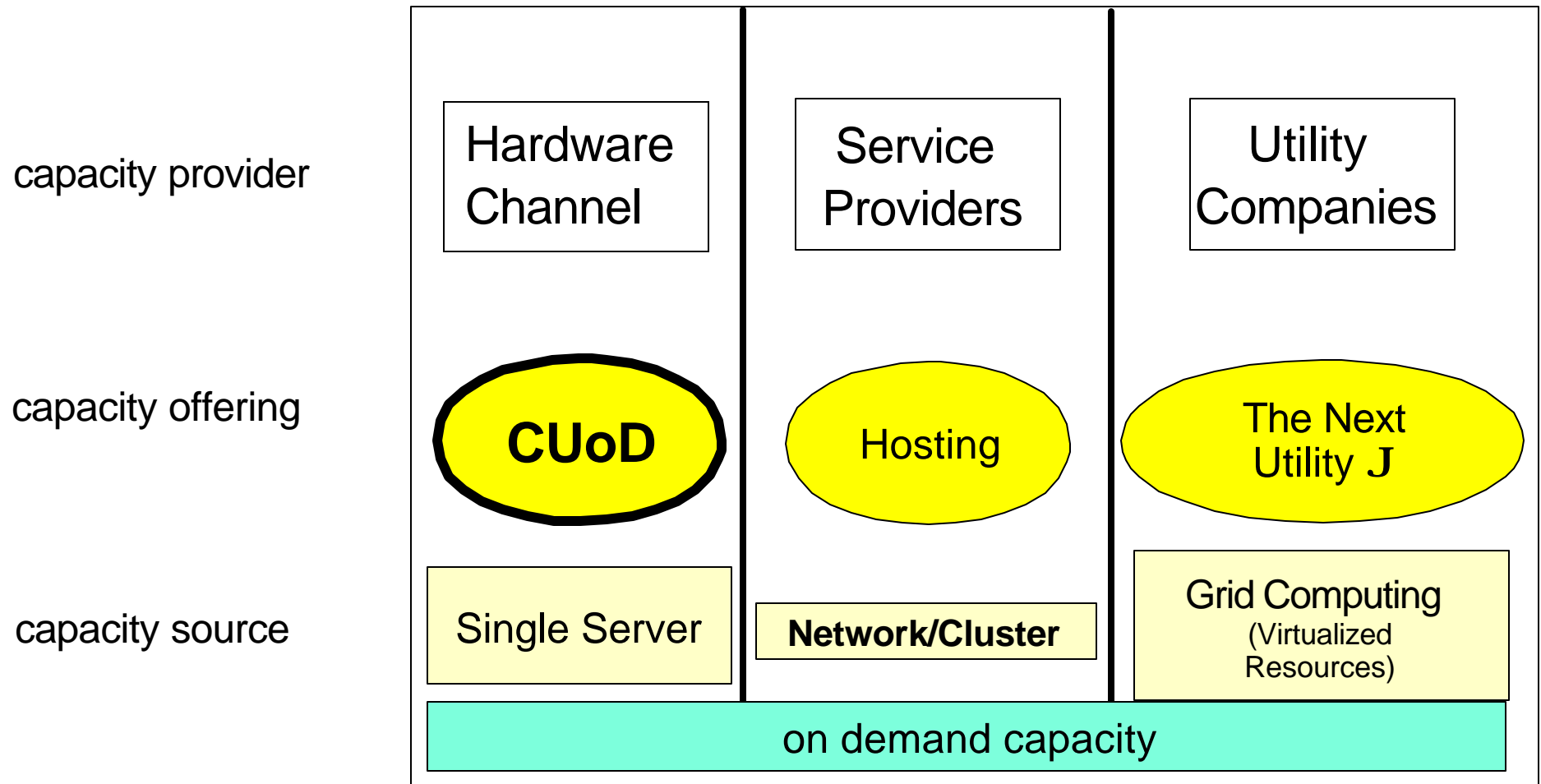
Capacity Upgrade on Demand (CUoD)



- **CUoD** (permanent capacity on demand)
 - Planned Growth ... pay when purchased, no premium
- **On/Off CUoD** (temporary capacity on demand)
 - Business Peaks ... pay after use, break even is ~45 days
 - Special Purpose ... bonus and complementary days available

CUoD ... one part of e-business on demand

Today and into the Future



CUoD ... can mean more than just processor capacity

- **Processor**
 - ▶ Units of Processor Capacity
- **Memory**
 - ▶ Units of Memory Capacity
- **Disk**
 - ▶ Units of DASD Capacity



IBM is currently evaluating
for a future release



- iSeries offers "on demand" DASD via SHARK attached towers
- iSeries offers "hot-plug" DASD via INTERNAL disk units

CUoD ... here to stay

- **History**

- ▶ CUoD was announced on iSeries in October 2002
- ▶ On/Off CUoD will be announced on iSeries in January 2003

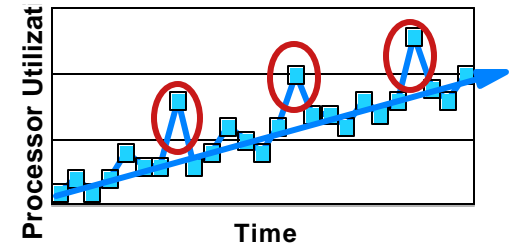
- **Status**

- ▶ Over 1700 standby processors have shipped (as of November, 2002)
- ▶ Permanent activation rate of standby processors hovering around 20%

- **Competitive Advantages**

- ▶ Both permanent and temporary capacity is available
- ▶ No IPL and no re-configuration required (UNIX servers must be re-configured when a database is involved!)
- ▶ Solutioning flexibility with On/Off CUoD ... no upfront purchases or pre-use charges!

CUoD ... what's new for 2003



It is there when you need it

- ▶ CUoD and On/Off CUoD is available on iSeries Model 825, 870, 890 *
- ▶ On/Off CUoD ... ability to temporarily activate processor capacity
- ▶ Low cost processor activations for Linux
- ▶ Simpler fulfillment process for permanent activations (no field VPD required)

Simple for the customer - as easy as 1 - 2 - 3

- ▶ CUoD (permanent capacity on demand)
 - Order an activation code to permanently turn on extra capacity (POD Activation Features)
- ▶ On/Off CUoD (temporary capacity on demand)
 1. Enable your server for the use of temporary capacity (TCOD Enablement Feature)
 2. Turn on and off capacity as you need it ... it's immediate!
 3. Pay for the requested capacity at the end of each quarter (TCOD Billing Features)

* refers to new Model 890 processor features 890-2497 and 890-2498



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CUoD (permanent capacity on demand)

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Permanent capacity pricing

It's very simple ... whether you purchase a POD Activation Feature to permanently activate a processor when the server is initially purchased or sometime later ... you pay the then current list price for the POD Activation Feature.

There are no pricing penalties or benefits either way.

Model	Processor Feature	Startup Processors	Standby Processors	POD Activation Feature	US List Prices
825	2473	3	3	1609	\$20,000
870	2486	8	8	1611	\$25,000
890	2497	16	8	1612	\$30,000
890	2498	24	8	1613	\$30,000

1. When a processor is permanently activated, additional operating system licensing is required if using an OS that is licensed by processor and/or additional software licensing is required if using SW that is licensed by processor
2. When an iSeries is purchased with an Enterprise Edition, a FC 9603 is included (activates a processor for Linux.J at no additoinal charge)

Trial capacity is not offered on new models

Pre-2003 hardware continues to offer ***trial capacity***, a means of "trying" on demand capacity before permanently activating it. Trial capacity, allows you to temporarily activate 100% of your standby processors for a period of 14 elapsed days.

In 2003, the new models (i825, i870, and the new processors of the i890), will not have ***trial capacity***. It has been replaced with a much more flexible/robust offering called ***On/Off CUoD*** that allows you to activate a variable amount of capacity for a variable amount of time.

Ordering permanent capacity

Once you have determined that you want to permanently activate some or all of your standby processors, you must contact your IBM Business Partner, IBM Sales rep, or place an order at IBM.com for the purchase of a quantity of POD Activation Features (one or more).

Once an order reaches the IBM manufacturing site, a POD Activation Code unique to the target server is generated, mailed, and posted at the following web-site for quick access:

<http://www.ibm.com/eserver/series/ondemand/cuod>

Several days should be allowed for order processing and the resulting POD Activation Code posting to take place. This is an important consideration when determining if you should also enable your server for temporary capacity. Temporary capacity can be used to satisfy any peak workload requirements while an order for the activation of permanent capacity is being fulfilled.



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On/Off CUoD (temporary capacity on demand)

Temporary capacity pricing

Breakeven is approximately 45 processor days ... IBM adds together the price of a permanent processor activation with the price of an OS/400 processor license and then divides the total by 45 ... this determines the price for a single processor day of temporary capacity.

Model	Processor Feature	Startup Processors	Standby Processors	TCOD Enablement Feature	TCOD Billing Feature	US Prices
825	2473	3	3	1773	1782 or 1783	\$1,100
870	2486	8	8	1776	1785 or 1786	\$1,200
890	2497	16	8	1777	1788 or 1789	\$1,300
890	2498	24	8	1778	1791 or 1792	\$1,300

- * TCOD Enablement Features are no charge MES features
- * US Prices represent IBM's list price for a TCOD Billing Feature (one Processor Day of temporary capacity)
- * Additional operating system licensing may be required if using an OS that is licensed by processor (NOT required for OS/400)
- * Additional software licensing may be required if using SW that is licensed by processor

Special purpose

Bonus or complementary processor days credited to a customer's machine records will reduce the number of "billable" processor days

Bonus Days

Fourteen processor days will be automatically "credited" to a customer's machine records the first time a TCOD Enablement Code is applied to the server. If and when the machine is upgraded (processor feature is changed), and a new TCOD Enablement Code is applied to the server, an additional 14 processor days will be credited.

Complementary Days

Complementary Processor Days can, **at IBM's option**, be manually "credited" to a customer's machine records for special purposes (e.g.. customer incentive to "try" new workloads) ... an e-mail from the IBM GEO pricer approving such action must be forwarded to the TCOD Administrator at tcodadmin@US.IBM.com.

Enable, use, and bill temporary capacity

Enable -- server is enabled for temporary capacity

- Customer signs a contract with IBM
- Sales Channel (IBM or Business Partner) places a customer order for a TCOD Enablement Feature
- Customer enters the resulting TCOD Enablement Code on the server

Request -- temporary capacity is requested and then used

- Electronically report temporary capacity activity (minimum of once per month)
- Request temporary capacity via server screen (specify units)

Bill -- temporary capacity is monitored, billed, and paid for

- IBM consolidates reported information
- IBM notifies the Sales Channel about customer activity related to temporary capacity
- Sales Channel places an "after-the-fact" configurator order for TCOD Billing Features
- Sales Channel bills their customer

Software Product Licensing

Model	Processor Feature	SW Tier
825	2473	P30
870	2486	P40
890	2497	P50
890	2498	P50

- Many partners use the Processor Feature Code value available on the server to set SW licensing fees. This value continues to be available for all iSeries servers. **It is important to understand that this value does not change, no matter how many standby processors get permanently or temporarily activated.** The Processor Feature Code value (QPRCFEAT) can be displayed using the command WRKSYSVAL or retrieved using the RTVSYVAL command.
- Software providers that charge SW licensing fees (i.e.. Operating Systems, middleware, applications, etc.) on a per processor basis, have historically utilized a "soft" compliance approach. With each **permanent or temporary** processor activation, it remains the customer's responsibility to inform and pay the required SW licensing fees associated with software that will be used on the activated processor(s).

Point1: When a permanent processor activation (POD Activation Feature) is ordered, any required charges for IBM software which is orderable in e-config (licensed by processor), is automatically initiated via IBM configurator

Point2: When a temporary processor activation is requested on the server, any required charges for IBM software (licensed by processor), is the sole responsibility of the customer ... **with OS/400, there are no additional OS/400 licensing charges associated with a temporary processor activation** (the license for temporary use is included with the processor activation).

Maintenance/Warranty

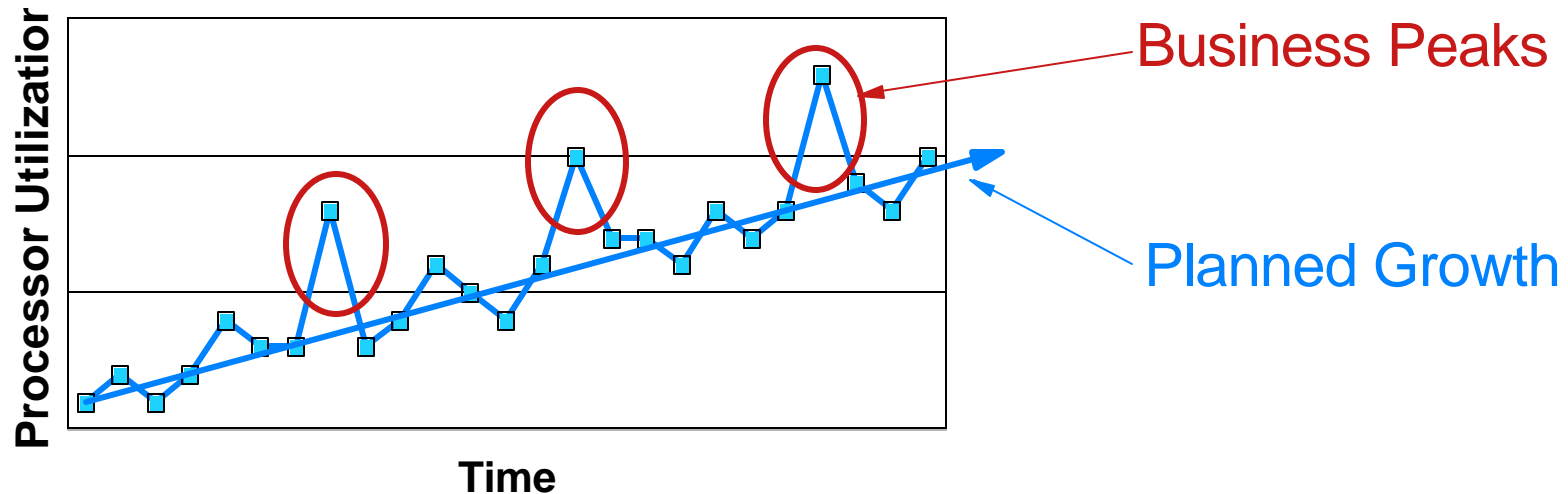
Processor Failures

- Standby processors can be used as REPLACEMENTS for failed processors. Starting with V5R1, this capability is offered on iSeries servers to help reduce the impact to server performance caused by a failed processor. By re-IPLing the server after a processor fails, the customer can reestablish required performance levels without waiting for parts to arrive on-site. If a standby processor is not currently activated, it will automatically be assigned as a REPLACEMENT processor and the customer can continue processing.

Warranty for Processors

- Warranty for all processors (startup and standby) begin when the server is installed. By having the Warranty/Service start immediately upon installation, the customer is better positioned to receive prompt service for the repair/replacement of any failing parts, helping to ensure the full complement of standby processors are available for immediate activation.
- Maintenance agreement charges are based on the number of processors actually activated, maintenance prices will be adjusted for each permanent processor activation ... just like any other hardware feature add. **(Note: temporary activations do not affect maintenance pricing)**

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More Information

Please refer to the following URL to obtain the latest version of this presentation as well as the very useful CUoD Planning Guides:

www.ibm.com/eserver/series/hardware/ondemand

This same URL is where customers can retrieve their activation codes and partners can register to participate in the sale of On/Off CUoD (temporary capacity on demand).



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Guidelines for Ordering Permanent Capacity

New Box Orders

=> The order for the new server can include new POD Activation Features, with the resulting POD Activation Code applied directly in manufacturing

Model-to-Model Upgrade (new footprint)

=> 100% activation of all standby processors is required on the old hardware prior to ordering an upgrade.
 => All records of POD Activation Features ordered prior to the upgrade are removed from the machine records (upgrade pricing takes into account the fact that 100% of the standby processors were previously activated)
 => The order for the upgrade can include new POD Activation Features, with the resulting POD Activation Code applied directly in manufacturing

Processor-to-Processor Conversion or Model-to-Model Upgrade (no new footprint)

=> 100% activation of all standby processors is required on the old hardware prior to ordering a conversion/upgrade.
 => All records of POD Activation Features ordered prior to the conversion/upgrade are removed from the machine records (upgrade/conversion pricing takes into account the fact that 100% of the standby processors were previously activated)
 => **The order for the conversion/upgrade can include new POD Activation Features, with the resulting POD Activation Code mailed/posted without requiring CUoD Data (VPD) to be collected from the server and sent to IBM**



Package-to-Package Conversion

=> All records of POD Activation Features ordered prior to the conversion remain on the machine records
 => **The order for the conversion can include new POD Activation Features, with a resulting POD Activation Code that accounts for both old and new POD Activation Features being mailed/posted without requiring CUoD Data (VPD) to be collected from the server and sent to IBM**



Activation Feature Orders

=> For orders that have POD Activation Features but don't contain a Processor or Package Feature .. if the Machine Serial# and/or the Capacity Card Serial# have not been altered outside of the IBM manufacturing or field maintenance process, **then a POD Activation Code will be generated and mailed/posted without requiring CUoD Data (VPD) to be collected from the server and sent to IBM**



Step-by-Step

Step1: Customer determines the number of standby processors they wish to activate

Step2: Customer contacts their Sales Channel (IBM or Distributor/Partner) or goes to IBM.com (US only) to place an order for a quantity of POD Activation Features

Step3: Sales Channel places an order in the IBM configurator for a specific quantity of POD Activation Features.

=> If the Machine Serial# and/or the Capacity Card Serial# have not been altered outside of the IBM manufacturing/field maintenance process ... then Skip to Step4

=> If the Machine Serial# and/or the Capacity Card Serial# have been altered outside of the IBM manufacturing/field maintenance process ... then print CUoD Data (VPD) from the server and FAX to 507-253-4553

Step4: Customer retrieves the POD Activation Code from the web or waits for the POD Activation Code to be sent by mail. The POD Activation Code will be posted on the web usually within one business day of receiving the order on the manufacturing floor. To retrieve the POD Activation Code follow these steps:

- 1) Go to the following Web-site.... <http://www.ibm.com/eserver/series/hardware/ondemand>
- 2) Enter the Machine Type and Serial number of the target server on the web page
- 3) Print and/or record the POD Activation Code displayed on the web page

(Continued on Next Page)

Step 5: Customer enters the POD Activation Code at the System Console for the target server

- 1) Start System Service Tools (SST) with the STRSST command or start DST with Function 21 on the control panel (key in manual position)
- 2) Sign on using service tools user profile of System capacity - administration
- 3) Select the option to WORK WITH SYSTEM CAPACITY
- 4) Enter POD Activation Code and press Enter
- 5) Press Enter to confirm change and exit the System Capacity service function

Step 6 Assign Activated Processors to a partition ... **you must do steps A through F, even if your machine is not configured for LPAR!**

- A) Start the Work with system partitions option in DST or SST
- B) Enter Option 3 (Work with partition configuration)
- C) Enter Option 2 (Change partition processing resources) next to the PRIMARY
- D) Enter a value for "New number of processors" (The value should represent TOTAL active processors)

Note: If a configuration error is signaled at the bottom of the screen, it means that the default Primary partition has been altered (logical partitioning is actively being used) and it is necessary to refer to your logical partition plan to properly assign the activated processors to the server.

- E) Press Enter to confirm the change
- F) Exit DST or SST



IBM eServerJ iSeriesJ

On/Off CUoD (temporary capacity on demand)

Temporary Capacity Enablement

Prior to requesting temporary capacity on your server, you must "enable" your server. To do this, order a TCOD Enablement Feature (MES only feature) and sign the required contracts.

Placing an order for a TCOD Enablement Feature will result in a TCOD Enablement Code being generated and mailed to you, as well as being posted on the Web for you to retrieve and enter on your server.

A TCOD Enablement Code "enables" the server to a limit of Processor Days (up to 192) that can be requested as temporary capacity. This means, you can make requests for temporary capacity over the life of the machine as long you don't exceed this value. When the limit is reached, a new TCOD Enablement Feature must be ordered and a new TCOD Enablement Code entered. Every time a new TCOD Enablement Code is entered it will reset the limit of Processor Days that can be requested to 192 (**TCOD Enablement Codes are not additive**)

Guidelines for Temporary Capacity Enablement

New Box Orders

the order for the new server **cannot** include a TCOD Enablement Feature because a TCOD Enablement Feature is MES only

Package-to-Package Conversion, Processor-to-Processor Conversion, or Model-to-Model Upgrades

- => All records of TCOD Enablement Features ordered prior to the conversion/upgrade are removed from the machine records
(will need to order a new TCOD Enablement Feature for new hardware)
- => You can include a TCOD Enablement Feature on these types of orders (see warning) and have your TCOD Enablement Code mailed to you as well as posted on the web, so it is ready to enter on your server as part of the conversion/upgrade.

Warning: Delays can occur in the scheduling/fulfillment of this type of order because a TCOD Contract must first be signed

Enablement Feature Orders

- => For orders that have TCOD Enablement Features but don't contain a Processor or Package Feature .. if the Machine Serial# and/or the Capacity Card Serial# have not been altered outside of the IBM manufacturing or field maintenance process, then a TCOD Enablement Code will be generated and mailed/posted without requiring CUoD Data (VPD) to be collected from the server and sent to IBM

Enable: Step-by-Step

PRE-REQ #1: Sales Channel (IBM Business Partner) must sign the following contract:

IBM Business Partner Agreement, Attachment for Temporary Capacity On Demand

PRE-REQ #2: Sales Channel (IBM Business Partner or IBM Direct) must register

at the following website: <http://www.ibm.com/eserver/series/ondemand/cuod>

Step1: Customer asks Sales Channel to enable their machine for temporary capacity

Step2: Customer must complete and sign the following contracts. It is the Sales Channel responsibility to ensure a copy is faxed (customer keeps original) to IBM at 1-507-253-7979

Required: IBM Customer Agreement, Attachment for Temporary Capacity On Demand

Required: IBM Supplement for Temporary Capacity On Demand

Optional: IBM Addendum for Temporary Capacity on Demand Alternative Reporting

Step3: Sales Channel places an order for the TCOD Enablement Feature

Step4: Sales Channel updates their website registration data (see pre-req #2 above) with information about the customer machine being enabled for temporary capacity.

NOTE: The order for a TCOD Enablement Feature will not be fulfilled until this step is completed

Step5: IBM generates a TCOD Enablement Code and mails/posts it

Step6: Customer retrieves the TCOD Enablement Code and applies it to the server using the appropriate DST/SST Screen (Enable Temporary System Capacity)

Temporary Capacity Requests

When you decide you actually need to use temporary capacity ... you simply go to the proper screen on the server and specify how many of the standby (currently not activated) processors you would like activated and for how many days you would like them activated.

You will be billed for the processor days you request, so it is important to assign the processors to a LPAR partition as soon as they are activated to get the full benefit of the temporary capacity.

At the end of the temporary period (days you requested), you must make the temporarily activated processors "available" (LPAR state) to be re-claimed by the server, or you will be billed (per the contract you signed) for any Un-Returned processor days.

Request for Temporary Capacity -- Confirmation Screen

You have specified Requested Units (quantity of processors for a duration of days) of Temporary Capacity. After you confirm this request for such Temporary Capacity, by pressing enter on this screen, you must assign the newly activated processors to a partition(s) of your choice to actually begin using the Temporary Capacity. Please note, accounting for billing purposes begins when you confirm this request. Accordingly, it is important that you assign the newly activated processors to a partition to take full advantage of your Requested Units. Once the number of days you have requested have passed, you are required to make the Temporary Capacity you have requested "available" (LPAR state) to be reclaimed by the server. In the event you fail to make such Temporary Capacity available to be reclaimed, the server will continue to count the number of Un-Returned Units (duration of days multiplied by the quantity of processors which have not been reclaimed) and you will be billed for these Un-Returned Units, pursuant to the terms and conditions of the agreement you have signed with IBM or your IBM Business Partner. Defined terms used herein are more fully defined in such agreements. For more information about using LPAR to assign processors to/from partitions, see the Logical Partitions topic in the iSeries Information Center.

Request: Step-by-Step

Step1: Customer establishes monthly reporting to IBM (whether or not temporary capacity is used).

Details on how to setup electronic reporting (automated) can be found in the planning guide located at <http://www.ibm.com/eserver/series/hardware/ondemand>

Step2: Customer goes to the appropriate DST/SST Screen (Work With Temporary Capacity)

on the server and specifies the amount and duration of temporary capacity he/she wants (e.g. quantity of processors for a duration of days)

Step3: Customer presses enter, to confirm the request, and the capacity is activated

Step4: Customer assigns the activated processors to a partition (whether or not the machine is configured for LPAR) to begin use of the temporary capacity

Temporary Capacity Billing

The contract signed by the customer prior to receiving the enablement code, requires the customer to report billing data, at least once per month (whether there is activity or not). This data is used to determine the proper amount to bill the customer for at the end of each billing period (calendar quarter).

Bonus or Complementary Days will be applied against customer Requested and/or Un-Returned processor days of temporary capacity. This will happen automatically, until they are used up.

Failure to report billing data during a Billing Quarter for which the machine has been enabled (TCOD Enablement Feature has been ordered and the resulting TCOD Enablement Code has been shipped), will result in estimated bill for 90 Processor Days of temporary capacity.

The Sales Channel will be notified of customer requests for temporary capacity. As a result, the Sales Channel is required to place an order for a quantity of TCOD Billing Features (One Feature = One Processor Day).

Bill: Step-by-Step

- Step1:** Customer must report bling data (Requested and Un-Returned Processor Days) at a minimum of once per month (per signed contract)
- Step2:** At the end of each billing period (calendar quarter), IBM will process the reported data that has been collected in the IBM database (MRPD), and notify the Sales Channel of any activity, so the proper billing can take place
- Step3:** Sales Channel places an order for a quantity of TCOD Billing Features (One billing feature = One processor day)
- Step4:** IBM will ship a notice to the "Ship-to-Address" outlining the activity IBM has recognized for the billing period. The notice contains the same info that has been forwarded to the e-mail addresses of the Sales Channel ... no pricing information!. The actual shipping of this notice to the "Ship-to-Address" on the order represents the fulfillment of the TCOD Biling Features from a manufacturing perspective.
- Step5:** Customer pays the Sales Channel and the Sales Channel pays IBM for the fulfillment of the TCOD Billing Features (Note: The customer can review a history log on the server, that contains a record for each request of temporary capacity that can be used to verify billing values)

Terminate: Step-by-Step

To stop future use of temporary capacity, a TCOB Termination Code must be applied to the server:

Step1: Send e-mail to TCOB Administrator (TCODADMIN@US.IBM.COM)

Step2: TCOB Administrator provides the Termination Code

Step3: The TCOB Termination Code is entered on the same screen used to enter a TCOB Enablement Code

Scenario #1: Customer requests a TCOB Termination Code because he/she does not want the server enabled for temporary capacity any longer

Scenario #2: Customer/Partner requests a TCOB Termination Code because the customer is selling their machine **(Note: A customer is required to have a TCOB Termination Code applied to the server before it is sold or comes off lease to avoid billing for temporary capacity due to a failure to report machine activity)**

Scenario #3: IBM or Partner requests a TCOB Termination Code because customer is not paying for temporary capacity

Scenario #4: IBM or Partner requests a TCOB Termination Code because customer is in noncompliance with the TCOB contract that was signed by the customer



IBM eServerJ iSeriesJ

Details

License Information

BUILT-IN-CAPACITY

A machine may include computing resources or capabilities that are to remain inactive, or whose use is restricted, until the right to access and use the resources or capabilities is purchased (Built-in-Capacity). Examples of such computing resources and capabilities include but are not limited to processors, memory, storage, processing capacity identified as interactive processing capacity, and/or workload specific resources or capabilities (such as limitations on the use for a specific operating system, programming language or application). You are licensed to use the Program only to the extent of authorizations you have acquired for access to and use of Built-in-Capacity. You agree that if your use of Built-in-Capacity exceeds the authorizations you have acquired, you will be liable to IBM for the full price of permanent, unrestricted use of the Built-in-Capacity at IBM's current list price.

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IBM SUPPLIED PROGRAM TEMPORARY FIXES (PTFs)

Application of PTFs may disable or render ineffective programs that use system memory addresses not generated by the IBM translator, including programs that circumvent control technology designed to limit interactive capacity to purchased levels. By applying PTFs you authorize and agree to the foregoing.

Cancellation of Orders

Once an Activation or Enablement Code is posted/mailed, the order is considered fulfilled and the downstream billing process will be started. If a customer decides to cancel the order, after a Code is posted/mailed, IBM will dispatch an IBM service representative to the customer location to "invalidate" the posted/mailed Code by performing a maintenance action on the Capacity Card.

- Original Capacity Card is replaced
- Level II is contacted to generate refreshed Code(s) that will reset the server to the "entitled" levels of capacity
- Original Capacity Card is returned to IBM and the machine is re-IPLed

Logical Partitioning (LPAR)

- Standby processors, prior to being permanently or temporarily activated, are not visible within LPAR
- Standby processors, once activated, become visible and are initially designated as available processors
- Available processors must be assigned to a partition before the new capacity can be used

Maintenance/Warranty Processor Failures

- Standby processors can be used as REPLACEMENTS for failed processors. Starting with V5R1, this capability is offered on iSeries servers to help reduce the impact to server performance caused by a failed processor . By re-IPLing the server after a processor fails, the customer can reestablish required performance levels without waiting for parts to arrive on-site. If a standby processor is not currently activated, it will automatically be assigned as a REPLACEMENT processor and the customer can continue processing.

Warranty for Processors

- Warranty for all processors (startup and standby) begin when the server is installed. By having the Warranty/Service start immediately upon installation, the customer is better positioned to receive prompt service for the repair/replacement of any failing parts, helping to ensure the full complement of standby processors are available for immediate activation.
- Maintenance agreement charges are based on the number of processors actually activated, maintenance prices will be adjusted for each permanent processor activation ... just like any other hardware feature add. **(Note: temporary activations do not affect maintenance pricing)**

Software Product Licensing

Model	Processor Feature	SW Tier
825	2473	P30
870	2486	P40
890	2497	P50
890	2498	P50

- Many partners use the Processor Feature Code value available on the server to set SW licensing fees. This value continues to be available for all iSeries servers. **It is important to understand that this value does not change, no matter how many standby processors get permanently or temporarily activated.** The Processor Feature Code value (QPRCFEAT) can be displayed using the command WRKSYSVAL or retrieved using the RTVSYSVAL command.
- Software providers that charge SW licensing fees (i.e.. Operating Systems, middleware, applications, etc. on a per processor basis, have historically utilized a "soft" compliance approach. With each **permanent or temporary** processor activation, it remains the customer's responsibility to inform and pay the required SW licensing fees associated with software that will be used on the activated processor(s).

Point1: When a permanent processor activation (POD Activation Feature) is ordered, any required charges for IBM software which is orderable in e-config (licensed by processor), is automatically initiated via IBM configurator

Point2: When a temporary processor activation is requested on the server, any required charges for IBM software (licensed by processor), is the sole responsibility of the customer ... **with OS/400, there are no additional OS/400 licensing charges associated with a temporary processor activation** (the license for temporary use is included with the processor activation).

Software Product Licensing (continued)

- **Scenario #1: SW license for Trial or Demo Use**

It is typical for SW vendors to license their software to a customer (T&Cs) for a short period of time to try the software on their machine before an actual payment is required.

Rule-of-Thumb: No SW licensing charges associated with the use of permanent or temporarily activated processors

- **Scenario #2: SW license for use on a Failover Machine**

It is typical for SW vendors to license their software to a customer (T&Cs) for use on a secondary machine in the situation where the primary machine were to fail

Rule-of-Thumb: No SW licensing charges associated with the use of permanent or temporarily activated processors on the secondary machine while it is not in use

- **Scenario #3: SW license for repeated Temporary Use**

A) Some SW Vendors require the purchase of additional SW license authorizations (per processor)

B) Some SW Vendors require the purchase of additional SW license authorizations (by Processor D)

C) Some SW Vendors don't require any additional licensing

=> IBM does not require any additional licensing for OS/400

=> IBM does not require any additional licensing for SW products licensed by server or SW tier

Rule-of-Thumb: It is the responsibility of the customer to abide by SW licensing T&Cs for any SW vendors product used in association with permanent or temporarily activated processors

MATMATR option OXO 1F4

Permanent: Check the field at offset 5638, to determine how many processors have been permanently activated **(this field represents the quantity of permanently activated processors at any point in time)**

Temporary: Check the field at offset 8656, to determine how many processors have been temporarily activated **(this field represents the quantity of temporarily activated processors at any point in time)**

Offset			
Dec	Hex	Field Name	Data Type and Length
8	8	System type	Char(4)
12	C	System serial number	Char(10)
22	16	Capacity card CCIN	Char(4)
26	1A	Capacity card serial number	Char(10)
36	24	Capacity card unique identifier	Char(16)
52	34	Activation feature (pcod)	Char(4)
56	38	Activated pcod units	Char(4)
60	3C	Sequence number (pcod)	Char(4)
64	40	Entry check (pcod)	Char(2)
66	42	Maximum processors that can be purchased	Char(4)

70	46	tcod enabled	Char(1)
71	47	tcod active	Char(1)
72	48	Activation feature (tcod)	Char(4)
76	4C	Activated tcod units	Char(4)
80	50	Sequence number (tcod)	Char(4)
84	54	Entry check (tcod)	Char(2)
86	56	Processors currently requested (tcod)	Char(4)
90	5A	Days currently requested (tcod)	Char(4)
94	5E	Requested processor-days expired (tcod)	Char(4)
98	62	Requested processor-days remaining (tcod)	Char(4)
102	66	Enablement counter (tcod)	Char(4)
106	6A	Standby processors available for request	Char(4)
110	6E	History of requested processor-days	Char(4)
114	72	History of Un-Returned processor-days	Char(4)
118	76	Current date/time	Char(8)
126	7E	Reserved	Char(26)
152	98	-- End	

Information
relative
to Permanent
Capacity

Information
relative
to Temporary
Capacity

Server CPU Utilization

- **Performance/Capacity Planning Tools**

- ▶ Standby processors are **NOT** considered "active" within the various system functions that report CPU utilization percentages ... until they get "activated" (Customer enters a POD Activation Code or requests temporary capacity)

- **DB2 Symmetric Multiprocessing**

- ▶ Standby processors are **NOT** considered "active" within the various system functions that report CPU utilization percentages ... until they get "activated" (Customer enters a POD Activation Code or requests temporary capacity)

- **IPL Time**

- ▶ Standby processors are **NOT** considered "active" within the various system functions that report CPU utilization percentages ... until they get "activated" (Customer enters a POD Activation Code or requests temporary capacity)



IBM eServerJ iSeriesJ

On/Off CUoD: Customer Contracts

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Customer Contracts

Enabling an iSeries server for the downstream customer use of temporary capacity (TCOD Enablement Feature) requires the following contracts be completed and signed by the end user:

- For end users who have an IBM Customer Agreement (ICA), or equivalent, in place:
IBM Customer Agreement, Attachment for Temporary Capacity On Demand
and IBM Supplement for Temporary Capacity On Demand
- For end users who do not have an ICA or equivalent in place:
IBM Agreement for Temporary Capacity On Demand
and IBM Supplement for Temporary Capacity On Demand
- Optionally, the following contract document can be signed (in addition to one of the above contract sets) if it is impossible to use electronic reporting:
IBM Addendum for Temporary Capacity On Demand Alternative Reporting

The above contract documents are available through your IBM representative. After being signed by IBM and the end customer, the original can be kept by the customer. A copy must be faxed to IBM at 1-507-253-7979 (WW support structure) before the order for the TCOD Enablement Feature will be fulfilled.

**For more information about the Sales Channel requirements (registration and contracts) relative to temporary capacity on the iSeries, please go to the following website after 03/10/2003:
<http://www.ibm.com/eserver/iserries/hardware/ondemand>**



IBM eServerJ iSeriesJ

On/Off CUoD: Customer Responsibilities

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Customer Responsibilities

Enable:

A) Order a TCOE Enablement Feature from your Sales Channel

- 1) The TCOE Enablement Feature is good for 192 Processor Days (temporary capacity that can be requested before a new TCOE Enablement Feature would have to be ordered)
- 2) TCOE Enablement Features are not additive .. if you order a new one and apply the TCOE Enablement Code, the new limit will be set to 192 Processor Days, no matter how many Processor Days were left on the old limit

B) Sign the proper contract

- For end users who have an IBM Customer Agreement (ICA), or equivalent, in place:
IBM Customer Agreement, Attachment for Temporary Capacity On Demand **and** IBM Supplement for Temporary Capacity On Demand
- For end users who do not have an ICA or equivalent in place:
IBM Agreement for Temporary Capacity On Demand **and** IBM Supplement for Temporary Capacity On Demand
- Optionally, the following contract document can be signed (in addition to one of the above contract sets) if it is impossible to use electronic reporting:
IBM Addendum for Temporary Capacity On Demand Alternative Reporting

C) Retrieve and enter the TCOE Enablement Code on the server

Request:

- A) Report to IBM a minimum of once per month using Electronic Service Agent (Exception: FAX or eMail) the billing data that reflects the quantity of Requested and Un-Returned Processor Days for your server
- B) Specify a quantity of processors and a quantity of days to be activated as temporary capacity
- C) Return requested processors at the end of the temporary period so they can be re-claimed by the server

Customer Responsibilities (continued ..)

Bill:

Accept and pay your bill for the number of Requested and Un-Returned Processor Days that occurs during each billing period

- 1) If you fail to report activity during a billing period (calendar quarter), accept the terms of the contract that explain that you will be charged a flat rate of 90 Processor Days of temporary capacity
- 2) Understand that you will receive (first time the hardware is enabled) at no charge, 14 Bonus Days that will be applied by IBM to your machine records and subsequently will result in a reduction in the number of actual Processor Days you will be billed for by your Sales Channel
- 3) Return requested processors at the end of the temporary period, so they can be re-claimed by the server, or accept the terms of the contract that explain you will be charged for Un-Returned Processor Days at the same rate as Requested Processor Days

Terminate:

Request a TCOD Termination Code from tcodadmin@us.ibm.com and allow IBM/partner to enter the code prior to the machine being sold or returned from lease

- 1) Understand that it is the customer's responsibility to request a TCOD Termination Code and allow machine access so that it may be applied prior to the machine being sold (Failure to do so will result in on going Processor Day billing equal to 90 Processor Days due to the fact that the original customer is no longer reporting machine activity)

Allow a TCOD Termination Code be entered by IBM/partner if you, the customer, is not paying the bills and/or is found to be in noncompliance with the contracts you have signed



IBM eServerJ iSeriesJ

On/Off CUoD: Sales Channel Contracts

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Sales Channel Contracts

Business Partners who participate in the enablement of an iSeries server for the downstream customer use of temporary capacity (TCOD Enablement Feature) must sign one of the following contracts:

- Distributors (1st Tier) must sign:
IBM Business Partner Agreement-- Distributor Attachment for Temporary Capacity On Demand
- Solution Providers (2nd Tier) who acquire products from Distributors must sign:
IBM Business Partner Agreement for Solution Providers -- Attachment for Temporary Capacity On Demand
- Solution Providers (1st Tier) and System Integrators (1st Tier) who acquire their products directly from IBM must sign:
IBM Business Partner Agreement -- Attachment for Temporary Capacity On Demand

These attachments are available through your IBM representative. After being signed by IBM and the Business Partner, a copy of the attachment must be sent to the appropriate IBM BPSO organization

**For more information about the Sales Channel requirements (registration and contracts) relative to temporary capacity for the iSeries, please go to the following website after 03/10/2003:
<http://www.ibm.com/eserver/series/hardware/ondemand>**



IBM eServerJ iSeriesJ

Distributor Responsibilities

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Distributor Responsibilities

Pre-Requisite:

- A) Request the **IBM Business Partner Agreement-- Distributor Attachment for Temporary Capacity On Demand** from your GEO BPSO organization, sign it, and return it to BPSO organization
- Note1: This is a one time activity and it is IBM's objective to accomplish this for 100% of the Distributors on a WW basis in the February 2003 timeframe
- Note2: Each GEO's BPSO organization will handle this two-party signed attachment in a business as usual fashion, standard processes for "requesting" the attachment and standard processes for ensuring it is signed and returned
- B) Request the **IBM Business Partner Agreement for Solution Providers -- Attachment for Temporary Capacity On Demand** from your GEO BPSO organization on behalf of the Solution Provider, facilitate the signing of it by the Solution Provider, and ensure it gets returned to BPSO organization
- Note1: This is a one time activity that is only necessary when/if a Solution Provider has actually identified an opportunity to enable On/Off CUoD for a specific customer's machine. IBM is not necessarily expecting, nor requiring large numbers of Solution Providers to take this step in 2003.
- Note2: Each GEO's BPSO organization will handle this two-party signed attachment in a business as usual fashion, standard processes for "requesting" the attachment and standard processes for ensuring it is signed and returned
- C) Ensure the Solution Provider who signs the contract in PRE-REQ "B", is aware of their requirement to register themselves as a Sales Channel at this website (www.ibm.com/eserver/series/hardware/ondemand) by providing a unique/IBM recognizable identifier for the Solution Provider and the Solution Provider's Distributor, along with three e-mail addresses who will receive customer activity information at the end of each quarter and follow through with the appropriate customer billing and IBM order/payment

Enable:

- A) Ensure the Solution Provider who signs the contract in PRE-REQ "B" and registers at the website per PRE-REQ "C" also records the machine serial number information at the same website (www.ibm.com/eserver/series/hardware/ondemand) for the machine they are ordering a TCOD Enablement Feature ... if this does not occur, the order for the TCOD Enablement Feature will not be fulfilled!

Distributor Responsibilities

Bill:

- A) Work with the Solution Provider to place an order for a quantity of TCOD Billing Features in IBM's configurator (treat them like any other order for a qty of hardware features against a specific serial number).
- B) Work with the Solution Provider to bill the customer for a quantity of TCOD Billing Features (one billing feature per Processor Day)

Note1: The contract signed between the customer and IBM (two-party contract) prior to the enablement of On/Off CUoD for the customer's machine obligates him/her to pay for the request/use of temporary capacity.

Customer Contract Wording:

You agree that you are liable to IBM for payment for each TCOD Unit (both Requested and Unreturned Units) on your TCOD Machine. This liability is discharged when you order and pay IBM or your designated participating IBM Business Partner for the TCOD Units. The amount due will be at IBM's or your IBM Business Partner's, as applicable, then current prices and payment terms for the TCOD Billing Feature for the applicable TCOD Billing Quarter.

Note2: If it is deemed necessary to have a PO in place to facilitate action "A" and "B", then one could consider an open PO approach initiated at the time the customer signs the contract for temporary capacity or a PO that is put in place following the e-mail notification to the Solution Provider that activity has actually happened within a quarter that requires billing to take place



IBM eServerJ iSeriesJ

Solution Provider (buys from distributor) Responsibilities

Solution Provider (buys from distributor) Responsibilities

Pre-Requisite:

- A) Work with your Distributor to request the **IBM Business Partner Agreement for Solution Providers -- Attachment for Temporary Capacity On Demand** from your GEO BPSO organization, sign it, and ensure it gets returned to BPSO organization
- Note1:** This is a one time activity that is only necessary when/if a Solution Provider has actually identified an opportunity to enable On/Off CUoD for a specific customer's machine. IBM is not necessarily expecting, nor requiring large numbers of Solution Providers to take this step in 2003.
- Note2:** Each GEO's BPSO organization will handle this two-party signed attachment in a business as usual fashion, standard processes for "requesting" the attachment and standard processes for ensuring it is signed and returned
- B) Register your company as a Sales Channel at this website (www.ibm.com/eserver/iseries/ondemand/cuod) by providing a unique/IBM recognizable identifier for your company, a unique/IBM recognizable identifier for your Distributor, and three e-mail addresses
- Note1:** The three e-mail addresses will be the recipients of customer activity information collected and sent by IBM at the end of each calendar quarter to be used for customer billing and IBM order/payment of temporary capacity
- Note2:** As part of the registration process, you will see the **IBM Business Partner Agreement for Solution Providers -- Attachment for Temporary Capacity On Demand** on a screen and will be asked to confirm you agree with the T&Cs and that they have signed a hardcopy of the attachment that has been returned to the IBM BPSO organization

Enable:

- A) Facilitate the signing (IBM and Customer signatures are required) of the proper customer contract
- For end users who have an IBM Customer Agreement (ICA), or equivalent, in place:
IBM Customer Agreement, Attachment for Temporary Capacity On Demand and IBM Supplement for Temporary Capacity On Demand
 - For end users who do not have an ICA or equivalent in place:
IBM Agreement for Temporary Capacity On Demand and IBM Supplement for Temporary Capacity On Demand
 - Optionally, the following contract document can be signed (in addition to one of the above contract sets) if it is impossible to use electronic reporting:
IBM Addendum for Temporary Capacity On Demand Alternative Reporting
- B) Fax a copy of the signed customer contract (customer keeps original) to IBM TCOD Administrator at 1-507-253-7979
- C) Update your registration information at the CUoD website (www.ibm.com/eserver/iseries/ondemand/cuod) each time a TCOD Enablement Feature is being ordered for a new machine (serial#)
- Note1:** The order for a TCOD Enablement Feature will not be fulfilled (it will not even be scheduled) until a signed customer contract has been received by IBM and you have recorded the machine serial# at the CUoD website under your Sales Channel registration information

Solution Provider (buys from distributor) Responsibilities

Bill:

- A) Receive customer activity data from IBM at the end of each calendar quarter (e-mail based on addresses provided at time of your registration at the CUoD website)
- B) Work with your Distributor to place an order for a quantity of TCOD Billing Features in IBM's configurator (treat them like an other order for a qty of hardware features against a specific serial number).
- C) Bill the customer for a quantity of TCOD Billing Features (one billing feature per Processor Day)

Note1: The contract signed between the customer and IBM (two-party contract) prior to the enablement of On/Off CUoD for the customer's machine obligates him/her to pay for the request/use of temporary capacity.

Customer Contract Wording:

You agree that you are liable to IBM for payment for each TCOD Unit (both Requested and Unreturned Units) on your TCOD Machine. This liability is discharged when you order and pay IBM or your designated participating IBM Business Partner for the TCOD Units. The amount due will be at IBM's or your IBM Business Partner's, as applicable, then current prices and payment terms for the TCOD Billing Feature for the applicable TCOD Billing Quarter.

Note2: If it is deemed necessary to have a PO in place to facilitate action "B" and "C", then one could consider an open PO approach initiated at the time the customer signs contract or a PO that is put in place following the e-mail notification to the Solution Provider that activity has actually happened within a quarter that requires billing to take place

Terminate:

- A) Request a TCOD Termination Code (make the request to TCODADMIN@US.IBM.COM) when/if one of the following situations occur:
 - 1) Customer wants it because they don't want the ability to activate temporary capacity anymore
 - 2) Customer wants it because they are obligated by TCOD Contract to terminate temporary capacity before selling the machine or ending a lease
 - 3) Distributor/Solution Provider wants it because they aren't getting paid by customer
 - 4) Distributor/Solution Provider wants it because they have detected customer non-compliance with the TCOD contract

Solution Provider (buys from distributor) Responsibilities

Bill:

- A) Receive customer activity data from IBM at the end of each calendar quarter (e-mail based on addresses provided at time of your registration at the CUoD website)
- B) Work with your Distributor to place an order for a quantity of TCOD Billing Features in IBM's configurator (treat them like an other order for a qty of hardware features against a specific serial number).
- C) Bill the customer for a quantity of TCOD Billing Features (one billing feature per Processor Day)

Note1: The contract signed between the customer and IBM (two-party contract) prior to the enablement of On/Off CUoD for the customer's machine obligates him/her to pay for the request/use of temporary capacity.

Customer Contract Wording:

You agree that you are liable to IBM for payment for each TCOD Unit (both Requested and Unreturned Units) on your TCOD Machine. This liability is discharged when you order and pay IBM or your designated participating IBM Business Partner for the TCOD Units. The amount due will be at IBM's or your IBM Business Partner's, as applicable, then current prices and payment terms for the TCOD Billing Feature for the applicable TCOD Billing Quarter.

Note2: If it is deemed necessary to have a PO in place to facilitate action "B" and "C", then one could consider an open PO approach initiated at the time the customer signs contract or a PO that is put in place following the e-mail notification to the Solution Provider that activity has actually happened within a quarter that requires billing to take place

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 - 3) Distributor/Solution Provider wants it because they aren't getting paid by customer
 - 4) Distributor/Solution Provider wants it because they have detected customer non-compliance with the TCOD contract



IBM eServerJ iSeriesJ

Solution Provider or Service Provider (buys from IBM) Responsibilities

Solution Provider or Service Provider (buys from IBM) Responsibilities

Pre-Requirement:

- A) Request the **IBM Business Partner Agreement-- Attachment for Temporary Capacity On Demand** from your GEO BPSO organization, sign it, and return it to BPSO organization

Note1: This is a one time activity that is only necessary when/if a Partner has actually identified an opportunity to enable On/Off CUoD for a specific customer's machine. IBM is not necessarily expecting, nor requiring large numbers of Solution Providers to take this step in 2003.

Note2: Each GEO's BPSO organization will handle this two-party signed attachment in a business as usual fashion, standard processes for "requesting" the attachment and standard processes for ensuring it is signed and returned

- B) Register your company as a Sales Channel at this website (www.ibm.com/eserver/series/ondemand/cuod) by providing your unique IBM partner identifier and three e-mail addresses

Note1: The three e-mail addresses will be the recipients of customer activity information collected and sent by IBM at the end of each calendar quarter to be used for customer billing and IBM order/payment of temporary capacity

Note2: As part of the registration process, you will see the **IBM Business Partner Agreement -- Attachment for Temporary Capacity On Demand** on a screen and will be asked to confirm you agree with the T&Cs and that they have signed a hardcopy of the attachment that has been returned to the IBM BPSO organization

Enable:

- A) Facilitate the signing (IBM and Customer signatures are required) of the proper customer contract

- For end users who have an IBM Customer Agreement (ICA), or equivalent, in place:
IBM Customer Agreement, Attachment for Temporary Capacity On Demand and IBM Supplement for Temporary Capacity On Demand
- For end users who do not have an ICA or equivalent in place:
IBM Agreement for Temporary Capacity On Demand and IBM Supplement for Temporary Capacity On Demand
- Optionally, the following contract document can be signed (in addition to one of the above contract sets) if it is impossible to use electronic reporting:
IBM Addendum for Temporary Capacity On Demand Alternative Reporting

- B) Fax a copy of the signed customer contract (customer keeps original) to IBM TCOD Administrator at 1-507-253-7979

- C) Update your registration information at the CUoD website (www.ibm.com/eserver/series/ondemand/cuod) each time a TCOD Enablement Feature is being ordered for a new machine (serial#)

Note1: The order for a TCOD Enablement Feature will not be fulfilled (it will not even be scheduled) until a signed customer contract has been received by IBM and you have recorded the machine serial# at the CUoD website under your Sales Channel registration information

Soluton Provider or Service Provider (buys from IBM) Responsibilities

Bill:

- A) Receive a customer activity data from IBM at the end of each calendar quarter (e-mail based on addresses provided at time of your registration at the CUoD website)
- B) Place an order for a quantity of TCOD Billing Features in IBM's configurator (treat them like an other order for a qty of hardware features against a specific serial number).
- C) Bill the customer for a quantity of TCOD Billing Features (one billing feature per Procesor Day)

Note1: The contract signed between the customer and IBM (two-party contract) prior to the enablement of On/Off CUoD for the customer's machine obligates him/her to pay for the request/use of temporary capacity.

Customer Contract Wording:

You agree that you are liable to IBM for payment for each TCOD Unit (both Requested and Unreturned Units) on your TCOD Machine. This liability is discharged when you order and pay IBM or your designated participating IBM Business Partner for the TCOD Units. The amont due will be at IBM's or your IBM Business Partner's, as applicable, then current prices and payment terms for the TCOD Billing Feature for the applicable TCOD Billing Quarter.

Note2: If it is deemed necessary to have a PO in place to facilitate action "B" and "C", then one could consider an open PO approach initiated at the time the customer signs sontract or a PO that is put in place following the e-mail notification to the IBMpartner that activity has actually happened within a quarter that requires billing to take place

Terminate:

- A) Request a TCOD Termination Code (make the request to TCODADMIN@US.IBM.COM) when/if one of thefollowing situations occur:
 - 1) Customer wants it because they don't want the ability to activate temporary capacity anymore
 - 2) Customer wants it because they are obligated by TCOD Contract to terminate temporary capacity before selling the machine or ending a lease
 - 3) Partner wants it because they aren't getting paid by customer
 - 4) Partner wants it because they have detected customer noncompliance with the TCOD contract



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IBM Direct Sales Responsibilities

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IBM Direct Sales Responsibilities

Pre-Requisite:

- A) Register yourself as the Sales Channel at this website (www.ibm.com/eserver/series/ondemand/cuod) by providing your unique IBM serial# and three e-mail addresses

Note1: The three e-mail addresses will be the recipients of customer activity information collected and sent by IBM at the end of each calendar quarter to be used for customer billing and IBM order/payment of temporary capacity

Enable:

- A) Facilitate the signing (IBM and Customer signatures are required) of the proper customer contract
- For end users who have an IBM Customer Agreement (ICA), or equivalent, in place:
IBM Customer Agreement, Attachment for Temporary Capacity On Demand **and** IBM Supplement for Temporary Capacity On Demand
 - For end users who do not have an ICA or equivalent in place:
IBM Agreement for Temporary Capacity On Demand **and** IBM Supplement for Temporary Capacity On Demand
 - Optionally, the following contract document can be signed (in addition to one of the above contract sets) if it is impossible to use electronic reporting:
IBM Addendum for Temporary Capacity On Demand Alternative Reporting
- B) Fax a copy of the signed customer contract (customer keeps original) to IBM TCOD Administrator at 1-507-253-7979
- C) Update your registration information at the CUoD website (www.ibm.com/eserver/series/hardware/ondemand) each time a TCOD Enablement Feature is being ordered for a new machine (serial#)

Note1: The order for a TCOD Enablement Feature will not be fulfilled (it will not even be scheduled) until a signed customer contract has been received by IBM **and** you have recorded the machine serial# at the CUoD website under your Sales Channel registration information

IBM Direct Sales Responsibilities

Bill:

- A) Receive a customer activity data from IBM at the end of each calendar quarter (e-mail to each address provided at time of your Sales Channel registration at the CUoD website)
- B) Place an order for a quantity of TCOD Billing Features in IBM's configurator (treat them like any other order for a qty of hardware features against a specific serial number).
- C) Bill the customer for a quantity of TCOD Billing Features (one billing feature per Processor Day)

Note1: The contract signed between the customer and IBM (two-party contract) prior to the enablement of On/Off CUoD for the customer's machine obligates him/her to pay for the request/use of temporary capacity.

Customer Contract Wording:

You agree that you are liable to IBM for payment for each TCOD Unit (both Requested and Unreturned Units) on your TCOD Machine. This liability is discharged when you order and pay IBM or your designated participating IBM Business Partner for the TCOD Units. The amount due will be at IBM's or your IBM Business Partner's, as applicable, then current prices and payment terms for the TCOD Billing Feature for the applicable TCOD Billing Quarter.

Note2: IBM Direct will work with their CSO organizations business-as-usual (just like an order for any hardware feature against a specific machine serial#) to ensure an order is placed and the customer is billed. This may require the creation of an open-ended PO as part of the contract arrangement or a unique PO each quarter their is customer activity relative to temporary capacity

Terminate:

- A) Request a TCOD Termination Code (make the request to TCODADMIN@US.IBM.COM) when/if one of the following situations occur:
 - 1) Customer wants it because they don't want the ability to activate temporary capacity anymore
 - 2) Customer wants it because they are obligated by TCOD Contract to terminate temporary capacity before selling the machine or ending a lease
 - 3) IBM wants it because they aren't getting paid by customer
 - 4) IBM wants it because they have detected customer non-compliance with the customer signed contract



IBM eServerJ iSeriesJ

Upgrades/Conversions

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Converting Hardware Features

- ▶ A two step process is used to convert Model 825, 870, and 890 Processor Features
 - Step1: All standby processors must be activated
 - the possible paths for feature conversions will not be shown in the configurator until enough POD Activation Features have been ordered to activate 100% of the standby processors
 - The Processor Feature conversion price in Step2 will take into account the price paid for all standby processors to be activated in Step1
 - Step2: Processor Feature to Processor Feature Conversion
 - What happens to machine records
 - ◆ Old POD Activation Features will not be carried forward
 - ◆ Old TCOD Enablement Features will not be carried forward
 - ◆ Old TCOD Billing Features will be carried forward but no TCOD Data will remain on the server (customer is required, per contract, to report any temporary capacity activity prior to the conversion)

- ▶ A one step process is used to convert Model 825, 870, and 890 Package Features
 - Step1: Package Feature to Package Feature Conversion
 - What happens to machine records
 - ◆ Old POD Activation Features will be carried forward and a new Activation Code will be generated
 - ◆ Old TCOD Enablement Features will not be carried forward
 - ◆ Old TCOD Billing Features will be carried forward but no TCOD data will remain on the server (customer is required, per contract, to report any temporary capacity activity prior to the conversion)



IBM eServerJ iSeriesJ

Hardware Movement

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RFA Text Addressing Movement of Hardware

iSeries server to iSeries server interchange of processor and/or package features is iSeries system password protected. iSeries server to iSeries server interchange of processor and/or package features outside IBM standard practices and procedures, may void the server warranty or service contracts.

What does it mean for CUoD?

Any unauthorized (Non IBM conversion/upgrade) movement of processor features (processor parts) and/or package features (capacity card) will disable any previously activated/enabled standby processor capacity.

Any physical addition/removal of processor features (processor parts) and/or package features (capacity card) that results in an invalid configuration will make the server itself unusable (server will not IPL without a valid configuration).

Parts resulting from the fulfillment of an order for a processor conversion are directly tied to a target server (serial number), the parts are not transferable to a server with a different serial number. Installing the parts on a server with a different serial number is not supported by IBM.

Results of Moving iSeries Hardware

- Adding/Removing just the Processor Feature (**Processor Parts**)
 - A) Non-CUoD Models: Removing hardware from machine "A" and putting them into machine "B":
NOT POSSIBLE TO GET A VALID CONFIGURATION on MACHINE "A" WHEN ADDING ONLY PROCESSOR PARTS (machine will not IPL)
 - B) CUoD Models: Removing Hardware from machine "A" and putting them into machine "B":
NOT POSSIBLE TO GET A VALID CONFIGURATION on MACHINE "A" WHEN ADDING ONLY PROCESSOR PARTS (machine will not IPL)

- Adding/Removing just the Package Feature (**Capacity Card**) or
 Adding/Removing a Processor Feature (**Processor Parts**) with associated Package Feature (**Capacity Card**)
 - A) Non-CUoD Models: Removing hardware from machine "A" and putting it into machine "B":
 - 1) If machine "B" ends up with a **valid** configuration and it's **original** serial number ...
 then machine "B" will IPL with 100% of the installed processor capacity as well as 100% of the function associated with the Package Feature (Capacity Card)
NOTE: the machine will IPL in 70 day bypass mode and a new system password will be required (because the hardware changed)
 - 2) If machine "B" ends up with an **invalid** configuration (not something that could be ordered in the iSeries configurator) ... then machine "B" will not IPL
 - B) CUoD Models: Removing hardware from machine "A" and putting it into machine "B":
 - 1) If machine "B" ends up with a **valid** configuration and it's **original** serial number ...
 then machine "B" will IPL with 100% of the startup processor capacity, 0% of any previously activated standby processor capacity, and 100% of the function associated with the Package Feature (Capacity Card)
NOTE1: the machine will IPL in 70 day bypass mode and a new system password will be required (because the hardware changed)
NOTE2: To refresh previously purchased activations, a maintenance action would be required to replace the Capacity Card and receive a refreshed set of Activation Codes from IBM Level II (Activation Codes will not be provided if the Serial# of the Capacity Card being returned as part of maintenance action does not match the Capacity Card Serial# stored in the IBM machine records reviewed by Level II)
NOTE3: To purchase new activation/enablement features, a maintenance action would be required (if not done for NOTE 2) to replace the Capacity Card and then an order would have to be placed in the iSeries configurator for the proper features
 - 2) If machine "B" ends up with an **invalid** configuration (not something that could be ordered in the iSeries configurator) ... then machine "B" will not IPL

- Exchanging an Entire Server
 - A) Non-CUoD Models: Machine will IPL with 100% of installed processor capacity as well as 100% of the function associated with the Package Feature (Capacity Card)
 - B) CUoD Models: Machine will IPL with 100% of startup processor capacity, 100% of any previously activated standby processor capacity, and 100% of the function associated with the Processor Feature (Capacity Card)
NOTE: To purchase new activation/enablement features, an order would be placed in the iSeries configurator



IBM eServerJ iSeriesJ

Field Maintenance, Conversion, Upgrade Instructions

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Model 825, 870, 890 (with V5R2) Maintenance Instructions

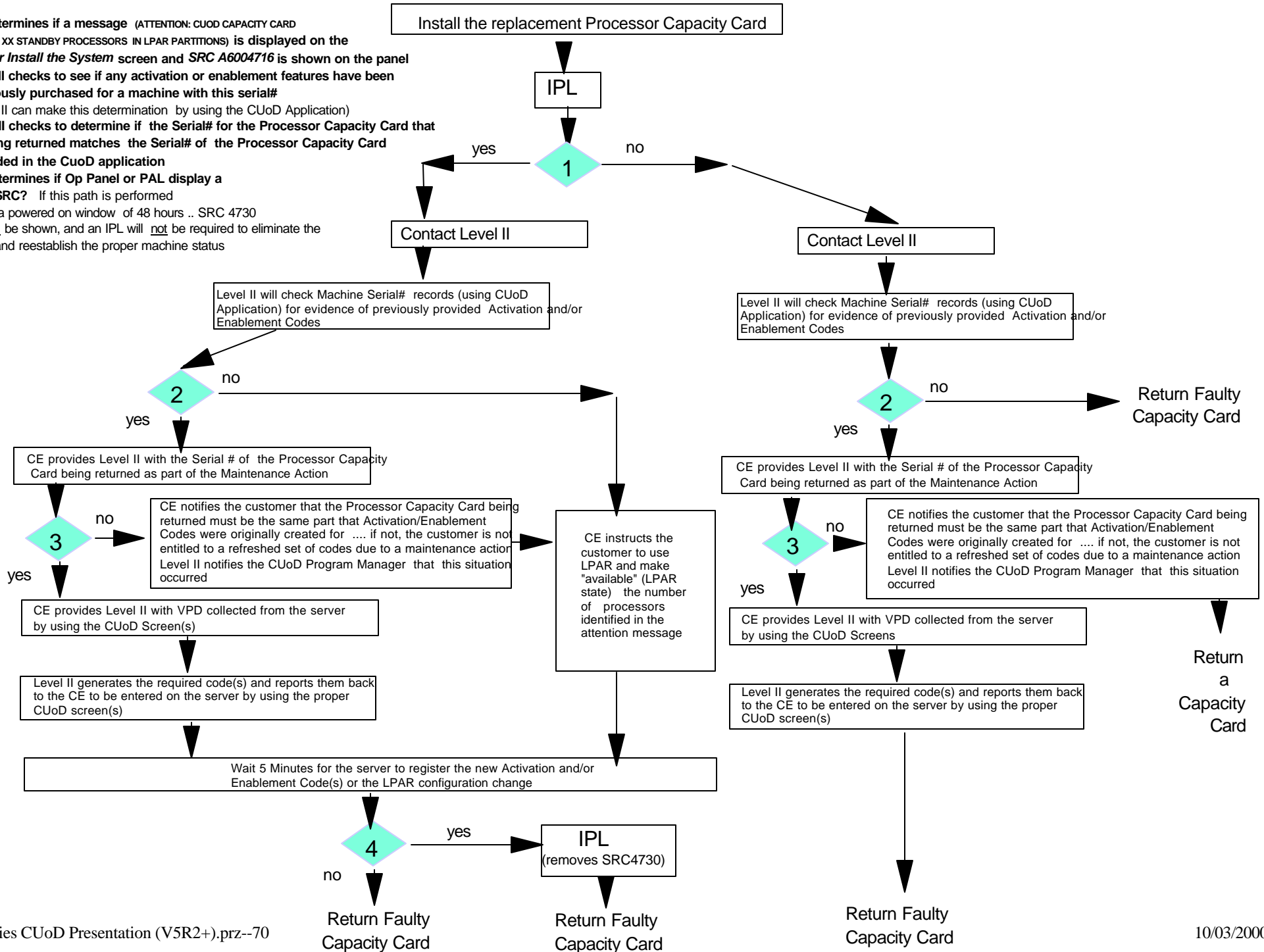
) CE determines if a message (ATTENTION: CUOD CAPACITY CARD ERROR, XX STANDBY PROCESSORS IN LPAR PARTITIONS) is displayed on the IPL or Install the System screen and SRC A6004716 is shown on the panel

) Level II checks to see if any activation or enablement features have been previously purchased for a machine with this serial#

(Level II can make this determination by using the CUoD Application)

) Level II checks to determine if the Serial# for the Processor Capacity Card that is being returned matches the Serial# of the Processor Capacity Card recorded in the CUoD application

) CE determines if Op Panel or PAL display a 4730 SRC? If this path is performed within a powered on window of 48 hours .. SRC 4730 will not be shown, and an IPL will not be required to eliminate the SRC and reestablish the proper machine status



Model 825, 870, and 890 (with V5R2) Processor or Package Feature Conversion Instructions

- A) Print LPAR config
- B) Power off any secondary partitions and set to hold (don't IPL on system IPL)
- C) Instruct customer to make "Available" (LPAR state) all standby processors that have been activated and assigned to partitions
- D) Power off the system

For assistance with LPAR, see Information Center articles at:
<http://publib.boulder.ibm.com/series/v5r2/ic2924/info/rzaj9/rzaj9icpar.htm>

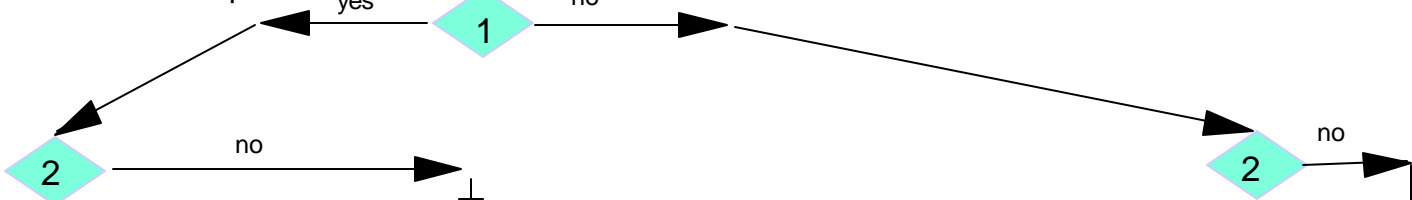
Install new Hardware and IPL

Enter New System Password

Bypass Mode

WARNING: If The New System Password is not entered, CUoD Screens will not be accessible!

1) CE determines if a message (ATTENTION: CUOD CAPACITY CARD ERROR, XX STANDBY PROCESSORS IN LPAR PARTITIONS) is displayed on the IPL or Install the System screen and SRC A6004716 is shown on the panel



2) CE instructs the customer to check to see if there are new Activation and/or Enablement Codes to be applied. The code(s) would be Included in the shipment (paper) or posted at website:
www.ibm.com/eserver/series/hardware/ondemand

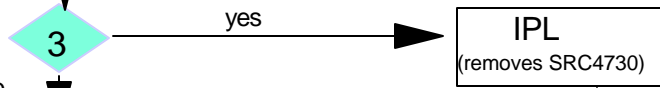
CE instructs the customer to use LPAR and make available (LPAR state) the number of processors identified in the attention message

Enter code(s) on the server by using the proper CUoD screen(s)

Enter code(s) on the server by using the proper CUoD screen(s)

Wait 5 Minutes for the server to register the new Activation and/or Enablement Code(s) or the LPAR configuration change

3) CE determines if the Op Panel or PAL displays a 4730 SRC? If this path is performed within a powered on window of 48 hours .. SRC 4730 will not be shown, and an IPL will not be required to eliminate the SRC and reestablish the proper machine status



A) Set Desired Power on status (hold/system) and then power on any secondary partitions
 B) Instruct the customer to use LPAR to assign processors to target partitions
 C) Return required upgrade hardware

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Model 825, 870, 890 (with V5R2)

Model to Model Upgrade Instructions

- 1) **CE determines if the Op Panel or PAL displays a 4730 SRC?** If this path is performed within a powered on window of 48 hours .. SRC 4730 will not be shown, and an IPL will not be required to eliminate the SRC and reestablish the proper machine status

